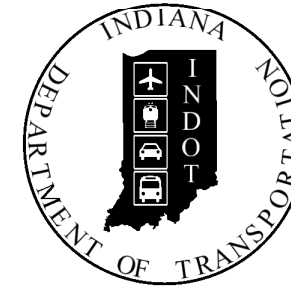


PROJECT	DESIGNATION
1700155	1700155
CONTRACT	BRIDGE FILE
B-40589	450-51-10337

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
450-51-10337	Continuous Composite Prestressed Concrete I-Beam Bridge	3 @ 39'-9", 45'-0" & 39'-9" Skew: 0°	Opossum Creek	22+77 Line "PR-A"

# INDIANA DEPARTMENT OF TRANSPORTATION



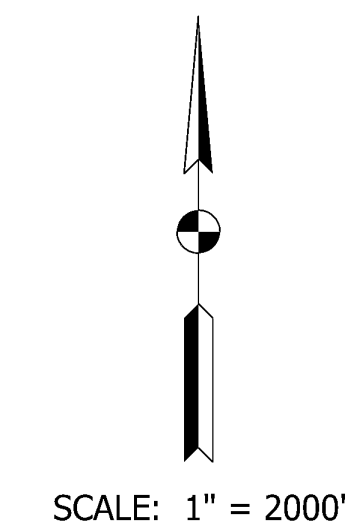
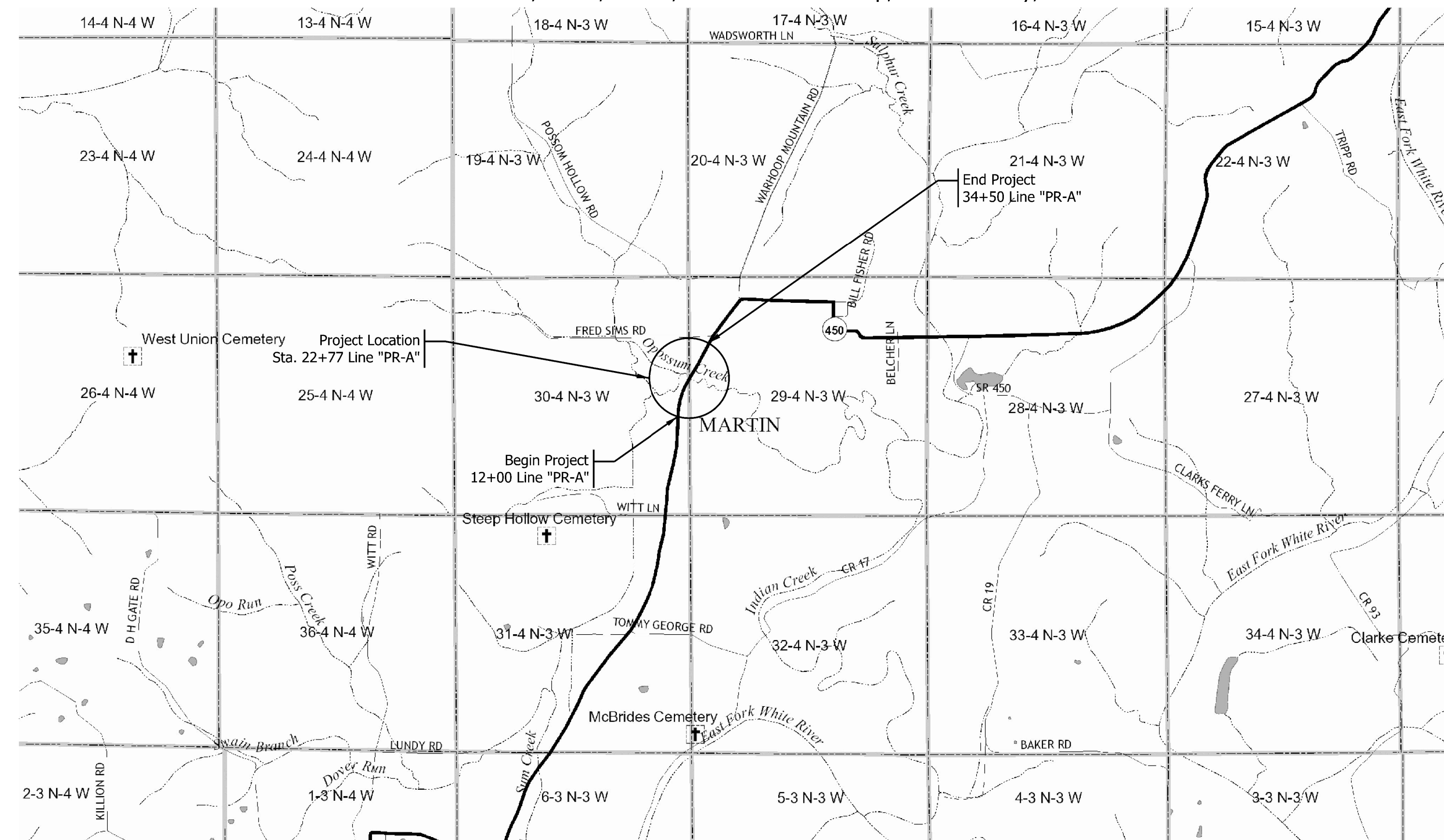
## BRIDGE PLANS

FOR SPANS OVER 20 FEET

ROUTE: SR 450 AT: RP 6+30

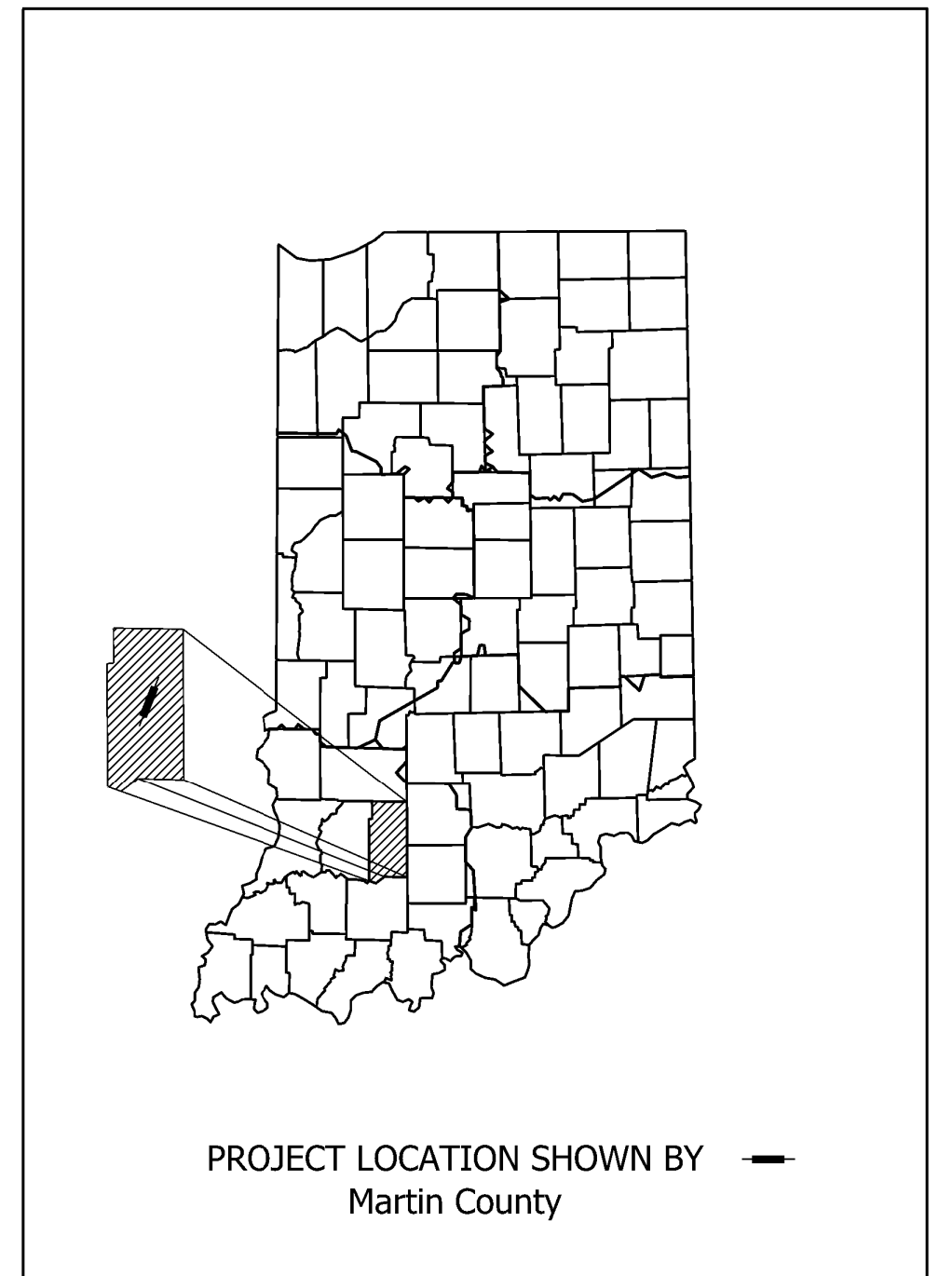
PROJECT NO. 1700155 P.E.  
1700155 R/W  
1700155 CONST.

Bridge Replacement on SR 450 over Opossum Creek  
Located 6.30 Miles East of US 50  
Section 29 and 30, T-4-N, R-3-W, Mitcheltree Township, Martin County, Indiana



TRAFFIC DATA	
A.A.D.T. (2022)	665 V.P.D.
A.A.D.T. (2042)	803 V.P.D.
D.H.V. (2042)	67 V.P.H.
DIRECTIONAL DISTRIBUTION	50.96 %
TRUCKS	20.03 % A.A.D.T. 30.77 % D.H.V.

DESIGN DATA	
DESIGN SPEED	50 M.P.H.
PROJECT DESIGN CRITERIA	NEW CONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	RURAL
TERRAIN	ROLLING
ACCESS CONTROL	N/A



LATITUDE: N 38°45'12" LONGITUDE: W 86°46'35"

BRIDGE LENGTH:	0.024	MI.
ROADWAY LENGTH:	0.402	MI.
TOTAL LENGTH:	0.426	MI.
MAX. GRADE:	2.64	%

STAGE 2 PLANS  
DATE SUBMITTED 05/2020

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

PLANS PREPARED BY: \_\_\_\_\_ PHONE NUMBER \_\_\_\_\_

CERTIFIED BY: \_\_\_\_\_ DATE \_\_\_\_\_

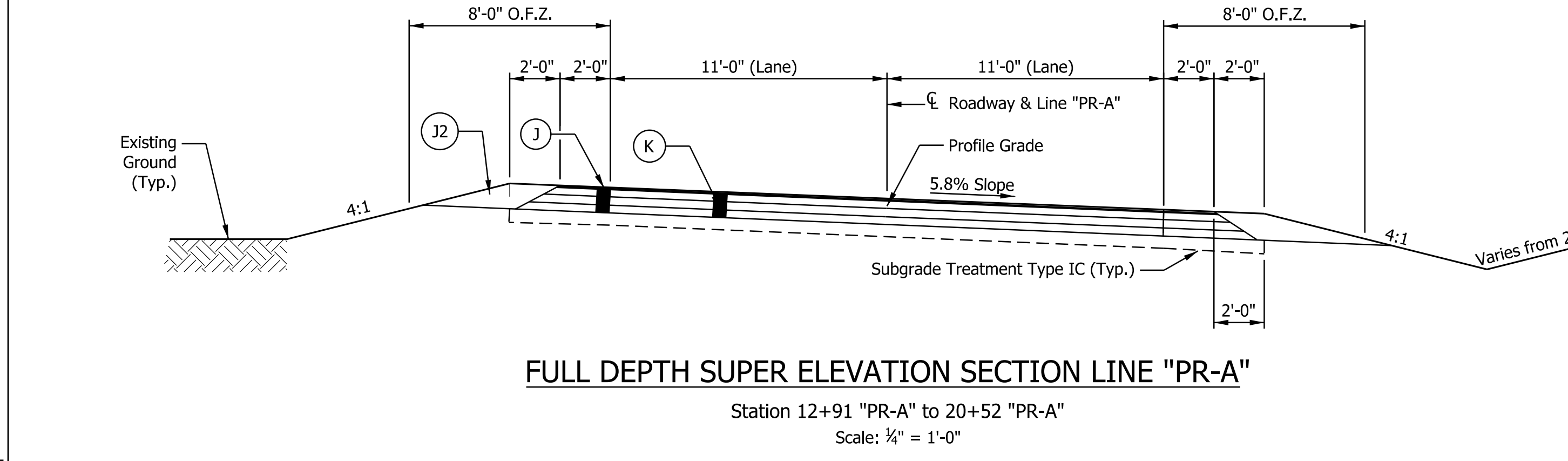
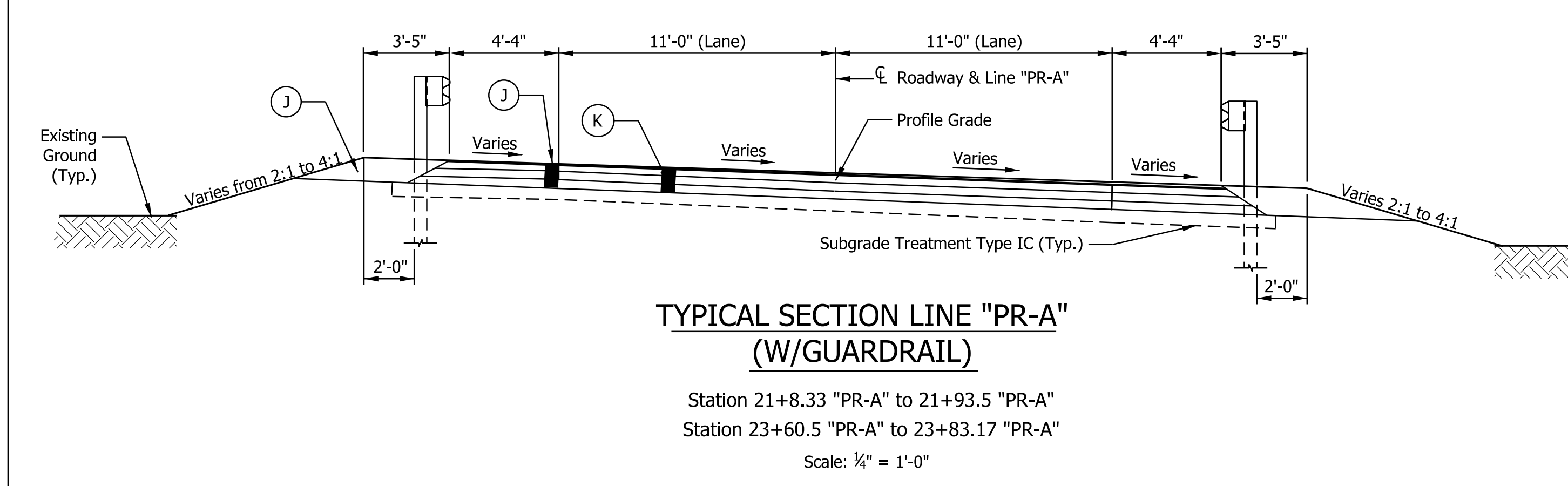
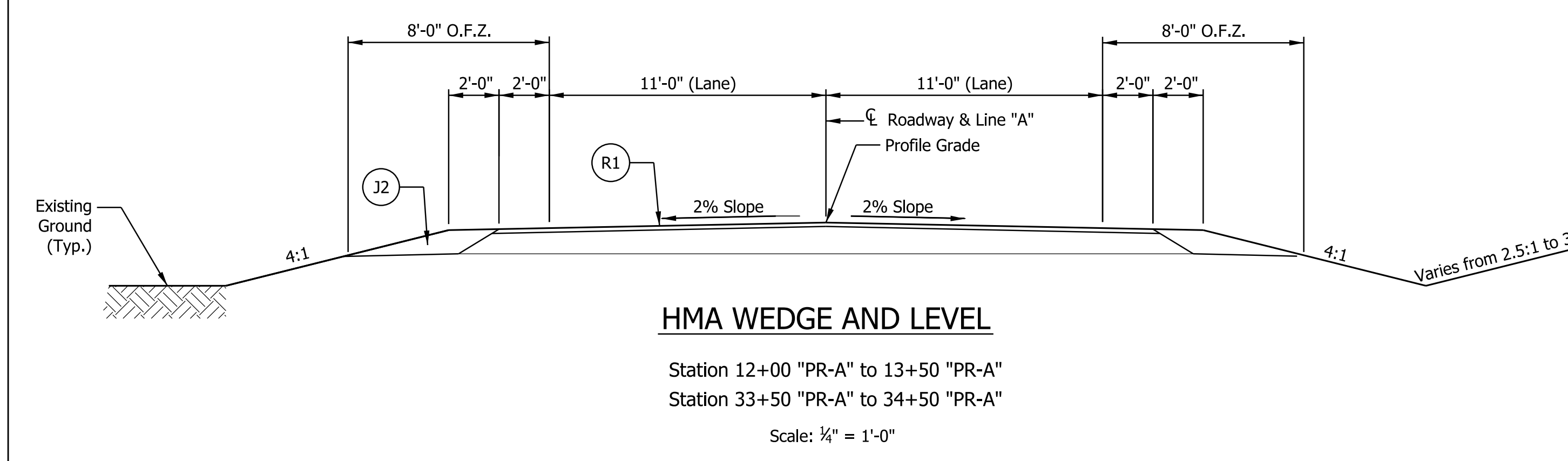
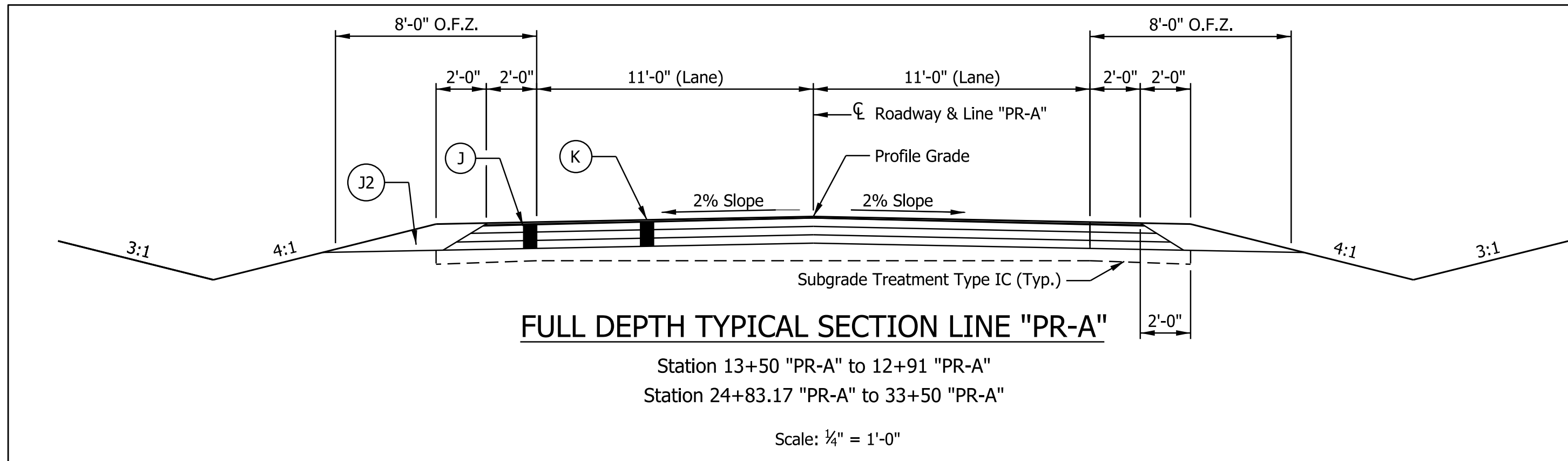
APPROVED FOR LETTING: \_\_\_\_\_ DATE \_\_\_\_\_

INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE	
450-51-10337	
DESIGNATION	
1700155	
SURVEY BOOK	SHEETS
Electronic	1 of 30
CONTRACT	PROJECT
B-40589	1700155

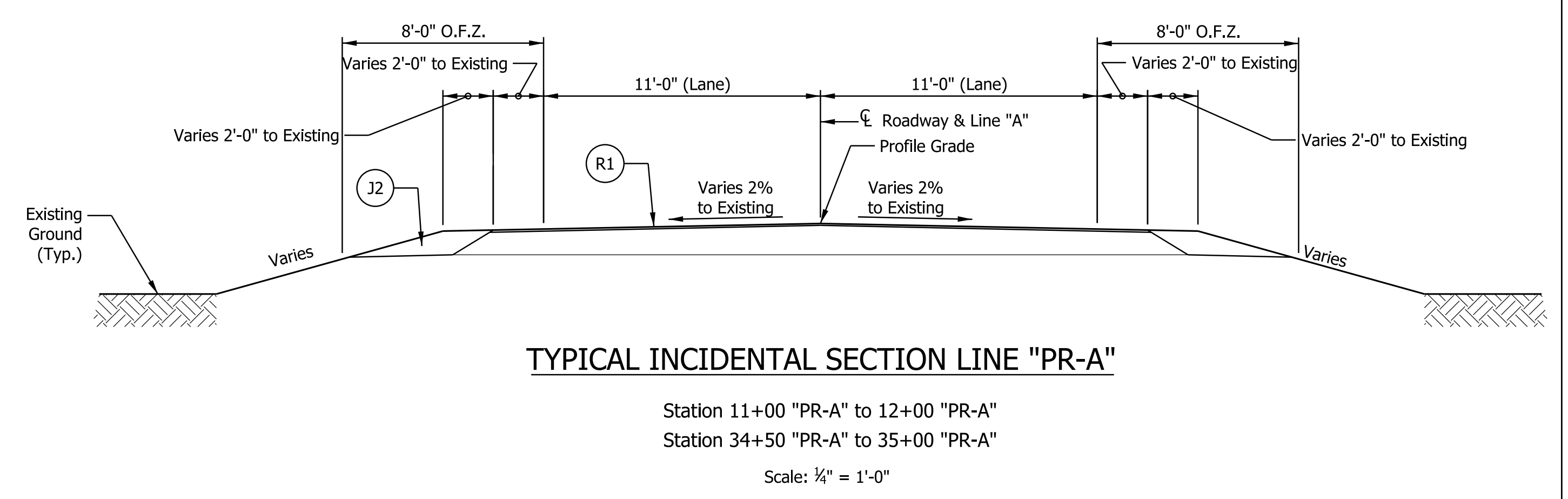
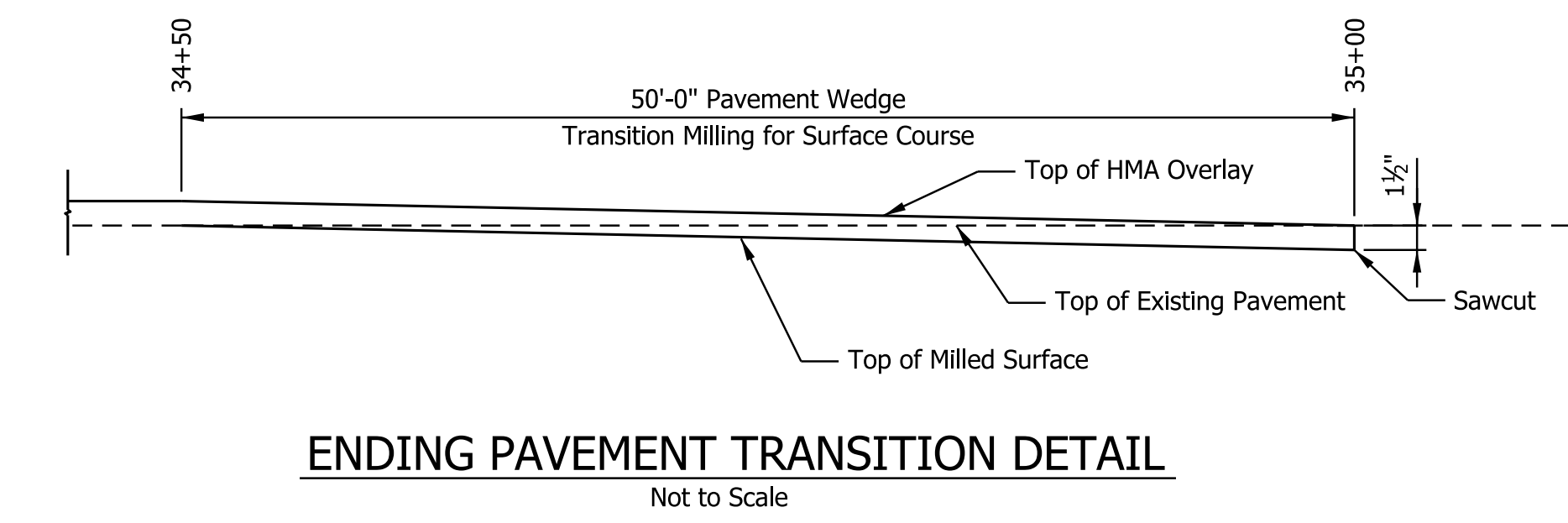
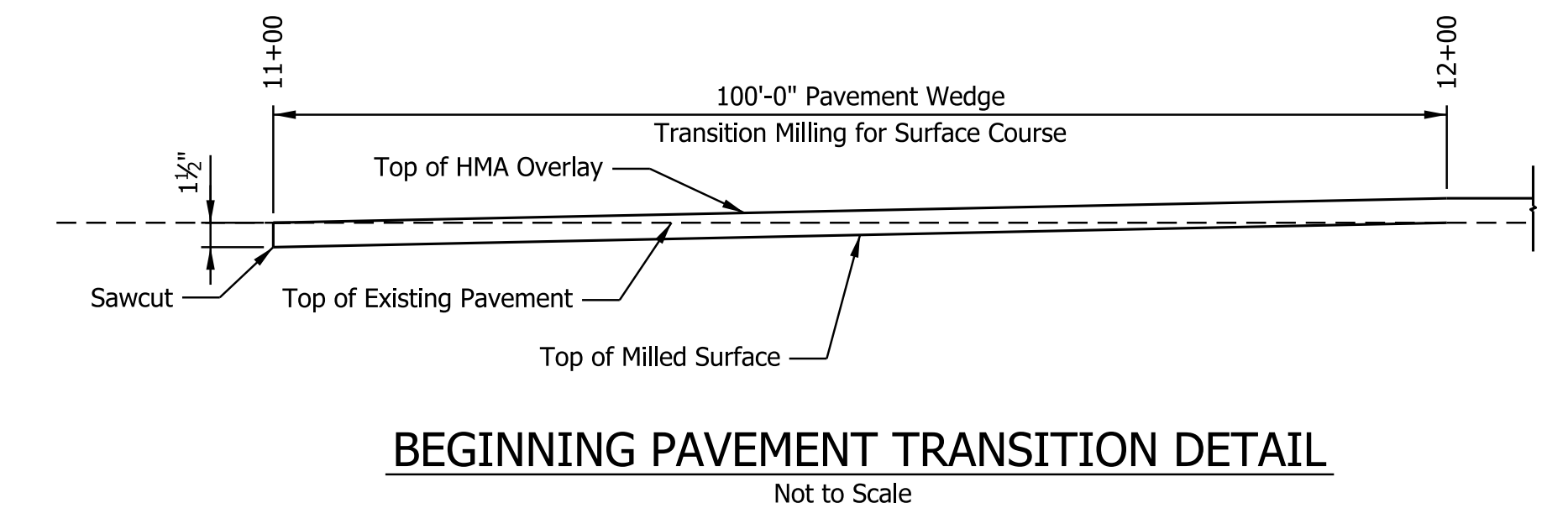
Pct: 5/21/2020 9:35 AM

File: pw:\dotwise.indot.in.gov\DOTwise\Documents\Vincennes\1700155\Design\MS\Shr Title.dgn  
Model: BR\_Title Sheet



- LEGEND**
- (J) 165 #/syd QC/QA HMA, 2, 64, Surface 9.5 mm on 385 #/syd QC/QA HMA, 2, 64, Intermediate, 19.0 mm on 5" Compacted Aggregate, No. 53, Base on Subgrade Treatment Type IC.
  - (J2) Compacted Aggregate, No. 53
  - (K) 165 #/syd QC/QA HMA, 2, 64, Surface 9.5 mm on 385 #/syd QC/QA HMA, 2, 64, Intermediate, 19.0 mm on 440 #/syd QC/QA HMA, 2, 64, Base 25.0mm (3.5 Min.) on 6" Compacted Aggregate, No. 53, Base on Subgrade Treatment Type IC.
  - (R1) Milling if Required by Pavement Design 165 #/syd QC/QA HMA, 2, 64, Surface, 9.5 mm on

**Note to Reviewer:**  
 Actual Pavement Information will be provided after Pavement Design is received.



DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ARS	8/2019	DRAWN: MGA
CHECKED: RBM	8/2019	CHECKED: ARS

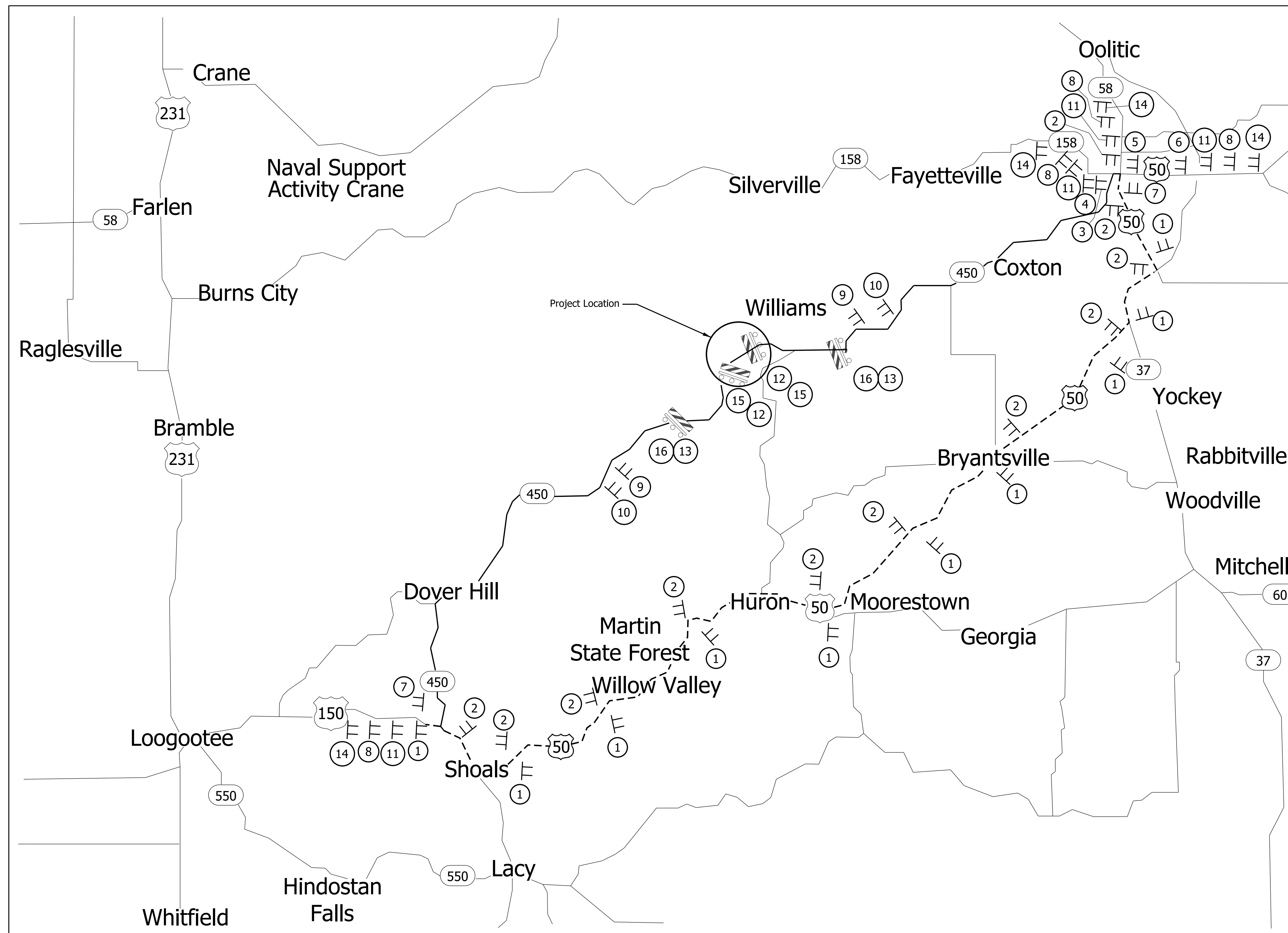
**INDIANA DEPARTMENT OF TRANSPORTATION**

