Note-to-File

DATE: July 23, 2026

TO: Brock Ervin, Crawfordsville Environmental Section Manager, INDOT

FROM: Shampaygne Jeffries, NEPA Coordinator, ASC Group, Inc.

RE: Des. No. 2100058 - Note-to-File to the Categorical Exclusion, Level 1 for Hazardous Materials Investigations at the US 41 & SR 352 Reduced Conflict Intersection (RCI) Project in Benton County, Indiana.

Introduction:
This Note-to-File provides updated information about the addressing of a hazardous commitment for the approved Categorical Exclusion, Level 1 (CE-1), which was completed for the Indiana Department of Transportation (INDOT) United State (US) 41 and State Road (SR) 352 Reduced Conflict Intersection (RCI) Project. The CE-1 was approved on January 30, 2026. This Note-to-File addresses the work performed to verify if hazardous concerns were present within the project area. The following discussion includes a brief history of the project and addresses the resolution of the hazardous commitment. Unless specifically discussed in this document, the impacts identified in the previously approved CE-1 remain unchanged.

Project History:
INDOT proposed the construction of an RCI at the US 41 and SR 352 intersection. This type of intersection will eliminate the left turn and through movements from the SR 352 approaches. To accommodate these movements, the RCI intersection will require SR 352 drivers to turn right onto the US 41 and then make a U-turn maneuver at a one-way median opening at least 400 ft after the intersection in both directions. US 41 traffic will still be allowed to turn left on SR 352. The US 41 and SR 352 roadways will be milled and resurfaced after the completion of adding the median U turns and center medians. No tree clearing, and no temporary or permanent right-of-way was anticipated. Maintenance of traffic (MOT) will require phased lane closures of US 41 and SR 352.

The need for this project is due to the US 41 and SR 352, 4.1 miles north of SR 26, in Grant Township, Benton County, Indiana experiencing an above normal number of crashes and crash severity for an unsignalized rural state intersection. The purpose of this project is to improve public safety by reducing the severity of crashes at this intersection and by reducing the number of right-angle crashes, while possibly improving the ICF and ICC scores to less than 1.00.

Boswell Dump HAZMAT Commitment:
An antique landfill, Boswell Dump, is located approximately 0.01 mile west of the eastern terminus of the project area. Coordination was conducted with IDEM, and they responded on July 24, 2024 stating that the dump is ambiguous and the dump is not fully integrated into their database. An exploratory test (Phase II) was conducted by SME to verify the boundary and presence of any waste and it's extent in the proposed work area to address the commitment.

On March 24, 2026, five soil borings to a depth of approximately five feet below ground surface in the INDOT right-of-way were conducted. Soil cuttings at each location were inspected, logged, and field screened for the potential presence of municipal waste, construction debris, and/or contamination. Field screening for contamination included the use of a MultiRAE multi-gas detector to evaluate for both volatile and combustible gases (i.e., methane). No evidence of municipal waste, construction debris, or potential contamination during inspection and screening of the soil cuttings. No laboratory analysis was needed due to the lack of contamination observed in the soil borings.

Conclusion

This project's Note-to-File details the addressing of the landfill hazardous commitment for the US 41 and SR 352 RCI Project. The Phase II exploratory test was performed and resulted in no evidence of municipal waste, construction debris, or potential contamination. The commitment has been satisfied and no further action is warranted. Unless specifically addressed in this Note-to-File document, all project impacts and conditions as described in previously approved environmental documentation remain the same.

Table of Appendices

Appendix A: Phase II (SME Memo 4-22-2026) A-1

Appendix B: INDOT Concurrence (5-15-2026) B-1

APPENDIX A: PHASE II (SME MEMO)

Docusign Envelope ID: E92F0B03-CB3F-8625-8367-5668058B57DC

MEMORANDUM

TO: Ms. Dariane Davis
Ms. Tracy Barnes
INDOT Environmental Services Division
100 North Senate Avenue
Indianapolis, Indiana 46204

Via E-mail: ddavis3@indot.in.gov

FROM: Mitchell D. Cline, LPG – SME
Janna Stath, PE – SME

DATE: April 22, 2026

SUBJECT: RE: Limited Site Investigation
Former Boswell Dump
US41 and SR 352
Boswell, Benton County, Indiana
DES No. 2100058
SME Project No. 092189.20

The Indiana Department of Transportation (INDOT) is preparing to update the intersection located on United States (US) 41 and State Road (SR) 352 in Boswell, Benton County, Indiana (Site). We understand that ASC Group, Inc. conducted a red-flag investigation (RFI) and identified an antique landfill (the former Boswell Dump) west-adjoining (and potentially encroaching upon) the Site. SME, in coordination with the INDOT Site Assessment and Management (SAM) team, prepared proposal P00612.26, dated March 6, 2026, to advance five soil borings within the INDOT right of way adjacent to the former Boswell Dump to screen for the potential presence of subsurface waste and/or contamination at the Site. Soil samples were proposed to be collected for characterization purposes only if evidence of potential municipal waste, construction debris, or contamination was observed during drilling.

On March 24, 2026, SME oversaw SCS Consulting (SCS) advance five soil borings to a depth of approximately five feet below ground surface in the INDOT right of way (Attachment A). Soil cuttings at each location were inspected, logged, and field screened for the potential presence of municipal waste, construction debris, and/or contamination. Field screening for contamination included the use of a MultiRAE multi-gas detector to evaluate for both volatile and combustible gases (i.e., methane).

The surface at each soil boring location consisted of topsoil overlying approximately one to two feet of fill material consisting of silts and clays with varying amounts of gravel. Clay- and silt-dominated native soils were encountered beneath the fill to the maximum explored depth at each soil boring location. Soil boring logs are included in Attachment B.

We observed no evidence of municipal waste, construction debris, or potential contamination during inspection and screening of the soil cuttings. In accordance with our proposal, we did not collect soil samples for laboratory analysis because we observed no evidence of waste/debris or field indicators of contamination. Soil cuttings were returned to their respective borings.

PREPARED BY:

Mitchell D. Cline, LPG
Project Geologist

REVIEWED BY:

Janna Stath, PE
Senior Project Engineer

Attachment A: Boring Location Diagram
Attachment B: Soil Boring Logs

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FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION LEVEL 1 FORM

GENERAL PROJECT INFORMATION

Road No./County:	US 41 and State Road (SR) 352, Benton County
Designation Number(s):	2100058
Project Description/Termini:	US 41 and SR 352 Reduced Conflict Intersection (RCI), 4.1 miles north of SR 26

[X] **CE Level 1 documentation for exempted projects**

[ ] **Additional Information to CE Level 1**

Approval: 1/30/2026
INDOT DE/ESD Signature and Date

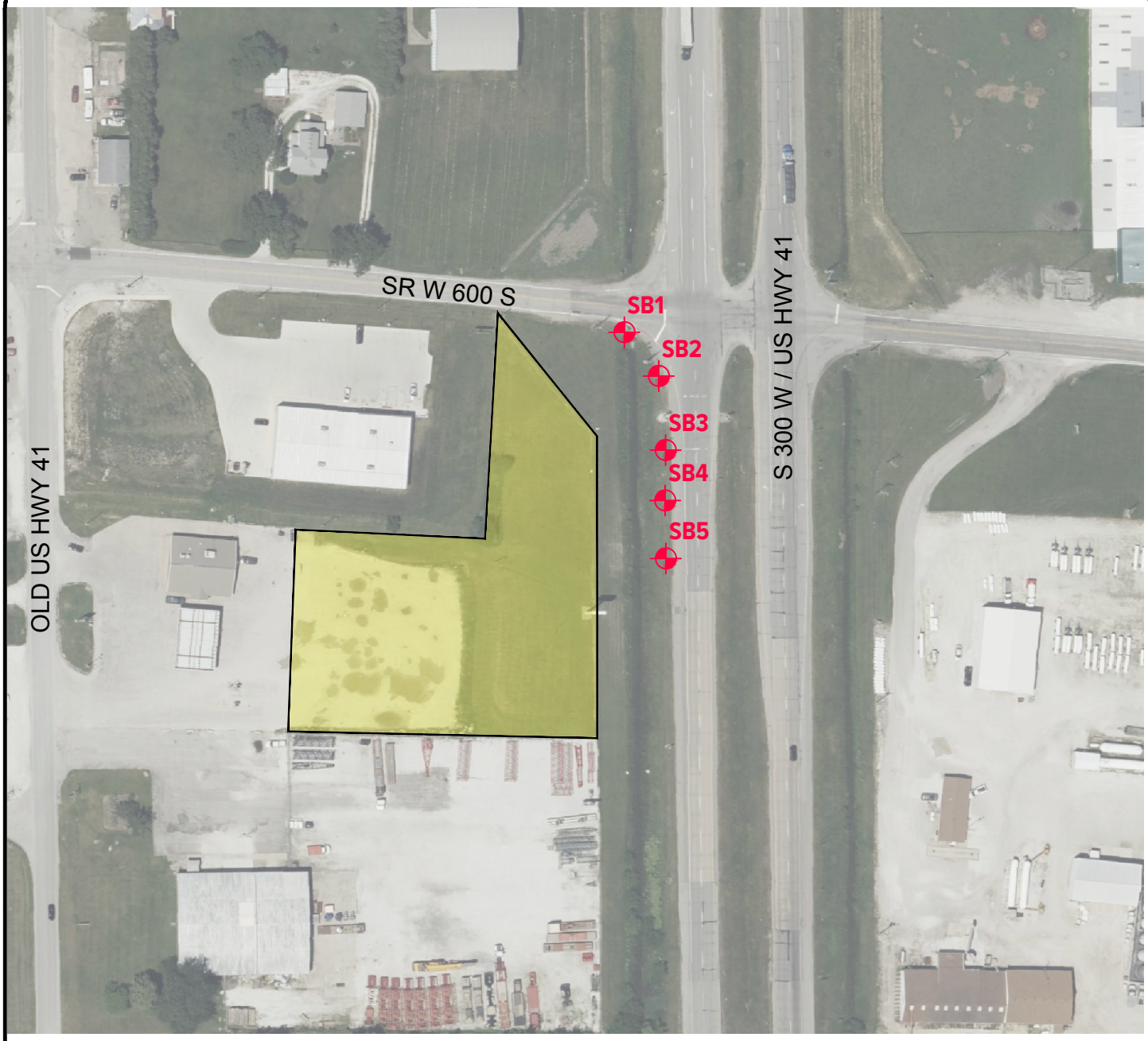
Release for Public Involvement: RF 12/13/2024
INDOT DE/ESD Initials and Date

Certification of Public involvement: Jessica K. Miller 10/27/2025
INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer:
Signature and Date

CE Preparer: Rosemary Snyder and Jennifer Rhodes, ASC Group, Inc.
Name and Organization

Docusign Envelope ID: E92F0B03-CB3F-8625-8367-5668058B57DC



LEGEND

FORMER BOSWELL DUMP

APPROXIMATE SOIL BORING LOCATION

0' 150' 300'

GRAPHIC SCALE: 1" = 150'

N W E S

NOTE:
1. BASE DRAWING INFORMATION TAKEN FROM BING MAPS WITH A CLIPPED IMAGE DATE ON 04-02-2026 AND SITE RECONNAISSANCE.

No.	Revision Date		
		Date	04-16-2026
		CADD	J. BLAKE
		Designer	M. CLINE
		Project No.	092189.20

DRAWING NOTE: SCALE DEPICTED IS MEANT FOR 8.5"x11" AND WILL SCALE INCORRECTLY IF PRINTED ON ANY OTHER SIZE MEDIA

SOIL BORING LOCATION DIAGRAM
FORMER BOSWELL DUMP
INTERSECTION OF US 41 AND SR 352
BOSWELL, INDIANA

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Attachment A

PLOT DATE: April 16, 2026 - 11:39 AM - julie.blake

FILE LOCATION: \\sme-inc\pz\WIP\092189.20\CAD\Design Files\ENV\Rev1\092189.20-SB.dwg

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BORING SB1

BORING DEPTH: 5 FEET

PROJECT NAME: Limited Site Investigation, Former Boswell Dump
PROJECT NUMBER: 092189.20
CLIENT: Indiana Department of Transportation
PROJECT LOCATION: Boswell, Indiana
DATE STARTED: 3/24/26 **COMPLETED:** 3/24/26
BORING METHOD: Direct Push
OPERATOR: SCS **RIG NO.:** Geoprobe
LOGGED BY: Keegan Lawhead **CHECKED BY:**

ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	METHANE (% by volume)	SOIL ANALYTICAL SAMPLE ANALYZED	REMARKS
0.0	TOPSOIL- Brown						
0.5	FILL- Medium GRAVEL with Sand- Gray- Moist (GP)			<1	0		
1.3	FILL- LEAN CLAY with Gravel- Dark Brown (CL)						
2.5	FILL- Medium GRAVEL with Clay- Dark Brown to Gray- Moist (GP-GC)	LS1	31				
2.8	LEAN CLAY- Brown (CL)			<1	0		
5.0	END OF BORING AT 5.0 FEET.			<1	0		

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Soil Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
3. Listed depths under the profile description are rounded to the nearest tenth of a foot (e.g. 5.75 = 5.8). Refer to the report and attachments for actual sample depths and/or intervals (where applicable).
4. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
5. No odors noted and no staining observed.

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BORING SB2

BORING DEPTH: 5 FEET

PROJECT NAME: Limited Site Investigation, Former Boswell Dump
PROJECT NUMBER: 092189.20
CLIENT: Indiana Department of Transportation
PROJECT LOCATION: Boswell, Indiana

DATE STARTED: 3/24/26 **COMPLETED:** 3/24/26 **BORING METHOD:** Direct Push

OPERATOR: SCS **RIG NO.:** Geoprobe **LOGGED BY:** Keegan Lawhead **CHECKED BY:**

DEPTH (FEET)	SYMBOLIC PROFILE	ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	METHANE (% by volume)	SOIL ANALYTICAL SAMPLE ANALYZED	REMARKS
0.0		TOPSOIL- Dark Brown (0.3)						
		FILL- Medium GRAVEL with Sand- Dark Brown to Gray- Moist (GP) (1.0)			<1	0		
		FILL- SILTY CLAY- Brown Mottled to Gray (CL/ML) (2.0)						
2.5		CLAYEY SILT- Dark Brown (ML/CL) (5.0)	LS1	34	<1	0		
5.0		END OF BORING AT 5.0 FEET.						

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Soil Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
3. Listed depths under the profile description are rounded to the nearest tenth of a foot (e.g. 5.75 = 5.8). Refer to the report and attachments for actual sample depths and/or intervals (where applicable).
4. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
5. No odors noted and no staining observed.

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BORING SB3

BORING DEPTH: 5 FEET

PROJECT NAME: Limited Site Investigation, Former Boswell Dump
PROJECT NUMBER: 092189.20
CLIENT: Indiana Department of Transportation
PROJECT LOCATION: Boswell, Indiana

DATE STARTED: 3/24/26 **COMPLETED:** 3/24/26 **BORING METHOD:** Direct Push

OPERATOR: SCS **RIG NO.:** Geoprobe **LOGGED BY:** Keegan Lawhead **CHECKED BY:**

ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	METHANE (% by volume)	SOIL ANALYTICAL SAMPLE ANALYZED	REMARKS
0.0	TOPSOIL- Dark Brown (0.3)						
	FILL- LEAN CLAY with Gravel- Dark Brown to Gray (CL) (1.0)			<1	0		
	LEAN CLAY- Brown (CL) (2.0)						
2.5	SILTY CLAY- Dark Brown (CL/ML) (4.0)	LS1	37	<1	0		
	CLAYEY SILT- Black (ML/CL) (5.0)						
5.0	END OF BORING AT 5.0 FEET.			<1	0		

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Soil Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
3. Listed depths under the profile description are rounded to the nearest tenth of a foot (e.g. 5.75 = 5.8). Refer to the report and attachments for actual sample depths and/or intervals (where applicable).
4. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
5. No odors noted and no staining observed.

Docusign Envelope ID: E92F0B03-CB3F-8625-8367-5668058B57DC

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BORING SB4

BORING DEPTH: 5 FEET

PROJECT NAME: Limited Site Investigation, Former Boswell Dump
PROJECT NUMBER: 092189.20
CLIENT: Indiana Department of Transportation
PROJECT LOCATION: Boswell, Indiana

DATE STARTED: 3/24/26 **COMPLETED:** 3/24/26 **BORING METHOD:** Direct Push

OPERATOR: SCS **RIG NO.:** Geoprobe **LOGGED BY:** Keegan Lawhead **CHECKED BY:**

DEPTH (FEET)	SYMBOLIC PROFILE	ELEVATION: Not Surveyed PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	METHANE (% by volume)	SOIL ANALYTICAL SAMPLE ANALYZED	REMARKS
0.0		TOPSOIL- Brown						
0.3		FILL- CLAYEY SILT with Gravel- Brown (ML/CL)			<1	0		
1.0		SILTY CLAY- Brown (CL/ML)	LS1	32				
2.5		LEAN CLAY- Brown (CL)			<1	0		
4.0		CLAYEY SILT- Dark Brown to Black (ML/CL)	LS2	9				
5.0		END OF BORING AT 5.0 FEET.			<1	0		

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Soil Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
3. Listed depths under the profile description are rounded to the nearest tenth of a foot (e.g. 5.75 = 5.8). Refer to the report and attachments for actual sample depths and/or intervals (where applicable).
4. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
5. No odors noted and no staining observed.

Docusign Envelope ID: E92F0B03-CB3F-8625-8367-5668058B57DC

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BORING SB5

BORING DEPTH: 5 FEET

PROJECT NAME: Limited Site Investigation, Former Boswell Dump
PROJECT NUMBER: 092189.20
CLIENT: Indiana Department of Transportation
PROJECT LOCATION: Boswell, Indiana

DATE STARTED: 3/24/26 **COMPLETED:** 3/24/26 **BORING METHOD:** Direct Push

OPERATOR: SCS **RIG NO.:** Geoprobe **LOGGED BY:** Keegan Lawhead **CHECKED BY:**

ELEVATION: Not Surveyed

DEPTH (FEET)	PROFILE DESCRIPTION	SAMPLE TYPE/NO. INTERVAL	RECOVERY (inches)	PID (ppm)	METHANE (% by volume)	SOIL ANALYTICAL SAMPLE ANALYZED	REMARKS
0.0	TOPSOIL- Brown (0.3)						
	FILL- Medium GRAVEL with Sand- Brown to Dark Brown- Moist (GP) (1.0)			<1	0		
	SILTY CLAY- Brown (CL/ML) (2.0)						
2.5	LEAN CLAY- Dark Brown (CL) (4.0)	LS1	42	<1	0		
	CLAYEY SILT- Black (ML/CL) (5.0)						
5.0	END OF BORING AT 5.0 FEET.			<1	0		

GROUNDWATER & BACKFILL INFORMATION

GROUNDWATER WAS NOT ENCOUNTERED

BACKFILL METHOD: Soil Cuttings

NOTES:
1. Soil samples were classified according to ASTM D2488, Standard Practice for Description and Identification of Soils (Visual-Manual Procedure) for environmental purposes only. Therefore, the boring logs and associated report(s) should not be used for geotechnical evaluation or design.
2. The indicated stratification lines are approximate. The in-situ transitions between materials may be gradual.
3. Listed depths under the profile description are rounded to the nearest tenth of a foot (e.g. 5.75 = 5.8). Refer to the report and attachments for actual sample depths and/or intervals (where applicable).
4. The colors depicted on the symbolic profile are solely for visualization purposes and do not necessarily represent the in-situ colors encountered.
5. No odors noted and no staining observed.

APPENDIX B: INDOT CONCURANCE

Shámpaygne Jeffries

From: Davis, Dariane <DDavis3@indot.IN.gov>
Sent: Friday, May 15, 2026 11:03 AM
To: 'Mitch Cline'
Cc: Barnes, Tracy; Massing, Jessica; Harkrider, Marcy
Subject: RE: Des 2100058 - Boswell Dump Memo

Hi Mitch,

Thank you for the document! I've read through it and concur. Good to go!
Des 2100058 - Boswell Dump Memo - 092189.20_APR222026_MEMO_Concur_DD_05.15.2026.pdf

Dariane Davis
Senior Environmental Manager, Site Assessment & Management (SAM) Team
100 North Senate Avenue N758-ES
Indianapolis, Indiana 46204
Email: ddavis3@indot.in.gov
Office Hours:
6 AM – 4 PM
Tuesday - Friday



From: Mitch Cline <mitch.cline@sme-usa.com>
Sent: Friday, April 24, 2026 10:00 AM
To: Davis, Dariane <DDavis3@indot.IN.gov>; Barnes, Tracy <TraBarnes@indot.IN.gov>
Subject: Des 2100058 - Boswell Dump Memo

EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Hi Dariane and Tracy,

I have uploaded the memo documenting our assessment associated with the Former Boswell Dump (Des 2100058). As previously discussed, we did not observe evidence of waste or contamination during the assessment. Let me know if you have any questions!

Soil and Materials Engineers, Inc.

Thanks,
Mitch

Mitch Cline, LPG, PG (IN, AL, SC, KY) | Project Geologist
11800 Exit 5 Parkway, Suite 106 | Fishers, Indiana 46037
317.876.0200 o | 515.509.4012 c | mitch.cline@sme-usa.com

GENERAL PROJECT INFORMATION, DESCRIPTION, AND DESIGN INFORMATION	
Purpose and Need:	**Need**: The need for this project is due to the US 41 and SR 352, 4.1 miles north of SR 26, in Grant Township, Benton County, Indiana experiencing an above normal number of crashes and crash severity for an unsignalized rural state intersection. Between 2015 and 2020, there were 13 crashes at this intersection with 1 being fatal. Three crashes had incapacitating injuries (where one party had to be transported to the hospital), two had non-incapacitating injuries, and seven had only property damages. The majority of the crashes were right-angle crashes (77 percent), while there were also rear end (15 percent) and driver distracted (8 percent) crashes. This intersection has an index crash frequency (ICF) of 0.57 and the Index of Crash Costs (ICC) of 1.01. An ICF and ICC above 0 and less than 1 indicates that the number of crashes and their severity are slightly higher than usual. The crash data shows that most of the crashes can be attributed to driver's failing to yield right-of-way (ROW) and not roadway features. All data for this project can be found in the Abbreviated Engineering Assessment located in Appendix I (Appendix I: I-8 to I-9). **Purpose**: The purpose of this project is to improve public safety by reducing the severity of crashes at this intersection and by reducing the number of right angle crashes, while possibly improving the ICF and ICC scores to less than 1.00.
Project Description (Preferred Alternative):	The Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) intend to proceed with an RCI project on US 41 and SR 352, along with drainage and lighting improvements. **Location** The project is located on US 41 and SR 352, 4.1 miles north of SR 26, in Sections 18 and 19, Township 24 North, Range 8 West, Grant Township, Benton County, Indiana (Appendix B: B-2 to B-4). Note: Some reports document the location as approximately 4 miles north of SR 26 and 7 miles south of SR 18. **Existing Conditions** This section of US 41 is a four-lane divided Rural - Principal Arterial roadway that contains two 12-foot (ft) wide travel lanes with 10-ft wide outside shoulders and 4-ft wide median shoulders in each direction. The speed limit along US 41 is 60 miles per hour (mph). This section of SR 352 is a two-lane undivided Rural - Major Collector roadway that contains two 11-ft wide travel lanes with 1-ft wide shoulders. The speed limit along SR 352 is 50 mph east of the intersection and 30 mph west of the intersection. There are two culverts within the project limits. A 36-inch (in.) diameter corrugated metal pipe (CMP) culvert (Structure No. 2; CLV-86826) is located under SR 352 west of US 41 and a 30-in. diameter polyvinyl chloride (PVC) pipe inside of a CMP culvert (Structure No. 3; CLV-86827) is located under SR 352 east of US 41. Multiple median inlets are located in the US 41 grass median, which drain east and west into the existing roadside ditches along US 41. No guardrail or other standard safety features exist at the intersection, but there is existing guardrail along US 41 southbound near the project's southern terminus. Land use in the vicinity of the project is a mostly commercial land with adjacent agricultural and residential lands. Between 2015 and 2020, there were 13 crashes at this intersection with 1 being fatal. Three crashes had incapacitating injuries (where one party had to be transported to the hospital), two had non-incapacitating injuries, and seven had only property damages.

The majority of the crashes were right-angle crashes (77 percent), while there were also rear end (15 percent) and driver distracted (8 percent) crashes. This intersection has an ICF of 0.57 and the ICC of 1.01. An ICF and ICC above 0 and less than 1 indicates that the number of crashes and their severity are slightly higher than usual. The crash data shows that most of the crashes can be attributed to driver's failing to yield ROW and not roadway features (Appendix I: I-8 to I-9).

Preferred Alternative

The preferred alternative will construct an RCI at the US 41 and SR 352 intersection. This type of intersection will eliminate the left turn and through movements from the SR 352 approaches. To accommodate these movements, the RCI intersection will require SR 352 drivers to turn right onto the US 41 and then make a U-turn maneuver at a one-way median opening at least 400 ft after the intersection in both directions. US 41 traffic will still be allowed to turn left on SR 352. The US 41 and SR 352 roadways will be milled and resurfaced after the completion of adding the median U-turns and center medians.

Lighting will be added throughout the project area. Two 30-ft tall light poles will be removed and replaced with 40-ft tall light poles. An existing traffic signal at the intersection will be removed. Signage will be installed regarding new traffic movements.

Both of the SR 352 culverts will be extended with circular pipes. Structure No. CLV-86826 will be extended 16 ft south and 24 ft north of SR 352. Structure No. CLV-86827 will be extended 24 ft south and 16 ft north of SR 352. There will also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median. Several small structures are located in the project area and will require varying levels of work. Additional details about these structures can be found in the Bridge(s) and/or Small Structure(s) section of this document.

A temporary pump-around dewatering system that will utilize two temporary cofferdams, which will be placed on the east side of US 41 with one north and one south of SR 352. Temporary check dams, curb inlet protection, ditch inlet protection, and pipe inlet protection will also be utilized. Pump-arounds will be utilized on both sides of US 41. The cofferdams and pump-around system are temporary and will be removed after construction is completed.

The preferred alternative will require impacts to resources. These anticipated impacts include terrestrial habitat impacts, due to soil excavation and tree removal. Detailed information regarding these anticipated impacts can be found in the Identification and Evaluation of Impacts portion of this document. Measures have been incorporated at various stages of this project to avoid, minimize, or mitigate impacts to resources. These include measures to protect terrestrial habitat from soil impacts due to excavation and construction access and to protect trees that may provide suitable habitat to protected bat species. Plans can be found in Appendix B (Appendix B: B-12 to B-33).

The project will meet the purpose and need by decreasing the severity of crashes and decreasing the number of right-angle crashes. The approximate termini for this project extends 925 ft north and 724 ft south of SR 352 for a total project length of 0.313 mile. The termini were developed to be centered on the preferred alternative and will be limited to only what is required for construction and to satisfy the purpose and need.

	This project has independent utility because it does not rely on any other projects for completion. The maintenance of traffic (MOT) for the project will require phased lane closures for US 41 and SR 352. Two-way traffic will be maintained during construction. Full details of the MOT can be found in the MOT During Construction section of this document and in Appendix B (Appendix B: B-15 to B-24).
Other Alternatives Considered:	The other alternatives that were considered for this project are listed in this section. Additional details regarding the following alternatives can be found in the Abbreviated Engineering Assessment located in Appendix I (Appendix I: I-9 to I-12). **No Build Alternative** The no-build alternative would have included no changes to either the existing geometry or the roadside features. This alternative would not have reduced the severity of crashes and would not have met the purpose and need. Therefore, this alternative has been dismissed from further consideration. **Low Cost Alternative – Install a Traffic Signal** Traffic signal warrants have been checked by District Traffic personnel who found a signal is not warranted for this location. Installing an unwarranted signal would have caused excessive delay, higher crash rates, and may have resulted in disobedience of the traffic signal in this rural area. This alternative would not have met the purpose and need. Therefore, this alternative has been dismissed from further consideration. **Reconstruction Alternative – Median U-Turn Intersection** The Median U-Turn (MUT) Intersection is also known as the Median U-Turn Crossover and sometimes referred to as a Michigan Left Turn. The MUT intersection would have replaced the direct left turns at the intersection with indirect left turns using a U-turn movement in a wide median. The MUT intersection would have required drivers on SR 352 to turn right onto US 41 and then make a U-turn maneuver at a one-way median opening at least 400 ft after the intersection. The MUT intersection would have eliminated left turns on SR 352 from US 41 and thus reduced the number of conflict points at the main crossing intersection, it would have resulted in improved safety at the intersection. Right turn lanes would have been incorporated into the design, but they would not have been required; this would have separated the through vehicles from the turning vehicles. The addition of the right turning lanes were included in the cost estimate. This alternative would have been un-signalized. US 41 and SR 352 would have been milled and resurfaced after the completion of the added median U-turns. Although this alternative would have met the purpose and need, due to the additional cost and additional traffic impacts, this alternative has been dismissed from further consideration. **Reconstruction Alternative – Multi-Lane Roundabout** This alternative would have consisted of a multi-lane roundabout that would have followed the design standards. Multi-lane roundabouts have at least one entry with two or more lanes. SR 352 would have been widened to two entry lanes to allow more vehicles to enter the roundabout. The geometric design would have included raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection. Since US 41 and the east leg of SR 352 are high speed roadways, a series of curves would have been designed leading up to the roundabout to reduce the speed of vehicles. US 41 and SR 352 would have been milled and resurfaced after the completion of the roundabout. It is anticipated that this alternative would have received

	political opposition from local stakeholders, the public, and truck drivers who drive this road regularly. The MOT would have been more difficult for the roundabout and ROW would have been required. Since the roundabout would have had a larger footprint at the intersection, more drainage analysis would have been required and more grading would have been expected. The roundabout would have had significantly higher construction costs compared to the other reconstruction alternatives. Although this alternative would have met the purpose and need, due to the additional cost and additional traffic impacts, this alternative has been dismissed from further consideration.			
Funding Source(s):	[X] Federal	[X] State	[ ] Local	[ ] Other
Project Sponsor:	INDOT			
Estimated Cost:	$1,557,000	**Project Length:**	0.311	
Public Involvement:			**No:**	**Yes: X**

Notice of Survey letters were mailed to potentially affected property owners near the project area on January 6, 2023, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Survey letter is included in Appendix G (Appendix G: G-2).

The project met the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Project Development Public Involvement Procedures Manual* which requires the project sponsor to offer the public an opportunity to submit comments and/or request a public hearing. Therefore, a legal notice appeared in *Benton Review* on June 11 and 18, 2025. Notices of the hearing were mailed or emailed to impacted project owners, local agencies and officials, and appropriate early coordination stakeholders. The public commenting period closed on July 9, 2025. The preliminary design plans and CE document were made available on the INDOT website (https://www.in.gov/indot/about-indot/central-office/welcome-to-the-crawfordsvilledistrict/) and in person at the Boswell-Grant Township Public Library or INDOT Crawfordsville District Office.

A legal notice was sent to project stakeholders on June 18, 2025. The public commenting period closed on July 9, 2025. The certification of public involvement was received on October 27, 2025. The public notice, proof of publication, legal notice, and comments are located in Appendix G (Appendix G: G-5 to G-57).

Public Hearing Information:
A public hearing was held on June 25, 2025. It consisted of a 30-minute presentation followed by an open house where the project team presented their findings in depth, answered one-on-one questions and received feedback from the public. A copy of the legal notice, slide show, map boards, sign-in sheet, a handout available at the hearing, and hearing transcription can be found in Appendix G (Appendix G: G-5 to G-47). Several comments were received at the hearing.

Comments:
Several people had comments at the public meeting on June 25, 2025 (Appendix G: G-26 to G-57). Comments ranged from wanting no action/change, adding a traffic light at the intersection, lowering the speed limit along the stretch of US 41 that passes through Boswell, concerns that the proposed J-turn would not accommodate larger trucks and cranes, concerns that the proposed J-turn will create more safety issues and confusion among drivers, and concerns that the proposed J-turn would create negative economic impact for the area.

Corresponding responses to those comments ranged from taking no action/change would not address safety concerns or crash severity at the intersection, a traffic light is not warranted and would lead to excessive delays and higher crash rates than the preferred alternative, lowering the speed does not simplify the decisions needed to be made by drivers or fully address the intersection sight distance, the preferred alternative will accommodate tractor-trailers, farm equipment, and crane trucks to allow for proper turning maneuvers, the preferred alternative will simplify driver

decisions and therefore reduce the risk of collisions, and the proposed roadway geometry will permit all turning movements from local stakeholders and businesses and will not reduce access. Please see Appendix G, pages G-26 to G-57 for specific designer responses to public comments.

All public involvement inquiries have been satisfied. A Notice of Approved Environmental Document (Notice of Project Advancement) is required after approval of this CE. Notification will be made through the same means as the Notice of Public Hearing, including publishing in the Benton Review newspaper, mailing and emailing notices to early coordination recipients, consulting parties, stakeholders, and property owners, and updating the project website to include this notice and the approved CE.

Right-of-Way:	**No: X**	**Yes:**

The existing ROW is approximately 130–145 ft on each side of the US 41 centerline and 25 ft on each side of the SR 352 centerline throughout the project area. The existing ROW consists of mowed and maintained ROW along commercial properties.

The project will occur within existing ROW. No permanent or temporary ROW will be required for this project.

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

Maintenance of Traffic (MOT) During Construction:	**No:**	**Yes: X**

The MOT for the project will require phased lane closures for US 41 and SR 352. The early coordination letter stated that there would be an eventual roadway closure and restrictions for SR 352 with a detour utilizing SR 26, SR 55, and US 41. However, INDOT has requested that both roads remain open throughout construction. Two-way traffic will now be maintained throughout construction.

- Phase 1: This phase will close the right lane of US 41 northbound and the right lane of US 41 southbound.
- Phase 2: This phase will close the left/interior lanes of US 41 south and north of the SR 352 intersection and will construct both the southern and northern U-turn lanes and sections in the median.
- Phase 3: This phase will close the left/interior lanes of US 41 at and near the SR 352 intersection and construct the restricted crossing left turns at the intersection. Traffic will use the newly constructed U-turns constructed during Phase 2 in order to make left turns onto SR 352 from both directions.
- Phase 4: This phase will begin construction on SR 352 including pavement widening as shown on the plans. Work will include Phases 4A and 4B, which will reconstruct the approaches and keep two-way traffic open.

The MOT will be in place for approximately 6 months with each phase lasting an estimated 1–2 months. The MOT plan can be found in Appendix B (Appendix B: B-15 to B-24).

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

Bridge(s) and/or Small Structure(s) (include structure number(s)):	**No:**	**Yes: X**

There are two culverts within the project limits. A 36-in. diameter CMP culvert (Structure Nos. 105; CLV-86826) is located under SR 352 west of US 41 and a 30-in. diameter PVC pipe inside of a CMP culvert (Structure Nos. 104; CLV-86827) is located under SR 352 east of US 41. Structure No. CLV-86826 will be extended 16 ft south and 24 ft north of US 41 (Structure Nos. 203 and 205). Structure No. CLV-86827 will be extended 24 ft south and 11 ft north of US 41 (Structure Nos. 202 and 204).

Multiple median inlets are located in the US 41 grass median, which drain east and west into the existing roadside ditches along US 41. There will be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median. Median underdrains will be relocated.

There are several small structures near the project location. Structures 100–102 are marked as "Do Not Disturb." Structures 103 and 106 are existing catch basins that will be removed and the pipe plugged. Structure 107 is an existing basin that will be removed.

There are several added structures within the project area.

- Structure 200 will add an inlet along with a 90-ft long 18-inch pipe.
- Structure 201 will add an inlet along with a 90-ft long 18-inch pipe.
- Structure 201A will add an inlet along with a 6-ft long 18-inch pipe.
- Structure 206 will add an inlet along with a 78-ft long 24-inch pipe.
- Structure 206A will add an inlet along with a 6-ft long 24-inch pipe.
- Structure 207 will add an inlet along with a 66-ft long 24-inch pipe.
- Structure 207A will add an inlet along with a 6-ft long 24-inch pipe.

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

IDENTIFICATION AND EVALUATION OF IMPACTS

Early Coordination:

Early coordination letters were sent on February 2, 2024 (Appendix C: C-2 to C-5). Additional coordination letters were sent on October 27, 2023.

Agency	Date Sent	Date Response Received	Appendix
Indiana Department of Environmental Management (IDEM) Wellheads	February 2, 2024	February 14, 2024	Appendix C: C-11 to C-13
Indiana Geological and Water Survey (IGWS) (Completed online via the website)	October 27, 2023	October 27, 2023	Appendix C: C-6 to C-8
Indiana Department of Natural Resources-Division of Fish and Wildlife (IDNR-DFW)	February 2, 2024	March 1, 2024	Appendix C: C-14 to C-16
U.S. Department of Housing and Urban Development	February 2, 2024	No response received	N/A
INDOT Crawfordsville District – Environmental Section Manager	February 2, 2024	No response received	N/A
INDOT Crawfordsville District – Project Manager	February 2, 2024	No response received	N/A
INDOT – Office of Aviation	February 2, 2024	February 5, 2024	Appendix C: C-9
Natural Resources Conservation Service (NRCS)	February 2, 2024	February 13, 2024	Appendix C: C-10
Benton County Council	February 2, 2024	No response received	N/A
Benton County Commissioner Members	February 2, 2024	No response received	N/A
Benton County Highway Supervisor	February 2, 2024	No response received	N/A
Benton County Surveyor	February 2, 2024	No response received	N/A
Town of Boswell Council President	February 2, 2024	No response received	N/A
Town of Boswell Street/Water Department	February 2, 2024	No response received	N/A
Benton Community Schools	February 2, 2024	No response received	N/A
Benton County Sheriff's Department & Jail	February 2, 2024	No response received	N/A
Benton County Emergency Services	February 2, 2024	No response received	N/A
Boswell-Grant Township Fire Department	February 2, 2024	No response received	N/A
Boswell Water Department	July 15, 2024	No response received	N/A

RE: Wellhead Protection Area			
INDOT Utilities and Railroads **Red Flag Investigation (RFI) RE: One Kankakee Beaverville and Southern Railroad Segment Adjacent to Project and RE: One Northern Indiana Public Service Co. Pipeline Segment Within the Project**	July 15, 2024	No response received	N/A
IDEM Office of Land Quality **RFI RE: Antique Landfill – Boswell Dump Adjacent to Project**	July 15, 2024	July 24, 2024	Appendix C: C-41 to C-42
Dollar General Store 21911 **RFI RE: National Pollutant Discharge Elimination System (NPDES) Facility – Dollar Store Adjacent to Project**	July 15, 2024	No response received	N/A
U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) Species List	August 16, 2024	August 16, 2024	Appendix C: C-17 to C-27
USFWS IPaC Concurrence Verification Letter	March 21, 2024	March 21, 2024	Appendix C: C-28 to C-39

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

Streams, Rivers, and Other Jurisdictional Features Impacted:	**No: X**	**Yes:**

Based on the desktop review, the aerial map of the project area (Appendix B: B-4), and the RFI report (Appendix E: E-2 to E-12), there are 13 river and stream segments mapped within the 0.5-mile search radius. There are no streams, rivers, watercourses, or other jurisdictional features mapped within or adjacent to the project area, which was confirmed by the site visit on August 22, 2023, by ASC Group, Inc. Therefore, no impacts are expected.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT Ecology, Waterway Permitting, & Stormwater Office (EWPSO) on March 5, 2024. Please refer to Appendix F (Appendix F: F-2 to F-90) for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no streams and four roadside ditches (RSDs 1–4) were present within the project area. All of the RSDs are entirely within the exiting ROW, flow from north to south, and were constructed to convey US 41's stormwater runoff. The RSDs are all artificial and maintained grassed swales located both east and west, as well as within the median of US 41 (Appendix F: F-22 to F-23). The NHD shows blue line features confluencing with RSDs 2 and 4 both within the project area and upstream. Additionally, the Boswell, Indiana quadrangle (USGS 7.5' topographic map) shows the RSDs on both the east and west side of US 41 as blue line features. During the field investigation, no such surface water features or stormwater outlets were observed upstream providing significant hydrology to the RSDs. It is unlikely that the RSDs found within the project area are captured streams. No ordinary high water mark was observed within any of the RSDs. The RSDs are likely non-jurisdictional, artificial roadside drainage features. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Open Water Feature(s):	**No: X**	**Yes:**

Based on the desktop review, the aerial map of the project area (Appendix B: B-4), and the RFI report (Appendix E: E-2 to E-12), there is one open water feature mapped within the 0.5-mile search radius. There are no open water features mapped within or adjacent to the project area, which was confirmed by the site visit on August 22, 2023, by ASC Group, Inc. Therefore, no impacts are expected.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT EWPSO on March 5, 2024. Please refer to Appendix F (Appendix F: F-2 to F-90) for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that no open water features were observed in the project area. Therefore, no impacts to open water features will occur.

Wetlands:	**No:**	**Yes: X**

Based on the desktop review, the aerial map of the project area (Appendix B: B-4), and the RFI report (Appendix E: E-2 to E-12), there are two wetlands mapped within the 0.5-mile search radius. There are no wetlands mapped within or adjacent to the project area. That number was updated to five wetlands are present within the project area by the site visit on August 22, 2023, by ASC Group, Inc.

A *Waters of the U.S. Determination/Wetland Delineation Report* was approved by INDOT EWPSO on March 5, 2024. Please refer to Appendix F (Appendix F: F-2 to F-90) for the *Waters of the U.S. Determination/Wetland Delineation Report*. It was determined that five poor quality, emergent (PEM1C) wetlands (Wetlands A–E) are present within the project area.

- Wetland A is a 0.048 acre wetland located west of US 41 and north of SR 352, on the western border of the project area. The wetland is part of drainageway where hydrology flows through Wetland B, through a railroad culvert at the southern edge of the project area, and eventually discharges into a relatively permanent water (RPW), Goose Creek. Due to the connectivity to a RPW, Wetland A is likely a jurisdictional Water of the U.S. (WOTUS). The dominant species in Wetland A were sandbar willow (*Salix interior*) and narrowleaf cattail (*Typha angustifolia*).
- Wetland B is a 0.110 acre wetland located south of SR 352, and west of US 41, on the western border of the project area. The wetland is part of drainageway where hydrology flows through Wetland B, a railroad culvert at the southern edge of the project area, and eventually discharges into a RPW, Goose Creek. Due to the connectivity to a RPW, Wetland B is likely a jurisdictional WOTUS. The dominant species in Wetland B were sandbar willow (*Salix interior*) and narrowleaf cattail (*Typha angustifolia*).
- Wetland C is a 0.058 acre wetland located north of SR 352, and east of US 41, on the eastern border of the project area. Hydrology flows south through the road culvert, Wetland D, Wetland A, and eventually discharges into a RPW, Goose Creek. Due to the connectivity to a RPW, Wetland C is likely a jurisdictional WOTUS. The dominant species in Wetland C were silky dogwood (*Cornus amomum*) and reed canary grass (*Phalaris arundinacea*).
- Wetland D is a 0.094 acre wetland located south of SR 352, east of US 41, on the eastern border of the project area. Hydrology flows through Wetland A, and eventually discharges into a RPW, Goose Creek. Due to the connectivity to a RPW, Wetland D is likely a jurisdictional WOTUS. The dominant species in Wetland D were silky dogwood (*Cornus amomum*) and reed canary grass (*Phalaris arundinacea*).
- Wetland E is a 0.010 acre wetland located within the US 41 median, north of SR 352. Hydrology flows through Wetland E, Wetland A, and eventually discharges into a RPW, Goose Creek. Due to the connectivity to a RPW, Wetland E is likely a jurisdictional WOTUS. The dominant species in Wetland E were cockspur grass (*Echinochloa crus-galli*), narrowleaf cattail (*Typha angustifolia*), and redtop grass (*Agrostis gigantea*).

The USACE makes all final determinations regarding jurisdiction.

The project will require impacts to the wetlands due to work for the culvert extensions and placement of riprap. Measures have been incorporated at various stages of this project to avoid, minimize, or mitigate impacts. These include measures to limit the lengths of outlet pipes to avoid impacting the wetlands located in the outside ditches adjacent to US 41. Approximately 0.025 acre of permanent impacts (Wetland A = 0.0033 acre, Wetland B = 0.0039 acre, Wetland C = 0.0030 acre, Wetland D = 0.0046 acre, and Wetland E = 0.0102 acre (completely filled)) and 0.0052 acre of temporary impacts (Wetland A = 0.0016 acre, Wetland B = 0.0008 acre, Wetland C = 0.0019 acre, Wetland D = 0.0009 acre, and Wetland E = N/A) are expected to Wetlands A–E from culvert work, riprap, and construction access. Wetlands A–E will be included on the plans. These impacts are unavoidable because this work is required to complete the culvert installation/extension, riprap placement, and construction access. The portions of Wetlands A–D to remain undisturbed by construction will be labeled on the plans as "Do Not Disturb." This has been added as a firm commitment and is included in the Environmental Commitments section of this CE document. Mitigation will be determined during permitting, but is not anticipated at this time. IDEM 401/USACE 404 Clean Water Act permits will likely be required.

IDNR-DFW responded with a signed letter on March 1, 2024, with standard recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and to compensate for impacts (Appendix C: C-14 to C-16).

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

Terrestrial Habitat:	**No:**	**Yes: X**

Based on a desktop review, a site visit on August 22, 2023, by ASC Group, Inc., and the aerial map of the project area (Appendix B: B-4), there is commercial and maintained ROW land. The dominant species observed within the project area include red fescue (*Festuca rubra*), perennial rye grass (*Lolium perenne*), reed canary grass (*Phalaris arundinacea*), smooth brome (*Bromus inermis*), tall false rye grass (*Schedonorus arundinaceus*), sandbar willow (*Salix interior*), narrow-leaf cat-tail (*Typha angustifolia*), white mulberry (*Morus alba*), large barnyard grass (*Echinochloa crus-galli*), whorled milkweed (*Asclepias verticillata*), black walnut (*Juglans nigra*), ash-leaf maple (*Acer negundo*), white ash (*Fraxinus americana*), eastern poison ivy (*Toxicodendron radicans*), orchard grass (*Dactylis glomerata*), silky dogwood (*Cornus amomum*), crown vetch (*Securigera varia*), Indiana goose grass (*Eleusine indica*), and black bent (*Agrostis gigantea*).

No tree trimming or removal is required for this project. The project will take place within existing ROW. The project will require impacts to terrestrial habitat. Measures have been incorporated at various stages of this project to avoid, minimize, or mitigate impacts. These include measures to protect terrestrial habitat from soil impacts due to excavation and construction access and to protect trees that may provide suitable habitat to protected bat species. These impacts are unavoidable because this work is necessary to construct the median U-turns and to install/extend culverts. Mitigation is not anticipated. Approximately 2.38 acres of total soil disturbance is expected for the project. A Construction Stormwater General Permit, formerly known as the Rule 5 Permit, will be required due to the soil disturbance being greater than the 1-acre threshold.

IDNR-DFW responded with a signed letter on March 1, 2024, with standard recommendations to avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and to compensate for impacts (Appendix C: C-14 to C-16).

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

Protected Species:	**No:**	**Yes: X**

Based on a desktop review and the RFI report (Appendix E: E-2 to E-12), completed by ASC Group, Inc. on April 1, 2024, the IDNR Benton County Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR-DFW early coordination response letter signed on March 1, 2024 (Appendix C: C-14 to C-16), the National Heritage Program's Database has been checked and to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. An INDOT 0.5-mile bat review occurred on October 30, 2023, and no sites have been documented within 0.5-mile of the project area.

Project information was submitted through the USFWS's IPaC portal, and an official species list was generated (Appendix C: C-17 to C-27). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*). Other species were generated in the IPaC species list along with the Indiana bat. Refer to paragraph below.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. A culvert inspection of the 36-in. diameter CMP culvert (Structure Nos. 105; CLV-86826) occurred on August 22, 2023 and on June 25, 2025, and no evidence of birds or bats were found (Appendix C: C-40 to C-41). An effect determination key was completed on March 19, 2024, and based on the responses provided, the project was found to "may affect, but is not likely to adversely affect" the Indiana bat (Appendix C: C-28 to C-39). INDOT reviewed and verified the effect finding on March 21, 2024, and requested USFWS's review of the finding. No response was received from USFWS within the 14-day review period;

therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs) for this project include: General AMM 1 and Lighting AMM 1. AMMs and/or commitments are included as firm commitments in the Environmental Commitments section of this document.

The official species list generated from IPaC indicated five other species, tricolored bat (*Perimyotis subflavus*), whooping crane (*Grus americana*), salamander mussel (*Simpsonaias ambigua*), monarch butterfly (*Danaus plexippus*) and western regal fritillary (*Argynnis idalia occidentalis*) present within the project area. The tricolored bat and salamander mussel are listed as proposed endangered. The whooping crane is listed as experimental population, non-essential. The monarch butterfly is listed as a candidate species for inclusion as a federally listed endangered species. The western regal fritillary is listed as proposed threatened. These species are not listed as federally-threatened or federally-endangered; thus, an effect determination is not required at this time.

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

Geological and Mineral Resources:	**No: X**	**Yes:**

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated Indiana Karst Region as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo map of the project area (Appendix B: B-3) and the RFI report (Appendix E: E-2 to E-12), there are no karst features identified within or adjacent to the project area. In the early coordination response dated October 27, 2023, IGWS did not indicate that karst features exist in the project area (Appendix C: C-6 to C-8). IGWS stated that there is a moderate liquefication potential and a one percent annual chance flood hazard. There is a moderate potential for bedrock resources and a low potential for sand and gravel resources, with no active or abandoned mineral resources extraction sites documented in the project area. The response from IGWS has been communicated with the designer on May 3, 2024. No impacts are expected.

Drinking Water Resources:	**No:**	**Yes: X**

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

Wellhead Protection Area and Source Water
The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (https://www.in.gov/idem/cleanwater/pages/wellhead) was accessed on October 27, 2023, by ASC Group, Inc. This project is located within a Wellhead Protection Area. In an early coordination letter dated February 14, 2024, IDEM stated that the project is located within Boswell Water Department's Wellhead Protection Area (Appendix C: C-11 to C-13). An early coordination letter was sent to Boswell Water Department on July 15, 2024. No response was received within the 30-day time frame. The features will not be affected because they are located outside of the construction limits.

Water Wells
The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on January 9, 2023, by ASC Group, Inc. The closest well is 0.02 mile from the project area and is east of US 41, and north of SR 352. The feature will not be affected because it is not within the construction limits and the depth of excavation will not extend to the minimum water depth. Therefore, no impacts are expected. Should it be determined during the ROW phase that these wells will be affected, a cost to cure will likely be included in the appraisal to restore the well.

Urban Area Boundary

Based on a desktop review of https://entapps.indot.in.gov/MS4/ by ASC Group, Inc., and the RFI report (Appendix E: E-2 to E-12), this project is not located in an Urban Area Boundary. No impacts are expected.

Public Water System
Based on a desktop review, a site visit on August 22, 2023, by ASC Group, Inc., and the aerial map of the project area (Appendix B: B-4), this project is located where there is a public water system. The public water system will not be affected because there is minimal proposed construction below ground. Utility conflicts with the water line are not anticipated. Early coordination letter were sent on July 15, 2024, to Boswell Water Department. No response was received within the 30-day time frame.

Floodplains:	**No: X**	**Yes:**

The INDR Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appshp/fdms/) was accessed on October 27, 2023, by ASC Group, Inc. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F: F-91). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

Farmland:	**No: X**	**Yes:**

Based on a desktop review, a site visit on August 22, 2023, by ASC Group, Inc., and the aerial map of the project area (Appendix B: B-4), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on February 2, 2024, to NRCS. NRCS responded with a signed letter on February 13, 2024, stating that the project will not cause a conversion of prime farmland (Appendix C: C-10).

Cultural Resources:	**No: X**	**Yes:**

On July 3, 2024, the INDOT-Cultural Resources Office (CRO) determined that this project falls within the guidelines of Category B, Types 3 and 9 under the Minor Projects Programmatic Agreement (Appendix D: D-2 to D-8).

Category B, Type 3 projects include construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions: Condition A (Archaeological Resources): i. Work occurs in previously disturbed soils; and Condition B (Above-Ground Resources): Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Category B, Type 9 projects include the installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below: Condition A (Archaeological Resources): i. Work occurs in previously disturbed soils; and Condition B (Above-Ground Resources): i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following condition: a. The structure exhibits no wood, stone, or brick structures or parts therein.

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

Section 4(f) and Section 6(f) Resources:	**No: X**	**Yes:**

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

Based on a desktop review, the aerial map of the project area (Appendix B: B-4), and the RFI report (Appendix E: E-2 to E-12), there are four potential 4(f) resources located within the 0.5-mile search radius. According to additional research and by the site visit on August 22, 2023, by ASC Group, Inc., there are no Section 4(f) resources within or adjacent to the project area. Therefore, no use is expected.

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

A review of 6(f) properties on the INDOT ESD website revealed a total of one property in Benton County (Appendix I: I-2). This property is not located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

Air Quality:	**No: X**	**Yes:**

STIP/TIP
This project is included in the Fiscal Year (FY) 2026–2030 Statewide Transportation Improvement Program (STIP) (Appendix H: H-2).

Attainment Status
This project is located in Benton County, which is currently in attainment for all criteria pollutants according to the EPA's Greenbook website (https://www.epa.gov/green-book). Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

Community Impacts:	**No: X**	**Yes:**

Environmental Justice (EJ)
Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. This project will have no relocations and will require no permanent ROW; therefore, an EJ analysis is not required per the current INDOT Categorical Exclusions Manual.

Public Facilities and Services (e.g., schools, emergency services):	**No: X**	**Yes:**

Based on a desktop review, the aerial map of the project area (Appendix B: B-4), and the RFI report (Appendix E: E-2 to E-12), there are seven mapped public facilities within the 0.5-mile search radius. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on August 22, 2023, by ASC Group, Inc. Therefore, no impacts are expected. Access to all properties will be maintained during construction. There are public/private utilities located within the project area that will be impacted by construction. Coordination is on-going.

A pipeline segment (Northern Indiana Public Service Co.) and a railroad segment (Kankakee Beaverville and Southern Railroad) are within and adjacent to the project area. Early coordination letters were sent on February 2, 2024, to INDOT Utilities and Railroads. No response was received within the 30-day time frame.

INDOT Aviation responded on February 5, 2024, stating that no tall structure permit is required for the project if all equipment being used is under 200 ft in height (Appendix C: C-9). Coordination with the designer determined that the project will not include any work above 200 ft. Therefore, no impact to airspace is expected, and no further coordination is required.

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

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

Hazardous Materials and Regulated Substances:	**No: X**	**Yes:**

Based on a review of GIS and available public records, the RFI was completed on March 19, 2024, by ASC Group, Inc. and INDOT SAM provided their concurrence on April 1, 2024 (Appendix E: E-2 to E-12). Four Underground Storage Tank (UST) Sites, one Solid Waste Landfill, one Leaking Underground Storage Tank (LUST) Site, one Brownfield, three NPDES Facilities, and one NPDES Pipe Location are located within 0.5 mile of the project area. One UST Site, one Solid Waste Landfill, one Brownfield, and one NPDES Facility are located adjacent to and/or could affect the project area.

Solid Waste Landfill: One antique landfill, the Boswell Dump, is located 0.01 mile east of the eastern terminus of the project area. An early coordination letter was sent on July 15, 2024, to IDEM Office of Land Quality, Kim Vedder (kvedder@idem.in.gov) in order to determine if additional exploratory actions should occur that will require the submission of a Scope of Work to SAM for review and approval. IDEM Office of Land Quality responded on July 24, 2024, stating that the location is ambiguous and the dump is not fully integrated into their database yet. A 1973 inspection report indicates that the dump is a "Truck stop in Boswell" that is 400 ft east of US 41 with the nearest dwelling 400 ft north-northwest of the dump. However, in 1973, US 41 was west of where it is now, which is now Old US 41. There were two truck stops on the current US 41 and one is a low spot on the historic topographic maps and the other is the Brownfield project (Agency Interest (AI) ID # 111235). IDEM Office of Land Quality suspects that the dump is approximately where it is located on the attached map, but does not have proof. The project will be confined to existing right of way and no impact is anticipated. However, the following is recommended:

- Initial exploratory test pits or borings should be advanced to confirm or deny the presence of waste and its extent in the proposed area of work;
- If waste is excavated, it needs to be properly disposed of in a permitted municipal solid waste (MSW) Landfill. IDEM can provide guidance and approval for remediation/excavation or use of the dumps;
- Special attention should be given to leachate control during the excavation activity, including stormwater run-on and run-off controls for the excavated areas;
- Special attention should also be given to the potential for explosive gas to be present;
- All exposed waste not removed will need to be recovered with 2 ft of soil, graded and vegetated; and
- If roadway and/or culvert work is to be conducted over the dump, then we will need to see a workplan for review and approval, before work can commence (Appendix C: C-41 to C-42).

These have been added as firm commitments and are included in the Environmental Commitments section of this CE document.

Brownfield: The former Odle Trucking and Repair 4160101, 215 North Old US 41, AI ID # 111235, is located 0.06 mile west of the project area. The site was formerly operated as a truck repair shop, and USTs were installed and removed at unknown dates. This could be the location of J&P Produce, which is listed as being at the intersection of SR 352 and Old Highway 41, AI ID #5406. A notice was given to IDEM that 2–2,000 gallon gasoline USTs were planned for removal from the site in 1990. A third 3,000 gallon gasoline UST was listed on a 1988 notification form. No information was available on the removal. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

NPDES Facility: Dollar General Store 21911, 215 North Old US Highway 41, Permit #INRA05315, is located adjacent to the western terminus of the project area. The permit is in effect until September 30, 2028. An early coordination letter was sent on July 15, 2024, to Dollar General Store 21911. No response was received within the 30-day time frame and no impacts are anticipated.

Permits:	**No:**	**Yes: X**

A Construction Stormwater General Permit, formerly known as the Rule 5 Permit will be required due to the soil disturbance being greater than the 1-acre threshold.

IDEM 401/USACE 404 Clean Water Act permits will likely be required due to wetland impacts.

