Bridge Replacement on SR 58 over the East Fork of White Creek Project

HISTORIC PROPERTY REPORT

Columbus, Ohio Township, Bartholomew County, Indiana
Des. No. 1600503; DHPA No. 26250

June 2021

Prepared for:
Strand Associates
450 E 96th St.
Indianapolis, IN 46240

By:

Karen Wood
Environmental and Cultural Resource Manager / Qualified Professional
SJCA Inc.
Historic Fountain Square
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Management Summary

This report documents the identification and evaluation efforts for properties included in the Area of Potential Effects (APE) for the SR 58 over the East Fork of White Creek Project in Ohio Township, Bartholomew County, Indiana (Des. No. 1600503). Above-ground resources located within the project APE were identified and evaluated in accordance with Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and the regulations implementing Section 106 (36 CFR Part 800).

As a result of the NHPA, as amended, and CFR Part 800, federal agencies are required to take into account the impact of federal undertakings upon historic properties in the area of the undertaking. Historic properties include buildings, structures, sites, objects, and/or districts that are eligible for or listed in the National Register of Historic Places (NRHP) As this project is receiving funding from the Federal Highway Administration (FHWA), it is subject to a Section 106 review.

The APE contains no properties listed in the NRHP. The APE contains one property that is recommended eligible for the NRHP: the Red Men Lodge Number 524 Building, IHSSI No. 005-448-75037.

A Phase Ia Archaeological Records Check and Reconnaissance Survey for the Proposed SR 58 Bridge Replacement over the East Fork of the White River (Des 1600503) Approximately 3.35 Miles West of Interstate 65, Ohio Township, Bartholomew County, Indiana

Archaeological short report

June 3, 2021

Prepared for:
Strand Associates
629 Washington Street
Columbus, Indiana 47201

SJCA

Christopher Jackson, M.S., RPA
Archaeologist, Historian/QP
SJCA Inc.
9102 North Meridian Street, Suite 200
Indianapolis, Indiana 46260

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☐ The archaeological records check has determined that the project area has the potential to contain archaeologic resources and a Phase Ia archaeological reconnaissance is recommended.

☐ The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.

☒ The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

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

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

Cemetery Name:

Other Recommendations/Commitments:

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

Attachments

☒ Figure showing project location within Indiana.

☒ USGS topographic map showing the project area *(1:24,000scale).*

☒ Aerial photograph showing the project area, land use and survey methods.

☒ Photographs of the project area.

☒ Project plans *(if available)*

Other Attachments:

References Cited:

Acme Publishing Company
1900 *Descriptive Atlas of Bartholomew County, Indiana*. Acme Publishing Company, Chicago.

Beers, J.H. and Company
1879 *Atlas of Bartholomew County, Indiana*. J.H. Beers and Company, Chicago.

Brownfield, Shelby H.
1976 *Soil Survey of Bartholomew County, Indiana*. USDA Soil Conservation Service in cooperation with the Purdue University Agricultural Experiment Station, Washington, D. C.

Historic Landmarks Foundation of Indiana
1980 Bartholomew County: Interim Report. Historic Landmarks Foundation of Indiana, Indianapolis.

Indiana Highway Survey Commission
1936 Map of Bartholomew County. Indiana Highway Survey Commission, Indianapolis.

Stafford, C. Russell
1994 Structural Changes in Archaic Landscape Use in the Dissected Uplands of Southwestern Indiana. *American Antiquity* 59(2): 219-237.

PROJECT	DESIGNATION
1600503	1600503
CONTRACT	BRIDGE FILE NO.
B-40407	058-03-10186

STRUCTURE INFORMATION

STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
058-03-10186	CONT. COMP. PRESTRESSED CONCRETE BOX BEAM	3 Spans: 37'-0", 46'-0", & 37'-0" No Skew	East Fork White Creek	15+19.25 "PR-A"

KIN PROJECT INFORMATION

DESIGNATION	PROJECT DESCRIPTION
1600503 (Lead Des.)	Bridge Replacement on SR 58, 3.35 miles west of I-65
1700012	Small Structure Replacement on SR 58 1.95 miles west of I-65
1700171	Superstructure Replacement on SR 58 0.84 miles east of SR 258
1701428	Bridge Replacement on SR 58 1.89 miles east of SR 258
1701431	Bridge Replacement on SR 58 2.28 miles east of SR 258

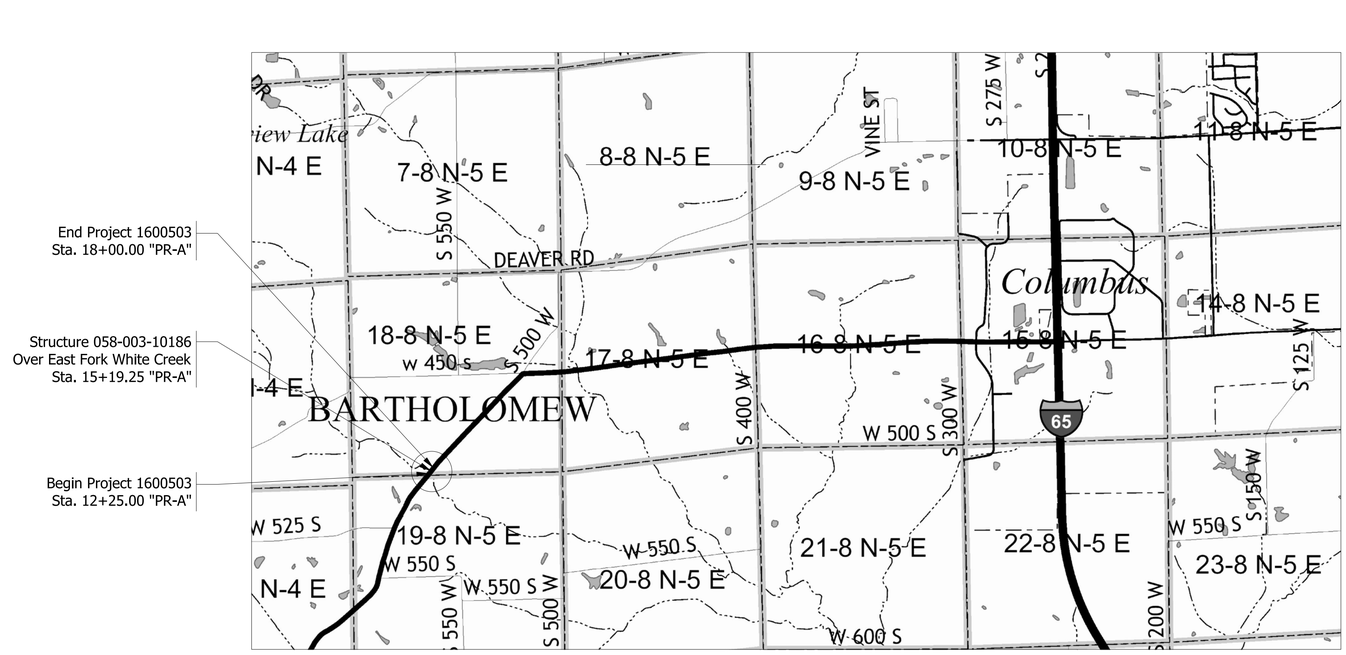
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

ROUTE: SR 58 AT: RP 118+94

PROJECT NO. 1600503 P.E.
1600503 R/W
1600503 CONST.

Bridge Replacement on SR 58 over East Fork White Creek
Located 3.35 Miles West of Interstate 65
Section 18, T-8-N, R-5-E, Ohio Township, Barthlomew County.



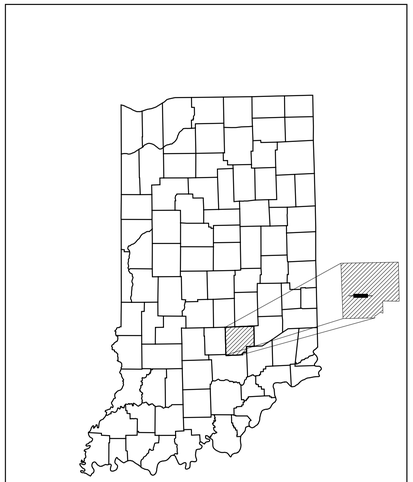
SCALE: 1" = 2000'

TRAFFIC DATA

A.A.D.T.	(2020)	2,140 V.P.D.
A.A.D.T.	(2042)	2,140 V.P.D.
D.H.V	(2042)	189 V.P.H.
DIRECTIONAL DISTRIBUTION		55.41 %
TRUCKS		3.84 % A.A.D.T.
		4.26 % D.H.V.

DESIGN DATA

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



PROJECT LOCATION SHOWN BY
Bartholomew County

LATITUDE: 39° 07' 30.94" N LONGITUDE: 86° 00' 58.75" W

HUC: 05120206050040

BRIDGE LENGTH:	0.023	MI.
ROADWAY LENGTH:	0.086	MI.
TOTAL LENGTH:	0.109	MI.
MAX. GRADE:	2.68	%

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

STRAND ASSOCIATES®

PLANS PREPARED BY: STRAND ASSOCIATES, INC. (812) 372-9911
629 WASHINGTON ST., COLUMBUS, IN 47201 PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE FILE NO.
058-03-10186
DESIGNATION
1600503

SURVEY BOOK	SHEETS
	1 of 14
CONTRACT	PROJECT
B-40407	1600503

UTILITIES

TELEPHONE: AT&T Distribution
240 N. Meridian St., Room 1791
Indianapolis, IN 46204
ATTN: Matt Spindler
EMAIL: ms4822@att.com

ELECTRIC: Bartholomew Country R.E.M.C.
1697 W. Deaver Road
Columbus, IN 47201
(812) 372-2546

WATER: Southwestern Bartholomew Water Corp.
4735 W Carlos Folger Drive
Columbun, IN 47201
(812) 342-4421
ATTN: Doug Prather
EMAIL: dprat@swbwc.com

GENERAL NOTES

INDEX

SHEET NO.	DRAWINGS INDEX
1	TITLE SHEET
2	INDEX AND GENERAL NOTES
3	MAINTENANCE OF TRAFFIC
4	TYPICAL CROSS SECTIONS
5	PLAN & PROFILE
6	LAYOUT
7	GENERAL PLANS
8	GENERAL PLANS TYPICAL SECTION
9	MISCELLANEOUS TABLES
10-14	CROSS SECTIONS

REVISIONS

SHEET NO.	DATE	REVISED

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

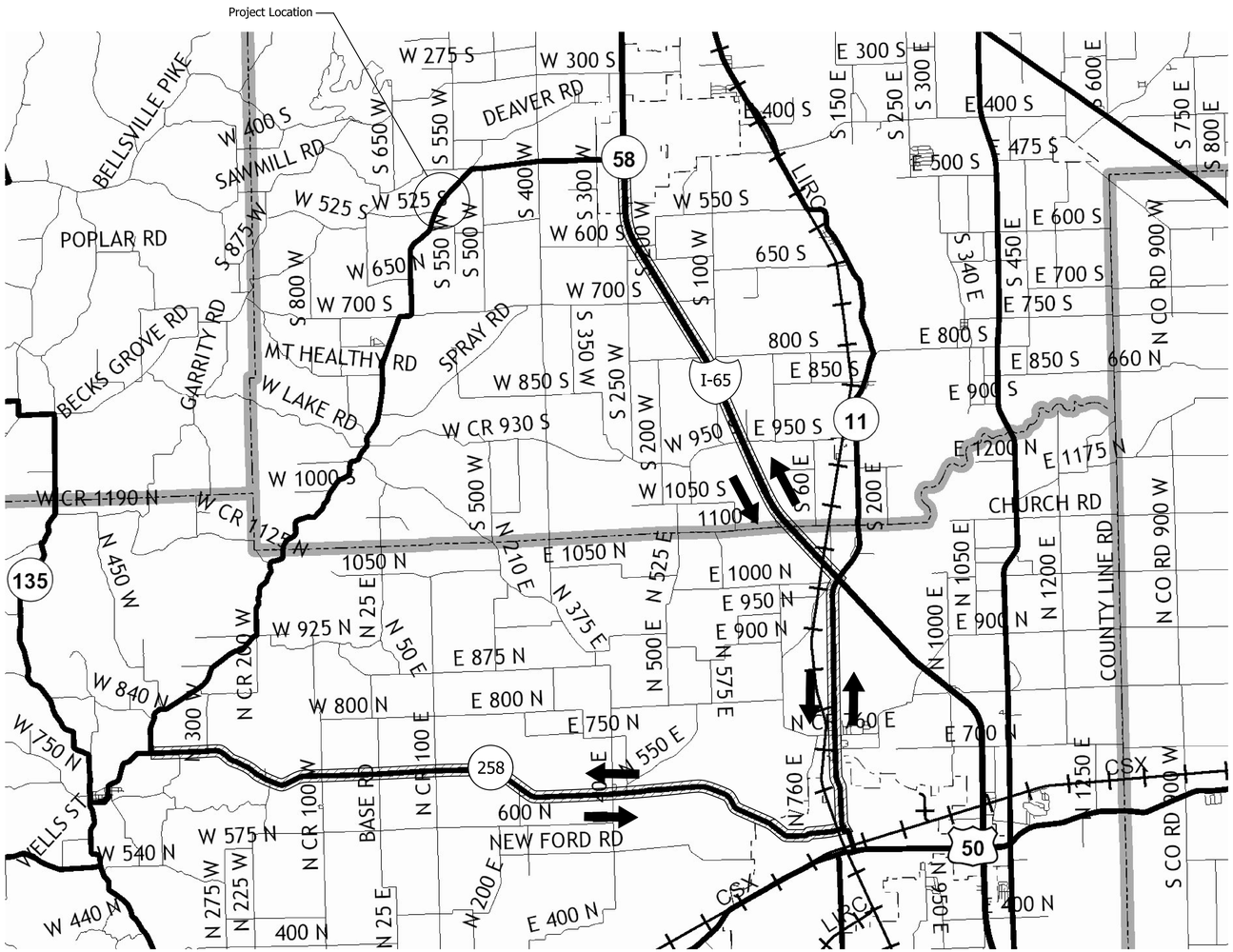
DESIGNED: DHS DRAWN: DHS

CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES AND INDEX

HORIZONTAL SCALE	BRIDGE FILE NO.
NA	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
NA	1600503
SURVEY BOOK NO.	SHEETS
	2 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503



Legend

- Posted Detour Route
- Traffic Flow Arrow
- Construction Sign
- Barricade III-A
- Barricade III-B

Detour Route Marker Assemblies

A	DRMA (Advance Turn)	-	Ea.
B	DRMA (Directional)	-	Ea.
C	DRMA (Confirming)	-	Ea.
D	DRMA (End)	-	Ea.

Type A Construction Signs

E	XW20-2 (Detour Ahead)	-	Ea.
F	XW20-3 (Road Closed _____)	-	Ea.
G	XG20-5 (Closure Date)	-	Ea.

Type A Construction Signs

I	XG20-2 (End Construction)	-	Ea.
J	XW20-1 (Road Construction Ahead)	-	Ea.

Barricades

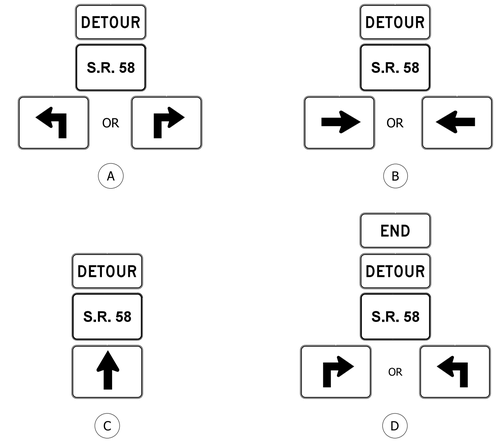
K	Barricade, Type III-A (No. of 12' Units)	-	Lft. (-)
L	Barricade, Type III-B (No. of 12' Units)	-	Lft. (-)

Road Closure Sign Assemblies

N	RCSA (R11-3)	-	Ea.
O	RCSA (R11-3)	-	Ea.
P	RCSA (R11-2)	-	Ea.

Type C Construction Signs

Q	XG20-7 Worksite Penalty Sign	-	Ea.



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DESIGNED: DHS DRAWN: DHS

CHECKED: DEB CHECKED: DEB

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
S.R. 58 OVER EAST FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
NA	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
NA	1600503
SURVEY BOOK NO.	SHEETS
	3 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503

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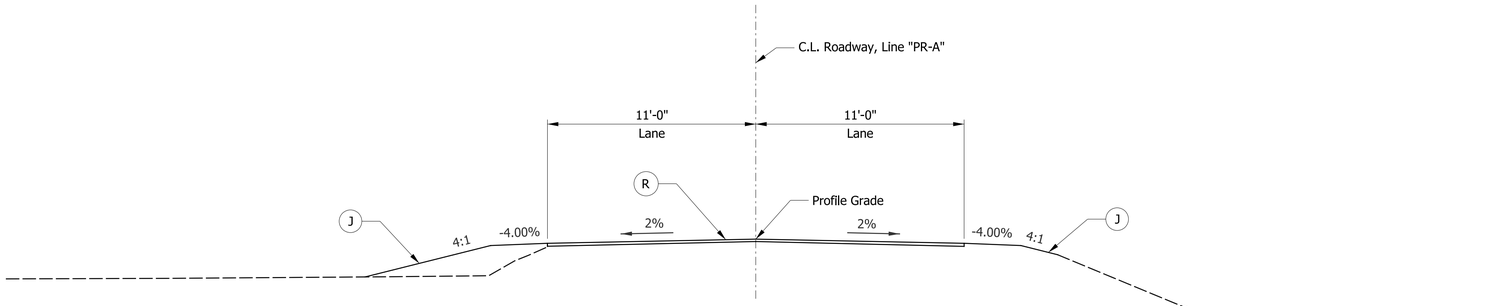
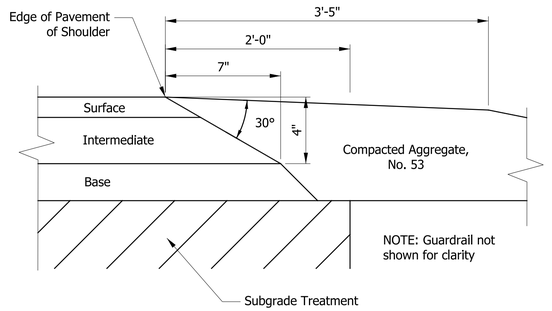
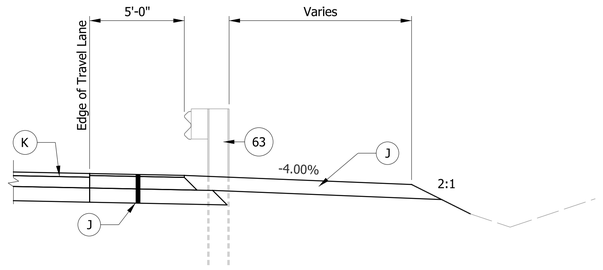


TYPICAL SECTION - INCIDENTAL CONSTRUCTION

Sta. 11+25.00 "PR-A" to Sta. 12+25.00 "PR-A"
Sta. 18+00.00 "PR-A" to Sta. 19+00.00 "PR-A"

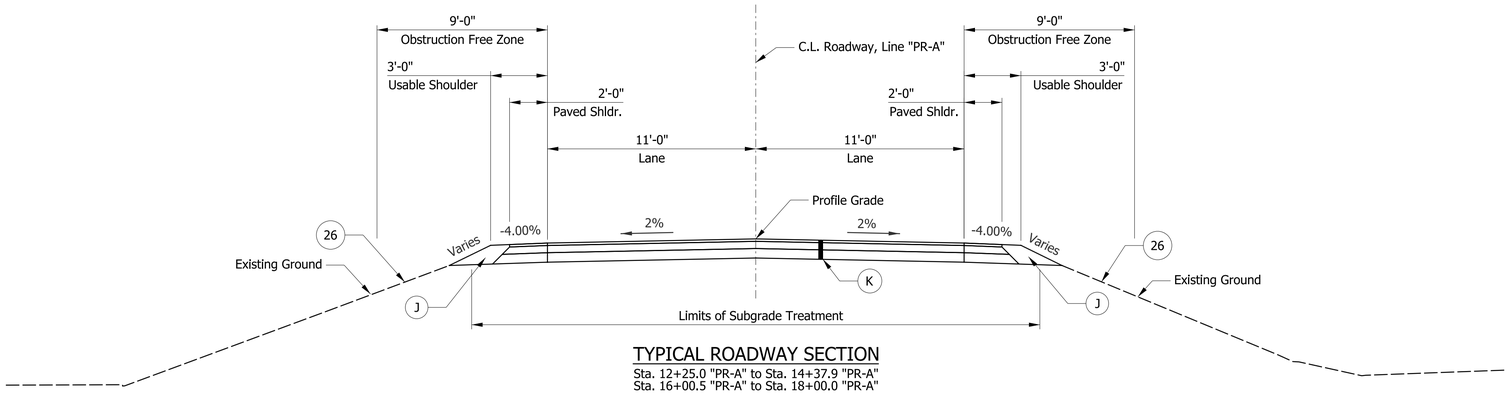


SAFETY EDGE ON HMA PAVEMENT



SHOULDER TREATMENT WITH GUARDRAIL

Sta. 13+52.1 "PR-A" Lt. to Sta. 14+45.2 "PR-A" Lt.
Sta. 13+34.9 "PR-A" Rt. to Sta. 14+45.4 "PR-A" Rt.
Sta. 16+93.2 "PR-A" Lt. to Sta. 17+04.4 "PR-A" Lt.
Sta. 16+93.2 "PR-A" Rt. to Sta. 16+85.7 "PR-A" Rt.