**TYPICAL CROSS SECTIONS**

SCALE	BRIDGE FILE
AS SHOWN	450-51-10337
	DESIGNATION
	1700155
SURVEY BOOK	SHEETS
Electronic	3 of 30
CONTRACT	PROJECT
B-40589	1700155

Pct: 5/21/2020 9:37 AM

File: \\dotwise.indot.in.gov:\DOTWise\Documents\Vincennes\1700155\Design\MS\SH Typical Cross Sections.dgn  
 Model: BR\_Detail Sheet



**LEGEND**  
 ----- Posted Detour Route

**NOTES :**  
 See Standard E 801-TCDDT-01 for additional details.  
 Signs may be added at the discretion of the Engineer.  
 \* Distance (Miles) will be decided by the Engineer

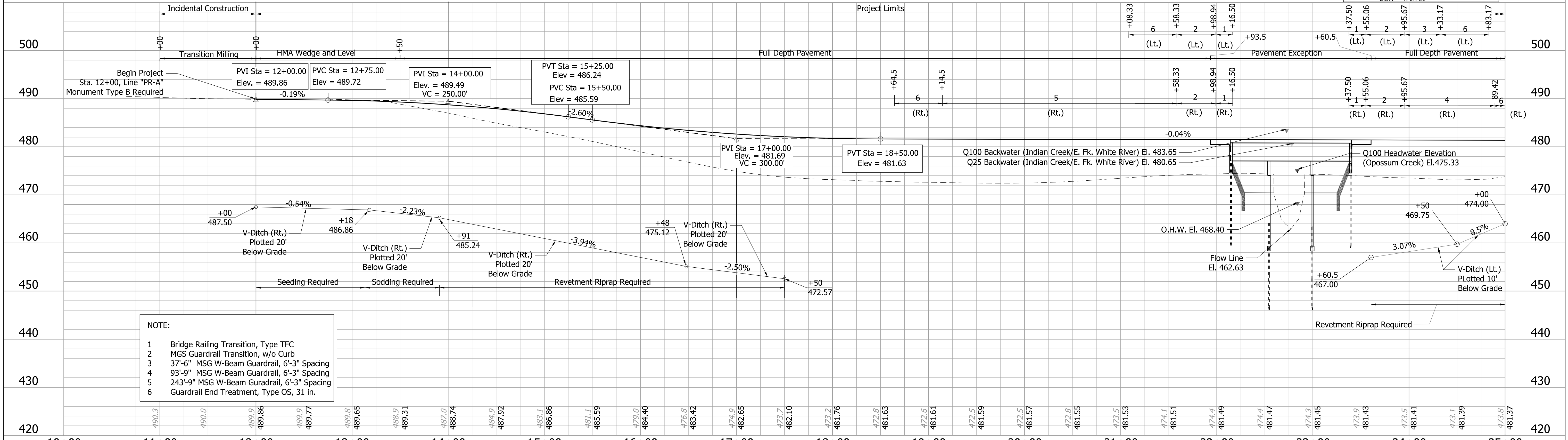
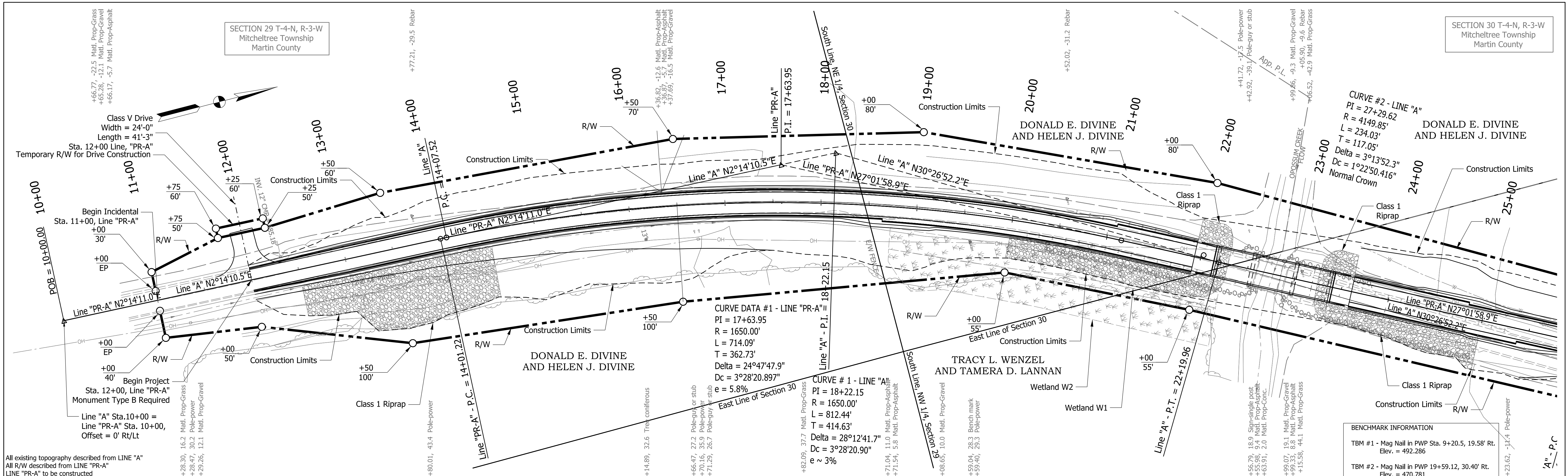
**QUANTITY SUMMARY TABLE**

ITEM	QUANTITY
Construction Sign Type A	16 Each
Road Closure Sign Assembly	4 Each
Detour Route Marker Assembly	26 Each
Barricade Type III A	96 Lft
Barricade Type III B	96 Lft

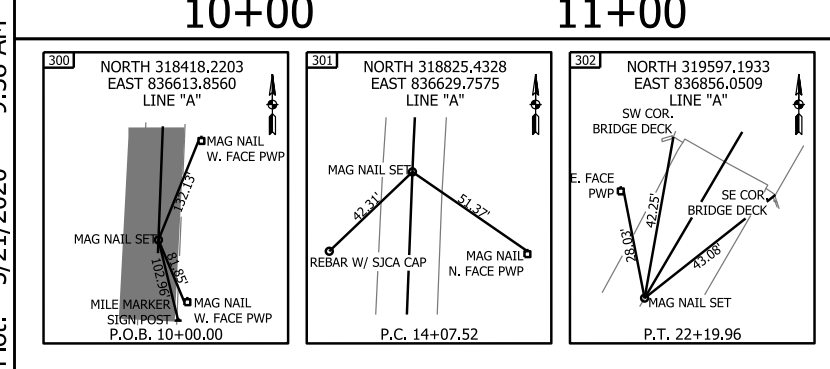
**INDIANA DEPARTMENT OF TRANSPORTATION**  
**TRAFFIC DETOUR**

SCALE AS SHOWN: 450-51-10337  
 DESIGNATION: 1700155  
 SURVEY BOOK: Electronic, 4 of 30  
 CONTRACT: B-40589  
 PROJECT: 1700155

9:37 AM  
 5/21/2020  
 File: \\dotwise.indot.in.gov:\Documents\Vincennes\1700155\Design\MS\SH\ Detour.dgn  
 Model: BR\_Detail Sheet

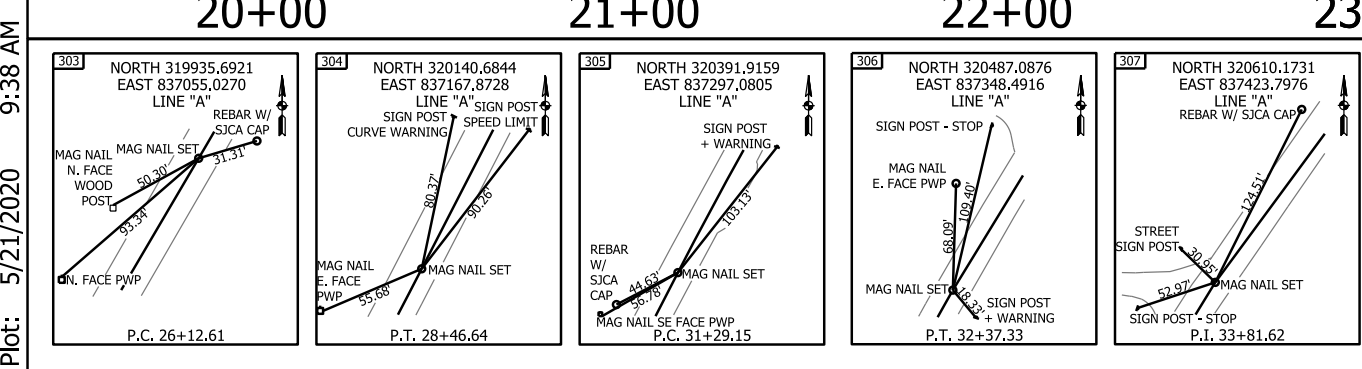
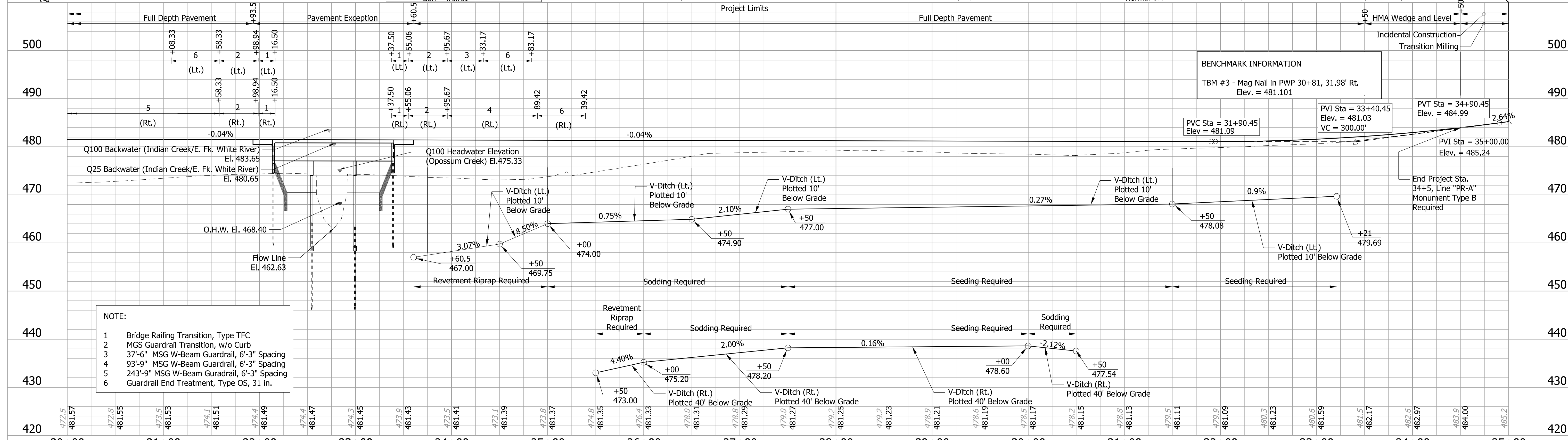
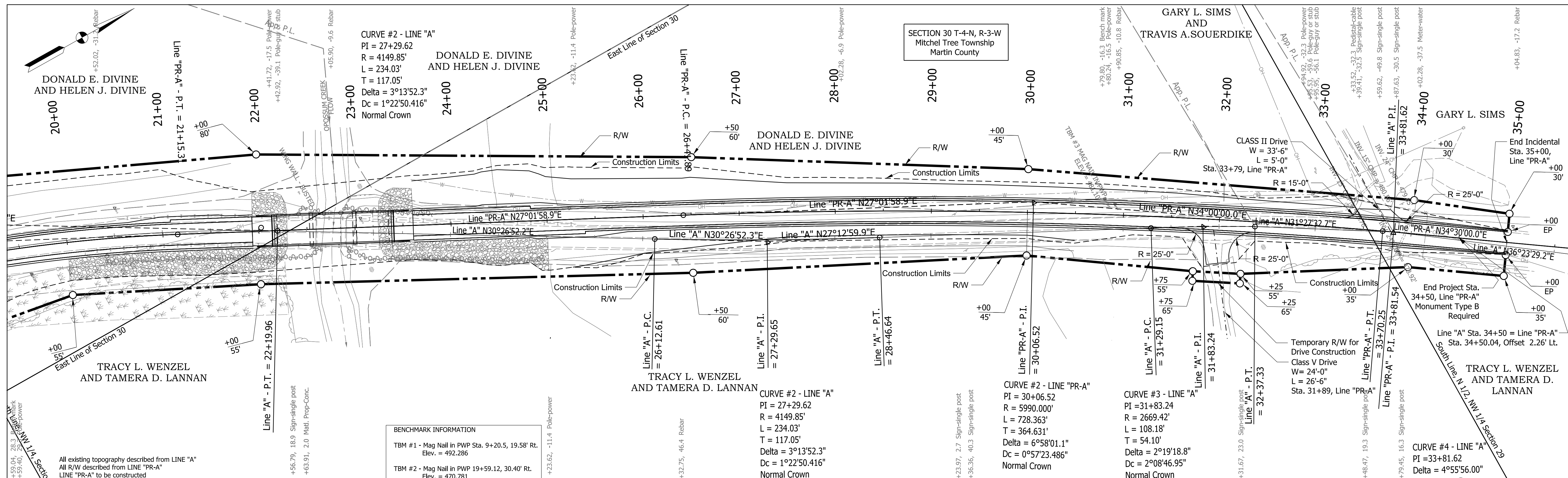


- NOTE:
- 1 Bridge Railing Transition, Type TFC
  - 2 MGS Guardrail Transition, w/o Curb
  - 3 37'-6" MSG W-Beam Guardrail, 6'-3" Spacing
  - 4 93'-9" MSG W-Beam Guardrail, 6'-3" Spacing
  - 5 243'-9" MSG W-Beam Guardrail, 6'-3" Spacing
  - 6 Guardrail End Treatment, Type OS, 31 in.



RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE	BRIDGE FILE
DESIGNED: ARS	8/2019	DRAWN: MGA	8/2019			450-51-10337	
CHECKED: RBM	8/2019	CHECKED: ARS	8/2019			DESIGNATION 1700155	
PLAN AND PROFILE SHEET NO. 1					SURVEY BOOK	SHEETS	
					Electronic	5	of 30
					CONTRACT	PROJECT	
					B-40589	1700155	

px:\dotwise.indot.in.gov\DOTwise\Documents\ Vincennes\1700155\Design\MS\Sht PlanProfile\_50\_1.dgn



**BENCHMARK INFORMATION**

TBM #1 - Mag Nail in PWP Sta. 9+20.5, 19.58' Rt.  
Elev. = 492.286

TBM #2 - Mag Nail in PWP 19+59.12, 30.40' Rt.  
Elev. = 470.781

**BENCHMARK INFORMATION**

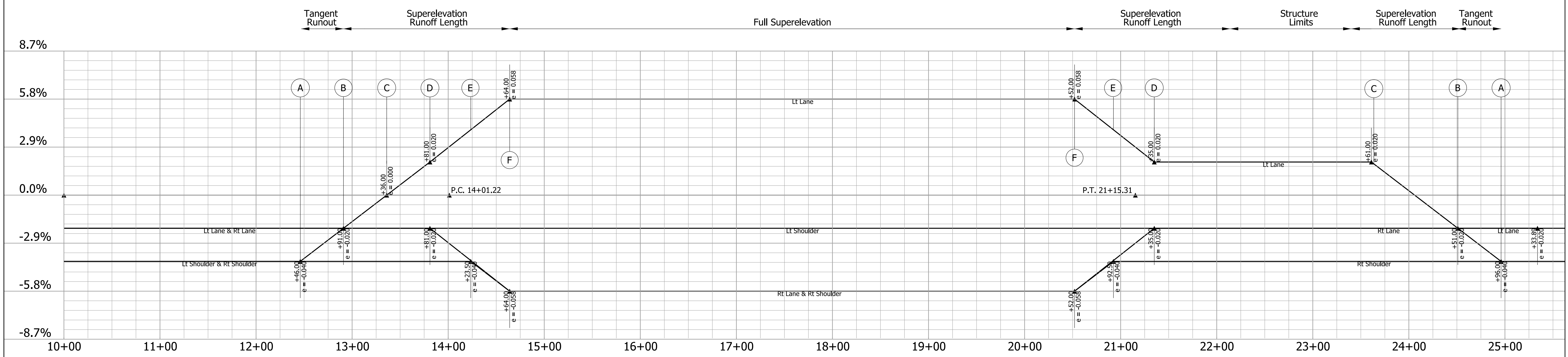
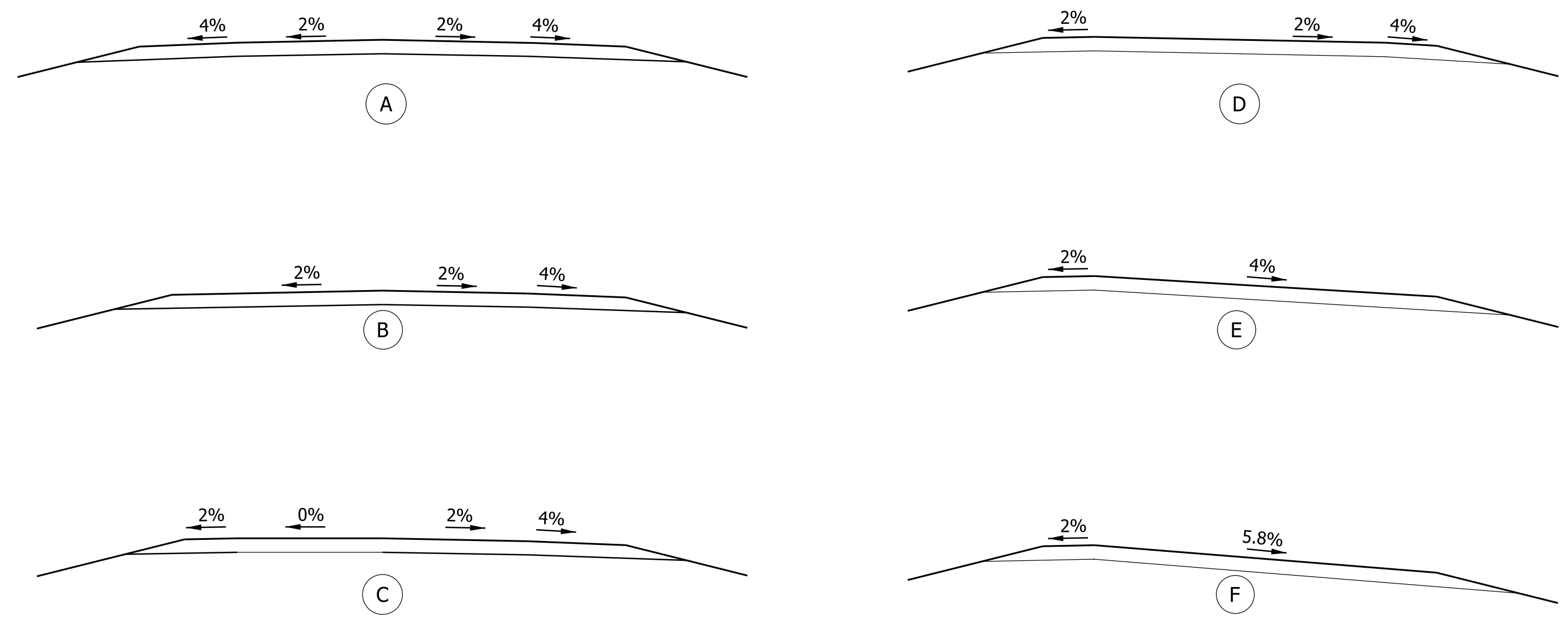
TBM #3 - Mag Nail in PWP 30+81, 31.98' Rt.  
Elev. = 481.101

**NOTE:**

- 1 Bridge Railing Transition, Type TFC
- 2 MSG Guardrail Transition, w/o Curb
- 3 37'-6" MSG W-Beam Guardrail, 6'-3" Spacing
- 4 93'-9" MSG W-Beam Guardrail, 6'-3" Spacing
- 5 243'-9" MSG W-Beam Guardrail, 6'-3" Spacing
- 6 Guardrail End Treatment, Type OS, 31 in.

RECOMMENDED FOR APPROVAL		DESIGN ENGINEER		DATE	
DESIGNED: ARS		DRAWN: MGA		8/2019	
CHECKED: RBM		CHECKED: ARS		8/2019	
<b>INDIANA DEPARTMENT OF TRANSPORTATION</b>					
<b>PLAN AND PROFILE SHEET NO. 2</b>					
SCALE		BRIDGE FILE			
		450-51-10337			
		DESIGNATION			
		1700155			
SURVEY BOOK		SHEETS			
Electronic		6 of 30			
CONTRACT		PROJECT			
B-40589		1700155			

px:\dotwise.indot.in.gov\DOTWise\Documents\ Vincennes\1700155\Design\MS\Sh PlanProfile\_50\_2.dgn



DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ARS	8/2019	DRAWN: MGA
		8/2019
CHECKED: RBM	8/2019	CHECKED: ARS
		8/2019

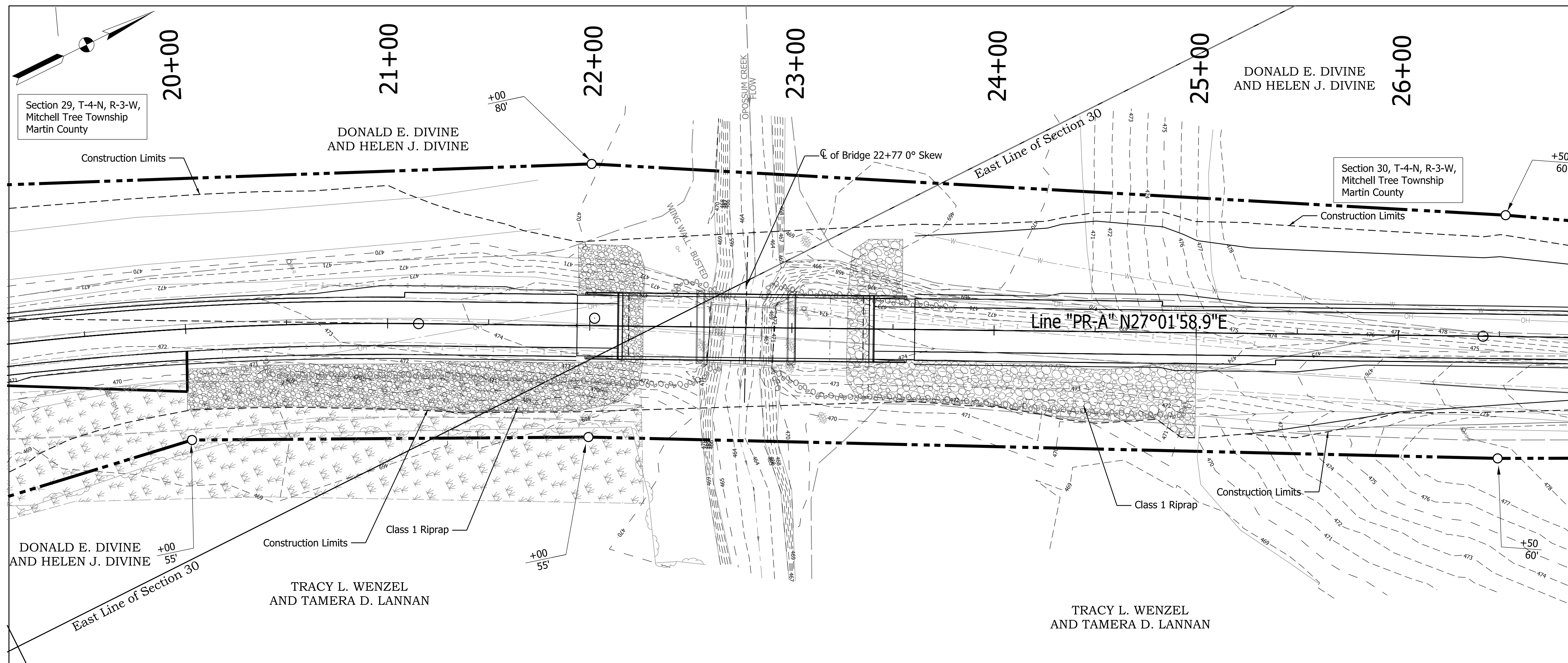
INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERELEVATION DIAGRAM "PR-A"**

SCALE	BRIDGE FILE
N/A	450-51-10337
	DESIGNATION
	1700155
SURVEY BOOK	SHEETS
Electronic	7 of 30
CONTRACT	PROJECT
B-40589	1700155

File: pw:\dotwise.indot.in.gov\DOTWise\Documents\Vincennes\1700155\Design\MS\SH Superelevation.dgn  
Model: BR\_Detail Sheet

Pct: 5/21/2020 9:39 AM



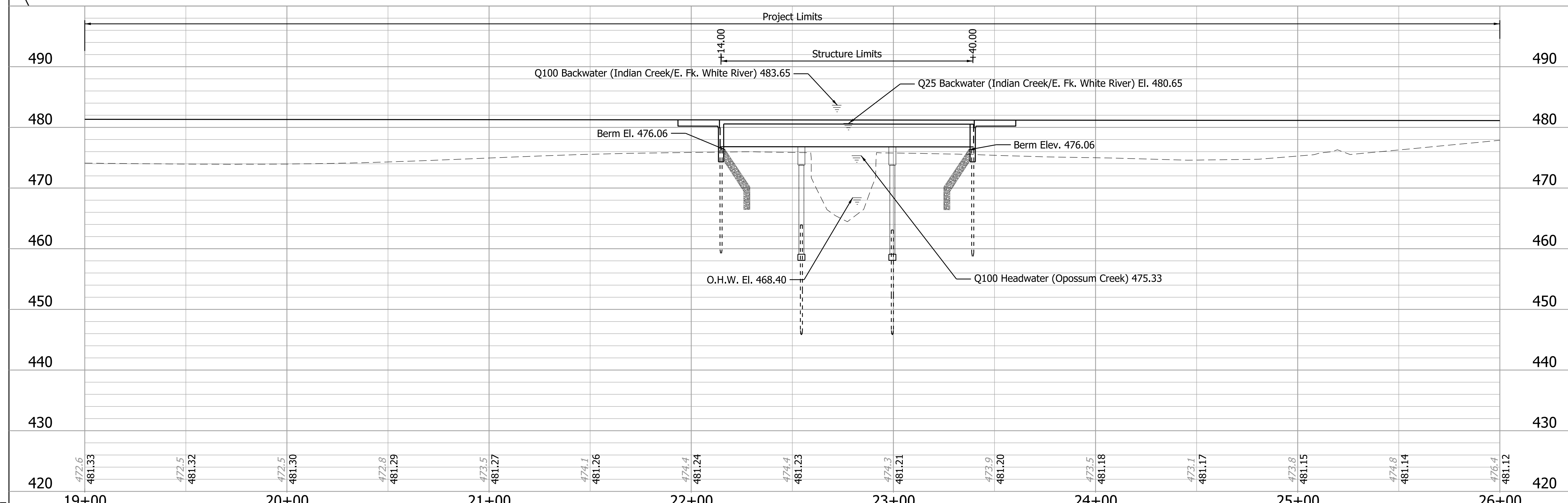
**PRESENT STRUCTURE**  
 The Existing Structure is a single span Prestressed Adjacent Box Beam Bridge constructed in 1942 and rehabilitated in 1980. The bridge clear-roadway width is 28'-4". The structure is 30'-4" wide with no skew. The existing structure is to be removed.

**HYDRAULIC DATA**

Waterway Opening Required	617.70 Sq. ft.
Waterway Opening Provided	642.9 Sq. ft.
Drainage Area	7.69 Sq. mi.
Design Discharge, Q100	3641 Cfs.
Velocity	10.45 Fps.
Q100 Elev.	483.66 MSL
Estimated Scour Elev.	440.81 MSL
Backwater at Q100	2.22 ft.
Existing Waterway Opening	142 Sq. ft.
Existing Backwater	2.61 ft.
Upper Limit of Wet Exc. Elev.	470.4 MSL
Low Structure Elev.	476.55 MSL
Existing Low Structure Elev.	469.94 MSL

Fill + 20%	23,248 Cys.
Common Excavation	4,104 Cys.
Usable Waterway Excavation (70%)	375 Cys.
Surplus Foundation Excavation	302 Cys.
Waste (Borrow)	18,467 Cys.
Total Waterway Excavation	536 Cys.
Benching (Estimated)	352 Cys.

No direct payment. Benching will not be paid for as Common Excavation.



**CONTINUOUS COMPOSITE PRESTRESSED CONCRETE I-BEAM**  
 3 SPANS @ 39'-9", 45'-0", 39'-9"  
 30'-0" CLEAR ROADWAY, NO SKEW  
 SR 450 OVER OPOSSUM CREEK, MARTIN COUNTY

DATE	REVISION

DESIGNED: ARS	8/2019	DRAWN: MGA	8/2019
CHECKED: RBM	8/2019	CHECKED: ARS	8/2019

**INDIANA DEPARTMENT OF TRANSPORTATION**

**LAYOUT**

SCALE	BRIDGE FILE
Horz. 1" = 30'	450-51-10337
Vert. 1" = 10'	DESIGNATION
	1700155
SURVEY BOOK	SHEETS
Electronic	8 of 30
CONTRACT	PROJECT
B-40589	1700155

Pkt: 5/21/2020 9:39 AM

pvc:\dotwise.indot.in.gov\DOTWise\Documents\Vincennes\1700155\Design\MS\Sht Layout\_30\_1.dgn

**GENERAL NOTES**

Reinforcing steel covering to be 2½" in top and 1 inch minimum in bottom of floor slabs and 2" in all other parts, unless noted.

The following surfaces shall be Surface Sealed:  
Top of Bridge Deck, Coping, including underside of Bridge Deck from Coping to top Flange of Exterior Beams, all exposed Surfaces of Concrete Bridge Railing, Approach Slabs, and Concrete Bridge Railing Transition.

**DESIGN DATA**

Design Strength:

Class "C" Concrete  $f'_c = 4,000$  psi  
Reinforcing Steel (Grade 60)  $f_y = 60,000$  psi

Live Load:

Designed for HL-93 Loading in Accordance with the AASHTO LRFD Bridge Design Specifications, 7th Edition, 2014, and its Subsequent Interims.

Dead Load:

Actual Weight Plus 35 psf (Composite) for Future Wearing Surface and 15 psf for Permanent Metal Deck Forms.  
Slab Designed with a Structural Depth of 7 ½" and ½" Integral Wearing Surface.

**SEISMIC DESIGN DATA**

Seismic Performance Zone TBD  
Acceleration Coefficient TBD  
Seismic Site Class TBD

**CONSTRUCTION LOADING**

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

**DECK FALSEWORK LOADS:**

Designed for 15lb/ft<sup>2</sup> for permanent metal stay-in-place deck forms, removable deck forms, and 2-ft exterior walkway.

**CONSTRUCTION LIVE LOAD:**

Designed for 20 lb/ft<sup>2</sup> extending 2-ft past the edge of coping and 75 lb/ft vertical force applied at a distance of 6" outside the face of coping over a 30-ft length of the deck centered with the finishing machine.

