Indiana Department of Transportation

County DeKalb Route County Road 56 Des. No. 1702950

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	County Road (CR) 56 / DeKalb County
Designation Number:	1702950
Project Description/Termini:	The project is a road reconstruction project that is located along CR 56 from 200 feet east of State Road (SR) 327 to 275 feet west of the north leg of CR 17, extending approximately 50 feet north and 50 feet south along the centerline of CR 56.

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
X	**Categorical Exclusion, Level 3** – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Approval _____ _____ _____ _____
ESM Signature Date ES Signature Date

Release for Public Involvement

N/A _____ _____ BDM for REB 6/11/2020
ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____
Office of Public Involvement Date

INDOT ES/District Env.
Reviewer Signature: _____ Date: _____

Name and Organization of CE/EA Preparer: Brittney Layton (Butler, Fairman and Seufert, Inc.)

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Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

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

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

Remarks: Notice of Entry letters were mailed to potentially affected property owners near the project area on April 9, 2019 notifying them about the project and that the individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the notice of entry letters is included in Appendix G, G1.

The project will meet the minimum requirements described in the current *Indiana Department of Transportation (INDOT) Public Involvement Manual* which requires the project sponsor to offer the public an opportunity to submit comment and/or request a public hearing. Therefore, a legal notice will appear in a local publication contingent upon the release of this document for public involvement. This document will be revised after the public involvement requirements are fulfilled.

Public Controversy on Environmental Grounds	Yes	No
Will the project involve substantial controversy concerning community and/or natural resource impacts?		X

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

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

Sponsor of the Project: DeKalb County Board of Commissioners INDOT District: Fort Wayne

Local Name of the Facility: CR 56

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

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

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

Need:

The need for the project is evidenced by the deteriorating conditions occurring along the section of CR 56 from 200 feet east of State Road (SR) 327 to 275 feet west of the north leg of CR 17 and is supported by the findings published in the *Transportation Plan DeKalb County*, *2014* (Appendix I, I1-I3) issued by the Northeastern Indiana Regional Coordinating Council (NIRCC). The DeKalb County plan states that the roadway is too narrow for the volume of traffic that is occurring along this section of the roadway. The Annual Average Daily Traffic (AADT) for CR 56 is 3,770 (2019). According to INDOT Design Manual 2013 Figure 53-2 (Appendix I, II4-I17), a facility of this type would require a 12-foot-wide lane provided in both directions to accommodate this volume. Additionally, evidence of ongoing roadway deterioration is presented in the Abbreviated Engineers Assessment, dated September 17, 2019 (Appendix I, I4-I6), which documents the presence of alligator and block cracks, edge cracking, as well as extensive patching, indicating poor condition throughout the project area. Furthermore, there exist horizontal and vertical alignments which create substandard sight-distance conditions along CR 56. The horizontal curve of CR 56 does not meet the minimum radius for this road type nor does the vertical alignment meet the standards for the vertical curve for stopping sight distance.

Purpose:

The purpose of the project is to perpetuate vehicular traffic along CR 56 by improving the road conditions to at least INDOT Design Manual specifications of a 12-foot-wide travel lane width in both directions, improve the roadway deterioration, and correcting the substandard horizontal and vertical alignments along CR 56.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: DeKalb Municipality: N/A

Limits of Proposed Work: The project limits are along CR 56 from 200 feet east of SR 327 and 275 feet west of the north leg of CR 17, in DeKalb County, and will extend approximately 50 feet north and 50 feet south along the centerline of CR 56.

Total Work Length: 1.55 Mile(s) Total Work Area: _____ Acre(s)

	Yes[1]	No
Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?		X
If yes, when did the FHWA grant a conditional approval for this project?	Date:	

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

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Location:

The project is located along CR 56 from 200 feet east of SR 327 to 275 feet west of the east junction of CR 17. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the United States Geological Service (USGS) Garrett, Indiana quadrangle and in Sections 10, 11, 14, and 15, Township 33 North, Range 12 East of the USGS Auburn, Indiana quadrangle. Project location maps are included in Appendix B, pages B1-B4.