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

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

ENVIRONMENTAL COMMITMENTS:

Firm:

1) If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT District)
2) It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3) USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after June 25, 2027, an inspection of the 36-in. diameter CMP culvert (Structure Nos. 105; CLV-86826) by a qualified individual, must be performed. Inspection of the structure should check for the presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT District)
4) Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT EWPO)
5) The portions of Wetlands A–D to remain undisturbed by construction will be labeled on the plans as "Do Not Disturb." These wetlands will not be disturbed by any construction activities. (INDOT EWPO)
6) LIGHTING AMM 1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
7) GENERAL AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
8) A brownfield site was identified at the former Odle Trucking and Repair 4160101, 215 North Old US 41, AI ID # 111235. The site is located 0.06 mile west of the intersection of US 41 and SR 352. The site was formerly operated as a truck repair shop, and USTs were installed and removed at unknown dates. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination. (INDOT SAM)
9) An antique landfill, the Boswell Dump, is located 0.01 mile west of the eastern terminus of the project area. IDEM Office of Land Quality responded on July 24, 2024, stating that the dump location is ambiguous and the dump is not fully integrated into their database yet. Based on this information, the following is recommended:
    - Initial exploratory test pits or borings should be advanced to confirm or deny the presence of waste and its extent in the proposed area of work;
    - If waste is excavated, it needs to be properly disposed of in a permitted municipal solid waste (MSW) Landfill. IDEM can provide guidance and approval for remediation/excavation or use of the dumps;
    - Special attention should be given to leachate control during the excavation activity, including stormwater run-on and run-off controls for the excavated areas;

- Special attention should also be given to the potential for explosive gas to be present;
- All exposed waste not removed will need to be recovered with 2 ft of soil, graded and vegetated; and
- If roadway and/or culvert work is to be conducted over the dump, then we will need to see a workplan for review and approval, before work can commence. (IDEM Office of Land Quality)

10) A Notice of Approved Environmental Document (Notice of Project Advancement) is required after approval of this CE. Notification will be made through the same means as the Notice of Public Hearing, including publishing in the Benton Review newspaper, mailing and emailing notices to early coordination recipients, consulting parties, stakeholders, and property owners, and updating the project website to include this notice and the approved CE. (INDOT ESD)

For Consideration:

1) Pavement rehabilitation projects typically do not have a significant impact on fish, wildlife, and botanical resources if best management practices (BMPs) are in place to limit the migration of polycyclic aromatic hydrocarbons (PAHs) into local waterways. PAHs are a byproduct of asphalt and coal tar-based sealants and negatively impact aquatic systems. The use of sealants that are free of petroleum and coal tar-based products is encouraged whenever possible. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate. (IDNR-DFW)
2) Consider a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). The following links give a good overview of traditional and sustainable stormwater management systems and their pros and cons for consideration during the design of the proposed project: https://www.epa.gov/greeningepa/epa-facility-stormwater-management; https://www.epa.gov/greeningepa/stormwater-management-practices-epa-facilities. (IDNR-DFW)
3) The new structure must include wildlife passage appropriate for the type of replacement structure being proposed. Wildlife passage designs should include a smooth level pathway preferably 3 feet wide but a minimum of 1–2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety. (IDNR-DFW)
4) There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage: https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems, https://www.fs.usda.gov/wildlifecrossings/library/index.php, https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/, and https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf. (IDNR-DFW)
5) Consider using native plants for any proposed on-site landscaping and revegetation. The following is a link to information on landscaping with native plants on the Indiana Native Plant Society (INPS) website: https://indiananativeplants.org/landscaping/. (IDNR-DFW)

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APPENDIX A: INDOT SUPPORTING DOCUMENTATION

Threshold Chart

Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts[3]	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	USACE Individual 404 Permit[4]
Wetland Impacts[3]	No adverse impacts to wetlands	< 0.1 acre	-	< 1.0 acre	≥ 1.0 acre
Right-of-way[5]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations[6]	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)*	"No Effect", "Not likely to Adversely Affect" (With select AMMs[7])	"Not likely to Adversely Affect" (With any AMMs or commitments)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic[8]
Threatened/Endangered Species (Any other species)*	Falls within guidelines of USFWS 2013 Interim Policy or "No Effect"	"Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[9]
Sole Source Aquifer	No Detailed Groundwater Assessment	-	-	-	Detailed Groundwater Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Section 4(f) Impacts	None	-	-	-	Any[10]
Section 6(f) Impacts	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[11]
Approval Level • **District Env. (DE)** • **Env. Serv. Div. (ESD)** • **FHWA**	Concurrence by DE or ESD	DE or ESD	DE or ESD	DE and/or ESD	DE and/or ESD; and FHWA

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

APPENDIX B: PROJECT AREA AND PLAN SHEET

Figure 1 – Project Vicinity
Figure 2 – Topographic Maps Showing the Project Area
Figure 3 – Aerial Photograph Showing the Project Area
Photographs
Project Plan Set

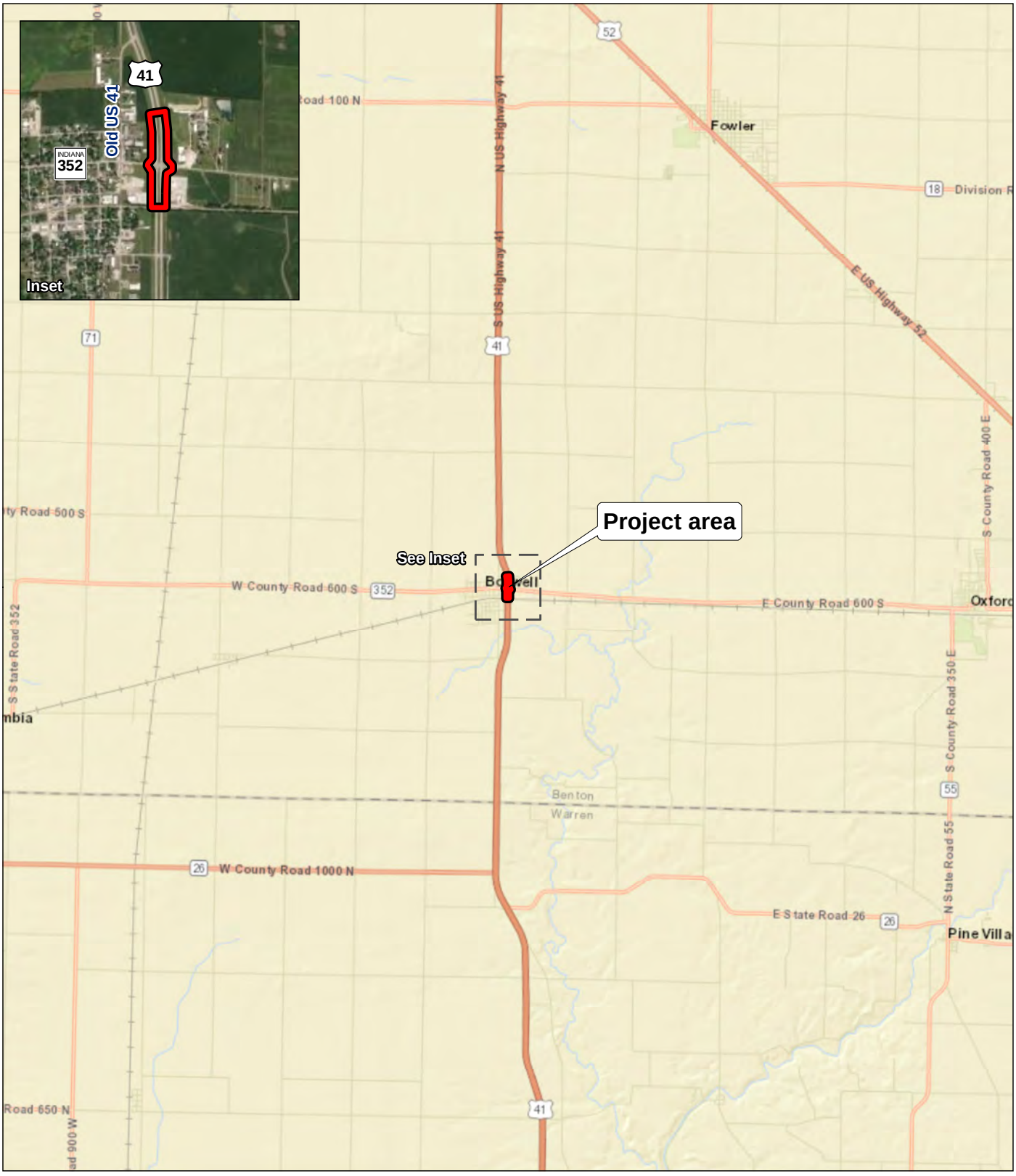
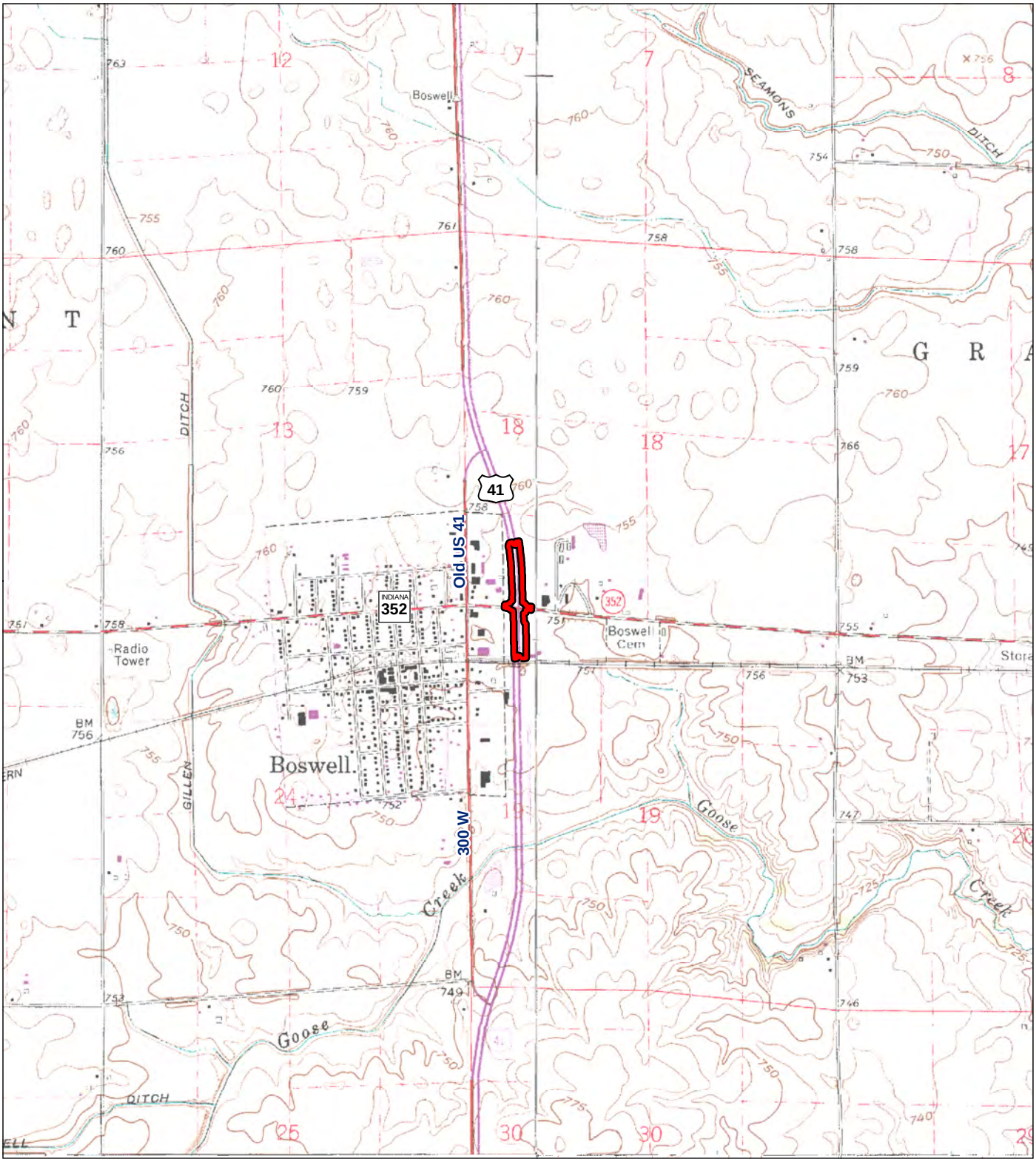


Figure 1

Portion of the ESRI World Street Map showing the vicinity of the project area for the proposed US 41 and SR 352 Roadway Project (INDOT Des. No. 2100058).

Base: ESRI World Street Map

Created by TMD, JVT; last saved: 1/16/2024 9:36:06 AM



Project area

0 200 400 600 800 1000 Meters

0 1000 2000 3000 Feet

N

Figure 2

Portions of the 1980 Boswell and 1980 Fowler, Indiana quadrangles (USGS 7.5' topographic maps) showing the project area for the proposed US 41 and SR 352 Roadway Project (INDOT Des. No. 2100058).

Base: USGS Boswell and Fowler, Indiana, 7.5' series quadrangles

Created by JVT; last saved: 1/16/2024 9:39:59 AM



Project area

Photo location

N

0 50 100 150 Meters

0 100 200 300 400 500 Feet

Base: Microsoft Corporation 2023

Figure 3

Aerial photograph showing the project area and photograph locations for the proposed US 41 and SR 352 Roadway Project (INDOT Des. No. 2100058).



Photograph 1. View of the US 41 and SR 352 intersection, facing east.



Photograph 2. View of the US 41 and SR 352 intersection, facing south.



Photograph 3. View of the US 41 and SR 352 intersection, facing southeast.



Photograph 4. View of the US 41 and SR 352 intersection, facing southwest.



Photograph 5. View of US 41 northbound, facing northeast.



Photograph 6. View of US 41 southbound, facing northwest.



Photograph 7. View of US 41 southbound at the southern terminus of the project area, facing northeast.



Photograph 8. View of the US 41 median, facing north.



Photograph 9. View of the US 41 median, facing south at the southern terminus of the project area.



Photograph 10. View of US 41 southbound, facing south at the northern terminus of the project area.



Photograph 11. View of the US 41 median, facing north at the northern terminus of the project area.



Photograph 12. View of the culvert inlet on the eastern side of the US 41 and SR 352 intersection, facing north.



Photograph 13. View of the culvert outlet on the western side of the US 41 and SR 352 intersection, facing north.

PROJECT	DESIGNATION
2100058	2100058
CONTRACT	
T-43690	

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: US 41 FROM: RP 194+08 TO: RP 194+28

PROJECT NO. 2100058 P.E.

NO ADDITIONAL RIGHT OF WAY REQUIRED FOR THIS PROJECT — R/W

2100058 CONST.

US 41 & SR 352 Reduced Conflict Intersection
Located at the Intersection of US 41 & SR 352, 4.1 Miles North of SR 26
Section 18 & 19, T-24-N, R-8-W, Grant Township, Benton County, Indiana

TRAFFIC DATA	US 41	SR 352
A.A.D.T. (2026)	3,826 V.P.D.	1,737 V.P.D.
A.A.D.T. (2046)	4,546 V.P.D.	2,120 V.P.D.
D.H.V (2046)	364 V.P.H.	212 V.P.H.
DIRECTIONAL DISTRIBUTION	51 %	57 %
TRUCKS	48 % A.A.D.T.	10 % A.A.D.T.
	52 % D.H.V.	10 % D.H.V.
DESIGN DATA		
DESIGN SPEED	60 M.P.H.	50 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL	MAJOR COOLLECTOR
RURAL/URBAN	RURAL	RURAL
TERRAIN	LEVEL	LEVEL
ACCESS CONTROL	NONE	NONE



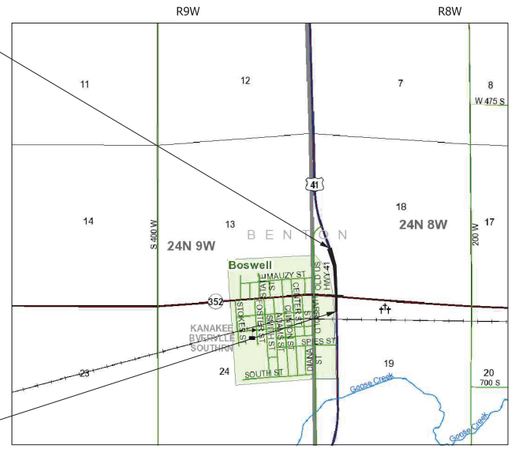
PROJECT LOCATION SHOWN BY
BENTON COUNTY

LATITUDE: 40° 31' 16" N LONGITUDE: 87° 22' 34" W

GROSS LENGTH: 0.311 MI.
NET LENGTH: 0.311 MI.
MAX. GRADE: 0.20 %

End Project 2100058
Sta. 1084+34.08 Line "A"

Begin Project 2100058
Sta. 1067+92.16 Line "A"



LOCATION MAP
BENTON COUNTY

T24N

SCALE: 1" = 2000'

STAGE 2
JULY 19, 2024

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2024
TO BE USED WITH THESE PLANS

Plans Prepared By:
fishbeck
Engineers | Architects | Scientists | Constructors

Plot: 9/20/2024
File: 221641 Sht Title.dgn
Model: RD_Title Sheet

PLANS PREPARED BY: (317) 577-9050 PHONE NUMBER

"THIS WORK SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

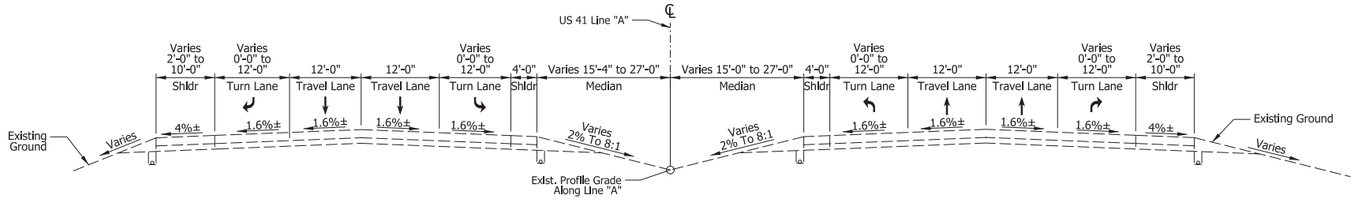
CERTIFIED BY: DATE

RECOMMENDED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

DESIGNATION
2100058

SHEETS	
1	of 35

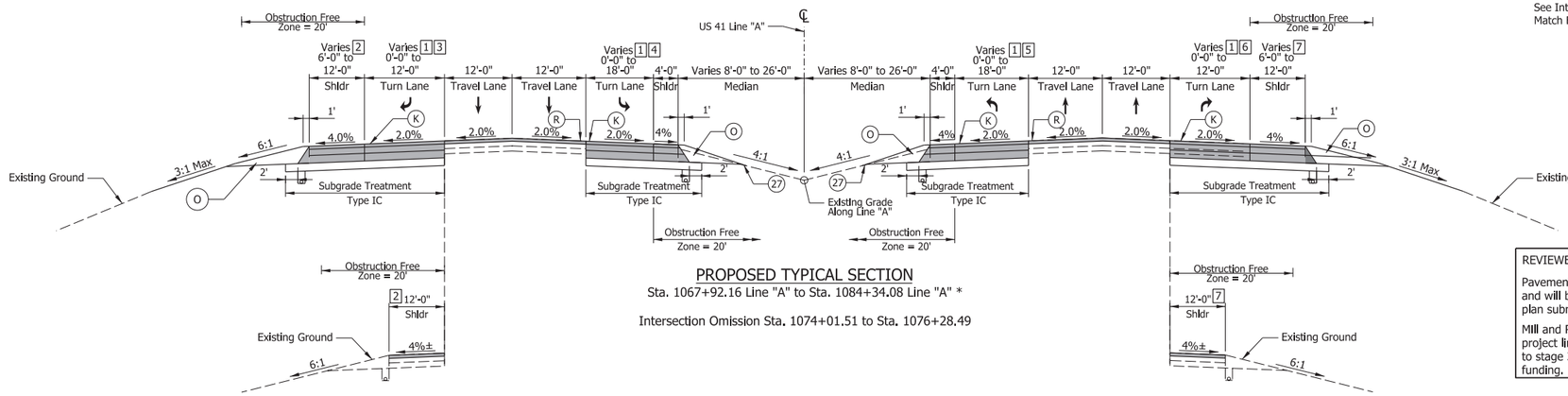
CONTRACT	PROJECT
T-43690	2100058



EXISTING TYPICAL SECTION

Sta. 1067+92.16 Line "A" to Sta. 1084+34.08 Line "A"

Intersection Omission Sta. 1074+90.45 to Sta. 1075+41.34



PROPOSED TYPICAL SECTION

Sta. 1067+92.16 Line "A" to Sta. 1084+34.08 Line "A" *

Intersection Omission Sta. 1074+01.51 to Sta. 1076+28.49

Sta. 1067+92.16 Line "A" to Sta. 1073+90.53 Line "A"

Sta. 1076+39.47 Line "A" to Sta. 1084+34.08 Line "A"

1 Match and perpetuate slope of adjacent travel lane
Sta 1076+00.00 to 1084+34.08

2 Match Existing From Sta 1067+92.16 to Sta 1073+90.53
See Intersection Details From Sta 1073+90.53 to Sta 1076+03.71
6' From Sta 1076+03.71 to 6' at Sta 1083+34.08
6' From Sta 1083+32.64 to 12' at Sta 1083+84.08
12' From Sta 1083+84.08 to 12' at Sta 1084+34.08

3 0' From Sta 1067+92.16 to 0' at Sta 1073+90.53
See Intersection Details From Sta 1073+90.53 to Sta 1076+03.71
12' From Sta 1076+03.71 to 12' at Sta 1083+34.08
12' From Sta 1083+34.08 to 0' at Sta 1084+34.08

4 0' From Sta 1067+92.16 to 0' at Sta 1069+12.21
12' From Sta 1069+12.21 to 12' at Sta 1074+01.27
12' From Sta 1074+01.27 to 0' at Sta 1075+01.27
See Intersection Details From Sta 1075+01.27 to Sta 1075+96.08
18' From Sta 1075+96.08 to 18' at Sta 1082+10.47
18' From Sta 1082+10.47 to 0' at Sta 1083+10.47
0' From Sta 1083+10.47 to 0' at Sta 1084+34.08

5 0' From Sta 1067+92.16 to 0' at Sta 1069+12.50
0' From Sta 1069+86.93 to 18' at Sta 1070+88.57
18' From Sta 1070+88.57 to 18' at Sta 1074+33.92
See Intersection Details From Sta 1074+33.92 to Sta 1075+28.73
0' From Sta 1075+28.73 to 12' at Sta 1076+28.73
12' From Sta 1076+28.73 to 12' at Sta 1083+13.41
0' From Sta 1083+13.41 to 0' at Sta 1084+34.08

6 0' From Sta 1067+92.16 to 12' at Sta 1068+92.16
12' From Sta 1068+92.16 to 12' at Sta 1074+26.29
See Intersection Details From Sta 1074+26.29 to Sta 1076+39.47
0' From Sta 1076+39.47 to 0' at Sta 1084+34.08

7 12' From Sta 1067+92.16 to 12' at Sta 1068+42.16
12' From Sta 1068+42.16 to 6' at Sta 1068+92.16
6' From Sta 1068+92.16 to 6' at Sta 1074+26.29
See Intersection Details From Sta 1074+26.29 to Sta 1076+39.47
Match Existing From Sta 1076+39.47 to Sta 1084+34.08

REVIEWER NOTE:

Pavement Design is pending and will be included in next plan submittal.

Mill and Resurface operation within project limits to be determined prior to stage 3 based upon construction funding.

LEGEND

(K) 220 lb/syd QC/QA HMA, 3, 76, Surface, 9.5 mm, on
275 lb/syd QC/QA HMA, 3, 76, Intermediate, 19.0 mm, on
385 lb/syd QC/QA HMA, 3, 64, Base, 25.0 mm, on
440 lb/syd QC/QA HMA, 3, 64, Base, 25.0 mm, on
6 in. Compacted Aggregate No. 53, on
Subgrade Treatment, Type IC

(O) 6-in Compacted Aggregate, No. 73

(27) Mulched Seeding R

(R) 220 lb/syd QC/QA HMA, 3, 76, Surface, 9.5 mm, on
Min. 275 lb/syd QC/QA HMA, 3, 76, Intermediate, 19.0 mm,
(Variable Depth for Slope Correction), on
Milling, Asphalt, 3 in.

* Notes: See Spot Elevation Details for U-Turn and Median Left-Turn Information.
See Superelevation Details for Sta. 1076+56 Line "A" to north end of project.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: SJP 07/26/2023 DRAWN: SJP 07/26/2023

CHECKED: BBV 07/26/2023 CHECKED: BBV 07/26/2023

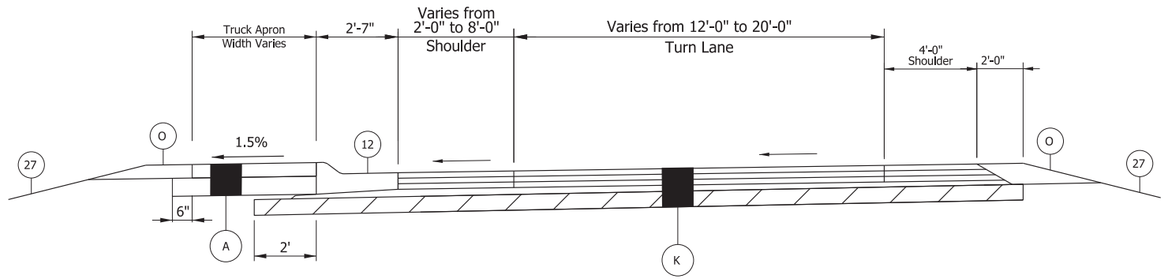
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
3/32" = 1'-0"	N/A
	DESIGNATION
	2100058
	SHEETS
	3 of 35
CONTRACT	PROJECT
T-43690	2100058

Plot: 9/20/2024

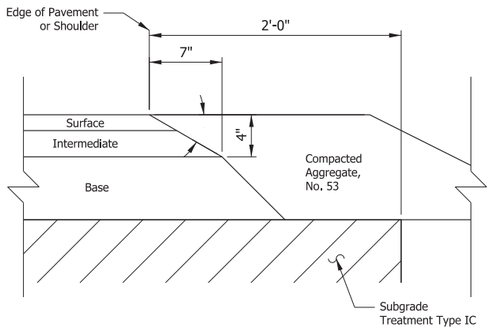
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Model: RD_Detail Sheet



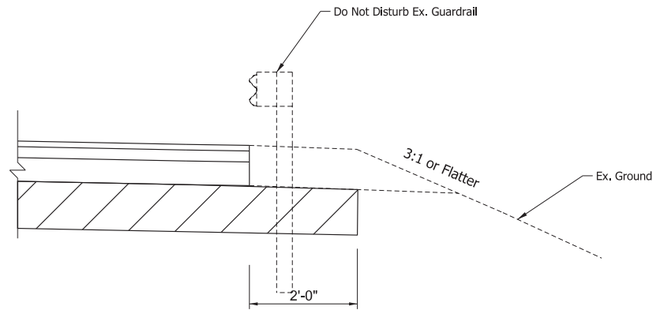
Median U-Turn Detail
See Construction Details
for Variable Width Values & Spot Elevations

LEGEND

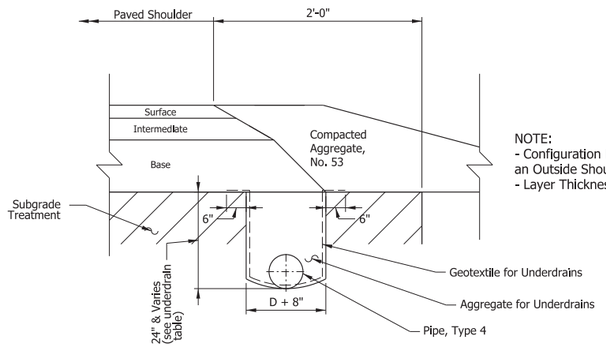
- (A) 8 in. PCCP (Colored), on
  13 in. Compacted Aggregate No. 53
  Subgrade Treatment, Type IBC
- (K) 220 lb/syd QC/QA HMA, 3, 76, Surface, 9.5 mm, on
  275 lb/syd QC/QA HMA, 3, 76, Intermediate, 19.0 mm, on
  385 lb/syd QC/QA HMA, 3, 64, Base, 25.0 mm, on
  440 lb/syd QC/QA HMA, 3, 64, Base, 25.0 mm, on
  6 in. Compacted Aggregate No. 53, on
  Subgrade Treatment, Type IC
- (O) Variable Depth Compacted Aggregate, No 53
- (R) 165 lb/syd QC/QA HMA, Surface, on
  Min. 275 lb/syd QC/QA-HMA, Intermediate
  (Variable Depth for Slope Correction), on
  Milling, Asphalt, 3 in.
- (12) Curb and Gutter, B, Concrete
- (22) Curb, Island Concrete
- (27) Mulched Seeding R
- Subgrade Treatment Type IC



Safety Edge Detail

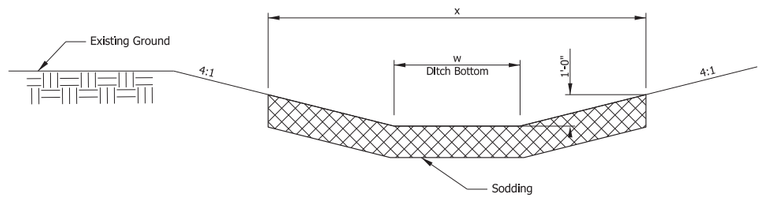


Guardrail Detail



NOTE:
- Configuration For Median Shoulder is The Same as For an Outside Shoulder
- Layer Thicknesses Are Not to Scale.

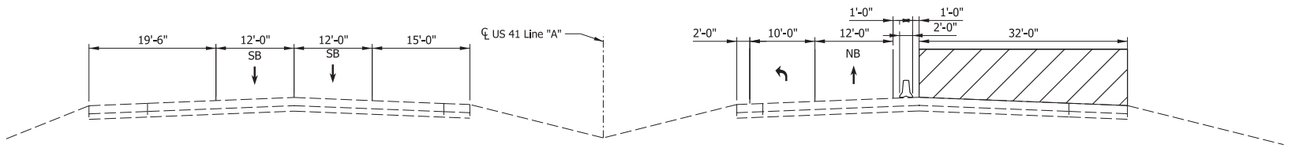
Underdrain Detail
(Pending Final Pavement Design)



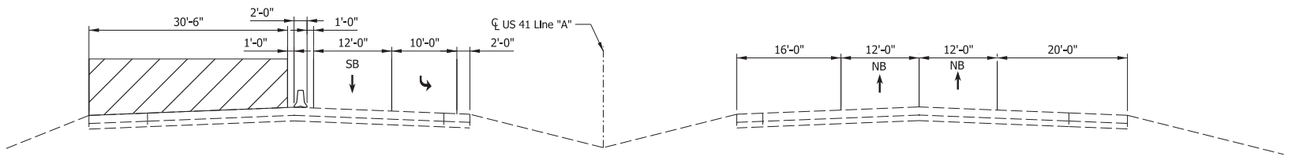
Ditch Detail
V-Ditch: w=0, x=8 ft
4-ft Flat Bottom: w = 4 ft, x = 12 ft

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE		INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: NTS; BRIDGE FILE: N/A
DESIGNED: NK	DRAWN: NK	TYPICAL SECTION DETAILS	DESIGNATION: 2100058
CHECKED: BBV	CHECKED: BBV		SHEETS: 4 of 35
			CONTRACT: T-43690; PROJECT: 2100058

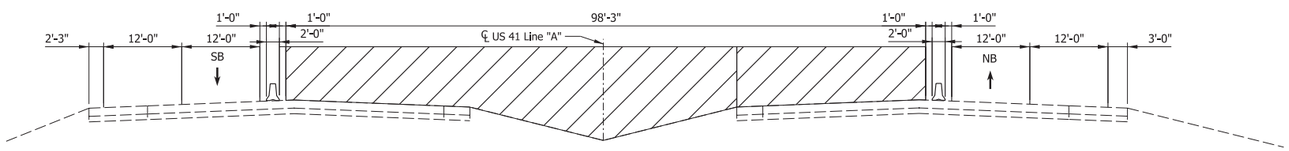
Plot: 9/20/2024
File: 221641 Sht Detail 001.dgn
Model: RD_Detail Sheet 2



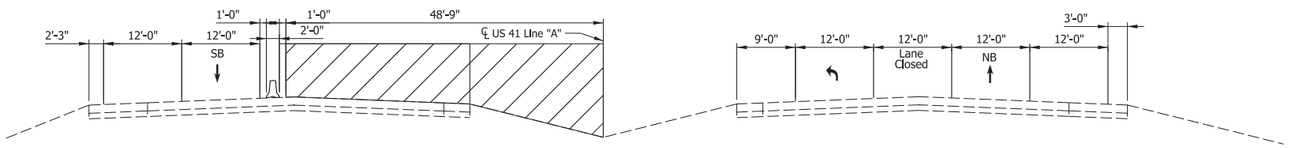
PHASE 1 MOT TYPICAL SECTION
Sta. 1067+92.00 to Sta. 1070+26.00



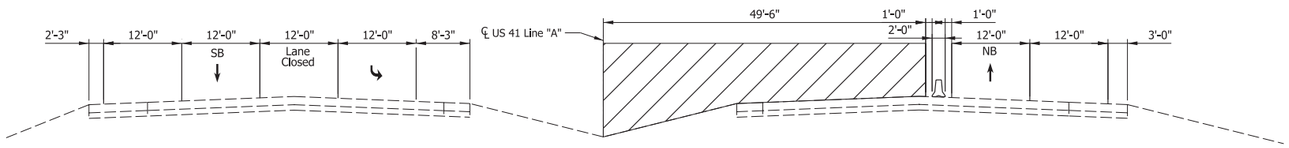
PHASE 1 MOT TYPICAL SECTION
Sta. 1076+18.00 to Sta. 1084+34.00



PHASE 2 MOT TYPICAL SECTION
Sta. 1067+92.00 to Sta. 1069+51.00
Sta. 1082+99.00 to Sta. 1084+34.00



PHASE 2 MOT TYPICAL SECTION
Sta. 1069+51.00 to Sta. 1073+61.00



PHASE 2 MOT TYPICAL SECTION
Sta. 1076+71.00 to Sta. 1082+99.00

LEGEND

Construction Work Zone

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE

DESIGNED: NK DRAWN: NK

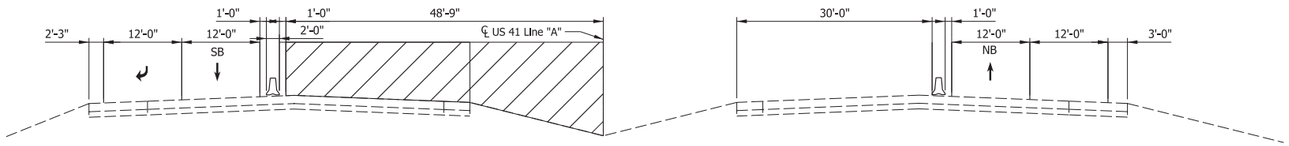
CHECKED: BBV CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

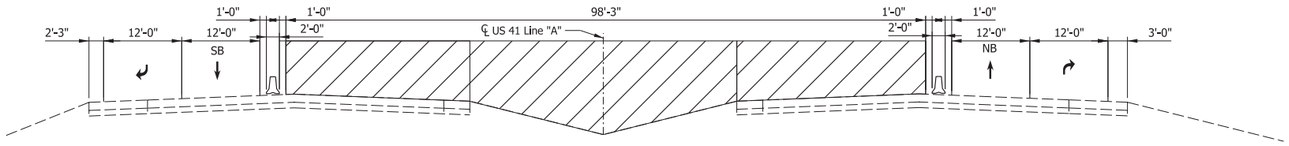
TYPICAL CROSS SECTIONS
MAINTENANCE OF TRAFFIC

SCALE	BRIDGE FILE
3/32" = 1'-0"	N/A
	DESIGNATION
	2100058
	SHEETS
	5 of 35
CONTRACT	PROJECT
T-43690	2100058

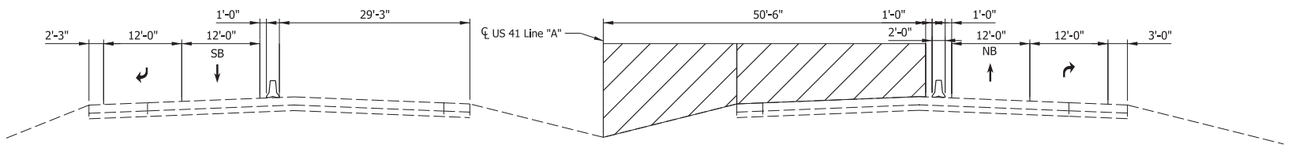
Plot: 9/20/2024
File: 221641 Sht MOT Typical_01.dgn
Model: RD_Detail Sheet



PHASE 3 MOT TYPICAL SECTION
Sta. 1069+92.00 to Sta. 1073+61.00



PHASE 3 MOT TYPICAL SECTION
Sta. 1073+61.00 to Sta. 1076+71.00



PHASE 3 MOT TYPICAL SECTION
Sta. 1076+71.00 to 1082+99.00

LEGEND

Construction Work Zone

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER 7/2023 DATE

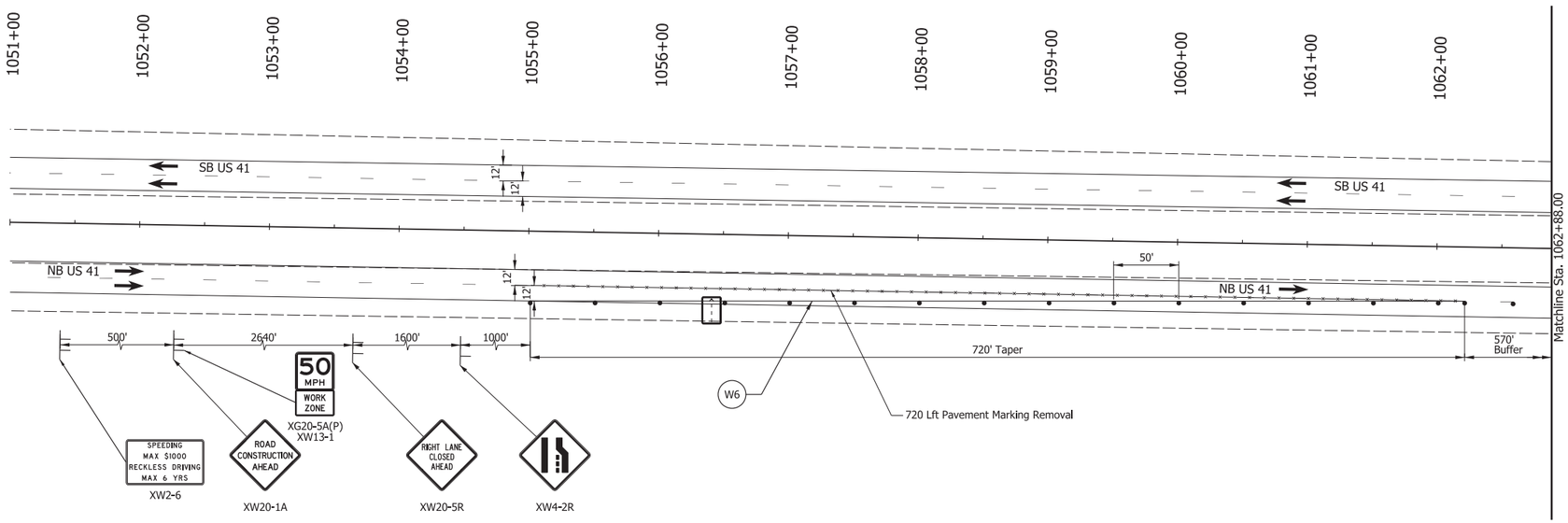
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DRAWN: NK
CHECKED: BBV
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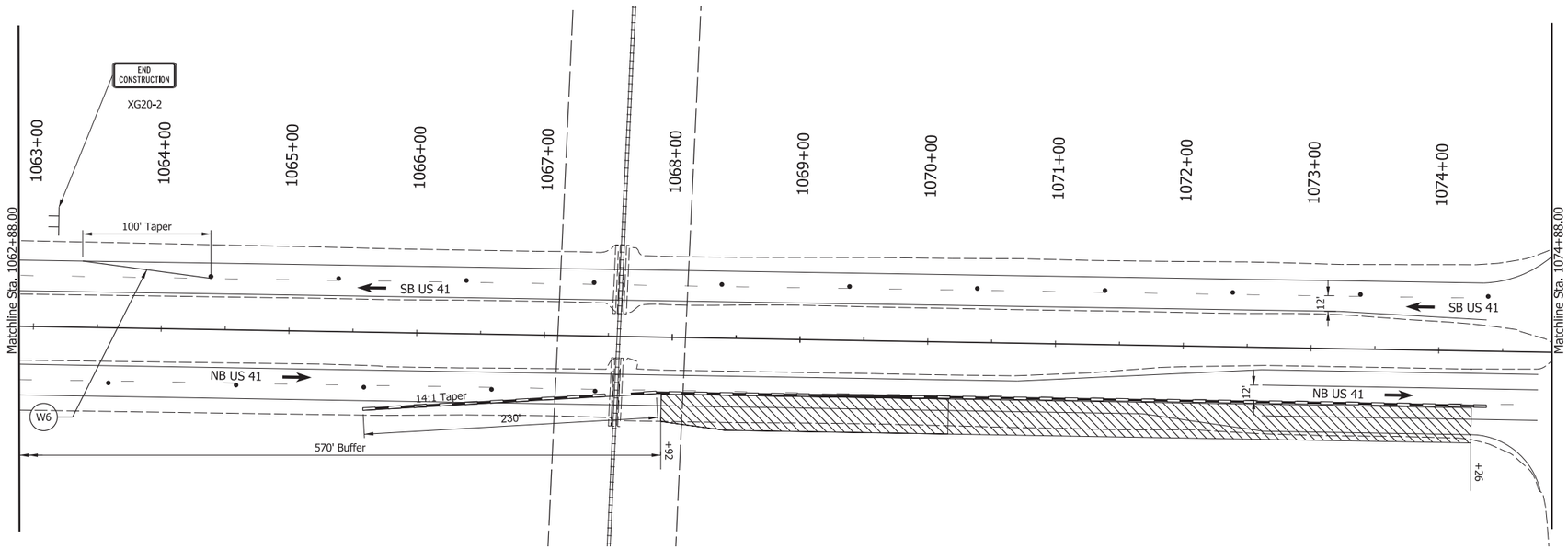
INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
MAINTENANCE OF TRAFFIC

SCALE	BRIDGE FILE
3/32" = 1'-0"	N/A
	DESIGNATION
	2100058
	SHEETS
	6 of 35
CONTRACT	PROJECT
T-43690	2100058

Plot: 9/20/2024
File: 221641 Sht MOT Typical_01.dgn
Model: Sheet 2





NOTES:
1. Construction Zone Design Speed is 50 MPH.

LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- Temporary Pavement Marking, Removable, Yellow 6" (Y6)
- Temporary Pavement Marking, Removable, White 6" (W6)
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 001.dgn
Model: MOT PHASE 1-1

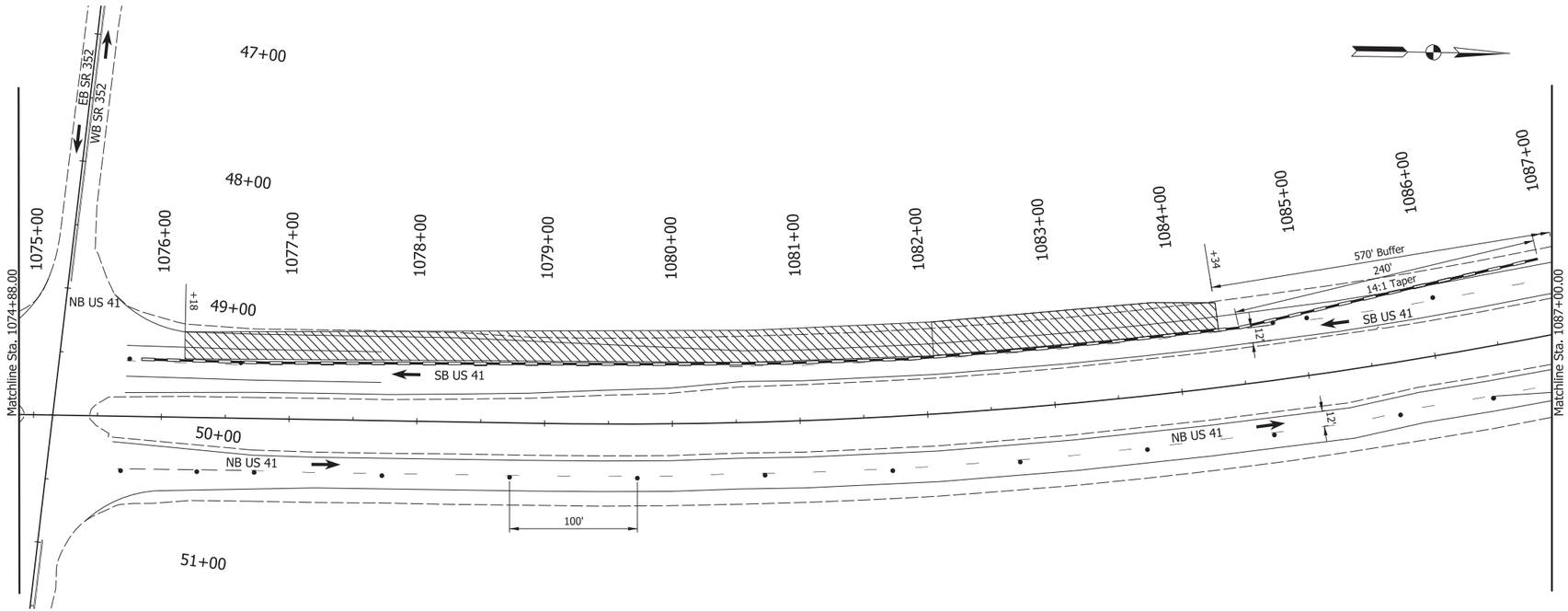
RECOMMENDED FOR APPROVAL _____ 7/2023
DESIGN ENGINEER DATE

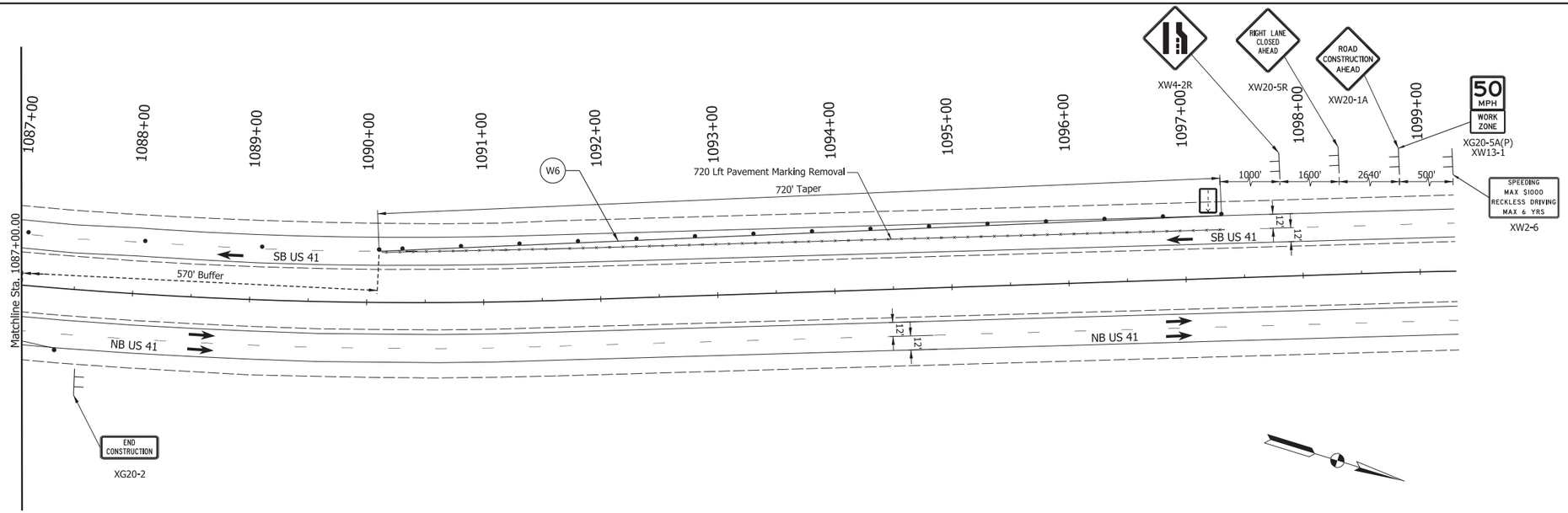
DESIGNED: NK | DRAWN: NK
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 1
STA. 1049+88 TO STA. 1074+88

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	7 of 35
CONTRACT	PROJECT
T-43690	2100058



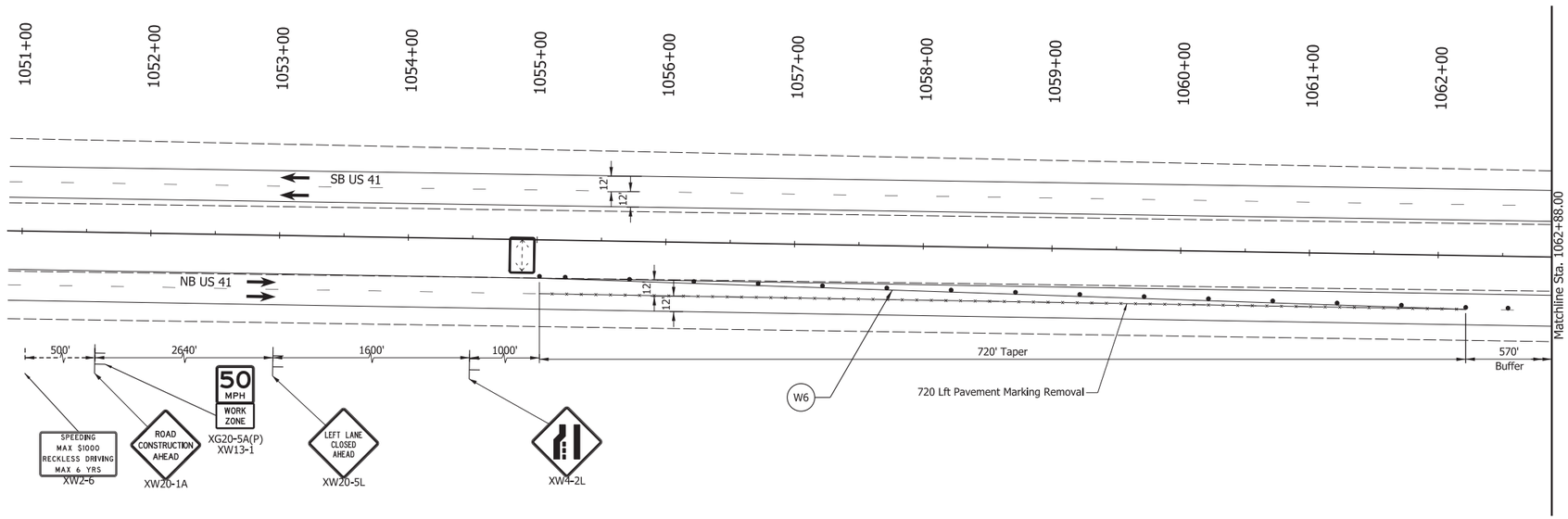


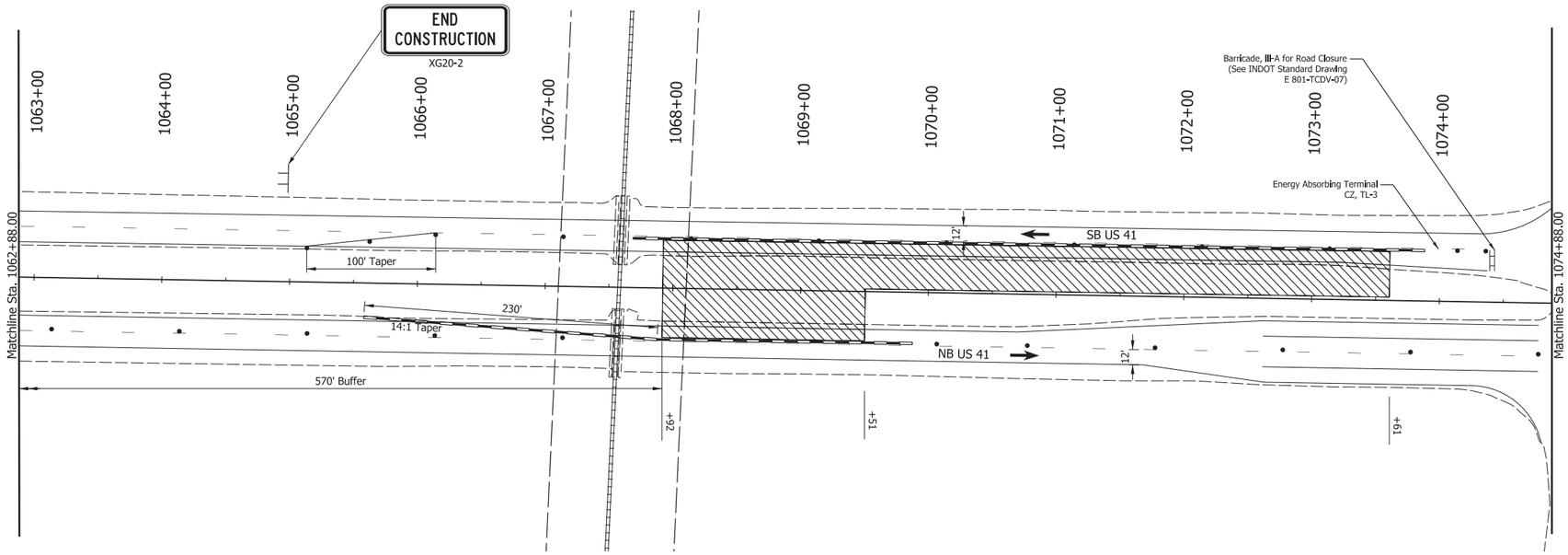
LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- (Y6) Temporary Pavement Marking, Removable, Yellow 6"
- (W6) Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 001.dgn
Model: MOT PHASE 1-2

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1":50' / BRIDGE FILE N/A
DESIGNED: NK / DRAWN: NK / CHECKED: BBV / CHECKED: BBV	MOT PLANS - PHASE 1 STA. 1074+88 TO STA. 1099+20	DESIGNATION 2100058 / SHEETS 8 of 35 / CONTRACT T-43690 / PROJECT 2100058





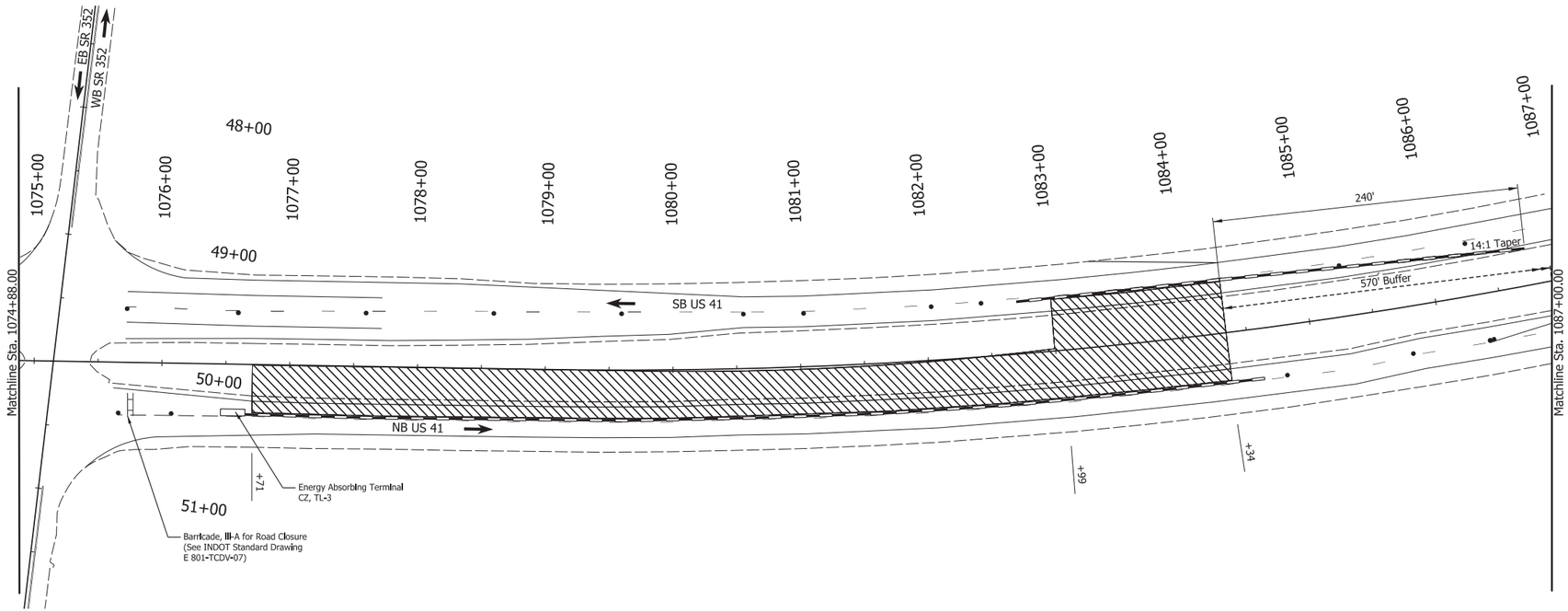
NOTES:
1. Construction Zone Design Speed is 55 MPH.