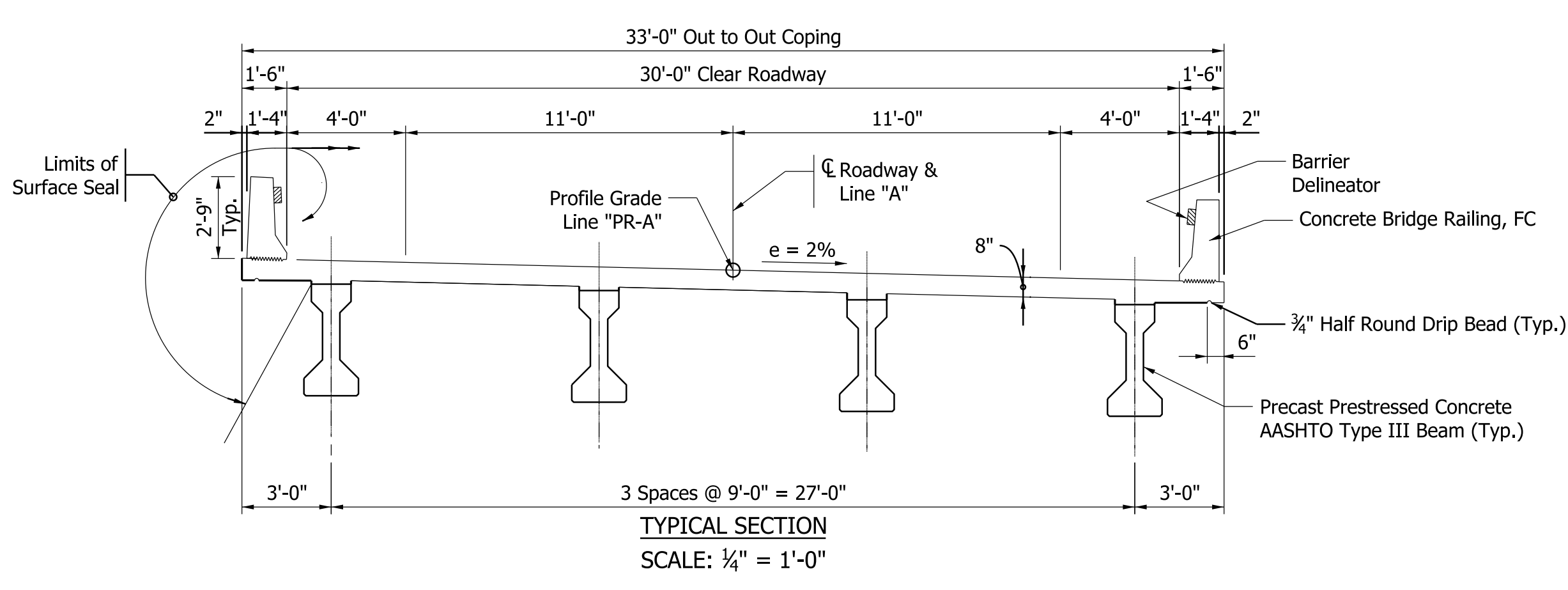
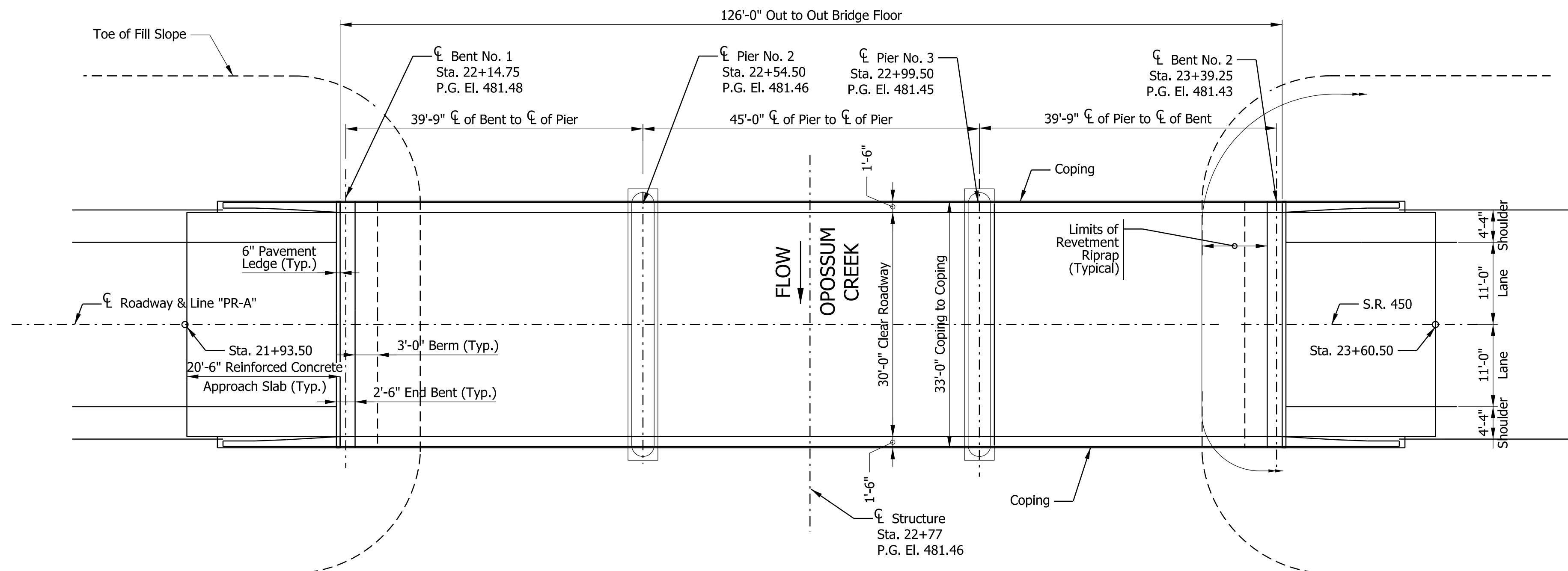
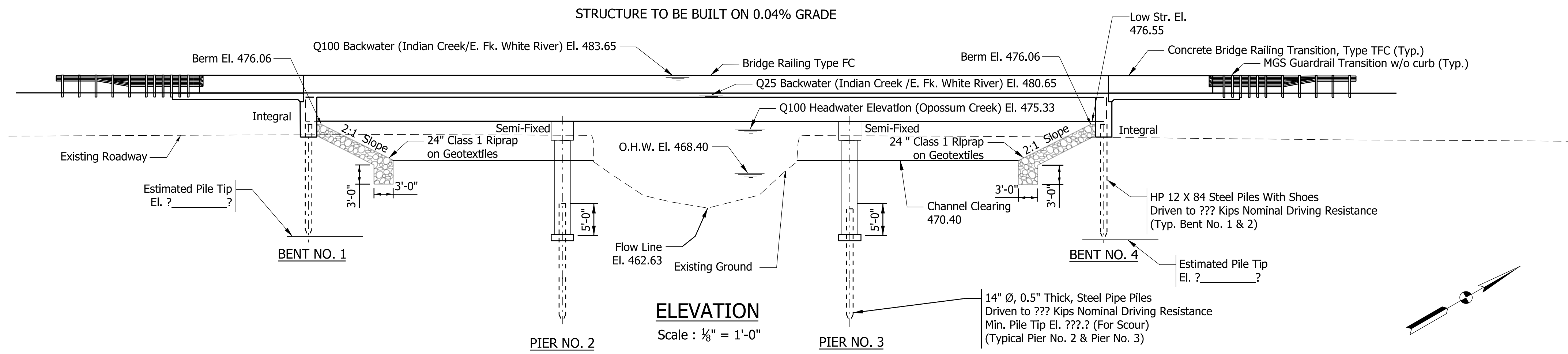
**FINISHING - MACHINE LOAD:**

4500 lb distributed over 10-ft along the coping.

**WIND LOAD:**

Designed for 70 mph horizontal wind loading in accordance with LRFD 3.8.1.

CONTINUOUS COMPOSITE PRESTRESSED CONCRETE I-BEAM  
3 SPANS @ 39'-9", 45'-0", 39'-9"  
30'-0" CLEAR ROADWAY, NO SKEW  
SR 450 OVER OPPOSUM CREEK, MARTIN COUNTY



DATE	REVISION

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: ARS	8/2019	DRAWN: MGA
		8/2019
CHECKED: RBM	8/2019	CHECKED: ARS
		8/2019

INDIANA  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN

SCALE	BRIDGE FILE
As Shown	450-51-10337
	DESIGNATION
	1700155
SURVEY BOOK	SHEETS
Electronic	9 of 30
CONTRACT	PROJECT
B-40589	1700155

Pct: 5/21/2020 9:40 AM

File: pw:\dotwise.indot.in.gov\DOTWise\Documents\Vincennes\1700155\Design\MS\SH General Plan.dgn  
Model: BR\_Detail Sheet



**Categorical Exclusion**  
**Appendix C**  
**Early Coordination**

November 12, 2019

«Agency\_1»  
«Agency\_2»  
«Address\_1»  
«Address\_2»  
«City», «State» «Zip»

**Example Early Coordination Letter**

Re: Agencies Early Coordination  
Des. Number 1700155  
SR 450 over Flat Creek (also known as Opossum Creek) Bridge Project  
Martin County, Indiana

Dear «Position»,

The Indiana Department of Transportation (INDOT) Vincennes District and the Federal Highway Administration (FHWA) propose to proceed with a bridge project in Martin County, Indiana (Des. Number 1700155). The FHWA is providing funding for the project and is designated as the lead federal agency. This letter is part of the early coordination phase of the environmental review process; we are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above Des. Number and project description in your reply** and we will incorporate your comments into the formal environmental study.

The project is located along State Route (SR) 450 over its crossing of Flat Creek (also known as Opossum Creek), approximately 6.3 miles east of United States Highway (US) 50. The project is within Mitcheltree Township, Indian Springs and Shoals U.S. Geological Survey (USGS) Quadrangles, Township 4 North, Range 3 West, and Sections 29 and 30. Adjacent land use is primarily agricultural and wooded. Please see attached project area maps.

Within the project area, SR 450 is functionally classified as a Rural Major Collector and consists of two 10-foot wide travel lanes (one northbound and one southbound) without paved shoulders. The apparent existing right-of-way width is edge of pavement. The existing structure is a 30-foot long prestressed box beam bridge with a curb-to-curb width of 28.3 feet and an outside-to-outside width of 30.3 feet. The bridge is on the tangent of a horizontal curve. South of the bridge, the roadway transitions to another horizontal curve, and two vertical curves are along both ends of the bridge. SR 450 intersects with County Road (CR) 108 (also known as Fred Sims Road) approximately 0.2 mile north of the bridge. The bridge and roadway are prone to flooding from backwater from Indian Creek and the East Fork White River which substantially affects the public traveling through the project area. Guardrail is present; however, it does not meet current INDOT design standards. Please see attached project area photographs.

Per the INDOT Bridge Inspection Report, dated August 9, 2018, the substructure was given a condition rating of 5 out of a possible 9 ("fair condition") due to heavy scaling at the corners of both abutments

causing minor loss of bearing area. Both abutments have longitudinal and vertical cracking with minor to moderate efflorescence. The superstructure was given a condition rating of 6 out of a possible 9 (“satisfactory condition”) due to spalling with exposed reinforcing on Beam 3 over the west abutment, small diameter spalls with exposed reinforcing on Beams 7 and 8 near the east abutment, and minor spalls on the outside of fascia beams due to previous guardrail attachments. The channel/channel protection was given a condition rating of 6 out of a possible 9 (“satisfactory condition”) due to minor lateral drifting towards the east abutment. There is a beaver dam on the north side of bridge restricting flow. Per the INDOT Hydraulics Memo, dated May 16, 2019, there is frequent flooding at this location.

The need of the project is due to the poor condition of the existing structure, frequent flooding at this location, and poor roadway geometric deficiencies. The purpose of the project is to increase all condition ratings of the bridge to a 7 (“good condition”) or higher, alleviate flooding within the project area, and improve roadway geometric deficiencies.

The current proposed project would replace the existing structure. The new structure and roadway profile would be raised to an elevation approximately 481 feet above the 25 year storm event. Road work would include improving the existing vertical curves immediately north and south of the bridge. The improved roadway alignment would tie into the existing SR 450 near CR 108. The elevation difference at this intersection is approximately 0.25 feet. The proposed structure would be a 124.5-foot long single span prestressed concrete bulb tee bridge with a curb-to-curb width of 29.33 feet. The increased clear roadway width would meet minimum standards and include two 11-foot wide travel lanes with two 3.67-foot wide shoulders. The project would also replace the existing substandard guardrail. A riprap drainage turnout would be constructed east and west of the proposed bridge, on the north side. Class 1 riprap would be placed on the spill slopes underneath the bridge at both end bents. Riprap would also be placed on the east side of the roadway on the fill slopes approximately 225 feet from the stream on the south end of the bridge, and approximately 145 feet from the riprap turnout on the north end of the bridge.

The project length is approximately 2,350 feet, including incidental construction; shoulders and embankments would require minimal widening to transition into the new, wider bridge. The project would require up to approximately 5.6 acres of permanent right-of-way. Proposed right-of-way width would be approximately 75 to 80 feet from the roadway centerline. The maintenance of traffic (MOT) would involve a full closure of SR 450 to through traffic and use US 50 for an official state detour. Local traffic could utilize CR 81, CR 84, CR 86, US 161, and Wilt Road. Access to properties would be maintained during construction. Please see attached preliminary plans.

To identify potential environmental concerns within the project vicinity, a Red Flag Investigation was performed for a 0.5-mile radius of the project area by INDOT. Please see attached Red Flag Investigation Maps.

INDOT performed site visits on August 28, 2019 and September 3, 2019 to identify any ecological resources present within or adjacent to the project area. One stream, Flat Creek, three roadside ditches (RSD 1, 2 and 3), and two wetlands (W1 and W2) were documented within and/or adjacent to the project area. INDOT prepared a Waters of the U.S. Report documenting these resources.

The project qualifies for the application of the U.S. Fish and Wildlife (USFWS) range-wide programmatic informal consultation for the Indiana bat and northern long-eared bat. Project information is being submitted through the USFWS Information for Planning and Consultation (IPac) separately. RQAW is also investigating the Area of Potential Effect (APE) for archaeological and historic resources for compliance with Section 106. Coordination with INDOT Cultural Resources Office (CRO) will occur.

If we do not receive your response within 30 calendar days from the date of this letter, it will be assumed your agency feels there will be no adverse effects incurred because of the project. However, if you feel an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please contact Jaime Byerly of the Environmental Department at RQAW, at 317.588.1798 or at [jbyerly@rqaw.com](mailto:jbyerly@rqaw.com), or the INDOT Project Manager, Kyanna Moon, at 812.203.2009, or at [kmoon1@indot.IN.gov](mailto:kmoon1@indot.IN.gov). Thank you in advance for your input!

Sincerely,

*Jaime Byerly*

Jaime Byerly  
NEPA Specialist  
RQAW

**Graphics omitted to avoid duplication. See graphics in Appendices B and E of this CE document.**

Appendices:

- Appendix A: Red Flag Investigation Maps
- Appendix B: Photograph Key and Photographs
- Appendix C: Preliminary Plans

Cc:

- INDOT Vincennes District (electronic coordination)
- Federal Highway Administration (electronic coordination)
- U.S. Fish and Wildlife Service, Bloomington Field Office (electronic coordination)
- Natural Resources Conservation Service (electronic coordination)
- Indiana Geological Survey (electronic coordination)
- Indiana Department of Natural Resources Division of Fish and Wildlife (electronic coordination)
- IDEM (electronic coordination)
- IDEM Groundwater Section (electronic coordination)
- INDOT Office of Public Involvement (electronic coordination)
- U.S. Department of Housing and Urban Development (electronic coordination)
- National Park Service, Midwest Regional Office
- U.S. Forest Service (electronic coordination)

- U.S. Army Corps of Engineers, Louisville District (electronic coordination)
- Martin County Commissioner Members
- Martin County Council Members
- Martin County Surveyor
- Martin County Highway Superintendent



# Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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

INDOT Vincennes District

3650 South US 41  
Vincennes , IN 47591

Date November 12, 2019

RQAW

Jaime Byerly  
8770 North Street  
Suite 110  
Fishers , IN 46038

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The project is located along SR 450 over its crossing of Flat Creek (also known as Opossum Creek), approximately 6.3 miles east of US 50 in Martin County. The project length is approximately 2,350 feet. The project would replace the existing structure and raise the new structure and roadway profile approximately 481 feet above the 25 year storm event. Road work would include improving existing vertical curves immediately north and south of the bridge. The roadway alignment would tie into the existing SR 450 near CR 108. The project would widen the roadway to incorporate two 11-foot wide travel lanes with two 3.67-foot wide shoulders. The project would also replace the existing substandard guardrail, construct a riprap drainage turnout, and install riprap. The project would require up to approximately 5.6 acres of permanent right-of-way. INDOT performed a site visit and observed one stream and two wetlands within and/or adjacent to the project area.

This letter from the Indiana Department of Environmental Management (IDEM) serves as a standardized response to enquiries inviting IDEM comments on roadway construction, reconstruction, or other improvement projects within existing roadway corridors when the proposed scope of the project is beneath the threshold requiring a formal National Environmental Policy Act-mandated Environmental Assessment or Environmental Impact Statement. As the letter attempts to address all roadway-related environmental topics of potential concern, it is possible that not every topic addressed in the letter will be applicable to your particular roadway project.