Existing Conditions:

CR 56, a Minor Arterial, is a bituminous surface roadway with two 10-foot-wide through lanes adjoined by shoulders varying from approximately 0 to 1 foot wide. The surrounding area use consists primarily of agricultural with some residential properties. Three (3) equalization pipes are located along the project area. The equalization pipes are not associated with any stream features such as an ordinary high water mark (OHWM) or a defined stream channel. A 37-foot long, 12-inch in diameter equalization pipe (Eq. A) is located approximately 1,360 feet east of SR 327. A 45-foot long, 15-inch in diameter equalization pipe (Eq. B) is located approximately 2,470 feet east of SR 327. A 45-foot long, 12-inch in length equalization pipe (Eq. C) is located approximately 4,810 feet east of SR 327.

Preferred Alternative:

The project will reconstruct approximately 1.55 miles of CR 56, including widening the roadway from the existing typical clear roadway width of 22 feet, to a proposed typical clear roadway width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). A design exception will be required as DeKalb County desires to use a 5-foot-wide shoulder instead of the 8-foot-wide shoulder minimum to save in construction costs. To avoid impacting the existing power transmission poles on the south side of the road, the roadway will be shifted to the north by a maximum of 14 feet at any point. The widening of the roadway will occur to the northern side of the roadway, creating new roadbed and requiring right-of-way acquisition. Stormwater drainage along the project area will continue to be maintained by open roadside drainage as well as by equalizer pipes. The typical roadside ditches constructed for this project will have 4-foot wide flat bottoms and 4:1 side slopes. The existing three equalization pipes, Eq. A, Eq. B, and Eq. C, will be replaced along the same alignment with 15-inch diameter pipes that are each 50 feet in length, in order to preserve the existing stormwater maintenance.

The majority of the project will include minor adjustments (less than 2 feet) to the existing vertical alignment of the roadway. Due to the presence of peat and marl located approximately 0.5 mile east of SR 327 along CR 56, which has the potential to cause future roadway settling, excavation of the peat and marl, up to a depth of 15 feet will be necessary. The excavated area will be replaced with consolidated fill before construction the road. No lighting is being added, modified, or replaced along the project area.

It is anticipated that the project area will be closed for approximately 12 to 18 months and a detour will be implemented during this time. The proposed detour will utilize SR 327, SR 8, and Interstate I-69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles to a through trip and 18.8 miles to a round trip.

The termini for the project are considered logical because this project will tie into sections of CR 56 where similar improvements have been completed at both the west and east termini. This project has independent utility and will maintain and improve the existing infrastructure.

The preferred alternative meets the purpose of the project which is to address ongoing roadway deterioration, narrow roadway geometrics, and substandard horizontal and vertical alignments along CR 56.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

Alternative 1: Do-Nothing Alternative:

This alternative proposes that no construction take place. There would be no project costs or environmental impacts; however, this alternative does not address the ongoing roadway deterioration, and narrow roadway geometrics along CR 56. Therefore, the Do-Nothing Alternative does not meet the project purpose and need and was dismissed from further consideration.

Alternative 2: Existing Alignment Alternative

The original alternative considered widening CR 56 along the existing alignment. However, in order to widen CR 56 along the existing roadbed would involve relocating the transmission poles, which would cost in excess of $200,000 per pole. Although this alternative would have met the stated purpose and need, it was not considered economically feasible and was discarded.

Alternative 3: Avoidance of Wetlands Alternative

An alternative alignment was considered that avoided wetland impacts but was eventually discarded. This alignment would have impacted properties on both the north and south sides of the road as well as the power poles. It would have created an exorbitant construction cost, involve multiple relocations of power poles, and required a much greater right-of-way impact to property owners.

The Do Nothing Alternative is not feasible, prudent or practicable because (*Mark all that apply*):

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

ROADWAY CHARACTER: CR 56

Functional Classification:	Minor Arterial			
Current ADT:	3,748	VPD (2015)	Design Year ADT: 4,573	VPD (2038)
Design Hour Volume (DHV):	355	Truck Percentage (%)	10	
Designed Speed (mph):	55	Legal Speed (mph):	55	

	Existing		Proposed	
Number of Lanes:	2 at 10 feet		2 at 12 feet	
Type of Lanes:	2 through lanes		2 through lanes	
Pavement Width:	20	feet	30	feet
Shoulder Width:	2 at 0 to 1	feet	2 at 5 (3 feet paved and 2 feet compacted aggregate)	feet
Median Width:	N/A	feet	N/A	feet
Sidewalk Width:	N/A	feet	N/A	feet

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

If the proposed action has multiple roadways, this section should be filled out for each roadway.