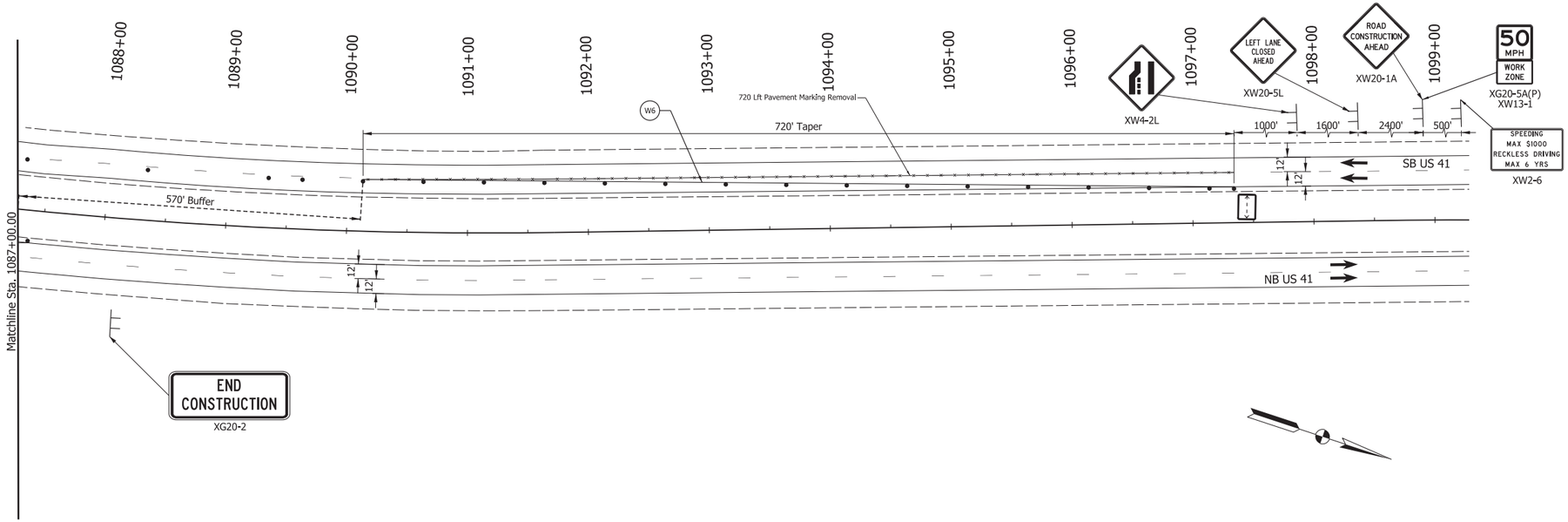
LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- Y6 Temporary Pavement Marking, Removable, Yellow 6"
- W6 Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 002.dgn
Model: MOT PHASE 2-1

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1":50' / BRIDGE FILE N/A
DESIGNED: NK / DRAWN: NK / CHECKED: BBV / CHECKED: BBV	MOT PLANS - PHASE 2 STA. 1049+88 TO STA. 1074+88	DESIGNATION 2100058 / SHEETS 9 of 35 / CONTRACT T-43690 / PROJECT 2100058





LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- Y6 Temporary Pavement Marking, Removable, Yellow 6"
- W6 Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 002.dgn
Model: MOT PHASE 2-2

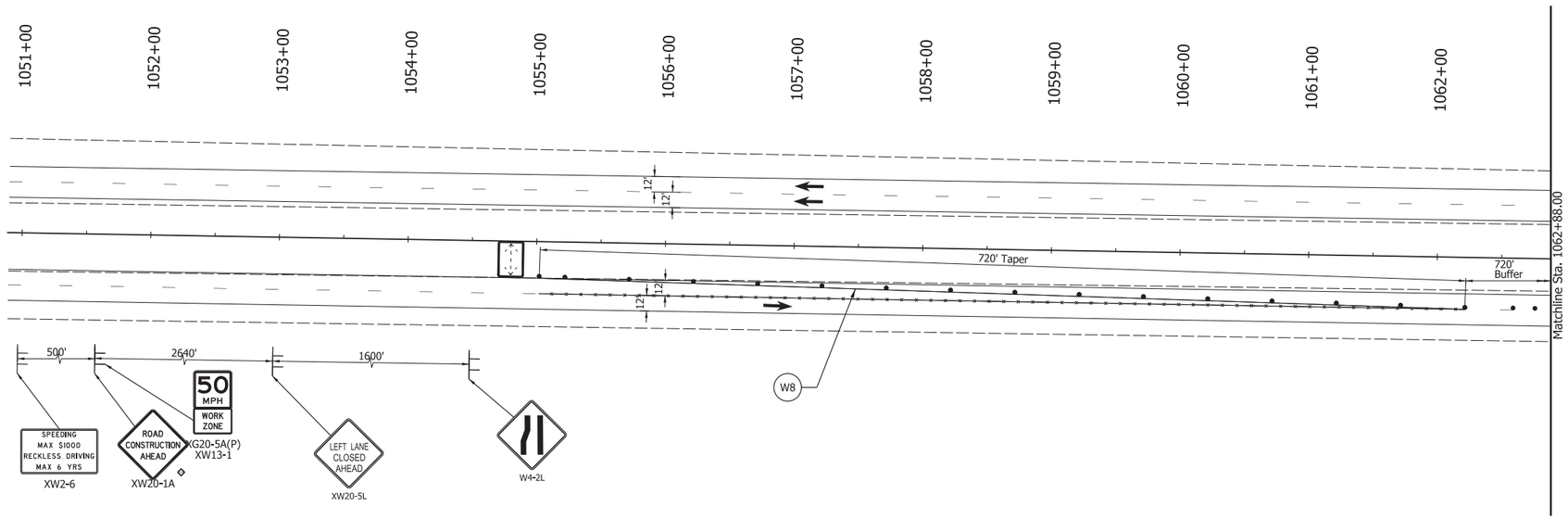
RECOMMENDED FOR APPROVAL _____ 7/2023
DESIGN ENGINEER DATE

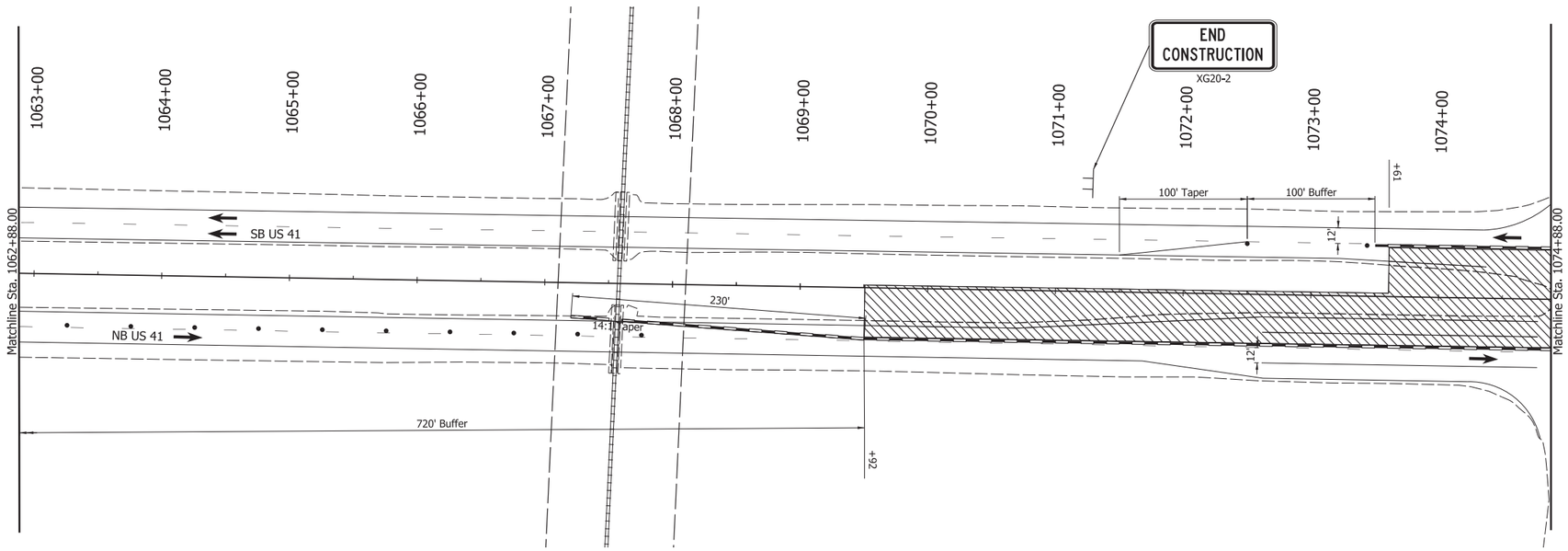
DESIGNED: NK | DRAWN: NK
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 2
STA. 1074+88 TO STA. 1099+20

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	10 of 35
CONTRACT	PROJECT
T-43690	2100058





LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- (Y6) Temporary Pavement Marking, Removable, Yellow 6"
- (W6) Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 003.dgn
Model: MOT PHASE 3-1

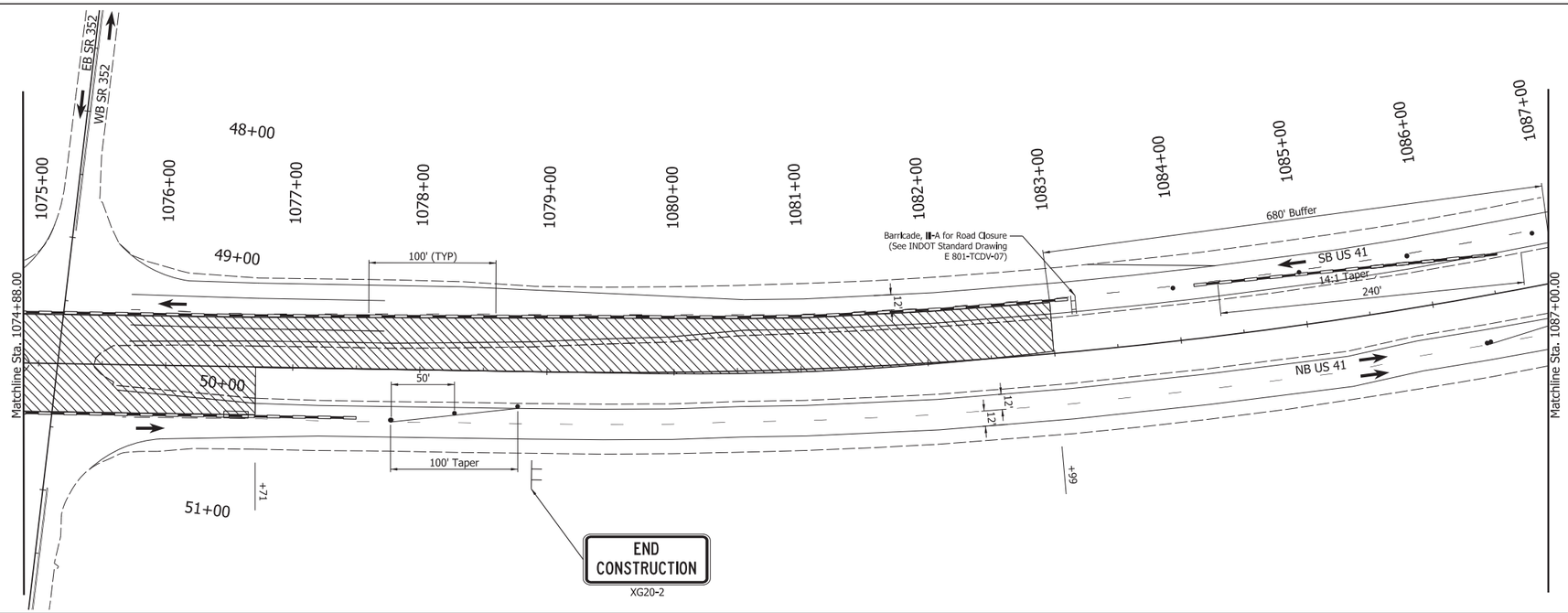
RECOMMENDED FOR APPROVAL _____ 7/2023
DESIGN ENGINEER DATE

DESIGNED: NK | DRAWN: NK
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 3
STA. 1049+88 TO STA. 1074+88

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	11 of 35
CONTRACT	PROJECT
T-43690	2100058



LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- (Y6) Temporary Pavement Marking, Removable, Yellow 6"
- (W6) Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Traffic Barrier
- Line, Remove

Plot: 9/20/2024
File: 221641 Sht MOT 003.dgn
Model: MOT PHASE 3-2

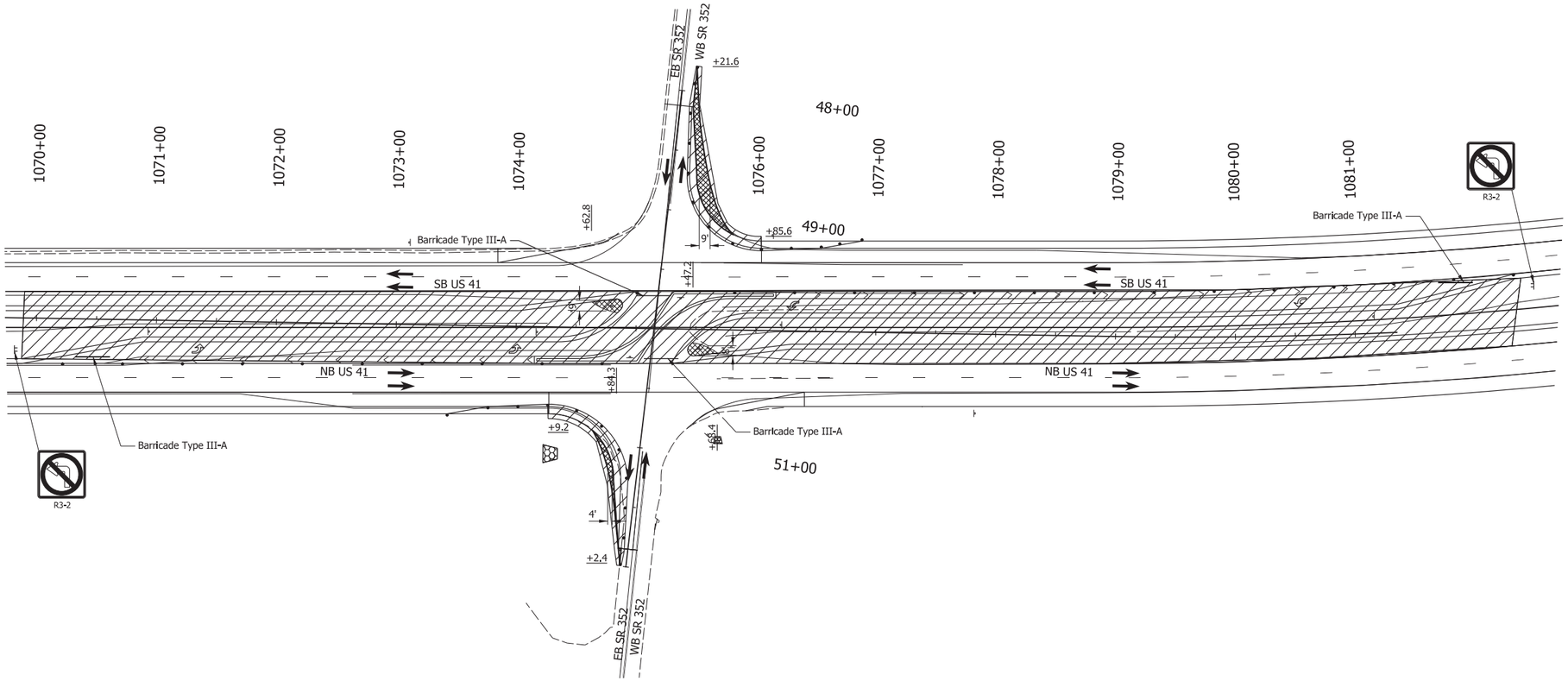
RECOMMENDED FOR APPROVAL _____ 7/2023
DESIGN ENGINEER DATE

DESIGNED: NK | DRAWN: NK
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 3
STA. 1074+88 TO STA. 1099+20

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	12 of 35
CONTRACT	PROJECT
T-43690	2100058



NOTES:
1. Construction Zone Design Speed is 50 MPH.

LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- (Y8) Temporary Pavement Marking, Removable, Yellow 6"
- (W8) Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Pavement

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE

DESIGNED: NK | DRAWN: NK

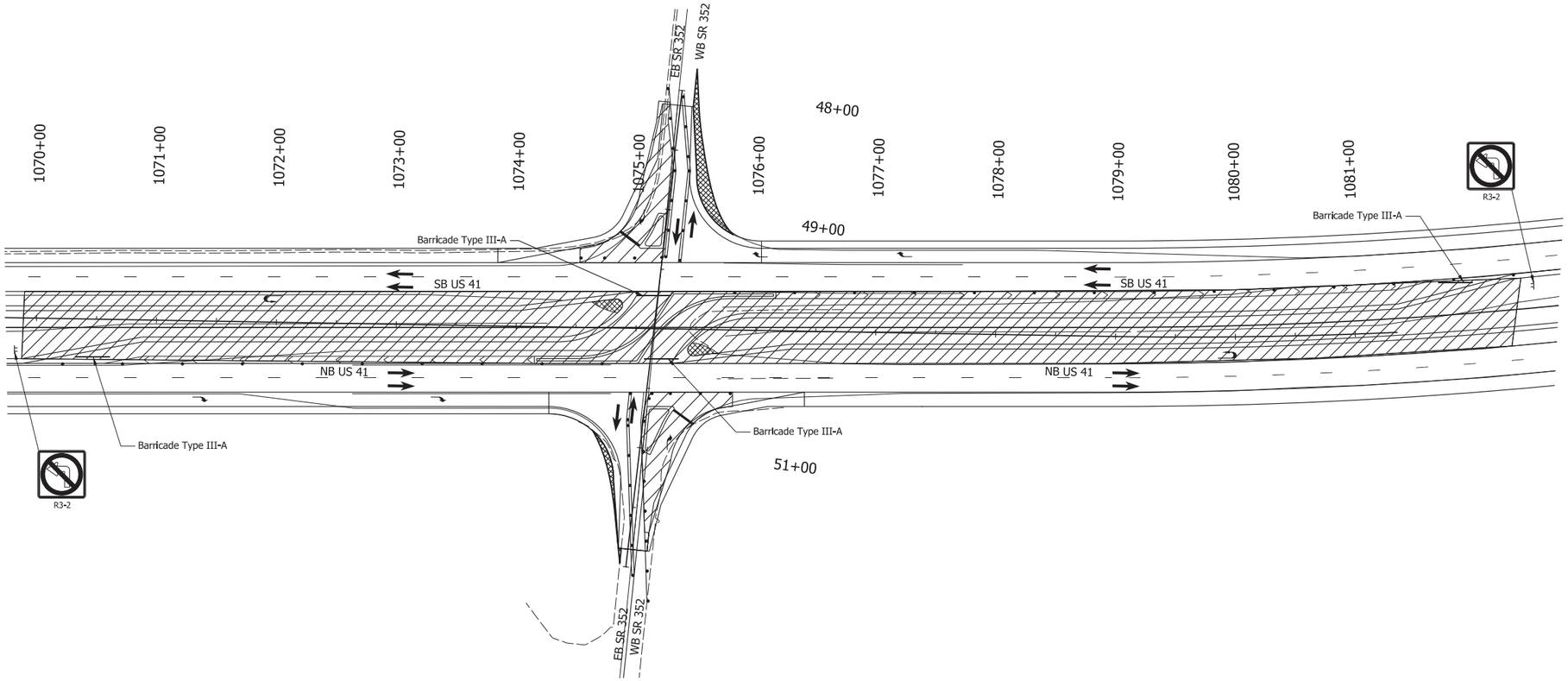
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 4A
STA. 48+00 to STA. 52+00

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	13 of 35
CONTRACT	PROJECT
T-43690	2100058

Plot: 9/20/2024
File: 221641 Sht MOT 004.dgn
Model: MOT PHASE 4 - A



NOTES:
1. Construction Zone Design Speed is 50 MPH.

LEGEND

- Construction Sign
- Lane Direction
- Channelizing Device
- Construction Work Zone
- Y8 Temporary Pavement Marking, Removable, Yellow 6"
- W8 Temporary Pavement Marking, Removable, White 6"
- Flashing Arrow Sign
- Temporary Pavement

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE

DESIGNED: NK | DRAWN: NK

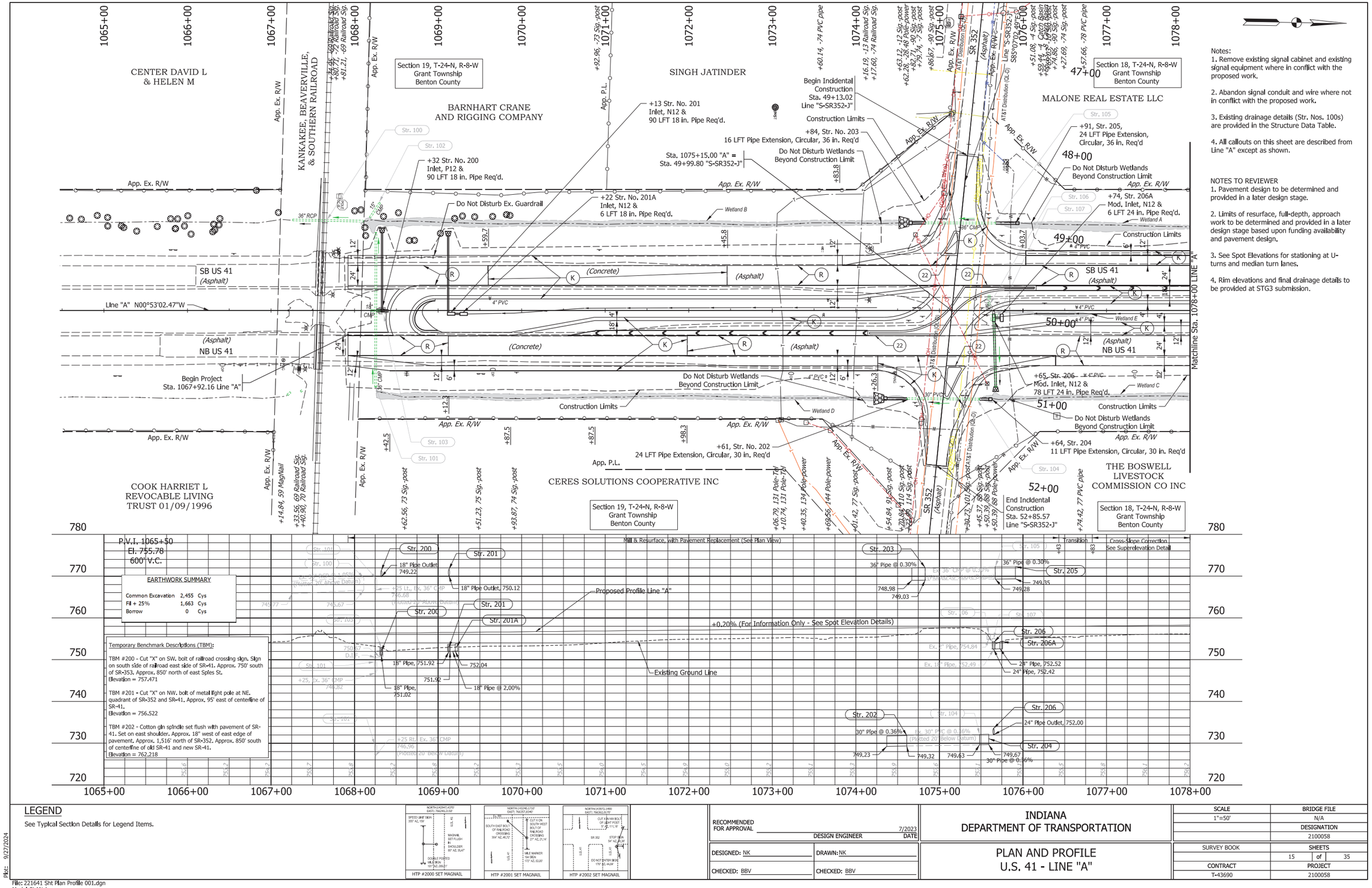
CHECKED: BBV | CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

MOT PLANS - PHASE 4B
STA. 48+00 to STA. 52+00

SCALE	BRIDGE FILE
1":50'	N/A
	DESIGNATION
	2100058
	SHEETS
	14 of 35
CONTRACT	PROJECT
T-43690	2100058

Plot: 9/20/2024
File: 221641 Sht MOT 004.dgn
Model: MOT PHASE 4 - B



EARTHWORK SUMMARY

Common Excavation	2,455	Cys
Fill + 25%	1,663	Cys
Borrow	0	Cys

Temporary Benchmark Descriptions (TBM):

TBM #200 - Cut "X" on SW. bolt of railroad crossing sign. Sign on south side of railroad east side of SR-41. Approx. 750' south of SR-353. Approx. 850' north of east Spies St.
Elevation = 757.471

TBM #201 - Cut "X" on NW. bolt of metal light pole at NE. quadrant of SR-352 and SR-41. Approx. 95' east of centerline of SR-41.
Elevation = 756.522

TBM #202 - Cotton gin spindle set flush with pavement of SR-41. Set on east shoulder. Approx. 18" west of east edge of pavement. Approx. 1,516' north of SR-352. Approx. 850' south of centerline of old SR-41 and new SR-41.
Elevation = 762.218

Notes:
1. Remove existing signal cabinet and existing signal equipment where in conflict with the proposed work.

2. Abandon signal conduit and wire where not in conflict with the proposed work.

3. Existing drainage details (Str. Nos. 100s) are provided in the Structure Data Table.

4. All callouts on this sheet are described from Line "A" except as shown.

NOTES TO REVIEWER
1. Pavement design to be determined and provided in a later design stage.

2. Limits of resurface, full-depth, approach work to be determined and provided in a later design stage based upon funding availability and pavement design.

3. See Spot Elevations for stationing at U-turns and median turn lanes.

4. Rim elevations and final drainage details to be provided at STG3 submission.

LEGEND

See Typical Section Details for Legend Items.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE

DESIGNED: NK DRAWN: NK

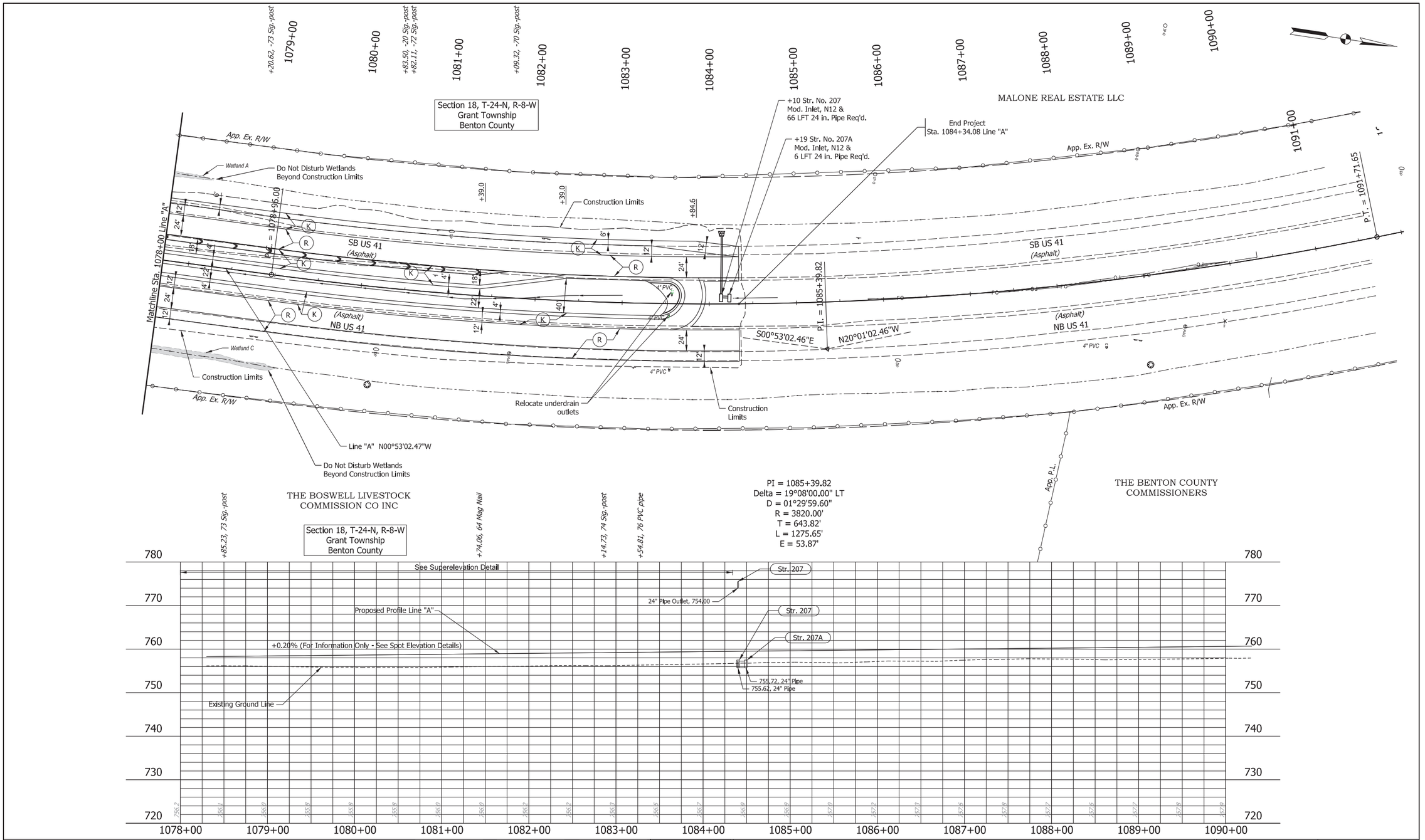
CHECKED: BBV CHECKED: BBV

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE U.S. 41 - LINE "A"

SCALE	BRIDGE FILE
1"=50'	N/A
	DESIGNATION
	2100058
SURVEY BOOK	SHEETS
	15 of 35
CONTRACT	PROJECT
T-43690	2100058

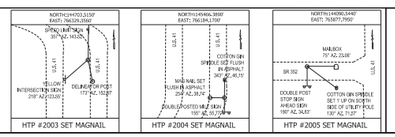
Plot: 9/27/2024
File: 221641 Sht Plan Profile 001.dgn
Model: PLAN 1



LEGEND

(K) 165 LB/SYD QC/QA-HMA, Surface, on
275 LB/SYD QC/QA-HMA, Intermediate, on
880 LB/SYD QC/QA-HMA, Base, on
Subgrade Treatment, Type IC

(R) 165 LB/SYD QC/QA-HMA, Surface, on
275 LB/SYD QC/QA-HMA, Intermediate



RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE

DESIGNED: NK DRAWN: NK

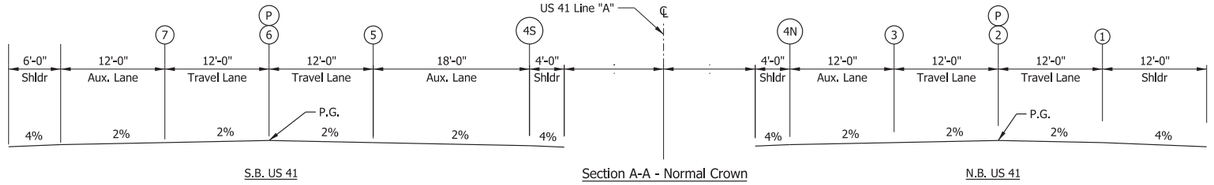
CHECKED: BBV CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

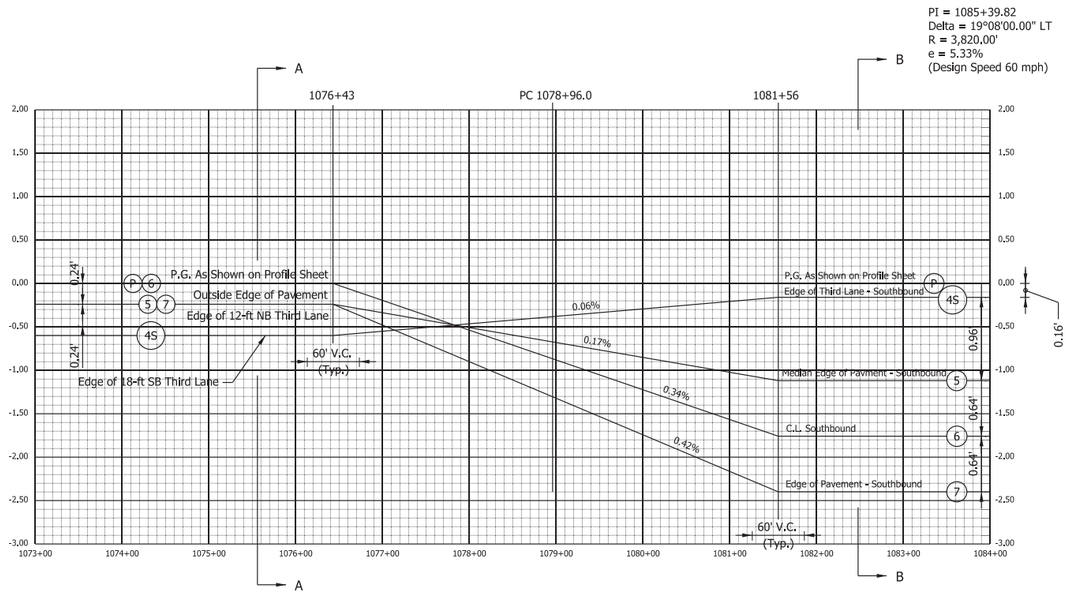
PLAN AND PROFILE
U.S. 41 - LINE "A"

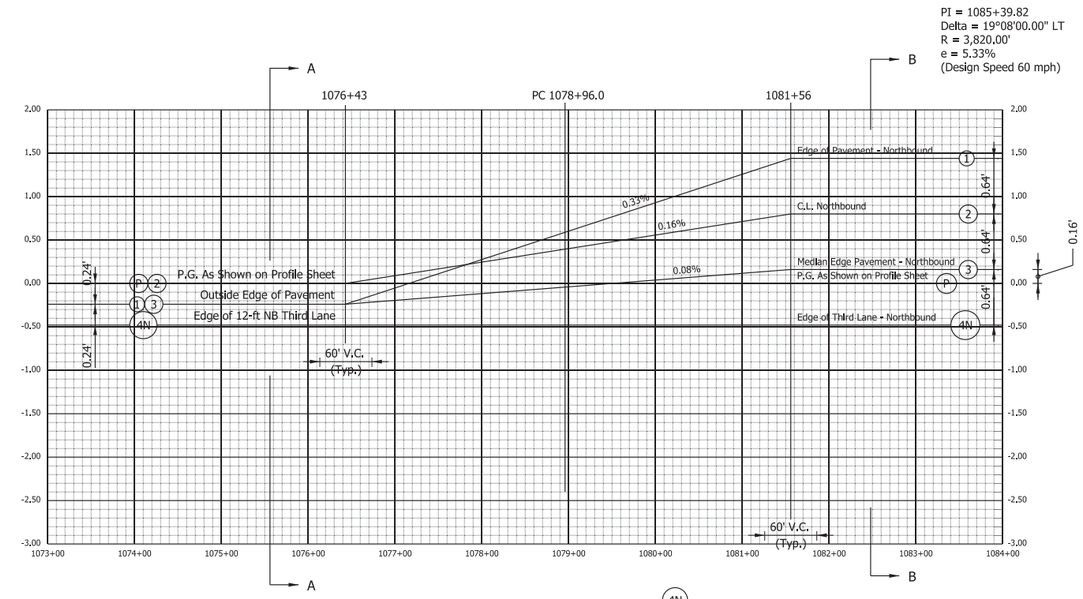
SCALE	BRIDGE FILE
1"=50'	N/A
	DESIGNATION
	2100058
SURVEY BOOK	SHEETS
	16 of 35
CONTRACT	PROJECT
T-43690	2100058

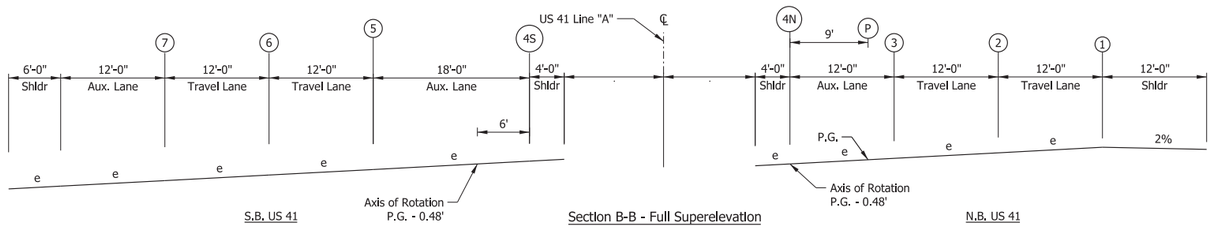
Plot: 9/27/2024
File: 221641 Sht Plan Profile 002.dgn
Model: PLAN 2



Section A-A - Normal Crown





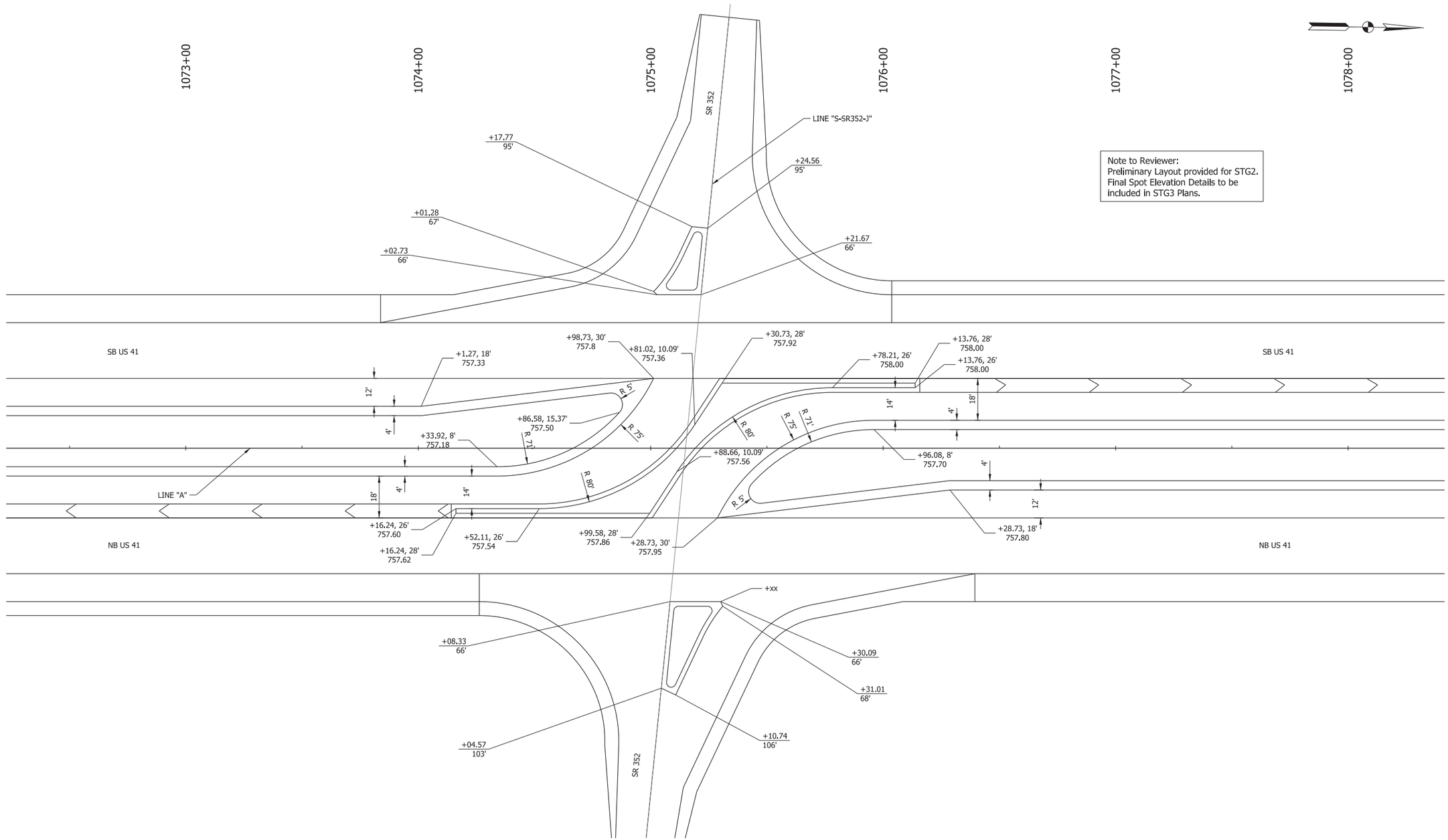


Section B-B - Full Superelevation

Note: P.G. - 0.48' = Edge of Third Lane (12' width on NB side) for normal crown and full superelevation. Match into existing condtions from FT-F-95(12) plans, dated 1969, on north end of project. Provide 2.0% x-slope in normal crown section via slope correction.

	RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1/8" : 1'-0"	BRIDGE FILE N/A
				DESIGNATION 2100058
	DESIGNED: NK / DRAWN: NK / CHECKED: BBV / CHECKED: BBV	SUPER ELEVATION DETAILS		SHEETS 17 of 35
			CONTRACT T-43690	PROJECT 2100058

Plot: 9/20/2024
File: 221641 Sht Super 001.dgn
Model: RD_Detail Sheet



CONSTRUCTION DETAIL - US 41 @ SR352

LEGEND

See Typical Section Details for Legend.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: NK DRAWN: NK

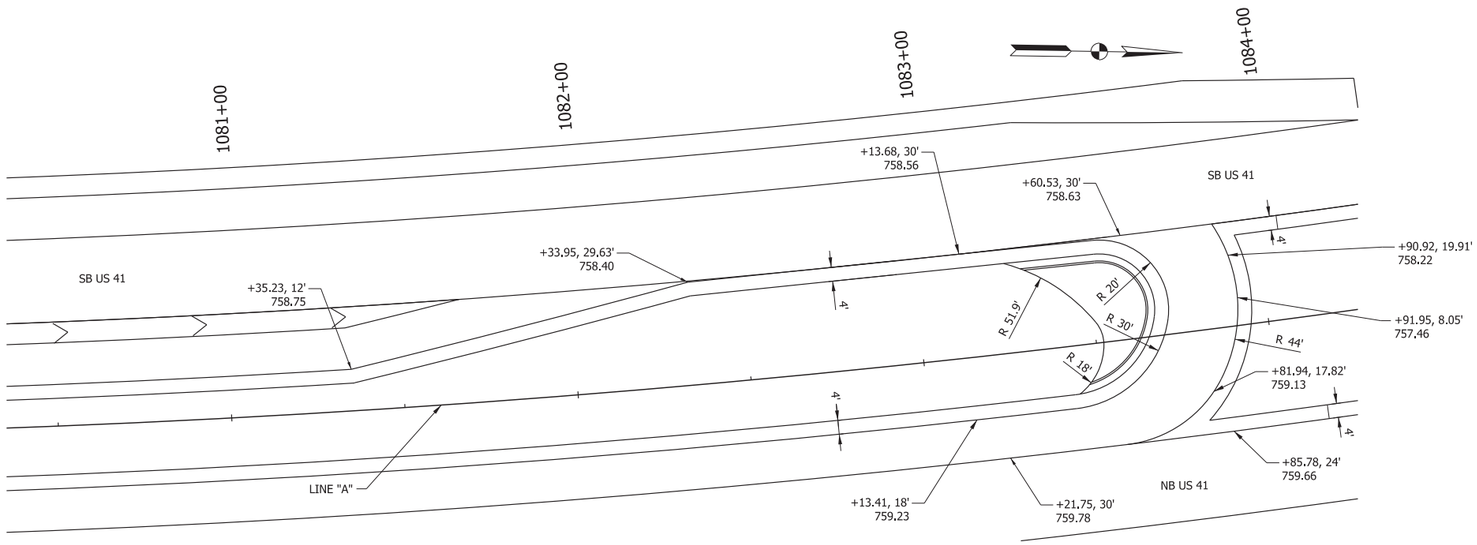
CHECKED: $DESCHECKBY$ CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

SPOT ELEVATION DETAILS
US41 & SR352 INTERSECTION

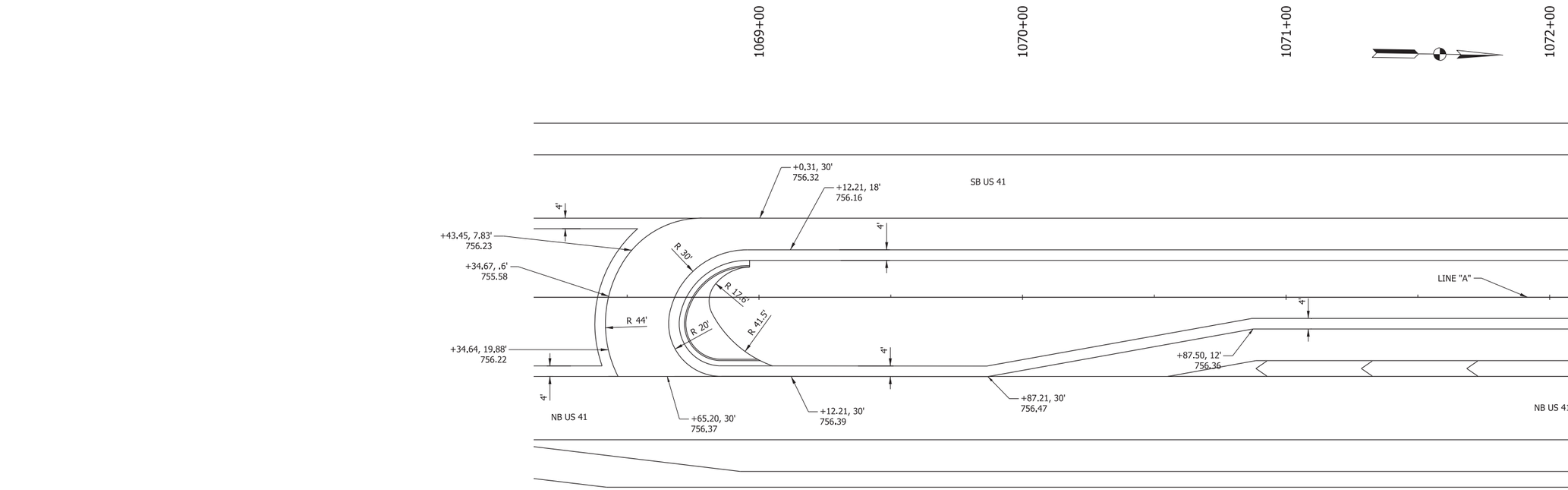
	BRIDGE FILE
	N/A
SCALE	DESIGNATION
1" = 20'	
SURVEY BOOK	SHEETS
ELECTRONIC	18 of 35
CONTRACT	PROJECT
T-43690	

221641 Sht Detail 002.dgn



CONSTRUCTION DETAIL - SB U-TURN US 41

Note to Reviewer:
Preliminary Layout displayed for STG2.
Final Spot Elevation Details to be included in STG3 Plans.



CONSTRUCTION DETAIL - NB U-TURN US 41

LEGEND

See Typical Section Details for Legend.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NK DRAWN: NK

CHECKED: $DESCHECKBY$ CHECKED: BBV

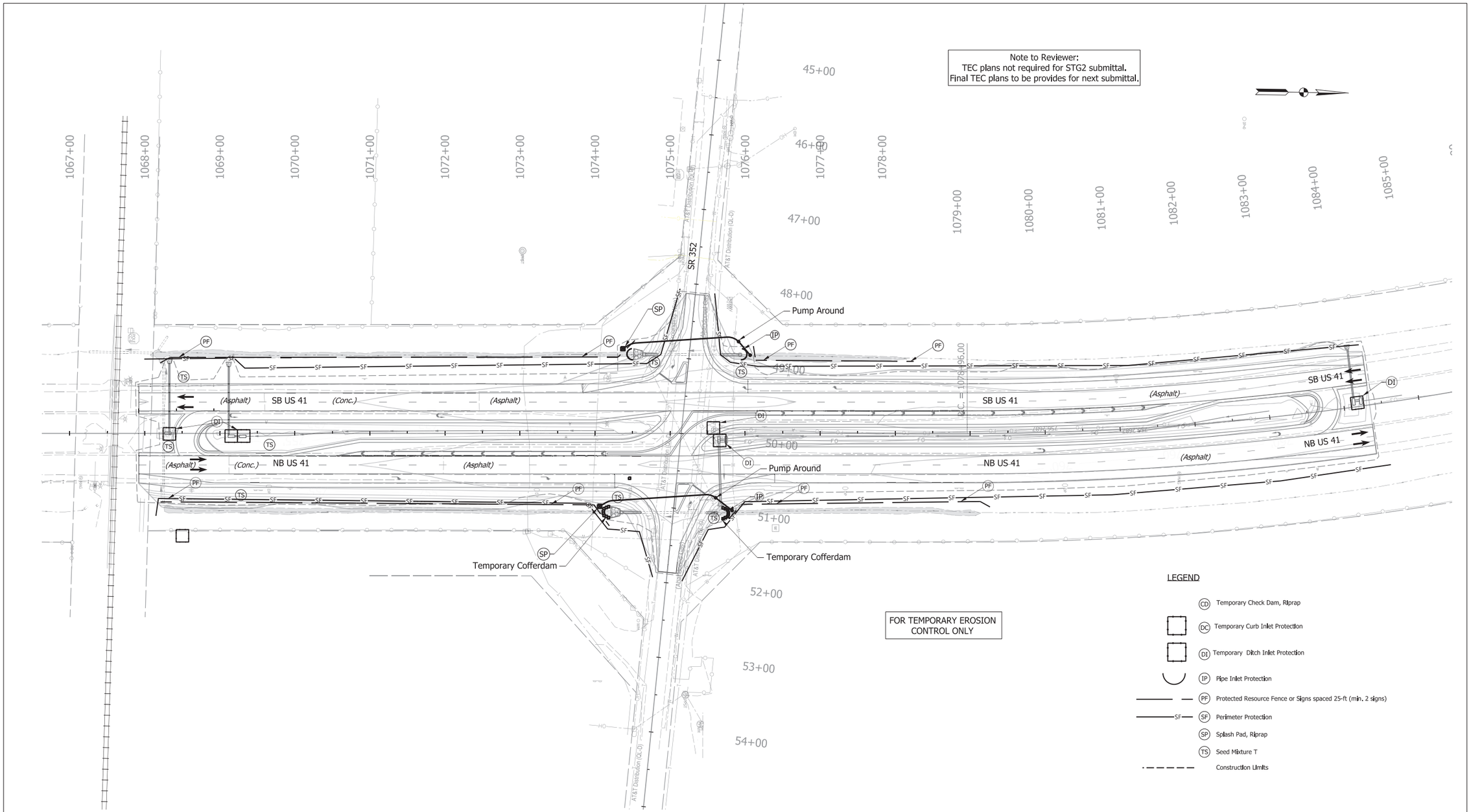
INDIANA
DEPARTMENT OF TRANSPORTATION

SPOT ELEVATION DETAILS
US 41 U-TURNS

	BRIDGE FILE
	N/A
SCALE	DESIGNATION
1" = 20'	
SURVEY BOOK	SHEETS
ELECTRONIC	19 of 35
CONTRACT	PROJECT
T-43690	

221641 Sht Detail 002.dgn

Note to Reviewer:
TEC plans not required for STG2 submittal.
Final TEC plans to be provides for next submittal.



FOR TEMPORARY EROSION CONTROL ONLY

LEGEND

- CD — Temporary Check Dam, Riprap
- DC — Temporary Curb Inlet Protection
- DI — Temporary Ditch Inlet Protection
- IP — Pipe Inlet Protection
- PF — Protected Resource Fence or Signs spaced 25-ft (min. 2 signs)
- SF — Perimeter Protection
- SP — Splash Pad, Riprap
- TS — Seed Mixture T
- Construction Limits

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1": 60'	BRIDGE FILE N/A
			DESIGNATION 2100058
DESIGNED: NK DRAWN: NK	TEMPORARY EROSION CONTROL		SHEETS 20 of 35
CHECKED: BBV CHECKED: BBV		CONTRACT T-43690	PROJECT 2100058

Plot: 9/20/2024
File: 221641 Erosion Control_01.dgn
Model:EROSION CONTROL_Detail Sheet

Note to Reviewer:
Final lighting locations, illuminance values and luminaire details to be coordinated with INDOT and included in STG3 Plans.

1067+00 1068+00 1069+00 1070+00 1071+00 1072+00 1073+00 1074+00 1075+00 1076+00 1077+00 1078+00 1079+00 1080+00 1081+00 1082+00 1083+00 1084+00 1085+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

SR 352

Service Point No. 1
Handhole No. 1
Handhole No. 2
Remove Signal
Remove Ex. 30-ft light pole & Replace w/ 40-ft light pole w/ Luminaire No. 3
Handhole No. 3
Luminaire No. 1
Luminaire No. 2
Luminaire No. 4
Luminaire No. 5
Luminaire No. 6
SB US 41
Line "A"
NB US 41
Luminaire No. 7
Luminaire No. 8
Luminaire No. 9
Luminaire No. 11
Handhole No. 6
Luminaire No. 12
Luminaire No. 13
Luminaire No. 14
Handhole No. 4
Remove Ex. 30-ft light pole & Replace w/ 40-ft light pole w/ Luminaire No. 10
Handhole No. 5

HANDHOLE LOCATIONS						
HANDHOLE NO.	1	2	3	4	5	6
CONDUIT DIRECTION	North	-	East	North	-	-
CONDUIT LENGTH (FT)	87	-	160	101	-	-
STATION - Line "A"	1074+80	1075+65	1076+25	1074+52	1075+52	1076+25
	120' LT	118' LT	86' LT	94' RT	97' RT	77' RT

LUMINAIRE IDENTIFICATION

04 - 41 - 352 - ##
- 04 - County No.
- 41 - Mainline (US 41)
- 352 - Cross Road (SR 352)
- ## - Luminaire No.

PHOTOMETRIC STATISTICS		
Average	0.80	FC
Minimum	0.20	FC
Avg/Min	4.0:1	FC

NOTES
1. Electric Service Point Type I, 120V/240V. Mount to Existing Pole. Refer to INDOT Light Service Point Standard Drawings.
2. Roadway Light Poles shall be Breakaway.
3. Maximum spacing for handholes shall be 250 ft.

LEGEND
- 40' Light Pole & 15' Mast Arm w/ LED Luminaire
- 3 - #4 AWG, 1-#4 AWG GND in Plastic Duct, Underground.
- 3 - #4 AWG, 1-#4 AWG GND in Schedule 80 HDPE, Underground.
- Service Point Type I
- Handhole

Plot: 9/20/2024 4:13 PM
File: 221641 LightingDet_01.dgn
Model:PMRKING_Detail Sheet

RECOMMENDED FOR APPROVAL _____ 7/2023
DESIGN ENGINEER DATE

DESIGNED: NK DRAWN: NK
CHECKED: BBV CHECKED: BBV

INDIANA
DEPARTMENT OF TRANSPORTATION

LIGHTING DETAILS

SCALE	BRIDGE FILE
1": 60'	N/A
	DESIGNATION
	2100058
	SHEETS
	21 of 35
CONTRACT	PROJECT
T-43690	2100058

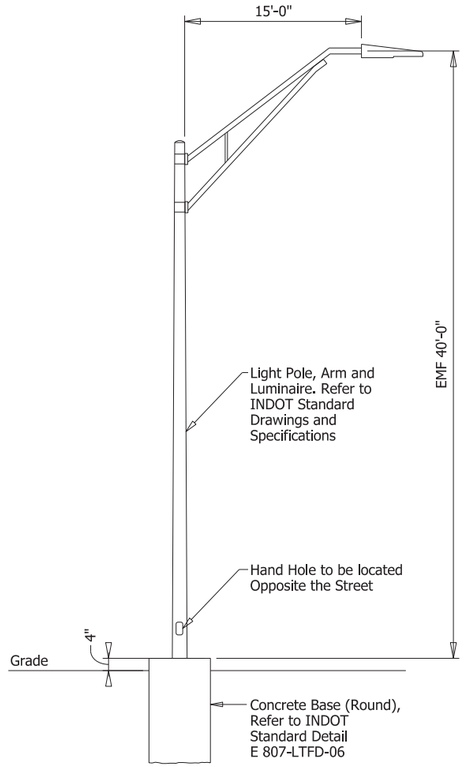
LUMINAIRE AND POLE INFORMATION SCHEDULE														
LUMINAIRE NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
CIRCUIT NO.	A-1	A-1	A-1	A-1	A-1	A-1	A-2	A-2	A-2	A-2	A-3	A-3	A-3	A-3
CIRCUIT CONNECTION (R-RED, B-BLACK)	B	R	B	R	B	R	B	R	B	R	B	R	B	R
STATION - Line "A"	1069+94	1072+45	1074+70	1077+70	1080+22	1082+80	1068+66	1071+18	1073+68	1075+62	1076+42	1078+92	1081+38	1083+85
	74' LT	74' LT	93' LT	86' LT	86' LT	86' LT	86' RT	86' RT	86' RT	92' RT	74' RT	74' RT	74' RT	74' RT

Note: Station and Offset locations are at proposed pole.

LIGHTING FIXTURE SCHEDULE						
SERVICE POINT	SERVICE TYPE	VOLTAGE	MAIN BREAKER	BRANCH CIRCUIT COLOR	BRANCH CIRCUIT DESIGN LOAD	BRANCH CIRCUIT BREAKER
A	-	120/240V	-	BLACK	-	-
				RED	-	-

LIGHTING FIXTURE SCHEDULE								
TYPE	SYMBOL	DESCRIPTION	MANUFACTURER	CATALOG NO.	LAMP	VOLTAGE	MOUNTING	REMARKS
A	See Legend	INDOT Standard LED	AMERICAN ELECTRIC LIGHTING	ATBO-P305-MVOLT-R4-4K	LED	120	ARM	-
A		INDOT Standard 15' ARM E-807-LTST	-	-	-	-	-	-
A		INDOT Standard 40' POLE E-807-LTST	-	-	-	-	-	-

HANDHOLE LOCATIONS						
HANDHOLE NO.	1	2	3	4	5	6
CONDUIT DIRECTION	North	-	East	North	-	-
CONDUIT LENGTH (FT)	87	-	160	101	-	-
STATION - Line "A"	1074+80	1075+65	1076+25	1074+52	1075+52	1076+25
	120' LT	118' LT	86' LT	94' RT	97' RT	77' RT



LIGHT POLE DETAIL
SCALE: Not to Scale

NOTE TO REVIEWER:
Lighting Details to be Finalized for Stage 3 Plans Submittal.