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

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

## WATER AND BIOTIC QUALITY

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

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

Much of northern Indiana (Newton, Lake, Porter, LaPorte, St. Joseph, Elkhart, LaGrange, Steuben, and Dekalb counties; large portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and lesser portions of Benton, White, Pulaski, Kosciusko, and Wells counties) is served by the USACE District Office in Detroit (313-226-6812). The central and southern portions of the state (large portions of Benton, White, Pulaski, Kosciusko, and Wells counties; smaller portions of Jasper, Starke, Marshall, Noble, Allen, and Adams counties; and all other Indiana counties located in north-central, central, and southern Indiana) are served by the USACE Louisville District Office (502-315-6733).

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

2. In the event a Section 404 wetlands permit is required from the USACE, you also must obtain a Section 401 Water Quality Certification from the IDEM Office of Water Quality Wetlands Program. To learn more about the Wetlands Program, visit: <http://www.in.gov/idem/4384.htm> (<http://www.in.gov/idem/4384.htm>).

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

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

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

6. For projects involving construction activity (which includes clearing, grading, excavation and other land disturbing activities) that result in the disturbance of one (1), or more, acres of total land area, contact the Office of Water Quality – Watershed Planning Branch (317/233-1864) regarding the need for of a Rule 5 Storm Water Runoff Permit. Visit the following Web page
  - <http://www.in.gov/idem/4902.htm> (<http://www.in.gov/idem/4902.htm>)

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



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

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

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

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

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.
8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.
9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.
10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

## **AIR QUALITY**

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

Consideration should be given to the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: <http://www.in.gov/isdh/19131.htm> (<http://www.in.gov/isdh/19131.htm>).
5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (<http://www.ai.org/legislative/iac/T03260/A00080.PDF> (<http://www.ai.org/legislative/iac/T03260/A00080.PDF>)).
6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by

the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: [www.ai.org/legislative/iac/t03260/a00020.pdf](http://www.ai.org/legislative/iac/t03260/a00020.pdf) (<http://www.ai.org/legislative/iac/t03260/a00020.pdf>.) New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.

7. For more information on air permits visit: <http://www.in.gov/idem/4223.htm> (<http://www.in.gov/idem/4223.htm>), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD [atdem.state.in.us](mailto:atdem.state.in.us).

## LAND QUALITY

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

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.
2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit <http://www.in.gov/idem/4998.htm> (<http://www.in.gov/idem/4998.htm>).
3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.
4. If PCBs are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.
5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes (Asbestos removal is addressed above, under Air Quality).
6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must contact the IDEM Underground Storage Tank program at 317/308-3039. See: <http://www.in.gov/idem/4999.htm> (<http://www.in.gov/idem/4999.htm>).

## FINAL REMARKS

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

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

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

---

## Signature(s) of the Applicant

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

## Project Description

The project is located along SR 450 over its crossing of Flat Creek (also known as Opossum Creek), approximately 6.3 miles east of US 50 in Martin County. The project length is approximately 2,350 feet. The project would replace the existing structure and raise the new structure and roadway profile approximately 481 feet above the 25 year storm event. Road work would include improving existing vertical curves immediately north and south of the bridge. The roadway alignment would tie into the existing SR 450 near CR 108. The project would widen the roadway to incorporate two 11-foot wide travel lanes with two 3.67-foot wide shoulders. The project would also replace the existing substandard guardrail, construct a riprap drainage turnout, and install riprap. The project would require up to approximately 5.6 acres of permanent right-of-way. INDOT performed a site visit and observed one stream and two wetlands within and/or adjacent to the project area.

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

Date: 11/19/20

Signature of the INDOT  
Project Engineer or Other Responsible Agent

Kyanna Moon

Date: 11/12/2019

Signature of the  
For Hire Consultant

Jaime Byerly

Jaime Byerly



## Organization and Project Information

**Project ID:** N/A  
**Des. ID:** 1700155  
**Project Title:** SR 450 over Flat Creek (aka Opossum Creek) Bridge Project  
**Name of Organization:** RQAW  
**Requested by:** Jaime Byerly

## Environmental Assessment Report

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

\*All map layers from Indiana Map ([maps.indiana.edu](http://maps.indiana.edu))

### **DISCLAIMER:**

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

This information was furnished by Indiana Geological Survey

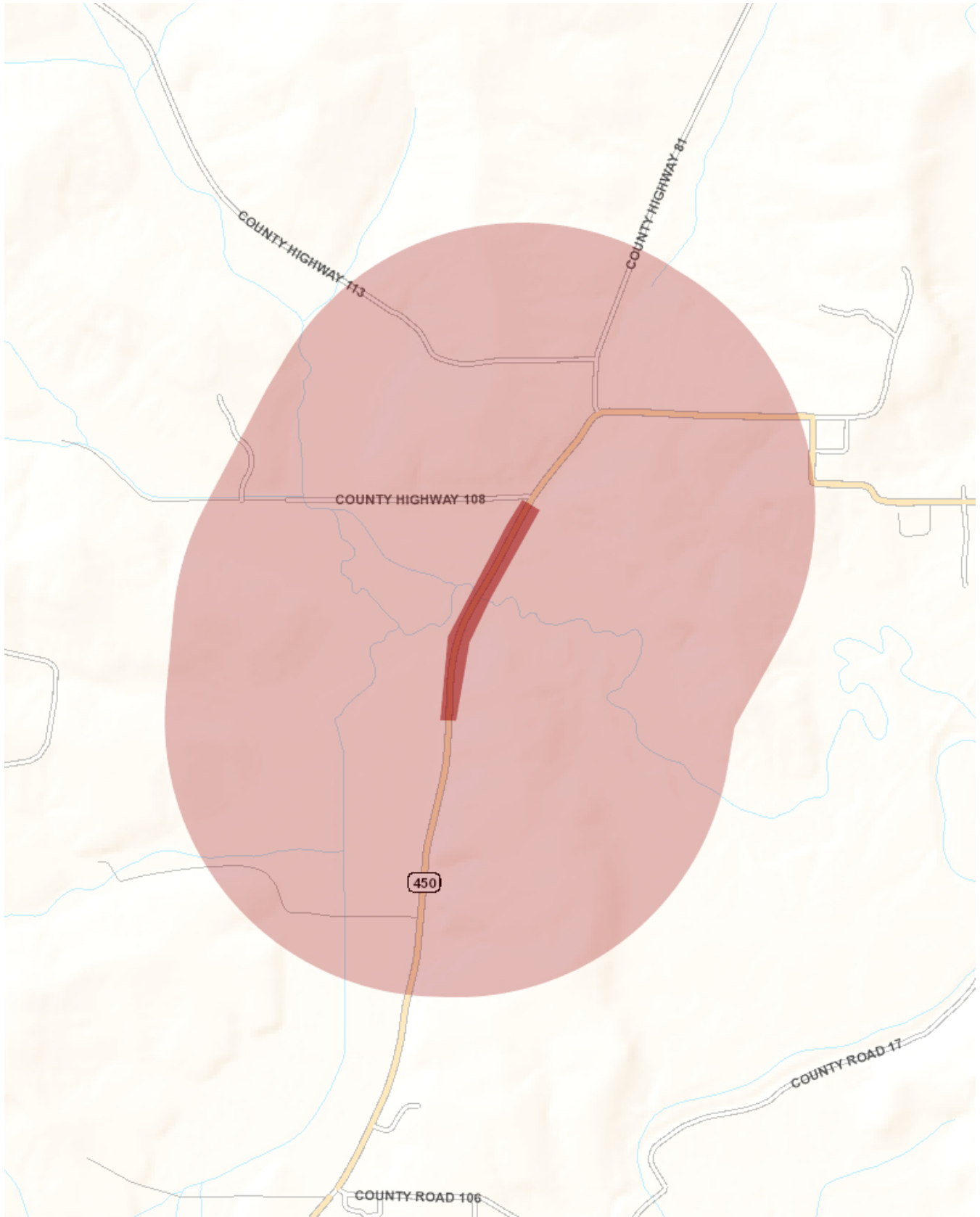
Address: 420 N. Walnut St., Bloomington, IN 47404

Email: IGSEnvir@indiana.edu

Phone: 812 855-7428

Date: November 12, 2019





## Metadata:

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



## Jaime Byerly

---

**From:** Amick, Kevin R -FS <kevin.amick@usda.gov>  
**Sent:** Tuesday, November 12, 2019 1:42 PM  
**To:** Jaime Byerly  
**Subject:** RE: Agencies Early Coordination: SR 450 over Flat Creek (aka Opossum Creek) Bridge Project, Martin County, Indiana (Des. Number 1700155)

Thank you for your opportunity to comment. The project (Des. Number 1700155) should not affect the Hoosier National Forest as it is approximately 5 miles west of the nearest National Forest System land. The Hoosier National Forest has no concerns regarding this project.

Thanks,



**Kevin Amick**  
Environmental Coordinator

Forest Service  
Hoosier National Forest

p: 812-276-4746

f: 812-279-3423

[kevin.amick@usda.gov](mailto:kevin.amick@usda.gov)

811 Constitution Ave.

Bedford, IN 47421

[www.fs.fed.us](http://www.fs.fed.us)



Caring for the land and serving people

---

**From:** Jaime Byerly <jbyerly@RQAW.com>  
**Sent:** Tuesday, November 12, 2019 12:12 PM  
**To:** Amick, Kevin R -FS <kevin.amick@usda.gov>  
**Subject:** Agencies Early Coordination: SR 450 over Flat Creek (aka Opossum Creek) Bridge Project, Martin County, Indiana (Des. Number 1700155)

Mr. Amick,

Attached, please find an early coordination letter and supporting graphics for the above referenced project. If you choose, these materials are for your review and comment for the environmental document. We are coordinating with the US Forest Service since the project is located within Martin County, Indiana.

Thank you,  
Jaime Byerly



**Jaime Byerly**

NEPA Specialist

8770 North St., Ste. 110

Fishers, IN 46038

O: 317.588.1764

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

## Jaime Byerly

---

**From:** Wright, Mary <MWRIGHT@indot.IN.gov>  
**Sent:** Friday, November 15, 2019 7:23 AM  
**To:** Jaime Byerly  
**Subject:** RE: Agencies Early Coordination: SR 450 over Flat Creek (aka Opossum Creek) Bridge Project, Martin County, Indiana (Des. Number 1700155)

---

### Early Coordination and Creating a Public Involvement Plan (PIP)

We have received your early coordination notification packet for the above referenced project(s). Our office prefers to be notified at the early coordination stage in order to encourage early and ongoing public involvement aside from the specific legal requirements as outlined in our Public Involvement Manual <http://www.in.gov/indot/2366.htm>. Seeking the public's understanding of transportation improvement projects early in the project development stage can allow the opportunity for the public to express their concerns, comments, and to seek buy-in. Early coordination is the perfect opportunity to examine the proposed project and its impacts to the community along with the many ways and or tools to inform the public of the improvements and seek engagement. A good public involvement plan, or PIP, should consider the type, scope, impacts, and the level of public awareness that should, or could, be implemented. In other words, although there are cases where no public involvement is legally required, sometimes it is simply the right thing to do in order to keep the public informed.

The public involvement office is always available to provide support and resources to bolster any public involvement activities you may wish to implement or discuss. Please feel free to contact our office anytime should you have any questions or concerns. Thank you for notifying our office about your proposed project. We trust you will not only analyze the appropriate public involvement required, but also consider the opportunity to do go above and beyond those requirements in creating a good PIP.

Rickie Clark, Manager  
100 North Senate Avenue, Room N642  
Indianapolis, IN 46204  
Phone: 317-232-6601  
Email: [rclark@indot.in.gov](mailto:rclark@indot.in.gov)

---

**From:** Jaime Byerly [mailto:jbyerly@RQAW.com]  
**Sent:** Tuesday, November 12, 2019 11:57 AM  
**To:** Clark, Rickie <RCLARK@indot.IN.gov>  
**Cc:** Wright, Mary <MWRIGHT@indot.IN.gov>  
**Subject:** Agencies Early Coordination: SR 450 over Flat Creek (aka Opossum Creek) Bridge Project, Martin County, Indiana (Des. Number 1700155)

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

---

Mr. Clark,

Attached, please find an early coordination letter and supporting graphics for the above referenced project. These materials are for your review and comment for the environmental document.

Thank you,  
Jaime



United States Department of Agriculture

November 21, 2019

Jaime Byerly  
RQAW Corporation  
8770 North Street, Suite 110  
Fishers, Indiana 46038

Dear Ms. Byerly:

The proposed project to rehabilitate the bridge that carries State Road 450 over Flat Creek in Martin County, Indiana (Des No. 1700155), as referred to in your letter received on November 12, 2019, will cause a conversion of prime farmland.

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

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

Sincerely,

JERRY RAYNOR  
State Conservationist

Enclosures

**FARMLAND CONVERSION IMPACT RATING  
FOR CORRIDOR TYPE PROJECTS**

<b>PART I (To be completed by Federal Agency)</b>	3. Date of Land Evaluation Request <b>11/12/19</b>	4. Sheet 1 of <u>1</u>
---	--	------------------------

1. Name of Project <b>SR 450 over Opossum Creek</b>	5. Federal Agency Involved <b>Federal Highway Administration</b>
2. Type of Project <b>Bridge Replacement</b>	6. County and State <b>Martin County, Indiana</b>

<b>PART II (To be completed by NRCS)</b>		1. Date Request Received by NRCS <b>11/12/19</b>	2. Person Completing Form <b>JRA</b>
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 <input checked="" type="checkbox"/> NO <input type="checkbox"/>		4. Acres Irrigated	Average Farm Size <b>239</b>
5. Major Crop(s) <b>Corn</b>	6. Farmable Land in Government Jurisdiction Acres: <b>110,236</b> % <b>51</b>	7. Amount of Farmland As Defined in FPPA Acres: <b>61,061</b> % <b>28</b>	
8. Name Of Land Evaluation System Used <b>LESA</b>	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS <b>11/21/19</b>	

<b>PART III (To be completed by Federal Agency)</b>	<b>Alternative Corridor For Segment :</b>			
	<b>Corridor 1</b>	<b>Corridor 2</b>	<b>Corridor 3</b>	<b>Corridor 4</b>
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

<b>PART IV (To be completed by NRCS) Land Evaluation Information</b>				
A. Total Acres Prime And Unique Farmland	<b>5.4</b>			
B. Total Acres Statewide And Local Important Farmland	<b>0.0</b>			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<b>0.0050</b>			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	<b>32.0</b>			

<b>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)</b>	<b>84</b>			
--	-----------	--	--	--

<b>PART VI (To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))</b>	<b>Maximum Points</b>				
1. Area in Nonurban Use	<b>15</b>	<b>15</b>			
2. Perimeter in Nonurban Use	<b>10</b>	<b>10</b>			
3. Percent Of Corridor Being Farmed	<b>20</b>	<b>15</b>			
4. Protection Provided By State And Local Government	<b>20</b>	<b>0</b>			
5. Size of Present Farm Unit Compared To Average	<b>10</b>	<b>5</b>			
6. Creation Of Nonfarmable Farmland	<b>25</b>	<b>0</b>			
7. Availability Of Farm Support Services	<b>5</b>	<b>0</b>			
8. On-Farm Investments	<b>20</b>	<b>0</b>			
9. Effects Of Conversion On Farm Support Services	<b>25</b>	<b>0</b>			
10. Compatibility With Existing Agricultural Use	<b>10</b>	<b>0</b>			
<b>TOTAL CORRIDOR ASSESSMENT POINTS</b>	<b>160</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>

<b>PART VII (To be completed by Federal Agency)</b>					
Relative Value Of Farmland (From Part V)	<b>100</b>	<b>84</b>			
Total Corridor Assessment (From Part VI above or a local site assessment)	<b>160</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>TOTAL POINTS (Total of above 2 lines)</b>	<b>260</b>	<b>129</b>	<b>0</b>	<b>0</b>	<b>0</b>

1. Corridor Selected: <b>A</b>	2. Total Acres of Farmlands to be Converted by Project: <b>3.45 acres</b>	3. Date Of Selection: <b>11/25/19</b>	4. Was A Local Site Assessment Used? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>
-----------------------------------	--	--	---

5. Reason For Selection:  
**Corridor A was selected because it meets the project's purpose and need.**

Signature of Person Completing this Part: <b>Jaime Byerly</b>	DATE <b>6/2/20</b>
--	-----------------------

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

**THIS IS NOT A PERMIT**

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

**DNR #:** ER-21992

**Request Received:** November 12, 2019

**Requestor:** RQAW Environmental  
Jaime Byerly  
8770 North Street, Suite 110  
Fishers, IN 46038

**Project:** SR 450 bridge replacement over Opossum Creek (Flat Creek), and roadway realignment at either end of the bridge, about 6.3 miles east of US 50; Des #1700155

**County/Site info:** Martin

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) Bank Stabilization & Wildlife Passage:**

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

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

While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In

**Attachments:** A - Bridge Exemption Criteria

**THIS IS NOT A PERMIT**

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

---

many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection and help reduce impacts upon fish and wildlife. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

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

**2) 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 Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: <http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.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).