DESIGN CRITERIA FOR BRIDGES

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

	Existing		Proposed	
Bridge Type:	N/A		N/A	
Number of Spans:	N/A		N/A	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	N/A	ft.	N/A	ft.
Outside to Outside Width:	N/A	ft.	N/A	ft.
Shoulder Width	N/A	ft.	N/A	ft.
Length of Channel Work:	N/A	ft.	N/A	ft.

Describe bridges and structures; provide specific location information for small structures.

Remarks:

The project will include the replacement of three stormwater (3) equalization pipes which are located along the project area.

- A 37-foot long, 12-inch in diameter equalization pipe (Eq. A) is located approximately 1,360 feet. east of SR 327.
- A 45-foot. long, 15-inch in diameter equalization pipe (Eq. B) is located approximately 2,470 feet east of SR 327.
- Another 45-foot long, 12-inch in length equalization pipe (Eq. C) is located approximately 4,810 feet east of SR 327.

The existing equalization pipes are not associated with any stream features, such as an ordinary high water mark (OHWM) or a defined stream channel, but rather storm water drainage.

All three (3) equalization pipes will be replaced at the existing locations with 50-foot long pipes that are 15 inches in diameter.

	Yes	No	N/A
Will the structure be rehabilitated or replaced as part of the project?	X		

If the proposed action has multiple bridges or small structures, this section should be filled out for each structure.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

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Remarks: It is anticipated that the project area will be closed for approximately 12 to 18 months while utilizing a detour. The proposed detour will utilize SR 327, SR 8, and Interstate I-69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles, and about 10 minutes, to a through trip and 18.8 miles, and about 20 minutes, to a round trip. Provisions will be made for access by local traffic.

There are no fairgrounds, festival sites, or local special events that will be hindered by this project. Multiple local websites, including the DeKalb County Fair Office, was checked for conflicts.

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 480,088 (FY2019) Right-of-Way: $ 195,000 (FY 2021) Construction: $ 2,599,974 (FY 2023)

Anticipated Start Date of Construction: Summer 2023

Date project incorporated into STIP July 2, 2019 (2020-2024 STIP)

	Yes	No
Is the project in an MPO Area?		X

If yes,
Name of MPO N/A

Location of Project in TIP N/A

Date of incorporation by reference into the STIP N/A

RIGHT OF WAY:

Land Use Impacts	Permanent (acre(s))	Temporary (acre(s))
Residential	1.45	0.23
Commercial	0.09	0.01
Agricultural	5.04	0.01
Forest	0.62	0.00
Wetlands	0.89	0.00
Other: Fallow Field	0.36	0.00
Other:	0.00	0.00
TOTAL	8.45	0.25

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

Remarks: The project requires a total of approximately 8.45 acres of permanent ROW for this project. Of the total 8.45 acres of permanent ROW needed for this project, 1.45 acres will be from residential properties, 0.09 acres will be from commercial properties, 5.04 acres will be from agricultural properties, 0.62 acre will be from forested areas, 0.36 acre will be from fallow fields, and 0.89 acre will be from wetlands. The project

also requires a total of approximately 0.25 acre of temporary right-of-way. Of the total 0.25 acre of temporary ROW required for this project, 0.23 acres will be from residential properties, 0.01 acre will be from commercial property, and 0.01 acre will be from agricultural property.

The existing width of the right-of-way (ROW) along CR 56 is approximately 22.5 feet on either side of the roadway centerline for a total width of 45 feet.

The proposed typical and maximum permanent ROW width along CR 56 is 100 feet, including 50 feet north and south of the proposed roadway center line.