Plot: 9/20/2024
File:
Model: Default

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: NSK DRAWN: NSK
CHECKED: AF CHECKED: AF

INDIANA DEPARTMENT OF TRANSPORTATION

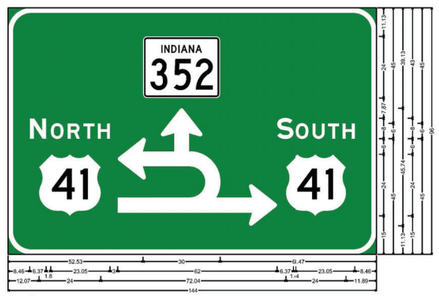
LIGHTING DETAILS AND SCHEDULES

SCALE: NTS
DESIGNATION: 2100058
SHEETS: 22 of 35
CONTRACT: T-43690
PROJECT: 2100058

Notes to Reviewer:
Final details and dimensions for intersection guide signs to be included in final plans after INDOT Traffic review.

Exact sign stations and quantities to be provided in Signing Summary at STG 3.

Final Lighting locations to be coordinated with INDOT.



Sign ID #11;
9.00" Radius, 2.00" Border, White on Green;
State Highway 352 M1-6a; "NORTH", E Mod; Fishhook Arrow Configuration; "SOUTH", E Mod;

11

12

Sign ID #10;
9.00" Radius, 2.00" Border, White on Green;
State Highway 352 M1-6c; "SOUTH", E Mod; Fishhook Arrow Configuration; "NORTH", E Mod;

LEGEND

- (46) Line, Thermoplastic, Solid White, 6 in.
- (48) Line, Thermoplastic, Solid White, 10 in.
- (49) Line, Thermoplastic, Solid Yellow, 6 in.
- (50) Line, Thermoplastic, Broken, White, 6 in.
- (51) Transverse Marking, Thermoplastic, Stop Line, White, 24 in.
- (52) Transverse Marking, Thermoplastic, Crosshatch Line, White, 24 in.
- Lane Direction
- Transverse Marking Thermoplastic Lane Indication Arrow
- ONLY Transverse Marking Thermoplastic Word ONLY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 7/2023 DATE		INDIANA DEPARTMENT OF TRANSPORTATION	SCALE 1": 60' / BRIDGE FILE N/A
DESIGNED: NK	DRAWN: NK	PAVEMENT MARKING AND SIGNING DETAILS	DESIGNATION 2100058
CHECKED: BBV	CHECKED: BBV		SHEETS 23 of 35
			CONTRACT T-43690 / PROJECT 2100058

Plot: 9/20/2024
File: 221641 PMrkgSignDet_01.dgn
Model:PMRKING_Detail Sheet

APPENDIX C: EARLY COORDINATION

Early Coordination Package
Early Coordination Responses

Sample Early Coordination Letter

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Michael Smith, Commissioner

February 2, 2024

Re: Early Coordination Letter, INDOT Des. No.: 2100058, Roadway Project on US 41 and SR 352, approximately 4 Miles North of SR 26 and 7 Miles South of SR 18, Benton County, Indiana

To Whom It May Concern:

The Indiana Department of Transportation (INDOT), with federal funding, intends to proceed with a project involving the aforementioned roadway project in Benton County. 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 designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

This project is located at the intersection of US 41 and State Road (SR) 352, approximately 4 miles north of SR 26 and 7 miles south of SR 18, in Benton County. This section of US 41 is a four-lane divided Rural - Principal Arterial roadway that contains two 12-foot (ft) wide travel lanes with 10-ft wide outside shoulders and 4-ft wide median shoulders in each direction. SR 352 is a two-lane undivided Rural - Major Collector roadway that contains two 11-ft wide travel lanes with 1-ft wide shoulders. There are two culverts within the project limits. A 36-inch (in.) diameter corrugated metal pipe (CMP) culvert is located under SR 352 west of US 41 and a 30-in. diameter polyvinyl chloride (PVC) pipe inside of a CMP culvert is located under SR 352 east of US 41. Multiple median inlets are located in the US 41 grass median within the project limits. The median inlets drain east and west into the existing roadside ditches along US 41. No guardrail or other standard safety features exist at the intersection, but there is existing guardrail along US 41 southbound near the project's southern terminus. Potential work on the guardrail is anticipated to be limited to improved end sections along US 41. The draft need is due to the intersection experiencing an above normal number of crashes and crash severity for an unsignalized rural state intersection. This intersection has an index crash frequency (ICF) of 0.57 and the Index of Crash Costs (ICC) of 1.01. An ICF and ICC above 0 and close to 1 indicates that the number of crashes and their severity are slightly higher than usual. The draft purpose is to improve public safety by reducing the number of crashes at this intersection and to reduce right angle crashes. The approximate existing right-of-way is 130–145 ft on each side of the US 41 centerline and 25 ft on each side of the SR 352 centerline throughout the project area.

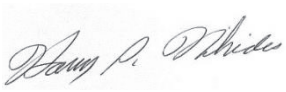
Reduced Conflict

The proposed project is anticipated to construct a ~~Restricted Crossing~~ Intersection (RCI) at the US 41 and SR 352 intersection. This type of intersection would eliminate the left turn and through movements from SR 352 approaches. To accommodate these movements, the RCI intersection would require SR 352 drivers to turn right onto the US 41 and then make a U-turn maneuver at a one-way median opening at least 400 ft after the intersection in both directions. US 41 traffic would still be allowed to turn left on SR 352. The US 41 and SR 352 roadways would be milled and resurfaced after the completion of adding the median U-turns and center medians. Both SR 352 culverts would need to be extended or replaced. There would also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median. New 18-in. diameter culverts would be installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections. The project would occur within existing INDOT right-of-way. No permanent or temporary right-of-way are anticipated to be required. The project will be approximately 0.313 mile in length. The proposed method of traffic maintenance is anticipated to require phased lane closures for US 41 and eventual roadway closure and restrictions for SR 352 at the US 41 intersection. A detour route would utilize SR 26, SR 55, and US 41 during construction. No trees are anticipated to be cleared as part of this project. The project is anticipated to begin construction in Spring 2026.

The INDOT Environmental Services Division (ESD) Ecology & Waterway Permitting Office (EWPO) will review the waters and wetlands determinations completed by ASC Group, Inc. to identify any ecological resources that may be present. The project is anticipated to qualify for the Range-wide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation (IPaC). Coordination will occur with INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence as appropriate.

Please provide your response within thirty (30) calendar days from the date of this letter. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Harry Nikides, Indiana Regional Manager, at hnikides@ascgroup.net or 317.915.9300, ext. 100 or Kaitlyn ~~McDaniel~~, INDOT Project Manager, at ~~KaMcdaniel@indot.IN.gov~~ or 765-361-~~55610~~. Thank you in advance for your input. **Taylor** **KatTaylor@indot.IN.gov** **5610**

Sincerely,



Harry Nikides
Indiana Regional Manager
ASC Group, Inc.

cc: Harry Nikides, ASC Group, Inc.
Robert Iverson, Fishbeck

Attachments:
List of Agencies
Maps/Graphics (Location, Topographic, Aerial, and Photographs)

Sample Recipient List

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

Eric Holcomb, Governor
Michael Smith, Commissioner

The following agencies received Early Coordination Letters:

Federal Highway Administration (FHWA)
Federal Office Building, Room 254
575 North Pennsylvania Street
Indianapolis, IN 46204
(Electronic Coordination)
Kari Carmany-George – Crawfordsville, Greenfield, and LaPorte Districts k.carmanygeorge@dot.gov

Chief, Groundwater Section
Indiana Department of Environmental Management (IDEM)
100 North Senate Avenue
Indianapolis, IN 46204
(Electronic Coordination)
ATurnbow@idem.IN.gov

Indiana Geological and Water Survey (IGWS)
611 North Walnut Grove
Bloomington, IN 47405
(Electronic Coordination)
https://igws.indiana.edu/eAssessment

Environmental Coordinator
Indiana Department of Natural Resources-Division of Fish and Wildlife (IDNR-DFW)
402 West Washington Street, Room W273
Indianapolis, IN 46204
(Electronic Coordination)
environmentalreview@dnr.in.gov

Field Environmental Officer
Chicago Regional Office
U.S. Department of Housing and Urban Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604
(Electronic Coordination)
Erik.r.sandstedt@hud.gov

INDOT
Crawfordsville District – Environmental Section Manager
41 West 300 North
Crawfordsville, IN 47933
(Electronic Coordination)
RKurtz@indot.in.gov

INDOT
Crawfordsville District – Project Manager
41 West 300 North
Crawfordsville, IN 47933
(Electronic Coordination)
~~KaMedaniel@indot.IN.gov~~ **KatTaylor@indot.IN.gov**

INDOT
Office of Aviation
100 North Senate Avenue, Room 955
Indianapolis, IN 46204
(Electronic Coordination)
Tyler Lewandowski – tlewandowski@indot.in.gov

State Conservationist
Natural Resources Conservation Service (NRCS)
6013 Lakeside Boulevard
Indianapolis, IN 46278
(Electronic Coordination)
john.allen@usda.gov

Benton County Council
706 East 5th Street
Fowler, IN 47944
(Electronic Coordination)
Jacqueline.steinmetz@primient.com

Benton County Commissioner Members
District 1 – Grant, Hickory Grove, Oak Grove North, Oak Grove South, and Bolivar Townships
706 East 5th Street
Fowler, IN 47944
(Electronic Coordination)
jfields3536@gmail.com

Benton County Highway Supervisor **Incorrect mailing address**
~~920 East CR 800 North~~
~~Chrisney, IN 47611~~
~~(Electronic Coordination)~~
~~schwy@psci.net~~
1101 East Lingle Avenue
Fowler, IN 47944
(Electronic coordination)
mbudreau@bentoncounty.in.gov

Benton County Surveyor
706 East 5th Street; Suite 17
Fowler, IN 47944
(Electronic Coordination)
dfisher@bentoncounty.in.gov

Town of Boswell Council President
108 West Main Street
Boswell, IN 47921
(Electronic Coordination)
brodygmike@gmail.com

Town of Boswell Street/Water Department
108 West Main Street
Boswell, IN 47921
(Electronic Coordination)
bw@townofboswell.com

Benton Community Schools
405 South Grant Avenue
P.O. Box 512
Fowler, IN 47944

Benton County Sheriff's Department & Jail
105 South Lincoln Avenue
Fowler, IN 47944

Benton County Emergency Services
604 East 2nd Street, Suite C
Fowler, IN 47944

Boswell-Grant Township Fire Department
307 West North Street
Boswell, IN 47921

Sent 7-15-2024 only:

Boswell Water Department
RE: Wellhead Protection Area
108 B East Main Street
Boswell, IN 47921
(Electronic Coordination)
Turner.jim59@yahoo.com

RFI contacts:

INDOT Utilities and Railroads
RE: One Kankakee Beaverville and Southern Railroad segment Adjacent to Project
RE: One Northern Indiana Public Service Co. pipeline segment Within the Project
Utilities and Railroad Director
100 North Senate Avenue IGCN 758 - UT/RR
Indianapolis, IN 46204
(Electronic Coordination)
saanderson2@indot.in.gov

IDEM Office of Land Quality
RE: Antique Landfill – Boswell Dump Adjacent to Project
100 North Senate Avenue
Indianapolis, IN 46204
(Electronic Communication)
Kim Vedder kvedder@idem.in.gov

Dollar General Store 21911
RE: NPDES Facility – Dollar General Store 21911 Adjacent to Project
215 N Old US Highway 41
Boswell, IN 47921

INDIANA GEOLOGICAL & WATER SURVEY
INDIANA UNIVERSITY

Organization and Project Information

Project ID:
Des. ID:
Project Title: US 41 & SR 352 ATL DES 2100058
Name of Organization: ASC Group, Inc.
Requested by: Cameron Berry

Environmental Assessment Report

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

*Map layers from the Indiana Geological and Water Survey and Indiana Map

DISCLAIMER:

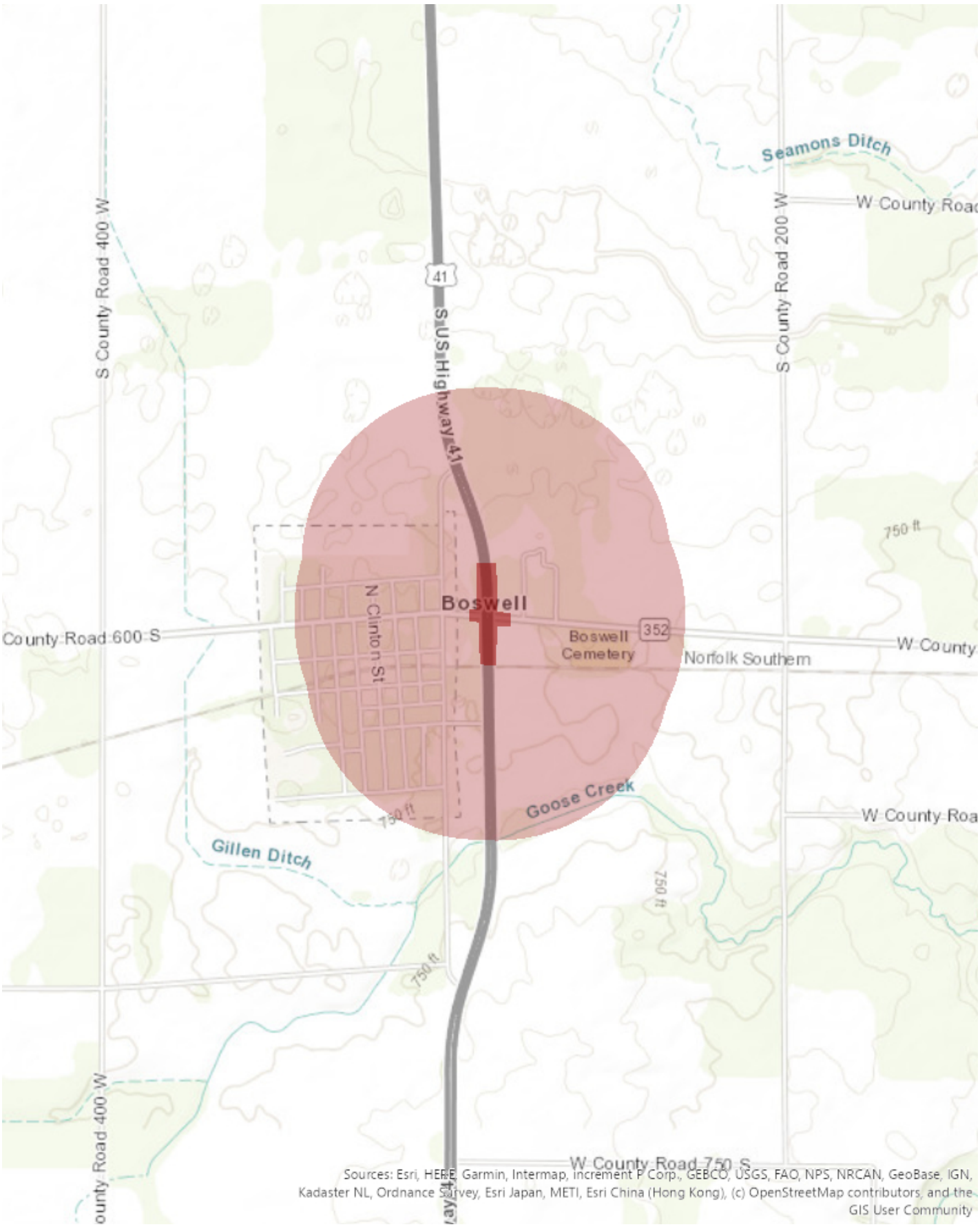
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This information was furnished by Indiana Geological Survey
Address: 420 N. Walnut St., Bloomington, IN 47404
Email: IGSEnvir@indiana.edu
Phone: 812 855-7428

Date: October 27, 2023

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- https://portal.igs.indiana.edu/arcgis/rest/services/Seismic_Earthquake_Liquefaction_Potential/MapServer/info/metadata
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- https://gisdata.in.gov/server/rest/services/Hosted/FIRM_Flood_Hazard_Zones_2023/FeatureServer/info/metadata
- https://portal.igs.indiana.edu/arcgis/rest/services/Bedrock_Geology/MapServer/info/metadata

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Privacy Notice

Jennifer Rhodes

From: Lewandowski, Tyler <TLewandowski@indot.IN.gov>
Sent: Monday, February 5, 2024 7:53 AM
To: Cameron Berry; Mcdaniel, Kaitlyn; Harry Nikides
Cc: 'Iversen, Rob'; Prasad, Dandi
Subject: RE: Des 2100058 Roadway Project on US 41 and SR 352 - Early Coordination Letter

Good morning,

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

Thank you,

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



From: Cameron Berry <cberry@ascgroup.net>
Sent: Friday, February 2, 2024 4:55 PM
To: Mcdaniel, Kaitlyn <KaMcdaniel@indot.IN.gov>; hNikides <hnikides@ascgroup.net>
Cc: 'Iversen, Rob' <riversen@fishbeck.com>; Prasad, Dandi <dvprasad@fishbeck.com>
Subject: Des 2100058 Roadway Project on US 41 and SR 352 - Early Coordination Letter

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

Des. No.: 2100058
Project Description: US 41 and SR 352 Roadway Project, approximately 4 miles north of SR 26 and 7 miles south of SR 18
Location: Benton County, Indiana

INDOT and FHWA are in the planning stage for a roadway project on US 41 and SR 352, Benton County, Indiana.

This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding potential environmental impacts with recommendations for avoidance, minimization, and mitigation.

Federal Highway Administration (FHWA)
Indiana Department of Environmental Management (IDEM) Wellhead Proximity Determinator
Indiana Geological & Water Survey (IGWS)
Indiana Dept. of Natural Resources-Division of Fish and Wildlife (IDNR-DFW)
US Dept. of Housing and Urban Development
INDOT –Crawfordsville District

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

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

February 12, 2024

Cameron Berry
ASC Group
9376 Castlegate Drive
Indianapolis, Indiana 46256

Dear Mr. Berry:

The purposed US 41 and SR 352 Roadway Project, approximately 4 miles north of SR 26 and 7 miles south of SR 18 in Benton County, Indiana (Des. No. 2100058) as referred to in your letter received February 2, 2024, will not cause a conversion of prime farmland.

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

Sincerely,

JOHN ALLEN Digitally signed by JOHN ALLEN
Date: 2024.02.13 12:34:49 -05'00'

JOHN ALLEN
State Soil Scientist

Enclosures

USDA is an equal opportunity provider, employer, and lender.

Jennifer Rhodes

From: Turnbow, Alisha <ATurnbow@idem.IN.gov>
Sent: Wednesday, February 14, 2024 1:22 PM
To: Cameron Berry
Cc: Harry Nikides; Mcdaniel, Kaitlyn; Moncznik, Adam; Prasad, Dandi
Subject: RE: Des 2100058 Roadway Project on US 41 and SR 352 - Early Coordination Letter
Attachments: Proximity to WPA (2100058).pdf

Hi Cameron,

Find attached to this email a response to the proximity request for Des No 2100058.

Des No 2100058 is located in Boswell Water Department's Wellhead Protection (WHP) Area. The contact for Boswell Water Department is Jim Turner and they can be reached at turner.jim59@yahoo.com and 765-366-5454.

Let me know what questions you have.

Sincerely,

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

(317) 233-9158 • aturnbow@idem.IN.gov

Indiana Department of Environmental Management

IDEM values your feedback.
Please take two minutes and complete this brief survey.

From: Cameron Berry <cberry@ascgroup.net>
Sent: Friday, February 2, 2024 5:34 PM
To: Turnbow, Alisha <ATurnbow@idem.IN.gov>
Cc: hNikides <hnikides@ascgroup.net>; Mcdaniel, Kaitlyn <KaMcdaniel@indot.IN.gov>; Moncznik, Adam <amoncznik@fishbeck.com>; Prasad, Dandi <dvprasad@fishbeck.com>
Subject: Des 2100058 Roadway Project on US 41 and SR 352 - Early Coordination Letter

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

Des. No.: 2100058
Project Description: US 41 and SR 352 Roadway Project, approximately 4 miles north of SR 26 and 7 miles south of SR 18
Location: Benton County, Indiana

INDOT and FHWA are in the planning stage for a roadway project on US 41 and SR 352, Benton County, Indiana.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

February 14, 2024

ASC Group, Inc.
Attention: Cameron Berry
9376 Castlegate Drive
Indianapolis, IN 46256

Dear Cameron Berry:

Re: Wellhead Protection Area
Proximity Determination
Des No 2100058
Roadway Project on US 41 and SR 352, approximately 4 Miles North of SR 26 and 7 Miles South of SR 18, Benton County, Indiana

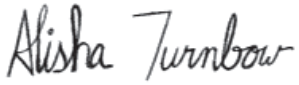
Upon review of the above referenced project site, it has been determined that the proposed project area **is located within** a Wellhead Protection Area. If the contact information is needed for the WHPA, please contact the reference located at the bottom of the letter for the appropriate information.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

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

In the future, **please consider using this self-service tool** if it suits your needs. The Drinking Water Branch has a self-service tool which allows one to determine wellhead proximity without submitting the application form. Go to https://www.in.gov/idem/cleanwater/pages/wellhead/ and use the instructions at the bottom of the page.

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

Sincerely,



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

THIS IS NOT A PERMIT

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

DNR#: ER-26266

Request Received: February 2, 2024

Requestor:
Harry Nikides
ASC Group Incorporated
9376 Castlegate Drive
Indianapolis, IN 46256

Project:
US 41 & SR 352 intersection improvements via construction of a Restricted Crossing Intersection (RCI) to eliminate the left turn and through movements from SR 352 approaches, and two SR 352 culvert extensions/replacements, 4 miles north of SR 26 and 7 miles south of SR 18; Des #2100058

County/Site Info: Benton County

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:
Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project.

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 and 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:

A) Pavement Rehabilitation
Pavement rehabilitation projects typically do not have a significant impact on fish, wildlife, and botanical resources if best management practices (BMPs) are in place to limit the migration of polycyclic aromatic hydrocarbons (PAHs) into local waterways. PAHs are a byproduct of asphalt and coal tar-based sealants and negatively impact aquatic systems. The use of sealants that are free of petroleum and coal tar-based products is encouraged whenever possible. Contaminated road runoff can significantly impact the aquatic environment through increased turbidity and release of sediment into the stream which can be harmful to fish and other aquatic organisms, their eggs, and their food supply. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate.

B) Drainage and Stormwater Management

The Division of Fish and Wildlife recommends considering a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. This type of solution only transfers drainage problems from one section of a basin to another. A more sustainable approach should aim to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.) and recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.). The following links give a good overview of traditional and sustainable stormwater management systems and their pros and cons for consideration during the design of the proposed project: https://www.epa.gov/greeningepa/epa-facility-stormwater-management; https://www.epa.gov/greeningepa/stormwater-management-practices-epa-facilities.

C) Wildlife Passage

Maintaining or improving fish and wildlife passage at existing and proposed crossings is a priority for the Division of Fish and Wildlife (DFW) to reduce wildlife mortality along roadways. The DFW has outlined different requirements for different types of crossing structure impacts. For crossing replacements, the new structure must include wildlife passage appropriate for the type of replacement structure being proposed. Wildlife passage designs should include a smooth level pathway preferably 3 feet wide but a minimum of 1-2 feet in width composed of natural substrate (soil, sand, gravel, etc.) or compacted aggregate fill over riprap (#2, #53, #73, etc.) tied into existing elevations both upstream and downstream. The stream crossing repairs or modifications, and any bank stabilization under or around the structure, must not create conditions that are less favorable for wildlife passage when compared to existing conditions. Upgrading wildlife passage for rehabilitated/modified structures is encouraged whenever possible to improve wildlife/vehicle safety.

There are several techniques and materials for incorporating wildlife passage into the design of a crossing structure. Coordination with a Regional Environmental Biologist to address wildlife passage issues before submitting a permit application (if required) is encouraged to avoid delays in the permitting process. The following links are good resources to consider in the design of stream crossing structures to maintain fish and wildlife passage:

https://www.fs.usda.gov/ccrc/tool/fishxing-fish-passage-learning-systems
https://www.fs.usda.gov/wildlifecrossings/library/index.php
https://www.fhwa.dot.gov/clas/ctip/wildlife_crossing_structures/
https://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf

D) Landscaping

Consider using native plants for any proposed on-site landscaping and revegetation. The following is a link to information on landscaping with native plants on the Indiana Native Plant Society (INPS) website: https://indiananativeplants.org/landscaping/.

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 that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.
2. Minimize and contain within the project limits all tree and brush clearing.
3. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.

4. If erosion control blankets are used, they shall be heavy-duty, biodegradable, and net free or 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:
Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis **Date:** March 1, 2024
Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

United States Department of the Interior

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

In Reply Refer To: 08/16/2024 00:50:24 UTC
Project Code: 2024-0018435
Project Name: DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes

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

To Whom It May Concern:

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

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

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

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - http://www.fws.gov/midwest/endangered/section7/

s7process/index.html. This website contains step-by-step instructions which will help you determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

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

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

https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf

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

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

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

migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit https://www.fws.gov/partner/council-conservation-migratory-birds.

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

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

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

This species list is provided by:

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

PROJECT SUMMARY

Project Code: 2024-0018435

Project Name: DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes

Project Type: Road/Hwy - Maintenance/Modification

Project Description: The Indiana Department of Transportation (INDOT) is in the planning stage for a proposed intersection improvement project involving the addition of turn lanes at US 41 and SR 352, 4.1 miles north of SR 26 in Benton County, Indiana (Des No. 2100058).

Reduced Conflict Intersection (RCI)

Proposed work will include the construction of a reduced conflict intersection. Specifically, a ~~restricted crossing U-Turn (RCUT)~~ will be constructed at the intersection of US 41 and SR 352. US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns and center medians. A 36-inch corrugated metal pipe (CMP) culvert is located under SR 352 west of US 41 and will need to be extended or replaced. A 30-inch polyvinyl chloride (PVC) pipe inside of a CMP culvert is located under SR 352 east of US 41; the culvert will need to be extended or replaced. There will also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median with new 18-inch culverts installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections. There is suitable summer bat habitat within and near the project area, but these areas will remain undisturbed. On October 27, 2023 a review of the USFWS database by INDOT Environmental District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. No tree trimming or clearing will occur as part of this project. Construction is anticipated to occur in spring and summer of 2026.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.52124365,-87.37606748367007,14z



Counties: Benton County, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 6 threatened, endangered, or candidate species on this species list.

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

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

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

---

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

MAMMALS

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Tricolored Bat *Perimyotis subflavus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515	Proposed Endangered

BIRDS

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

CLAMS

NAME	STATUS
Salamander Mussel *Simpsonaias ambigua* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208	Proposed Endangered

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate
Western Regal Fritillary *Argynnis idalia occidentalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/12017	Proposed Threatened

CRITICAL HABITATS

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

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

BALD & GOLDEN EAGLES

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

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats[3], should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

THERE ARE NO BALD AND GOLDEN EAGLES WITHIN THE VICINITY OF YOUR PROJECT AREA.

MIGRATORY BIRDS

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

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

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

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

NAME	BREEDING SEASON
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454	Breeds May 20 to Jul 31

NAME	BREEDING SEASON
Chimney Swift *Chaetura pelagica* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406	Breeds Mar 15 to Aug 25

PROBABILITY OF PRESENCE SUMMARY

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

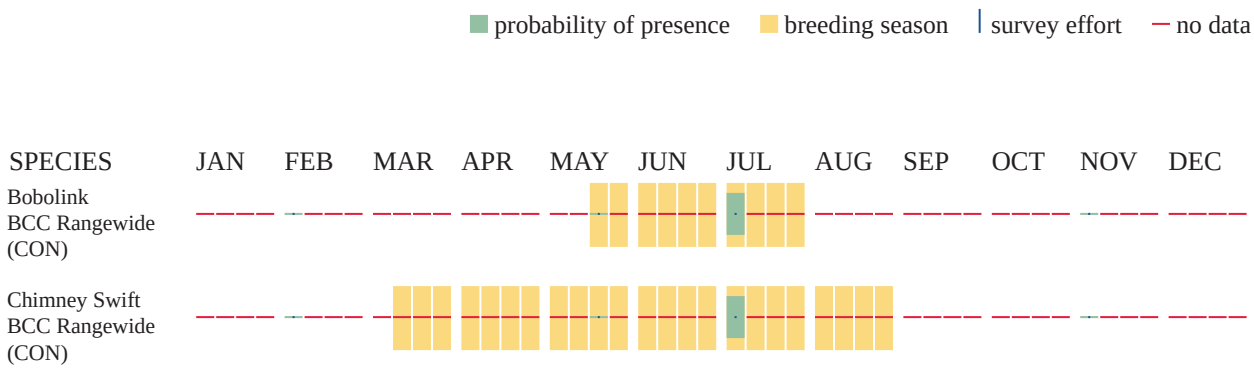
Probability of Presence (▪)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (▪)
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)
Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

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



Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds

- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

WETLANDS

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

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

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

THERE ARE NO WETLANDS WITHIN YOUR PROJECT AREA.

IPAC USER CONTACT INFORMATION

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Name: Cameron Berry
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City: Indianapolis
State: IN
Zip: 46256
Email cberry@ascgroup.net
Phone: 3179159300

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Indiana Department of Transportation

United States Department of the Interior

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

In Reply Refer To: 03/21/2024 14:49:54 UTC
Project code: 2024-0018435
Project Name: DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes

Subject: Concurrence verification letter for the 'DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes' project under the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (NLEB).

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated March 21, 2024 to verify that the **DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes** (Proposed Action) may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

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

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Proposed Action does not meet the criteria for a NLAA determination under the PBO. If we do not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Proposed

Action under the terms of the NLAA concurrence provided in the PBO. This verification period allows Service Field Offices to apply local knowledge to implementation of the PBO, as we may identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

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

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

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

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

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

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

PROJECT DESCRIPTION

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

NAME

DES No. 2100058, US 41 & SR 352 Intersection Improvement, Added Turn Lanes

DESCRIPTION

The Indiana Department of Transportation (INDOT) is in the planning stage for a proposed intersection improvement project involving the addition of turn lanes at US 41 and SR 352, 4.1 miles north of SR 26 in Benton County, Indiana (Des No. 2100058).

Reduced Conflict Intersection (RCI)

Proposed work will include the construction of a reduced conflict intersection. Specifically, a ~~restricted crossing U-Turn (RCUT)~~ will be constructed at the intersection of US 41 and SR 352. US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns and center medians. A 36-inch corrugated metal pipe (CMP) culvert is located under SR 352 west of US 41 and will need to be extended or replaced. A 30-inch polyvinyl chloride (PVC) pipe inside of a CMP culvert is located under SR 352 east of US 41; the culvert will need to be extended or replaced. There will also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median with new 18-inch culverts installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections. There is suitable summer bat habitat within and near the project area, but these areas will remain undisturbed. On October 27, 2023 a review of the USFWS database by INDOT Environmental District did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. No tree trimming or clearing will occur as part of this project. Construction is anticipated to occur in spring and summer of 2026.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@40.5212518,-87.37607270872478,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the endangered Indiana bat and/or the endangered northern long-eared bat, therefore, consultation with the U.S. Fish and Wildlife Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended 16 U.S.C. 1531 *et seq.*) is required. However, also based on your answers provided, this project may rely on the concurrence provided in the amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

QUALIFICATION INTERVIEW

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See northern long-eared bat species profile

   Automatically answered
   No

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

   A) Federal Highway Administration (FHWA)

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

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

   No

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

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

   No

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

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

   No

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

   No

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

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

   [2] The action area is defined as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR Section 402.02). Further clarification is provided by the User's Guide for the Range-wide Programmatic Consultation for Indiana Bat and Northern Long-eared Bat.

   Yes

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

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

   No

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

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

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

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

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

    No

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

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

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

    No

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

    No

13. Does the project include slash pile burning?

    No

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

    Yes

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

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

    Yes

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

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

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

    Yes

SUBMITTED DOCUMENTS

- *IN919 - Bridge Structure Bat Assessment Form.pdf https://ipac.ecosphere.fws.gov/project/B4YF2HSKCJDY3JHOVGIBNLFI4E/projectDocuments/135344942*

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

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

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

    No

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

    No

19. 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

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

    Yes

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

    Yes

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

    No

23. 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

24. 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[1]?

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

    Yes

25. 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[1]?

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

    Yes

26. 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

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

    No

28. 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, and conducted during the active season within undocumented habitat.

29. 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

30. 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

31. **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

32. **Lighting AMM 1**
    Will *all* **temporary** lighting be directed away from suitable habitat during the active season?

    Yes

PROJECT QUESTIONNAIRE

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

   N/A

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

   N/A

3. Please describe the proposed bridge work:

   A 36-inch corrugated metal pipe (CMP) culvert is located under SR 352 west of US 41 and will need to be extended or replaced. A 30-inch polyvinyl chloride (PVC) pipe inside of a CMP culvert is located under SR 352 east of US 41; the culvert will need to be extended or replaced. There will also be some minor stormwater drainage work involving catch basin/ inlet adjustment and/or replacement in the median with new 18-inch culverts installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections.

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

   Spring and Summer of 2026

5. Please enter the date of the bridge assessment:

   August 22, 2023

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

LIGHTING AMM 1

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

GENERAL AMM 1

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

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

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

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

This decision key should only be used to verify project applicability with the Service's amended February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion (dated March 23, 2023) for Transportation Projects. The programmatic biological opinion covers limited transportation activities that may affect either bat species, and addresses situations that are both likely and not likely to adversely affect either bat species. This decision key will assist in identifying the effect of a specific project/activity and applicability of the programmatic consultation. The programmatic biological opinion is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic biological opinion, or that may affect ESA-listed species other than the Indiana bat or NLEB, or any designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Benjamin Neild
Address: 41 W. 300 N.
City: Crawfordsville
State: IN
Zip: 47933
Email bneild@indot.in.gov
Phone: 7653615259

Bridge/Structure Bat Assessment Form

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
8/22/2023 @ 11:00 AM	DES 2100058	US 41 & SR 352	Randolph
Federal Structure ID ~~N/A~~ CLV-86826	**Structure Coordinates** (latitude and longitude) 40.521300, -87.376331	**Structure Height** (approximate) ~~1 Ft~~ 36-in.	**Structure Length** 40 Ft

Structure Type (check one)

Bridge Construction Style

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

Culvert Type

- ○ Box
- ◉ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

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

Creosote Evidence

- ○ Yes ◉ No
- ○ Unknown

Culvert Material

- ☒ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

Crossings Traversed (check all that apply)

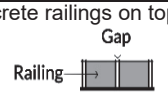
☐ Bare ground	☒ Open vegetation
☐ Rip-rap	☒ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☒ Road/trail - Type: US 35, Paved Roadway
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

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

Areas Assessed (check all that apply)

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

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

Name: Cameron Berry

Signature: Cameron Berry

Date & Time of Assessment	DOT Project Number	Route/Facility Carried	County
6/25/2025	DES 2100058	US 41 & SR 352	Randolph
Federal Structure ID	**Structure Coordinates** (latitude and longitude)	**Structure Height** (approximate)	**Structure Length**
CLV-86826	40.521300, -87.376331	36-in.	40 Ft

Structure Type (check one)

Bridge Construction Style

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

Culvert Type

- ○ Box
- ⊙ Pipe/Round
- ○ Other:

Other Structure

- ○

Structure Material (check all that apply)

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

Creosote Evidence

- ○ Yes ⊙ No
- ○ Unknown

Culvert Material

- ☒ Metal
- ☐ Concrete
- ☐ Plastic
- ☐ Stone/Masonry
- ☐ Other:

Notes:

Crossings Traversed (check all that apply)

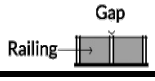
☐ Bare ground	☒ Open vegetation
☐ Rip-rap	☒ Closed vegetation
☐ Flowing water	☐ Railroad
☐ Standing water	☒ Road/trail - Type: US 35, Paved Roadway
☐ Seasonal water	☐ Other:

Surrounding Habitat (check all that apply)

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

Areas Assessed (check all that apply)

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

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

Name: Cameron Berry

Signature: Cameron Berry

Jennifer Rhodes

From: VEDDER, KIM <KVEDDER@idem.IN.gov>
Sent: Wednesday, July 24, 2024 11:31 AM
To: Jennifer Rhodes
Cc: Cameron Berry; Taylor, Kaitlyn; 'Iversen, Rob'; Prasad, Dandi; RAMAN, SHYAMALA; Lu, Xuefei (Michelle)
Subject: RE: Des 2100058 Roadway Project on US 41 and SR 352 - Early Coordination Letter
Attachments: Boswell_Dump.pdf

Hi Jennifer,

Attached is the only document we have for the Boswell Dump. The location is somewhat ambiguous, which is one of the reasons it's not fully integrated with our database systems yet. The attached inspection report from 1973 refers to the location as a "Truck stop in Boswell," indicates it's approximately 400 feet east of US 41, and that the nearest dwelling is approximately 400 feet north/northwest of the dump.

In 1973, US 41 was west of where it is now (what is now called Old US 41). Our location on the map for the suspected dump corresponds to a low area on historic topographic maps. There were 2 truck stops along US 41. One was/is west of where we drew the dump. The other is the Brownfields project (AI # 111235).

We suspect the waste is in the approximate area where it is on the map, but we do not have proof. Therefore, we recommend the following:

- Initial exploratory test pits or borings should be advanced to confirm or deny the presence of waste and its extent in the proposed area of work.
- If waste is excavated, it needs to be properly disposed of in a permitted MSW Landfill. IDEM can provide guidance and approval for remediation/excavation or use of the dumps.
- Special attention should be given to leachate control during the excavation activity, including stormwater run-on and run-off controls for the excavated areas.
- Special attention should also be given to the potential for explosive gas to be present.
- All exposed waste not removed will need to be recovered with 2 feet of soil, graded and vegetated.
- If roadway and/or culvert work is to be conducted over the dump, then we will need to see a workplan for review and approval, before work can commence.

Please let us know if we can answer additional questions.

Kim Vedder
Geologist | Antique Landfill Coordinator
Permits Geology Section | Office of Land Quality
(317) 232-8714 kvedder@idem.in.gov
www.idem.IN.gov

Scan the QR code to leave your feedback.
We appreciate your input!

ALF 789

INDIANA STATE BOARD OF HEALTH
INSPECTION FORM FOR SOLID WASTE DISPOSAL FACILITIES

DATE: Aug 24, 1973 TIME: 10:21 (AM) PM COUNTY: Benton

SUBJECT: Open Dump

LOCATION: Truck Stop in Boswell

PERSON CONTACTED:

I. Type of Operation: (DUMP) LANDFILL OTHER:

II. Operating Deficiencies:

(X) No Approval ( ) No Permit
( ) Cover Not Adequate (X) No Cover
( ) On-Site Roads Not Adequate Or Not Of All-Weather Type
(X) Burning: (X) Past; ( ) Present
(X) Limited Access To Public Not Sufficient
(X) Blowing Paper Problem
( ) Size Of Working Face Too Large
( ) Accumulation Of Salvage Materials
( ) Surface Drainage Problems
( ) Leaching
(X) Vector Problem: ( ) Rats; (X) Birds; ( ) Insects
( ) Hazardous Or Prohibited Wastes Allowed (Specify Below)
( ) Unloading Procedures Problem (Specify Below)
(X) Odor Problem
( ) Refuse Dumped In Water

III. Dumps Only

Proximity To Major Highway 400' E of US41

Proximity To Dwellings 400' NNW of Dump

Water On Site Or Nearby OK

Jurisdiction: (Private) County Municipal

Is There Garbage Present? (Yes) No

Soils Observed —

IV. Additional Comments:

INSPECTED BY Robert F Colton

APPENDIX D: SECTION 106 OF THE NHPA

Section 106 Documentation
Minor Projects PA Project Assessment Form

SECTION 1

Submittal of this form is only required for projects where Category B applies. Projects qualifying under Category A do not require submittal of this form. SECTION 2 (for Conditions of Category B.1 for curb/sidewalk) or SECTION 3 (for Conditions of Category B.9 for drainage structures) may be required as determined by INDOT-Cultural Resources Office (INDOT-CRO) review. INDOT-CRO will notify applicant if the Minor Projects PA does not apply.

Part I: Project Information-Completed by Applicant (Consultant/PM/Project Sponsor/INDOT District Staff)*

**A qualified professional historian (QP) is not required to complete Part I INDOT-Cultural Resources Office (INDOT-CRO) staff will be responsible for completion of Part II.*

Original Submission Date: October 26, 2023 **Amended Submission Date*:**

**Consult with INDOT-CRO to determine whether an amendment is required. For revisions/updates to original form, please detail in applicable sections below. Please use red font to distinguish the revisions/updates.*

Submitted By (Provide Name and Firm/Organization):

Douglas S. Terpstra
ASC Group, Inc.
800 Freeway Drive North, Suite 101
Columbus, Ohio 43229
614-268-2514 x 3556
dterpstra@ascgroup.net

Project Designation Number: 2100058

Route Number: US 41 and State Road (SR) 352

Feature crossed (if applicable): N/A

City/Township: Grant Township and Town of Boswell **County:** Benton

Project Description:*

The US 41 and SR 352 intersection is located approximately 4 miles north of SR 26 and 7 miles south of SR 18 in Sections 18 and 19, Township 24N, Range 8W, in Benton County, Indiana. The intersection is located in Grant Township, with the Town of Boswell on the west side of the intersection.

Reduced Conflict Intersection (RCI)

The project proposes to convert the intersection into a ~~Restricted Crossing U-Turn (RCUT) Intersection~~. The ~~RCUT~~ intersection differs from a conventional intersection by eliminating the left-turn and through movements from cross street approaches. To accommodate these movements, the ~~RCUT~~ intersection requires SR 352 drivers to turn right onto the main road and then make a U-turn maneuver at a one-way median opening at least 400 feet after the intersection. US 41 traffic will still be allowed to turn left on SR 352. The intersection would be un-signalized, and the turns (both the right and U-turns) would be stop-controlled. The following areas will be widened:

- Southbound US 41 will be widened to the outside north of the intersection to add a right turn lane onto westbound SR 352.
- Northbound US 41 will be widened to the outside south of the intersection to add a right turn lane onto eastbound SR 352.
- Southbound US 41 will be widened to the inside north of the intersection to add a left turn lane onto eastbound SR 352.

- Northbound US 41 will be widened to the inside south of the intersection to add a left turn lane onto westbound SR 352.

US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns and center medians. A 36-inch corrugated metal pipe (CMP) culvert is located under SR 352 west of US 41 and will need to be extended or replaced. A 30-inch polyvinyl chloride (PVC) pipe inside of a CMP culvert is located under SR 352 east of US 41; the culvert will need to be extended or replaced. There will also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median with new 18-inch culverts installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections.

US 41 is a four-lane divided rural principal arterial highway, with two 12-foot-wide travel lanes with 10-foot-wide outside shoulders and 4-foot-wide median shoulders in each direction. SR 352 is a two-lane undivided major collector highway, with two 11-foot-wide travel lanes with 1-foot-wide shoulders within the project limits. Right and left turn lanes exist in both the northbound and southbound direction on US 41. The intersection is classified as an Unsignalized Rural State Intersection.

The need for the project is that the intersection is experiencing an above normal number of crashes and crash severity for an Unsignalized Rural State Intersection. There were 13 crashes at this intersection between 2015 and 2020, including one fatal crash. From the available information in the narratives of the crashes, three crashes involved incapacitating injuries, two crashes involved non-incapacitating injuries, and seven crashes involved property damage only. This roadway segment has an Index of Crash Frequency (ICF) of 0.57 and an Index of Crash Costs (ICC) of 1.01. An ICF and ICC above 0 and less than 1 indicates that the number of crashes and their severity are slightly higher than usual. The primary crash factors for all of the recorded incidents shows the majority of crashes are more likely attributable to driver failure to yield right-of-way than road features. The purpose of the project is to increase public safety by reducing the number of crashes at this intersection and to reduce right angle crashes.

A portion of this work falls under Category A-2 for work within interchanges and within medians of divided highways in previously disturbed soils, but the right turns lanes built to the outside of the existing travel lanes will require clearance under Category B-3, along with work performed to culverts under Category B-9.

If the project includes any curb, curb ramp, or sidewalk work, please specify the location(s) of such work: N/A

For bridge or small structure projects, please list feature crossed, structure number, NBI number, and structure type:
No culvert number in Bridge Inspection Application System (BIAS), roadside drainage under SR 352 (west of US 41), 36-inch CMP
No culvert number in BIAS, roadside drainage under SR 352 (east of US 41), 30-inch PVC pipe inside a CMP

For bridge projects, is the bridge included in INDOT's Historic Bridge Inventory (https://www.in.gov/indot/2531.htm)?

☐ **Yes** ☐ **No**

If yes, did the inventory determine the bridge eligible for or listed in the National Register of Historic Places? Please provide page # of entry in Historic Bridge Inventory.

☐ **Yes** ☐ **No**

Inventory Page #_____

Will there be right-of-way acquisition as part of this project?

☐ **Yes** ☒ **No**

If yes was checked above, please check all that apply:

☐ **Permanent** ☐ **Temporary** ☐ **Reacquisition**

If applicable, identify right-of-way acquisition locations in text below and in attached mapping. Please specify how much (both temporary and permanent) and indicate what activities are included in the proposed right-of-way:

Is there *<u>any</u>* potential for additional temporary right-of-way to be needed later for purposes such as access, staging, etc.?

☐ **Yes** ☒ **No**

Archaeology (check one):

☒ **All proposed activities are presumed to occur in previously disturbed soils***

**INDOT-CRO will notify you if project area incudes undisturbed soils and requires an archaeological reconnaissance.*

☐ **Project takes place in undisturbed soils and the archaeology report is included in submission or will be forthcoming***

** If an archaeology report is required, the Minor Projects PA Form will not be finalized until the report is reviewed and approved by INDOT-CRO. For INDOT-sponsored projects, INDOT-CRO may be able to complete the archaeological investigation. If you would like to request that INDOT-CRO complete an archaeological investigation, please contact the INDOT-CRO archaeology team lead. See CRM Pt. 1 Ch. 3 for current contact information.*

Please specify all applicable categories and condition(s) (highlight applicable conditions in yellow)*:

**Include full category text, including any conditions. INDOT-CRO will finalize categories upon their review.*

B-3. Construction of added travel, turning, or auxiliary lanes (e.g., bicycle, truck climbing, acceleration and deceleration lanes) and shoulder widening under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

<u>Condition A (Archaeological Resources)</u>

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

i. Work occurs in previously disturbed soils; *OR*

ii. Work occurs in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area. If the archaeological investigation locates National Register-listed or potentially National Register-eligible archaeological resources, then full Section 106 review will be required. Copies of any archaeological reports prepared for the project will be provided to the DHPA and any archaeological site form information will be entered directly into the

SHAARD by the applicant. The archaeological reports will also be available for viewing (by Tribes only) on INSCOPE.

Condition B (Above-Ground Resources)

Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

B-9. Installation, replacement, repair, lining, or extension of culverts and other drainage structures under the conditions listed below **[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]**:

Condition A (Archaeological Resources)

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

i. Work occurs in previously disturbed soils; *OR*

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

Condition B (Above-Ground Resources)

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

i. Work does not involve installation of a new culvert and other drainage structure, and there are no impacts to unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under one of the following conditions *(Condition a, Condition b, or Condition c must be satisfied)*:
   a. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
   b. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
   c. The structure exhibits non-modern wood, stone, or brick structures or parts therein and the following conditions are met *(BOTH Condition 1 AND Condition 2 must be met)*:
      1. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*
      2. The structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

ii. Work involves the installation of a new culvert and other drainage structures AND/OR there may be impacts to unusual features, including historic brick or stone sidewalks, curbs or curb ramps, stepped or elevated sidewalks and retaining walls, under the following conditions *(BOTH Condition a and Condition b must be satisfied)*:
   a. Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *AND*

b. The subject structure exhibits one of the characteristics described below *(Condition 1, Condition 2 or Condition 3 must be satisfied)*.
   1. The structure exhibits no wood, stone, or brick structures or parts therein; *OR*
   2. The structure exhibits only modern wood, stone, or brick structures or parts therein; *OR*
   3. The structure exhibits non-modern wood, stone, or brick structures or parts therein but lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. Under this condition, a qualified professional (meeting the Secretary of Interior's Professional Qualification standards [48 Federal Register (FR) 44716]) must prepare an analysis and justification that the structure lacks sufficient integrity and/or a context that suggests it might have engineering or historical significance. This documentation must be reviewed and approved by INDOT Cultural Resources Office.

Check ☐ if SECTION 2: Minor Projects PA Category B-1, Condition B-ii Submission is included

Check ☐ if SECTION 3: Minor Projects PA Category B-9, Condition B-i-c-2 or B-ii-b-3 Submission is included

Part II: Completed by INDOT-CRO

Amendments will be shown in red font.

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photograph ☒ Soil survey data ☐

General project area photos ☒ Archaeology Reports ☐ Historic Property Reports ☐

Indiana Historic Buildings, Bridges, and Cemeteries Map/Interim Report ☒

Bridge inspection information/BIAS ☒ Historic Bridge Inventory Database ☒

SHAARD ☒ SHAARD GIS ☒ Streetview Imagery ☒ County GIS Data/Property Cards ☐

Other (please specify): INDOT Bridge and Drainage Assets Viewer database; *Abbreviated Engineering Assessment: US 41 and SR 352 Intersection* (Prepared for INDOT Crawfordsville District by Parsons; December 2021)

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

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

Additional Comments:

Above-ground Resources

An INDOT-CRO historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 An INDOT-Cultural Resources Office (CRO) 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 Benton 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 *Benton County Interim Report* of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The 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 Map (IHBBCM). The SHAARD information was checked against the Interim Report hard copy maps. No historic district exists in the small town of Boswell. One IHSSI-surveyed resource rated higher than 'contributing' is recorded within 0.25 mile of the project: **1) Boswell Scattered Site #007-060-47030** (Noll Farm; located at the NE corner of Spies Street and Old US 41; includes c. 1870 Queen Anne farmhouse and cistern; rated 'outstanding'). No other IHSSI-surveyed resource rated higher than 'contributing' is recorded within 0.25 mile of the project location.

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

The previously referenced IHSSI-surveyed resource, #007-060-47030 is located approximately 0.11 mile west/southwest of the project's southern terminus. Areas of heavy tree growth—present in residential yards and in lines of mature trees on the north and south sides of the Norfolk Southern Railroad tracks—as well as existing housing stock serve to block views of the US 41 highway from the resource. For the purposes of this determination, Boswell Scattered Site #007-060-47030 is not considered to be adjacent to the proposed project.

Land surrounding the project area is rural, small town with agricultural fields and scattered residential and commercial buildings present. As US 41 progresses north and south through the eastern side of Boswell's town limits, it is lined with commercial uses, most of which are related to farming/agriculture and animal husbandry. None of the properties within 0.25 mile of the intersection of US 41 with SR 352 were observed to retain the requisite levels of material integrity for NRHP eligibility assessment.

No culvert number in Bridge Inspection Application System (BIAS), roadside drainage under SR 352 (west of US 41), 36-inch CMP

No photographs of the culverts referenced for replacement as part of this project were provided by the consultant (ASC). The following information was provided concerning the culverts: *"…No culvert number in BIAS, roadside drainage under SR 352 (east of US 41), 30-inch PVC pipe inside a CMP…"*. The assigned INDOT CRO historian checked the INDOT ProjectWise database for other sources of information/structure photos (hydraulics reports, RFI, etc.). An abbreviated engineering assessment was consulted; no structure photographs were located. The INDOT Bridge and Drainage Assets Viewer did not include inspection photos of any of the structures mapped in the locations provided by the consultant.

Despite the good-faith efforts made by the assigned CRO Historian to confirm that the subject structures '…*do not exhibit non-modern wood, brick or stone or parts therein…*,' no confirmation can be made. Therefore, the burden of proof that the culverts do not include those component parts lies with the INDOT Crawfordsville District.

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

Archaeological Resources

An INDOT-CRO archaeologist who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 reviewed the proposed project area, conducted a desktop review, and prepared an archaeological assessment. No archaeological resources have been recorded within or adjacent to the proposed project area.

All work is confined to the existing US 41 and SR 352 R/W, which consists of the four-lane divided highway separated by a ditched median and flanked by wide, graded side ditches and embankments of fill. The proposed project area matches the proposed construction limits. Since the areas within the proposed project area/construction limits are limited to previously disturbed soils, there are no archaeological concerns provided the project scope and footprint do not change.

Accidental Discovery: If any archaeological artifacts or human remains are uncovered during construction, demolition, or earth moving activities, construction within 100 feet of the discovery will be stopped, and INDOT-CRO and the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (IDNR-DHPA) will be notified immediately.

INDOT-CRO staff reviewer(s): Susan Branigin and David Walton

INDOT Approval Date: 7/3/2024

Amendment Approval Date (if applicable):

****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.*

Please attach the following to this form:

- **General Location Map.** This map should allow the INDOT-CRO reviewer to quickly locate the project.
- **Aerial photography map(s) of project area.** This map must include project limits. It may also include SHAARD data, but SHAARD data is not required.
- **If bridge or small structure project, please attach photographs of bridge or small structure.** Photographs can be found in inspection reports located in INDOT's Bridge Inspection Application System (BIAS), as well as other project documents, such as engineering assessments or mini-scopes.

Map depicting potential temporary and/or permanent right-of-way acquisitions. In the email submission to INDOT-CRO, please also include:

- **A GIS polygon shapefile or KMZ file of the project area** (shapefiles are preferred). Shapefiles should use "NAD_1983_UTM" projected coordinate system. In addition, these files should contain the following *text* attribute field: DES_NO. The project designation number should be entered in this field.
- **If the project takes place in undisturbed soils, attach the results of the archaeological investigation, if completed.** *Note: The MPPA Submission Form may be submitted before the archaeology report. INDOT-CRO staff will process the above-ground portion of the form in advance of the archaeological portion of the form. However, a completed determination form will not be returned to the applicant until after the archaeology report has been reviewed and approved by INDOT-CRO.*

APPENDIX E: RED FLAG HAZARDOUS MATERIAL

Red Flag Investigation

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-ES
Indianapolis, Indiana 46204

PHONE: (855) 463-6848
(855) INDOT4U

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: April 1, 2024

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

From: Cameron Berry
ASC Group, Inc.
9376 Castlegate Drive
Indianapolis, Indiana 46256
cberry@ascgroup.net

Re: RED FLAG INVESTIGATION
DES # 2100058, State Project
Intersection Improvement
US 41 and SR 352
Benton County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The proposed project is located at the intersection of US 41 and State Road (SR) 352, approximately 4 miles north of SR 26 and 7 miles south of SR 18, in the City of Boswell, Benton County, Indiana. The proposed project would convert the intersection into a ~~Restricted Crossing U-Turn (RCUT) Intersection. The RCUT~~ **Reduced Conflict Intersection (RCI). The RCI** intersection differs from a conventional intersection by eliminating the left-turn and through movements from cross street approaches. US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns and center medians. A 36-inch (in.) diameter corrugated metal pipe (CMP) culvert (CLV-86826) is located under SR 352 west of US 41 and will need to be extended or replaced. A 30-in. diameter polyvinyl chloride (PVC) pipe inside of a CMP culvert (CLV-86827) is located under SR 352 east of US 41; the culvert will need to be extended or replaced. There will also be some minor stormwater drainage work involving catch basin/inlet adjustment and/or replacement in the median. Structures CLV-33660 and CLV-004-194.17 will be removed and replaced with new 18-in. diameter culverts installed on US 41 north and south of the SR 352 intersection at the new U-turn pavement sections.

Bridge Work Included in Project: Yes ☐ No ☒ Structure #(s) _____
If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Culvert Work Included in Project: Yes ☒ No ☐ Structure #(s) Not listed in BIAS

Proposed right of way: Temporary ☐ # Acres _____ Permanent ☐ # Acres _____, Not Applicable ☒

Type and proposed depth of excavation: Excavation will be required for the pavement removal, culvert replacement, and ditch re-grading and will be a maximum depth of 6 feet (ft).

Maintenance of traffic (MOT): The MOT will consist of phased lane closures for US 41 and eventual roadway closure for SR 352 at the US 41 intersection. The MOT plan will reduce US 41 to one lane in each direction during construction. While construction is performed on the outside shoulder areas, US 41 traffic will be shifted to the interior lane. While construction is on the inside median shoulder areas, US 41 traffic will be shifted to the exterior lane. SR 352 access to US 41 will have short term restrictions during construction, at the intersection both west and east of US 41.

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

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure
Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:

Religious Facilities	**3***	Recreational Facilities	**2***
Airports[1]	**N/A**	Pipelines	**1**
Cemeteries	**1**	Railroads	**1**
Hospitals	**N/A**	Trails	**1**
Schools	**N/A**	Managed Lands	**1***

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

Explanation:

Religious Facilities*: Three (3) religious facilities, one (1) mapped and two (2) unmapped, are located within the 0.5 mile search radius. The nearest religious facility, United Methodist Church, is located 0.24 mile west of the project area. occur. No impact is expected.

Cemeteries: One (1) cemetery is located within the 0.5 mile search radius. Boswell Cemetery is located 0.22 mile east of the eastern terminus of the project area. No impact is expected.

Recreational Facilities*: Two (2) recreational facilities, one (1) mapped and one (1) unmapped, are located within the 0.5 mile search radius. The nearest recreational facility, Boswell Community Park, is located 0.10 mile to the west of the project area. No impact is expected.

Pipelines: One (1) pipeline segment is located within the 0.5 mile search radius. The pipeline segment, Northern Indiana Public Service Co., crosses the project area near the southern terminus. Coordination with INDOT Utilities and Railroads should occur.

Railroads: One (1) railroad segment is located within the 0.5 mile search radius. The Kankakee Beaverville and Southern Railroad segment is located 0.01 mile south of the southern project area terminus. Standard coordination will occur with INDOT Utilities and Railroads by the Project Management Team or their consultant no later than the Ready for Contracts (RFC) date.

Trails: One (1) trail segment is located within the 0.5 mile search radius. The Boswell Park Pathway, located in Boswell Community Park, is located 0.11 mile west of the project area. No impact is expected.

Managed Lands*: One (1) unmapped managed lands polygon is located within the 0.5 mile search radius. Boswell 4-H Fairgrounds is located 0.10 mile east of the eastern terminus of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Karst Springs	**N/A**	Canal Routes - Historic	**N/A**
Canal Structures – Historic	**N/A**	NWI - Wetlands	**2**
NPS NRI Listed	**N/A**	Lakes	**1**
IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Floodplain - DFIRM	**1**
Rivers and Streams	**13**	Cave Entrance Density	**N/A**
		Sinkhole Areas	**N/A**
		Sinking-Stream Basins	**N/A**

If unmapped water features are identified that might impact the project area, direct coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Explanation:

River and Streams: Thirteen (13) river and stream segments are located within the 0.5 mile search radius. The nearest stream segment is located 0.16 mile southeast of the project area. No impact is expected.