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

**3) 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 with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs if any woody plants are disturbed during construction as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants, including prohibited invasive species (see 312 IAC 18-3-25).
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds.
7. Use minimum average 6 inch graded riprap stone extended below the normal water

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

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

---

level to provide habitat for aquatic organisms in the voids.

8. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.

9. Post "Do Not Mow or Spray" signs along the right-of-way.

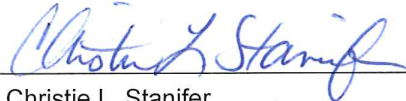
10. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

11. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

**Contact Staff:**

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.



**Date:** December 12, 2019

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

Attachments: A - Bridge Exemption Criteria

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to \$10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.



## Jaime Byerly

---

**From:** McWilliams, Robin <robin\_mcwilliams@fws.gov>  
**Sent:** Monday, November 18, 2019 2:45 PM  
**To:** Jaime Byerly  
**Subject:** Re: [EXTERNAL] Agencies Early Coordination: SR 450 over Flat Creek (aka Opossum Creek) Bridge Project, Martin County, Indiana (Des. Number 1700155)

Dear Jaime,

This responds to your recent letter requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The project is within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*) and should follow the new Indiana bat/northern long-eared bat programmatic consultation process, if applicable (*i.e.* a federal transportation nexus is established). We will review that information once it is received.

The project is in the karst area of Indiana. If any karst features are encountered, a karst survey should be conducted, with mitigation measures as necessary, in accordance with our 1993 Memorandum of Understanding.

Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. However, should new information arise pertaining to project plans or a revised species list be published, it will be necessary for the Federal agency to reinstate consultation. Standard recommendations are provided below.

We appreciate the opportunity to comment at this early stage of project planning. If project plans change such that fish and wildlife habitat may be affected, please re-coordinate with our office as soon as possible. If you have any questions about our recommendations, please call (812) 334-4261 x. 207.

Sincerely,  
Robin McWilliams Munson

### Standard Recommendations:

1. Do not clear trees or understory vegetation outside the construction zone boundaries. **(This restriction is not related to the "tree clearing" restriction for potential Indiana Bat habitat.)**
2. 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.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good

natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.
4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.
5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.
6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) 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.
7. 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.

Robin McWilliams Munson

U.S. Fish and Wildlife Service  
620 South Walker Street  
Bloomington, Indiana 46403  
812-334-4261 x. 207 Fax: 812-334-4273

Monday, Tuesday - 7:30a-3:00p  
Wednesday, Thursday - telework 8:30a-3:00p

On Tue, Nov 12, 2019 at 11:42 AM Jaime Byerly <[jbyerly@rgaw.com](mailto:jbyerly@rgaw.com)> wrote:

Hi, Robin,

Attached, please find an early coordination letter and supporting graphics for the above referenced project. These materials are for your review and comment for the environmental document. We are coordinating with the USFWS because wetland impacts will likely exceed 0.1 acre. Currently, approximately 0.14 acre of wetlands are within the construction limits.

Thank you,

Jaime

## Jaime Byerly

---

**From:** Wright, Kristy <KWright@indot.IN.gov>  
**Sent:** Monday, August 12, 2019 3:41 PM  
**To:** Ridgley, Brad  
**Cc:** Falls, Ryan G  
**Subject:** RE: Bat Check

August 12, 2019

RE: DES 1700155, B- 40589 SR 450 RP 6.30 Bridge Project  
Consultant: in-house INDOT

The search was negative for endangered bat species within 0.5 mile of the project area. Please use the following statement in your RFI report:

“A review of the USFWS database did not indicate the presence of endangered bat species in or within the 0.5 mile search radius of the project area. The range-wide programmatic consultation for the Indiana bat and the Northern Long-eared bat will be completed according to “Using the USFWS IPaC System for Listed Bat Consultation, for INDOT Projects, dated May 10, 2018”.

Thank you. kw

### Kristy Wright

#### **Capital Program Management- Environmental Manager II**

3650 South U.S. Highway 41

Vincennes, IN 47591

**Office:** (812) 895-7335

**Email:** [kwright@indot.IN.gov](mailto:kwright@indot.IN.gov)

*The content of this email is confidential and intended for the recipient specified in message only. It is strictly forbidden to share any part of this message with any third party, without a written consent of the sender. If you received this message by mistake, please reply to this message and follow with its deletion, so that we can ensure such a mistake does not occur in the future.*



---

**From:** Ridgley, Brad  
**Sent:** Monday, August 12, 2019 2:11 PM  
**To:** Wright, Kristy <KWright@indot.IN.gov>  
**Subject:** Bat Check

Kristy

Please do a bat check on SR 450 over Flat Creek 6.3 Miles E of US 50 Martin county DES 1700155 Bat check.



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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



In Reply Refer To:

May 26, 2020

Consultation Code: 03E12000-2019-SLI-1596

Event Code: 03E12000-2020-E-07135

Project Name: DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement,

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

## Official Species List

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

This species list is provided by:

**Indiana Ecological Services Field Office**

620 South Walker Street

Bloomington, IN 47403-2121

(812) 334-4261

## Project Summary

Consultation Code: 03E12000-2019-SLI-1596

Event Code: 03E12000-2020-E-07135

Project Name: DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement,

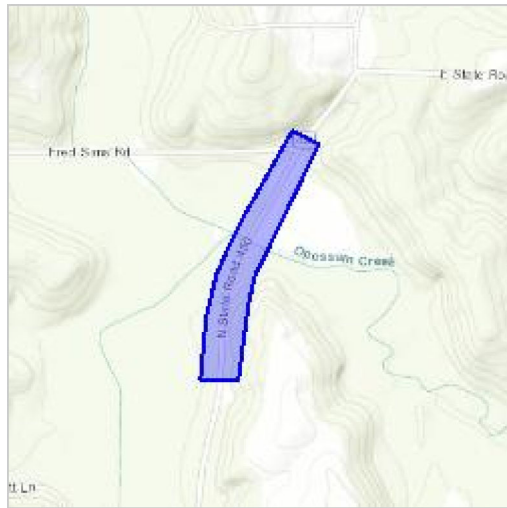
Project Type: TRANSPORTATION

Project Description: The proposed project is to replace the existing Bridge, 450-51-06447 B, Over Flat Creek/Opossum Creek, 6.30 Miles E US 50 at RP 6+30. The existing bridge is a Prestressed Box Beam bridge built in 1942 and rehabilitated in 1980. It has a span length of 28.0 FT and a deck width of 30.0 FT, with an approach roadway width of 22.0 FT. The existing bridge exhibits spalling on the bottoms of the Prestressed Box Beams and spalling with vertical cracking on the abutments. This bridge and the connecting roadway is prone to flooding from backwater from Indian Creek and the East Fork White River substantially affecting the traveling public that uses and lives north of the bridge. Preliminary hydraulics have been completed, which provide some information regarding the issue. Further evaluation will need to be completed to determine the best course of action. Design options that require evaluation include raising the bridge and roadway above the 100 year storm event, raising the bridge and roadway above the 10 year storm event, replace the bridge at a minimal or no increase in elevation or roadway elevation.

There is suitable summer habitat in the southeast quadrant of the project, with approximately 0.11 acre of tree removal proposed 0-100 feet from , and 0.0 acre 100-300 feet from the existing roadway, the dominate species is Green Ash, Red Maple, and American Sycamore trees with tree removal proposed to be done in the inactive bat season. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius conducted on August 12, 2019. On August 28, 2019 INDOT Environmental Services conducted a on-site bat assessment inspection with a result finding of, no bat activity noticed. There will be no temporary or permanent lighting during the project. The project will call for the new bridge to be raised to an elevation for a 100 year storm event. The proposed project letting is 2022.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.752803057294976N86.77662183472526W>



Counties: Martin, IN



## Endangered Species Act Species

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

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. Your location is outside the critical habitat. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a> Species survey guidelines: <a href="https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf">https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See <a href="http://www.fws.gov/midwest/endangered/mammals/nleb/index.html">www.fws.gov/midwest/endangered/mammals/nleb/index.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Critical habitats

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



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Indiana Ecological Services Field Office

620 South Walker Street

Bloomington, IN 47403-2121

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

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



In Reply Refer To:

September 03, 2019

Consultation Code: 03E12000-2019-I-1596

Event Code: 03E12000-2019-E-07259

Project Name: DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement,

Subject: Concurrence verification letter for the 'DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement,' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated to verify that the **DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement**, (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

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

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

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

## Project Description

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

### Name

DES 1700155, On SR 450, Bridge Number 450-51-06447 B, Bridge Replacement,

### Description

The proposed project is to replace the existing Bridge, 450-51-06447 B, Over Flat Creek/Opossum Creek, 6.30 Miles E US 50 at RP 6+30. The existing bridge is a Prestressed Box Beam bridge built in 1942 and rehabilitated in 1980. It has a span length of 28.0 FT and a deck width of 30.0 FT, with an approach roadway width of 22.0 FT. The existing bridge exhibits spalling on the bottoms of the Prestressed Box Beams and spalling with vertical cracking on the abutments. This bridge and the connecting roadway is prone to flooding from backwater from Indian Creek and the East Fork White River substantially affecting the traveling public that uses and lives north of the bridge. Preliminary hydraulics have been completed, which provide some information regarding the issue. Further evaluation will need to be completed to determine the best course of action. Design options that require evaluation include raising the bridge and roadway above the 100 year storm event, raising the bridge and roadway above the 10 year storm event, replace the bridge at a minimal or no increase in elevation or roadway elevation.

There is suitable summer habitat in the southeast quadrant of the project, with approximately 0.11 acre of tree removal proposed 0-100 feet from , and 0.0 acre 100-300 feet from the existing roadway, the dominate species is Green Ash, Red Maple, and American Sycamore trees with tree removal proposed to be done in the inactive bat season. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species within the 0.5 mile search radius conducted on August 12, 2019. On August 28, 2019 INDOT Environmental Services conducted a on-site bat assessment inspection with a result finding of, no bat activity noticed. There will be no temporary or permanent lighting during the project. The project will call for the new bridge to be raised to an elevation for a 100 year storm event. The proposed project letting is 2022.

# Determination Key Result

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

## Qualification Interview

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

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

**Automatically answered**

*Yes*

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

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

**Automatically answered**

*Yes*

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

*A) Federal Highway Administration (FHWA)*

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

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

*No*

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

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

*No*

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

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

*No*

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

*Yes*

8. Will the project include *any* type of activity that could impact a **known** hibernaculum<sup>[1]</sup>, or impact a karst feature (e.g., sinkhole, losing stream, or spring) that could result in effects to a **known** hibernaculum?

[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*

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

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

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

*Yes*

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

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

*Yes*

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

*No*

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

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

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

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

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

*No*

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

[1] Documented roosting or foraging habitat – for the purposes of this consultation, we are considering documented habitat as that where Indiana bats and/or NLEB have actually been captured and tracked using (1) radio telemetry to roosts; (2) radio telemetry 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*

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

*Yes*

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

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

*B) During the inactive season*

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

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

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

*No*

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

*Yes*

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

*B) During the inactive season*

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

*Yes*

20. Will the tree removal alter *any* **documented** Indiana bat or NLEB roosts and/or alter any surrounding summer habitat **within** 0.25 mile of a documented roost?

*No*

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

*No*

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

*Yes*



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

*No*

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

*No*

25. Does the project include slash pile burning?

*No*

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

*Yes*

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

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

*Yes*

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

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

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

*Yes*

#### **SUBMITTED DOCUMENTS**

- *DES 1700155 Appendix D BridgeStructureAssessment 2FormJune 2016.pdf* <https://ecos.fws.gov/ipac/project/LLMELEK33RELLOTA7X66GSGP6E/projectDocuments/18089060>

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

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

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

*No*

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

*No*

31. 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*

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

*No*

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

*No*

34. 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?

*Yes*

35. Will the activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the active season<sup>[1]</sup>?

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

*Yes*

36. Will *any* activities that use percussives (**not including tree removal/trimming or bridge/structure work**) and/or increase noise levels above existing traffic/background levels be conducted *during* the inactive season<sup>[1]</sup>?

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

*Yes*

37. 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*

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

*No*

39. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) consistent with a Not Likely to Adversely Affect determination in this key?

**Automatically answered**

*Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, conducted during the active season, and are not within documented habitat*

40. Are the project activities that use percussives (not including tree removal/trimming or bridge/structure work) and/or increase noise levels above existing traffic/background levels consistent with a No Effect determination in this key?

**Automatically answered**

*Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the inactive season*

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

**Automatically answered**

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

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

**Automatically answered**

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

43. 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*

44. **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*

45. **Hibernacula AMM 1**

Will the project ensure that on-site personnel will use best management practices<sup>[1]</sup>, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula?

[1] Coordinate with the appropriate Service Field Office on recommended best management practices for karst in your state.

*Yes*

46. **Hibernacula AMM 1**

Will the project ensure that, where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography?

*Yes*

47. **Tree Removal AMM 1**

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

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

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

*Yes*

48. **Tree Removal AMM 2**

Can *all* tree removal activities be restricted to when Indiana bats are not likely to be present (e.g., the inactive season)<sup>[1]</sup>?

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

**Automatically answered**

*Yes*

49. **Tree Removal AMM 2**

Can *all* tree removal activities be restricted to when Northern long-eared bats are not likely to be present (e.g., the inactive season)<sup>[1]</sup>?

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

**Automatically answered**

*Yes*

50. **Tree Removal AMM 3**

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

*Yes*

51. **Tree Removal AMM 4**

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

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

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

*Yes*

52. **Lighting AMM 1**

Will *all* **temporary** lighting used during the removal of suitable habitat and/or the removal/trimming of trees within suitable habitat be directed away from suitable habitat during the active season?

*Yes*

## **Project Questionnaire**

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

*N/A*

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

*N/A*

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

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

*0.11*

4. Please describe the proposed bridge work:

*Full bridge replacement project.*

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

2022

6. Please enter the date of the bridge assessment:

08/28/2019

## **Avoidance And Minimization Measures (AMMs)**

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

### **GENERAL AMM 1**

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

### **HIBERNACULA AMM 1**

For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography.

### **LIGHTING AMM 1**

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

### **TREE REMOVAL AMM 1**

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

### **TREE REMOVAL AMM 2**

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

### **TREE REMOVAL AMM 3**

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

**TREE REMOVAL AMM 4**

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



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

This key was last updated in IPaC on March 16, 2018. 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 require consultation with the U.S. Fish and Wildlife Service (Service) under Section 7 of the Endangered Species Act (ESA) for the endangered **Indiana bat** (*Myotis sodalis*) and the threatened **Northern long-eared bat** (NLEB) (*Myotis septentrionalis*).

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

## APPENDIX D: Bridge/Structure Assessment Form

This form will be completed and submitted to the District Environmental Manager by the Contractor prior to conducting any work below the deck surface either from the underside; from activities above that bore down to the underside; from activities that could impact expansion joints; from deck removal on bridges; or from structure demolition for bridges/structures within 1000 feet of suitable bat habitat.

<b>DOT Project #</b> 1700155		<b>Water Body</b> Flat Creek/Opossum Creek		<b>Date/Time of Inspection</b> 08/28/2019 9:30AM		<b>Within 1,000ft of suitable bat habitat (circle one)</b>  Yes No	
<b>Route</b>	<b>County</b>	<b>Federal Structure ID</b>					
SR 450	Martin	032690					

If the bridge/structure is 1,000 feet or more from suitable bat habitat (e.g., an urban or agricultural area without suitable foraging habitat or corridors linking the bridge to suitable foraging habitat), check box and STOP HERE. No assessment required.  Please submit to the U.S. Fish and Wildlife Service.