TYPICAL ROADWAY SECTION

Sta. 12+25.0 "PR-A" to Sta. 14+37.9 "PR-A"
Sta. 16+00.5 "PR-A" to Sta. 18+00.0 "PR-A"

Legend

- (26) Seed Mixture, R
- (63) Guardrail, MGS, W-Beam, 6'-3" Spacing
- (J) Compacted Aggregate No. 53
- (K) Full Depth HMA Pavement on Subgrade Treatment, Type
- (R) HMA Wedge, Type

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: DHS

CHECKED: DEB CHECKED: DEB

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DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTION
S.R. 58 OVER EAST FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1/4" = 1'-0"	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
	1600503
SURVEY BOOK NO.	SHEETS
	4 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503

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11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00

+77.02, Lt. 27.85, WM
+79.01, Lt. 29.42, PROP POLE
+84.61, Lt. 22.55, PWR POLE
+90.98, Lt. 25.81, REBAR
+38.67, Lt. 31.90, PROP POLE
+39.41, Lt. 28.71, TEL POLE
+47.15, Lt. 39.57, PWR POLE
+28.88, Lt. 24.05, PWR POLE
+40.86, Lt. 15.14, REBAR
+49.66, Lt. 15.50, MAILBOX
+65.36, Lt. 15.13, MAILBOX

CURVE DATA #2
P.I. STA. 14+08.95
△ = 4°12'32" LT
D = 2°32'47"
R = 2250.00'
T = 82.68'
L = 165.28'
E = 1.52'

℄ Structure
Sta. 15+19.25 "PR-A"
Skew: 0°

Class II Drive, Req'd
W = 12.0'

+25.0 (43.2° Lt. Skew)

Begin Incidental Construction
Sta. 11+25.00 "PR-A"

Const. Limits

Ex. PL

End Project
Sta. 18+00.00 "PR-A"

End Incidental Construction
Sta. 19+00.00 "PR-A"

Wetland

S.R. 58
N 42°11'00.24" E 156.76

Line "PR-A"
N 37°58'28.15" E 192.04
N 42°18'10.41" E

Begin Project
Sta. 12+25.00 "PR-A"

Temp. R/W

Class V Drive, Req'd
W = 24.0'

Class V Drive, Req'd
W = 11.0'

Wetland

CURVE DATA #1
P.I. STA. 11+11.92
△ = 2°01'51" RT
D = 1°45'47"
R = 3250.00'
T = 57.60'
L = 115.19'
E = 0.51'

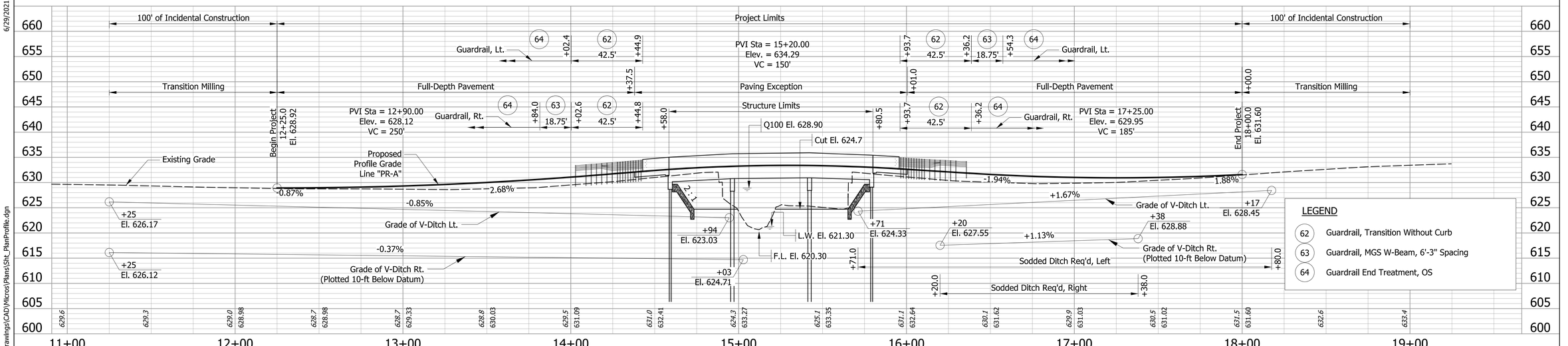
CURVE DATA #3
P.I. STA. 17+53.51
△ = 4°19'42" RT
D = 3°05'49"
R = 1850.00'
T = 69.91'
L = 139.76'
E = 1.32'

Sec. 18, T-28-N, R-5-E
Ohio Township
Bartholomew County

Ex. PL

All R/W and existing topography described from LINE "PR-A"
LINE "PR-A" to be constructed.

+12.13, Rt. 27.22, TREE
+20.80, Rt. 21.43, TREE
+11.07, Rt. 14.86, PROP POLE



Historic property boundary

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: DHS DRAWN: DHS
CHECKED: DEB CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN AND PROFILE
S.R. 58 OVER EAST FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 40'	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
1" = 10'	1600503
SURVEY BOOK NO.	SHEETS
	5 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503

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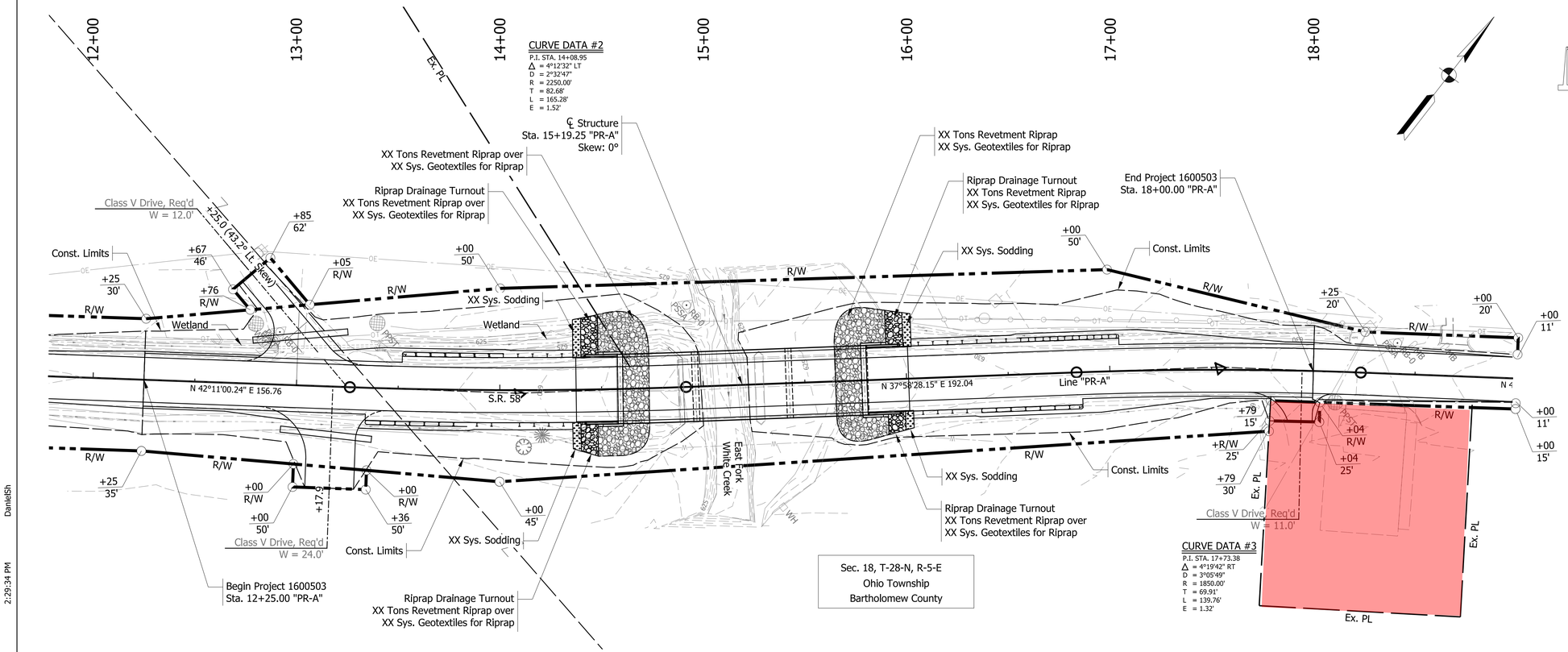
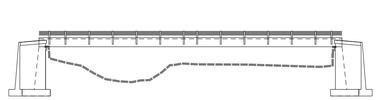




EXISTING STRUCTURE

The existing structure (058-03-05885) is a two-span reinforced concrete girder bridge built in 1928 with two 39' spans and 33'-0" clear roadway reinforced concrete deck.

Existing superstructure and substructure are to be removed, including the removal of the existing footings. The channel is to be re-shaped at each abutment to match existing channel slopes on both the upstream and downstream sides of the existing structure.

HYDRAULIC DATA

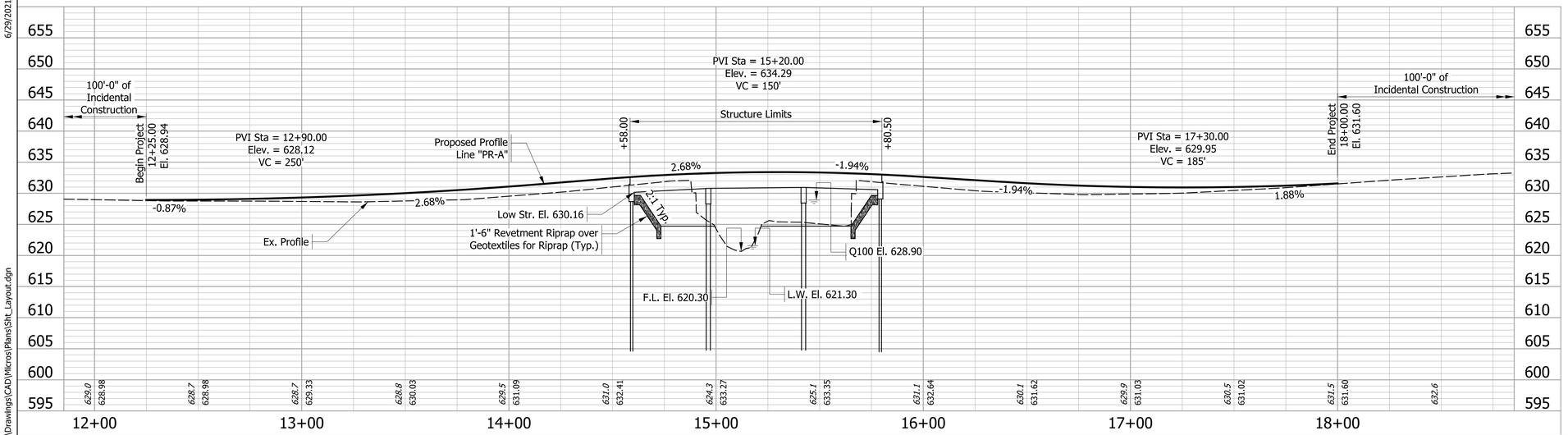
Drainage Area	4.48	sq. mi.
Ex. Q100	2,350	cfs
Ex. Q500	3,072	cfs
Ex. Q100 Elevation	628.90	ft.
Ex. Headwater Elevation	629.65	ft.
Backwater	0.65	ft.
Ex. Velocity @ Q100	3.78	ft./sec.
Ex. Gross Waterway Opening Below Q100 Elevation (Str.)	447	sq. ft.
Road Overflow Waterway Area	314	sq. ft.
Ex. Low Structure Elevation	630.16	ft.
Pr. Headwater Elevation	629.63	ft.
Pr. Backwater	0.63	ft.
Pr. Velocity @ Q100	3.62	ft./sec.
Pr. Gross Waterway Opening Area Req'd Below Q100 El. (Str.)	463	sq. ft.
Pr. Road Overflow Waterway Area	307	sq. ft.
Approximate Skew	0	deg.
Pr. Low Structure Elevation	603.16	ft.

HYDRAULIC SCOUR DATA

Q100 Contraction Scour	0	ft.
Q100 Total Scour	3.35	ft.
Q100 Low Scour Elevation	616.95	ft.
Q100 Max Velocity	4.89	ft./sec.
Q500 Contraction Scour	0	ft.
Q500 Total Scour	3.38	ft.
Q500 Low Scour Elevation	616.92	ft.
Q500 Max Velocity	4.61	ft./sec.

EARTHWORK BALANCE

*To be completed with future submittal



CONTINUOUS COMPOSITE PRESTRESSED CONCRETE BOX BEAM BRIDGE
3 SPANS: 1 @ 37'-0", 1 @ 46'-0", 1 @ 37'-0"
31'-4" CLEAR ROADWAY, NO SKEW
SR 58 OVER EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY

Historic property boundary

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: DHS | DRAWN: DHS

CHECKED: DEB | CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

LAYOUT
S.R. 58 OVER EAST FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1" = 30'	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
1" = 10'	1600503
SURVEY BOOK NO.	SHEETS
	6 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503

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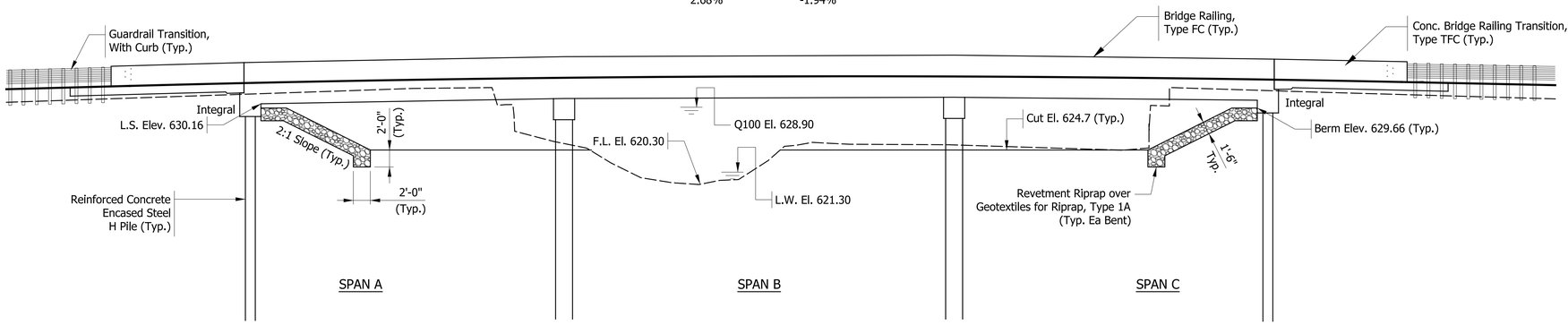
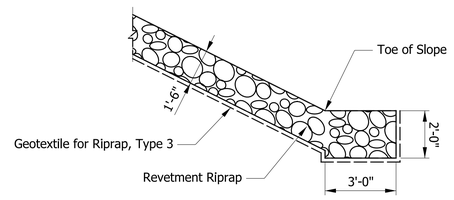
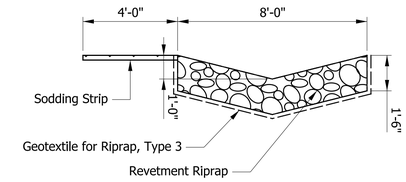
BRIDGE BUILT ON A 150' CREST VERTICAL CURVE

2.68% -1.94%





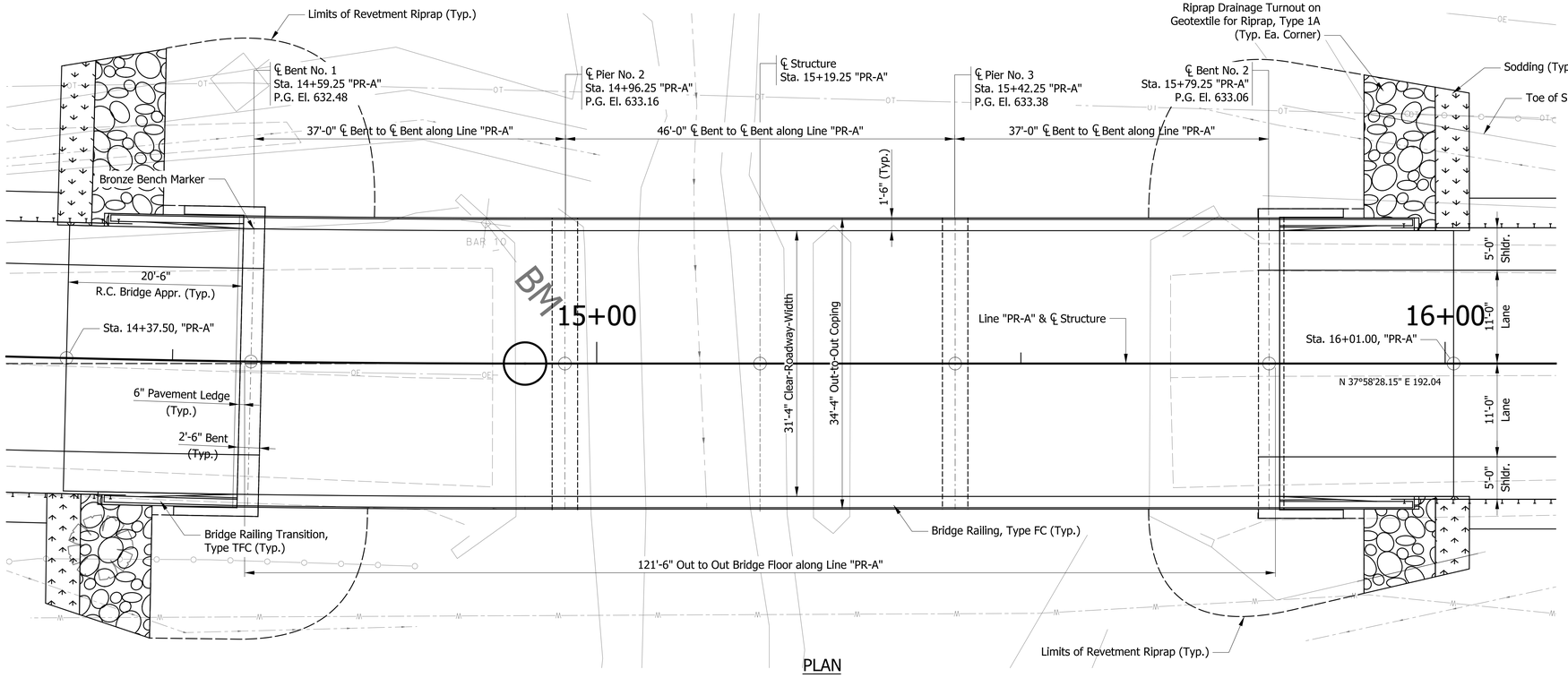
ELEVATION AT TOE OF SLOPE



TYPICAL SECTION

RIPRAP TURNOUT DETAILS

No Scale



PLAN

CONTINUOUS COMPOSITE PRESTRESSED
CONCRETE BOX BEAM BRIDGE
3 SPANS: 1 @ 37'-0", 1 @ 46'-0", 1 @ 37'-0"
31'-4" CLEAR ROADWAY, NO SKEW
SR 58 OVER EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1/8" = 1'-0"	BRIDGE FILE NO. 058-03-10186
		VERTICAL SCALE	DESIGNATION NO. 1600503
DESIGNED: DHS DRAWN: DHS	GENERAL PLAN S.R. 58 OVER EAST FORK WHITE CREEK	SURVEY BOOK NO.	SHEETS 10 of 14
CHECKED: DEB CHECKED: DEB		CONTRACT NO. B-40407	PROJECT NO. 1600503

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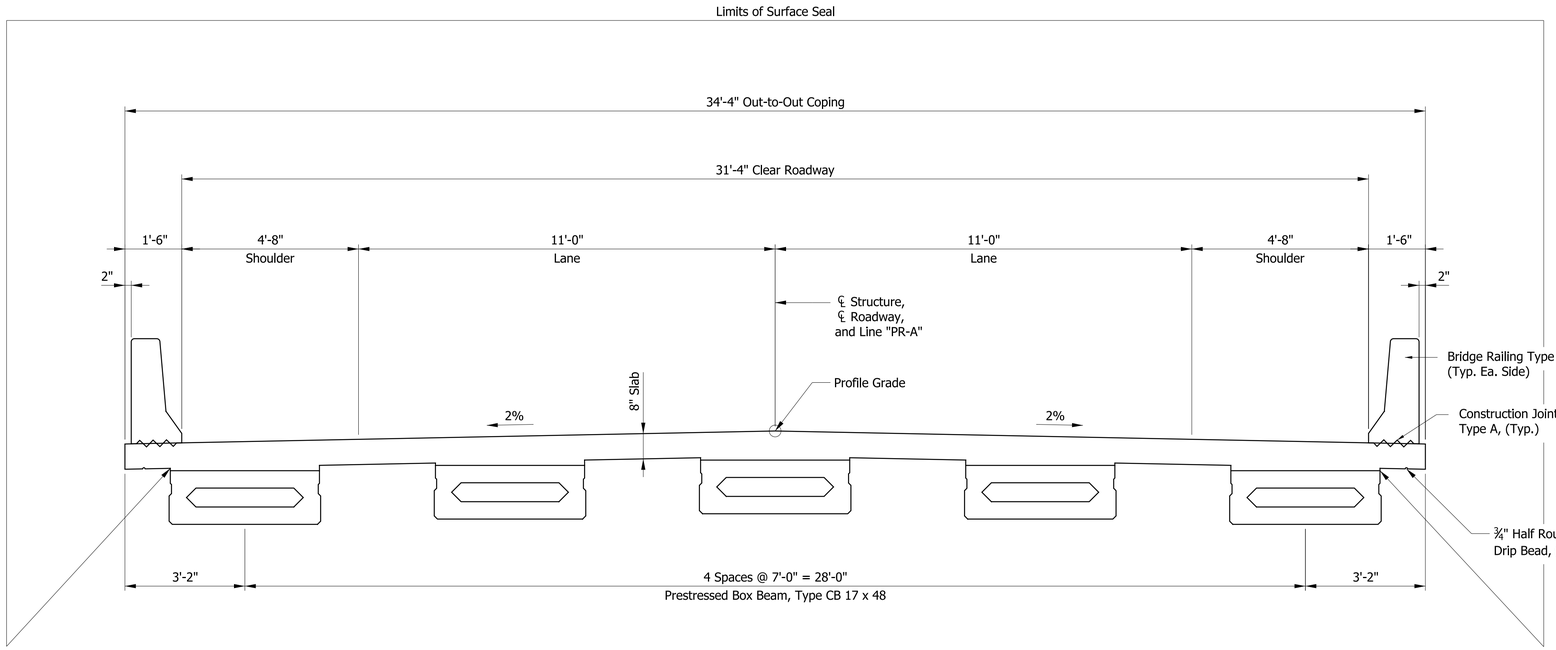

TYPICAL SECTION

CONSTRUCTION LOADING

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

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

DESIGN DATA

Live Load: Superstructure and substructure designed for HL-93 loading, in accordance with the AASHTO LRFD Bridge Design Specifications, 8th Edition, 2018, and its subsequent interims.