NWI-Wetlands: Two (2) wetland polygons are located within the 0.5 mile search radius. The nearest wetland polygon is located 0.18 mile northeast of the project area. No impact is expected.

Lakes: One (1) lake polygon is located within the 0.5 mile search radius. The lake polygon is located 0.18 mile northeast of the project area. No impact is expected.

Floodplain - DFIRM: One (1) floodplain polygon is located within the 0.5 mile search radius. The floodplain polygon is located 0.36 mile south of the southern terminus of the project area. No impact is expected.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation: No Mining/Mineral Exploration resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	**N/A**	Manufactured Gas Plant Sites	**N/A**
RCRA Generator/ TSD	**N/A**	Open Dump Waste Sites	**N/A**
RCRA Corrective Action Sites	**N/A**	Restricted Waste Sites	**N/A**
State Cleanup Sites	**N/A**	Waste Transfer Stations	**N/A**
Septage Waste Sites	**N/A**	Tire Waste Sites	**N/A**
Underground Storage Tank (UST) Sites	**4**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**1**
Construction Demolition Waste	**N/A**	Institutional Controls	**N/A**
Solid Waste Landfill	**1**	NPDES Facilities	**3**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**1**
Leaking Underground Storage (LUST) Sites	**1**	Notice of Contamination Sites	**N/A**

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

Explanation:

Underground Storage Tank (UST) Sites: Four (4) UST sites are located within the 0.5 mile search radius. The nearest site, HHB Plaza, 207 North Old US 41, Agency Identification (AI) ID# 4671, is located 0.01 mile east of the of the project area. IDEM conducted an Underground Storage Tank Inspection on October 20, 2022, and the facility was found to be out of compliance with equipment, operating, and maintenance requirements set forth in Indiana's UST Rule 329 IAC 9; however, documentation reviewed does not indicate that a release occurred. IDEM issued a Return to Compliance Letter on June 22, 2023. No impact is expected.

Solid Waste Landfill: One (1) solid waste landfill is located within the 0.5 mile search radius. An antique landfill, the Boswell Dump, is located 0.01 mile west of the eastern terminus of the project area. Coordination with IDEM Office of Land Quality, Kim Vedder (kvedder@idem.in.gov), will occur to determine if additional exploratory actions should occur that will require the submission of a Scope of Work to SAM for review and approval.

Leaking Underground Storage (LUST) Sites: One (1) LUST site is located within the 0.5 mile search radius. The former Boswell Elementary School, 414 West Main Street, AI ID# 2208, is located 0.18 mile southwest of the project area. Documents reviewed in the VFC indicate that a steel UST containing diesel was closed by removal in August 1993. According to the Site Assessment document dated September 13, 1993, a total of 95 cubic yards of soil was excavated in addition to the tank removal. The soils were left on site and listed to be treated under a remediation program. An additional 320 cubic yards of petroleum contaminated soil was removed on November 3, 1993, and disposed of. No further documentation was found detailing the removal of soils from the site. No impact is expected.

Brownfields: One (1) Brownfield site is located within the 0.5 mile search radius. The former Odle Trucking and Repair 4160101, 215 North Old US 41, AI ID # 111235, is located 0.06 mile east of the project area. The site was formerly operated as a truck repair shop, and USTs were installed and removed at unknown dates. This could be the location of J&P Produce, which is listed as being at the intersection of SR 352 and Old Highway 41, AI ID #5406. A notice was given to IDEM that 2–2,000 gallon gasoline USTs were planned for removal from the site in 1990. A third 3,000 gallon gasoline UST was listed on a 1988 notification form. No information was available on the removal. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

NPDES Facilities: Three (3) NPDES facilities, two (2) mapped and one (1) unmapped, are located within the 0.5 mile search radius. The nearest NPDES facility, Dollar General Store 21911, 215 N Old US Highway 41, Permit #INRA05315, is located adjacent to the western terminus of the project area. The permit is in effect until April 5, 2025. Coordination with Dollar General will occur.

NPDES Pipe Locations: One (1) NPDES pipe location is located within the 0.5 mile search radius. The Boswell Wastewater Treatment Plant pipe, Permit # IN0039756, is located 0.49 mile south of the project area. The permit is listed as effective, and expires September 30, 2028. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

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

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project area is located in a rural area with some commercial. Information on the presence or absence of bats is available for the pipes. Additional investigation to confirm the presence or absence of bats in the pipes will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE:

Pipelines: One (1) pipeline segment, Northern Indiana Public Service Co., crosses the project area near the southern terminus. Coordination with INDOT Utilities and Railroads should occur.

Railroad: One (1) railroad segment, the Kankakee Beaverville and Southern Railroad, is located 0.01 mile south of the southern project area terminus. Standard coordination will occur with INDOT Utilities and Railroads by the Project Management Team or their consultant no later than the Ready for Contracts (RFC) date.

WATER RESOURCES: N/A

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS:

Solid Waste Landfill: An antique landfill, the Boswell Dump, is located 0.01 mile west of the eastern terminus of the project area. Coordination with IDEM Office of Land Quality, Kim Vedder (kvedder@idem.in.gov), will occur to determine if additional exploratory actions should occur that will require the submission of a Scope of Work to SAM for review and approval.

Brownfields: The former Odle Trucking and Repair 4160101, 215 North Old US 41, AI ID # 111235, is located 0.06 mile east of the project area. The site was formerly operated as a truck repair shop, and USTs were installed and removed at unknown dates. This could be the location of J&P Produce, which is listed as being at the intersection of SR 352 and Old Highway 41, AI ID #5406. A notice was given to IDEM that 2–2,000 gallon gasoline USTs were planned for removal from the site in 1990. A third 3,000 gallon gasoline UST was listed on a 1988 notification form. No information was available on the removal. If excavation occurs in this area, proper handling, removal, and disposal of soil and/or groundwater may be necessary. Refer to Appendix G of the SAM Manual for the recommended procedure to manage and report contamination.

NPDES Facilities: Dollar General Store 21911, 215 N Old US Highway 41, Permit #INRA05315, is located adjacent to the western terminus of the project area. The permit is in effect until April 5, 2025. Coordination with Dollar General will occur.

ECOLOGICAL INFORMATION: Coordination with USFWS and IDNR will occur. Additional investigation to confirm the presence or absence of bats in the pipes will be necessary. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation INDOT Projects".

INDOT ESD concurrence: Shelby O'Neal Digitally signed by Shelby O'Neal Date: 2024.04.01 13:10:47 -04'00' (Signature)

Prepared by:
Cameron Berry
NEPA Manager
ASC Group, Inc.

Graphics:

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

SITE LOCATION: YES

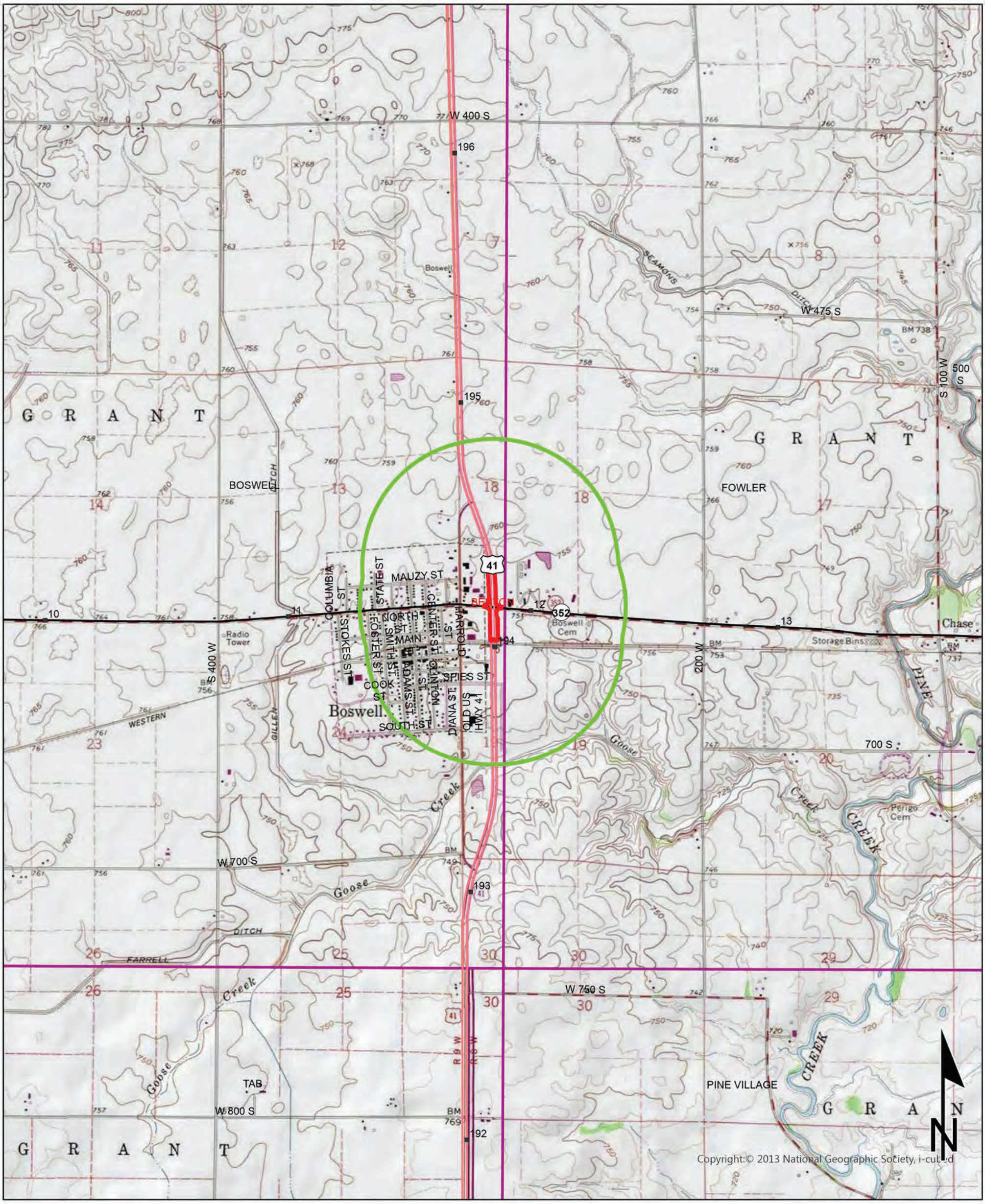
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: N/A

HAZARDOUS MATERIAL CONCERNS: YES

Red Flag Investigation - Site Location
US 41 and SR 352 Intersection
Des. No. 2100058, Intersection Improvement with Added Travel Lanes
Benton County, Indiana



0.45 0.23 0 0.45 Miles

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

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

BOSWELL AND FOWLER
QUADRANGLES
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
US 41 and SR 352 Intersection
Des. No. 2100058, Intersection Improvement with Added Travel Lanes
Benton County, Indiana



0.1 0.05 0 0.1 Miles

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

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

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

Red Flag Investigation - Water Resources
US 41 and SR 352 Intersection
Des. No. 2100058, Intersection Improvement with Added Travel Lanes
Benton County, Indiana



0.1 0.05 0 0.1 Miles

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

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

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

Red Flag Investigation - Hazardous Material Concerns
US 41 and SR 352 Intersection
Des. No. 2100058, Intersection Improvement with Added Travel Lanes
Benton County, Indiana



- Brownfield
- RCRA Corrective Action Sites
- Confined Feeding Operation
- Notice_Of_Contamination
- Construction/Demolition Site
- Infectious/Medical Waste Site
- Leaking Underground Storage Tank
- Manufactured Gas Plant
- NPDES Facilites
- NPDES Pipe Locations
- Open Dump Waste Site
- RCRA Generator/TSD
- Restricted Waste Site
- Septage Waste Site
- Solid Waste Landfill
- State Cleanup Site
- Superfund
- Tire Waste Site
- Underground Storage Tank
- Voluntary Remediation Program
- Waste Transfer Station
- Institutional Controls
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

0.15 0.07 0 0.15 Miles

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

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

APPENDIX F: WATERS RESOURCES

Waters Report – Including NWI Map
Floodplain Map

Approved 3/5/2024
J.Leever

Waters of the U.S. Determination and Wetland Delineation Report

US 41 and SR 352, Grant Township, Benton County, Indiana
Intersection Improvement Project
INDOT Des. No. 2100058
Prepared by: Ken Safranek, Ecologist
ASC Group, Inc.
Prepared Date: March 4, 2024

Project Description:

Date(s) of Field Investigation: August 22, 2023

Sections 18 and 19, Township 24 North, Range 8 West
Boswell, Indiana Quadrangle
Grant Township, Benton County, Indiana
Latitude: 40.521141
Longitude: -87.375946

Reduced Conflict Intersection (RCI)

Project Description: The proposed project (INDOT Des. No. 2100058) is located at U.S. Route (US) 41 and State Road (SR) 352 in Grant Township, Benton County, Indiana (Figures 1–7). The project proposes to reconstruct the intersection as a ~~restricted crossing U-Turn (RCUT)~~. The purpose of this project is to increase the safety for vehicles crossing US 41 or turning left onto US 41 from SR 352. The need for this project is due to the intersection experiencing an above normal number of crashes and elevated crash severity for an unsignalized rural state intersection. The project may include pavement widening to accommodate added right turn lane, completely enclosing the unpaved median, and central island modifications with slotted northbound left turn lane on US 41 at SR 352. This project will not require the acquisition of temporary or permanent right-of-way (ROW).

Desktop Reconnaissance:

Soils (Figure 4)
According to the Soil Survey Geographic (SSURGO) Database for Benton County, Indiana (U.S. Department of Agriculture, Natural Resources Conservation Service [USDA, NRCS] 2023); the investigation area contained three nationally listed soil with hydric components (USDA, NRCS 2021).

Table 1. USDA, NRCS SSURGO Mapped Soil Units.

Soil Unit Name	Symbol	NRCS Flooding Frequency	NRCS Drainage Class	NRCS Hydric Soil Category	SSURGO Hydric Rating
Chalmers silty clay loam	Ch	None	Poorly drained	Hydric	100% Hydric
Darroch silt loam, till substratum	Dp	None	Somewhat poorly drained	Predominantly non-hydric	3% Hydric
Odell silt loam, 0–2 percent slopes	OlA	None	Somewhat poorly drained	Predominantly non-hydric	7% Hydric

National Wetland Inventory (NWI) Wetlands (Figure 5)
There are no NWI mapped water features within or adjacent to the investigation area (U.S. Fish and Wildlife Service [USFWS] 2023).

National Hydrography Dataset (NHD) (Figure 5)
According to the NHD (U.S. Geological Survey, National Hydrography Dataset [USGS, NHD] 2019), the investigation area contains five flowline features. The NHD flowlines for the investigation area are provided on Figure 5.

NHD Flowline Feature Type	Location
2 – Canal/Ditch	Flows south along the eastern and western edges of US 41
1 – Canal/Ditch	Flows east into the western Canal/Ditch along US 41 near the southern investigation limit
1 – Connector	Flows west, connecting the eastern to the western Canal/Ditch of US 41
1 – Stream/River	Flows east into the western Canal/Ditch along US 41 near the northern investigation limit

Upstream Drainage
The streams and drainage features observed during the field investigation were not accurately represented on the USGS StreamStats Services (USGS 2023) web application, and thus no drainage area was calculated.

HUC 12: 051201080303: Goose Creek-Mud Pine Creek

Attached Documents:

- Maps (General Location, Topographic, NRCS Soils, NWI with NHD Lines, Indiana Department of Natural Resources [IDNR] Floodplain, Aerials with Aquatic Resources and Photograph Key)
- Photographs
- Wetland Determination Data Sheets, Antecedent Precipitation Tool (APT Results)
- Preliminary Jurisdictional Determination (PJD) Form

FIELD RECONNAISSANCE:

ASC Group, Inc., under contract with Fishbeck, conducted an investigation to determine the presence of potential Waters of the U.S. (WOTUS) or Waters of the State for the proposed intersection improvement project at US 41 and SR 352 in Grant Township, Benton County, Indiana on August 22, 2023. Identified wetlands had their boundaries delineated in accordance to *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) and the appropriate *Regional Supplement to the Corps of Engineers Wetland Delineation Manual* (U.S. Army Corps of Engineers [USACE] 2010). Any surface water features observed were investigated for potential ordinary high water mark (OHWM) and roadside ditches (RSDs) along the roadway were examined for wetland criteria or jurisdictional status. The investigation area for this Waters Report serves as the limits of the delineation and includes all the resources that were investigated. The investigation area includes the full extent of ROW adjacent to the preliminary limits of disturbance. This includes any roadway drainage features and the unpaved median. The Antecedent Precipitation Tool (APT) Version 1.0.23 was used to determine climatic conditions during site visit (Attachments). The APT indicated that the site was in a "mild drought" climatic range for the dry season in a typical year. The preliminary limits of disturbance and subsequent investigation area were created to encapsulate the area described in the proposal plans provided by the Engineer. Maps (Figures 1–7) and photographs (Photographs 1–77) of the investigation area are included in the attachments.

STREAMS

A preliminary jurisdictional waters determination was performed in the field to determine the presence of waterways that possessed a defined channel and streambed as defined by the OHWM were present in the investigation area. However, no streams were observed within the investigation area on August 22, 2023.

ROADSIDE DITCHES (RSDS)

Four RSDs (RSDs 1–4) were encountered during the August 22, 2023, field investigation. All the RSDs are entirely within the exiting ROW, flow from north to south, and were constructed to convey US 41's stormwater runoff. The RSDs are all artificial and maintained grassed swales located both east and west, as well as within the median of US 41. The NHD shows blue line features confluencing with RSDs 2 and 4 both within the investigation area and upstream. Additionally, the Boswell, Indiana quadrangle (USGS 7.5' topographic map) shows the RSDs on

both the east and west side of US 41 as blue line features. During field investigation, no such surface water features or stormwater outlets were observed upstream providing significant hydrology to the RSDs. It is unlikely that the RSDs found within the investigation area are captured streams. Sample Points 3, 6, 10, and 12 were taken to represent the typical vegetation, soils, and hydrology found in the RSDs. Where all three indicators of wetlands were observed, a wetland boundary was delineated. No OHWM was observed within any of the RSDs. The RSDs found within the investigation area are likely non-jurisdictional, artificial roadside drainage features.

Table 2. Roadside Ditches (RSDs) Table.

RSD No.	Location	Length (ft)	Flow Direction	Photographs
RSD1	US 41 Median, South of SR 352	628	South	4, 43–48
RSD2	West of US 41, North of SR 352	646	South	8, 21–25
RSD3	US 41 Median, North of SR 352	791	South	73–75, 77
RSD4	East of US 41, North of SR 352	567	South	64, 66–69

WETLANDS

A total of 12 sampling points (SPs 1–12) as well as 5 test points (TPs 1–5) were investigated in order to confirm the presence or absence of wetlands that may potentially be in the investigation area (Figure 7, Sheets 1 and 2). Sampling points document representative observation points in each community type found within the investigation area. Test points were used to investigate the boundary between these communities. All of the wetland determination data sheets are included in the attachments. The sample point observations revealed five wetlands (Wetlands A–E) within the investigation area. The *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), *Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, Version 8.2* (USDA, NRCS 2018), *2020 National Wetland Plant List (NWPL) Version 3.5 - Species Detail Tool* (USACE 2020), and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region Version 2.0* (USACE 2010) were used to determine whether wetlands were present within the investigation area.

Wetland A

Wetland A, characterized by SP2, is a 0.048-acre depressional swale located west of US 41 and north of SR 352 which was originally constructed and currently maintained as a stormwater conveyance feature for the roadway. The sampling point documents a concave depression with 3

to 6 percent slopes where no OHWM was observed. This point was taken to document the relatively homogenous vegetative community in a portion of the roadway swale which is dominated hydrophytic vegetation both north and south of the SR 352 culvert (Wetlands A and B). For the purposes of permitting, the wetland within the western US 41 roadway swale has been labeled Wetland A to the north of the SR 352 culvert and Wetland B to the south. The wetland is entirely contained with this roadside swale and receives hydrology in the form of diffuse stormwater runoff from adjacent upland and impervious surfaces as well as effluent from RSD2. A typical upland sampling point, SP3, was taken upslope from Wetland A, west of US 41 and north of SR 352 within the adjacent vegetation community. SP3 documents a concave depressional roadway swale with 3 to 6 percent slopes labeled as RSD 2. This point was taken to help document the vegetation community of the maintained roadway swale directly upslope from Wetland A. The boundary of Wetland A was determined following successional test bores (TP1 and TP2) [Figure 7, Sheet 1; Photograph 21] between the wetland and adjacent upland where an abrupt change in topography, vegetation composition, the presence/absence of hydrological indicators, and an absence of hydric soils was observed.

Wetland A would be an emergent (PEM1C) wetland according to the Cowardin et al. (1979) classification scheme. The wetland is part of a drainageway adjacent to west of US 41. The wetland begins approximately 250 feet (ft) north of SR 352 and hydrology flows south through the road culvert, continues south, and exits the culvert as Wetland B. The US 41 roadway swale continues south (as Wetland B) and flows through a railroad culvert at the southern edge of the investigation area. This hydrology continues within in western US 41 roadway swale and eventually discharges to a relatively permanent water (RPW), Goose Creek, approximately 2,650-ft south of the investigation area. Due to direct connectivity to a RPW, it is likely that Wetland A is a WOTUS and under the jurisdictional authority of the USACE. The USACE makes all final determinations regarding jurisdiction. The wetland was designated as poor quality by the investigators due to its close proximity to adjacent developed areas, lack of natural buffers, prevalence of invasive species, and continued anthropogenic management. Wetland A was delineated with a sub-meter global positioning system (GPS) and found to be approximately 0.048 acre in size within the investigation area.

Wetland B

Wetland B, characterized by SP2, is a 0.110-acre depressional swale located west of US 41 and south of SR 352 which was originally constructed and currently maintained as a stormwater conveyance feature for the roadway. The sampling point documents a concave depression with 3 to 6 percent slopes where no OHWM was observed. This point was taken to document the vegetative community in a portion of the roadway swale which is dominated hydrophytic vegetation both north and south of the SR 352 culvert. For the purposes of permitting, the wetland within the western US 41 roadway swale has been labeled Wetland A to the north of the SR 352 culvert and Wetland B to the south. Wetland B is entirely contained with this roadside swale and receives hydrology in the form of diffuse stormwater runoff from adjacent upland and impervious surfaces as well as effluent from Wetland A. Several typical upland sampling points, SP4 and SP5 were taken upslope from Wetland B, within the adjacent vegetation communities. SP4 documents the vegetation community of the unmanaged wooded area with 4 to 6 percent slopes near the drainage confluence of Wetland B and two separate stormwater outfalls which only met the hydric soil wetland criterion. SP5 documents a hydrophytic vegetation community which was found upslope and adjacent from Wetland B with 8 to 10 percent slopes but did not meet hydric soils or wetland hydrology criterion. The boundary of Wetland B was determined following successional test bores (TP3 and SP4 and SP5) [Figure 7, Sheet 2; Photograph 30] between the wetland and adjacent upland where an abrupt change in topography, vegetation composition, the presence/absence of hydrological indicators, and an absence of hydric soils was observed.

Wetland B would be an emergent (PEM1C) wetland according to the Cowardin et al. (1979) classification scheme. The wetland spans the entirety of the western US 41 roadway swale south of SR 352, within the investigation area, and hydrology exits south through a railroad culvert at the southern edge of the investigation area. This hydrology continues within western US 41 roadway swale and eventually discharges to a RPW, Goose Creek, approximately 2,650-ft south of the investigation area. Due to direct connectivity to a RPW, it is likely that Wetland B is a WOTUS and under the jurisdictional authority of the USACE. The USACE makes all final determinations regarding jurisdiction.. The wetland was designated as poor quality by the investigators due to its close proximity to adjacent developed areas, lack of natural buffers, prevalence of invasive species, and continued anthropogenic management. Wetland B was

delineated with a sub-meter GPS and found to be approximately 0.110 acre in size within the investigation area.

Wetland C

Wetland C, characterized by SP9, is a 0.058-acre depressional swale located east of US 41 and north of SR 352 which was originally constructed and currently maintained as a stormwater conveyance feature for the roadway. The sampling point documents a concave depression with 1 to 3 percent slopes where no OHWM was observed. This point was taken to document the relatively homogenous vegetative community in a portion of the roadway swale which is dominated hydrophytic vegetation both north and south of the SR 352 culvert (Wetlands C and D). For the purposes of permitting, the wetland within the eastern US 41 roadway swale has been labeled Wetland C to the north of the SR 352 culvert and Wetland D to the south. The wetland is entirely contained with this roadside swale and receives hydrology in the form of diffuse stormwater runoff from adjacent upland and impervious surfaces as well as effluent from RSD 4. A typical upland sampling point, SP10, was taken upslope from Wetland C, east of US 41 and north of SR 352 within the adjacent vegetation community. SP10 documents a concave depressional roadway swale with 2 to 4 percent slopes labeled as RSD 4. This point was taken to help document the vegetation community of the maintained roadway swale directly upslope from Wetland A. The boundary of Wetland A was determined following successional test bores (SP9 and SP10) [Figure 7, Sheet 1] between the wetland and adjacent upland where an abrupt change in topography, vegetation composition, the presence/absence of hydrological indicators, and an absence of hydric soils was observed.

Wetland C would be an emergent (PEM1C) wetland according to the Cowardin et al. (1979) classification scheme. The wetland is part of a drainageway adjacent to east of US 41. The wetland begins approximately 250 ft north of SR 352 and hydrology flows south through the road culvert, continues south and exits the culvert as Wetland D. The eastern US 41 roadway swale continues south (as Wetland D) and is captured by an east-west aligned US 41 road culvert near the southern investigation limits which discharges to Wetland A to the west. This conveyance eventually discharges to a RPW, Goose Creek, approximately 2,650 ft south of the investigation area. Due to direct connectivity to a RPW, it is likely that Wetland C is a WOTUS and under the jurisdictional authority of the USACE. The USACE makes all final determinations regarding jurisdiction. The wetland was designated as poor quality by the investigators due to its close

proximity to adjacent developed areas, lack of natural buffers, prevalence of invasive species, and continued anthropogenic management. Wetland C was delineated with a sub-meter GPS and found to be approximately 0.058 acre in size within the investigation area.

Wetland D

Wetland D, characterized by SP9, is a 0.094-acre depressional swale located east of US 41 and south of SR 352 which was originally constructed and currently maintained as a stormwater conveyance feature for the roadway. The sampling point documents a concave depression with 1 to 3 percent slopes where no OHWM was observed. This point was taken to document the vegetative community in a portion of the roadway swale which is dominated by hydrophytic vegetation both north and south of the SR 352 culvert. For the purposes of permitting, the wetland within the eastern US 41 roadway swale has been labeled Wetland C to the north of the SR 352 culvert and Wetland D to the south. A test point, TP4 (Figure 7, Sheet 2) was taken south of the SR 352 culvert to confirm wetland status and differentiate from uplands. TP4 met hydrophytic vegetation, wetland hydrology, and hydric soil criterion for wetlands. Wetland D is entirely contained with the eastern US 41 roadside swale and receives hydrology in the form of diffuse stormwater runoff from adjacent upland and impervious surfaces as well as effluent from Wetland C. Several typical upland sampling points, SP7 and SP8 were taken upslope from Wetland D, within the adjacent vegetation communities. SP7 documents the hydrophytic vegetation community which was found adjacent to Wetland D on the top slope terrace, containing 1 to 3 percent slopes but did not meet hydric soils or wetland hydrology criterion. SP8 documents the mowed and managed vegetation community, adjacent to TP4, which was found on the roadway swale shoulder containing 15 to 20 percent slopes throughout the investigation area. The boundary of Wetland D was determined following successional test bores (TP4 and SP7 and SP8) [Figure 7, Sheet 2; Photographs 56 and 57] between the wetland and adjacent upland where an abrupt change in topography, vegetation composition, the presence/absence of hydrological indicators, and an absence of hydric soils was observed.

Wetland D would be an emergent (PEM1C) wetland according to the Cowardin et al. (1979) classification scheme. Wetland D spans the entirety of the eastern US 41 roadway swale south of SR 352, within the investigation area and is captured by an east-west aligned US 41 road culvert near the southern investigation limits which discharges to Wetland B to the west. This hydrology continues within western US 41 roadway swale and eventually discharges to a RPW,

Goose Creek, approximately 2,650-ft south of the investigation area. Due to direct connectivity to a RPW, it is likely that Wetland D is a WOTUS and under the jurisdictional authority of the USACE. The USACE makes all final determinations regarding jurisdiction.. The wetland was designated as poor quality by the investigators due to its close proximity to adjacent developed areas, lack of natural buffers, prevalence of invasive species, and continued anthropogenic management. Wetland D was delineated with a sub-meter GPS and found to be approximately 0.094 acre in size within the investigation area.

Wetland E

Wetland E, characterized by SP11, is a 0.010-acre depressional swale located within the US 41 median, north of the intersection with SR 352, and was originally constructed and currently maintained as a stormwater conveyance feature for the roadway. The sampling point documents a concave depression with 1 to 3 percent slopes where no OHWM was observed. This point was taken to document the vegetative community in a portion of the roadway median swale which is dominated by hydrophytic vegetation. The wetland is entirely contained with this roadside median swale and receives hydrology in the form of diffuse stormwater runoff from adjacent upland and impervious surfaces as well as effluent from RSD 3. A typical upland sampling point, SP12, was taken upslope from Wetland E, within the US 41 median. SP12 documents a concave depressional roadway swale with 1 to 3 percent slopes labeled as RSD 4. This point was taken to help document the vegetation community of the maintained roadway median swale directly upslope from Wetland E. The boundary of Wetland E was determined following successional test bores (TP5 and SP11) [Figure 7, Sheets 1 and 2; Photograph 77] between the wetland and adjacent upland where an abrupt change in topography, vegetation composition, the presence/absence of hydrological indicators, and an absence of hydric soils was observed.

Wetland E would be classified as an emergent (PEM1C) wetland according to the Cowardin et al. (1979) classification scheme. The wetland is part of a drainageway within the median of US 41. The wetland beings approximately 116 ft north of a stormwater inlet at the intersection between US 41 and SR 352. The hydrology from Wetland E is captured by this inlet and then discharges to Wetland A to the west. This conveyance from Wetland A eventually discharges to a RPW, Goose Creek, approximately 2,650 ft south of the investigation area. For this reason, the wetland is provisionally considered a federally jurisdictional WOTUS. The wetland was designated as poor quality by the investigators due to its close proximity to adjacent developed

areas, lack of natural buffers, prevalence of invasive species, and continued anthropogenic management. Wetland E was delineated with a sub-meter GPS and found to be approximately 0.010 acre in size within the investigation area.

Table 4. Wetland Summary Table.

Wetland ID and Lat/Long	Type	Acreage	Quality	Photo IDs	Associated Structure ID	Likely WOTUS?	Sample Point ID (SP)	Lat/Long	Dominant Vegetation	Meets Vegetation Criterion?	Hydric Soil Indicators (s)	Meets Soil Criterion?	Hydrology Indicators(s)	Meets Hydrology Criterion?	Within Wetland?	Notes
Upland Sample Points							SP1	40.521121 -87.376611	*Festuca rubra, Lolium perenne*	No	None	No	None	No	No	Sample Point was taken southwest of the intersection between US 41 and SR 352 at the nearly flat top slope terrace to help document the existing vegetation community of the mowed and maintained lawns found throughout the ROW within the investigation area.
							SP6	40.519462 -87.375918	*Phalaris arundinacea, Bromus inermis, Schedonorus arundinaceus*	No	None	No	B10, D2	Yes	No	The Sample Point was taken in the US 41 median near the southern investigation area limits to help document the existing conditions in RSD 1.
Wetland A 40.521634, -87.376330	PEM1C	0.048	Poor	14–22	N/A	Yes	SP2*	40.521643 -87.376306	*Salix interior, Typha angustifolia*	Yes	A11, F3	Yes	Primary: A3 Secondary: B10, C2, D2, D5	Yes	Yes	SP2 documents both Wetlands A and B, which are entirely contained with the western US 41 roadway swale. Wetlands are divided by the SR 352 culvert. Wetland A is north and Wetland B is south of the culvert.
							SP3	40.523566 -87.376478	*Morus alba, Echinochloa crus-galli, Lolium perenne, Asclepias verticillata*	No	None	No	Secondary: B10, D2	Yes	No	Sample Point was taken in the upland portion of the US 41 roadway swale adjacent to Wetland A.
Wetland B 40.520131, -87.376305	PEM1C	0.110	Poor	1, 2, 26-34, 37, 42	N/A	Yes	SP2*	40.521643 -87.376306	*Salix interior, Typha angustifolia*	Yes	A11, F3	Yes	Primary: A3 Secondary: B10, C2, D2, D5	Yes	Yes	SP2 documents both Wetlands A and B, which are entirely contained within the western US 41 roadway swale. Wetland B begins at the western SR 352 road culvert outlet and terminates at a railroad culvert inlet at the southern edge of the investigation limits.
							SP4	40.519223 -87.376337	*Morus alba, Juglans nigra, Acer negundo, Fraxinus americana, Toxicodendron radicans, Dactylis glomerata*	No	A11, F3	Yes	Secondary: D2	No	No	The Sample Point was taken to help document the upland vegetation community of the unmanaged wooded area with 4 to 6 percent slopes adjacent to the drainage confluence of Wetland B and two separate stormwater outfalls.
							SP5	40.519336 -87.376203	*Morus alba, Phalaris arundinacea, Typha angustifolia*	Yes	F6	Yes	Secondary: D5	No	No	The Sample Point was taken to help document a hydrophytic vegetation community which was found upslope from Wetland B with 8 to 10 percent slopes.
Wetland C 40.521684, -87.375592	PEM1C	0.058	Poor	6, 62-66	N/A	Yes	SP9*	40.522227 -87.375594	*Cornus amomum, Phalaris arundinacea*	Yes	A11, F3	Yes	Primary: B2, B3 Secondary: B10, D2, D5	Yes	Yes	SP9 documents both Wetland C and D and the wetlands are entirely contained with the eastern US 41 roadway swale. Wetlands are divided by the SR 352 culvert. Wetland C is north and Wetland D is south of the culvert.
							SP10	40.522475 -87.375573	*Cornus amomum, Schedonorus arundinaceus, Echinochloa crus-galli, Securigera varia*	No	A11, F3	Yes	Secondary: B10, D2	Yes	No	The Sample Point was taken in an area directly adjacent to Wetland C within the US 41 roadway swale.

Wetland D 40.519964, -87.375559	PEM1C	0.094	Poor	5, 49, 51, 54, 56-61	N/A	Yes	SP9*	40.522227 -87.375594	*Cornus amomum, Phalaris arundinacea*	Yes	A11, F3	Yes	Primary: B2, B3 Secondary: B10, D2, D5	Yes	Yes	SP9 documents both Wetland D and C and the wetlands are entirely contained within the eastern US 41 roadway swale. Wetland D begins at the eastern SR 352 road culvert outlet and terminates at a east-west (US 41) culvert inlet at the southern edge of the investigation limits.
							SP7	40.519236 -87.375583	*Morus alba, Phalaris arundinacea*	Yes	None	No	Secondary: D5	No	No	The Sample Point was taken on a top slope terrace upslope from Wetland D where wetland vegetation was observed.
							SP8	40.520034 -87.375527	*Bromus inermis, Schedonorus arundinaceus, Eleusine indica*	No	None	No	None	No	No	The Sample was taken to represent the mowed and managed roadway swale slopes and shoulder.
Wetland E 40.521421, -87.375942	PEM1C	0.010	Poor	70-72, 76, 77	N/A	Yes	SP11	40.521595 -87.375921	*Echinochloa crus-galli, Typha angustifolia, Agrostis gigantea*	Yes	F6	Yes	Primary: B2, B3 Secondary: B10, D2, D5	Yes	Yes	SP11 represents Wetland E and is entirely contained with the US 41 roadway swale median. It continues south ending at the US 41 and SR 352 intersection stormwater inlet.
							SP12	40.523242 -87.376063	*Schedonorus arundinaceus, Bromus inermis*	No	F6	Yes	Secondary: D2	No	No	The Sample Point was taken to represent the US 41 roadway swale median where upland vegetation was observed directly upslope from Wetland E.

**Indicates typical wetland data point.*

OPEN WATER

No open water features were observed in the investigation area nor are any listed on the background material.

FLOODWAYS

According to the IDNR Indiana Floodplain Information Portal (Figure 6), the investigation area does not lie within a mapped Flood Hazard Zone or Regulatory Floodway.

WILDLIFE CROSSINGS

Suitable terrestrial and aquatic habitat for wildlife crossings was found to be present within the investigation area. This includes habitat that is suitable for amphibians, reptiles, and mammals. Adjacent vegetation communities include mowed and maintained lawns, emergent wetlands, and young woods. During the site visit, mammal tracks (Photograph 31) were observed within sediment deposits adjacent to the southwestern culvert inlet within Wetland A. In addition, amphibians (frogs) were observed within Wetlands A and B.

CONCLUSIONS:

Five jurisdictional wetland features (Wetlands A–E) were determined to be present within the investigation area (Table 4). The wetlands are connected by underground stormwater utilities and hydrology of the site exits the investigation area at the southwestern corner (Wetland B) through a culvert under train tracks. This hydrology flows south through the US 41 roadway swale to a RPW, Goose Creek, approximately 2,650-ft south of the investigation area. INDOT acknowledges that these features may be WOTUS and is requesting that the USACE take jurisdiction of these features. Four roadside ditches (RSDs 1–4) were observed within the investigation area. The RSDs are likely a non-jurisdictional roadside ditch due to their lack of bed, bank, or ground water influence.

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

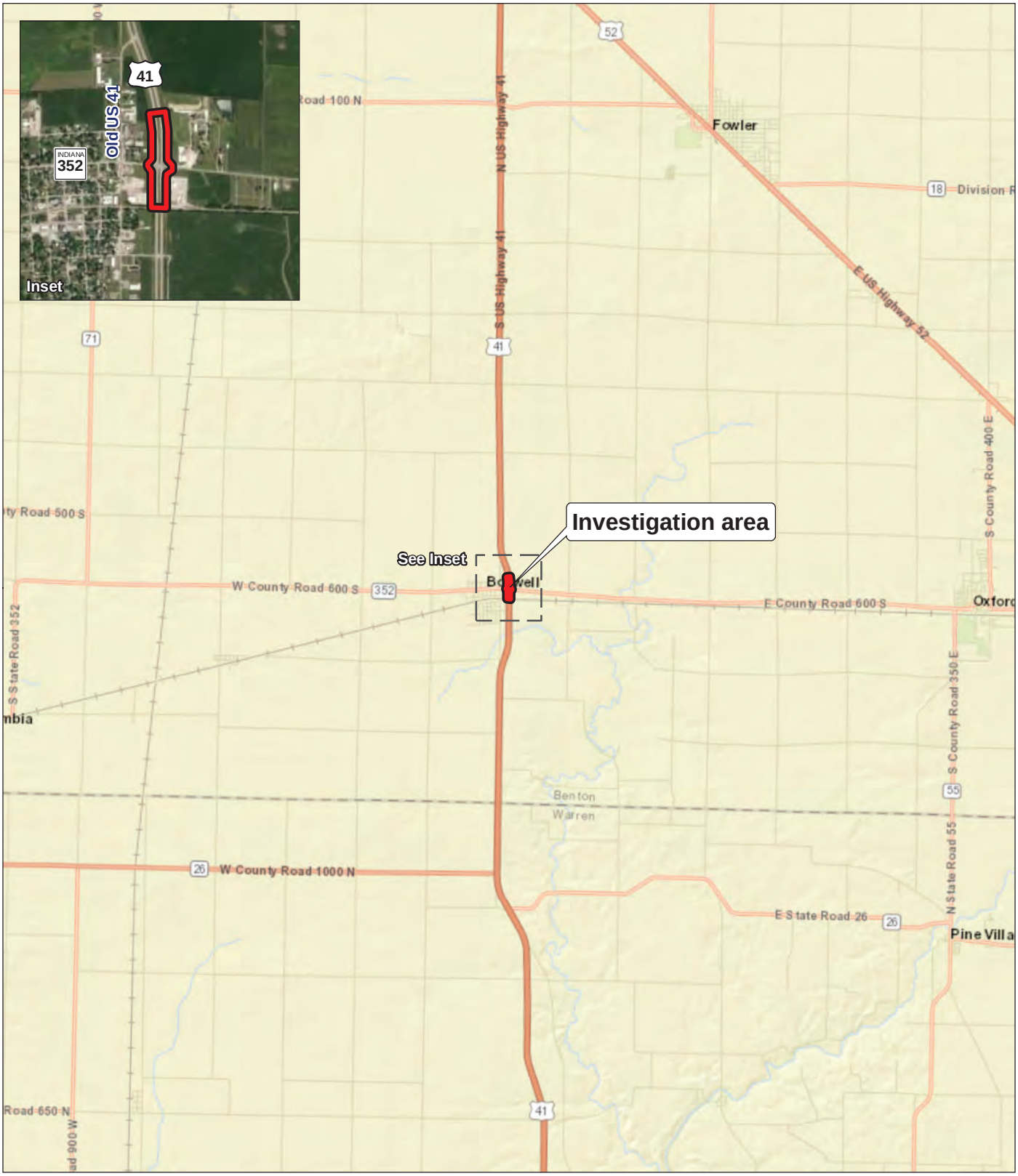
Acknowledgement:

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

3/4/2024	3/4/2024	3/4/2024
Kenneth Safranek	Rosemary Snyder	Len Mikles
Ecologist	Ecologist	Principal Ecologist
ASC Group, Inc.	ASC Group, Inc.	ASC Group, Inc.

INDOT District: Crawfordsville

ASC GROUP, INC.
CULTURAL • ENVIRONMENTAL • HAZARDOUS
EVALUATION & CONSULTING





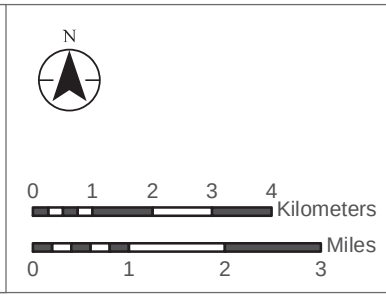
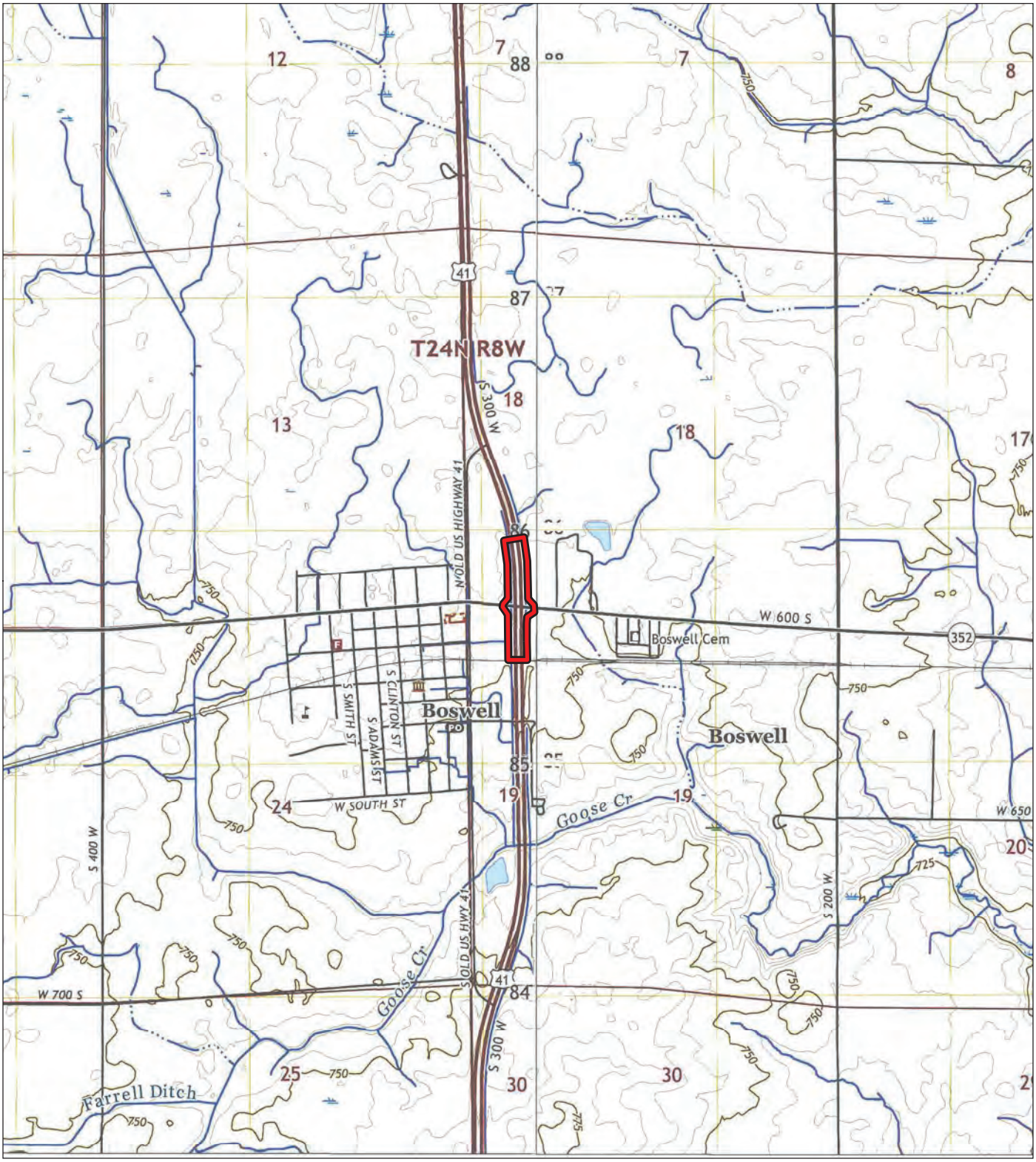


Figure 1

Portion of the ESRI World Street Map showing the vicinity of the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

Base: ESRI World Street Map

Created by TMD, JVT; last saved: 1/2/2024 11:37:01 AM



Investigation area

0 200 400 600 800 1000 Meters

0 1000 2000 3000 Feet

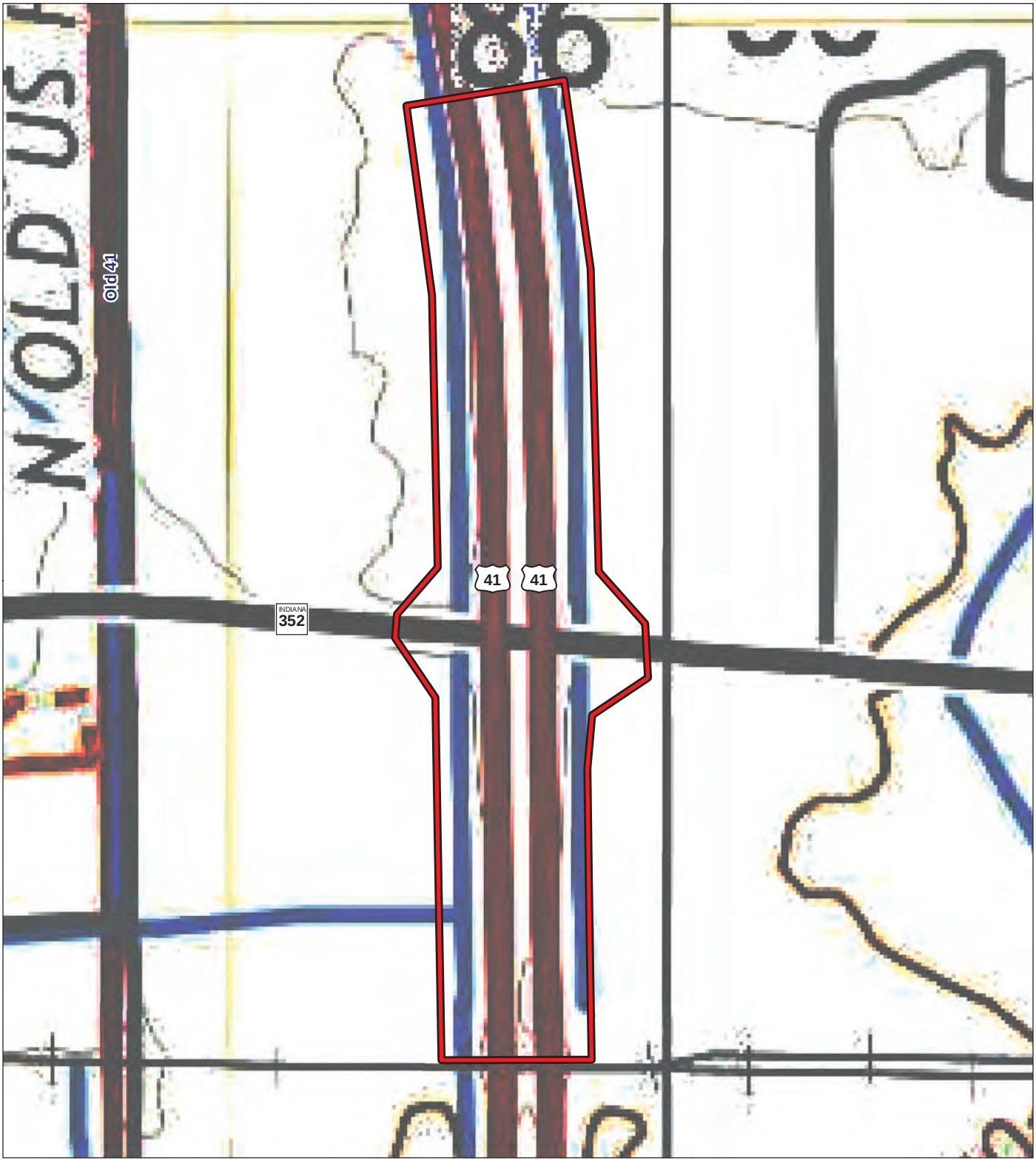
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Figure 2

Portions of the 2022 Boswell and 2022 Fowler, Indiana quadrangles (USGS 7.5' topographic maps) showing the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

Base: USGS Boswell and Fowler, Indiana, 7.5' series quadrangles

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Investigation area

0 20 40 60 80 100 Meters

0 100 200 300 Feet

N

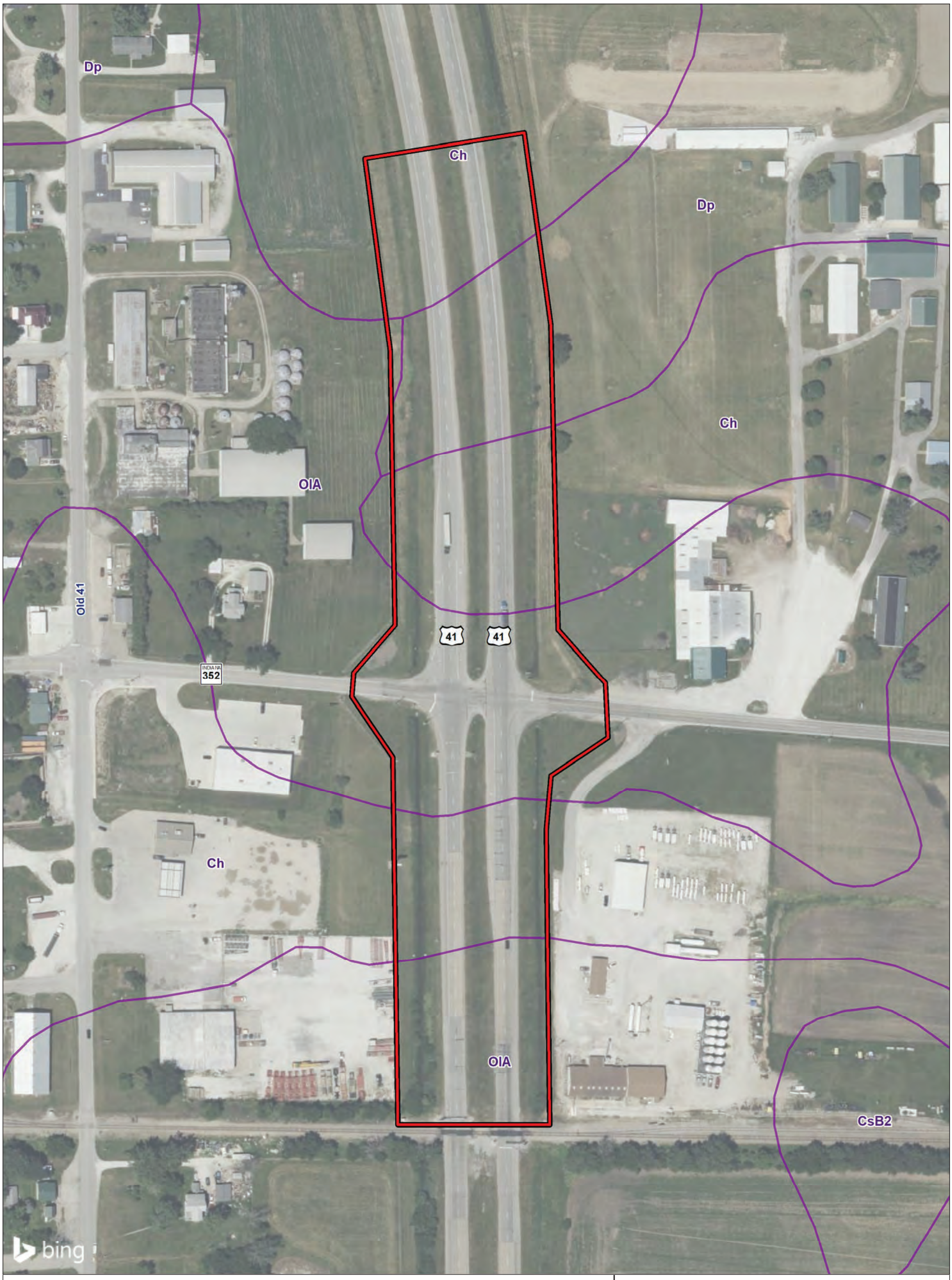
Figure 3

Zoomed in portions of the 2022 Boswell and 2022 Fowler, Indiana quadrangles (USGS 7.5' topographic maps) showing the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

Base: USGS Boswell and Fowler, Indiana, 7.5' series quadrangles

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Investigation area

Soil boundary

Ch: Chalmers silty clay loam

Dp: Darroch silt loam, till substratum

OlA: Odell silt loam, 0 to 2 percent slopes

N

0 20 40 60 80 100 Meters

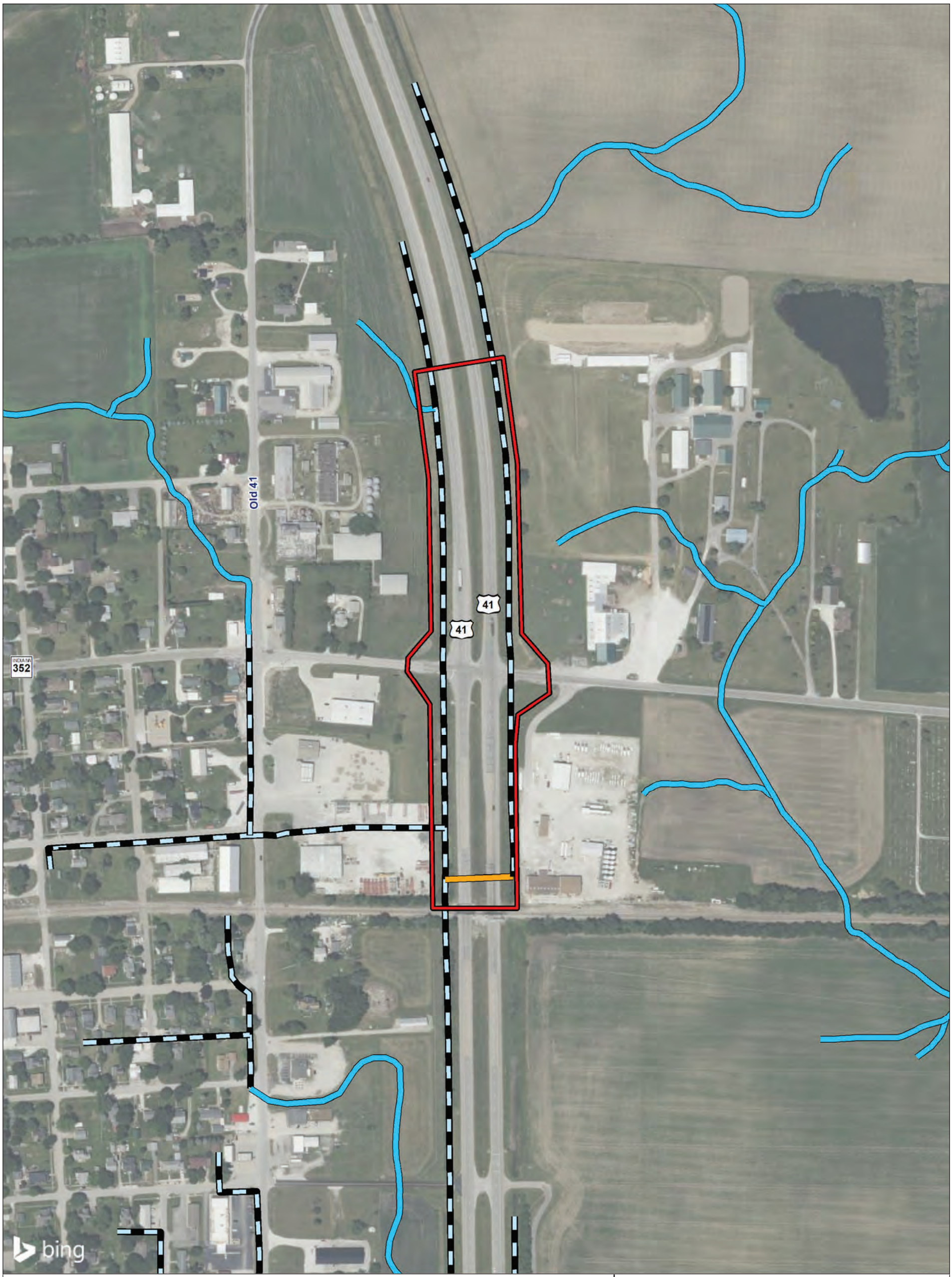
0 60 120 180 240 300 Feet

Base: USDA, NRCS 2023; Microsoft Corporation 2023

Figure 4

Portion of the Benton County, Indiana soil map (USDA, NRCS 2023) showing the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

Created by TMD, JVT; last saved: 11/17/2023 3:28:49 PM



Investigation area

NHD Flowline

Canal/Ditch

Connector

Stream/River

0 30 60 90 120 150
Meters

0 100 200 300 400 500
Feet

NWI wetlands

No wetlands are recorded in the project vicinity

N

Base: USFWS 2023; USGS, NHD 2019; Microsoft Corporation 2023

Figure 5

Portion of the National Wetland Inventory (NWI) map (USFWS 2023) and NHD flowlines (USGS, NHD 2019) showing the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

DNR Indiana Department of Natural Resources

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

VERSION

1.0

1.5

FLD_ZONE, SOURCE_DNR, ZONE_SUBTY

DNR Approximate Floodway

DNR Approximate Fringe

Not Mapped

Investigation area

Long: **-87.375925935679**

Lat: **40.521196518813156**

The information provided below is based on the point of interest shown in the map above.