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

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

SECTION A – ECOLOGICAL RESOURCES

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

Remarks:

Based on a desktop review, site visits on March 19 and June 10, 2019 by Butler, Fairman, & Seufert, Inc. (BF&S), the aerial map of the project area (Appendix B, B4) and the water resource map in the Red Flag Investigation (RFI) report (Appendix E, E7) there are no streams, rivers, watercourses or jurisdictional ditches within the 0.5 mile search radius. No streams, rivers, watercourses, or jurisdictional ditches are present within the project area; therefore, no impacts are expected.

A *Waters of the U.S. Determination* was completed for the project on May 12, 2020. Please refer to Appendix F for the *Waters of the U.S. Determination*. It was determined that no streams, rivers, or jurisdictional ditches were identified within the project study area. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent on January 3, 2020 to the Indiana Department of Natural Resources (IDNR), the U.S. Fish and Wildlife Service (USFWS), and the U.S. Army Corps of Engineers (USACE) (Appendix C, C1-C4).

USFWS responded on January 10, 2020, stating that they will not be providing a comment letter due to the proposed project having minor impacts on natural resources and no known presence of Federally endangered species in the project area (Appendix C, C5). The project does not qualify for the USFWS Interim policy due to impacting more than 0.1 acre of wetlands.

IDNR responded on January 29, 2020, indicating that formal approval under Division of Water programs is not required for this project. No specific recommendations pertaining to stream impacts was provided (Appendix C, C6-C7).

The USACE did not respond to the early coordination request.

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Other Surface Waters	**Presence**	**Impacts Yes**	**No**
Reservoirs			
Lakes			
Farm Ponds			
Detention Basins			
Storm Water Management Facilities			
Other:			

Remarks:

Based on a desktop review, a site visits on March 19 and June 10, 2019 by BF&S, the aerial map of the project area (Appendix B, B4) and the water resource map in the Red Flag Investigation (RFI) Report (Appendix E, E7), there is one lake located within the 0.5 mile search radius. The lake feature is located approximately 0.29 mile south of the project area and, therefore, no impact is expected.

A *Waters of the U.S. Determination* was completed for the project on May 12, 2020. Please refer to Appendix I for the *Waters of the U.S. Determination*. It was determined that no surface waters were observed within the study area. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent on January 3, 2020 to the IDNR, USFWS, and the USACE (Appendix C, C1-C4).

The USFWS responded on January 10, 2020, stating that they will not be providing a comment letter due to the proposed project having minor impacts on natural resources and no known presence of Federally endangered species in the project area (Appendix C, C5).

IDNR responded on January 29, 2020, indicating that formal approval under Division of Water programs is not required for this project. No specific recommendations pertaining to other water resources was provided (Appendix C, C6-C7).

The USACE did not respond to the early coordination request.

Wetlands	**Presence**	**Impacts Yes**	**No**
	x	x	

Total wetland area: 1.74 acre(s) Total wetland area impacted: 0.89 acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
Wetland 1	PEM1Bd	0.66	0.19	A wetland located approximately 0.42 mile east of SR 327 along the north side of CR 56
Wetland 2	PEM1A	0.92	0.66	A wetland located approximately 0.42 mile east of SR 327 along the south side of CR 56
Wetland 3	PEM	0.16	0.04	A wetland located in the southeast quadrant of the CR 56 intersection with the south leg of CR 17

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

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in
(Mark all that apply and explain):

Substantial adverse impacts to adjacent homes, business or other improved properties;	
Substantially increased project costs;	
Unique engineering, traffic, maintenance, or safety problems;	X
Substantial adverse social, economic, or environmental impacts, or	X
The project not meeting the identified needs.	X

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks:

Based on a review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html), (Appendix F, F8-F9) a site visit on March 19 and June 10, 2019 by BF&S, the USGS topographic map (Appendix B, B3), and the RFI report (Appendix E, E7), there are 23 wetlands located within the 0.5 mile search radius. There are three (3) wetlands present within or adjacent to the project area. Approximately 0.19 acre of impacts are anticipated to Wetland 1 while 0.66 acre and 0.16 acre of impacts are expected to Wetlands 2 and 3, respectively. These impacts are unavoidable due in order to minimize right-of-way impacts. Mitigation will be required.