Dead Load: Actual weight plus 35 lb./sq. ft. (composite) for future wearing surface and 15 lb./sq. ft. for permanent metal deck forms. The slab was designed with a 23½" structural depth and ½" wearing surface.

Unit Stresses:	fy = 60,000	psi
	f'c = 4,000	psi (Class C Concrete)
	f'c = 3,500	psi (Class A concrete)

GENERAL NOTES

1. Reinforcing steel covering shall be 2½" in the top and 1" in the bottom of the floor slab, in superstructure, and 2" in all other parts, unless otherwise noted.
2. Clean and surface seal the exposed faces of the end bents, wingwalls, barrier railing, copings, bridge deck surface, reinforced concrete approach slabs, to the outside face of exterior beam. Surface seal is to be paid as a lump sum item. An alternate mix design may be used in lieu of concrete surface sealing.
3. The letter "E" denotes Epoxy Coated Reinforcing Steed.

CONTINUOUS COMPOSITE PRESTRESSED
CONCRETE BOX BEAM BRIDGE
3 SPANS: 1 @ 37'-0", 1 @ 46'-0", 1 @ 37'-0"
31'-4" CLEAR ROADWAY, NO SKEW
SR 58 OVER EAST FORK WHITE CREEK
BARTHOLOMEW COUNTY

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: DHS | DRAWN: DHS

CHECKED: DEB | CHECKED: DEB

INDIANA
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
S.R. 58 OVER EAST FORK WHITE CREEK

HORIZONTAL SCALE	BRIDGE FILE NO.
1/2" = 1'-0"	058-03-10186
VERTICAL SCALE	DESIGNATION NO.
	1600503
SURVEY BOOK NO.	SHEETS
	11 of 14
CONTRACT NO.	PROJECT NO.
B-40407	1600503

S:\COL\4000—4099\4060\313\Drawings\CAD\Micros\Plans\Sht_General Plan_Typical.dgn 6/29/2021 2:29:35 PM DanielSh

The Republic

Prescribed by State Board of Accounts

General Form No 99P (Rev. 2009A)

Attn:	KAREN WOODS
Name:	SJCA INC
Address:	1104 PROSPECT ST.
City/State:	INDIANAPOLIS, IN 46203
Acct #	C11213703
Order #	60085456

AIM MEDIA INDIANA
d/b/a/ THE REPUBLIC
PO BOX 3213
McALLEN, TX 78502-3213
FED I.D. #32-0472774

(Government Unit) County: Bartholomew

PUBLISHER'S CLAIM

LINE COUNT

Data for computing costs: Number of equivalent lines per column----------	139
Number of Columns ----------	1
Number of insertions ----------	1

COMPUTATION OF CHARGES

139 lines, 1 column(s) x rate of 0.3540 cents per line

Additional charges for notices containing rule or tabular work
(50 percent surcharge included in rate above)

Charges for extra proofs of publication ($1.00 for each proof in excess of two included in rate above)

TOTAL AMOUNT OF CLAIM ---------- 49.21

Pursuant to the provisions and penalties of IC 5-11-10-1, 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

I, Sally Clark, Legal Advertising Clerk of the newspaper of general circulation printed and published in the English language in the (city/town) of Columbus in state and county aforesaid, and that the printed matter attached hereto is a true copy, which publication being as follows:

9/19/2021

Sally Clark

Sally Clark/Legal Advertising Clerk

9/20/2021
Date

Order Number	:	60085456	Ad Number	:	50111043
PO Number	:	Heather Dewey	Ad Key	:	
Customer	:	C11213703 SJCA INC	Salesperson	:	28 - Christy Hubbard
Contact	:	KAREN WOODS	Publication	:	The Republic
Address1	:	1104 PROSPECT ST.	Section	:	60 Notices
Address2	:		Sub Section	:	60 Notices
City St Zip	:	INDIANAPOLIS IN 46203	Category	:	6015 Legals
Phone	:	(317) 634-4110	Dates Run	:	09/19/2021-09/19/2021
Fax	:		Days	:	1
Credit Card	:		Size	:	1 x 13.48, 139 lines
Printed By	:	Sally Rohm	Words	:	474
Entered By	:	Christy Hubbard	Ad Rate	:	L-Government
			Ad Price	:	49.21
			Amount Paid	:	0.00
			Amount Due	:	49.21
Keywords	:	INDOT Notice Des. No. 1600503 Bridge Replacement S			
Notes	:	hdewey@sjcainc.comran cc in pf 9/16 ch $49.21T			
Zones	:				

Legal Advertisement
Public Notice
Des. No. 1600503

The Indiana Department of Transportation (INDOT) is planning to undertake a bridge replacement project, funded in part by the Federal Highway Administration (FHWA). The project is located on State Road (SR) 58 over the East Fork of White Creek, 3.35 miles west of Interstate 65 in Bartholomew County, Indiana.

Under the preferred alternative, the proposed project would involve removing the existing Bridge No. 058-03-05885, an 80 foot (ft.) long, two-span reinforced concrete girder bridge, constructed in 1928, rehabilitated in 1980 and 2010, and replacing it with a new 126 ft., 6 in. long, three-span slab bridge. The new bridge will retain the existing 11 ft. travel lanes; however, the 2 ft. paved shoulders will increase to 4 ft., 8 in. The profile grade will be raised approximately 1 ft., 5 in. to smooth out the 3 ft. vertical variance throughout the project limits. Existing guardrail would be removed and replaced with new guardrail. Riprap drainage turnouts would be constructed at each bridge corner on SR 58 to direct drainage away from the bridge and into drainage ditches. Temporary right-of-way will be used for construction or reconstruction of drives. It is anticipated that approximately 0.895 acre of permanent and 0.026 acre of temporary right-of-way acquisition will be required for this project. No relocations are anticipated. Properties

			Ad Number	:	50111043
			Ad Key	:	
Order Number	:	60085456	Salesperson	:	28 - Christy Hubbard
PO Number	:	Heather Dewey	Publication	:	The Republic
Customer	:	C11213703 SJCA INC	Section	:	60 Notices
Contact	:	KAREN WOODS	Sub Section	:	60 Notices
Address1	:	1104 PROSPECT ST.	Category	:	6015 Legals
Address2	:		Dates Run	:	09/19/2021-09/19/2021
City St Zip	:	INDIANAPOLIS IN 46203	Days	:	1
Phone	:	(317) 634-4110	Size	:	1 x 13.48, 139 lines
Fax	:		Words	:	474
Credit Card	:		Ad Rate	:	L-Government
Printed By	:	Sally Rohm	Ad Price	:	49.21
Entered By	:	Christy Hubbard	Amount Paid	:	0.00
			Amount Due	:	49.21
Keywords	:	INDOT Notice Des. No. 1600503 Bridge Replacement S			
Notes	:	hdewey@sjcainc.comran cc in pf 9/16 ch $49.21T			
Zones	:				

listed in or eligible for the National Register of Historic Places (NRHP) located within the Area of Potential Effects (APE) include: Red Men Lodge Number 524, 8031 South SR 58. The proposed action does impact properties listed in or eligible for the NRHP. INDOT, on behalf of the FHWA, has issued a "No Adverse Effect" finding for the project because the project will not diminish the integrity of the characteristics that qualify the historic properties within the APE for inclusion in the NRHP. In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(2), the documentation specified in 36 CFR 800. 11(e) is available for inspection in the office of SJCA Inc. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at

http://erms.indot.in.gov/Section106Documents. This documentation serves as the basis for the "No Adverse Effect" finding. The views of the public on this effect finding are being sought. Please reply with any comments or requests to Karen Wood, SJCA, Inc., 9102 N. Meridian St., Suite 200, Indianapolis, IN 46260, 317.566.0629 or kwood@sjcainc.com no later than October 19, 2021.

In accordance with the "Americans with Disabilities Act", if you have a

Page	:	3 of 3 09/20/2021 07:27:33	**Ad Number**	:	50111043
			Ad Key	:	
Order Number	:	60085456	**Salesperson**	:	28 - Christy Hubbard
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			Amount Due	:	49.21
Keywords	:	INDOT Notice Des. No. 1600503 Bridge Replacement S			
Notes	:	hdewey@sjcainc.comran cc in pf 9/16 ch $49.21T			
Zones	:				

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disability for which INDOT needs to provide accessibility to the document(s) such as interpreters or readers, please contact Chase Schneider, chschneider @indot.in.gov.
60085456 Hspaxlp
R: 9/19/21

APPENDIX E
RED FLAG AND HAZARDOUS MATERIALS

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5113 FAX: (317) 233-4929

Eric Holcomb, Governor
Joe McGuinness, Commissioner

Date: January 17, 2019

To: Site Assessment & Management (SAM)
Environmental Services
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Amber Porter
Strand Associates, Inc.
629 Washington St.
Columbus, IN 47201
amber.porter@strand.com

Re: RED FLAG INVESTIGATION
DES 1600503, State Project
Bridge Replacement Project
State Road 58 over the East Fork White Creek
Bartholomew County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: This bridge replacement project is located on State Road 58 over East Fork White Creek, approximately 3.35 miles west of I-65. The project involves the replacement of the existing two-span concrete bridge with a three-span continuous reinforced concrete slab bridge and installation of new approach slabs and guardrail. The new structure will be approximately 100 feet long with no skew.

Bridge and/or Culvert Project: Yes ☒ No ☐ Structure # 058-03-05885 C

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

Proposed right of way: Temporary ☒ # Acres 0.1 (anticipated) Permanent ☒ # Acres 2 (anticipated)

Type of excavation: 2 feet around abutments (anticipated), 2 feet for road reconstruction (anticipated)

Maintenance of traffic: Maintenance of traffic will include a complete road closure with detour route.

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

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: Project description subject to additional changes.

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Recreational Facilities: Two (2) recreational facilities are located within the 0.5 mile search radius. The nearest recreational facility, Tri-County Church Camp, is located 0.35 mile southwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**11**
Canal Structures – Historic	**N/A**	Lakes	**4**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**7**
NWI-Lines	**3**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**3**	Sinkhole Areas	**N/A**
Rivers and Streams	**3**	Sinking-Stream Basins	**N/A**

NWI-Lines: Three (3) NWI-lines are located within the 0.5 mile search radius. One (1) NWI-line is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

IDEM 303d Listed Streams and Lakes: Three (3) 303d listed streams are located within the 0.5 mile search radius. One (1) Listed Stream, East Fork White Creek, is located within the project area and is listed for Impaired Biotic Communities (IBC). Coordination with INDOT Ecology and Waterway Permitting will occur.

Rivers and Streams: Three (3) rivers and streams are located within the 0.5 mile search radius. The nearest stream, East Fork White Creek, is located within the project area. A Waters of the US Report will be prepared and coordination with INDOT Ecology and Waterway Permitting will occur.

NWI-Wetlands: Eleven (11) wetlands are located within the 0.5 mile search radius. The nearest wetland is located approximately 0.09 mile west of the project area. No impact is expected.

Lakes: Four (4) lakes are located within the 0.5 mile search radius. The nearest lake is located 0.16 mile southwest of the project area. No impact is expected.

Floodplain-DFIRM: Seven (7) floodplain polygons are located within the 0.5 mile search radius. The project area is located within two (2) of the floodplain polygons. Coordination with INDOT Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY SUMMARY

N/A

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**

No mining and mineral exploration facilities 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	**3**	Confined Feeding Operations (CFO)	**N/A**
Voluntary Remediation Program	**N/A**	Brownfields	**N/A**
Construction Demolition Waste	**N/A**	Institutional Controls	**N/A**
Solid Waste Landfill	**N/A**	NPDES Facilities	**N/A**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**
Leaking Underground Storage (LUST) Sites	**1**	Notice of Contamination Sites	**N/A**

Underground Storage Tank (UST) Sites: Three (3) UST listings are located within the 0.5 mile search radius. All three listings are for the same site, which is located south of the UST map symbol. Precise Mold, 8491 S. State Road 58, Columbus, IN 47201 is located 0.17 mile south of the project area. No impact is expected.

Leaking Underground Storage (LUST) Sites: One (1) LUST site is located is located within the 0.5 mile search radius. Meyer Grocery, 8031 S. State Road 58, Columbus, IN, 47201 is located 0.05 mile northeast of the project area. According to Indiana Department of Environmental Management (IDEM) Virtual File Cabinet (VFC), IDEM issued a No Further Action Approval Determination pursuant to Remediation Closure Guide on April 27, 2018. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Bartholomew County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. A preliminary review of the Indiana Natural Heritage Database by INDOT Environmental Services did not indicate the presence of ETR species. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project is located in a rural area surrounded by farm fields and wooded areas. The January 11, 2018, Bridge Inspection Report for Bridge # 058-03-05885 C states that no evidence of bats was seen or heard under the bridge. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

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

RECOMMENDATIONS SECTION

INFRASTRUCTURE: N/A

WATER RESOURCES: The presence of the following water resources will require the preparation of a Waters of the US Report and coordination with INDOT ES Ecology and Waterway Permitting:

One (1) NWI line is located within the project area.

The project is located within a floodplain (coordination only).

One (1) stream segment, East Fork White Creek, flows through the project area.

One (1) IDEM 303d Listed Stream, East Fork White Creek, flows through the project area and is impaired for IBC (coordination only).

URBANIZED AREA BOUNDARY: N/A

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas Date: 2019.01.18 07:48:44 -05'00' (Signature)

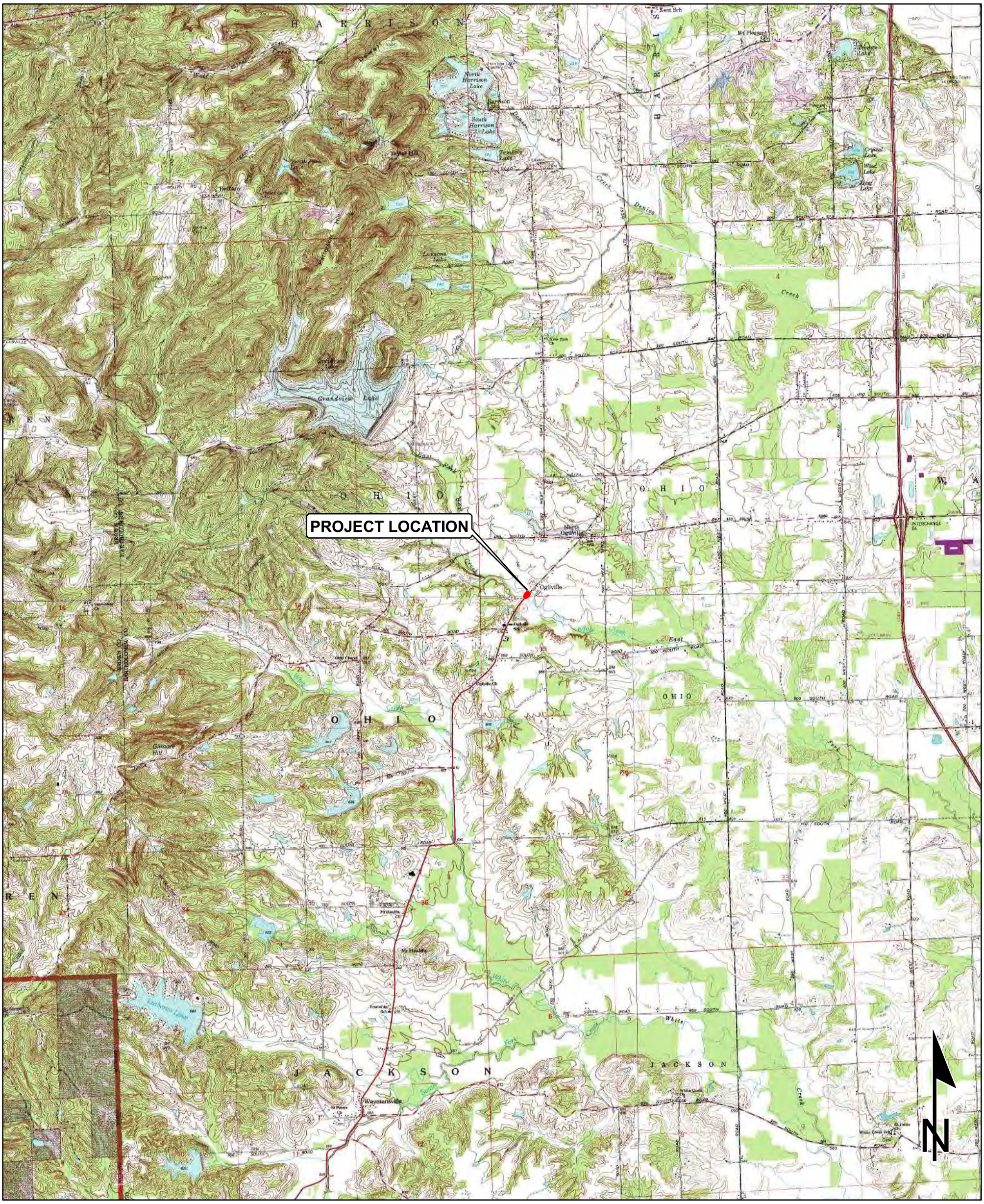
Prepared by:
Amber Porter, P.E.
Project Engineer
Strand Associates, Inc.

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.