County: **Benton**

Stream Name: **Goose Creek**

Approximate Ground Elevation: **758.0 feet (NAVD88)**

Base Flood Elevation: **737.5 Feet (NAVD88)**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **No Floodplain Administrator Name Available**

Community Jurisdiction: **Benton County, County proper**

Phone: **No Phone Number Available**

Email: **No Email Address Available**

US Army Corps of Engineers District: **Louisville**

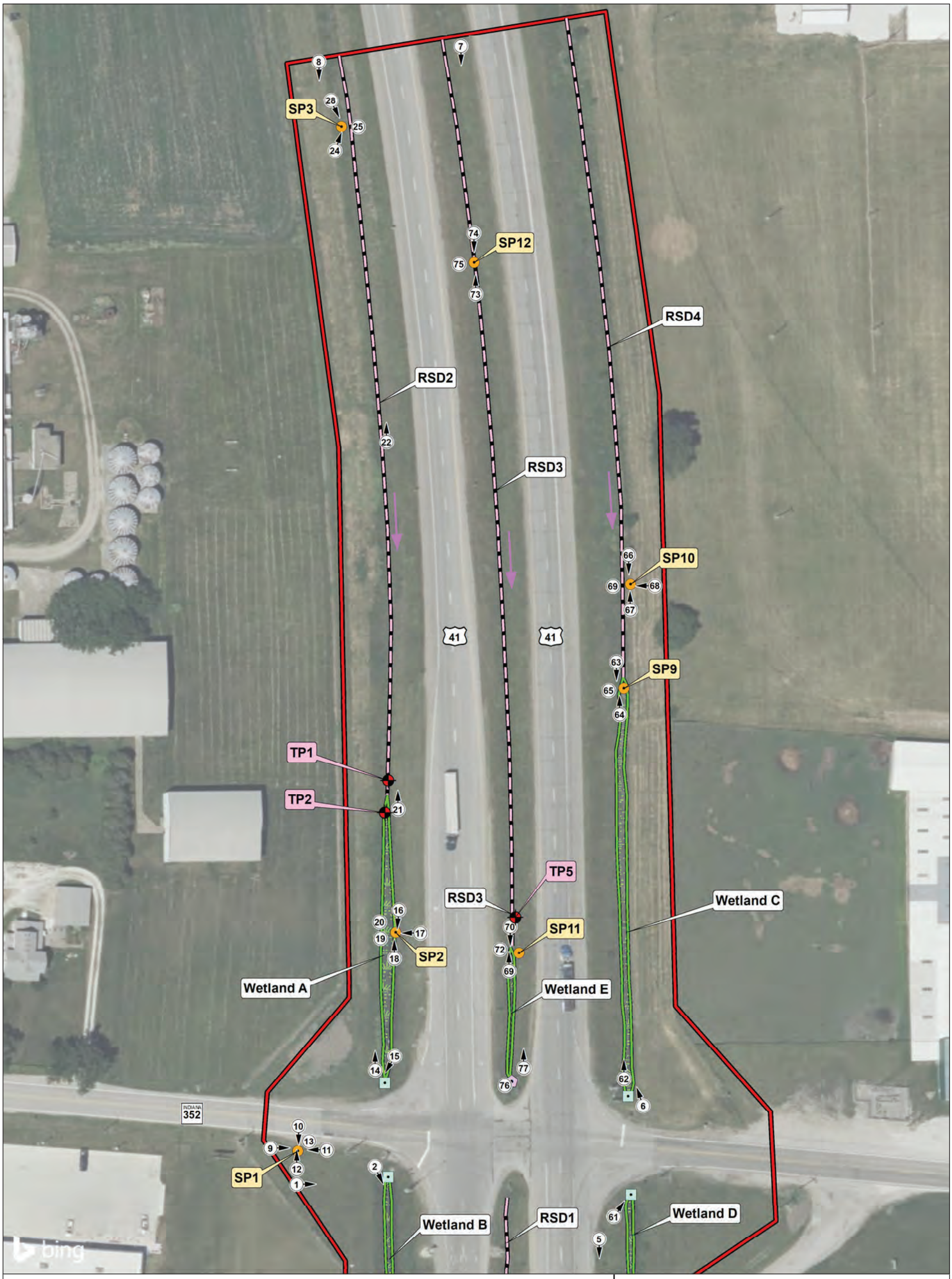
Date Generated: 10/30/2023

Figure 6

Portion of the IDNR Best Available Floodplain map for the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area.

Created by TMD, JVT; last saved: 11/17/2023 3:29:32 PM

Created by TMD, JVT; last saved: 11/17/2023 4:11:25 PM



Investigation area
Sample point
Wetland
Ditch
Flow direction
Culvert
Stormwater basin
Test point
Photograph location
Photograph location (no direction)

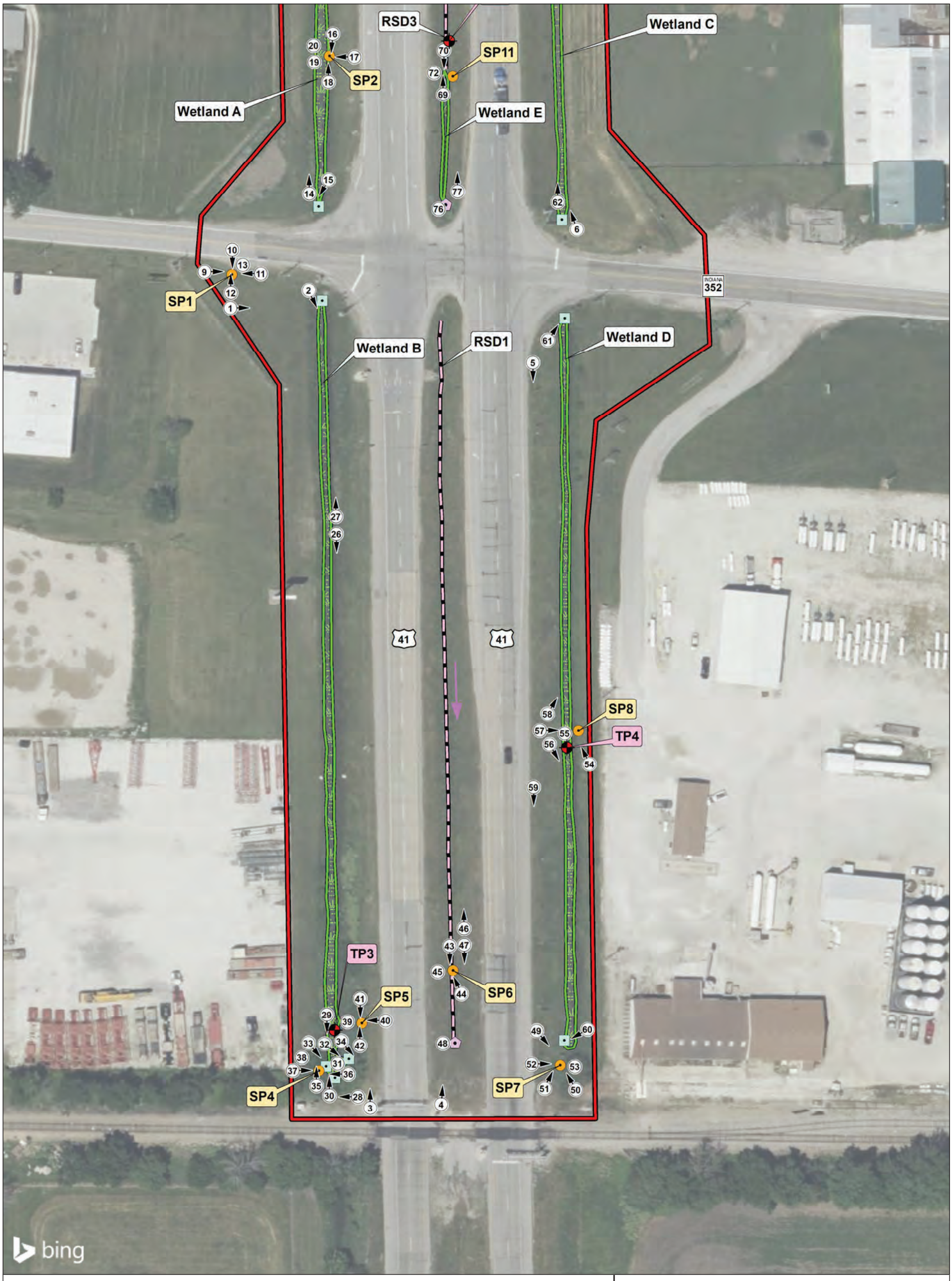
0 10 20 30 40 50 Meters
0 30 60 90 120 150 Feet

N

Base: Microsoft Corporation 2023

Figure 7 **Sheet 1 of 2**

Aerial photograph showing the wetlands, RSDs, sample points, and photograph locations for the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area. (2 Sheets)



Investigation area
Sample point
Wetland
Ditch
Flow direction
Culvert
Stormwater basin
Test point
Photograph location
Photograph location (no direction)

0 10 20 30 40 50 Meters
0 30 60 90 120 150 Feet

N

Base: Microsoft Corporation 2023

Figure 7 **Sheet 2 of 2**

Aerial photograph showing the wetlands, RSDs, sample points, and photograph locations for the US 41 and SR 352 Intersection Improvement Project (INDOT Des. No. 2100058) investigation area. (2 Sheets)



Photograph 1. The right-of-way (ROW) with the southwestern quadrant of the intersection between US 41 and SR 352 with Wetland B in the background, looking east.



Photograph 2. View of the typical roadway swale and Wetland B, within the ROW adjacent to west of US 41, south of SR 352, looking southeast.



Photograph 3. View from the southern boundary of the investigation area, west of US 41, looking north.



Photograph 4. View from the southern boundary of the investigation area within the US 41 roadway median and RSD1, looking north.



Photograph 5. View of the eastern US 41 roadway swale and Wetland D adjacent to US 41 and south of the SR 352 intersection, looking south.



Photograph 6. View of the eastern roadway swale and Wetland C adjacent to US 41 and north of the SR 352 intersection, looking north-northwest.



Photograph 7. View from the northern boundary of the investigation area within the US 41 roadway median and RSD3, looking south.



Photograph 8. View of the western roadway swale and RSD2 adjacent to US 41 near the northern investigation boundary, looking south.



Photograph 9. View of upland SP1 which describes the top slope mowed and maintained lawns within the US 41 and SR 352 ROW, looking east.



Photograph 10. View of SP1 adjacent to SR 352, looking south.



Photograph 11. View of SP1 where no evidence of wetland vegetation or hydrology were observed, looking west.



Photograph 12. View of SP1, looking north.



Photograph 13. View of upland SP1 soils.



Photograph 14. View of Wetland A within the western roadway swale of US 41 from the culvert inlet at SR 352, looking north.



Photograph 15. View of Wetland A and the culvert inlet which flows south under SR 352 leading to Wetland B, looking southwest.



Photograph 16. View of SP2 documenting Wetland A and Wetland B within the western roadway swale of US 41, looking south.



Photograph 17. View of SP2 (Wetland A) dominated by hydrophytic narrowleaf cattail (*Typha angustifolia*) and sandbar willow (*Salix interior*), looking west.



Photograph 18. View of SP2 (Wetland A) which is part of the US 41 roadway swale and conveys stormwater runoff to the south, looking north.



Photograph 19. View of the soil profile of SP2 (Wetland A) which met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators.



Photograph 20. Water was observed within the SP2 (Wetland A) soil pit indicating a Dry-Season Water Table (C2) wetland hydrology indictor.



Photograph 21. View of the wetland-upland edge of Wetland A (TP1) and RSD2 (TP2) where an abrupt change in vegetation communities was observed, north of SP2 and west of US 41, looking north.



Photograph 22. Typical view of the western US 41 roadside swale documented in SP3 and recorded as RSD2, which provides hydrology for Wetland A, looking north.



Photograph 23. View of upland SP3, which documents RSD2, the western US 41 roadway swale, looking southeast.



Photograph 24. View of SP3 within the concave roadway swale of RSD2 and dominated by barnyard grass (*Echinochloa crus-galli*), perennial ryegrass (*Lolium perenne*), and whorled milkweed (*Asclepias verticillata*), looking northeast.



Photograph 25. View of the soils of SP3 (RSD2) which did not meet any hydric soil indicator.



Photograph 26. View of Wetland B dominated by narrowleaf cattail (*Typha angustifolia*) near the southern and downstream outlet of the SR 352 road culvert west of US 41, looking south.



Photograph 27. View of Wetland B from the US 41 roadway embankment, south of the SR 352 intersection, looking north.



Photograph 28. View of the southern terminus of Wetland B where hydrology enters a culvert under the train tracks, looking west.



Photograph 29. View of the culvert inlet for Wetland B at its southern terminus within the investigation area, looking south.



Photograph 30. View of Wetland B TP3 (blue arrow), an unknown (red arrow) culvert outlet, and the southern US 41 culvert outlet (yellow arrow) from southern culvert inlet, looking north.



Photograph 31. View of the evidence in the form of tracks, indicating possible wildlife habitat at the southern culvert cluster.



Photograph 32. View of the southern US 41 culvert outlet which captures flow from the eastern and median roadside swales, looking southeast.



Photograph 33. View of the southern culvert inlet which collects hydrology from Wetland B, an unknown outlet, and the southern US 41 road culvert, looking southeast.



Photograph 34. View of the southern US 41 road culvert outlet discharging into Wetland B from RSD1 and Wetland D, looking southeast.



Photograph 35. View of upland SP4 within the toe slopes of the unmanaged vegetation community adjacent to the southern terminus of Wetland B, looking north.



Photograph 36. View of SP4 which was dominated by white ash (*Fraxinus americana*), poison ivy (*Toxicodendron radicans*), and orchard grass (*Dactylis glomerata*), looking west.



Photograph 37. View of SP4 upslope from Wetland B and TP3, looking east.



Photograph 38. View of the soil profile of SP4 which met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators.



Photograph 39. View of the soil profile found at upland SP5 upslope from Wetland B, which met the Redox Dark Surface (F6) hydric soil indicator.



Photograph 40. View of SP5 which documents the sloped embankment which contains hydrophytic vegetation reed canary grass (*Phalaris arundinacea*) and narrowleaf cattail (*Typha angustifolia*) but met no other wetland criterion, looking west.



Photograph 41. View of SP5 adjacent and upslope from Wetland B, looking south.



Photograph 42. View of SP5 between US 41 and Wetland B, looking north.



Photograph 43. View of upland SP6 within the US 41 roadway median swale, RSD1, looking south.



Photograph 44. View of SP6 within the concave US 41 roadway swale (RSD1) where vegetation was dominated by reed canary grass (*Phalaris arundinacea*), smooth brome (*Bromus inermis*), and tall fescue (*Schedonorus arundinaceus*), looking northwest.



Photograph 45. View of the soils of SP6 (RSD1) which did not meet any hydric soil indicator and where coarse fragment refusal as observed at 12-inches.



Photograph 46. View of the US 41 roadway median (RSD1) swale, looking north.



Photograph 47. View of the US 41 roadway median (RSD1), looking south.



Photograph 48. View of the stormwater inlet basin found at the southern terminus of RSD1. This basin captures flow from RSD1 and outlets to the west into Wetland B.



Photograph 49. View of the top slope area adjacent to the eastern US 41 roadside swale, and Wetland D, near the southern border of the investigation area, looking southeast.



Photograph 50. View of upland SP7, adjacent to Wetland D, which was taken on the top slope terrace where hydrophytic vegetation, reed canary grass (*Phalaris arundinacea*) was found to be dominant but met no other wetland criteria, looking northwest.



Photograph 51. View of SP7 upslope from the eastern US 41 roadside swale and Wetland D, looking northeast.



Photograph 52. View of SP7 which did not meet the wetland hydrology or hydric soil criteria, but did contain hydrophytic vegetation, looking east.



Photograph 53. View of the soil profile found at SP7 which do not meet any hydric soil indicators.



Photograph 54. View of upland SP8 which was taken on the eastern roadway shoulder, opposite US 41, and upslope from the US 41 roadway swale and Wetland D, looking northwest.



Photograph 55. View of the SP8 soil profile which did not meet any hydric soil indicator.



Photograph 56. View of Wetland D near SP8 and TP4 within the eastern US 41 roadway swale, looking southeast.



Photograph 57. View of TP4 within Wetland D adjacent to SP8 within the eastern US 41 roadway swale, looking east.



Photograph 58. View of the eastern US 41 embankment above Wetland D, looking north.



Photograph 59. View of the US 41 eastern embankment above Wetland D, looking south.



Photograph 60. View of the culvert outlet within Wetland D which divides hydrology between Wetland C and D found at the southeastern quadrant of the intersection between US 41 and SR 352, looking southwest.



Photograph 61. View of the culvert outlet within Wetland D found at the southeastern quadrant of the intersection between US 41 and SR 352 which divides Wetland C and D, looking northeast.



Photograph 62. View from the culvert inlet at the northeastern quadrant of the intersection between US 41 and SR 352 within Wetland C, looking north.



Photograph 63. View of SP9 documenting Wetland C and Wetland D within the eastern US 41 roadway swale which was dominated by silky dogwood (*Cornus amomum*) and reed canary grass (*Phalaris arundinacea*), looking south.



Photograph 64. View of SP9 near the boundary of Wetland C, adjacent to the RSD4 and SP10, within the eastern US 41 concave

roadway swale, looking north.



Photograph 65. View of the soil profile found at SP9 which met Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators.



Photograph 66. View of the wetland-upland border at RSD4 and Wetland C, looking south.



Photograph 67. View of upland SP10 taken in RSD4, upslope from SP9 and Wetland C, where no indicators of wetland vegetation were observed, looking north.



Photograph 68. View of SP10 which was taken to document RSD4 and the boundary of Wetland C within the eastern US 41 roadway swale, north of US 352, looking west.



Photograph 69. View of the soil profile found at SP10 (RSD4) which met the Depleted Below Dark Surface (A11) and Depleted Matrix (F3) hydric soil indicators.



Photograph 70. View of SP11 representing Wetland E within the US 41 roadway median swale which contained hydrophytic vegetation narrowleaf cattail (*Typha angustifolia*) north of SR 352, looking

south.



Photograph 71. View of SP11 (Wetland E) within the concave roadway swale, looking north.



Photograph 72. View of the soil profile of Wetland E found at SP11 which met the Redox Dark Surface (F6) hydric soil indicator.



Photograph 73. View of upland SP12, upslope from Wetland E, which was taken to document RSD3 and did not meet the wetland vegetation or hydrology criteria, looking north.



Photograph 74. View of SP12 within the concave roadway swale (RSD3) and dominated by tall fescue (*Schedonorus arundinaceus*) and smooth brome (*Bromus inermis*), looking south.



Photograph 75. View of the soil profile found at SP12 (RSD3) which met the Redox Dark Surface (F6) hydric soil indicator.



Photograph 76. View of the stormwater inlet basin within the US 41 median, north of SR 352 which captures hydrology from Wetland E.



Photograph 77. View US 41 median roadway swale, the stormwater inlet basin (yellow arrow) and Wetland E (SP11)-upland RSD3 (TP5) transition (red arrow), north of SR 352.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP1

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Top Slope Terrace Local relief (concave, convex, none): None

Slope (%): 1-2 Lat: 40.521121 Long: -87.376611 Datum: WGS 84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X
Hydric Soil Present?	Yes ____	No X
Wetland Hydrology Present?	Yes ____	No X

Is the Sampled Area within a Wetland? **Yes** ____ **No** X

Remarks:
The Sample Point describes the mowed and maintained lawnscapes at the top slope terraces across the investigation area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Festuca rubra*	50	Yes	FACU
2. *Lolium perenne*	30	Yes	FACU
3. *Poa annua*	18	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	98 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	0	x 3 =	0
FACU species	98	x 4 =	392
UPL species	0	x 5 =	0
Column Totals:	98 (A)		392 (B)

Prevalence Index = B/A = 4.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
Sample Point does not pass any test for hydrophytic indicators.

SOIL

Sampling Point: SP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/1	100					Loamy/Clayey	
4-12	2.5Y 4/2	70	10YR 3/1	30	C	M	Loamy/Clayey	Faint redox concentrations
12-18	2.5Y 5/2	80	10YR 3/1	20	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:
The Sample Point does not meet any hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____
Water Table Present? Yes ____ No X Depth (inches): ____
Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:
No wetland hydrology indicators were observed at the Sample Point.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP2

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 3-6 Lat: 40.521643 Long: -87.376306 Datum: WGS84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents Wetland A within the drainage swale west of US 41.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Salix interior*	20	Yes	FACW
2.			
3.			
4.			
5.			
	20 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Typha angustifolia*	65	Yes	OBL
2. *Salix interior*	30	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	65	x 1 =	65
FACW species	50	x 2 =	100
FAC species	0	x 3 =	0
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	115 (A)		165 (B)
Prevalence Index = B/A =			1.43

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point passes the Rapid Test, Dominance Test and Prevalence Index for hydrophytic vegetation.

SOIL

Sampling Point: SP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 2/1	100					Loamy/Clayey	
4-6	10YR 3/1	98	10YR 5/6	2	C	M	Loamy/Clayey	Prominent redox concentrations
6-18	10YR 5/1	75	10YR 5/6	15	C	M	Loamy/Clayey	
			10YR 6/1	10	D	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

The Sample Point passes the Depleted Below Dark Surface, A11, and Depleted Matrix, F3, hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes X	No ___	Depth (inches): 15
Saturation Present? (includes capillary fringe)	Yes X	No ___	Depth (inches): 0

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

Several primary and secondary indicators of wetland hydrology were observed at the Sample Point.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP3

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): Concave

Slope (%): 4-6 Lat: 40.523566 Long: -87.376478 Datum: WGS84

Soil Map Unit Name: Chalmers silty clay loam (Ch) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents the maintained roadway slope upslope from Wetland A

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Morus alba*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Echinochloa crus-galli*	25	Yes	FACW
2. *Lolium perenne*	20	Yes	FACU
3. *Asclepias verticillata*	20	Yes	FACU
4. *Cirsium arvense*	10	No	FACU
5. *Festuca rubra*	10	No	FACU
6. *Ipomoea hederacea*	8	No	FAC
7.			
8.			
9.			
10.			
	93 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	25	x 2 =	50
FAC species	18	x 3 =	54
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	103 (A)		344 (B)
Prevalence Index = B/A =			3.34

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	100					Loamy/Clayey	
12-18	10YR 3/1	90	10YR 2/1	10	C	M	Loamy/Clayey	Faint redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

The Sample Point did not meet any hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:

Two secondary indicators of wetland hydrology

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP4

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Toe Slope Local relief (concave, convex, none): Concave

Slope (%): 4-6 Lat: 40.519223 Long: -87.376337 Datum: WGS84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The Sample Point represents the forested and shurb portion of the unmanaged landscape adjacent to the culvert inlet at the south terminus of Wetland A and the roadside ditch.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Morus alba*	60	Yes	FAC
2. *Juglans nigra*	20	Yes	FACU
3.			
4.			
5.			
	80	=Total Cover	
Sapling/Shrub Stratum (Plot size: 15)			
1. *Fraxinus americana*	20	Yes	FACU
2. *Acer negundo*	10	Yes	FAC
3.			
4.			
5.			
	30	=Total Cover	
Herb Stratum (Plot size: 5)			
1. *Fraxinus americana*	15	Yes	FACU
2. *Toxicodendron radicans*	12	Yes	FAC
3. *Dactylis glomerata*	10	Yes	FACU
4. *Rumex crispus*	8	No	FAC
5. *Oxalis stricta*	5	No	FACU
6. *Ambrosia artemisiifolia*	5	No	FACU
7. *Geum canadense*	5	No	FAC
8.			
9.			
10.			
	60	=Total Cover	
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
		=Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 42.9% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	95	x 3 =	285
FACU species	75	x 4 =	300
UPL species	0	x 5 =	0
Column Totals:	170 (A)		585 (B)
Prevalence Index = B/A =			3.44

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/1	100					Loamy/Clayey	
3-6	10YR 3/1	97	10YR 5/2	3	D	M	Loamy/Clayey	
6-13	10YR 5/1	72	10YR 3/1	25	C	M	Loamy/Clayey	Faint redox concentrations
			10YR 5/6	3	C	M		Prominent redox concentrations
13-18	10YR 5/2	75	10YR 4/6	20	C	M	Loamy/Clayey	Prominent redox concentrations
			2.5YR 3/6	5	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- X Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: ___

Depth (inches): ___

Hydric Soil Present? **Yes** X **No** ___

Remarks:

The Sample Point passes the Depleted Below Dark Surface, A11, and Depleted Matrix, F3, hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

No primary and one secondary wetland hydrology indicator was observed at the Sample Point. Not enough hydrology indicators were observed at the Sample Point to meet the hydrology criteria.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP5

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): Convex

Slope (%): 8-10 Lat: 40.519336 Long: -87.376203 Datum: WGS84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The Sample Point represents a minor terrace within the maintained roadway slope which contained hydrophytic vegetation adjacent to Wetland A.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Morus alba*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phalaris arundinacea*	60	Yes	FACW
2. *Typha angustifolia*	30	Yes	OBL
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	60	x 2 =	120
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	100 (A)		180 (B)

Prevalence Index = B/A = 1.80

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point passes the Dominance Test for hydrophytic vegetation.

SOIL

Sampling Point: SP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-8	N 2.5/	95	5YR 4/6	5	C	M	Loamy/Clayey	Prominent redox concentrations
8-16	N 3/	80	N 2.5/	5	C	M	Loamy/Clayey	Faint redox concentrations
			5YR 4/6	10	C	M		Prominent redox concentrations
			10YR 5/2	5	D	M		

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- X Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:

The Sample Point passes the Redox Dark Surface, F6, hydric soil indicators. Coarse fragment refusal was encountered at 16-inches. Other attempts to bypass the refusal were all met with the same layer.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

The Sample Point passes the FAC-Neutral Test, D5, seconday wetlandy hydrology indicator. However, not enough wetland indicators were observed at the sample point to meet the wetland hydrology criteria.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP6

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Swale/Depression Local relief (concave, convex, none): Concave

Slope (%): 1-3 Lat: 40.519462 Long: -87.375918 Datum: WGS84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents a swale within the grassed median which receives stormwater inputs from US 41 and terminates at a stormwater inlet basin.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phalaris arundinacea*	30	Yes	FACW
2. *Bromus inermis*	20	Yes	FACU
3. *Schedonorus arundinaceus*	20	Yes	FACU
4. *Asclepias verticillata*	12	No	FACU
5. *Euphorbia maculata*	5	No	FACU
6. *Securigera varia*	3	No	UPL
7.			
8.			
9.			
10.			
	90 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	0	x 3 =	0
FACU species	57	x 4 =	228
UPL species	3	x 5 =	15
Column Totals:	90 (A)		303 (B)
Prevalence Index = B/A =			3.37

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation
___ 2 - Dominance Test is >50%
___ 3 - Prevalence Index is ≤3.0[1]
___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/3	100					Loamy/Clayey	
6-12	10YR 3/1	90	10YR 4/2	10	D	M	Loamy/Clayey	

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:
The Sample Point does not meet any hydric soil indicator. Coarse fragment refusal was encountered at 12-inches. Other attempts to bypass the refusal were all met with the same layer.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:
The Sample Point receives hydrology from stormwater runoff along adjacent road and median. Hydrology is captured by a stormwater inlet at the terminus of the swale.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP7

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Top Slope Terrace Local relief (concave, convex, none): Flat

Slope (%): 1-3 Lat: 40.519236 Long: -87.375583 Datum: WGS84

Soil Map Unit Name: Odell silt loam, 0-2% slopes (OlA) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The Sample Point represents a partially unmanaged top slope terrace above the eastern roadway swale where hydrophytic vegetation was observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Morus alba*	25	Yes	FAC
2.			
3.			
4.			
5.			
	25 =Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phalaris arundinacea*	90	Yes	FACW
2. *Schedonorus arundinaceus*	10	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	90	x 2 =	180
FAC species	25	x 3 =	75
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column Totals:	125 (A)		295 (B)
Prevalence Index = B/A =			2.36

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point passes the Dominance Test for hydrophytic vegetation.

SOIL

Sampling Point: SP7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	100					Loamy/Clayey	
3-9	10YR 4/3	95	10YR 3/1	5	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ___ **No** X

Remarks:

The Sample Point does not meet any hydric soil indicator. Coarse fragment refusal was encountered at 9-inches. Other attempts to bypass the refusal were all met with the same layer.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ___	No X	Depth (inches): ___
Water Table Present?	Yes ___	No X	Depth (inches): ___
Saturation Present? (includes capillary fringe)	Yes ___	No X	Depth (inches): ___

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:

Only one secondary indicator of wetland hydrology was observed at the Sample Point. However, not enough wetland indicators were observed at the sample point to meet the wetland hydrology criteria.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP8

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S19 T24N R8W

Landform (hillside, terrace, etc.): Shoulder Slope Local relief (concave, convex, none): None

Slope (%): 15-20 Lat: 40.520034 Long: -87.375527 Datum: WGS84

Soil Map Unit Name: Chalmers silty clay loam (Ch) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The Sample Point represents the mowed and maintained slopes within the right-of-way adjacent to the roadway swale.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Bromus inermis*	35	Yes	FACU
2. *Schedonorus arundinaceus*	20	Yes	FACU
3. *Eleusine indica*	20	Yes	FACU
4. *Echinochloa crus-galli*	15	No	FACW
5. *Setaria pumila*	8	No	FAC
6. *Cirsium arvense*	5	No	FACU
7.			
8.			
9.			
10.			
	103 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	15	x 2 =	30
FAC species	8	x 3 =	24
FACU species	80	x 4 =	320
UPL species	0	x 5 =	0
Column Totals:	103 (A)		374 (B)

Prevalence Index = B/A = 3.63

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/3	100					Loamy/Clayey	
2-12	10YR 4/3	92	10YR 3/1	5	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 5/6	3	C	M		Distinct redox concentrations

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

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16)
- ___ Iron-Manganese Masses (F12)
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (F22)
- ___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** ____ **No** X

Remarks:

The Sample Point does not meet any hydric soil indicator. Coarse fragment refusal was encountered at 12-inches. Other attempts to bypass the refusal were all met with the same layer.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present?	Yes ____	No X	Depth (inches): ____
Water Table Present?	Yes ____	No X	Depth (inches): ____
Saturation Present? (includes capillary fringe)	Yes ____	No X	Depth (inches): ____

Wetland Hydrology Present? **Yes** ____ **No** X

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

Remarks:

No evidence of wetland hydrology was observed at the Sample Point.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP9

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Swale/Depression Local relief (concave, convex, none): Concave

Slope (%): 1-3 Lat: 40.522227 Long: -87.375594 Datum: WGS84

Soil Map Unit Name: Chalmers silty clay loam (Ch) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents Wetland B which was found in the roadway drainage swale east of US 41.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Cornus amomum*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Phalaris arundinacea*	60	Yes	FACW
2. *Symphyotrichum lateriflorum*	15	No	FACW
3. *Typha angustifolia*	10	No	OBL
4. *Acer negundo*	5	No	FAC
5. *Rumex crispus*	5	No	FAC
6.			
7.			
8.			
9.			
10.			
	95 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	90	x 2 =	180
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	110 (A)		220 (B)
Prevalence Index = B/A =			2.00

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point passes the Dominance Test and Prevalence Index for hydrophytic vegetation.

SOIL

Sampling Point: SP9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	96	10YR 4/2	4	D	M	Loamy/Clayey	
3-16	10YR 5/2	80	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
X Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
The Sample Point meets the Depleted Below Dark Surface, A11, and Depleted Matrix, F3, hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:
Several primary and secondary indicators of wetland hydrology were observed at the Sample Point. The primary hydrological input is stormwater runoff from US 41.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP10

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Swale/Depression Local relief (concave, convex, none): Concave

Slope (%): 2-4 Lat: 40.522475 Long: -87.375573 Datum: WGS84

Soil Map Unit Name: Darroch silt loam, till substratum (Dp) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** Yes ____ No X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents the roadway drainage swale east of US 41 and upslope from Wetland B.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1. *Cornus amomum*	15	Yes	FACW
2.			
3.			
4.			
5.			
	15 =Total Cover		
Herb Stratum (Plot size: 5)			
1. *Schedonorus arundinaceus*	30	Yes	FACU
2. *Echinochloa crus-galli*	20	Yes	FACW
3. *Securigera varia*	20	Yes	UPL
4. *Elymus virginicus*	15	No	FACW
5. *Eleusine indica*	8	No	FACU
6. *Rumex crispus*	5	No	FAC
7.			
8.			
9.			
10.			
	98 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	5	x 3 =	15
FACU species	38	x 4 =	152
UPL species	20	x 5 =	100
Column Totals:	113 (A)		367 (B)
Prevalence Index = B/A =			3.25

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	96	10YR 4/2	4	D	M	Loamy/Clayey	
3-14	10YR 5/2	70	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
X Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
___ Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
The Sample Point meets the Depleted Below Dark Surface, A11, and Depleted Matrix, F3, hydric soil indicators.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:
Two secondary indicators of wetland hydrology were observed at the Sample Point. The primary hydrological input is stormwater runoff from US 41.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP11

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Depression Local relief (concave, convex, none): Concave

Slope (%): 1-3 Lat: 40.521595 Long: -87.375921 Datum: WGS84

Soil Map Unit Name: Chalmers silty clay loam (Ch) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No ____	**Is the Sampled Area within a Wetland?** **Yes** X **No** ____
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes X	No ____	

Remarks:
The Sample Point represents Wetland C which was found in the grassed roadway median of US 41.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Echinochloa crus-galli*	30	Yes	FACW
2. *Typha angustifolia*	28	Yes	OBL
3. *Agrostis gigantea*	20	Yes	FACW
4. *Hordeum jubatum*	10	No	FAC
5. *Juncus torreyi*	8	No	FACW
6.			
7.			
8.			
9.			
10.			
	96 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	28	x 1 =	28
FACW species	58	x 2 =	116
FAC species	10	x 3 =	30
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column Totals:	96 (A)		174 (B)

Prevalence Index = B/A = 1.81

Hydrophytic Vegetation Indicators:

X 1 - Rapid Test for Hydrophytic Vegetation
X 2 - Dominance Test is >50%
X 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** ____

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point passes the Rapid Test, Dominance Test and Prevalence Index for hydrophytic vegetation.

SOIL

Sampling Point: SP11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Loamy/Clayey	
4-15	10YR 3/2	65	10YR 5/4	20	C	M	Loamy/Clayey	Distinct redox concentrations
			10YR 5/2	10	D	M		
			10YR 5/8	5	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
The Sample Point meets the Redox Dark Surface, F6, hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? **Yes** X **No** ___

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

Remarks:
Several primary and secondary indicators of wetland hydrology were observed at the Sample Point. The primary hydrological input is stormwater runoff from US 41.

U.S. Army Corps of Engineers
WETLAND DETERMINATION DATA SHEET – Midwest Region
See ERDC/EL TR-10-16; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp:11/30/2024
Requirement Control Symbol EXEMPT:
(Authority: AR 335-15, paragraph 5-2a)

Project/Site: US41 & SR352 Intersection Improvement (DES#2100058) City/County: Benton County Sampling Date: 8/22/2023

Applicant/Owner: INDOT State: IN Sampling Point: SP12

Investigator(s): Ken Safranek, Rose Snyder; ASC Group, Inc. Section, Township, Range: S18 T24N R8W

Landform (hillside, terrace, etc.): Swale/Depression Local relief (concave, convex, none): Concave

Slope (%): 1-3 Lat: 40.523242 Long: -87.376063 Datum: WGS84

Soil Map Unit Name: Chalmers silty clay loam (Ch) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation____, Soil____, or Hydrology____ significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation____, Soil____, or Hydrology____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____	No X	**Is the Sampled Area within a Wetland?** **Yes** ____ **No** X
Hydric Soil Present?	Yes X	No ____	
Wetland Hydrology Present?	Yes ____	No X	

Remarks:
The Sample Point represents the grassed roadway median of US 41 upslope from Wetland C.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Sapling/Shrub Stratum (Plot size: 15)			
1.			
2.			
3.			
4.			
5.			
	=Total Cover		
Herb Stratum (Plot size: 5)			
1. *Schedonorus arundinaceus*	50	Yes	FACU
2. *Bromus inermis*	25	Yes	FACU
3. *Elymus repens*	15	No	FACU
4. *Cyperus esculentus*	5	No	FACW
5. *Hordeum jubatum*	5	No	FAC
6.			
7.			
8.			
9.			
10.			
	100 =Total Cover		
Woody Vine Stratum (Plot size: 30)			
1.			
2.			
	=Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	5	x 2 =	10
FAC species	5	x 3 =	15
FACU species	90	x 4 =	360
UPL species	0	x 5 =	0
Column Totals:	100 (A)		385 (B)

Prevalence Index = B/A = 3.85

Hydrophytic Vegetation Indicators:

____ 1 - Rapid Test for Hydrophytic Vegetation
____ 2 - Dominance Test is >50%
____ 3 - Prevalence Index is ≤3.0[1]
____ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** ____ **No** X

Remarks: (Include photo numbers here or on a separate sheet.)
The Sample Point does not pass any test for hydrophytic vegetation.

SOIL

Sampling Point: SP12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/3	100					Loamy/Clayey	
2-4	10YR 3/1	100					Loamy/Clayey	
4-8	10YR 5/2	85	10YR 3/1	15	C	M	Loamy/Clayey	Faint redox concentrations
8-18	10YR 3/2	70	10YR 5/3	20	C	M	Loamy/Clayey	Faint redox concentrations
			10YR 5/6	10	C	M		Prominent redox concentrations

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

Hydric Soil Indicators:

___ Histosol (A1)
___ Histic Epipedon (A2)
___ Black Histic (A3)
___ Hydrogen Sulfide (A4)
___ Stratified Layers (A5)
___ 2 cm Muck (A10)
___ Depleted Below Dark Surface (A11)
___ Thick Dark Surface (A12)
___ Sandy Mucky Mineral (S1)
___ 5 cm Mucky Peat or Peat (S3)
___ Sandy Gleyed Matrix (S4)
___ Sandy Redox (S5)
___ Stripped Matrix (S6)
___ Dark Surface (S7)
___ Loamy Mucky Mineral (F1)
___ Loamy Gleyed Matrix (F2)
___ Depleted Matrix (F3)
X Redox Dark Surface (F6)
___ Depleted Dark Surface (F7)
___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

___ Coast Prairie Redox (A16)
___ Iron-Manganese Masses (F12)
___ Red Parent Material (F21)
___ Very Shallow Dark Surface (F22)
___ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? **Yes** X **No** ___

Remarks:
The Sample Point meets the Redox Dark Surface, F6, hydric soil indicator.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

Secondary Indicators (minimum of two required)

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

Field Observations:

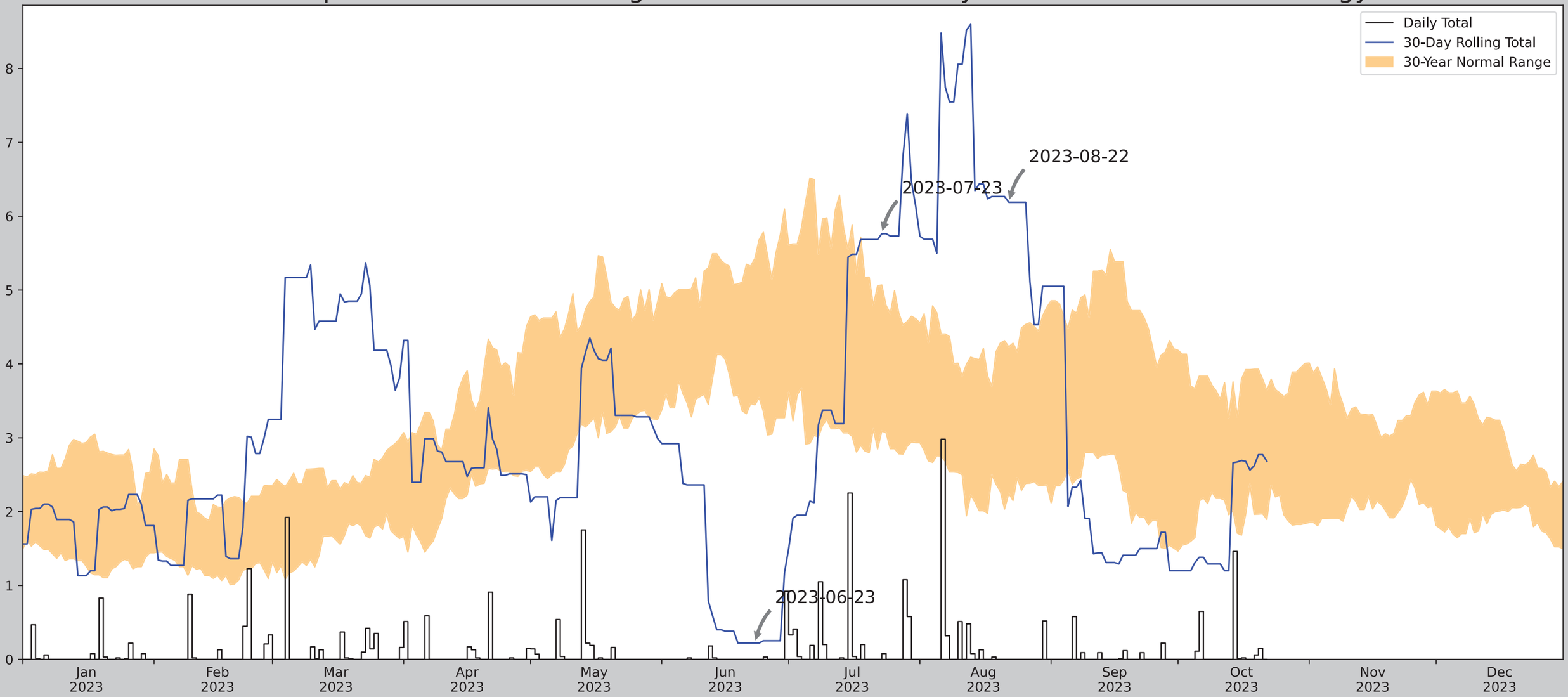
Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? Yes ___ No X Depth (inches): ___
(includes capillary fringe)

Wetland Hydrology Present? **Yes** ___ **No** X

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

Remarks:
The Sample Point was observed within a concave, depressional landform and meets the Geomorphic Position, D2, secondary wetland hydrology indicator. However, the Sample Point does not contain enough indicators to meet the wetland hydrology criteria.

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	40.521141, -87.375943
Observation Date	2023-08-22
Elevation (ft)	757.863
Drought Index (PDSI)	Mild drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-08-22	2.246457	4.230709	6.188977	Wet	3	3	9
2023-07-23	3.09252	5.068504	5.76378	Wet	3	2	6
2023-06-23	3.446457	5.427953	0.220472	Dry	1	1	1
Result							Wetter than Normal - 16

US Army Corps of Engineers

ERDC

Figures and tables made by the Antecedent Precipitation Tool Version 2.0

Developed by: U.S. Army Corps of Engineers and U.S. Army Engineer Research and Development Center

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PENCE 1 SW	40.3522, -87.525	700.131	14.06	57.732	7.139	10458	89
ROSSVILLE 5.7 E	40.3884, -87.5608	708.99	3.132	8.859	1.437	94	0
ROSSVILLE 4.4 SSE	40.3199, -87.6482	683.071	6.862	17.06	3.205	83	0
HOOPESTON 4.6 E	40.4709, -87.5838	711.942	8.765	11.811	4.048	67	0
DANVILLE 7.6 N	40.2546, -87.6224	666.011	8.474	34.12	4.102	133	0
HENNING 3.4 SSE	40.2647, -87.6656	682.087	9.562	18.044	4.475	230	1
HOOPESTON	40.4664, -87.685	709.974	11.538	9.843	5.306	288	0

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD)

FORM BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 3/4/2024

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Len Mikles, 9376 Castlegate Drive, Indianapolis, IN 46256

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (INDOT Des. No. 2100058) is located at U.S. Route (US) 41 and State Road (SR) 352 in Grant Township, Benton County, Indiana (Figures 1–7). The project proposes to reconstruct the intersection as a restricted crossing U-Turn (RCUT). The purpose of this project is to increase the safety for vehicles crossing US 41 or turning left onto US 41 from SR 352. The need for this project is due to the intersection experiencing an above normal number of crashes and elevated crash severity for an unsignalized rural state intersection. The project may include pavement widening to accommodate added right turn lane, completely enclosing the unpaved median, and central island modifications with slotted northbound left turn lane on US 41 at SR 352. This project will not require the acquisition of temporary or permanent right-of-way (ROW).

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

State: IN County/parish/borough: Benton Township: Grant

Center coordinates of site (lat/long in degree decimal format):

Lat.: 40.521141 Long.: -87.375946

Universal Transverse Mercator: 16N

Name of nearest waterbody: Goose Creek

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

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date:

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland A	40.521634	-87.376330	0.048-acre	Wetland	Section 404
Wetland B	40.520131	-87.376305	0.110-acre	Wetland	Section 404
Wetland C	40.521684	-87.375592	0.058-acre	Wetland	Section 404
Wetland D	40.519964	-87.375559	0.094-acre	Wetland	Section 404
Wetland E	40.521421	-87.375942	0.010-acre	Wetland	Section 404

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

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

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

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

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: Aerials with Aquatic Resources and Photograph Key mapping included in the Waters of the U.S. Determination and Wetland Delineation Report for the US 41 and SR 352, Grant Township, Benton County, Indiana Intersection Improvement Project (INDOT Des. No. 2100058)
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale:_____
- [ ] Data sheets prepared by the Corps:_____
- [ ] Corps navigable waters' study:_____
- [x] U.S. Geological Survey Hydrologic Atlas: (USGS, NHD 2019)
  - [x] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Boswell, IN quadrangle (USGS 7.5' topographic map)
- [x] Natural Resources Conservation Service Soil Survey. Citation: Benton County (USDA, NRCS 2023)
- [x] National wetlands inventory map(s). Cite name: U.S. Fish and Wildlife Service Wetlands Online Mapper website (USFWS 2023)
- [ ] State/local wetland inventory map(s):_____
- [ ] FEMA/FIRM maps _____
- [ ] 100-year Floodplain Elevation is:
- [x] Photographs: [x] Aerial (Name & Date): 2023 Aerial
  or [x] Other (Name & Date): August 22, 2023 Site Photographs
- [ ] Previous determination(s). File no. and date of response letter:_____
- [x] Other information (please specify): IDNR Floodplain Maps (2023)

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

_____	Len Mikles 3/4/2024
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

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

DNR Indiana Department of Natural Resources

Floodplain Analysis & Regulatory Assessment (FARA)



Point of Interest

Base Flood Elevation Point

FLD_ZONE, SOURCE_DNR, ZONE_SUBTY

Not Mapped

Long: **-87.37592819366147**

Lat: **40.52121451603305**

The information provided below is based on the point of interest shown in the map above.

County: **Benton**

Stream Name: **Goose Creek**

Approximate Ground Elevation: **757.8 feet (NAVD88)**

Base Flood Elevation: **737.5 Feet (NAVD88)**

Drainage Area: **Not Available**

Best Available Flood Hazard Zone: **Not Mapped**

National Flood Hazard Zone: **Not Mapped**

Is a Flood Control Act permit from the DNR needed for this location? **See following pages**

Is a local floodplain permit needed for this location? **Contact your local Floodplain Administrator-**

Floodplain Administrator: **No Floodplain Administrator Name Available**

Community Jurisdiction: **Benton County, County proper**

Phone: **No Phone Number Available**

Email: **No Email Address Available**

US Army Corps of Engineers District: **Louisville**

Date Generated: 10/27/2023

APPENDIX G: PUBLIC INVOLVEMENT

Notice of Survey Letter
Public Involvement Certification Package
- Public Involvement Certification Checklist
- Legal Notice of Public Hearing
- Proof of Publication
- Mailing List/Project Stakeholders List
- Public Hearing Information

ALIGN
CIVIL ENGINEERING
CONSULTANTS

1285 S. Jackson Street, Suite B
Greencastle, IN. 46135
765.653.6710
www.aligncec.com

Notice of Survey

Date: 01/06/2023

SUBJECT: US 41 / SR 352

DES No. 2100058, Benton County, Indiana

Dear Property Owner:

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

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

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

Sincerely,

Adam Christenberry, PS
Senior Project Manager / Field Survey Manager

PUBLIC INVOLVEMENT CERTIFICATION CHECKLIST

Upon completion of public involvement activities, the project manager (or designee) must submit the following items for review and to receive certification (approval of the public involvement process).

A signature line for certification is provided on the cover page of the environmental document.

X 1. **Environmental document signature page** - initialed by Environmental Services to indicate release of the environmental document for public involvement

X 2. **Copy of legal notice**
- Notice of Planned Improvement (for projects requiring public involvement but not rising to the level of public hearing)
- Notice of Public Hearing (for project requiring public involvement where the level of public interest warrants a public hearing)

X 3. **Copy of the Publisher's Affidavit** from newspaper(s) used to advertise the public hearing or the public's opportunity to request a public hearing
- The name of the paper and publication dates must clearly be displayed
- At minimum, the notice must be published twice (2 different publishing dates)
- A 15 day comment period is given beginning from the date the 1st legal notice is published to allow the public opportunity to submit and/or provide comments (for projects where a hearing is not held)
- For projects where a hearing is to be held, the date of the hearing must be at least 15 days from the date the 1st legal notice is published; the hearing cannot be held sooner than 15 days from the date the 1st notice is published

X 4. **Mailing list/Project Stakeholders List (if one was used)**

X 5. **Copy of PowerPoint presentation** (if hearing was held)

X 6. **Information Packet** made available at public hearing (if hearing was held)

X 7. **Transcription of verbal comments** presented during public comment session (if a hearing was held)

X 8. **Copies of public comments**, letters, emails submitted by the public during the public comment period
- For projects where NO HEARING was held, responses to public comments and a summary explaining how comments were addressed must be included
- For projects where A PUBLIC HEARING was held, responses to public comments DO NOT need to be included. Responses to public comments will be included in the final/approved version of the environmental document

N/A 9. **If no public comments were received**, a general statement should be included to document "no public comments received"

INDOT 10. **Sign cover page of environmental document** to indicate public involvement certification

LEGAL NOTICES SHOULD INCLUDE THE FOLLOWING ITEMS

__X__ 1. Day, month, date, year, time and location of public hearing
__X__ 2. Include comment period deadline date
__X__ 3. For projects where no hearing is to be held, the notice must include a statement "offering the public the opportunity to request a public hearing be held"
__X__ 4. Project description, location and project limits; Include DES# number on notice
__X__ 5. Summary of the type of work to be done
__X__ 6. New permanent right-of-way (R/W) and easements in acres, temporary r/w, relocations and/or displacements as part of the project
__X__ 7. CE (type of environmental document) level with any major impacts reflected in the environmental document
__X__ 8. Maintenance of Traffic (MOT) during construction
__X__ 9. Public viewing locations for the environmental documents and preliminary plans
__X__ 10. Americans with Disabilities Act (ADA) Statement
__X__ 11. INDOT Public Involvement Compliance paragraph

INDIANA DEPARTMENT OF TRANSPORTATION

DES. # 2100058

LEGAL NOTICE OF PUBLIC HEARING
Proposed Intersection Improvement at US 41 & SR 352 in Benton County

The Indiana Department of Transportation (INDOT) will host a public hearing on June 25, 2025, at Boswell Town Hall located at 108 E. Main St. in Boswell, Indiana 47921. The hearing will begin at 6:00 PM EST. The purpose of the public hearing is to offer all interested persons an opportunity to comment on current preliminary design plans for the proposed intersection improvements at United State Route (U.S.) 41 and State Route (S.R.) 352 in Benton County, Indiana.

The Indiana Department of Transportation (INDOT) with partial funding and oversight from the Federal Highway Administration (FHWA) proposed improving the U.S. 41 & S.R. 352 Intersection in Benton County. The proposed improvement is a Reduced Conflict Intersection (RCI). The purpose of the project is to reduce crash frequency and severity at the intersection. RCIs have proven to be a safer alternative to a traditional roadway intersection on a four-lane highway because they eliminate or substantially reduce right-angle crashes, the crash the most responsible for fatalities and serious injuries at intersections. In fact, the installation of RCIs at similar intersections throughout Indiana and the nation have shown a substantial decrease in fatal and serious injury crashes.

The Maintenance of Traffic (MOT) plan for the project involves maintaining at least one lane open in all directions during construction for both U.S. 41 and S.R. 352. Access to adjacent properties and local drives will always be maintained. INDOT will coordinate with emergency services, local school corporation officials and project stakeholders to ensure potential disruptions and impacts are minimized as much as possible.

The project will require no additional right-of-way. No residential relocations are required for the project. There are no impacts to threatened or endangered species. There will be approximately 0.03 acres of wetland impacts for the project improvements. Construction is expected to begin in June 2026. The estimated construction cost is approximately $3.8 million. Right-of-way costs are $0 and preliminary engineering costs are approximately $272k.

Federal and state funds are proposed to be used for construction of this project. INDOT and the Federal Highway Administration have agreed that this project poses minimal impact to natural environment. A Categorical Exclusion (CE-1) environmental document has been prepared for the project. The environmental documentation and preliminary design information are available to view at the following locations:

1. Boswell-Grant Township Public Library, 101 N. Clinton St., Boswell, IN 47921
2. INDOT Crawfordsville (West Central) District Office, 41 W 300 N, Crawfordsville, IN 47933
3. Project website: https://www.in.gov/indot/about-indot/central-office/welcome-to-the-crawfordsville-district/us-41-and-sr-352-intersection-improvement/

NextLevel INDIANA

During emergency situations, public viewing locations may be limited or prohibited as part of the Notice of Planned Improvement. Project documents may only be available on-line during emergency situations. INDOT will mail project documents upon request.

With advance notice, INDOT will provide accommodations for persons with disabilities with regards to participation and access to project information as part of the hearings process including arranging auxiliary aids, interpretation services for the hearing impaired, services for the sight impaired and other services as needed. In addition, INDOT will provide accommodations for persons of Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion. Should accommodation be required please contact Kaitlyn Taylor, INDOT (765-376-4754 and kattaylor@indot.in.gov).

Public statements for the record will be taken as part of the public hearing procedure. All verbal statements recorded during the public hearing and all written comments submitted prior to, during and for a period of two (2) weeks following the hearing date, will be evaluated, considered and addressed in subsequent environmental documentation. Written comments may be submitted prior to the public hearing and within the comment period to ASC Group, 9376 Castlegate Dr., Indianapolis, IN 46256. E-Mail: cberry@ascgroup.net. **INDOT respectfully requests comments be submitted by July 9, 2025.**

This notice is published in compliance with Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) states: "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program." 23 CFR 450.212(a)(7) states: "Public involvement procedures shall provide for periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all and revision of the process as necessary." approved by the Federal Highway Administration, U.S. Department of Transportation on July 7, 2021.

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bentonreviewads@gmail.com

PROOF OF PUBLICATION
BENTON REVIEW
Federal ID.: 45-2211406

Indiana Department of Transportation

PROPOSED INTERSECTION IMPROVEMENT AT US 41 & 352 BENTON COUNTY

COMPUTATION OF CHARGE

149 lines, 1 columns wide equals *149 equivalent lines at _.7961_ cents per line	$118.62
Additional charge for notices containing rule or tabular work (50 percent of above amount)	$
Charge for extra proofs of publication ($1.00 for each proof in excess of two)	$
TOTAL AMOUNT OF CLAIM	$118.62

DATA FOR COMPUTING COST

Width of single column: 10.-6 picas
Size of type: 8 point

Pursuant to the provisions and penalties of Chapter 155, Acts 1953,
I hereby certify that the foregoing account is just and correct, that the amount claimed is legally due, after allowing all just credits, and that no part of the same has been paid.

PUBLISHER'S AFFIDAVIT

Personally appeared before me, a notary public in and for said county and state, the undersigned **Don Hurd** who, being duly sworn, says that he is publisher of the **The Benton Review** newspaper of general circulation printed and published in the English language in the town of **Fowler** in state and county aforesaid, and that the printed matter attached hereto is a true copy, which was duly published in said paper for

_____2 time(s)_____, the date of publication being as follows:

Benton Review: 6/11/2025, 6/18/2025

Date: 6/18/2025

Signed: Don K Hurd
Publisher

Subscribed and sworn to before me 6/18/2025

Notary Public

SEAL
Amber Shonk
Notary Public, State of Indiana
Benton County
Commission Number NP0751807
My Commission Expires
September 25, 2031

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NOTICE OF PUBLIC HEARINGS

The Fowler Advisory Plan Commission will hold a public hearing on Wednesday, June 25, 2025 at 6:00 p.m. EDT and the Fowler Town Council will hold a public hearing on Monday, July 7, 2025 at 6:00 p.m., both in the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana, to hear and consider a Petition for Zone Map Change submitted by Samiruddin Baha and Bibi Narges Burhani, requesting that the GB General Business zoning designation at 1004 S. East St., Fowler, Indiana be changed to R-1 Single Family Residential zoning designation, to match the current use of the parcel as a residence, which tract is more fully described as follows:

FOWLERS ADD OUTLOTS PT 42 239.75X181.69 .99A, Town of Fowler, Benton County, State of Indiana.

Parcel Number: 04-08-15-444-020.000-004

Copies of the proposal are on file at the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana and at the office of Barce & Redlin, P.C., 103 N. Jackson Ave., Fowler, Indiana, and are available for inspection during business hours prior to the hearing.