### Areas Inspected (Check all that apply)

Bridges		Culverts/Other Structures		Summary Info (circle all that apply)			
All vertical crevices sealed at the top and 0.5-1.25" wide & ≥4" deep	✓	Crevices, rough surfaces or imperfections in concrete		Human disturbance or traffic under bridge/in culvert or at the structure	High	Low	None
All crevices >12" deep & not sealed	✓	Spaces between walls, ceiling joists		Possible corridors for netting	None/poor	Marginal	Excellent
All guardrails	✓						
All expansion joints	✓						
Spaces between concrete end walls and the bridge deck	✓						

Last Revised May 31, 2017

<b>Vertical surfaces on concrete Ibeams</b>							
---	--	--	--	--	--	--	--

**Evidence of Bats (Circle all that apply)** Presence of one or more indicators is sufficient evidence that bats may be using the structure.

None

Visual (e.g. survey, thermal, emergent etc.)

- Live \_\_ number seen
- Dead \_\_ number seen

Photo documentation Y/N

Audible

Guano

Odor Y/N

Photo documentation Y/N

Staining definitively from bats

Photo documentation Y/N

Assessment Conducted By: Brad Ridgley Signature(s):  Environmental Manager II

District Environmental Use Only: Date Received by District Environmental Manager: \_\_\_\_\_

#### DOT Bat Assessment Form Instructions

1. Assessments must be completed no more than 2 years prior to conducting any work below the deck surface on all bridges, regardless of whether assessments have been conducted in the past.
2. Any bridge/structure suspected of providing habitat for any species of bat will be removed from work schedules until such time that the DOT has coordinated with the USFWS. Additional studies may be undertaken by the DOT to determine what species may be utilizing each structure identified as supporting bats prior to allowing any work to proceed.
3. Any questions should be directed to the District Environmental Manager.

Last Revised June 2017

**Categorical Exclusion**

# **Appendix D**

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

## Minor Projects PA Project Assessment Form – Category B Projects with Archaeology Work

---

**Date:** 1/14/2020

**Project Designation Number:** 1700155

**Route Number:** SR 450

**Project Description:** Bridge replacement over Opossum Creek (Flat Creek) Bridge Replacement

The existing c. 1980 30-foot long prestressed box beam bridge with a curb-to-curb width of 28.3 feet and an outside-to-outside width of 30.3 feet will be replaced with a 124.5-foot long single span prestressed concrete bulb tee bridge having a curb-to-curb width of 29.33-feet. In order to be above the 25-year storm event level, the new structure and roadway profile will be raised approximately seven (7) feet (to an approximate elevation of 481 feet).

Road work includes improving the existing vertical curves immediately north and south of the bridge. The roadway is tying back into the existing SR 450 in the vicinity of CR 108 (Fred Sims Road) to the north. The elevation difference at this intersection is approximately 0.25 feet. The improved clear roadway width will meet minimum standards and include two (2) 11-foot wide travel lanes with two (2) 3.67-foot wide shoulders.

The project will also replace the existing substandard guardrail. A riprap drainage turnout will be constructed east and west of the proposed bridge, on the north end. Class 1 riprap will be placed on the spill slopes underneath the bridge at both end bents. Riprap will also be placed on the east side of the roadway on the fill slopes approximately 225 feet measured perpendicular to the stream on the south end of the bridge--and 145 feet from the riprap turnout measured perpendicular to the stream on the north end of the bridge. The project length is approximately 2,350 feet, including incidental construction; shoulders and embankments will require minimal widening to transition into the new bridge.

Approximately 5.5 acres of right-of-way (ROW) will need to be required for the proposed project.

**Feature crossed (if applicable):** Opossum Creek (Flat Creek)

**Township:** Mitcheltree Township

**City/County:** Martin County

**Information reviewed (please check all that apply):**

General project location map     USGS map     Aerial photograph     Interim Report

Written description of project area     General project area photos     Soil survey data

Previously completed historic property reports     Previously completed archaeology reports

Bridge Inspection Information

**Other (please specify):** Bridge Inspection Assessment System (BIAS); SHAARD, SHAARD GIS, Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map; *Martin County Interim Report* (2001; Center

Township; digital format only); 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI); online street-view imagery; project information provided by RQAW, dated 11/21/2019 and on file at INDOT CRO.

Bundy, Paul D.

2020 A Phase Ia Archaeological Reconnaissance Survey for the Proposed SR 450 Bridge Replacement Project in Martin County, Indiana (INDOT Des. No. 1700155). Cultural Resource Analysts, Inc. Submitted to RQAW Corporation.

### **Results of the Records Review for Above-Ground Resources:**

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 first performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Martin County. No listed resources are present within 0.25 mile of the project area, a distance that would serve as an adequate area of potential effects (APE) given the scope of the project and the surrounding terrain.

The *Martin County Interim Report* (2001; Center Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. It should be noted that Martin County survey results are only available in digital format; no hard-copy interim report was published. The Martin County National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map. One (1) IHSSI site is recorded within 0.25 mile of the project: **1) Mitcheltree Township #101-297-00037/Sims House**; 8030 Fred Sims Road; c.-1890-1930 central passage; includes smokehouse; summer kitchen; wood shed; rated 'contributing'). This resource is estimated by GIS aerial mapping to be located approximately 0.17 mile north/northwest of the project location. In addition to its estimated physical distance, the resource is separated from the project location by a wide expanse of cultivated agricultural fields. Due to these factors, **Mitcheltree Township #101-297-00037/Sims House** is not considered 'adjacent' to the proposed project area.

In addition, according to the IHSSI rating system, properties rated "contributing" generally do not possess the level of historical or architectural significance necessary to be considered individually National Register eligible, although they would contribute to a historic district. If they retain material integrity, properties rated "notable" might possess the necessary level of significance after further research. Properties rated "outstanding" usually possess the necessary level of significance to be considered National Register eligible, if they retain material integrity. Historic districts identified in the IHSSI are usually considered eligible for the National Register.

No other surveyed IHSSI resources were recorded within 0.25 mile of the proposed project area.

The area surrounding the project location is rural; land-use and is dominated by agricultural fields and wooded areas, with just a few scattered residences. Typology is primarily rolling. One late-20<sup>st</sup> century mobile home and modern metal pole barn (NA Fred Sims Road) are located at the northwest corner of the intersection of Fred Sims Road and SR 450. The resources lack the requisite material integrity and historical significance for NR-eligibility assessment. No other above-ground resources are present within 0.25 mile of the proposed project area.

The subject structure (Bridge No. 159-42-06350B; NBI No. 28050) is a pre-stressed concrete box beam or girder structure built in 1925 and was reconstructed in 1980. Due to its post-1965 construction date, the bridge was not included in the 2010 INDOT-sponsored *Historic Bridge Inventory* (HBI). On November 12, 2012 the Advisory Council on Historic Preservation (ACHP) issued the *Program Comment for Streamlining Section 106 Review for Actions Affecting Post-1945 Concrete and Steel Bridges (Program Comment)*. The *Program Comment* relieves federal agencies from the Section 106 requirement to consider

the effects of undertakings on most concrete and steel bridges built after 1945. On March 19, 2013, federal agencies were approved to use the *Program Comment*.

The *Program Comment* applies for Bridge No. 159-42-06350B; NBI No. 28050 because it has not been previously listed in or determined eligible for listing in the National Register of Historic Places and it is not located in or adjacent to a historic district (Section IV.A of the *Program Comment*). As an example of prestressed concrete box beam or girder bridges, this bridge is also not one of the types to which the *Program Comment* does not apply (arch bridges, truss bridges, bridges with moveable spans, suspension bridges, cable-stayed bridges, or covered bridges [Section IV.B]). Additionally, this bridge has not been identified as having exceptional significance for association with a person or event, being a very early or particularly important example of its type in the state or the nation, having distinctive engineering or architectural features that depart from standard designs, or displaying other elements that were engineered to respond to a unique environmental context (Section IV.C). The bridge also has not been identified as having some exceptional quality. Because the above criteria from the *Program Comment* have been met, no individual consideration under Section 106 is required for Bridge No. 159-42-06350B; NBI No. 28050.

Based on the available information, as summarized above, no above-ground concerns exist as long as the project scope does not change.

**Archaeology Report Author/Date:**

Paul D. Bundy/January 7, 2020

**Summary of Archaeology Investigation Results:**

With regard to archaeological resources, an INDOT Cultural Resources archaeologist who meets the Secretary of the Interior’s Professional Qualification Standards as per 36 CFR Part 61 reviewed and concurred with the Cultural Resource Analysts Inc. archaeological report and recommendations (Bundy 2020). The archaeological records check for this project found that two archaeological sites, 12Mn121 and 12Mn122, are located within the project area. These sites were recorded for a database enhancement project with information for local collectors. Site boundaries were not well defined and no recommendation were made for eligibility for the state and national registers.

A small portion of the project area was examined through pedestrian survey. The remaining area was shovel tested. Four auger tests were excavated to assess the potential for buried cultural deposits. No evidence for buried cultural materials or soils were found and so Phase Ic deep testing is not recommended.

Shovel test intervals were reduced within the recorded site areas, 12Mn121 was not relocated however the site area described on the site form is much smaller than the area marked on the SHAARD GIS and so it seems likely that the site does not actually extend into the project area. 12Mn122 is mapped on the east and west side of SR 450, however cultural materials were only recovered from the east side of the highway. The artifacts were all recovered from the plow zone. Due to the lack of integrity 12Mn122 was recommended to be ineligible to the state and national registers within the project area. No additional archaeological investigation is recommended.

**Does the project appear to fall under the Minor Projects PA?**      yes       no

**If yes, please specify category and number (applicable conditions are highlighted):**

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

**Condition A (Archaeological Resources)**

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

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

**Condition B (Above-Ground Resources)**

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

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

**If no, please explain:**

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

**INDOT Cultural Resources staff reviewer(s):** Susan Branigin and David Moffatt

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



**A PHASE IA ARCHAEOLOGICAL RECONNAISSANCE  
SURVEY FOR THE PROPOSED SR 450 BRIDGE  
REPLACEMENT PROJECT IN MARTIN COUNTY, INDIANA  
(INDOT DES. NO. 1700155)**

by

Paul D. Bundy, RPA 15111

*Prepared for*

Kyle Boot  
RQAW Corporation  
8770 North Street, Suite 110  
Fishers, Indiana 46038  
Phone: (317) 588-1762  
Email: kboot@rqaw.com

*Prepared by*

Cultural Resource Analysts, Inc.  
201 NW 4th Street, Suite 204  
Evansville, Indiana  
Phone: (812) 253-3009  
Fax: (812) 253-3010  
Email: amartin@crai-ky.com  
CRA Project No.: I19R018



Andrew V. Martin, RPA 61710  
Principal Investigator

January 7, 2020

Lead Agency: Indiana Department of Transportation  
INDOT Des. No.: 1700155  
Indiana State Museum Accession No.: 71.19.1735

# ABSTRACT

On November 14, 2019, Cultural Resource Analysts, Inc., personnel conducted a phase Ia archaeological reconnaissance survey for the proposed SR 450 bridge replacement project in Martin County, Indiana (Indiana Department of Transportation Designation Number 1700155). The survey was conducted at the request of RQAW Corporation. The survey area encompassed approximately 3.0 ha (7.4 acres) of potential ground disturbance adjacent to the existing SR 450 right of way. The survey area consisted of areas on both sides of SR 450 including agricultural fields, mixed hardwoods, and a portion of a manicured lawn. Near surface survey methods consisted of pedestrian survey supplemented with shovel testing, as well as visual inspection of disturbed areas. Investigation of deeper deposits was completed along Opossum Creek using a bucket auger.

Prior to conducting this survey, an archaeological records review was completed using the Indiana Division of Historic Preservation and Archaeology's State Historic Architectural and Archaeological Research Database. The records review revealed that there were two documented archaeological sites near or within the survey area (12Mn121 and 12MN122). Both sites were documented as prehistoric lithic artifact scatters and the boundaries of these sites were estimated based on private collections. As a result of the previous work, no recommendations were made regarding eligibility of the sites for listing in the National Register of Historic Places or Indiana Register of Historic Sites and Structures. Both of these sites were revisited during this project.

As a result of the current field reconnaissance, evidence associated with one of the two previously recorded archaeological sites (12Mn122) was identified. No evidence of the other previously documented site (12Mn121) was found despite close interval shovel testing and pedestrian survey of the area. Based on the estimated mapped boundaries of these sites, they both extend outside the current survey area and therefore were not fully investigated. Ultimately, their eligibility for listing in the National Register of Historic Places or Indiana Register of Historic Sites and Structures cannot be fully assessed. However, the portions of these sites within the current survey area demonstrated poor archaeological integrity, and are recommended not eligible for listing in the National Register of Historic Places or Indiana Register of Historic Sites and Structures. No further archaeological work is recommended within the survey area at either of these sites. Furthermore, limited auger probing did not identify any deeply buried archaeological deposits on the Opossum Creek floodplain within the project area and no further deep testing is recommended for the project.

## Haylee Moscato

---

**From:** Moffatt, Charles D <CMoffatt@indot.IN.gov>  
**Sent:** Monday, June 1, 2020 9:46 AM  
**To:** Haylee Moscato; Miller, Shaun (INDOT)  
**Cc:** Branigin, Susan; 'amartin@crai-ky.com'; Kyle J. Boot; Aaron Lawson; Lisa Kelley; Jaime Byerly; Kumar, Anuradha; 'amartin@crai-ky.com'  
**Subject:** RE: SR 450 over Opossum Creek (Flat Creek) Bridge Replacement, Des 1700155, Martin County - MPPA B-4, 10, & 12

Haylee,

We agree that no new archaeological investigation is necessary and that Section 106 does not need to be reopened. Be sure to note in the NEPA document that you discussed to project with our office and we concurred with your assessment.

Thanks,

David Moffatt  
Archaeologist  
Environmental Services  
Cultural Resources Office  
Indiana Department of Transportation  
317-233-3703

---

**From:** Haylee Moscato <hmoscato@rqaw.com>  
**Sent:** Friday, May 29, 2020 4:33 PM  
**To:** Moffatt, Charles D <CMoffatt@indot.IN.gov>; Miller, Shaun (INDOT) <smiller@indot.IN.gov>  
**Cc:** Branigin, Susan <SBranigin@indot.IN.gov>; 'amartin@crai-ky.com' <amartin@crai-ky.com>; Kyle J. Boot <KBoot@RQAW.com>; Aaron Lawson <alawson@rqaw.com>; Lisa Kelley <ljkelly@crai-ky.com>; Jaime Byerly <jbyerly@RQAW.com>; Kumar, Anuradha <akumar@indot.IN.gov>; 'amartin@crai-ky.com' <amartin@crai-ky.com>  
**Subject:** SR 450 over Opossum Creek (Flat Creek) Bridge Replacement, Des 1700155, Martin County - MPPA B-4, 10, & 12

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

---

Dear David,

Please find information below and attached for your review for the above-mentioned project.

LPA Project? No  
Historic Bridge Project? No  
Level of Section 106 Review: MPPA  
Items attached: Aerial Map and Shapefiles  
RFC Date: Anticipated August of 2022

Section 106 was concluded, and a determination form distributed to RQAW on 1/14/2020. Per your request, RQAW is coordinating with CRO regarding changes to the above-mentioned Bridge Replacement project. Design now involves an additional amount of proposed right-of-way at the south end of the project. It now extends up to approximately 10.4 meters beyond the archaeology survey area but within the archaeology survey universe (approx. 15 meters). Please see the attached ArcMap as well as the archaeology survey area and right-of-way shapefiles.

Per INDOT-CRO's guidance, the additional proposed right-of-way (approx. 10.4 meters beyond the archaeology survey) is within the original survey universe. Therefore, no additional archaeology or above-ground survey appear necessary because the additional area falls within the original archaeology survey universe. The archaeological survey area investigation was conducted with shovel probes and bucket augering. One of the two previous recorded sites was identified north of the bridge to be replaced. No evidence of the other previous recorded site to the south was found. We ask for your concurrence that no additional surveys are necessary, and that Section 106 does not need to be reopened. If you have any questions or require additional information, please let me know. Thank you for your time.

Best,  
Haylee Moscato

**RQAW** | Haylee Moscato  
Architectural Historian  
8770 North St., Ste. 110  
Fishers, IN 46038  
O: 317.588.1766  
ENVIRONMENTAL | [www.rqaw.com](http://www.rqaw.com)



*Best Places to Work in Indiana, 2018-2020*  
*Indy Star's Top Workplaces, 2019*