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

Red Flag Investigation - Site Location
State Road 58 over East Fork White Creek
Des. No. 1600503, Bridge Replacement
Bartholomew County, Indiana



Sources:

1 0.5 0 1 Miles

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

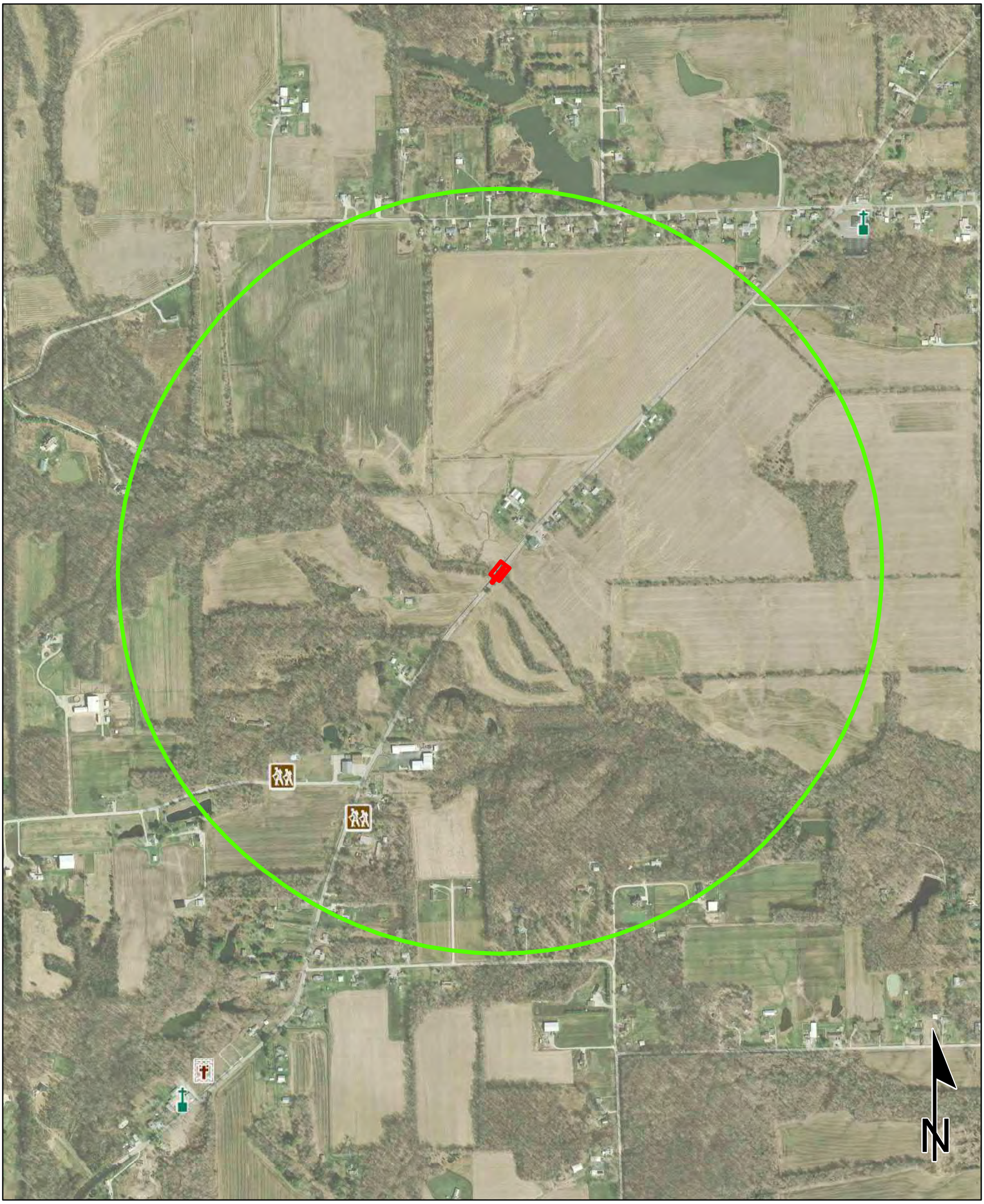
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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

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

NEW BELLSVILLE & WAYMANSVILLE QUADRANGLES
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
State Road 58 over East Fork White Creek
Des. No. 1600503, Bridge Replacement
Bartholomew County, Indiana



0.15 0.075 0 0.15 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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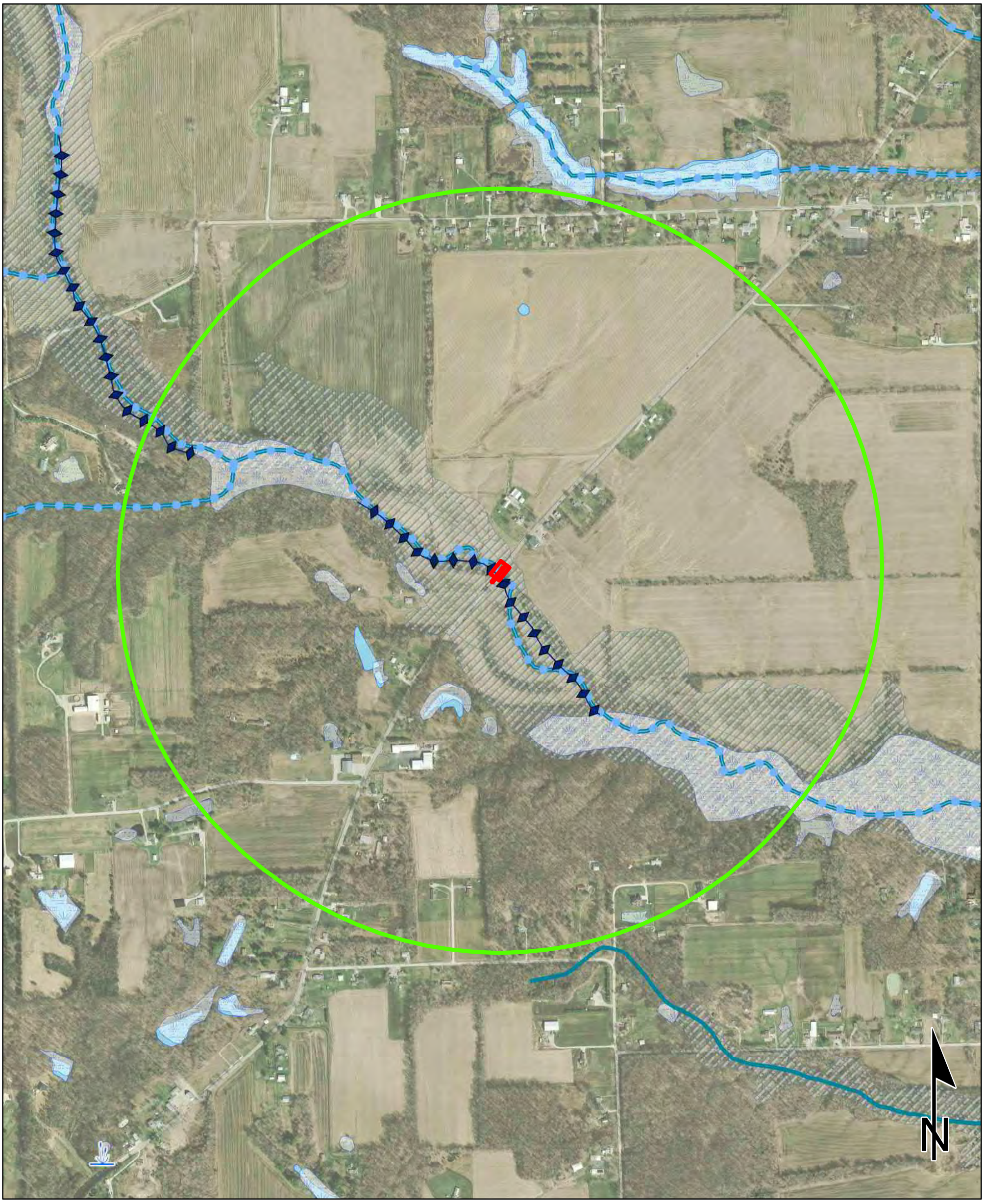
- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
State Road 58 over East Fork White Creek
Des. No. 1600503, Bridge Replacement
Bartholomew County, Indiana



0.15 0.075 0 0.15 Miles

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Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
State Road 58 over East Fork White Creek
Des. No. 1600503, Bridge Replacement
Bartholomew 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 0.075 0 0.15 Miles

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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

Indiana County Endangered, Threatened and Rare Species List

County: Bartholomew

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma rangiana	Northern Riffleshell	LE	SE	G1	S1
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Pleurobema rubrum	Pyramid Pigtoe		SX	G2G3	SX
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Theliderma cylindrica	Rabbitsfoot	LT	SE	G3G4	S1
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Villosa iris	Rainbow		SSC	G5	S3
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Reptile					
Clonophis kirtlandii	Kirtland's Snake		SE	G2	S2
Bird					
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ammodramus henslowii	Henslow's Sparrow		SE	G4	S3B
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Falco peregrinus	Peregrine Falcon		SSC	G4	S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G4G5	S3B
Mniotilta varia	Black-and-white Warbler		SSC	G5	S1S2B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Setophaga citrina	Hooded Warbler		SSC	G5	S3B
Tyto alba	Barn Owl		SE	G5	S2
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Lasiurus cinereus	Hoary Bat		SSC	G3G4	S4
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis lucifugus	Little Brown Bat	C	SE	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT	SE	G1G2	S2S3
Myotis sodalis	Indiana Bat	LE	SE	G2	S1
Nycticeius humeralis	Evening Bat		SE	G5	S1
Perimyotis subflavus	Tricolored Bat		SE	G2G3	S2S3
Sorex fumeus	Smoky Shrew		SSC	G5	S2
Sorex hoyi	Pygmy Shrew		SSC	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2

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

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long-term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Bartholomew

Species Name	Common Name	FED	STATE	GRANK	SRANK
Vascular Plant					
Arabis patens	spreading rockcress		SE	G3	S1
Carex straminea	straw sedge		ST	G5	S2
Crataegus iracunda	Illinois hawthorn		SE	GNR	S1
Dichanthelium bicknellii	panic-grass		SE	G4?Q	S1
Juglans cinerea	butternut		ST	G3	S2
Liatris pycnostachya	cattail gay-feather		SE	G5	S1
Oenothera perennis	small sundrops		ST	G5	S3
Panax quinquefolius	American ginseng		WL	G3G4	S3
Penstemon canescens	gray beardtongue		SE	G4	S1
Schoenoplectiella smithii	Smith's Bulrush		ST	G5?	S2
Sparganium androcladum	branching bur-reed		ST	G4G5	S2
Spiranthes ochroleuca	yellow nodding ladies'-tresses		ST	G4	S2
High Quality Natural Community					
Forest - flatwoods bluegrass till plain	Bluegrass Till Plain Flatwoods		SG	G3	S2
Forest - upland dry Highland Rim	Highland Rim Dry Upland Forest		SG	GNR	S3
Forest - upland dry-mesic Bluegrass	Bluegrass Dry-mesic Upland Forest		SG	GNR	S1
Forest - upland dry-mesic Highland Rim	Highland Rim Dry-mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Bluegrass	Bluegrass Mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Highland Rim	Highland Rim Mesic Upland Forest		SG	GNR	S3
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Primary - wash gravel	Gravel Wash		SG	GU	S1
Wetland - seep circumneutral	Circumneutral Seep		SG	GU	S1
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

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State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long-term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long-term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

APPENDIX F
WATER RESOURCES

3-3-2020

WATERS DETERMINATION REPORT

S.R. 58 OVER EAST FORK WHITE CREEK
BRIDGE REPLACEMENT
DES. NO. 1600503
OHIO TOWNSHIP, BARTHOLOMEW COUNTY, INDIANA

Prepared for:
Strand Associates, Inc.

March 3, 2020

Prepared by:

Metric Environmental, LLC

Complex Environment. Creative Solutions.
6971 Hillsdale Court
Indianapolis, IN 46256
Telephone: 317.207.4286
www.metricenv.com

Contents

WATERS OF THE U.S. DETERMINATION REPORT
S.R. 58 over East Fork White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503
Prepared By: Cory Shumate, Metric Environmental, LLC
March 3, 2020

Date of Waters Field Investigation: October 12, 2019

Location:
Sections 18 and 19; Township 8 North; Range 5 East
New Bellsville, IN and Waymansville, IN 7.5-minute USGS Topographic Quadrangles (**Exhibit 2**)
Ohio Township, Bartholomew County, Indiana
12-Digit HUC Watershed: 051202060401
Latitude: 39.12522 Longitude: -86.01638

FEMA Flood Insurance Rate Map (FIRM):
One mapped floodplain covered the majority of the project study limits (PSL). This floodplain was associated with East Fork White Creek and identified as Zone AE, an area subject to inundation by the 1 percent annual chance of flood. The FIRM map for this area is provided as **Exhibit 3**.

National Wetlands Inventory (NWI) Information:
One mapped NWI polygon is located within the PSL, listed in the table below. The NWI map is provided as **Exhibit 3**.

Symbol	Wetland Type	Location within PSL	Corresponding Feature
R2UBH	Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded	Central	East Fork White Creek

Karst Feature Information:
No mapped karst features were found within 0.5 mi. of the PSL during the desktop review.

USGS National Hydrography Dataset (NHD) Information:
Two mapped NHD flowlines are located within the PSL, listed by occurrence from north to south within the PSL in the table below. The NHD map is provided in **Exhibit 3**.

Corresponding Feature	NDH Flowline Classification	Photo Nos.	USGS Blue line
East Fork White Creek	Stream/River (Perennial)	22-32	Yes
Wetland A, Wetland B, Culvert 2, RSD 3	Stream/River	2, 3, 5, 6, 8, 9, 23	No

Soils:

According to the Natural Resources Conservation Service (NRCS) Soil Survey Geographic (SSURGO) Database for Bartholomew County, Indiana, the PSL contained three mapped soil units, listed in the table below. The NRCS soil survey map is provided as **Exhibit 4**.

Map Unit Symbol	Map Unit Name	Hydric Rating (%)
PcrB2	Pekin silt loam, 2 to 6 percent slopes, eroded	Not Hydric (0)
PcrC3	Pekin silt loam, 6 to 12 percent slopes, severely eroded	Not Hydric (0)
StdAQ	Stendal silt loam, 0 to 2 percent slopes rarely flooded	Hydric (5)

Attached Documents:

Maps of the project area (**Exhibits 1-4**)
Photo Location Map (**Exhibit 5**)
Site Photographs
Wetland Determination Data Form(s)
Preliminary Jurisdictional Determination Form

Project Description:

The proposed project (Des. No. 1600503) includes replacement of the existing bridge (Bridge No. 058-03-05885 C) which carries S.R. 58 over East Fork White Creek in Ohio Township, Bartholomew County, Indiana. The existing bridge is a two-span reinforced concrete girder bridge. The bridge floor is 80 ft. out-to-out with a clear roadway of 28.42 ft. The preferred alternative is to replace the existing structure with a three-span prestressed concrete box beam bridge with integral end bents and spill through slopes. The purpose of this project is to address the structural deficiencies of the existing structure. The need for this project is based on the structural deficiencies noted in the INDOT Bridge Inspection Report, dated January 11, 2018.

Field Reconnaissance:

The wetland determination field visit was conducted on October 12, 2019 by Zachary Root of Metric Environmental, LLC. The PSL consists of the area that has the potential to be impacted, based on the provided design scenario. This area was evaluated for the presence of wetlands and Waters of the United States. This investigation was conducted in accordance with the *1987 U.S. Army Corps of Engineers (USACE) Wetland Delineation Manual* and the *August 2010 Midwest Regional Supplement (version 2.0) Manual.*

A Location Map showing the project location is provided as **Exhibit 1**. The proposed project is located in the southwestern quadrant of Bartholomew County, Indiana, on S.R. 58 approximately 3.35 mi. west of I-65. The PSL extends along S.R. 58 for 850 ft. and approximately 60 ft. northwest and southeast of the S.R. 58 centerline. An aerial map of sampling points and water features is provided as **Exhibit 4**. A photo location map is provided as **Exhibit 5** and site photographs are attached.

The site was investigated for evidence of hydrophytic vegetation, hydric soil, and wetland hydrology to determine if the project impacts wetlands and other Waters of U.S. The sampling point (SP) locations were chosen in possible wetland areas within the PSL. The upland areas consisted of deciduous forest, agricultural crop fields, residential, and road right-of-way (ROW). Upland areas where sampling points were not taken, were investigated and determined to be upland due to upward sloping topography and/or presence of dominant upland vegetation. Seven sampling points were taken and are identified as SP-A1, SP-A2, SP-B1, and SP-B2, SP-1, SP-2, and SP-3. The sampling points, recorded on the USACE Wetland Determination Data Forms and shown on **Exhibit 5,** provided the following information:

Sampling Plot Data Summary Table

Plot #	Photo #s	Lat/Long	Hydrophytic Vegetation	Hydric Soils	Wetland Hydrology	Within Wetland
SP-A1	1-3	39.12459 -86.01713	Yes	Yes	Yes	Yes, Wetland A
SP-A2	4-6	39.12462 -86.01712	No	No	No	No, Wetland A Upland
SP-B1	7-9	39.12497 -86.0167	Yes	Yes	Yes	Yes, Wetland B
SP-B2	10-12	39.12498 -86.01674	No	No	No	No, Wetland B Upland
SP-1	13-15	39.12535 -86.01635	Yes	No	Yes	No
SP-2	16-18	39.12523 -86.0162	Yes	No	Yes	No
SP-3	19-21	39.12524 -86.01608	No	No	No	No

Wetlands:
Two wetlands were observed within the PSL. Descriptions of the wetlands and corresponding sampling points are provided below.

Wetland Summary Table

Wetland Name	Photo #s	Lat/Long	Cowardin Class	Total Area acres	Quality	Likely Water of the U.S.
Wetland A	2, 3, 5, 6, 41, 44	39.12454 -86.01718	PEM1A	0.009	Poor	Yes
Wetland B	8, 9, 40	39.12502 -86.01664	PEM1A	0.011	Poor	Yes

Wetland A (0.009 ac.) – PEM1A

Wetland A was classified as Palustrine, Emergent, Persistent, Temporarily Flooded (PEM1A) wetland. Wetland A was located in a drainage ditch northwest of S.R. 58, southwest of Culvert 1 and East Fork White Creek, and continued southwest outside the PSL. The boundaries of Wetland A were delineated by lack of wetland vegetation and increased elevation. Wetland A likely receives stormwater and road drainage on a consistent basis during rain events. Based on topography and NHD flowlines, water from Wetland A drains northeast into Culvert 1, through Wetland B and Roadside Ditch (RSD) 3, and into East Fork White Creek. East Fork White Creek then flows southwest into White Creek, which flows into East Fork White River, a Section 10 Traditional Navigable Waterway (TNW). Therefore, Wetland A should be considered a jurisdictional Water of the U.S. Wetland A was not associated with a mapped NWI polygon and was formed within the Q100 floodplain of East Fork White Creek and StdAQ mapped soil unit, which is listed as 5 percent hydric. Wetland A is located adjacent to road and agricultural crop fields and likely receives run-off from these sources. The wetland also exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland A can support a limited amount of wildlife or aquatic habitat, and therefore should be considered to be of poor quality.

Sampling Point A1 (SP-A1) – Wetland A

SP-A1 was located at the toe of a slope within a drainage ditch northwest of S.R. 58 and southwest of Culvert 1. The dominant vegetation at this sampling point was broad-leaf cat-tail (*Typha latifolia*, OBL) and large barnyard grass (*Echinochloa crus-galli*, FACW) in the herb stratum. This met the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test (100 percent), and prevalence index (1.30). To a depth of 10 in., the soil in the test pit was a sandy loam. From 10 to 20 in., the soil in the test pit was a silt loam. From 0 to 10 in., the soil exhibited a matrix color of 10YR 4/2 (90 percent) with 7.5YR 4/6 (10 percent) prominent redox concentrations along pore linings. From 10 to 20 in, the soil in test pit was a silty loam. From 10 to 20 in., the soil exhibited a matrix color of 10YR 5/4 (85 percent) with 7.5YR 4/6 (15 percent) prominent redox concentration in the matrix and along pore linings. This met the hydric soil indicator of depleted matrix (F3). Indicators of wetland hydrology observed included oxidized rhizospheres along living roots (C3), geomorphic position (D2) due to the sampling point's location at the toe of a hillslope within a drainage ditch, and FAC-neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point A2 (SP-A2) – Wetland A Upland

SP-A2 was located at the top of a slope northwest of Wetland A. The dominant vegetation at this sampling point was spiny cocklebur (*Xanthium spinosum*, FACU), curly dock (*Rumex crispus*, FAC), flower-of-an-hour (*Hibiscus trionum*, UPL), and field bindweed (*Convolvulus arvensis*, UPL) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. To a depth of 20 in., the soil in the test pit was a sandy loam and exhibited a matrix color of 10YR 5/3 (100 percent). This did not meet any of the hydric soil indicators. No primary or secondary indicators of wetland hydrology were observed during the field reconnaissance. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Wetland B (0.011 ac.) – PEM1A

Wetland B was classified as PEM1A wetland. Wetland B was located in a drainage ditch northwest of S.R. 58, northeast of Culvert 1, and southwest of East Fork White Creek. The boundaries of Wetland B were delineated by lack of wetland vegetation and increased elevation. Wetland B likely receives stormwater and road drainage on a consistent basis during rain events. Based on topography and NHD flowlines, water from Wetland B drains northeast into RSD 3 and into East Fork White Creek. Since East Fork White Creek is a jurisdictional Water of the U.S., Wetland B should be considered a jurisdictional Water of the U.S as well. Wetland B was not associated with a mapped NWI polygon and was formed within the Q100 floodplain of East Fork White Creek and StdAQ mapped soil unit, which is listed as 5 percent hydric. Wetland B is located adjacent to road, agricultural crop fields, and deciduous forest and likely receives run-off from these sources. The wetland also exhibited poor plant species diversity. These factors contribute to the conclusion that Wetland B can support a limited amount of wildlife or aquatic habitat, and therefore should be considered to be of poor quality.