Written objections to the proposal that are filed with the Fowler Town Hall before the hearing will be considered by the Plan Commission at the hearing. Written objections should be sent to Secretary of the Plan Commission and BZA, c/o Fowler Town Hall, 307 E. 5th St., Fowler, Indiana 47944. Oral comments concerning the proposal will also be heard at the hearing. The hearing may be continued from time to time as may be found necessary. The public is invited to attend and participate.

Dated June 6, 2025

FOWLER ADVISORY PLAN COMMISSION

6.11.2025

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ORDINANCE No. 2025-0505
ORDINANCE AMENDING CHAPTER 10 REGARDING PENALTIES ASSESSED FOR ORDINANCE VIOLATIONS

10.99 PENALTY

(A) For the violations referenced for the Town of Oxford, the violator may admit the violation before the Clerk-Treasurer who shall serve as violations clerk, and pay the civil penalty described in this Section in lieu of the filing of an Ordinance Violation. The maximum penalty which may be paid to the violations clerk is $250.00. All penalties paid will be added to the General Fund. In the event the violator does not wish to admit the violation and pay the civil penalty, or in the event that the civil penalty exceeds $250.00, the violation will be filed in court, and the civil penalty described in this code will be assessed upon judgment of an ordinance violation by the court.

(B) If a person:

1. Denies an ordinance of code violation;
2. Fails to satisfy a civil penalty assessed by the violations clerk after having entered an admission of violation; or
3. Fails to deny or admit violation;

the clerk shall report this fact to the official having the responsibility to prosecute ordinance violation cases for the municipal corporation pursuant to IC 33-36-3-5. Proceedings in court against the person shall then be initiated for the alleged ordinance violation.

(C) In all cases where the same offense is made punishable or is created by different clauses or sections of an ordinance, the prosecuting officer may elect under which to proceed; but not more than one recovery shall be had against the same person for the same offence; provided, that the revocation of a license or permit shall not be considered a recovery or penalty so as to bar any other penalty being enforced.

Whenever a minimum but not maximum fine or penalty is imposed, the court may in its discretion, fine the offender any sum exceeding the minimum fine or penalty so imposed but not exceeding one thousand dollars.

Whenever the doing of any act or the omission to do any act constitutes a breach of any section or provision of an ordinance, and there shall be no fine or penalty declared for such breach, any person who shall be convicted of any such breach shall be fined not more than one thousand dollars for each offense.

(D) Except as specifically delineated in the above subsections of the penalty provisions and unless delineated in their code or ordinance sections specifically, all other violations of the Town's ordinances and codes shall be assessed as a civil penalty of $250.00 to the violator.

All ordinances or parts of ordinances in conflict with the provisions of this ordinance are hereby repealed.

TOWN COUNCIL OF THE TOWN OF OXFORD, INDIANA

6.4 & 6.11.2025

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NOTICE TO TAXPAYERS OF PROPOSED ADDITIONAL APPROPRIATIONS

Notice is hereby given the taxpayers of York Township Public Library, Benton County, Indiana that the proper legal officers will consider the following additional appropriations in excess of the budget for the current year at the Benton County Council regular meeting at Benton County Courthouse, at 8:30 am, on the 26th day of June, 2025

Fund: GENERAL FUND

Other Services & Charges $7,220.00

Taxpayers appearing at the meeting shall have a right to be heard. The additional appropriations as finally made will be referred to the Department of Local Government Finance Board. The Board will decide as to the sufficiency of the funds to support the appropriations made, within fifteen (15) days of receipt of a certified copy of the action taken.

Susan Eastburn

Library Director

Date: 6.11.2025

6.11.2025

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ORDINANCE NO. 2025-0505

An Ordinance Providing for Reimbursement Rates for Services Performed and Fees Charged by the Town of Oxford, Indiana

§ 10.98 RATES AND FEES.

(A) The following rates are established as the reasonable costs to the Town and the basis for any billing for reimbursement:

(1) Rates:

(a)	Supervisor rate:	$75/hour.
(b)	Laborer rate:	$60/hour.
(c)	Large equipment:	$75/hour.
(d)	Small equipment:	$50/hour.
(e)	If hiring an outside contractor to clean up property then the charge will be 125% of the contractor's fee.	
(f)	For cleanup of property there will be a one-hour-minimum charge for each person involved in the cleanup. The charge will be billed in one-half hour increments after that.	

(2) Fees:

(a)	Research fee:	$25/hour.
	(i) For research, there will be a one-half-hour minimum charge for each person involved in the research.	
(b)	Administrative fee:	$75/occurrence.
(c)	Copy fee:	$.10/page
(d)	Fax fee	$.25/page.
(e)	Gravel/stone fee	Market rate, plus 15% and minimum ½ hour of labor
(f)	Bulk Trash pickup	$25/item
(g)	Golf cart permit	$25/cart (annually)
(h)	Park Shelter Rental deposit	$50 fee, plus $100 refundable

(B) Unless expressly stated, such rates, fees and charges shall be non-refundable.

(C) The Town shall bill the property owner, citizen or creator of the above expenses, at the above rates, upon the completion of the task. Costs of collection may be added if incurred and a lien may be placed upon the property involved if prompt payment is not made.

(D) The Town Council or designated officers may, under certain extraordinary circumstances, authorize the compromising or settlement of delinquent accounts.

This Ordinance shall be effective upon passage and publication according to law.

Passed this 5th day of May, 2025.

TOWN COUNCIL OF THE TOWN OF OXFORD, INDIANA

6.4 & 6.11.2025

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LEGAL NOTICE OF PLANNED IMPROVEMENT
Proposed Intersection Improvement at US 41 & SR 352 in Benton County

The Indiana Department of Transportation (INDOT) with partial funding and oversight from the Federal Highway Administration (FHWA) proposed improving the US 41 & SR 352 Intersection in Benton County. The proposed improvement is a Reduced Conflict Intersection (RCI). The purpose of the project is to reduce crash frequency and severity at the intersection. RCIs have proven to be a safer alternative to a traditional roadway intersection on a four-lane highway because they eliminate or substantially reduce right-angle crashes, the crash the most responsible for fatalities and serious injuries at intersections. In fact, the installation of RCIs at similar intersections throughout Indiana and the nation have shown a substantial decrease in fatal and serious injury crashes. The Maintenance of Traffic (MOT) plan for the project involves maintaining at least one lane open in all directions during construction for both U.S. 41 and S.R. 352. Access to adjacent properties and local drives will always be maintained. INDOT will coordinate with emergency services, local school corporation officials and project stakeholders to ensure potential disruptions and impacts are minimized as much as possible.

The project will require no additional right-of-way. No residential relocations are required for the project. There are no impacts to threatened or endangered species. There will be approximately 0.03 acres of wetland impacts for the project improvements. Construction is expected to begin in June 2026. The estimated construction cost is approximately $3.8 million. Right-of-way costs are $0 and preliminary engineering costs are approximately $272k. Federal and state funds are proposed to be used for construction of this project. INDOT and the Federal Highway Administration have agreed that this project poses minimal impact to natural environment. A Categorical Exclusion (CE-1) environmental document has been prepared for the project. The environmental documentation and preliminary design information are available to view at the following locations:

1. Boswell-Grant Township Public Library, 101 N. Clinton St., Boswell, IN 47921
2. INDOT Crawfordsville District Office, 41 W 300 N, Crawfordsville, IN 47933
3. Crawfordsville District website: https://www.in.gov/indot/about-indot/central-office/welcome-to-the-crawfordsville-district/

During emergency situations, public viewing locations may be limited or prohibited as part of the Notice of Planned Improvement. Project documents may only be available on-line during emergency situations. INDOT will mail project documents upon request.

With advance notice, INDOT will provide accommodations for persons with disabilities with regards to participation and access to project information as part of the hearings process including arranging auxiliary aids, interpretation services for the hearing impaired, services for the sight impaired and other services as needed. In addition, INDOT will provide accommodations for persons of Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion. Should accommodation be required please contact Rob Iversen, Fishbeck, riversen@fishbeck.com.

All interested persons may request a public hearing or express their concerns or comments on the project by submitting written comments to the attention of Rob Iversen, Fishbeck, riversen@fishbeck.com or Kaitlyn Taylor, kattaylor@indot.in.gov with the INDOT Crawfordsville District Office.

All comments or requests for a public hearing should be submitted before 15 days after this advertisement or December xx, 2025. If a hearing is determined to be in the best interest of the public, the community will be notified. Otherwise, any comments or materials received as a result of this legal notice will be considered in the decision-making process. The design plans are not yet final until after these public involvement requirements are finalized. The CE-1 will be updated to reflect all public comments and inquiries.

This notice is published in compliance with: 1) Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) stating, "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program."; 2) 23 CFR 450.210(a)(1)(ix) stating, "Provide for the periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all interested parties and revise the process, as appropriate."; and 3) The INDOT Public Involvement Policies and Procedures approved by the Federal Highway Administration on July 7, 2021.

6.11 & 6.18.2025

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STATE OF INDIANA
IN THE BENTON CIRCUIT COURT
COUNTY OF BENTON
CAUSE NO.
04C01-2506-EU-000007
In the Matter of the Last Will and Testament of Thomas E. Williams, Jr., Deceased.
NOTICE OF UNSUPERVISED ADMINISTRATION
ESTATE NO. 04C01-2506-EU

In the Benton Circuit Court of Benton County, Indiana.

Notice is hereby given that Katie Narsinghani and Tracy Lewis were, on June 3, 2025, appointed Co-Personal Representatives of the Unsupervised Estate of Thomas E. Williams, Jr., deceased, who died on April 3, 2025.

All persons who have claims against this Estate, whether or not now due, must file the claim in the office of the Clerk of this Court within three (3) months from the date of the first publication of this Notice, or within nine (9) months after decedent's death, whichever is earlier, or the claim will be forever barred.

Dated at Fowler, Indiana, on June 4, 2025

/s/ Jennifer R Greenberg

Clerk of the Benton Circuit Court

Jud G. Barce & Ingrid J. Barce

BARCE & REDLIN, P.C.

103 North Jackson Ave.,

P.O. Box 252

Fowler, Indiana 47944

Tel: (765) 884-0383

ATTORNEYS FOR THE CO-PERSONAL REPRESENTATIVES

6.11 & 6.18.2025

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LEGAL Advertising

NOTICE OF UNSAFE BUILDING ORDER BY PUBLICATION

TO: First National Bank of America, 241 E. Saginaw, East Lansing, MI 48826-0980

Joseph Mohammed, 9815 W. 236th Ave., Schneider, IN 46376

Re: Order Requiring Action Relative to Unsafe Building and Premises, Located at 112 E. 5th St. and 114 E. 5th St., Fowler, Indiana, Parcel Numbers: 04-08-15-223-024.000-004 and 04-08-15-223-023.000-004

The Unsafe Building Inspector for the Town of Fowler, Indiana has found that the building and premises located at the address above constitutes an unsafe building and premises under I.C. 36-7-9-4.

You are hereby ordered to take the following actions by July 7, 2025, pursuant to I.C. 36-7-9-5(b):

1. Seal the unsafe building against intrusion by unauthorized persons, in accordance with a uniform standard established by ordinance;* Repair broken windows, no boarded windows.
2. Remove trash, debris, fire hazardous material or public health hazards in and about the interior and exterior premises;* Remove trash, overgrowth, branches and weeds.
3. Repair or rehabilitate the unsafe building to bring it into compliance with standards for building conditions or maintenance required for human habitation, occupancy, or use by a statute, a rule adopted under I.C. 4-22-2, or an ordinance;* Perform the following repairs and arrange inspection of buildings with Unsafe Building Commissioner:

a. Repair or tuck point brick where deteriorated;
b. Replace broken windows and missing windows (no boarding over);
c. Repair damaged doorways to prevent water intrusion;
d. Repair hole in sidewalk in back near doorstep;
e. Repair roof;
f. Repair ceilings and treat for mold inside buildings; and
g. Seal building to prevent intrusion of water.

The exact terms of the Order may be obtained from the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana, Monday through Friday from 8:30 a.m. to 4:00 p.m. during regular business hours.

Pursuant to I.C. 36-7-9-7, a hearing is required. Your hearing will be held on July 7, 2025 at 6 p.m. in the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana. At this hearing you are entitled to appear with or without legal counsel, present evidence, cross examine opposing witnesses and present arguments. At the conclusion of the hearing, the Fowler Town Council may make findings and take action to affirm this order, rescind this order, or modify this order. Should you fail to appear at the hearing, the hearing will be conducted in your absence. If the order is affirmed at that hearing, and you willfully fail to comply with this order, the Council may:

1. Impose a civil penalty against you in an amount up $5,000.00 as set forth in Indiana Code 36-7-9-7;
2. Bring an action to enforce the affirmed or modified order; and/or
3. Perform the actions ordered above and collect all costs from you. In the event that you fail to comply with an affirmed or modified order, and you seek to transfer any interest in the subject property, you are obligated under I.C. 36-7-9-27 to make full disclosure of the affirmed or modified order to the proposed transferee, and further, to provide the Unsafe Building Inspector with written copies of the transferee's name, address and telephone number and the legal instrument which effected the transfer.

Dated May 5, 2025.

Brad Lane, Building Inspector

Fowler, Indiana

6.4, 6.11 & 6.18.2025

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LEGAL Advertising

TO THE OWNERS OF THE WITHIN DESCRIBED REAL ESTATE AND ALL INTERESTED PARTIES
NOTICE OF SHERIFF'S SALE

By virtue of a certified copy of a decree to me directed from the Clerk of Circuit Court of Benton County, Indiana, in Cause No. 04C01-2401-MF-000002 wherein The Bank of New York Mellon, formerly known as The Bank of New York, not in its individual capacity but solely as Trustee on behalf of the holders of the CIT Mortgage Loan Trust, 2007-1 Asset-Backed Certificates, Series 2007-1 was Plaintiff, and James D. Whistler and Marilyn P. Whistler Joint Revocable Trust Dated November 6, 1997 and Matthew D. Whistler, were Defendants, requiring me to make the sum as provided for in said Decree with interest and cost, I will expose at public sale to the highest bidder, on the 2nd day of July, 2025, at the hour of 10:00 A.M. or as soon thereafter as is possible, at 105 South Lincoln Street, Fowler, IN 47944, the fee simple of the whole body of Real Estate in Benton County, Indiana.

LOT #29 IN DARBY SUBDIVISION, PART II, IN THE TOWN OF OTTERBEIN, BENTON COUNTY.

More commonly known as: 305 Maddox Rd N, Otterbein, IN 47970

Parcel No. : 04-11-28-443-004.000-002

Together with rents, issues, income, and profits thereof, said sale will be made without relief from valuation or appraisement laws.

John K Cox

Sheriff of Benton County

Jessica S Owens 26533-49

Doyle & Foutty

41 E Washinton Street

Suite 400

Indianapolis, IN 46204

Bolivar Township

305 Maddox Rd N, Otterbein, IN 47970

Street Address

SHERIFF FILE NO:

The Sheriff's Department does not warrant the accuracy of the street addressed published herein

SERVICE DIRECTED TO:

Occupant(s) of 305 Maddox Rd N, Otterbein, IN 47970

305 Maddox Rd N

Otterbein, IN 47970

MANNER OF SERVICE: Sheriff NOTICE

DOYLE & FOUTTY, P.C. IS A DEBT COLLECTOR

5.28, 6.4 & 6.11.2025

hspaxlp

LEGAL Advertising

TO THE OWNERS OF THE WITHIN DESCRIBED REAL ESTATE AND ALL INTERESTED PARTIES
NOTICE OF SHERIFF'S SALE

By virtue of a certified copy of a decree to me directed from the Clerk of Benton Superior Court of Benton County, Indiana, in Cause No.: 04C01-2411-MF-000233, wherein PennyMac Loan Services, LLC, was Plaintiff, and David Sward, II, was/were Defendant(s), requiring me to make the sum as provided for in said Decree with interest and cost, I will expose at public sale to the highest bidder, on the 2ND day of July, 2025, at the hour of 10 am or as soon thereafter as is possible, at 105 S. Lincoln Ave., Fowler, IN 47944, the fee simple of the whole body of Real Estate in Benton County, Indiana.

Lots Numbered Fifteen (15), Sixteen (16), Seventeen (17) and Eighteen (18) in Templeton's Second Addition to the Town of Oxford, Benton County, State ofindiana.

More Commonly Known As: 403 South Michigan Street, Oxford, IN 47971 04-12-20-222-009.000-011

Together with rents,issues, income, and profits thereof, said sale will be made without relief from valuation appraisement laws.

John K.. Cox

Sheriff of Benton County

/s/ Jennifer L. Shook

Jennifer L. Snook

MARINOSCI LAW GROUP, P.C.

2804 Boilermaker Court, Ste. A

Valparaiso, IN 46383

Telephone: (219) 386-4700

City of Oxford

403 South Michigan Street

Oxford, IN 47971

Street Address

The Sheriff's Department does not warrant the accuracy of the setreet address published herein

Type of Service: Person

SERVICE DIRECTED TO:

David Sward, II

602 West Woodlawn Ave

Danville, IL 61832

David Sward, II

403 South Michigan St

Oxford, IN 47971

5.28, 6.4 & 6.11.2025

hspaxlp

Your home is your story.
Let us help you write the next chapter.

Burton Farm And Home Realty, LLC



107 N Jackson Ave. - Beautifully maintained 1-1/2 story brick Craftsman home. Boasts 2, 670 living sq ft, 4 bedrooms, 2 bath, hardwood floors, updated kitchen w/appliances, basement, back patio, and attached garage on corner lot. Don't miss seeing this jewel! Selling As Is. **REDUCED** **$279,000**

FOWLER
204 E Main St.
3-bedroom 2 full bath home has been completely renovated from top to bottom. Open floor plan that leads into a spacious kitchen with new cabinets, stainless steel appliances w/ large island. Full basement, spacious bedrooms, finished 2 car garage. Updates include new plumbing, wiring, furnace & A/C as well as a whole home generator. Seller welcomes inspections but home is selling AS-IS. **$270,000**
SOLD

802 N Adams Ave.
Lovely ranch with 3 bedrooms, 2 baths, kitchen w/newer appliances, living room, utility room, attached 2 car garage, fenced in back yard, and a whole house generator. Selling As Is. **$239,000**
PENDING

7151 N 100 W.
1-1/2 story home with 3 bedrooms, 1 bath, on 2 acres. Enjoy working in this country kitchen includes stainless steel appliances. Updates include updated bathroom, newer furnace, water heater, central air, and sump pump. Seller welcomes inspections, but property is selling as is condition.**REDUCED** **$199,900**
CONTINGENT

1139 E 600 N.
Country Living! Beautifully landscaped Property on 1.69 acres. Step into a spacious kitchen with newer cabinets and counter tops, appliances, including. Spacious bedrooms, covered front porch, large pole barn and a yard barn for more outdoor storage. Seller welcomes inspections but property is selling AS IS.**REDUCED** **$225,000**
CONTINGENT

355 E 650 N.
Welcome to the country! Completely remodeled 2-story home, boasting 4-5 bedrooms, 2-1/2 baths, Enjoy meal prep in this large kitchen with island/breakfast bar and storage, pantry, and newer stainless steel appliances. Formal dining room, living room and large family room which would be great for entertaining or large gatherings. Laundry/room contains a large sink and toilet with built-in cabinets. Den/office private space if your job requirement is working remote. Extra storage space in the closets and basement. 2+ car detached garage and pole barn on 2.28 acres. Seller welcomes inspections but property is selling in As Is condition. **$425,000**

EARL PARK
208 W 6th St.
Enjoy the welcoming front porch on this beautifully maintained 2 story home, with 4 bedroom, 1-1/2 bath, kitchen with stainless steel appliances, and beautiful hardwood floors. 1 car attached garage and storage shed. Lovely back yard for gardening and located a short distance to the community park. **$189,900**

109 S Elm St.
Enjoy the spring fresh air from this inviting open front porch of this 2-story home. 3 bedrooms, 1 bath, kitchen, living room, dining room, basement. Property includes wooden deck, detached garage on large lot. Walking distance to community park. **$74,500**

7104 W 800 N.
Two homes. One ranch home open concept, 3 bedrooms, 2-1/2 baths, fireplace, two car attached garage. One two story 4-5 bedrooms, basement, large pole barn with heated shop, on 3 acres.....**REDUCED $375,000**

BOSWELL
105 S Old US Hwy 41
Opportunities galore! 4.16 acres of vacant land. Pole barn with electric. Come and take a look. So many options for your new business. **$150,000**

GOODLAND
1312 E 1700 S.
Move in ready two story in the country on paved road. 3 bedrooms, 1-1/2 baths, basement, above ground pool, hot tub and crib for storage with solar panels on 1 acre.....**$300,000**

315 W Union St.
Investors welcome! 2 story home includes, 4 bedrooms, 1.5 bath, 1608 ' living square feet and 2 car detached garage. With some TLC this could be a nice home. Seller welcomes inspections, but property is selling in as is condition. **REDUCED**.....**$139,000**
SOLD

MOROCCO
405 W State St.
2-unit, 1-2 bedroom apartments both currently rented. Refrigerator, oven/range included. Patio and storage shed with nice yard. Walking distance to town park and pool. Don't miss this great investment property....**$134,900**

Chad Burton 765-376-6717 • Brock Garrelts 765-299-3755
Phil Benner 765 532-6878
Brittany Besse 765-376-3686 • Marci Burton 765-404-7048

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Burton Farm And Home Realty, LLC

OPEN HOUSE COME ONE, COME ALL!
208 W 6TH ST., EARL PARK, IN 47942 ON SUNDAY, JUNE 22, 2025 AT 1:00 - 3:00 PM EDT



Enjoy the welcoming front porch on this beautifully maintained 2 story home, with 4 bedroom, 1-1/2 bath, kitchen with stainless steel appliances, and beautiful hardwood floors. 1 car attached garage and storage shed. Lovely back yard for gardening and located a short distance to the community park. ..$179,900

FOWLER
107 N Jackson Ave.
Beautifully maintained 1-1/2 story brick Craftsman home. Boasts 2, 670 living sq ft, 4 bedrooms, 2 bath, hardwood floors, updated kitchen w/appliances, basement, back patio, and attached garage on corner lot. Don't miss seeing this jewel! Selling As Is. .....
.....REDUCED $279,000

802 N Adams Ave.
Lovely ranch with 3 bedrooms, 2 baths, kitchen w/newer appliances, living room, utility room, attached 2 car garage, fenced back yard, and a whole house generator. Selling As Is. $239,000
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1-1/2 story home with 3 bedrooms, 1 bath, on 2 acres. Enjoy working in this country kitchen includes stainless steel appliances. Updates include updated bathroom, roof, furnace, water heater, central air, and sump pump. Seller welcomes inspections, but property is selling as is condition.REDUCED $199,900
CONTINGENT

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Country Living! Beautifully landscaped Property on 1.69 acres. Step into a spacious kitchen with newer cabinets and counter tops, appliances included. 4 generous bedrooms, covered porch, large pole barn and a yard barn for more outdoor storage. Seller welcomes inspections but property is selling AS IS.REDUCED $225,000
CONTINGENT

355 E 650 N.
Welcome to the country! Completely remodeled 2-story home, boasting 4-5 bedrooms, 2-1/2 baths, Enjoy meal prep in this large kitchen with island/breakfast bar and storage, pantry, and Maytag stainless steel appliances. Formal dining room, living room and large family room which would be great for entertaining or large gatherings. Laundry/room contains large sink and toilet with built-in cabinets. Den/office private space if your job requirement is working remote. Extra storage space in the closets and basement. 2+ car detached garage and pole barn on 2.28 acres. Seller welcomes inspections but property is selling in As Is condition. $425,000
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109 S Elm St.
Enjoy the spring fresh air from this inviting open front porch of this 2-story home. 3 bedrooms, 1 bath, kitchen, living room, dining room, basement. Property includes wooden deck, detached garage on large lot. Walking distance to community park. $74,500

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STATE OF INDIANA
IN THE BENTON CIRCUIT COURT
COUNTY OF BENTON
CAUSE NO.
04C01-2506-EU-000008
In the Matter of the Unsupervised Estate of
Vicki L. Johnson, Deceased.
NOTICE OF UNSUPERVISED ADMINISTRATION

Notice is hereby given that Kelly Vanderwal and Karen Johnson-Arenas were, on June 11, 2025, appointed Personal Representatives of the Unsupervised Estate of Vicki L.
Johnson, deceased, who died on May 30, 2025.
All persons who have claims against this Estate, whether or not now due, must file the claim in the office of the Clerk of this Court within three (3) months from the date of the first publication
of this Notice, or within nine (9) months after decedent's death, whichever is earlier, or the claim will be forever barred.
Dated at Fowler, Indiana, on June 12, 2025
/s/ Jennifer R Greenberg
Clerk of the Benton Circuit Court
Jud G. Barce & Ingrid J. Barce
BARCE & REDLIN, P.C.
103 North Jackson Ave.,
P.O. Box 252
Fowler, Indiana 47944
Tel: (765) 884-0383
ATTORNEYS FOR THE PERSONAL REPRESENTATIVES
6.18 and 6.25.2025
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LEGAL Advertising

LEGAL NOTICE OF PLANNED IMPROVEMENT
Proposed Intersection Improvement at US 41 & SR 352 in Benton County

The Indiana Department of Transportation (INDOT) with partial funding and oversight from the Federal Highway Administration (FHWA) proposed improving the US 41 & SR 352 Intersection in Benton County. The proposed improvement is a Reduced Conflict Intersection (RCI). The purpose of the project is to reduce crash frequency and severity at the intersection. RCIs have proven to be a safer alternative to a traditional roadway intersection on a four-lane highway because they eliminate or substantially reduce right-angle crashes, the crash the most responsible for fatalities and serious injuries at intersections. In fact, the installation of RCIs at similar intersections throughout Indiana and the nation have shown a substantial decrease in fatal and serious injury crashes.
The Maintenance of Traffic (MOT) plan for the project involves maintaining at least one lane open in all directions during construction for both U.S. 41 and S.R. 352. Access to adjacent properties and local drives will always be maintained. INDOT will coordinate with emergency services, local school corporation officials and project stakeholders to ensure potential disruptions and impacts are minimized as much as possible.
The project will require no additional right-of-way. No residential relocations are required for the project. There are no impacts to threatened or endangered species. There will be approximately 0.03 acres of wetland impacts for the project improvements. Construction is expected to begin in June 2026. The estimated construction cost is approximately $3.8 million. Right-of-way costs are $0 and preliminary engineering costs are approximately $272k.
Federal and state funds are proposed to be used for construction of this project. INDOT and the Federal Highway Administration have agreed that this project poses minimal impact to natural environment. A Categorical Exclusion (CE-1) environmental document has been prepared for the project. The environmental documentation and preliminary design information are available to view at the following locations:
1. Boswell-Grant Township Public Library, 101 N. Clinton St., Boswell, IN 47921
2. INDOT Crawfordsville District Office, 41 W 300 N, Crawfordsville, IN 47933
3. Crawfordsville District website: https://www.in.gov/indot/about-indot/central-office/welcome-to-the-crawfordsville-district/

During emergency situations, public viewing locations may be limited or prohibited as part of the Notice of Planned Improvement. Project documents may only be available on-line during emergency situations. INDOT will mail project documents upon request.
With advance notice, INDOT will provide accommodations for persons with disabilities with regards to participation and access to project information as part of the hearings process including arranging auxiliary aids, interpretation services for the hearing impaired, services for the sight impaired and other services as needed. In addition, INDOT will provide accommodations for persons of Limited English Proficiency (LEP) requiring auxiliary aids including language interpretation services and document conversion. Should accommodation be required please contact Rob Iversen, Fishbeck, riversen@fishbeck.com.
All interested persons may request a public hearing or express their concerns or comments on the project by submitting written comments to the attention of Rob Iversen, Fishbeck, riversen@fishbeck.com or Kaitlyn Taylor, kattaylor@indot.in.gov with the INDOT Crawfordsville District Office.
All comments or requests for a public hearing should be submitted before 15 days after this advertisement or December xx, 2025. If a hearing is determined to be in the best interest of the public, the community will be notified. Otherwise, any comments or materials received as a result of this legal notice will be considered in the decision-making process. The design plans are not yet final until after these public involvement requirements are finalized. The CE-1 will be updated to reflect all public comments and inquiries.
This notice is published in compliance with: 1) Code of Federal Regulations, Title 23, Section 771 (CFR 771.111(h)(1) stating, "Each State must have procedures approved by the FHWA to carry out a public involvement/public hearing program."; 2) 23 CFR 450.210(a)(1)(ix) stating, "Provide for the periodic review of the effectiveness of the public involvement process to ensure that the process provides full and open access to all interested parties and revise the process, as appropriate."; and 3) The INDOT Public Involvement Policies and Procedures approved by the Federal Highway Administration on July 7, 2021.
6.11 & 6.18.2025
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LEGAL Advertising

Notice of Purchase and Intent to Seek Tax Deed Tax Sale Certificate: #042400007

Vivian Tomecko: The purpose of this Notice to is to place you on notice that the above-referenced property, of which you are the owner of record or you may have an interest in, was assigned by the Benton County Commissioners on February 18, 2025 to the Town of Fowler, Indiana (the "Petitioner"). You are hereby notified pursuant to Indiana Code §6-1.1-25-4.5(e) of the following:
(1) That a petition for tax deed will be filed on or after July 11, 2025;
(2) The Petitioner intends to receive a tax deed to be issued on or about September 10, 2025, or sixty-one (61) days after a petition for a tax deed is filed;
(3) The key number of the parcel, common address and description of the real property shown on the certificate of sale is:
Key Number: 04-08-15-221-093.000-004
Property Address: 107 N. Lincoln Ave., Fowler, Indiana
Brief Legal Description: JACOBS ADD LOT 10 64X138
(4) The tax sale certificate was assigned by the Commissioners on February 18, 2025;
(5) The assignee of the tax sale certificate was the Town of Fowler and they accepted on March 3, 2025;
(6) Any person may redeem the tract or real property;
(7) The following amounts would need to be paid in order to redeem the real property:
(a) Attorney fees and costs of giving notice, per tax sale certificate:
$ 400.00
(b) Costs of a Title Search:
$ 125.00
(8) That the assignee of the tax sale certificate on the property is entitled to reimbursement for additional taxes or special assessments on the real property that were paid by the purchaser subsequent to the purchase of the certificate of sale, and before redemption, plus interest;
(9) The real property has not been redeemed;
(10) The Town of Fowler is entitled to receive a deed for the real property if it is not redeemed before the expiration of the 120-day period of redemption;
(11) The Petitioner is entitled to reimbursement for the costs described above; and
(12) If the property is not redeemed, the owner of record at the time the tax deed is issued may have a right to the tax sale surplus, if any.
6.18, 6.25 and 7.2.2025
hspaxlp

LEGAL Advertising

NOTICE OF UNSAFE BUILDING ORDER BY PUBLICATION

TO: First National Bank of America, 241 E. Saginaw, East Lansing, MI 48826-0980
Joseph Mohammed, 9815 W. 236th Ave., Schneider, IN 46376
Re: Order Requiring Action Relative to Unsafe Building and Premises, Located at 112 E. 5th St. and 114 E. 5th St., Fowler, Indiana, Parcel Numbers: 04-08-15-223-024.000-004 and 04-08-15-223-023.000-004
The Unsafe Building Inspector for the Town of Fowler, Indiana has found that the building and premises located at the address above constitutes an unsafe building and premises under I.C. 36-7-9-4.
You are hereby ordered to take the following actions by July 7, 2025, pursuant to I.C. 36-7-9-5(b):
1. Seal the unsafe building against intrusion by unauthorized persons, in accordance with a uniform standard established by ordinance;* Repair broken windows, no boarded windows.
2. Remove trash, debris, fire hazardous material or public health hazards in and about the interior and exterior premises;* Remove trash, overgrowth, branches and weeds.
3. Repair or rehabilitate the unsafe building to bring it into compliance with standards for building conditions or maintenance required for human habitation, occupancy, or use by a statute, a rule adopted under I.C. 4-22-2, or an ordinance;* Perform the following repairs and arrange inspection of buildings with Unsafe Building Commissioner:
a. Repair or tuck point brick where deteriorated;
b. Replace broken windows and missing windows (no boarding over);
c. Repair damaged doorways to prevent water intrusion;
d. Repair hole in sidewalk in back near doorstep;
e. Repair roof;
f. Repair ceilings and treat for mold inside buildings; and
g. Seal building to prevent intrusion of water.
The exact terms of the Order may be obtained from the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana, Monday through Friday from 8:30 a.m. to 4:00 p.m. during regular business hours.
Pursuant to I.C. 36-7-9-7, a hearing is required. Your hearing will be held on July 7, 2025 at 6 p.m. in the Fowler Town Hall, 307 E. 5th St., Fowler, Indiana. At this hearing you are entitled to appear with or without legal counsel, present evidence, cross examine opposing witnesses and present arguments. At the conclusion of the hearing, the Fowler Town Council may make findings and take action to affirm this order, rescind this order, or modify this order. Should you fail to appear at the hearing, the hearing will be conducted in your absence. If the order is affirmed at that hearing, and you willfully fail to comply with this order, the Council may:
1. Impose a civil penalty against you in an amount up $5,000.00 as set forth in Indiana Code 36-7-9-7;
2. Bring an action to enforce the affirmed or modified order; and/or
3. Perform the actions ordered above and collect all costs from you. In the event that you fail to comply with an affirmed or modified order, and you seek to transfer any interest in the subject property, you are obligated under I.C. 36-7-9-27 to make full disclosure of the affirmed or modified order to the proposed transferee, and further, to provide the Unsafe Building Inspector with written copies of the transferee's name, address and telephone number and the legal instrument which effected the transfer.
Dated May 5, 2025.
Brad Lane, Building Inspector
Fowler, Indiana
6.4, 6.11 & 6.18.2025
hspaxlp

LEGAL Advertising

STATE OF INDIANA
IN THE BENTON CIRCUIT COURT
COUNTY OF BENTON
CAUSE NO.
04C01-2505-MI-000109
IN RE THE NAME CHANGE OF
BRADLEY LEE CAPOUCH
PETITIONER
NOTICE OF PETITION FOR CHANGE OF NAME

Bradley Lee Capouch, whose mailing address is: 8826 Indiana 71 Earl Park, IN 47942-8533 in the Benton County, Indiana hereby gives notice that Bradley Lee Capouch has filed a petition in the Benton Circuit Court requesting his name be changed to Brian Lee Capouch
Notice is further given that the hearing will be held on said Petition on July 28, 2025 at 1:30 pm.
/s/ Bradley Lee Capouch
Petitioner
/s/ John Wright
Judge
6.11, 6.18 & 6.25.2025
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NIGHT GOLF JULY 3

1871 GRILL
FORMALLY BENTON COUNTY COUNTRY CLUB
&
FOWLER THEATRE
JOINT FUNDRAISER

TIMELINE
JULY 3, 2025
STARTS PROMPTLY @ 30 minutes before dusk
COST $40.00 PER PERSON
Payable to:
Fowler Theater
Please drop checks off and sign up at Fowler Theater
JILL BYRD

Benton Soccer Association

Registration link:
https://bentonsoccer.sportngin.com/register/form/277412205
Registration deadline: 7/7/2025
Scan the QR code to be directed to our registration.



Contact us:
1. *https://www.facebook.com/bentonsoccer*
2. *bentonsoccer@gmail.com*
3. *@bentonsoccerassociation or instagram*
4. *Brian Shaw 765-430-9210*



Prices:
1. *Soccer Tots $45.00*
2. *Pre K - 6th grade $45.00*
3. *Jr. High $55.00*

The 2025 season will run from August 23rd - October 4th
We are looking forward to a fun and exciting season!!

Kaitlyn Taylor
41 W 300N
Crawfordsville, IN 47933

Jess Miller
41 W 300N
Crawfordsville, IN 47933

Tim Watson
41 W 300N
Crawfordsville, IN 47933

Menna Noureldin
41 W 300N
Crawfordsville, IN 47933

Blake Dollier
41 W 300N
Crawfordsville, IN 47933

Mike Freeland
706 East 5th St.
Fowler, IN 47944

Bryan Berry
706 East 5th St.
Fowler, IN 47944

John Cox
105 South Lincoln Ave.
Fowler, IN 47944

Agree Limited Partnership
70 E Long Lake Rd
Bloomfield Hills, MI 48304

Barnhart Crane & Rigging Company
2163 Airways Blvd
Memphis, TN 38114

Jatinder Singh
207 N Old US Hwy 41
Boswell, IN 47921

Malone Real Estate LLC
4840 US 231
West Lafayette, IN 47906

Ceres Solutions
2025 S Wabash St
Wabash, IN 46992

The Bowell Livestock Commission
PO Box 274
Boswell, IN 47921

Benton County Commissioners
706 East 5th St.
Fowler, IN 47944

NIPSCO
290 W Nationwide Blvd
Columbus, OH 43215

Public Hearing Slideshow
June 25, 2025



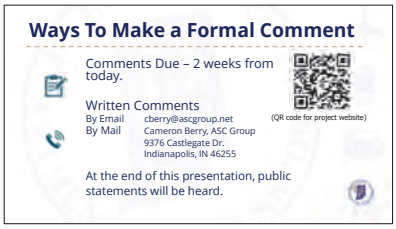
Hello and welcome to the US 41 & SR 352 public hearing. We appreciate your interest in this intersection improvement project and are glad you could make it out tonight. This event signifies the completion of our environmental study and the preliminary design phase.

1



This presentation will discuss the purpose and need of the project, review the proposed improvements, and detail the environmental process. We will also examine the anticipated activities remaining on the project schedule.

2



Please send us your written comments or a recorded message to be included in the project record.

There are several options for submitting a comment. You can mail them to the address on the screen, or you can e-mail your comments to cberry@ascgroup.net. "There are also comment forms around the room that you can turn in or take home."

Comments are due by the end of the comment period, which ends two weeks from today. All comments will become part of the public record and will be given full consideration. Responses to all comments will be recorded in the final environmental document.

3



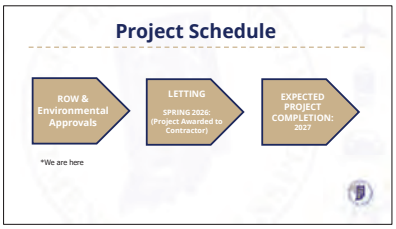
The project team consist of Fishbeck, ASC Group, and the Indiana Department of Transportation. Project team members have identified and collaborated with the stakeholders you see on the screen. Public input is an important part of the environmental process and will continue throughout the project.

4



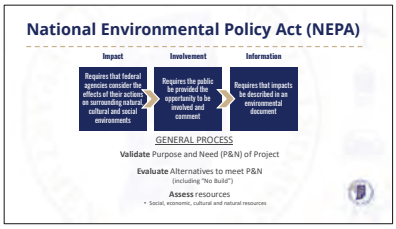
The US 41 and State Road 352 intersection improvement project is situated just east of Boswell, Indiana, in Benton County. There is currently no traffic signal. Right now, the existing intersection only has stop signs for State Road 352 traffic.

5



Right now, we are in the environmental approval process. The project is expected to let in the spring of 2026. Construction is expected to begin in late spring/summer of 2026. The current schedule shows construction lasting one season and being completed in late 2027.

6



The National Environmental Policy Act or NEPA requires that projects of this type examine the impacts they would create, both positive and negative. The project shares information with the public and provides opportunities for public involvement in the study process.

All this information is collected and used to create an environmental document that details the findings of the study. And that's where we are.

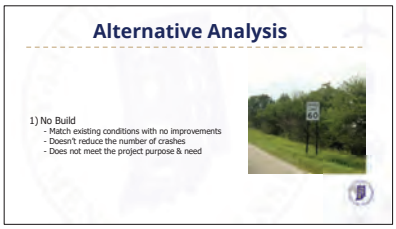
7



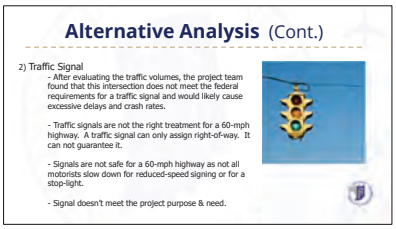
First, the team identified the Purpose and Need of the project. The primary need arises from an above-average number of severe and fatal crashes at the intersection.

The purpose of this project is to reduce the number of crashes, particularly right-angle crashes. These types of crashes often occur at high speeds and are considered among the most severe. The proposed project is expected to reduce crashes, enhance overall safety, and improve mobility at this location.

8

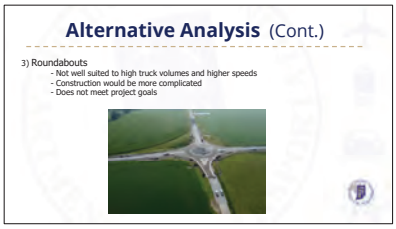


When discussing the primary alternatives for improving this intersection, we must always consider a no-build scenario. This approach provides a baseline to evaluate the impacts of the other alternatives. With a no-build, the existing road continues to function as it is, with no changes. This does not fulfill the project's purpose and need and was, therefore, not selected.

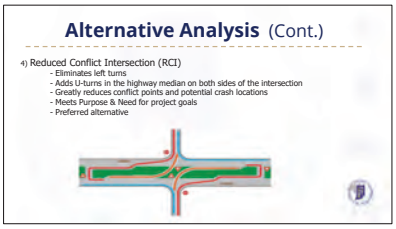


The second alternative considered for this intersection was the installation of a traffic signal. This alternative was examined using projected traffic counts and crash rates for existing signals on this type of highway as a traffic signal can only assign right-of-way, it cannot guarantee it. INDOT studies concluded that a signal is not warranted at this location. A signal would actually increase delays and lead to higher crash rates.

Considering the anticipated delays and crashes, a signal is unsuitable for this intersection and has been ruled out because it does not meet the project purpose and need.

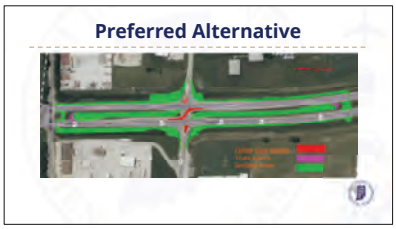


A roundabout option was also considered. Due to the existing 60 mph speeds and relatively high truck traffic counts in this area, a roundabout would not improve traffic flow. After evaluating this information, it was determined that a roundabout would not be a suitable option for this location.



Finally, a reduced conflict intersection, or RCI, was also evaluated. This type of intersection improvement eliminates left turns by adding U-turns on both sides of the main highway. By removing these left turns, the number of conflict points is significantly reduced.

After evaluating the alternatives, the RCI intersection was chosen as the best option because it better meets the project's purpose and needs than the other proposed improvements.



Here is a display of the preferred alternative at the project site. The green areas indicate the project limits, and most of these areas will be seeded after construction.

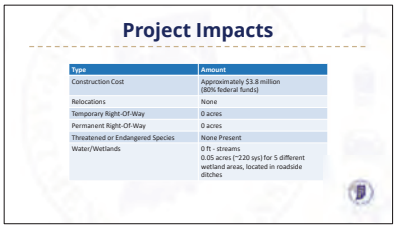
The red areas represent the center curb islands, which prevent traffic from making left turns. The pink areas provide additional space behind a rolled curb to ensure that large trucks and farm equipment can make the turns effectively.

Now, we are going to show you a video that shows how an RCI operates at a similar intersection in rural, southern Indiana.

13



14

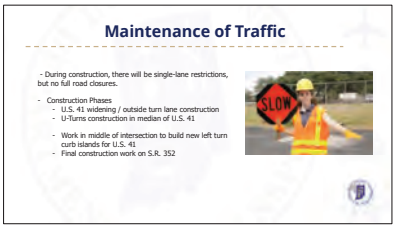


As one of the final steps in the environmental process, the project impacts for the chosen alternative must be documented.

Currently, the project is estimated to cost up to $3.8 million for construction. This project receives 80% of its funding from the federal government and 20% from state or local sources. This project requires no homeowner relocations or temporary or permanent right-of-way acquisitions.

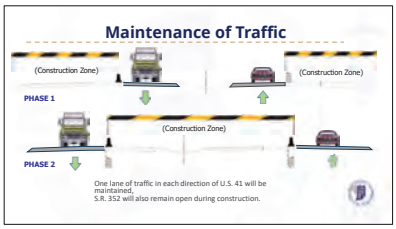
Next, we measure the impacts on the natural environment. This project does not affect any threatened or endangered species. There are no impacts on defined waterways or streams; however, the project does have minor impacts on defined wetlands. This involves making some upgrades in the roadside ditches and in the median of US 41.

15



Next, we have a couple of slides to help explain how traffic will be maintained during construction. Traffic on US 41 will need to be reduced to one lane in each direction, but it will remain open at all times. SR 352 will also stay open at all times.

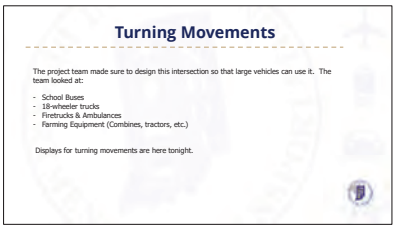
16



Crews will work on the outside lanes of US 41 first. Traffic will utilize the inside land during this phase. In the second phase, traffic will shift to the newly-constructed outside lanes so that crews can construct the new turns in the median.

Once Completed, traffic can use the new turns for the duration of the project.

17



During design of the RCI, engineers checked to make sure all types of vehicles are able to pass through the intersection. This includes 18-wheelers, farm equipment, emergency vehicles, and school buses. We use a software that allows us to insert the dimensions of a vehicle and create a model of the path it needs to take.

Due to the rural location of this project, we have implemented additional checks to ensure farm equipment can make all required turns. This includes running a check for a 30-foot-long combine. The wide turn lanes and truck aprons help these vehicles navigate the new intersection.

18



Project resources are available at the INDOT west central website. Additionally, you can reach out to the INDOT4U Customer Service Center for assistance. INDOT4U Customer Service Center.

Now, we will hear from two community members who were against an RCI coming to their community and how the results changed their minds.

19



20



Our next steps include collecting your comments for review and consideration in the decision-making process that will lead to the final environmental document. Responses to the comments will be included in the environmental document before it is finalized and sent for approval. Our project team will notify the public when the approval decision is made. The announcement will be shared via the media and on INDOT's website.

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We will now begin the public comment portion of the hearing. The project team will not be responding to your comments at this hearing. Responses to your comments will be included in the final environmental document.

If you would like to make a verbal comment, please state your first and last name before giving your comments. They will be recorded for public record. Thank you.

22

U.S. 41 & S.R. 352

Intersection Improvement

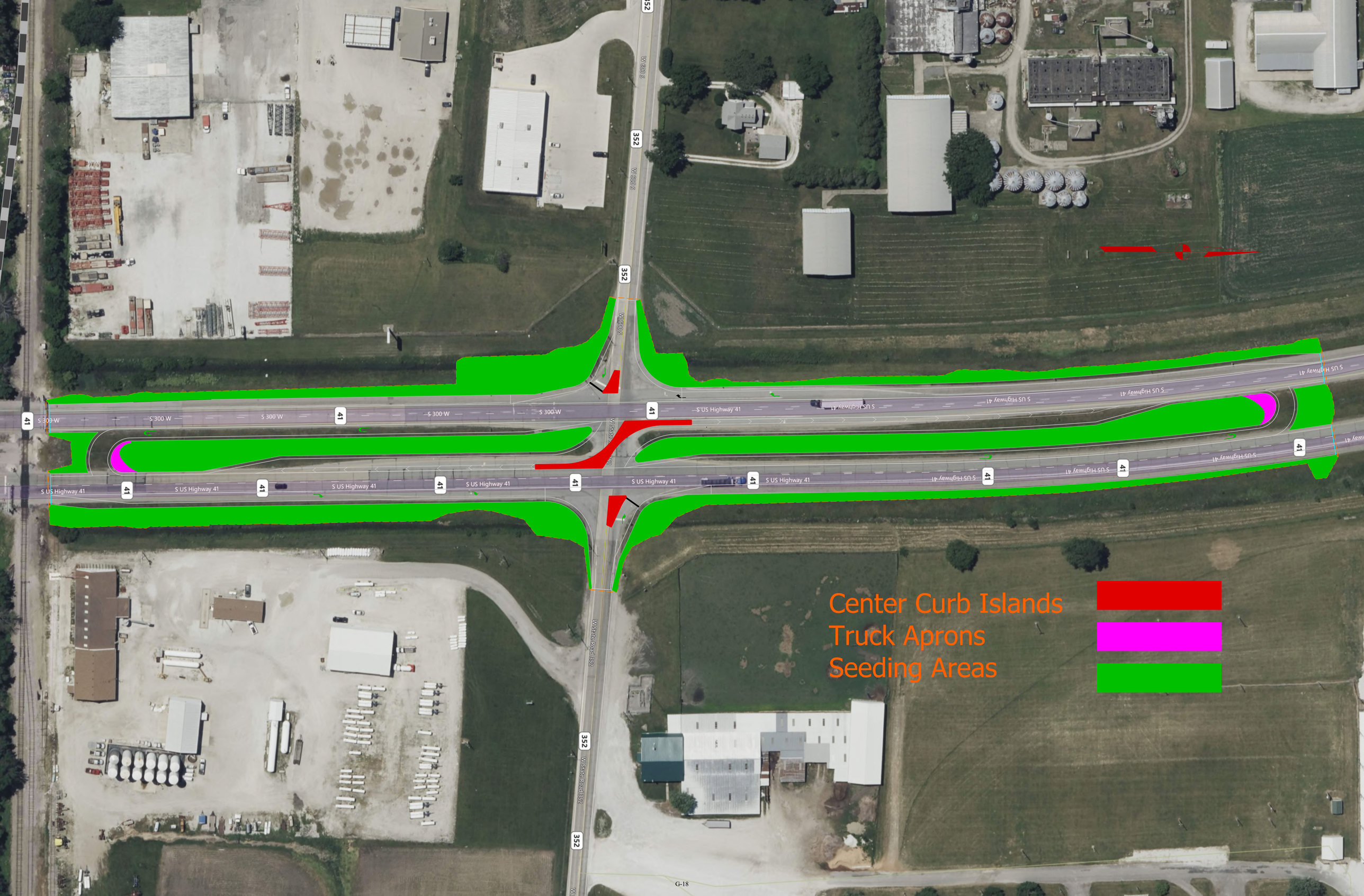
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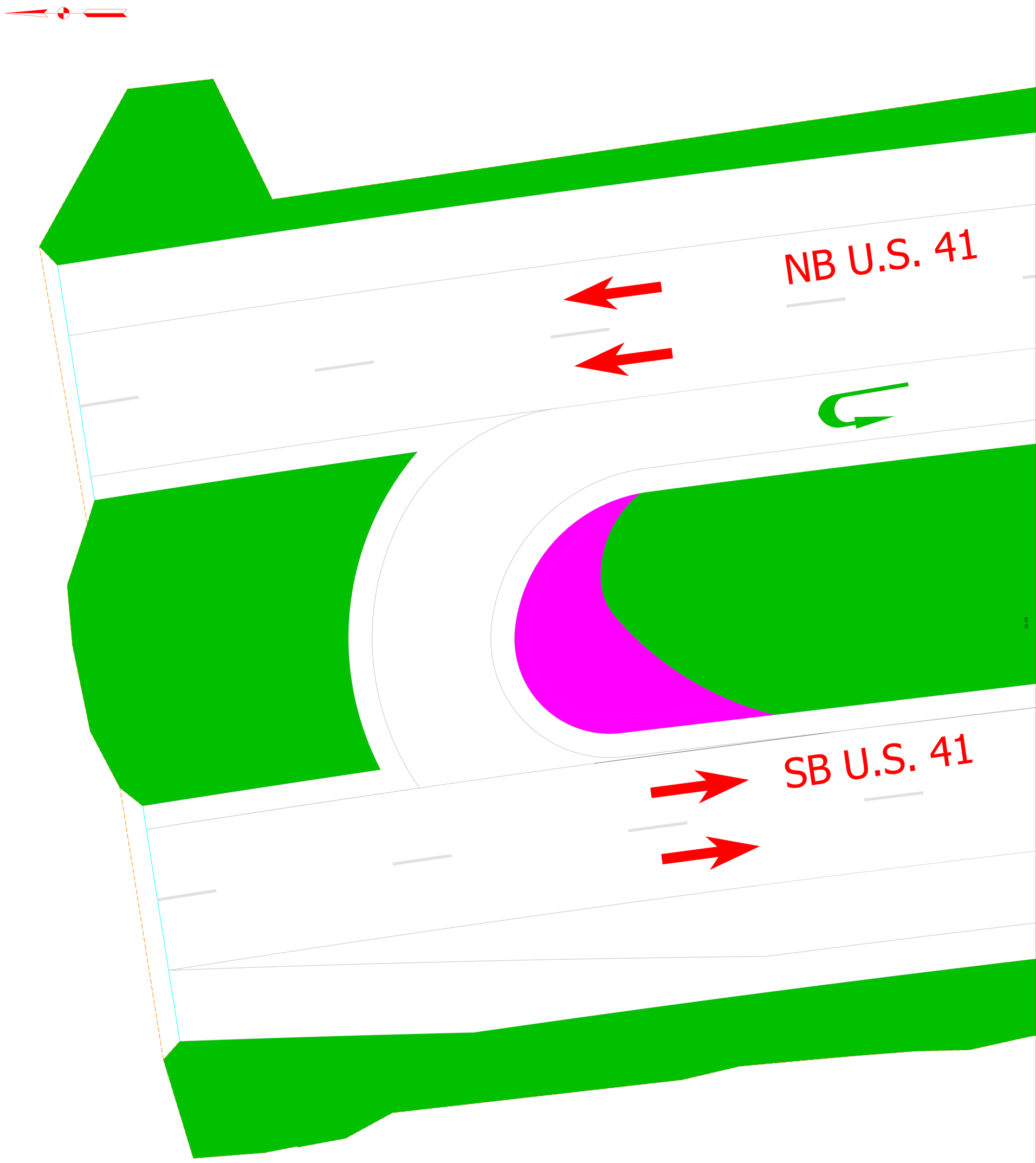
Boswell, IN
Benton County

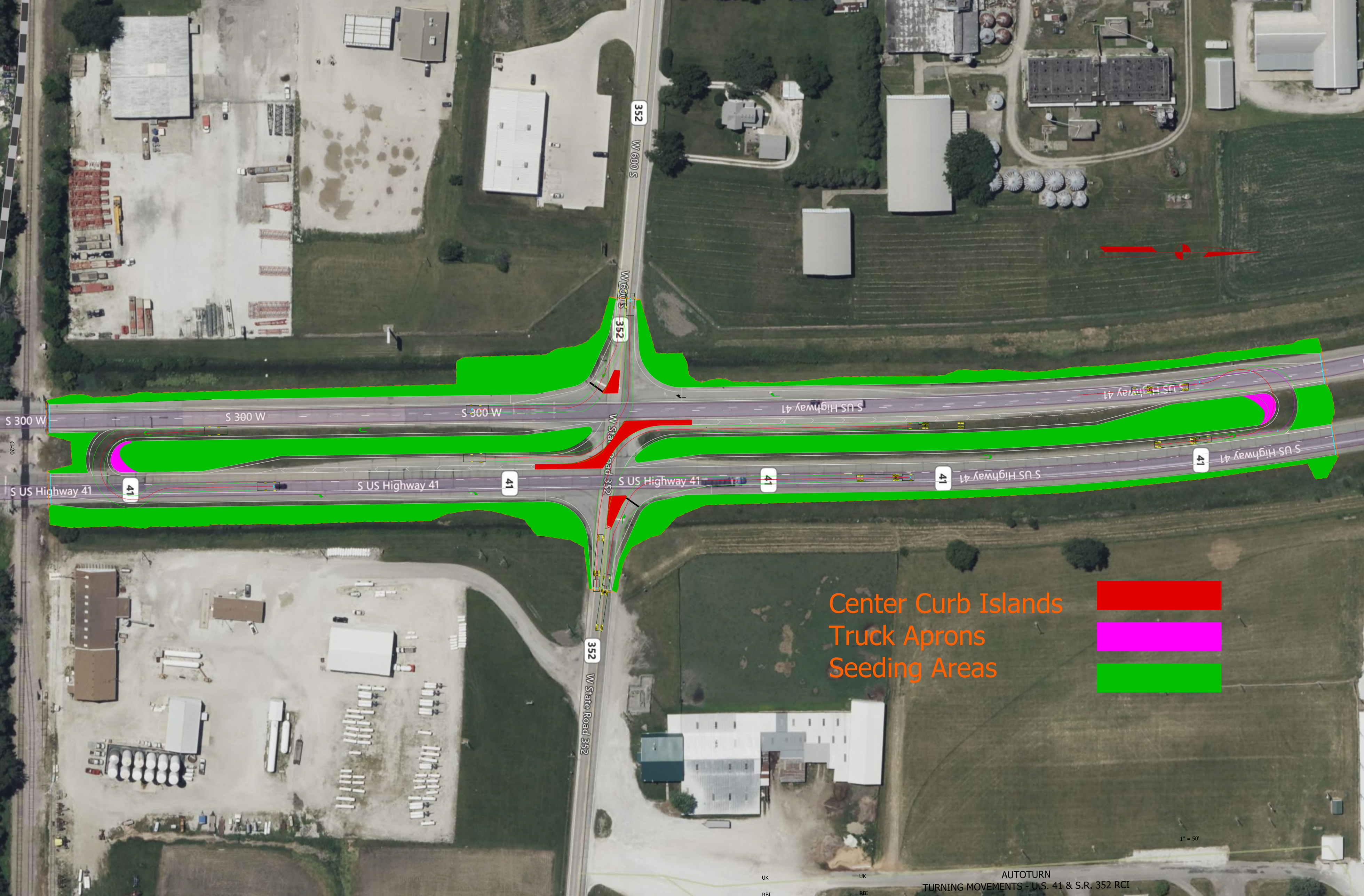
Indiana Department of Transportation
West Central



U.S. 41 & S.R. 352 RCI
Boswell, IN
Project Map


Center Curb Islands
Truck Aprons
Seeding Areas
W 600 S
352
W State Road 352
S US Highway 41
41
S 300 W


NB U.S. 41
SB U.S. 41



AUTOTURN
TURNING MOVEMENTS - U.S. 41 & S.R. 352 RCI

Sign up to make a public comment during the hearing

First and Last Name	Contact Phone	Address
✓ Rick Nelcor x2	7655859080	110 S. Stokes St 35 mph speed limit
X Bill Smith	765 230 7095	INDOT
✓ John Cox	765 762 5872	BCSO
✓ Cynthia Shoemaker	765 ~~721-78~~ 375-8674	409 W North St
✓ Shawn Leuck	765 366 7368	
Boswell Chief Comm.		
Barnhardt Comm.		
Pt Blacktop. Benton Central	NB lanes	

PLEASE NOTE: In accordance with the Indiana Access to Public Records Act (In.Code 5-14-1.5) these sign-in sheets are public records that INDOT will be required to produce upon request.