Sampling Point B1 (SP-B1) – Wetland B

SP-B1 was located at the toe of a slope within a drainage ditch northwest of S.R. 58 and southwest of East Fork White Creek. The dominant vegetation at this sampling point was green ash (*Fraxinus pennsylvanica,* FACW) in the sapling/shrub stratum and broad-leaf cat-tail (*Typha latifolia*, OBL), swamp smartweed *(Persicaria hydropiperoides*, OBL), and squarrose sedge (*Carex squarrosa*, OBL) in the herb stratum. This met the hydrophytic vegetation indicators of rapid test for hydrophytic vegetation, dominance test (100 percent), and prevalence index (1.29). To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 16 in., the soil exhibited a matrix color of 10YR 4/2 (80 percent) with 5YR 5/6 (20 percent) prominent redox concentrations in the matrix and along pore linings. From 16 to 20 in., the soil exhibited mixed matrix colors of 10YR 5/3 (35 percent) and 10YR 5/6 (35 percent) with 10YR 2/1 (30 percent) distinct redox concentrations in the matrix. This met the hydric soil indicator of depleted matrix (F3). Indicators of wetland hydrology observed included oxidized rhizospheres along living roots (C3), geomorphic position (D2) due to the sampling point's location at the toe of a slope, and FAC-

neutral test (D5). Since all three required wetland criteria were met, this area qualified as a wetland.

Sampling Point B2 (SP-B2) – Wetland B Upland

SP-B2 was located at the top of a slope northwest of Wetland B. The dominant vegetation at this sampling point was Queen Anne's lace (*Daucus carota*, UPL) and common dandelion (*Taraxacum officinale*, FACU) in the herb stratum. This did not meet any of the hydrophytic vegetation indicators. To a depth of 20 in., the soil in the test pit was a silty clay loam and exhibited a matrix color of 10YR 4/3 (100 percent). This did not meet any of the hydric soil indicators. No primary or secondary indicators of wetland hydrology were observed during the field reconnaissance. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Additional Sampling Points:

Three additional sampling points were taken in areas where a wetland was suspected but did not meet the three wetland criteria. Descriptions of these sampling points are included below.

Sampling Point 1 (SP-1)

SP-1 was located on a stream terrace northwest of S.R. 58 and northeast of East Fork White Creek. The dominant vegetation at this sampling point was ash-leaf maple (*Acer negundo*, FAC) in the tree stratum and reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum. This met the hydrophytic vegetation indicators of dominance test (100 percent) and prevalence index (2.52). To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 11 in., the soil exhibited a matrix color of 10YR 4/3 (100 percent). From 11 to 20 in., the soil exhibited a matrix color of 10YR 4/3 (90 percent) with 10YR 3/3 (10 percent) faint redox concentrations in the matrix. This did not meet any of the hydric soil indicators. Secondary indicators of wetland hydrology observed included crayfish burrows (C8), geomorphic position (D2) due to the sampling point's location on a stream terrace, and FAC-neutral test (D5). Since only two of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 2 (SP-2)

SP-2 was located on a stream terrace southeast of S.R. 58 and northeast of East Fork White Creek. The dominant vegetation at this sampling point included ash-leaf maple (*Acer negundo*, FAC) and black walnut (*Juglans nigra*, FACU) in the tree stratum; ash-leaf maple (*Acer negundo*, FAC) in the sapling/shrub stratum; reed canary grass (*Phalaris arundinacea*, FACW) in the herb stratum; and groundnut (*Apios americana*, FACW) in the woody vine stratum. This met the hydrophytic vegetation indicators of dominance test (80 percent) and prevalence index (2.65). To a depth of 20 in., the soils in the test pit were a silty clay loam. From 0 to 4 in., the soil exhibited a matrix color of 10YR 4/3 (100 percent). From 4 to 11 in., the soil exhibited a matrix color of 10YR 4/3 (90 percent) with 7.5YR 3/4 (10 percent) faint redox concentrations in the matrix. From 11 to 20 in., the soil exhibited a matrix color of 10YR 4/3 (80 percent) with 7.5YR 3/4 (20 percent) faint redox concentrations in the matrix. This did not meet any of the hydric soil indicators. Secondary

indicators of wetland hydrology observed included geomorphic position (D2) due to the sampling point's location on the stream terrace and FAC-neutral test (D5). Since only two of the three required wetland criteria were met, this area did not qualify as a wetland.

Sampling Point 3 (SP-3)

SP-3 was located at the top of a slope southeast of S.R. 58 and northeast of East Fork White Creek. The dominant vegetation at this sampling point included black walnut (*Juglans nigra*, FACU) in the tree stratum; rape (*Brassica rapa*, UPL), common dandelion (*Taraxacum officinale*, FACU), and white oldfield American aster (*Symphyotrichum pilosum*, FACU) in the herb stratum; and eastern poison ivy (*Toxicodendron radicans*, FAC) in the woody vine stratum. This did not meet any of the hydrophytic vegetation indicators. To a depth of 20 in., the soil in the test pit was a silty clay loam and exhibited mixed matrix colors of 10YR 4/3 (50 percent) and 10YR 4/2 (50 percent). This did not meet any of the hydric soil indicators. No primary or secondary indicators of wetland hydrology were observed. Since none of the three required wetland criteria were met, this area did not qualify as a wetland.

Streams:

One stream, East Fork White Creek, was observed within the PSL during the field reconnaissance. A description of the stream is provided below.

Stream Summary Table

Stream Name	Photos	Lat/Long	OHWM Width	OHWM Depth	USGS Blue-line	Riffles and Pools	Quality	Likely Water of the U.S.	Dominant Substrate	Potential Stream Impact
			ft.	in.						ft.
East Fork White Creek	22-32	39.12523 -86.01635	Upstream: 16 Downstream: 22	5	Yes (Perennial)	No	Poor	Yes	Sand & Silt	155

East Fork White Creek (UNT 1) (155 LFT)

East Fork White Creek flows from northwest to southeast through the center of the PSL and is approximately 155 linear feet (LFT)(0.067 ac.) within the PSL. Since East Fork White Creek is a tributary to East Fork White River, it should be considered a jurisdictional Water of the U.S. The stream was associated with a solid blue line on the USGS topographic map, indicating it is likely perennial. The stream was also associated with a mapped R2UBH NWI polygon. The ordinary high-water mark (OHWM) was approximately 16 ft. wide upstream of the existing structure and approximately 22 ft. wide downstream of the existing structure. The OHWM depth was 5 in. deep. Measurements of OHWM were collected outside the influence of the existing structure. The dominant stream substrate was sand and silt. Sparse amounts of instream cover observed included woody debris and overhanging vegetation. No functional riffles or pools were observed

outside of the influence of the existing structure. The stream exhibited low sinuosity and water velocity was slow. No aquatic organisms were observed in the stream. According to USGS *Indiana StreamStats*, the drainage area upstream of East Fork White Creek at the PSL is 4.523 square miles. Qualities of the stream listed above contribute to this stream being classified as poor quality.

Roadside Ditches:
Four roadside ditches (RSD) were identified within the PSL. These features consisted of riprap and drainage swales consisting of upland vegetation. All RSD ran parallel to S.R. 58. No OHWM was observed in these features, so they are likely non-jurisdictional.

Roadside Ditch Summary Table

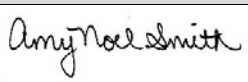
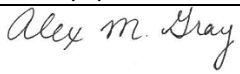
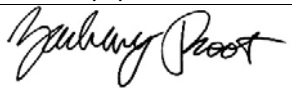
Name	Photo #s	Lat/Long	Linear Length (ft)	Description
RSD 1	14, 15, 36, 37	39.1256 -86.01606	295	Vegetated Swale
RSD 2	38, 39	39.12548 -86.01598	176	Vegetated Swale
RSD 3	23	39.12517 -86.01652	67	Riprap
RSD 4	42, 43, 45	39.12474 -86.01678	407	Vegetated Swale

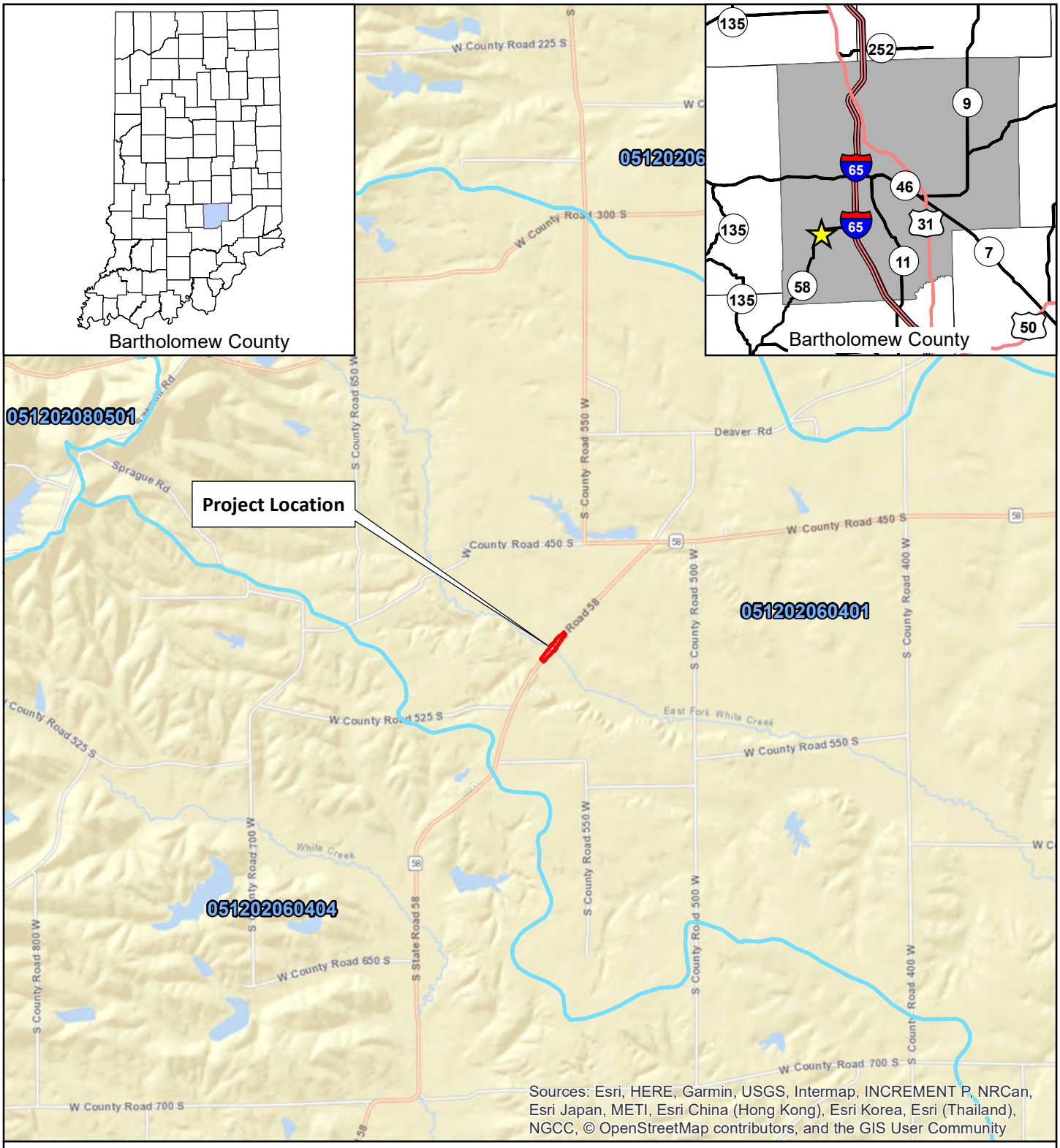
Culverts and Drains:
Two culverts were identified within the PSL. The culverts' materials consisted of corrugated metal pipe (CMP) and high-density polyethylene (HDPE) pipe. The culverts served to aid in roadside drainage and stormwater conveyance. These culverts did not carry jurisdictional waters due to a lack of an OHWM or bed and bank characteristics, and lack of a significant nexus to any jurisdictional Waters of the U.S. Locations of these culverts are shown on **Exhibits 4** and **5** and attached photosheet.

Conclusion:
Two PEM1A wetlands, totaling 0.020 ac., were identified within the project study limits. One stream, East Fork White Creek, totaling 155 linear feet, was identified within the project study limits. These waterways are likely Waters of the U.S. Every effort should be taken to avoid and minimize impacts to the waterway and wetlands. If impacts are necessary, then mitigation may be required. The INDOT Environmental Services Division should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgment based on the guidelines set forth by the Corps.

Acknowledgements:

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

Metric Environmental Staff	Position	Contributing Effort	Signature/Date
Amy Noel Smith	Natural Resources Project Manager II	Project Manager	 3/3/2020
Alex Gray	Natural Resources Project Manager I	QAQC	 3/3/2020
Cory Shumate	Environmental Scientist 2	Report Preparation	 3/3/2020
Zachary Root	Environmental Scientist 2	Field Data Collection	 3/3/2020



Project Study Limits (PSL) 12-Digit HUC Watershed

Exhibit 1 - Location Map
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, IN
Des. No. 1600503
Metric Project No. 18-0008-8
Map Date: 1/9/2020
Map Author: Cory Shumate

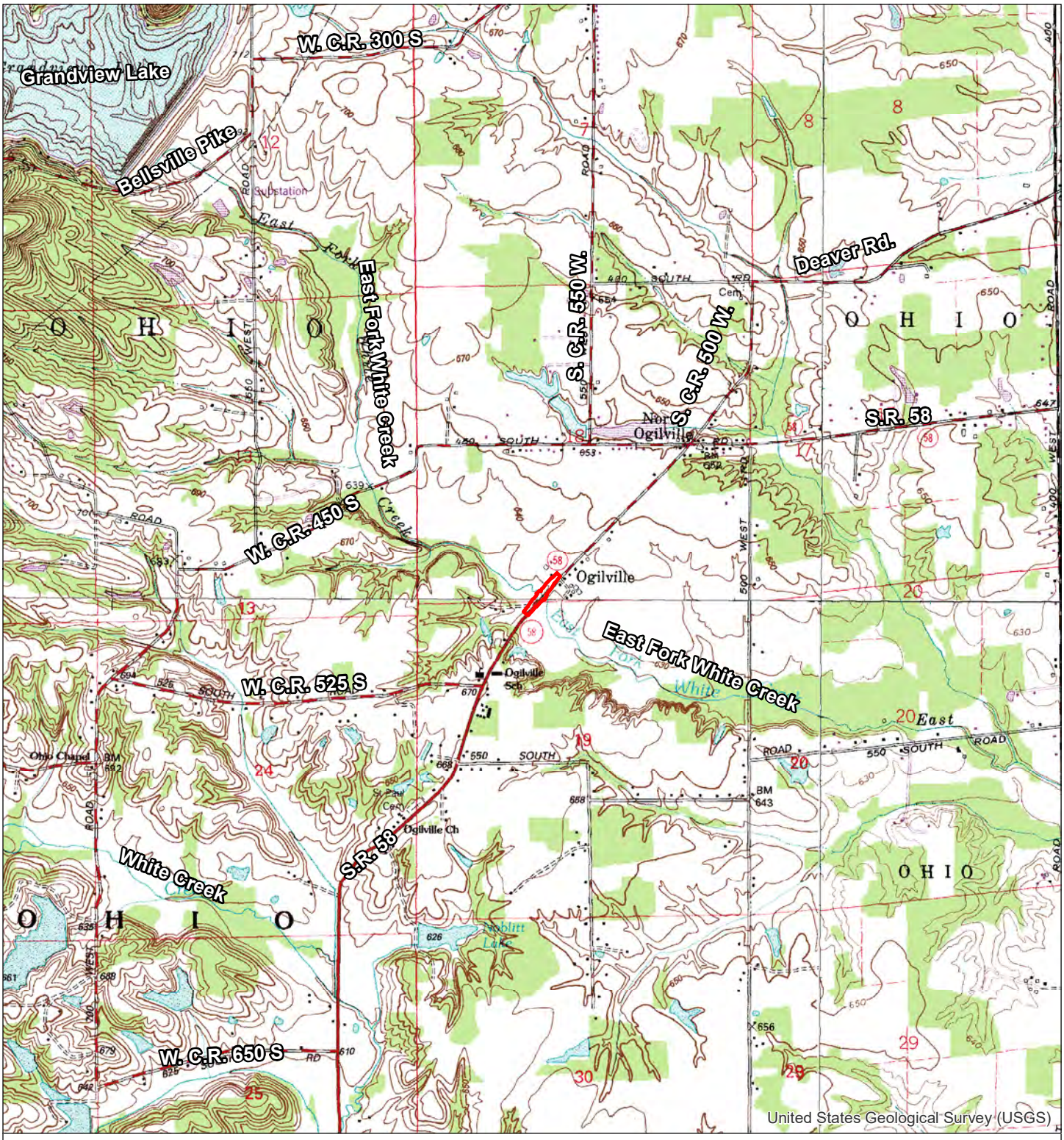
All locations approximate
2018 Basemap
Latitude: 39.12522 Longitude: -86.01638

N

0 0.25 0.5 1
Miles

METRIC ENVIRONMENTAL

Exh. 1



Project Study Limits (PSL)

Exhibit 2A - USGS Topographic Map - Small Scale
New Bellsville & Waymansville, IN 7.5-minute Quadrangle
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, IN
Des. No. 1600503
Metric Project No. 18-0008-8
Map Date: 1/9/2020
Map Author: Cory Shumate

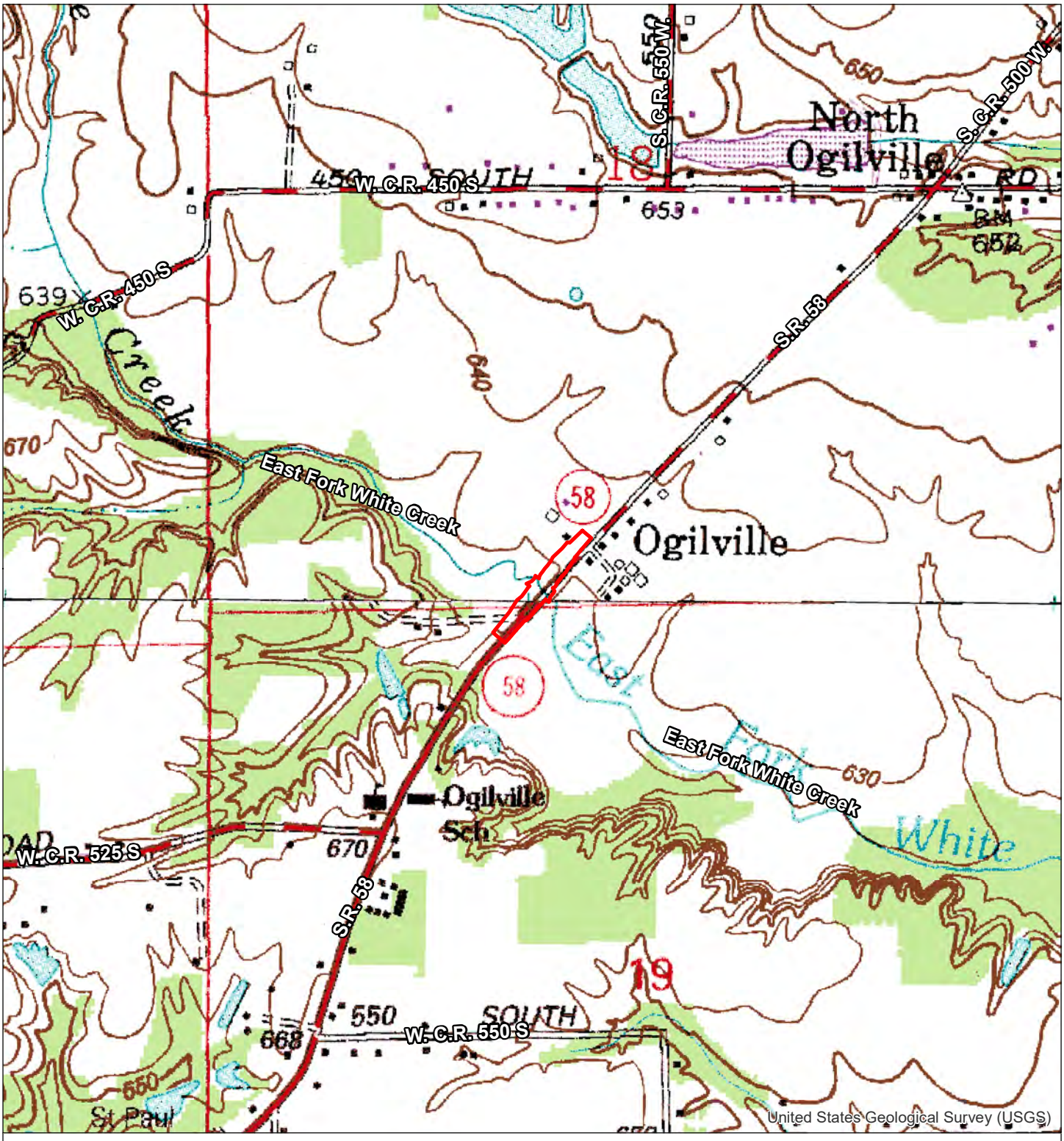
All locations approximate
Source: Indiana Spatial Data Portal (1996)

N

0 1,000 2,000 4,000
Feet

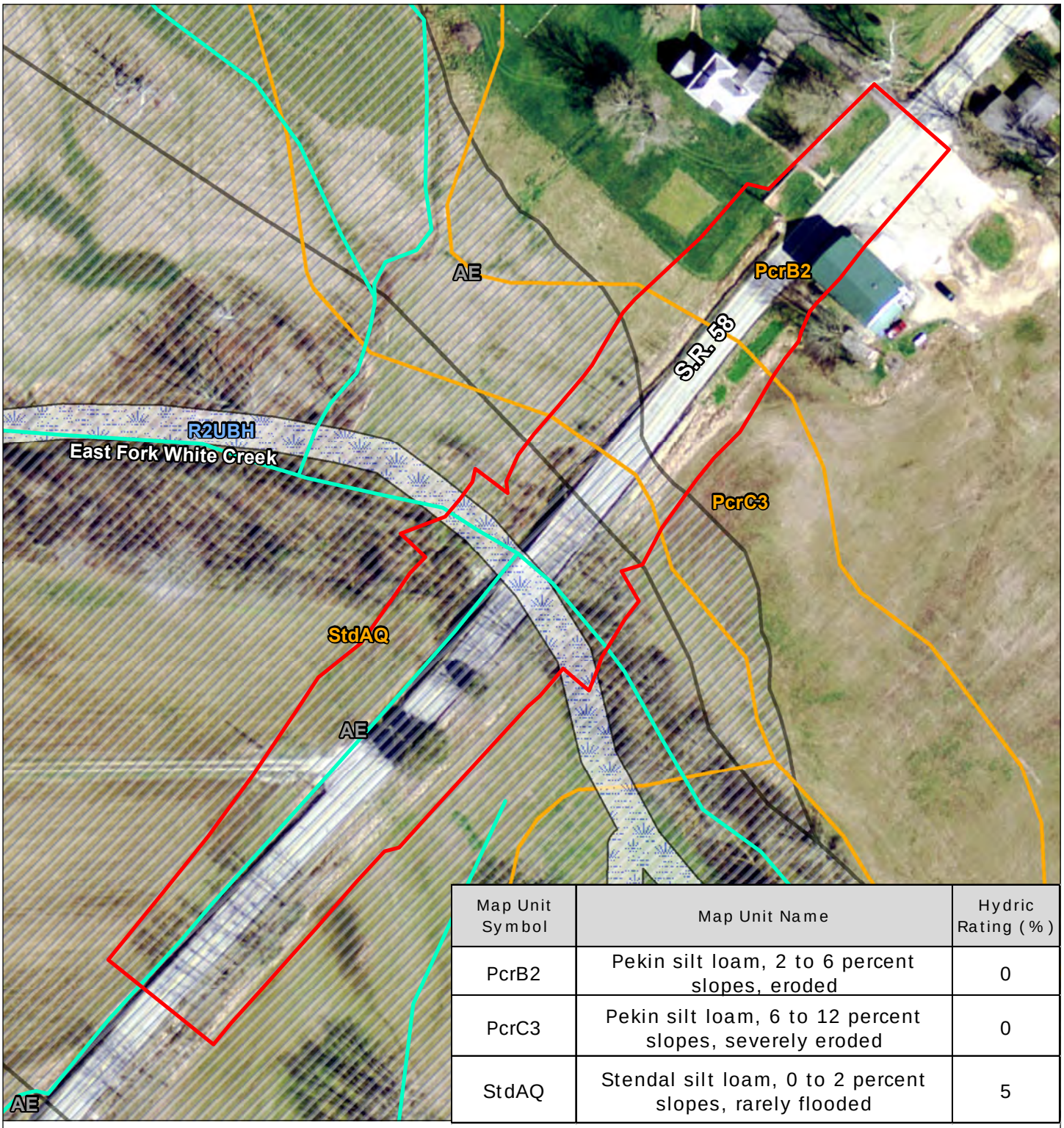
METRIC ENVIRONMENTAL

Exh. 2A



Project Study Limits (PSL)

Exhibit 2B - USGS Topographic Map - Large Scale New Bellsville & Waymansville, IN 7.5-minute Quadrangle S.R. 58 over E.F. White Creek Bridge Replacement Ohio Township, Bartholomew County, IN Des. No. 1600503 Metric Project No. 18-0008-8 Map Date: 1/9/2020 Map Author: Cory Shumate	All locations approximate Source: Indiana Spatial Data Portal (1996) N 0 250 500 1,000 Feet	METRIC ENVIRONMENTAL Exh. 2B



Map Unit Symbol	Map Unit Name	Hydric Rating (%)
PcrB2	Pekin silt loam, 2 to 6 percent slopes, eroded	0
PcrC3	Pekin silt loam, 6 to 12 percent slopes, severely eroded	0
StdAQ	Stendal silt loam, 0 to 2 percent slopes, rarely flooded	5

Project Study Limits (PSL)
NHD Flowline
NWI Wetland
NRCS Soil Survey
Floodplain - Zone AE - 1% Annual Chance

Exhibit 3 - NWI Wetland, NHD Flowline, NRCS Soil Survey, and FEMA Flood Insurance Rate Map (FIRM)
S.R. 58 over E.F. White Creek
Ohio Township, Bartholomew County, IN
Des. No. 1600503
Metric Project No. 18-0008-8
Map Date: 1/9/2020
Map Author: Cory Shumate

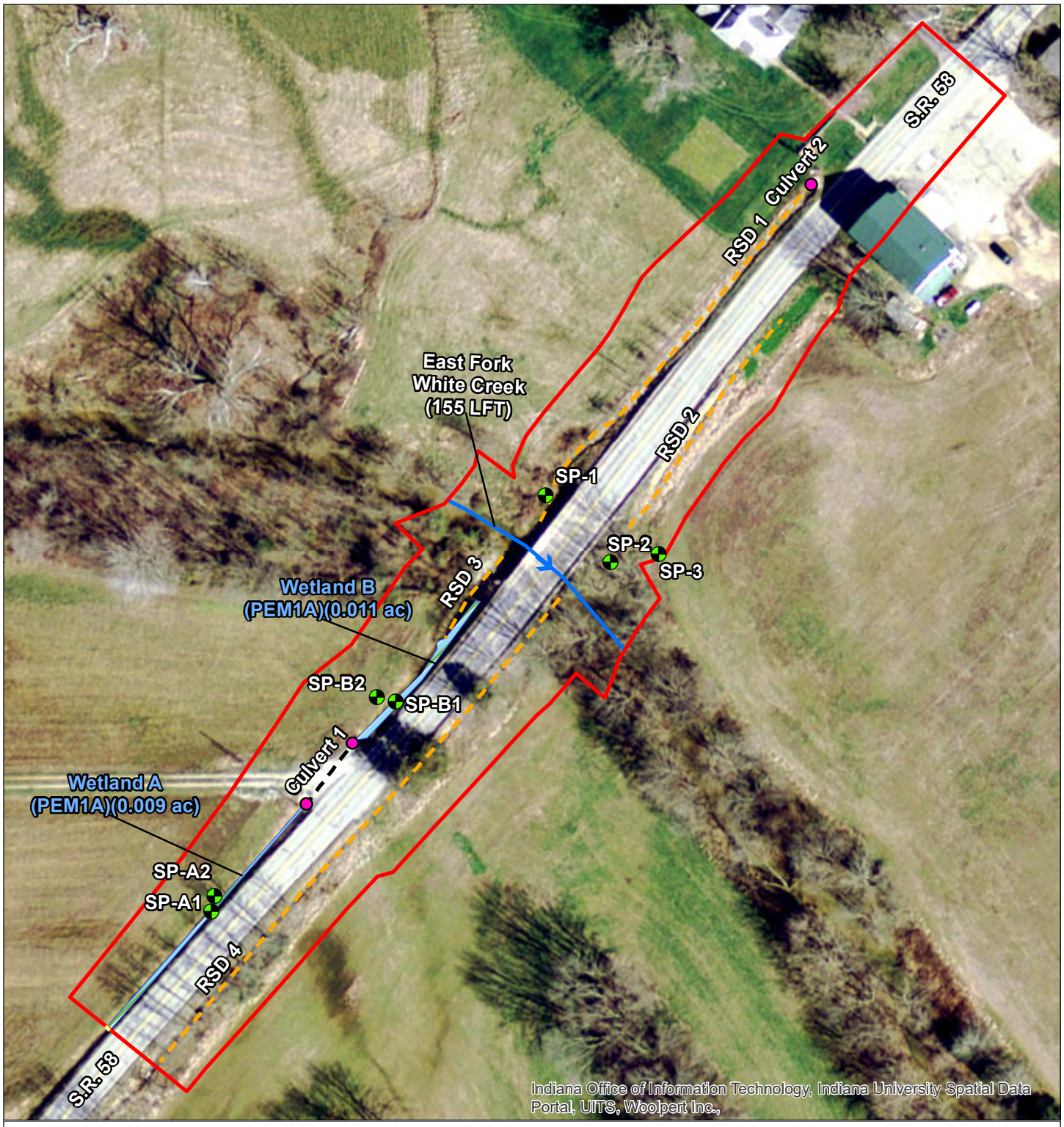
All locations approximate
Source: Indiana Spatial Data Portal (2016)

N

0 25 50 100
Feet

METRIC ENVIRONMENTAL

Exh. 3



Project Study Limits (PSL) | Wetland | Stream | Culvert

Sampling Point (SP) | Wetland Beyond PSL | Roadside Ditch (RSD) | Culvert Opening

Exhibit 4 - Waters Delineation Map
S.R. 58 over E.F. White Creek
Bridge Replacement
OhioTownship, Bartholomew County, IN
Des. No. 1600503
Metric Project No. 18-0008-8
Map Date: 1/9/2020
Map Author: Cory Shumate

All locations approximate

Source: Indiana Spatial Data Portal (2016)

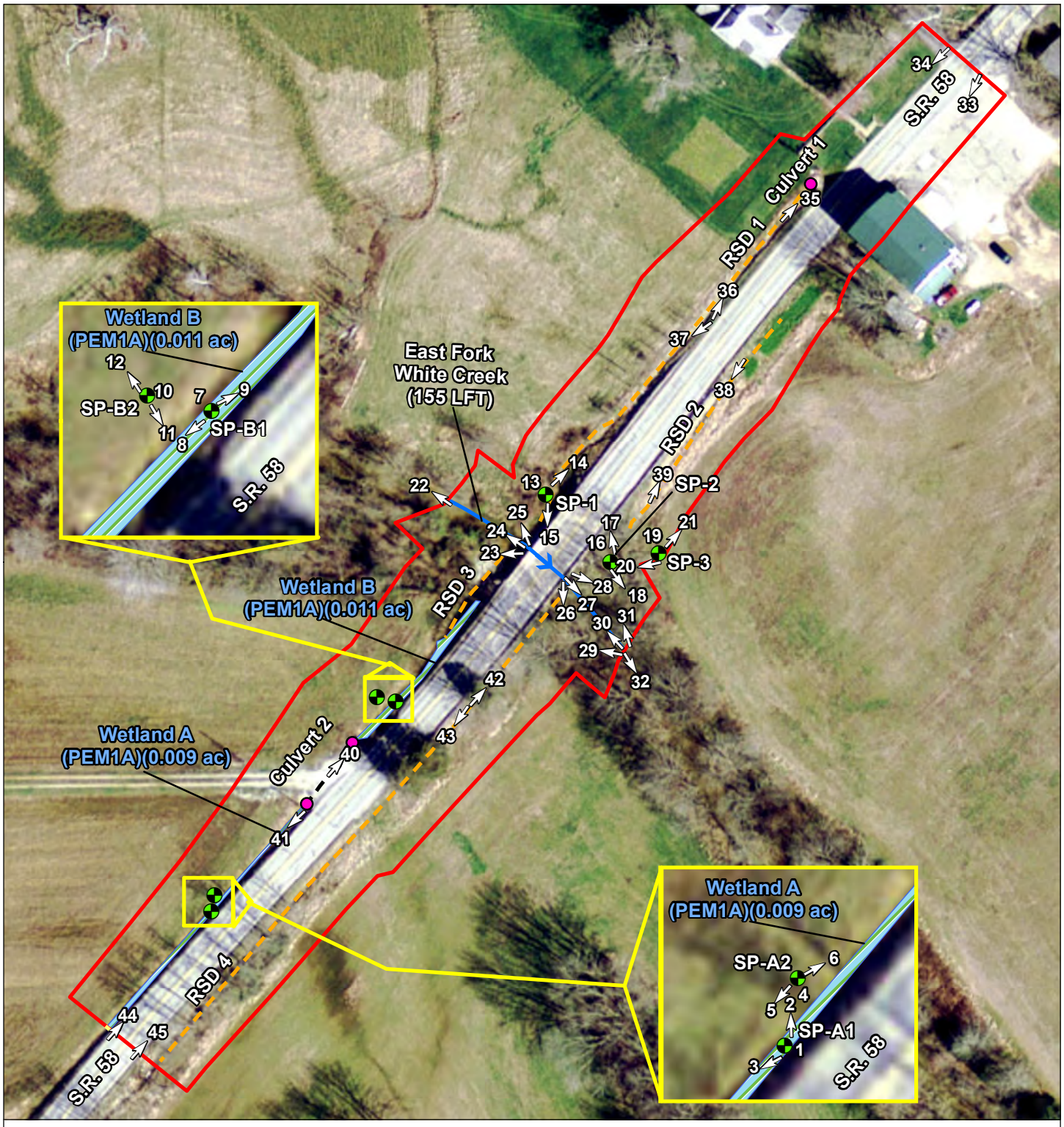
N

0 25 50 100

Feet

METRIC ENVIRONMENTAL

Exh. 4



Project Study Limits (PSL) | Wetland | Stream | Culvert

Sampling Point (SP) | Wetland Beyond PSL | Roadside Ditch (RSD) | Culvert Opening

Exhibit 5 - Photo Location Map
S.R. 58 over E.F. White Creek
Bridge Replacement
OhioTownship, Bartholomew County, IN
Des. No. 1600503
Metric Project No. 18-0008-8
Map Date: 1/9/2020
Map Author: Cory Shumate

All locations approximate

Source: Indiana Spatial Data Portal (2016)

N

0 25 50 100

Feet

METRIC ENVIRONMENTAL

Exh. 5

1. View of SP-A1, Wetland A, soil profile.

2. View of SP-A1, Wetland A, looking north.

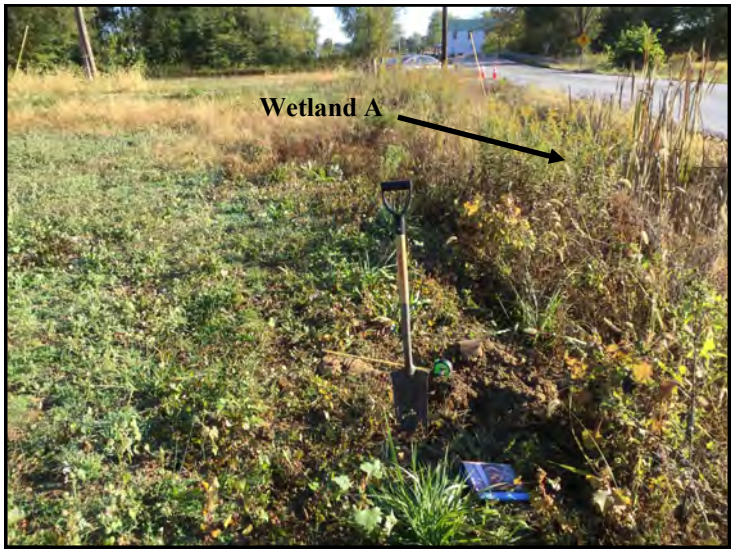
3. View of SP-A1, Wetland A, looking southwest.

4. View of SP-A2, Wetland A upland, soil profile.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

5. View of SP-A2, Wetland A upland, and Wetland A, looking southwest.



6. View of SP-A2, Wetland A upland, and Wetland A, looking northeast.

7. View of SP-B1, Wetland B, soil profile.

8. View of SP-B1, Wetland B, looking southwest.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

9. View of SP-B1, Wetland B, looking northeast.

10. View of SP-B2, Wetland B upland, soil profile.

11. View of SP-B2, Wetland B upland, looking southeast.

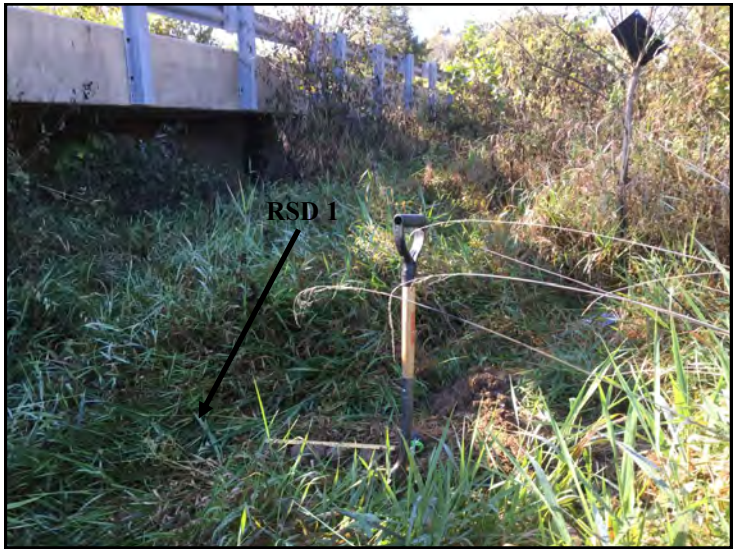
12. View of SP-B2, Wetland B upland, looking northwest.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

13. View of SP-1, upland sampling point 1, soil profile.

14. View of SP-1, upland sampling point 1, and Roadside Ditch (RSD) 1, looking northeast.



15. View of SP-1, upland sampling point 1, and RSD 1, looking south.

16. View of SP-2, upland sampling point 2, soil profile.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

17. View of SP-2, upland sampling point 2, looking northwest.

18. View of SP-2, upland sampling point 2, looking southeast.

19. View of SP-3, upland sampling point 3, soil profile.

20. View of SP-3, upland sampling point 3, looking southwest.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

21. View of SP-3, upland sampling point 3, looking northeast.

22. View of East Fork White Creek from northwestern project study limits (PSL), looking northwest (upstream).

23. View of southern bank of East Fork White Creek and RSD 3, looking west.

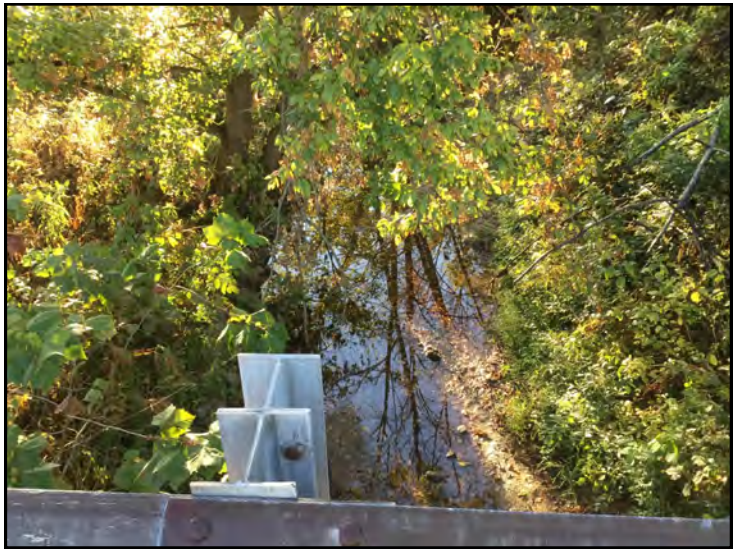
24. View of East Fork White Creek, looking northwest (upstream).