Welcome

Open House 5:00 p.m. – 6:00 p.m.

Presentation 6:00 p.m.

Followed by Public Comments and Additional Open House Time

Can’t Stay?

Leave your comment in the comment box tonight or mail to the address in the handout.

The presentation and displays will be available on the INDOT West Central District website.

(QR code for project website)



Ways To Make a Formal Comment

Comments Due – 2 weeks after today.

Written Comments

By Email cberry@ascgroup.net

By Mail Cameron Berry, ASC Group
9376 Castlegate Dr.
Indianapolis, IN 46255

(QR code for project website)

Website
https://www.in.gov/indot/about-indot/central-office/welcome-to-the-crawfordsville-district/us-41-and-sr-352-intersection-improvement/

or search online for INDOT Crawfordsville District projects

Today at the end of this presentation, public statements will be heard.

Project: U.S. 41 & S.R. 352 RCI in Boswell, IN (Benton County

Please place any comments in the provided comment box. Please ask INDOT or the designer if you are not sure where to place your comment. Thank you.

Name: _____

Email: _____

Address (Optional): _____

Comment:

_____

_____

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_____

_____

_____

_____

_____

INDOT

PROPOSED IMPROVEMENTS OF INTERSECTION AT US 41 AND SR 352 IN BENTON COUNTY (DES#2100058)

PUBLIC MEETING

TRANSCRIPT of the public comments made during the Public Meeting held on the 25th day of June, 2025, at the Boswell Town Hall, 108 East Main Street, Boswell, Indiana, before Heather S. Orbaugh, Notary Public in and for the County of Boone, State of Indiana, CCR: LA.

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A P P E A R A N C E S

Mr. Brad Vannoy
FISHBECK CIVIL ENGINEERING
9998 Crosspoint Boulevard
Suite 450
Indianapolis, Indiana 46256
317.577.9050
bvannoy@fishbeck.com

6:00 PM

JUNE 25, 2025

PUBLIC COMMENTS

MR. VANNOY: Thank you again for attending the public hearing and listening to the presentation. As the video stated, we are going to start the next section of the public hearing. We are going to have our formal public comment period, it opens right now.

I have the list of those that signed up when we started and everyone came in. If you still want to make a comment, you don't have to be on the list, I will just call on folks when we are done. I just want to be able to go through the list so that everyone that did sign up can.

If you picked up the little packet, and we have discussed in the video, there are several other methods to make a comment. You can drop a comment form in the comment box on the table by the door, you can email that to Cameron, who is in the back of the room, so the people responding to the comments are actually here tonight for

you. And then you can also verbally make it. You can call 855-INDOT4U.

And any other methods that you might have, Cameron Berry's email was in the video presentation, which will be on the website with any other documents that are available on the website. We want to make sure that we are available to address the questions, comments, and concerns that you may have, or positive aspects that you may have about the job.

So the public comment period is open. I will call on folks. Again, if you could please stand, state your first and last name, these are all being recorded officially so that they can go into the document for including as the environmental process needs to have some legal steps to it so that we can make sure that everything is above board.

So first we have Rick, I don't want to say your last name.

MR. NEHER: Neher.

MR. VANNOY: Neher?

MR. NEHER: My opinion is that nothing has been done in a way of a survey that would result in no accidents if they just simply

reduce the speed limit there to 35, bring it down to 45, then down to 35, and I think you would find that the J-turn is just totally unnecessary.

352 is a lot busier than a lot of other areas, so I think that it is important to have a stop sign on 352. It is important to maintain the median, to keep it mowed. Let's just slow everybody down and we won't have a problem.

MR. VANNOY: Thank you for your comment. Bill Smith?

MR. SMITH: My mistake, I was not signing up to give comments.

MR. VANNOY: That's fine. John Cox, Sheriff Cox?

MS. COX: My mistake, too, because I followed Bill's lead. I will say something. So thank you for being here. This is great. We had a lot of opportunity to have conversations early on in April with those folks, we watched that same video. I will tell you I was as skeptical as that sheriff was.

Bill and some of these other folks can tell you that were down there, I am like it almost felt like we were doing some unnecessary and very expensive construction in an area that

is wide open, but the one thing that we have found, and it doesn't matter whether it is a crash on 18/41 today or on Monday, the one over here, driver behavior is what controls a lot of this. We just can't control driver behavior. No matter how many signs, signals, whatever you want to put in, drivers are still not going to pay attention.

We nearly had one of our volunteer fire fighters run over by the guy that fell asleep. She was in the road working a crash while we were out there, and so the dangers are real for all of that. You know, reduced speed, not a bad idea. I am hoping that as people come in there and even early on we do temporarily reduce some speed coming into those areas.

But where I kind of land on with all this is we just need to ask INDOT provide us as many safety measures as we can. For example, I have asked them out there in front of the school, I think they only had either two or three, maybe four lights, the big tall lights that light up the roadways and intersections, and I have asked them to add another one so there is some distance, there is some literally visual distance

in the middle of the night to be able to see what you are coming up into.

So I think that this is great. I think we can -- but I know some of these folks in here work with the projects and they will listen to your comments. So I want to thank you guys for being here.

MR. VANNOY: Thank you, Sheriff.

MR. NEHER: Can I add one other thing?

MR. VANNOY: Let's make it through the list and then absolutely we will come back.

MR. NEHER: Okay.

MR. VANNOY: Cynthia?

MS. SHOEMAKER: I don't need the microphone. I have lived here all my life. John talking about driving behavior, I kind of have to disagree for the fact that, to my knowledge, I would have to guess 90 percent of the accidents happen when you are leaving Boswell, going to Oxford, crossing the northbound lanes. To me, if it is driver behavior, those accidents are going to happen going both ways whether you are coming to Boswell, going to Oxford. It's got to be something -- there is a blind spot there. Like

why are we doing all this instead of some engineering to figure out that blind spot there that's been there since they opened it in 1970?

MR. VANNOY: Thank you. I appreciate that. And Shawn?

MR. LEUCK: Sure.

MR. VANNOY: Would you like the microphone?

MR. LEUCK: So obviously you are going to do what you want and that's -- it is what it is. What are we going to do to maintain the rest of our roads that are going to turn into super highways to avoid it? They are going to use this old stretch of 41 here instead of going -- trying to go across, they are going to go down here, come around.

With Boswell Chase Grain, it is going to be a disaster for them. Same way with Barnhart Crane. It is just you are putting a lot of unknowns in there. What time of year did you do your survey on all this? You can't tell me that, right? Sorry.

But, anyhow, if we are going to be shoveling traffic down this road, I think the State ought to help maintain that because that's

what going to happen. Same way with Benton Central, you will turn BC black top into the super highway. People always take the path of lease resistance.

I am all for saving lives, I have been doing it for three-quarters of my own life, but you have got to think about the other things involved as well.

MR. VANNOY: Thank you. I appreciate your comment. Just as a brief reminder, that this portion of the comment period, we are receiving comments and they will be responded to in the environmental document. Afterwards, we will have more open house once the comment period is closed here tonight where we can talk in more detail about some of these specific items.

That's the end of the list of folks that signed up. I think, Rick, you had one additional comment and then we will work our way around the room for anyone else; is that okay?

MR. NEHER: Yes, thank you. I think another important factor is when I turn right as I am coming into Boswell from Oxford, when I turn right there and I see that it is

clear, I am going to have to go 400 yards down the road, across two lanes to take a left. If I didn't see someone coming north on 41, they are going to run into me.

I really don't see the difference between the hazard of crossing two lanes to make a left turn on the J from just slowing everybody down. I think they ought to keep in mind that they are creating another hazard when they do this, and that is people hitting the people that are trying to cross over to get to turn. Thank you.

MR. VANNOY: Thank you. Back here. Just a reminder to state your name.

CRYSTAL: My name is Crystal, and down by Seeger High School, they have a caution light that comes on when people are approaching the intersection. It is 28 and 63, I think, and I think that would be a good alternative.

MR. VANNOY: Thank you for your comment.

CRYSTAL: And I agree with him about speeding up to get across the road to do the left turn in the J, that's why I am kind of against that.

MR. VANNOY: Thank you. Any other

comments from the group here? Sure.

MR. COLT: Brian Colt. I do drive a truck and I have seen a lot of the J hooks. If they are built right, yes, they do work. But in our situation out here, I don't feel like there is enough room between the north and southbound road to make it work correctly for a truck.

And I know the ones up at Morocco and Enos, I have got to back up if I am in the turn lane to make the turn. I have got to be in the right lane to make the full swing to get turned around. To me, that's just asking for it double. So there needs to be more distance between north and southbound side to be able to turn.

And with Barnhart Crane, those cranes are 80 foot long. They can't turn. They will end up having to back up. I am just guessing, because I don't know how they operate the cranes, but being that long, I have seen them turn on the highway, but they can't -- there is no way that -- I don't think they can do it without backing up, and that's going to be another problem.

And same way with trucks, especially long ones. So that's -- we need more room if you are going to do it is all I am saying. If you are

going to do it. Thanks.

MR. VANNOY: Thank you.

MS. ORR: Deb Orr. I have talked to Barnhart a few times, and they said that there is no way they can make that turn the way it is designed now, and they are not even sure you can make it so they can make the turn because some of those trailers are six to eight tires on just the trailer, one right after another. And so they will pull those tires off when they make a sharp turn on them when we will watch them down here. Making just the 90-degree turn, it is all they can do to make that.

The guy was -- hopefully he got a hold of you guys and gave you some dimensions on what they would need to be able to make the turns.

MR. VANNOY: Thank you, Deb.

MS. PROVO: My name is Latisha Provo, I am the economic development director here in Benton County and I just feel like I need to speak on behalf of the businesses that are here, like Barnhart, the grain elevators. These businesses landed here, they built here because they could be accommodated here.

Our county can't afford to lose

businesses and to have them shut down their operations and go somewhere else because it is more accommodating. They came here for a reason and I just don't think we should do anything, make any decisions that are going to harm our businesses in our county. We just can't risk it. Thank you.

MR. VANNOY: Thank you, Latisha. Deb?

MS. ORR: Me again. We also have the dairy trucks, because I count at least six of the manure trucks a day, and I don't know how many of the milk trucks that go through every day.

MR. COLT: There is more than that. That's 24 hours a day.

MS. ORR: Yeah, that's 24 hours.

MR. COLT: There is about one every hour. About one every hour.

MS. ORR: Yeah, there is. Those are just when I am there and I happen to look up and see them. But when they put 41 in where it is at now, put the four-lane out, that killed our town really bad. People just fly by.

MS. SHOEMAKER: And started

killing our people.

MS. ORR: I am worried that if they do that there, it is going to kill it worse. Because the only gas station between Terre Haute and Kentland is Boswell, and we get a lot of trucks in, and they will just bypass us if they can.

MR. VANNOY: Thank you, Deb. Crystal?

CRYSTAL: I just have a question. In the signage of the like people that are coming north on 41, we -- and Brian was talking about like the semis that are trying to turn, so if they are going 60 over the tracks there and that guy is only going like five miles an hour to turn, how are they not going to hit somebody? I mean is there going to be extra signage, I guess, like trucks entering the highway or something like that? I didn't know. Because they may not be aware that that's a J-turn coming up.

MR. VANNOY: Thank you.

MR. MOORECRAFT: Mark Moorecraft. Did you guys do an economic study? That's my question because when I used to drive down 41 going by Oaktown, I skipped all the businesses

there in Oaktown because you put in the J-hook and I didn't stop at Casey's anymore. And I know her business got hit bad, and she lives off her bonuses. So did you guys do an economic study to see how that is going to impact the businesses here?

MR. VANNOY: Thank you for your comment.

MS. VARNER: My name is Karen Varner and -- one of them -- and I was looking at the farmers. You know, when they come off of 352, there is a lot of farmers that farm both sides of 41. When they are coming off of 352 to go over, they are not going to be running very fast with the traffic. Again, at the speed it is going, how are they going to get across two lanes to get into that J-turn lane where the tractor, you know, their implement, whatever they have behind them, you know, they are going to be quite long, and trying to get over there with the traffic on 41 going at 60 miles an hour.

MR. VANNOY: Thank you for your comments. Again, all of the comments that we have tonight will be recorded and in the environmental document, and those will be

published on INDOT's website. After we close the comment period tonight, we will be around the room able to address any other concerns about some of the technical or procedural questions that you have.

MR. SMITH: Questions are recorded and will have answers in the document.

MR. VANNOY: Correct, sorry. Thank you for clarifying. Are there any additional comments for the record? I am not an auctioneer, but I will give my --

MS. SHOEMAKER: Yeah, if we are going to get answers, sorry -- Cynthia Shoemaker again -- I would like to know if there was studies done as far as the accidents on where they are happening, what directions the cars are going, where the vast majority of those accidents are that we are doing all this, saying it is because of people not paying attention.

MR. VANNOY: Okay. Thank you very much. Any additional comments? With that, we will officially close the comment period for what we have here tonight. Again, we will be around the room to review some of the materials that we have brought and address any lingering questions.

Blake, did you have anything else for the group here this evening?

BLAKE: I think we are good. Thank you, again, everybody for coming out.

(Proceedings adjourned at 6:37 p.m.)

CERTIFICATE

STATE OF INDIANA)
) ss:
COUNTY OF BOONE)

I, Heather S. Orbaugh, the undersigned Court Reporter and Notary Public residing and maintaining offices in the City of Zionsville, Boone County, Indiana, do hereby certify:

That I reported to the best of my ability in machine shorthand all of the words spoken by all parties in attendance during the course of the ensuing proceedings, including objections, if any, made by all counsel present;

That I later reduced my shorthand notes into the foregoing typewritten transcript form, which typewritten transcript is a true record to the best of my ability of the testimony given by the witness as stated above;

That I am not a relative or employee or attorney or counsel of any of the parties, nor am I a relative or an employee of such attorney or counsel, and that I am not financially interested in this action.

IN WITNESS HERETO, I have affixed my Notarial Seal and subscribed my signature below this 14th day of July, 2025.



_____
Notary Public
County of Residence: Boone (Seal)
My Commission Expires on: April 4, 2026

A

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ID	Comment	Response
1	Can a caution light or stoplight be used instead of a J-turn?	A traffic signal alternative was considered for this location; however, the traffic volumes at the intersection do not warrant a signal. The traffic signal would be expected to cause excessive delays; higher crash rates compared to the preferred alternative and may result in disobedience of the signal in this rural area. This alternative does not address vehicular safety and will not meet the purpose and need. Therefore, this alternative was discarded.
2	No change please. Please study if lowering speed limit results in lower accidents.	Speed is always considered in intersection improvement proposals. Based on research and field analysis, lowering the posted speed limit does not usually correlate to lower travel speeds or reduction in crashes. Driver behavior is mostly impacted by active enforcement, which although effective, places a strain on local law enforcement agencies. A reduced conflict intersection (RCI) restricts certain movements, ensuring driver compliance. RCIs are proven to substantially reduce and even eliminate right-angle crashes, the crash type most responsible for fatalities and serious injuries.
3	Will reducing speed to 35 mph eliminate the need for a J-turn?	Speed is always considered in intersection improvement proposals. Based on research and field analysis, lowering the posted speed limit does not usually correlate to lower travel speeds or reduction in crashes. Driver behavior is mostly impacted by active enforcement, which although effective, places a strain on local law enforcement agencies. Additionally, reducing the speed limit from 60 mph to 35 mph does not meet the purpose and need of the project, which is to remove critical movements and conflict points to reduce the number and severity of crashes at this intersection.
4	Is driver behavior more at fault than the intersection design?	This intersection has a higher-than-average crash rate compared to similar, divided highway intersections in Indiana. Additionally, the crashes are often more severe at this location than the average crashes at similar intersections. Research shows that geometry and traffic volumes are the main factors in determining whether safety measures are appropriate. Traffic engineers determined improper gap detection, traffic volume, median width, and travel speed are the main contributors to crashes at this location.

		A reduced conflict intersection (RCI) restricts certain movements, ensuring driver compliance. RCIs are proven to substantially reduce and even eliminate right-angle crashes, the crash type most responsible for fatalities and serious injuries.
5	Are crashes due to a longstanding blind spot rather than behavior?	This intersection has a higher-than-average crash rate compared to similar, divided highway intersections in Indiana. Additionally, the crashes are often more severe at this location than the average crashes at similar intersections. Research shows that geometry and traffic volumes are the main factors in determining whether safety measures are appropriate. Traffic engineers determined improper gap detection, traffic volume, median width, and travel speed are the main contributors to crashes at this location. The existing volume of traffic on U.S. 41 provides sufficient gaps and sight distance for turning traffic to make the U-Turn maneuver, get up to speed, and merge into traffic on U.S. 41. The right turn lane will also be of sufficient length for vehicles to turn and avoid through traffic. The preferred alternative simplifies drivers' decisions and reduces the risk of collisions. Intersection Sight Distance (ISD) is the distance required for a driver to perceive potential conflicts and perform the actions needed to negotiate an intersection safely. ISD considers vehicle speed, roadway grade, and vehicle type.
6	What are we going to do to maintain the rest of our roads that are going to turn into super highways to avoid it? What time of year did you	INDOT maintains roadways that are within INDOT right of way. The preferred alternative for this location has been designed based on traffic and crash data to current design criteria.

ID	Comment	Response
	do your survey on all this? If we are going to be shoveling traffic down this road, I think the State ought to help maintain that because that's what going to happen.	
7	Will the J-turn increase the risk of rear-end or side-swipe accidents due to longer turning distance?	The existing volume of traffic on U.S. 41 provides sufficient gaps and sight distance for turning traffic to make the U-Turn maneuver, get up to speed, and merge into traffic on U.S. 41. The right turn lane will also be of sufficient length for vehicles to turn and avoid through traffic. Although drivers will have to travel slightly further to get where they want to go, using Reduced Conflict Intersections can take the same or less time than trying to wait for a safe and appropriate gap to cross traffic. RCIs also are designed to fully accommodate the wide turning radius of tractor-trailer trucks and other large vehicles, such as school buses. The preferred alternative simplifies drivers' decisions and reduces the risk of collisions. Intersection Sight Distance (ISD) is the distance required for a driver to perceive potential conflicts and perform the actions needed to negotiate an intersection safely. ISD considers vehicle speed, roadway grade, and vehicle type.
8	Why not use a flashing caution light like at SR 28 and SR 63?	Amber/red overhead flashers can cause confusion for motorists. Drivers often perceive the overhead flasher as an implication of an all-way stop. Existing flashers at intersections throughout the state are currently being removed by INDOT, as this misperception can result in right-angle crashes because of failing to yield to traffic on the free flow approaches. Installing red/amber flashing lights does not address safety at this intersection and will not meet the purpose and need of this project.
9	Can long trucks and cranes safely make J-turns?	Turning templates have been reviewed for various vehicles, including tractor-trailers, farm equipment, and crane trucks. The intersection and loon geometry provides appropriate widths for vehicles to make the turns and access the turn lanes for following maneuvers safely.
10	Have companies like Barnhart provided input on maneuverability?	Reduced Conflict Intersections are designed to fully accommodate the wide turning radius of tractor-trailer trucks and other large vehicles, such as school buses. The project team is coordinating with Barnhardt to ensure

ID	Comment	Response
		that crane vehicle sizes will be able to safely utilize the preferred alternative design. The designer has reviewed turning templates for various vehicles, including tractor-trailers, farm equipment, and crane trucks. The intersection and loon (expanded paved apron) geometry provides appropriate widths for vehicles to make the turns and access the turn lanes safely.
11	Will J-turns negatively impact the economic vitality of Boswell?	INDOT's implementation of this project is to improve safe transit operations at the intersections. The proposed geometry is expected to reduce severe crashes and permit all turning movements from local stakeholders and businesses. Other state Departments of Transportation have conducted research and found that there is evidence of improved economic activity where alternative intersections are installed.
12	Will frequent truck traffic avoid Boswell due to J-turns?	The preferred alternative is not expected to impact truck traffic through Boswell. Reduced Conflict Intersections are designed to fully accommodate the wide turning radius of tractor-trailer trucks and other large vehicles, such as school buses. The project team is coordinating with Barnhardt to ensure that crane vehicle sizes will be able to safely utilize the preferred alternative design. The designer has reviewed turning templates for various vehicles, including tractor-trailers, farm equipment, and crane trucks. The intersection and loon (expanded paved apron) geometry provides appropriate widths for vehicles to make the turns and access the turn lanes safely.
13	Will there be signage for trucks merging slowly into high-speed lanes?	INDOT's traffic design team has determined there is no need for signage for merging trucks. The multi-lane operation of US 41 and availability of a full-length U-turn lane is expected to provide passing room or refuge regarding slow moving vehicles. The intersection and loon (expanded paved apron) geometry provides appropriate widths for vehicles to make the turns and access the turn lanes safely. However, the project design team will coordinate with INDOT to review additional signage if needed.

14	Was an economic study performed to see how that is going to impact the businesses here?	A separate economic study was not performed. The minor nature of most intersection improvement projects does not require deeper review and analysis of broader impacts. The project team did, however, design the intersection to fully accommodate the wide-turning radius of semitrailer trucks and other large vehicles. The proposed geometry of the intersection is also expected to improve traffic flow and increase safety for local stakeholders and businesses.
15	How will farm equipment safely cross US 41 to enter the J-turn?	Turning templates have been reviewed for various vehicles, including tractor-trailers, farm equipment, and crane trucks. The intersection and loon geometry provides appropriate widths for vehicles to make the turns and access the turn lanes for following maneuvers safely.
16	Was crash data analyzed to identify where accidents are occurring?	The need for this project is due to high crash rates at the subject intersection. Per the December 2021, Abbreviated Engineering Assessment Report, this intersection was identified as a concern due to one fatal accident, three incapacitating injury accidents, two other injury crashes, and seven property damage occurrences over a six-year span. RoadHAT software was used to analyze the existing crash history at the intersection. Crash data was obtained from the Automated Reporting Information Exchange System (ARIES) that contains information from the original crash reports. RoadHAT generates an index of crash frequency (ICF) and index of crash cost (ICC) on a scale from -3 to +3. The data collection resulted in an Index of Crash Cost (ICC) of 1.01 out of 3.00 and an Index of Crash Frequency (ICF) of 0.57 out of 3.00, which is considered high compared to similar intersections. A value of zero indicates that accidents at the intersection are typical and generally expected. The purpose of this project is to reduce the number of traffic collisions and provide a long-term solution to ensure safe and sufficient operation of the intersection.

ID	Comment	Response
17	Can a community-wide meeting be held to review this project?	A Public Hearing was held on 6/25/2025 at the Boswell Town Hall and Community Center because of public requests for a meeting. The public was invited to provide comments at the meeting and the comment period closed on 7/9/25. The Hearing was scheduled in response to an 'Opportunity for Public Hearing,' which was published in *Benton Review* and sent out via INDOT press release. There will be no additional meetings held.
18	Would a stoplight would be a better solution as a safer and more effective alternative given this is a farming community, and farm equipment frequently travels on the highways, making J-turns impractical and potentially dangerous?	A traffic signal alternative was considered for this location; however, the traffic volumes at the intersection do not warrant a signal. The traffic signal would be expected to cause excessive delays; higher crash rates compared to the preferred alternative and may result in disobedience of the signal in this rural area. This alternative does not address vehicular safety and will not meet the purpose and need. Therefore, this alternative was discarded.
19	Residents of Benton County and others that use the intersections that are being considered for J-Turns (US 41 and SR 18), have signed petitions against them.	A Public Hearing was held on 6/25/2025 at the Boswell Town Hall and Community Center because of feedback from the community. The public was invited to provide comments at the meeting and the comment period closed on 7/9/25. The Hearing was scheduled in response to an 'Opportunity for Public Hearing,' which was published in (insert newspaper here) and sent out via INDOT press release. Comments were provided, recorded, and are being responded to in the NEPA document, as required by federal guidelines.

APPENDIX H: AIR QUALITY

STIP Page

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2026 - 2030

SPONSOR	CONTRACT # / LEAD DES	PROJECT GROUP #	STIP NAME	ROUTE	WORK TYPE	DISTRICT	MILES	FEDERAL CATEGORY	Toal Cost of Project*	PROGRAM	PHASE	FEDERAL	MATCH	2026	2027	2028	2029	2030
Performance Measure Impacted: Safety																		
Location: Intersect. Improv. W/ Added Turn Lanes, US 41 & SR 18																		
Comments:Move CN $908,985 from FY2026 to FY2027. Add CN $1,592,000 in FY2027																		
Indiana Department of Transportation	43690 / 2100058		Init.	US 41	Intersect. Improv. W/ Added Turn Lanes	Crawfordsville	.2	NHPP	$4,450,806.00	Safety Construction	CN	$3,188,000.00	$797,000.00	$3,985,000.00				
Performance Measure Impacted: Safety																		
Location: US 41 & SR 352																		
Comments:Include DES 2100058																		
Indiana Department of Transportation	43690 / 2100058		M 03	US 41	Intersect. Improv. W/ Added Turn Lanes	Crawfordsville	.2	NHPP	$4,360,000.00	Safety Construction	CN	-$800.00	-$200.00	($3,985,000.00)	$3,984,000.00			
Performance Measure Impacted: Safety																		
Location: Intersect. Improv. W/ Added Turn Lanes; US 41 & SR 352																		
Comments:move CN from FY2026 to FY2027																		
Indiana Department of Transportation	43690 / 2100058		M 12	US 41	Intersect. Improv. W/ Added Turn Lanes	Crawfordsville	.2	NHPP	$4,359,866.00	Safety Construction	CN	$0.00	$0.00	$69,000.00	($69,000.00)			
Performance Measure Impacted: Safety																		
Location: Intersect. Improv. W/ Added Turn Lanes; US 41 & SR 352																		
Comments:Move CN $69,000 from FY2027 to FY2026																		
Indiana Department of Transportation	44391 / 2200089		Init.	US 52	Intersection Improvement	Crawfordsville	0	NHPP	$1,736,055.00	Safety Construction	CN	$916,044.00	$229,011.00	$55,000.00	$1,090,055.00			
										Safety ROW	RW	$48,000.00	$12,000.00	$60,000.00				
Performance Measure Impacted: Safety																		
Location: At SR 55 S jct																		
Comments:Include DES 2200089																		
Indiana Department of Transportation	44828 / 2300126	7	Init.	SR 18	ADA Sidewalk Ramp Construction	Crawfordsville	.16	STBG	$188,000.00	Safety Construction	CN	$142,400.00	$35,600.00		$178,000.00			
Performance Measure Impacted: Safety																		
Location: From 0.16 mile W of US 52 W jct to US 52 W Jct (Fowler)																		
Comments:Include DES 2300126																		
Indiana Department of Transportation	44828 / 2300126		M 01	SR 18	ADA Sidewalk Ramp Construction	Crawfordsville	.16	STBG	$228,000.00	District Other Construction	CN	$40,000.00	$10,000.00	$50,000.00				
Performance Measure Impacted: Safety																		
Location: ADA Sidewalk Ramp Construction, SR 18 From 0.16 mi W of US 52 W Jct to US 52 W Jct (Fowler)																		
Comments:Add CN $50,000 in FY26																		
Indiana Department of Transportation	45061 / 2300941	2	Init.	US 52	Small Structure Replacement	Crawfordsville	0	NHPP	$1,128,360.00	Bridge Construction	CN	$881,568.00	$220,392.00	$10,000.00	$10,000.00	$1,081,960.00		

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

APPENDIX I: ADDITIONAL STUDIES/REPORTS

Land and Water Conservation Fund List - Benton County
Abbreviated Engineering Assessment

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800027	1800027	Benton	Fowler Park and Community Swimming Pool
1800535	1800535	Benton	Fowler Park and Community Swimming Pool
1800569	1800569	Benton	Fowler Park and Community Swimming Pool

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Found at: https://www.in.gov/indot/engineering/environmental-services/environmental-policy/

PARSONS

Abbreviated Engineering Assessment

US 41 and SR 352 Intersection

Crawfordsville District

Indiana Department of Transportation



Prepared for INDOT Crawfordsville District

December 2021

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LIST OF ABBREVIATIONS

- AADT – Average Annual Daily Traffic
- ADA – Americans with Disabilities Act
- CE – Categorical Exclusion
- EA – Environmental Assessment
- EB – Eastbound
- HCS – Highway Capacity Software
- HSM – Highway Safety Manual
- ICC – Index of Crash Cost
- ICF – Index Crash Frequency
- IDEM – Indiana Department of Environmental Management
- IDM – Indiana Design Manual
- IDNR – Indiana Department of Natural Resources
- INDOT – Indiana Department of Transportation
- HMA – Hot Mix Asphalt
- LOS – Level of Service
- MPH – Miles Per Hour
- MPPA – Minor Projects Programmatic Agreement
- MOT – Maintenance of Traffic
- MUTCD – Manual of Uniform Traffic Control Devices
- NCHRP - National Cooperative Highway Research Program
- NEPA – National Environmental Policy Act
- NB – Northbound
- RFI – Red Flag Investigation
- RoadHAT – Road Hazard Analysis Tool
- SB - Southbound
- SR – State Road
- SUE – Subsurface Utility Exploration
- USACE – United States Army Corps of Engineers
- WB – Westbound
- WQC – Water Quality Certification

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SECTION 1: PROJECT OVERVIEW

1.1 PROJECT LOCATION

The US 41 and SR 352 Intersection Project is located approximately 4.0 miles north of SR 26 and 7.0 miles south of SR 18 in township 24N, Range 8 W and Sections 18 and 19 in Grant Township in Benton County, Indiana. The approximate location of the project has a latitude of 40°31'16" and a longitude of 87°22'33" within the subdistrict of West Lafayette of the INDOT Crawfordville District. The Project Limits are shown in Figure 1 below. The town of Boswell, Indiana is on the west side of the intersection

1.2 PURPOSE AND NEED STATEMENT

Within the project limits, the US 41 and SR 352 Intersection is experiencing an above normal number of crashes and crash severity for an Unsignalized Rural State Intersection.

The purpose of this project is to increase public safety by reducing the number of crashes at this intersection and to reduce right angle crashes.

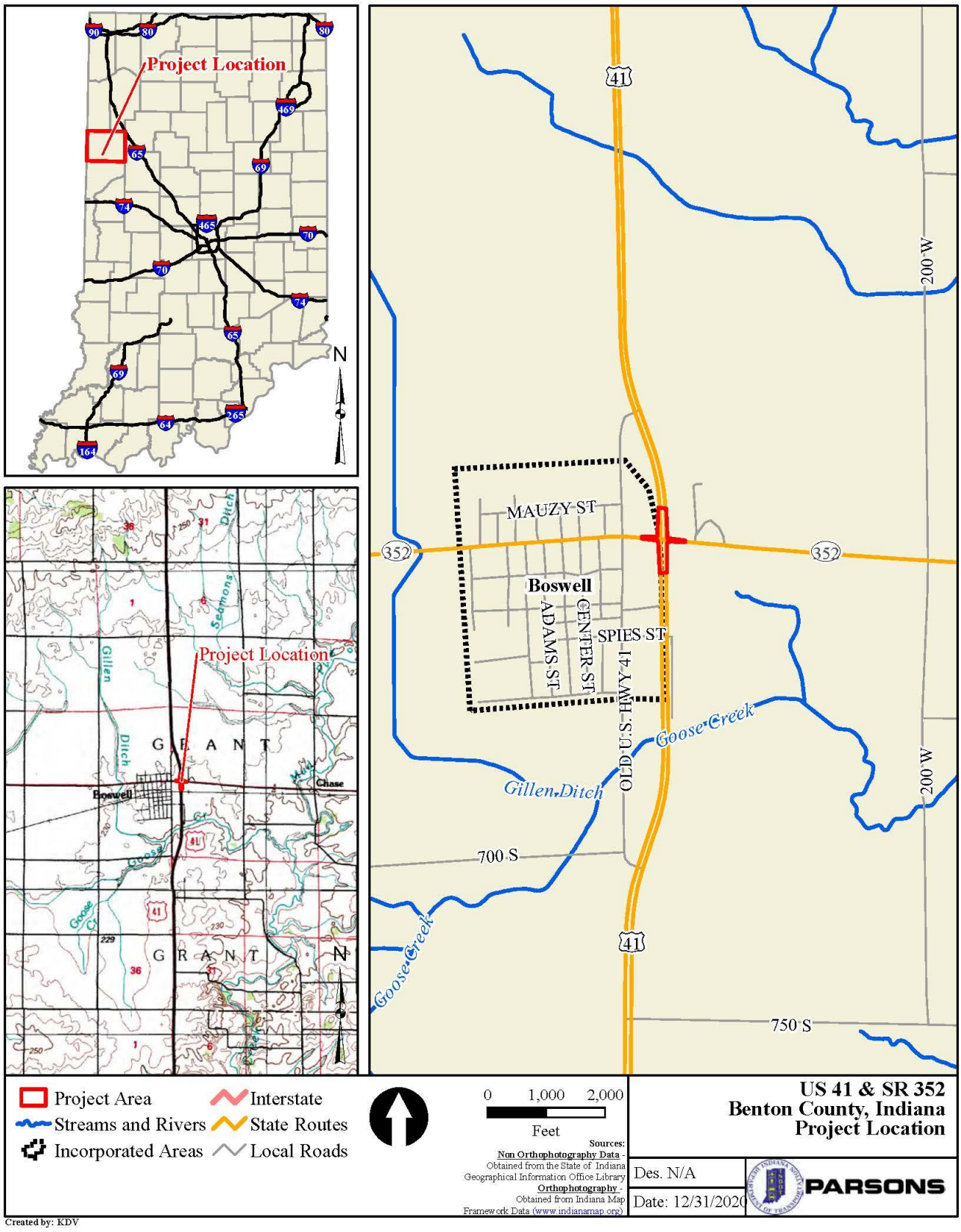


Figure 1: Project Area

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SECTION 2: EXISTING CONDITIONS

2.1 HISTORY AND GEOMETRY

US 41 is a rural principal arterial and SR 352 is a major collector. US 41 is on the National Highway System and on the National Truck Network and serves heavy commercial traffic over long distances. SR 352 serves more localized, shorter distance trips. The US 41 and SR 352 intersection is classified as an Unsignalized Rural State Intersection. US 41 is a four-lane divided highway and is constructed with two 12-foot travel lanes with 10-foot outside shoulders and four-foot median shoulders in each direction. SR 352 is a two-lane undivided highway and is constructed with two 11-foot lanes with 1-foot shoulders within the project limit. The posted speed along US 41 is 60 mph and 50 mph along SR 352 east of the intersection and 30 mph west of the intersection.

US 41 within the project limits was constructed in 1925 with concrete pavement and then reconstructed and widened in 1974. In 2013, US 41 was overlaid with asphalt pavement. Right and left turn lanes exist in both the northbound and southbound direction on US 41. There is a superelevated horizontal curve just north of the intersection on US 41.

2.2 EXISTING UTILITIES

Aerial electric and communication lines are present in the project area on the east side of US 41 and south side of SR 352. There is also an overhead red/yellow flashing beacon that spans across US 41 at the intersection. A railroad flashing signal is present south of the intersection. There is a railroad track located 0.15 miles south of the intersection. A call ticket was created and is attached in Appendix 5.

2.3 EXISTING DRAINAGE

There are two culverts within the project limits; one is located under SR 352 east of US 41 and the second one is located under SR 352 west of US 41. Multiple median inlets are located in the US 41 grass median within the project limits. The median inlets are draining east and west into the existing roadside ditches along US 41.

SECTION 3: TRAFFIC AND CRASH DATA

3.1 TRAFFIC DATA

The AADT per INDOT's Traffic Count Database System (TCDS) from 2020 is 3928 vehicles per day on US 41 and 1583 vehicles per day on SR 352. The truck percentages are 45-50% for US 41 and 10% for SR 352.

3.2 CRASH DATA

There were 13 crashes at this intersection between 2015 and 2020 including one fatal crash. From the available information in the narratives of the crashes, three crashes involved incapacitating injuries (when either the driver or the passenger was transported to the hospital), two crashes involved non-incapacitating injuries, and seven crashes involved property damages only.

The roadway performance was analyzed using RoadHAT. This Segment has an Index of Crash Frequency (ICF) of 0.57 and an Index of Crash Costs (ICC) of 1.01. The RoadHAT report and crash data are attached in Appendix 1. An ICF and ICC above 0 and less than 1 indicates that the number of crashes and their severity are slightly higher than usual.

The primary crash factors for all the recorded incidents are listed in Table 1 which shows the majority of crashes are more likely attributable to driver failure to yield right of way than road features.

Table 1: Primary cause of accidents

MANNER OF COLLISION	% OF ACCIDENTS CAUSED
DRIVER DISTRACTED	8%
REAR END	15%
RIGHT ANGLE	77%

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SECTION 4: ALTERNATIVE ANALYSIS

The project team analyzed different alternatives in order to determine the optimized solution. Several alternatives were considered using a WB-67 as the design vehicle. A brief description of each alternative is below.

4.1 NO BUILD ALTERNATIVE

No-Build Alternative: Matches the Existing conditions with No Improvements

The no-build alternative would include no changes to either the existing geometry or the roadside features. This alternative will not reduce the number of crashes and will not meet the Project Purpose and Need.

4.2 LOW-COST ALTERNAIVE

Low-Cost Alternative: Install a Traffic Signal

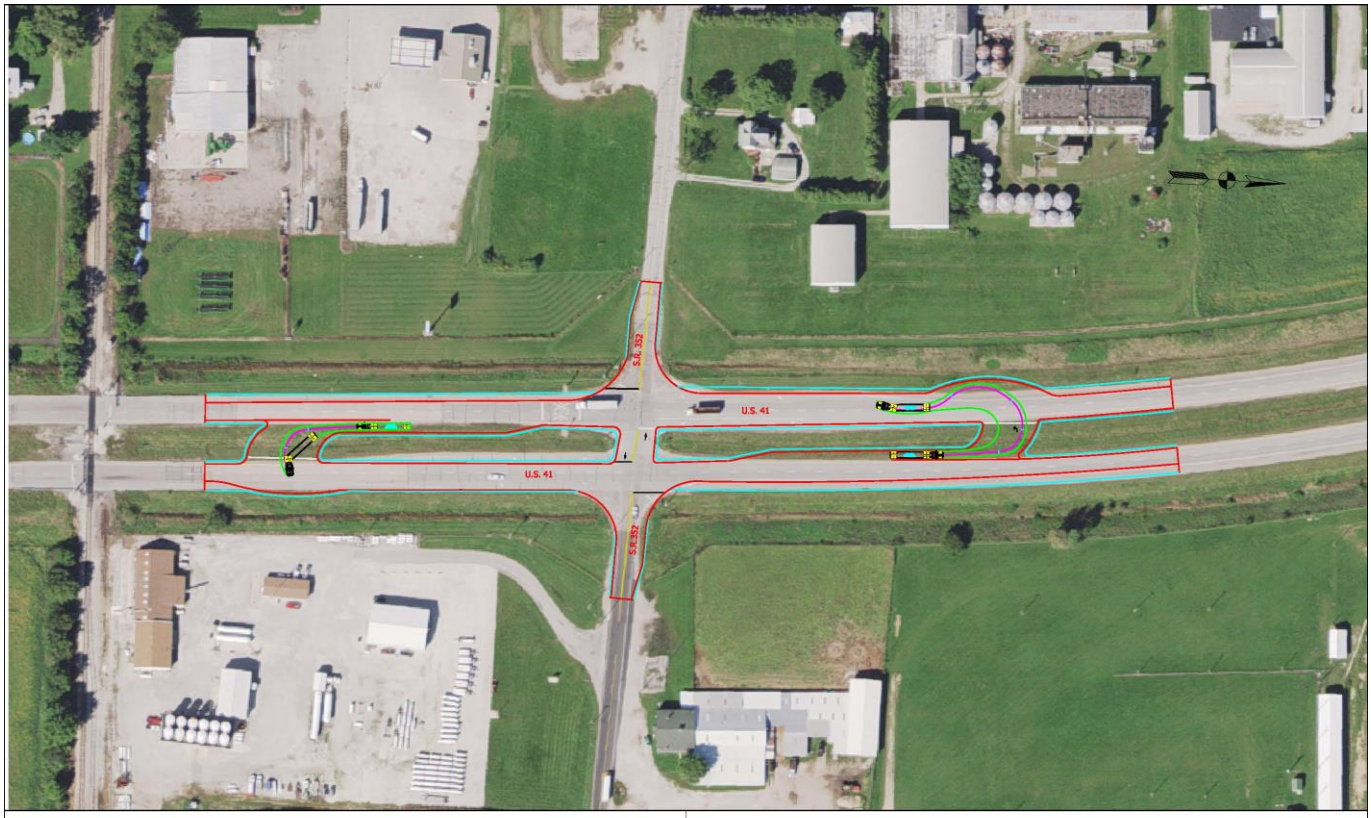
Traffic signal warrants have been checked by District Traffic personnel who found a signal is not warranted for this location. Installing an unwarranted signal will cause excessive delay, higher crash rates and may result in disobedience of the traffic signal in this rural area. This alternative will not meet the Project Purpose and Need and therefore is discarded from consideration. The signal warrant can be found in Appendix 6.

4.3 RECONSTRUCTION ALTERNATIVES

Reconstruction Alternative 1: Median U-Turn Intersection

The Median U-Turn (MUT) Intersection is also known as the Median U-Turn Crossover and sometimes referred to as a Michigan Left Turn. The MUT refers to an intersection replacing direct left turns at an intersection with indirect left turns using a U-turn movement in a wide median. The MUT intersection requires drivers on SR 352 to turn right onto the main road and then make a U-turn maneuver at a one-way median opening at least 400 feet after the intersection. The MUT intersection also eliminates left turns on SR 352 from US 41 and thus reduces the number of conflict points at the main crossing intersection, resulting in improved safety at the intersection. Right turn lanes were incorporated in the design, but they are not required; this would separate the through vehicles from the turning vehicles. The addition of the right turning lanes are included in the cost estimate. This alternative would be un-signalized. US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns.

Figure 2: Median U-Turn

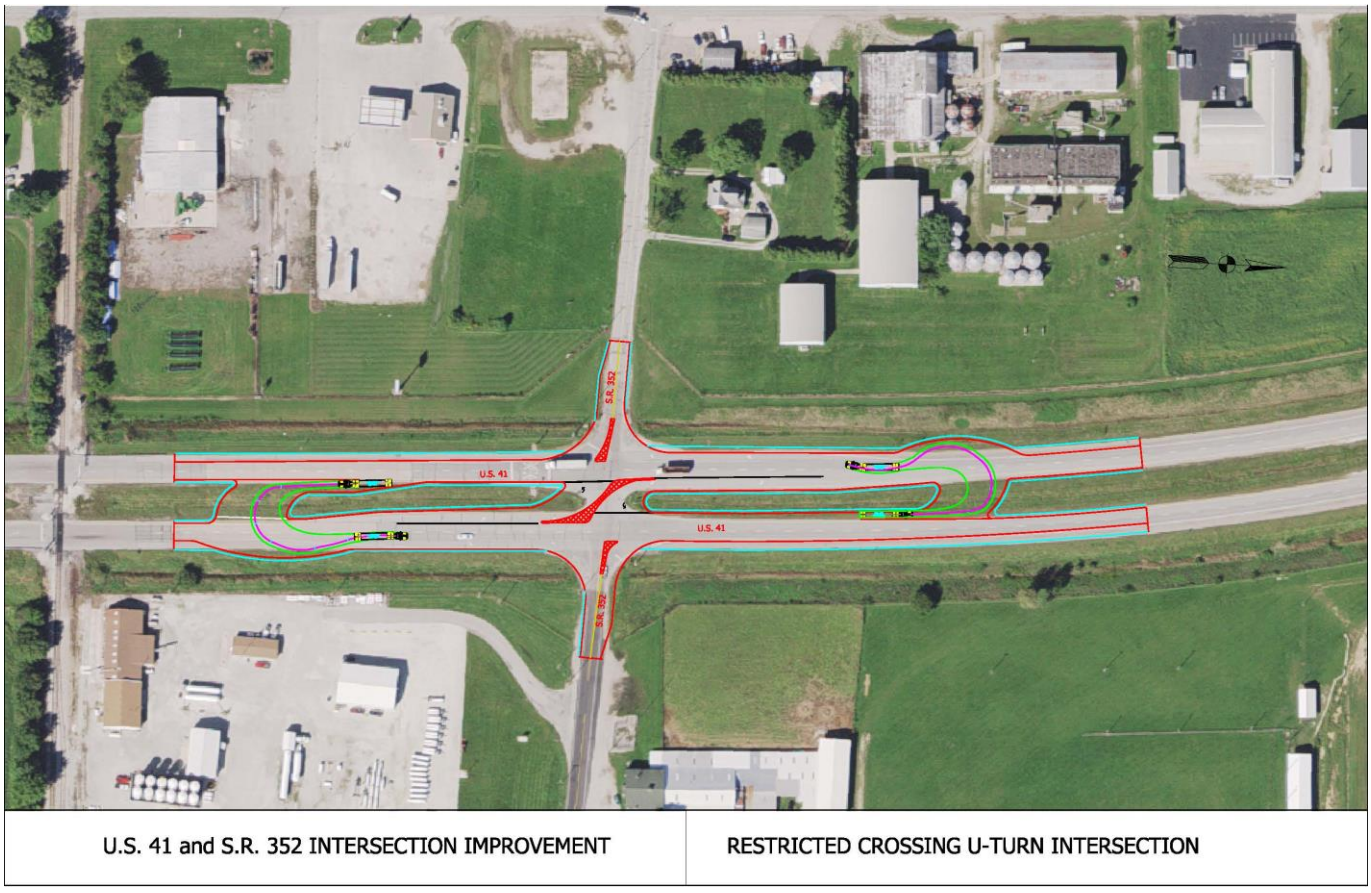


U.S. 41 and S.R. 352 INTERSECTION IMPROVEMENT	MEDIAN U-TURN INTERSECTION

Reconstruction Alternative 2: Restricted Crossing U-Turn Intersection

The Restricted Crossing U-Turn (RCUT) Intersection is also known as a superstreet intersection, a J-turn intersection, and synchronized street intersection. The RCUT intersection differs from a conventional intersection by eliminating the left-turn and through movements from cross street approaches. To accommodate these movements, the RCUT intersection requires SR 352 drivers to turn right onto the main road and then make a U-turn maneuver at a one-way median opening at least 400 feet after the intersection. US 41 traffic will still be allowed to turn left on SR 352. RCUT intersections can have either three or four legs. In the case of a four-legged RCUT intersection, there are two U-turn crossovers, and minor street left-turn and through movements are not allowed to be made directly at the intersection. A stop-controlled RCUT intersection is used as a safety treatment at an isolated intersection on a four-lane divided arterial in a rural area. This alternative would be un-signalized and the turns (both the right and U-turns) would be stop controlled. US 41 and SR 352 will be milled and resurfaced after the completion of adding the median U-turns and center medians.

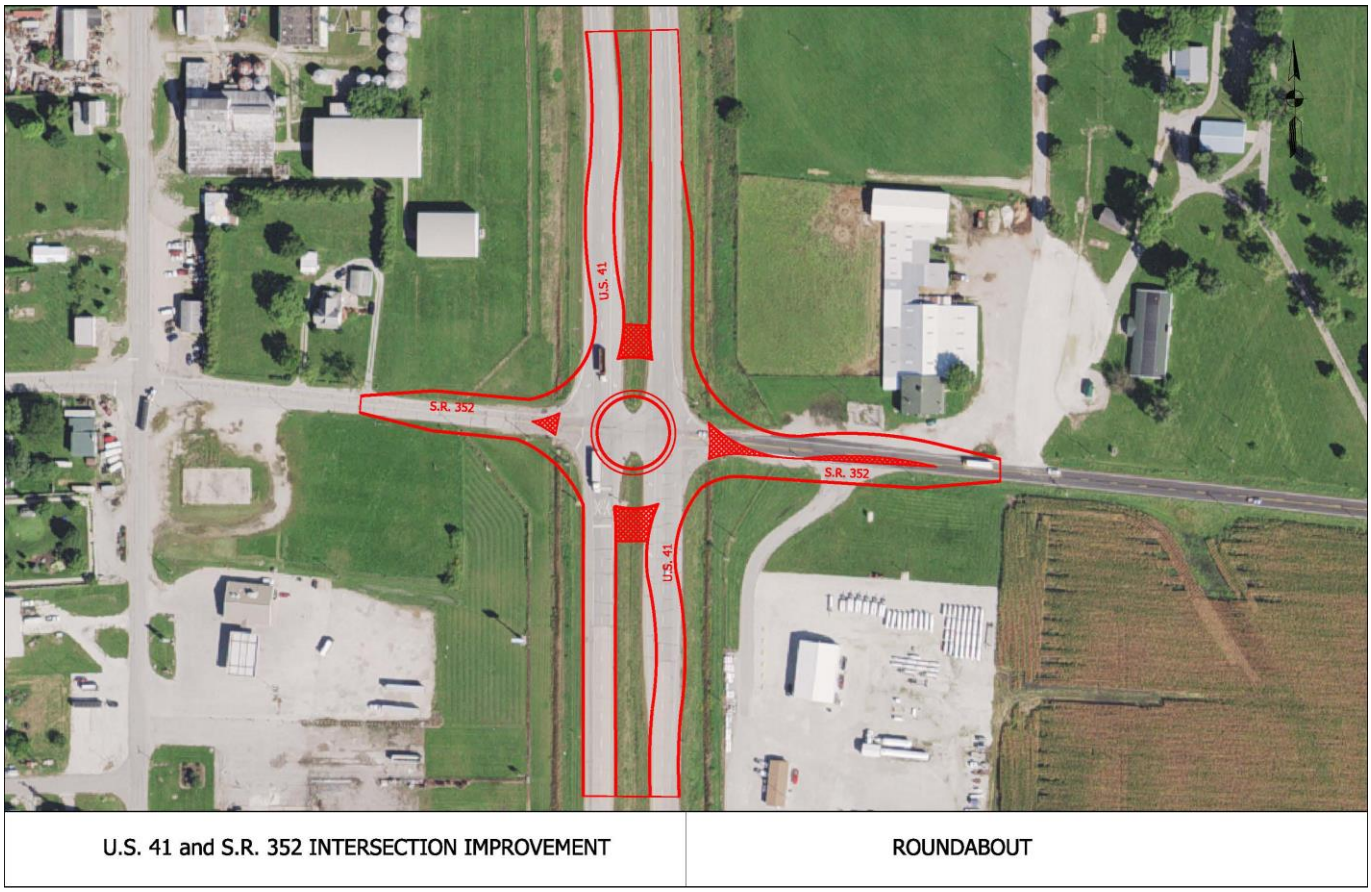
Figure 3: Restricted Crossing U-Turn



Reconstruction Alternative 3: Multi-Lane Roundabout

This alternative will consist of a multi-lane roundabout that follows the design standards per NCHRP 672 and the IDM. Multi-lane roundabouts have at least one entry with two or more lanes. SR 352 will be widened to two entry lanes to allow more vehicles to enter the roundabout. The geometric design will include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection. Since US 41 and the east leg of SR 352 are high speed roadways, a series of curves will be designed leading up to the roundabout to reduce the speed of vehicles. US 41 and SR 352 will be milled and resurfaced after the completion of the roundabout.

Figure 4: Multi-Lane Roundabout



4.4 MAINTENANCE OF TRAFFIC

The maintenance of traffic (MOT) for all reconstruction alternatives is to close one lane in each direction on US 41 while still maintaining one lane in each direction. For the median U-turn and restricted U-turn alternatives, the inside travel lanes will be closed in both directions in order to build the U-turns. For the restricted U-turn alternative, U-turns would be built first then the main intersection will be closed in order to construct the new islands while the through movement on SR 352 can now use the U-turns. US 41 left turns can also use the U-turns during construction of the central islands. For the roundabout alternative, construction would require 2 phases. Traffic would be shifted onto one side by using median crossovers and half of the roundabout would be built then and switched to the other side to build the other half. This may

require temporary widening and shoulder strengthening on one side of US 41 and assumes that permanent shoulders would be wider than the existing shoulders to help maintain traffic through the zone.

4.5 ENVIRONMENTAL

Impacts

A preliminary Red Flag Investigation (RFI) was performed for the project area. One 'Contributing' historic resource was noted adjacent to the project area. Per the current scope of work, this project will likely fall under the Minor Projects Programmatic Agreement (MPAA).

Other resources, including a pipeline, landfill, and other hazardous resources were identified within or adjacent to the project area. Any areas that will be disturbed outside of pavement work and drainage improvements will need to be investigated for potential water resources. No other resources are anticipated to be impacted by the proposed project.

The CE level will be dependent on the Section 106 investigations and right-of-way amounts.

Permits Required

It is anticipated that there will be >1 acre of disturbance. Therefore, a Rule 5 permit is anticipated. If water resources are identified within any of the disturbed areas outside of pavement, a USACE Section 404 permit and IDEM Section 401 WQC will be required. Per the current scope of work, an IDNR Construction in a Floodway permit is not anticipated to be required.

4.6 UTILITY COORDINATION

Utility impacts are expected for the existing utilities within the project limits. Culverts under SR 352 would need to be extended due to the lane addition. The traffic signal will need to be removed to allow for an auxiliary lane. Utility poles will need to be relocated due to pavement widening.

4.7 RAILROAD COORDINATION

There is an existing railroad track that is located 750 feet south of the US 41 and SR 352 intersection. Work is not anticipated on the adjacent railroad grade crossings' approaches. No railroad gates will be installed or repaired. A railroad clear certification must be obtained.

4.8 RIGHT OF WAY

Permanent right of way is required for the roundabout alternative. Right of Way Engineering and Title Research is required for any affected parcels.

SECTION 5: COST ESTIMATE

5.1 CONSTRUCTION COST

The estimated total project costs for all alternatives including preliminary engineering, survey, utility coordination, construction and construction services are shown in Table 2.

Table 2: Construction Cost

TASK #	TASK	COST		
		ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3
1	Preliminary Engineering	$45,000	$45,000	$120,000
2	Survey	$35,000	$35,000	$90,000
3	Right of Way	$0	$0	$29,500
4	Utility Coordination	$69,000	$69,000	$147,450
5	Construction (20% Contingency)	$760,495	$809,715	$2,532,385
6	Construction Support Services	$42,000	$42,000	$120,000
	TOTAL	**$951,495**	**$1,000,715**	**$3,039,335**

The quantities and assumptions for each pay item is included with Appendix 2.

SECTION 6: CONCLUSION

6.1 ANALYSIS

Each reconstruction alternative was analyzed to determine how effectively it met the Project Purpose and Need.

The Multi-Lane Roundabout is not well suited to very high truck volumes combined with higher speeds on US 41 compared to the low volumes of traffic on SR 352. The trucks traveling from US 41 would be forced to slow down and navigate a roundabout on a rural US highway with very little traffic on the side roads. It is anticipated that this alternative will receive political opposition from local stakeholders, the public and truck drivers who drive this road regularly. Maintenance of traffic is more difficult for the roundabout and right of way is required. Since the roundabout has a larger footprint at the intersection, more drainage analysis is required and more grading is expected. The roundabout has significantly higher construction costs compared to the other reconstruction alternatives. For these reasons, the Multi-Lane Roundabout is discounted from further consideration.

The RCUT intersection meets the purpose and need and is a little safer than the MUT intersection. However, one major disadvantage of the RCUT intersection is that it prevents traffic on SR 352 from traveling straight through the intersection at US 41. RCUT intersection have 14 conflict points compared to 32 at a conventional intersection. Eliminating every through movement on SR 352 at US 41 does add an extra level of safety. It is anticipated that the local stakeholders and traveling public will be opposed to the RCUT intersection since through movements are not allowed.

The MUT intersection meets the purpose and need but does not close off the US 41 median to through traffic on SR 352 which will do little to reduce the number of crashes because of non-compliance and/or confusion. MUT intersection have 16 conflict points compared to 32 at conventional intersection without including the non-compliance left turn movements. This intersection will experience a reduction in crashes by using signs to require SR 352 traffic turning left onto US 41 to turn right and then make a U-turn. However, an MUT intersection has no physical restriction to stop traffic from turning left at the intersection so the presence of law enforcement may be encouraged for a longer duration upon opening the new intersection.

Per FHWA, enforcement needs at RCUT intersections may be higher in the short term but those needs are anticipated to drop in the long term. Upon opening a new MUT intersection in Michigan, MDOT typically allocates extra enforcement resources during the first few weeks of operation. Such an enforcement program is also desirable for RCUT intersections to help confused motorists avoid wrong-way movements through crossovers. Enforcement during the periods after the

RCUT intersections are initially opened to traffic help drivers become familiar and help reduce unintentional illegal maneuvers. After drivers form new habits, the need for extra enforcement is likely to subside, and normal vigilance in enforcing traffic laws at RCUT and MUT intersections should suffice.

The MUT and RCUT have smaller footprints than the roundabout which minimizes impacts to existing drainage patterns. MOT is similar for both the MUT and RCUT. The major difference between the MUT and the RCUT intersections in this scenario is that in the RCUT, there is an inability for SR 352 to make an illegal through or left turn movement. Once the central island is built in the RCUT, through and left turning traffic on SR 352 will no longer be able to go through the intersection, which can reduce the amount and severity of the crashes. The traffic in the RCUT will be forced to make the right turn onto US 41 and then a U-turn, which allows for that traffic to only have to cross one direction of traffic at a time.

6.2 RECOMMENDED ALTERNATIVE

After considering the reconstruction alternatives, even though the cost of the MUT intersection is the smallest, it has been determined that the Restricted Crossing U-Turn Intersection (Reconstruction Alternative 2) is the recommended alternative for how effectively it meets the Project Purpose and Need and not that much more in cost.

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This document was prepared by:

 [12/17/2021]

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 1/4/2022

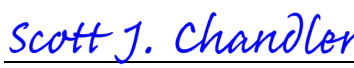
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 [Date] 12/20/2021

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Reviewed by:
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