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

25. View of northern bank of East Fork White Creek, looking northwest.

26. View of southern bank of East Fork White Creek, looking south.



27. View of East Fork White Creek, looking southeast (downstream).

28. View of northern bank of East Fork White Creek, looking southeast.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

29. View of southern bank of East Fork White Creek from south-eastern PSL, looking northwest.

30. View of East Fork White Creek from southeastern PSL, looking northwest (upstream).

31. View of northern bank of East Fork White Creek from south-eastern PSL, looking northwest.

32. View of East Fork White Creek from southeastern PSL, looking southeast (downstream).

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

33. View from northeastern PSL, looking southwest.

34. View of S.R. 58 right-of-way (ROW) from northeastern PSL, looking southwest.

35. View of Culvert 1, looking northeast.

36. View of S.R. 58 ROW and RSD 1, looking northeast.

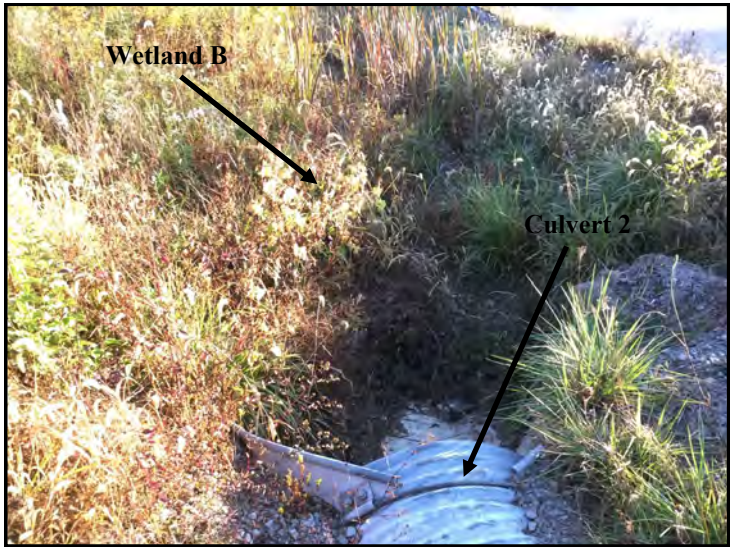
SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

37. View of S.R. 58 ROW and RSD 1, looking southwest.

38. View of RSD 2, looking southwest.

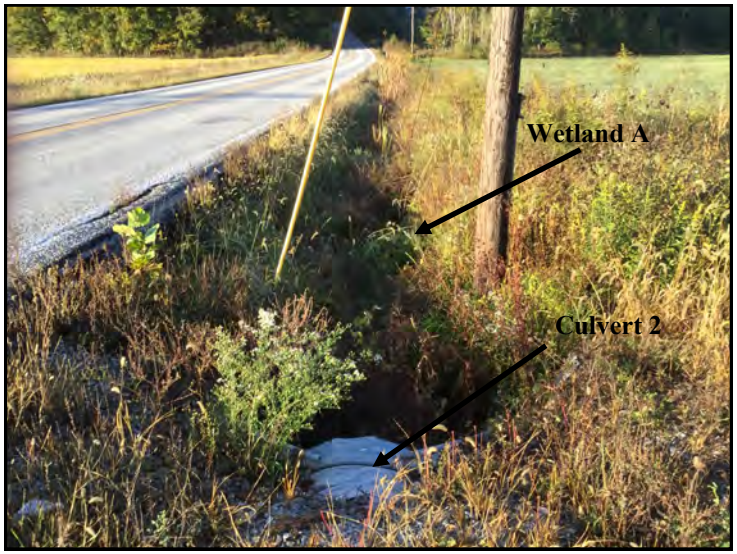
39. View of RSD 2, looking northeast.



40. View of Culvert 2 and Wetland B, looking northeast.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

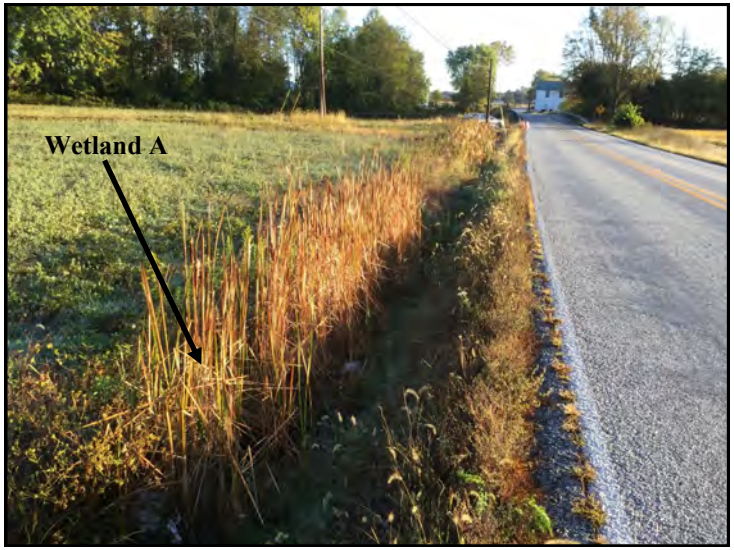
METRIC ENVIRONMENTAL



41. View of Culvert 2 and Wetland A, looking southwest.

42. View of RSD 4, looking northeast.

43. View of RSD 4, looking southwest.



44. View of Wetland A and S.R. 58 ROW from southwestern PSL, looking northeast.

SITE PHOTOGRAPHS—10/12/2019
S.R. 58 over E.F. White Creek
Bridge Replacement
Ohio Township, Bartholomew County, Indiana
Des. No. 1600503

METRIC ENVIRONMENTAL

45. View of RSD 4 and S.R. 58 ROW from southwestern PSL, looking northeast.

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-A1

Investigator(s): Zachary Root Section, Township, Range: Section 18, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12459 Long: -86.01713 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Wetland A (PEM1A) Sampling Point

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Typha latifolia*	50%	Yes	OBL
2. *Echinochloa crus-galli*	30%	Yes	FACW
3. *Carex squarrosa*	10%	No	OBL
4. *Juncus effusus*	10%	No	OBL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0% = 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70%	x1 =	0.7
FACW species	30%	x2 =	0.6
FAC species		x3 =	
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.00 (A)		1.3 (B)

Prevalence Index = B/A = 1.30

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.)

SOIL

Sampling Point: SP-A1

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
0-10	10YR 4/2	90	7.5YR 4/6	10	C	M, PL	SL	Prominent redox concentraitons
10-20	10YR 5/4	85	7.5YR 4/6	15	C	M, PL	SIL	Prominent redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** x **No** ___

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

Remarks:

Sampling point was located at the toe of a hillslope within a drainage ditch. Therefore, it meets the criteria of gemorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-A2

Investigator(s): Zachary Root Section, Township, Range: Section 18, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Top of slope Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12462 Long: -86.01712 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland A Upland Sampling Point

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		

Herb Stratum (Plot size: 5' radius)			
1. *Xanthium spinosum*	40%	Yes	FACU
2. *Rumex crispus*	20%	Yes	FAC
3. *Hibiscus trionum*	20%	Yes	UPL
4. *Convolvulus arvensis*	20%	Yes	UPL
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		

Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0% = 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: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	20%	x3 =	0.6
FACU species	40%	x4 =	1.6
UPL species	40%	x5 =	2
Column Totals:	1.00 (A)		4.2 (B)

Prevalence Index = B/A = 4.20

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.)

SOIL

Sampling Point: SP-A2

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
0-20	10YR 5/3	100					SL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-B1

Investigator(s): Zachary Root Section, Township, Range: Section 19, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): Concave

Slope (%): 0% Lat: 39.12497 Long: -86.0167 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes X No ____

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes x No ____

Remarks:
Wetland B (PEM1A) Sampling Point

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Fraxinus pennsylvanica*	10%	Yes	FACW
2.			
3.			
4.			
5.			
	10% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Typha latifolia*	30%	Yes	OBL
2. *Persicaria hydropiperoides*	30%	Yes	OBL
3. *Carex squarrosa*	20%	Yes	OBL
4. *Poa pratensis*	10%	No	FAC
5. *Juncus effusus*	5%	No	OBL
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	95% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0% = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	85%	x1 =	0.85
FACW species	10%	x2 =	0.2
FAC species	10%	x3 =	0.3
FACU species		x4 =	
UPL species		x5 =	
Column Totals:	1.05 (A)		1.35 (B)

Prevalence Index = B/A = 1.29

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.)

SOIL

Sampling Point: SP-B1

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
0-16	10YR 4/2	80	5YR 5/6	20	C	PL	SiCL	Prominent redox concentrations
16-20	10YR 5/3	35	10YR 2/1	30	C	M	SiCL	Mixed matrix; Distinct redox concentrations
	10YR 5/6	35						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

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

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

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

Wetland Hydrology Present? **Yes** x **No** _____

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

Remarks:

Sampling point was at the toe of a slope with concave local relief. Therefore, SP-B1 meets the criteria for geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-B2

Investigator(s): Zachary Root Section, Township, Range: Section 19, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Top of slope Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12498 Long: -86.01674 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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:
Wetland B (PEM1A) Upland Sampling Point

VEGETATION -- Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30' radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0%	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. *Daucus carota*	15%	Yes	UPL
2. *Taraxacum officinale*	15%	Yes	FACU
3. *Oxalis corniculata*	10%	No	FACU
4. *Rudbeckia hirta*	10%	No	FACU
5. *Setaria pumila*	5%	No	FAC
6. *Symphyotrichum pilosum*	5%	No	FACU
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	60%	= Total Cover	
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0%	= 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species		x2 =	
FAC species	5%	x3 =	0.15
FACU species	40%	x4 =	1.6
UPL species	15%	x5 =	0.75
Column Totals:	0.60 (A)		2.5 (B)

Prevalence Index = B/A = 4.17

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.)

SOIL

Sampling Point: SP-B2

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
0-20	10YR 4/3	100					SiCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-1

Investigator(s): Zachary Root Section, Township, Range: Section 19, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12535 Long: -86.01635 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present? Yes X No ____

Hydric Soil Present? Yes ____ No X

Wetland Hydrology Present? Yes X No ____

Is the Sampled Area within a Wetland? Yes ____ No x

Remarks:
Upland Sampling Point 1

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	15%	Yes	FAC
2.			
3.			
4.			
5.			
	15% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	80%	Yes	FACW
2. *Convolvulus arvensis*	10%	No	UPL
3. *Ambrosia trifida*	5%	No	FAC
4. *Asclepias syriaca*	5%	No	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	100% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1.			
2.			
	0% = 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% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	80%	x2 =	1.6
FAC species	20%	x3 =	0.6
FACU species	5%	x4 =	0.2
UPL species	10%	x5 =	0.5
Column Totals:	1.15 (A)		2.9 (B)

Prevalence Index = B/A = 2.52

Hydrophytic Vegetation Indicators:

- ____ 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- ____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
1-11	10YR 4/3	100					SiCL	
11-20	10YR 4/3	90	10YR 3/3	10	C	M	SiCL	Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X 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:

Sampling point was located on a stream terrace. Therefore, it meets the criteria for geomorphic position (D2).

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-2

Investigator(s): Zachary Root Section, Township, Range: Section 19, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Stream terrace Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12523 Long: -86.0162 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) NWI classification: NAD83

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)

Are Vegetation Yes, Soil Yes, or Hydrology Yes significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation Yes, Soil Yes, or Hydrology Yes 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**	
Hydric Soil Present?	Yes ____	No X	**within a Wetland?**	Yes ____ No x
Wetland Hydrology Present?	Yes X	No ____		

Remarks:
Upland Sampling Point 2

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Acer negundo*	20%	Yes	FAC
2. *Juglans nigra*	20%	Yes	FACU
3.			
4.			
5.			
	40% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. *Acer negundo*	10%	Yes	FAC
2.			
3.			
4.			
5.			
	10% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Phalaris arundinacea*	80%	Yes	FACW
2. *Cirsium arvense*	10%	No	FACU
3. *Symphyotrichum pilosum*	5%	No	FACU
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	95% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. *Apios americana*	10%	Yes	FACW
2.			
	10% = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 80% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	90%	x2 =	1.8
FAC species	30%	x3 =	0.9
FACU species	35%	x4 =	1.4
UPL species		x5 =	
Column Totals:	1.55 (A)		4.1 (B)

Prevalence Index = B/A = 2.65

Hydrophytic Vegetation Indicators:

- ____ 1-Rapid Test for Hydrophytic Vegetation
- X 2-Dominance Test is >50%
- X 3-Prevalence Index is ≤3.0[1]
- ____ 4-Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- ____ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: SP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					SiCL	
4-11	10YR 4/3	90	7.5YR 3/4	10	C	M	SiCL	Faint redox concentrations
11-20	10YR 4/3	80	7.5YR 3/4	20	C	M	SiCL	Faint redox concentrations

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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)
- X FAC-Neutral Test (D5)

Field Observations:

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

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

Saturation Present? Yes ___ No X Depth (inches): _____

(includes capillary fringe)

Wetland Hydrology Present? **Yes** x **No** _____

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

Remarks:

WETLAND DETERMINATION DATA FORM -- Midwest Region

Project/Site: Des 1600503 - S.R. 58 over E.F. White Creek City/County: Ogilville / Bartholomew County Sampling Date: 10/12/2019

Applicant/Owner: INDOT State: IN Sampling Point: SP-3

Investigator(s): Zachary Root Section, Township, Range: Section 19, Township 8 N, Range 5 E

Landform (hillslope, terrace, etc.): Top of slope Local relief (concave, convex, none): None

Slope (%): 0% Lat: 39.12524 Long: -86.01608 Datum: NAD83

Soil Map Unit Name: Stendal silt loam, 0 to 2 percent slopes, rarely flooded (StdAQ) - Hydric (5%) 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 No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes X No ____

Are Vegetation No, Soil No, or Hydrology No 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:
Upland Sampling Point 3

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Juglans nigra*	20%	Yes	FACU
2.			
3.			
4.			
5.			
	20% = Total Cover		
Sapling/Shrub Stratum (Plot size: 15' radius)			
1.			
2.			
3.			
4.			
5.			
	0% = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. *Brassica rapa*	10%	Yes	UPL
2. *Taraxacum officinale*	10%	Yes	FACU
3. *Symphyotrichum pilosum*	10%	Yes	FACU
4. *Solidago gigantea*	5%	No	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
13.			
14.			
15.			
16.			
17.			
18.			
19.			
20.			
	35% = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. *Toxicodendron radicans*	10%	Yes	FAC
2.			
	10% = 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: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x1 =	
FACW species	5%	x2 =	0.1
FAC species	10%	x3 =	0.3
FACU species	40%	x4 =	1.6
UPL species	10%	x5 =	0.5
Column Totals:	0.65 (A)		2.5 (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.)

SOIL

Sampling Point: SP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 4/3	50					SiCL	Mixed Matrix
	10YR 4/2	50						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Very Shallow Dark Surface (TF12)
- ___ 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:

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:

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: March 3, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Cory Shumate
Metric Environmental, LLC
6971 Hillsdale Court
Indianapolis, IN 46250
317-350-4896
corys@metricenv.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

The proposed project (Des. No. 1600503) includes the replacement of the existing bridge (Bridge No. 058-03-05885 C) which carries S.R. 58 over East Fork White Creek in Ohio Township, Bartholomew County, Indiana. The existing bridge is a two-span reinforced concrete girder bridge. The bridge floor is 80 ft. out-to-out with a clear roadway of 28.42 ft. The preferred alternative is to replace the existing structure with a three-span slab bridge with integral end bents and spill through slopes. The purpose of this project is to address the structural deficiencies of the existing structure. The need for this project is based on the structural deficiencies noted in the INDOT Bridge Inspection Report, dated January 11, 2018.

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

State: IN County/parish/borough: Bartholomew County City: Ogilville
Center coordinates of site (lat/long in degree decimal format):
Lat.: 39.12522°
Long.: -86.01638 °
Universal Transverse Mercator: 16 S 585023.91 E 4331133.08 N
Name of nearest waterbody: East Fork White Creek

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

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

TABLE OF AQUATIC RESOURCES IN REVIEW AREA WHICH "MAY BE" SUBJECT TO REGULATORY JURISDICTION.

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland A	39.12454	-86.01718	0.009 acre	Wetland	Section 404
Wetland B	39.12502	-86.01664	0.011 acre	Wetland	Section 404
East Fork White Creek	39.12523	-86.01635	155 LFT	Non-wetland Waters	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:
- [x] Map: Dated 1/9/2020

  Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [ ] U.S. Geological Survey Hydrologic Atlas: _____.
  - [x] USGS NHD data.
  - [x] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: New Bellsville and Waymansville, IN 7.5 min, 1994
- [x] Natural Resources Conservation Service Soil Survey. Citation: SSURGO Bartholomew County

\

- [x] National wetlands inventory map(s). Cite name: http://www.fws.gov/wetlands/ .
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: ; Effective _____

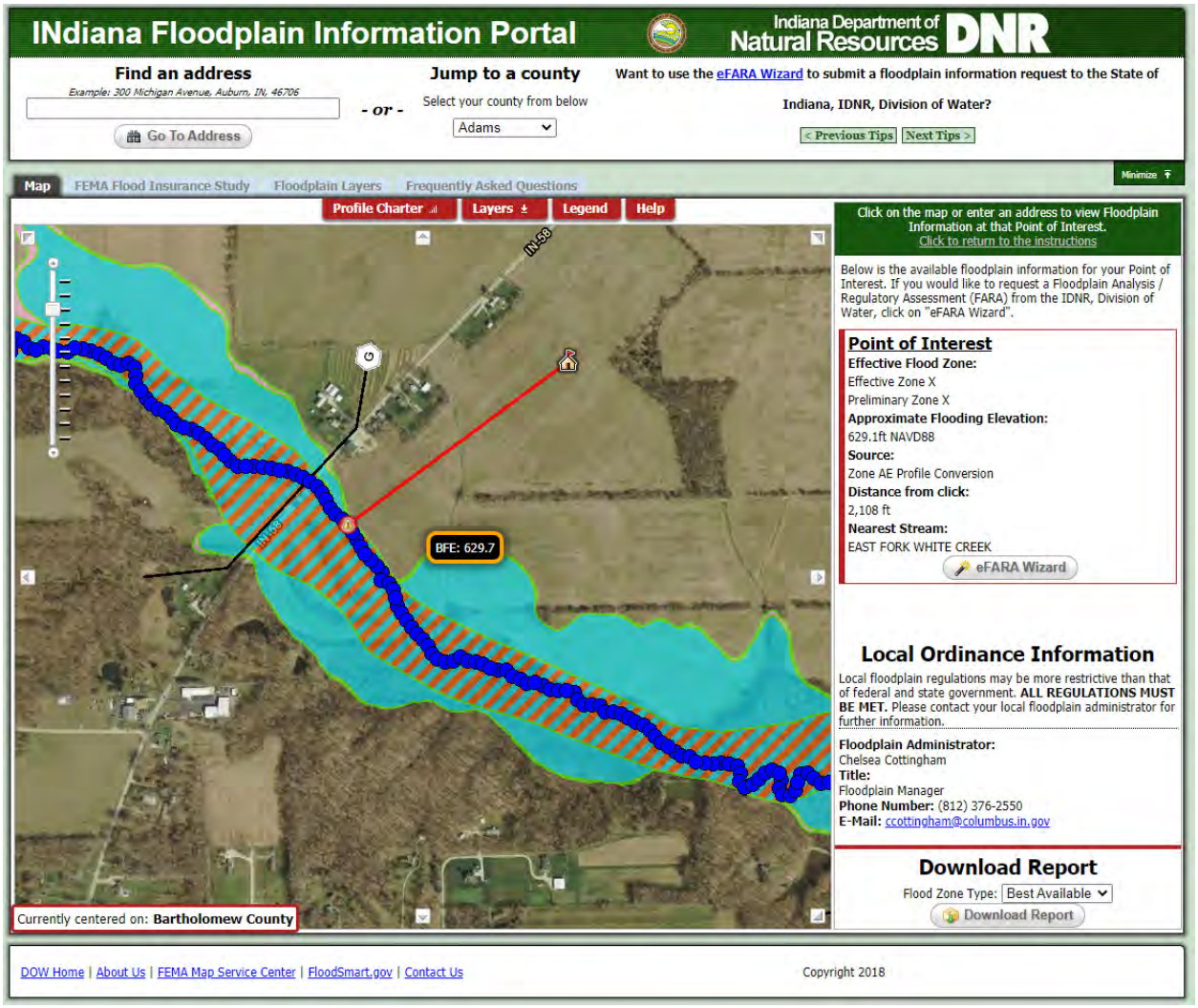
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Indiana Aerial Photograph, 2016 .

  or [x] Other (Name & Date): Site Photographs, 10/12/19.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____.

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

_____	CShumate 3/3/2020
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.


INdiana Floodplain Information Portal
Indiana Department of Natural Resources DNR
Find an address
Example: 300 Michigan Avenue, Auburn, IN, 46706
Go To Address
- or -
Jump to a county
Select your county from below
Adams
Want to use the eFARA Wizard to submit a floodplain information request to the State of Indiana, IDNR, Division of Water?
< Previous Tips
Next Tips >
Minimize
Map
FEMA Flood Insurance Study
Floodplain Layers
Frequently Asked Questions
Profile Charter
Layers
Legend
Help
IN-58
BFE: 629.7
Currently centered on: Bartholomew County
Click on the map or enter an address to view Floodplain Information at that Point of Interest.
Click to return to the instructions
Below is the available floodplain information for your Point of Interest. If you would like to request a Floodplain Analysis / Regulatory Assessment (FARA) from the IDNR, Division of Water, click on "eFARA Wizard".
Point of Interest
Effective Flood Zone:
Effective Zone X
Preliminary Zone X
Approximate Flooding Elevation:
629.1ft NAVD88
Source:
Zone AE Profile Conversion
Distance from click:
2,108 ft
Nearest Stream:
EAST FORK WHITE CREEK
eFARA Wizard
Local Ordinance Information
Local floodplain regulations may be more restrictive than that of federal and state government. ALL REGULATIONS MUST BE MET. Please contact your local floodplain administrator for further information.
Floodplain Administrator:
Chelsea Cottingham
Title:
Floodplain Manager
Phone Number: (812) 376-2550
E-Mail: ccottingham@columbus.in.gov
Download Report
Flood Zone Type: Best Available
Download Report
DOW Home | About Us | FEMA Map Service Center | FloodSmart.gov | Contact Us
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APPENDIX G
PUBLIC INVOLVEMENT

STRAND ASSOCIATES®

Strand Associates, Inc.®
629 Washington Street
Columbus, IN 47201
(P) 812-372-9911

NOTICE OF SURVEY

October 15, 2018

Mr. Adam Freyn
6468 E 500 S
Columbus, IN 47201

Re: Location Control Route Survey for Indiana Department of Transportation
S.R. 58 over East Fork of White River
Bartholomew County, Indiana
Des. No. 1600503

Dear Property Owner:

Our information indicates that property is occupied and/or owned by you near this proposed bridge replacement project. Our employees will conduct 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 allowed by law as stated in 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 provide any known name and/or address changes of the new owner or current occupant so that we may contact them about the survey.

The survey work will include mapping the location of features such as trees, buildings, fences, driveways, sidewalks, and utilities. The survey is needed for proper planning and design of this bridge replacement project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey.

At this stage we generally do not know what affect, if any, this project may eventually have on your property. If it is determined at a later time that your property will be affected, you will be contacted at that time with additional information. If any problems occur, please contact our field crew or myself at (812) 372-9911 or write to the address provided above. Thank you for your cooperation.

Sincerely,

STRAND ASSOCIATES, INC.®

Jacob E. Fitzsimmons, P.L.S.

JEF:vls\\\strand.com\projects\COL\4000--4099\4060\313\Survey\Letters\SR 58 EF White Creek NOTICE OF SURVEY.docx

Notice of Survey Letter List				
Name/Company	**Address**	**City**	**State**	**ZIP Code**
Adam Freyn	6468 E 500 S	Columbus	IN	47201
Tony A. & Kelly A. Strahl	7980 S SR 58	Columbus	IN	47201
Thomas Hill Trust et al.	PO Box 1386	Columbus	IN	47202
Edward L. & Joyce E. Meyer	8031 S State Road 58	Columbus	IN	47201

APPENDIX H
AIR QUALITY

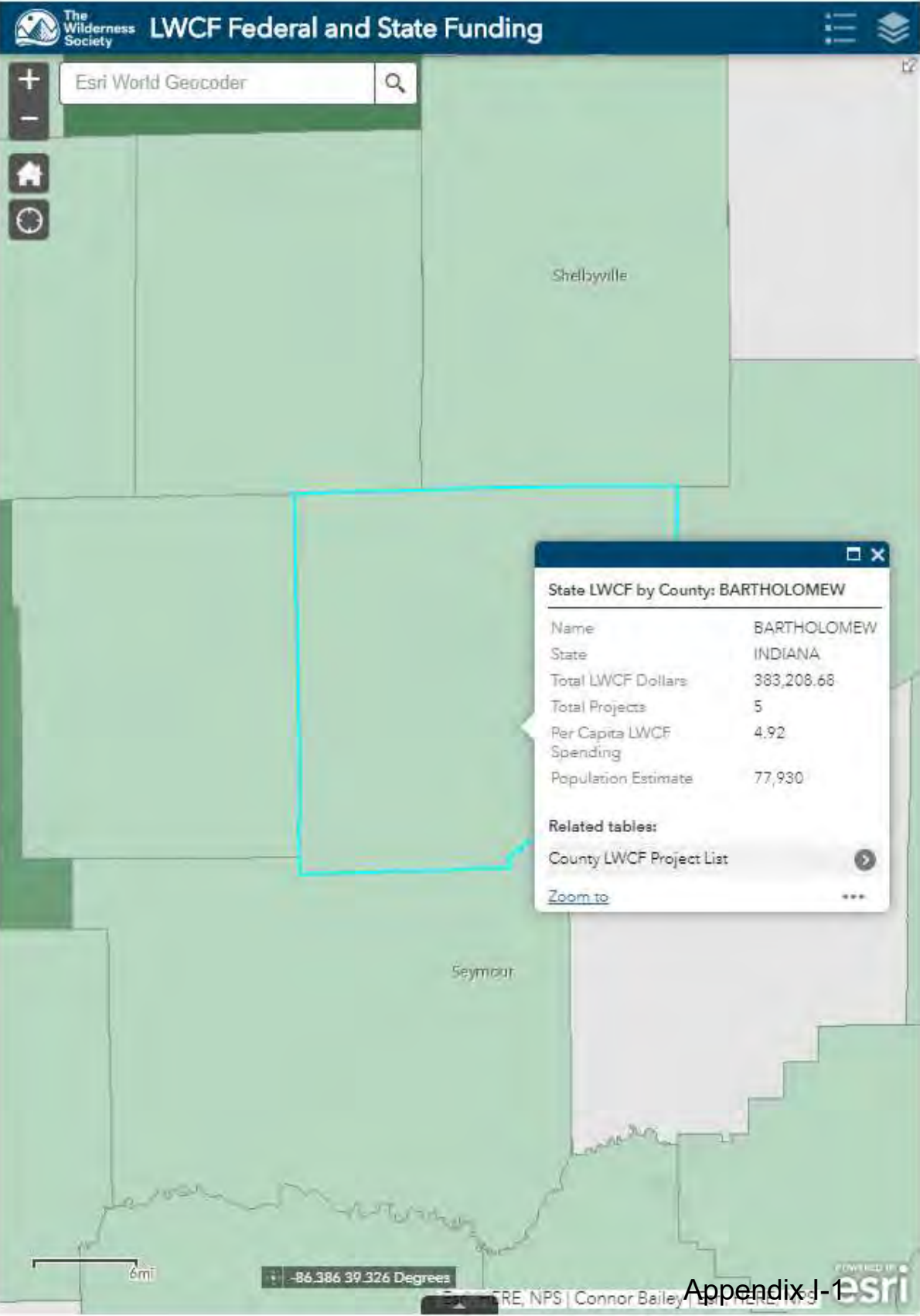
Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2020 - 2024

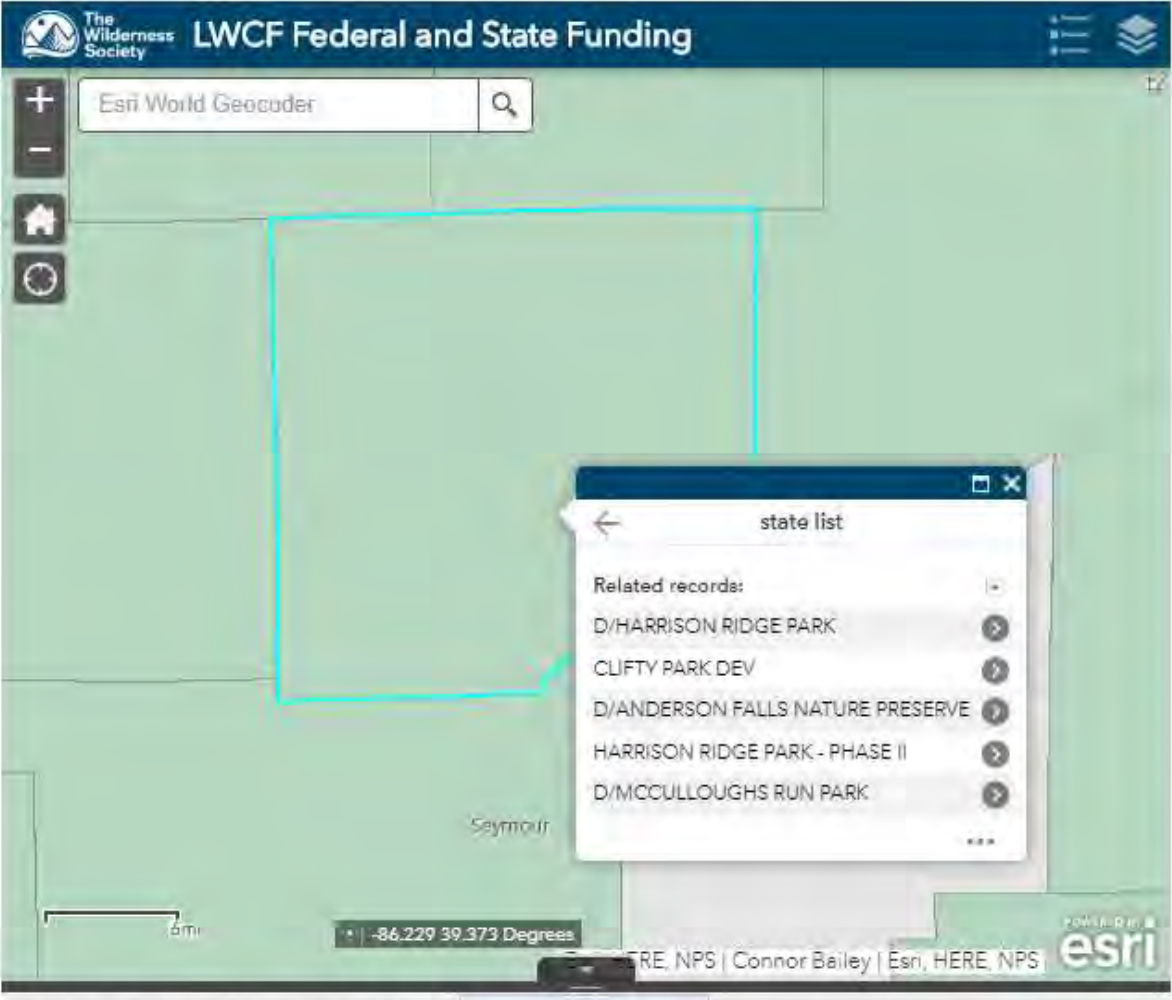
SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2020	2021	2022	2023	2024
Columbus	40375 / 1701323	Init.	ST 1026	Road Reconstruction (3R/4R Standards)	Talley Road between 25th Street and Rocky Ford Road	Seymour	1	STPBG		Columbus MPO	CN	$777,600.00	$0.00				$777,600.00	
Indiana Department of Transportation	40389 / 1700139	Init.	SR 46	New Interchange Construction	At the intersection of SR 46 and SR 11 in Columbus	Seymour	0	NHPP		Bridge Construction	CN	$5,614,760.80	$1,403,690.20	$7,018,451.00				
										Local Funds	CN	$12,000,000.00	$3,000,000.00	$15,000,000.00				
										Road Construction	CN	$1,979,418.40	$494,854.60	$2,474,273.00				
Indiana Department of Transportation	40407 / 1600503	Init.	SR 58	Bridge Replacement, Concrete	3.35 miles W of I-65 over E Fork White Creek	Seymour	0	STPBG		Bridge Construction	CN	$2,932,307.20	$733,076.80			$3,665,384.00		
										Bridge ROW	RW	$68,000.00	$17,000.00		$85,000.00			
Indiana Department of Transportation	40450 / 1701168	Init.	I 65	Replace Superstructure	00.72 mile S of US 31 at CR 650N/Tannehill Rd	Seymour	0	NHPP		Bridge Construction	CN	$1,026,285.30	$114,031.70	$1,140,317.00				
Columbus	40463 / 1701061	Init.	ST 1011	Enhancement	People Trail Phase 1- Along 17th Street between Noblitt Park and Donner Park	Seymour	0	STPBG		Local Funds	CN	$0.00	$22,500.00	$22,500.00				
										Columbus MPO	CN	$202,500.00	$0.00	$202,500.00				
Columbus	40464 / 1701062	Init.	ST 1025	Enhancement	People Trail Phase 2- Along 19th St. between Donner Park & Lincoln Park	Seymour	0	STPBG		Local Funds	CN	$0.00	$22,500.00		$22,500.00			
										Columbus MPO	CN	$202,500.00	$0.00		$202,500.00			
Columbus	40487 / 1702107	Init.	ST 1015	Pavement, Other	Taylor Road Phase 2- from 31st Street to Rocky Ford Road	Seymour	0	STPBG		Local Funds	CN	$0.00	$430,000.00		$430,000.00			
										Columbus MPO	CN	$1,720,000.00	$0.00		$1,720,000.00			
Indiana Department of Transportation	40992 / 1800340	Init.	I 65	Bridge Deck Overlay	01.01 mile N of SR 58, CR 350 S @ I-65	Seymour	0	NHPP		Bridge Construction	CN	$620,787.60	$68,976.40		$689,764.00			
Indiana Department of Transportation	41164 / 1801374	Init.	VA VARI	Environmental Mitigation	Environmental Mitigation site for SR 46 Interchange Project	Seymour	0	STPBG		Road Construction	CN	$1,422,624.80	$355,656.20		$1,778,281.00			
Indiana Department of Transportation	41638 / 1801784	Init.	US 31	New Signal Installation	Intersection of Lowell Rd	Seymour	.23	STPBG		District Other Construction	CN	$313,500.00	$78,375.00		$391,875.00			
Indiana Department of Transportation	41849 / 1802958	Init.	I 65	Added Travel Lanes	From SR 58 to SR 46 in Bartholomew County	Seymour	4.05	NHPP		Major New - Construction	CN	$7,425,000.00	$825,000.00		$8,250,000.00			
										Major New - Consulting	PE	$450,000.00	$50,000.00		$500,000.00			
										Demonstration Fund Program	CN	$18,000,000.00	$2,000,000.00		$20,000,000.00			

Report Created:6/25/2019 2:09:57PM

*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


The Wilderness Society
LWCF Federal and State Funding
Esri World Geocoder
Shelbyville
State LWCF by County: BARTHOLOMEW
Name BARTHOLOMEW
State INDIANA
Total LWCF Dollars 383,208.68
Total Projects 5
Per Capita LWCF Spending 4.92
Population Estimate 77,930
Related tables:
County LWCF Project List
Zoom to
Seymour
6mi
-86.386 39.326 Degrees
esri



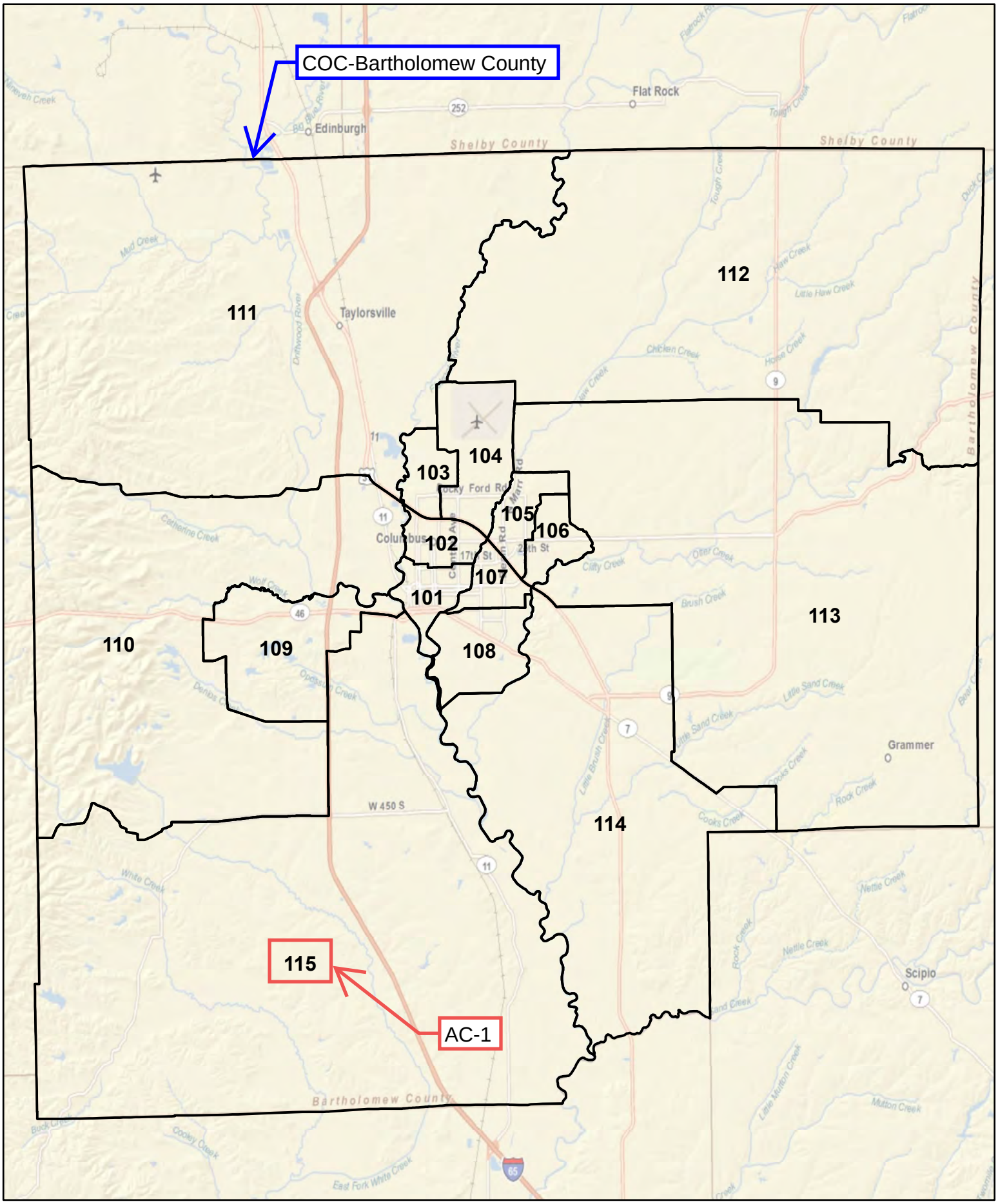
LWCF Federal Projects | State LWCF by County | County LWCF Project List

Options | Filter by map extent | Zoom to | Clear selection | Refresh

State	County	Grant ID Element	Type	Grant Element Title	Grant Sponsor	Fiscal Year
Indiana	BARTHOLOMEW	398	C	D/HARRISON RIDGE PARK	COLUMBUS PARK BOARD	1981
Indiana	BARTHOLOMEW	269	D	CLIFTY PARK DEV	COLUMBUS PARK BOARD	1977
Indiana	Bartholomew	399	C	D/ANDERSON FALLS NATURE PRESERVE	BARTHOLOMEW COUNTY PARK BOARD	1981
Indiana	BARTHOLOMEW	412	D	HARRISON RIDGE PARK - PHASE II	COLUMBUS PARK BOARD	1983
Indiana	BARTHOLOMEW	518	C	D/MCCULLOUGH RUN PARK	COLUMBUS PARK BOARD	2000

5 records 0 selected

Bartholomew County, Indiana Census Tracts 2010



Source: IBRC at Indiana University's Kelley School of Business, using tract boundaries from TIGER 2010 and ArcGIS Online StreetMap. March 2011

Minority & Low Income Data		
	COC - Bartholomew County, Indiana	AC-1: Census Tract 115
Total Population	81340	9332
Total White	69382	8163
Total Minority	11958	1169
Total Low-Income	10859	1313
Percent Minority	14.7%	12.5%
125% of COC	18.4%	18.4%
EJ Population of Concern		NO
Percent Low-Income	13.4%	14.1%
125% of COC	16.7%	16.7%
EJ Population of Concern		NO

County and Township https://data.census.gov/cedsci/

United States Census Bureau

S1701: POVERTY STATUS IN THE PAST 12 MONTHS census tract 115 ×

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The Census Bureau will not release its standard 2020 ACS 1-year estimates because of the impacts of the COVID-19 pandemic on data collection. Experimental estimates, developed from 2020 ACS 1-year data, will be available on the ACS Experimental Data webpage no later than November 30th. ×

// Search / Tables / S1701

POVERTY STATUS IN THE PAST 12 MONTHS

Survey/Program: American Community Survey **TableID:** S1701 **Product:** 2019: ACS 5-Year Estimates Subject Tables

Notes | Selections | 2 Geos | Years | 1 Topic | Surveys | Codes | Hide | Filter | Transpose | Margin of Error | Restore | Excel | Download | Print | More Data | Map

	Bartholomew County, Indiana			Census Tract 115, Bartholomew County, Indiana		
	Total	Below poverty level	Percent below poverty level	Total	Below poverty level	Percent below poverty level
Label	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Population for whom poverty status is determined	81,340	10,859	13.4%	9,332	1,313	14.1%
AGE						
SEX						
RACE AND HISPANIC OR LATINO ORIGIN						
White alone	69,382	8,630	12.4%	8,163	1,021	12.5%
Black or African American alone	1,444	150	10.4%	118	22	18.6%
American Indian and Alaska Native alone	179	145	81.0%	0	0	-
Asian alone	6,104	586	9.6%	714	48	6.7%
Native Hawaiian and Other Pacific Islander alone	42	0	0.0%	0	0	-
Some other race alone	2,067	862	41.7%	166	166	100.0%
Two or more races	2,122	486	22.9%	171	56	32.7%
Hispanic or Latino origin (of any race)	5,470	1,555	28.4%	698	166	23.8%
White alone, not Hispanic or Latino	66,301	7,887	11.9%	7,671	1,021	13.3%
EDUCATIONAL ATTAINMENT						
EMPLOYMENT STATUS						
WORK EXPERIENCE						
ALL INDIVIDUALS WITH INCOME BELOW THE FOLLO...						
UNRELATED INDIVIDUALS FOR WHOM POVERTY STATU...	15,653	3,520	22.5%	1,261	311	24.7%

Columns | Cell/Column Notes