Wetland 1

Wetland 1 is mapped primarily north of CR 56 approximately 0.43 miles east of SR 327. Wetland 1 has been identified as a freshwater wetland classified as a palustrine, emergent, persistent, seasonally saturated, partially drained/ditched (PEM1Bd) habitat approximately 0.66 acres in size. This is considered to be of poor quality. Wetland 1 should be considered a jurisdictional Waters of the U.S. There is approximately 0.19 acre of impact to Wetland 1 that is unavoidable due to the shift in the road design.

Wetland 2

Wetland 2 is mapped primarily south of CR 56 approximately 0.43 miles east of SR 327. Wetland 2 has been identified as a freshwater wetland classified as a palustrine, emergent, persistent, temporarily flooded (PEM1A) wetland of approximately 0.92 acres in size. This is considered to be of poor quality. Wetland 1 should be considered a jurisdictional Waters of the U.S. There is approximately 0.66 acre of impact to Wetland 2 that is unavoidable due to the shift in the road design.

Wetland 3

Wetland 3 is located primarily north of CR 56. Wetland 3 has been identified as a freshwater emergent wetland classified as a palustrine, emergent habitat approximately 0.16 acre in size. This is considered to be of poor quality. Wetland 3 should be considered a jurisdictional Waters of the U.S. There is approximately 0.04 acre of impact to Wetland 3 that is unavoidable due to the shift in the road design.

Up to approximately 0.89 acre of permanent impacts are anticipated to occur to the wetlands as part of this project. All practicable measures to minimize impacts to the wetlands will be implemented. It is not feasible to avoid these described wetland impacts as doing so would greatly increase construction costs, impacts to property owners on both the north and south sides of CR 56, and cause greater right-of-way impacts. All wetlands not to be impacted will be separated from the construction areas with orange fencing and signage reading “Do Not Disturb”. A note will be marked on the plans and to the contractor, as well as being a firm commitment in the Environmental Commitments section of this CE Document.

There are no practical alternative to the proposed new construction in wetlands and the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. FHWA approval of this document will constitute approval of the adverse impacts to wetlands.

A *Waters of the U.S. Determination* was completed for the project on May 12, 2020. Please refer to Appendix F for the *Waters of the U.S. Determination*. It was determined that three wetlands were identified within the project study area. All identified wetlands are considered jurisdictional features. Every effort should be taken to avoid or minimize impacts to these features. The USACE makes all final determinations regarding jurisdiction.

Early coordination letters were sent on January 3, 2020 to the IDNR, the USFWS, the USACE, and the Northeastern Indiana Regional Coordinating Council (NIRCC) as they are the Official with Jurisdiction (OWJ) (Appendix C, C1-C4).

USFWS responded on January 10, 2020 stating that they will not be providing a comment letter due to the proposed project having minor impacts on natural resources and no known presence of Federally endangered species in the project area (Appendix C, C5).

IDNR responded on January 29, 2020, indicating that formal approval under Division of Water programs is not required for this project. In general, the recommendations from the IDNR include contacting and coordinating with the IDEM 401 program and the USACE 404 program (Appendix C, C6-C7).

The USACE did not respond to the early coordination request.

NIRCC responded on February 3, 2020 advising that there were potential wetlands that intersected the project approximately 0.5 miles east of SR 205 (Appendix C, page C43).

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

	Presence	Impacts	
		Yes	NO
Terrestrial Habitat	X	X	
Unique or High Quality Habitat			

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks:

Based on a desktop review, site visits on March 19 and June 10, 2019 by BF&S, and the aerial map of the project area (Appendix B, B4), there are agricultural, fallow agricultural, forested, and mowed grass habitats within the project area. The dominant vegetation located within the project area is swamp white oak (*Quercus bicolor*) in the overstory, hackberry (*Celtis occidentalis*) in the sapling shrub stratum, red fescue (*Festuca rubra*), switchgrass (*Panicum virgatum*) and great ragweed (*Ambrisia trifida*), in herb stratum, and Virginia creeper (*Parthenocissus quinquefolia*), in the woody vine stratum. Approximately 5.40 acres of agricultural habitat and fallow field, consisting mainly of corn and soybean crops, will be permanently affected as a part of this project. Approximately 0.01 acre of agricultural habitat will be temporarily affected as a part of this project.

Approximately 1.45 acres of mowed grass habitat will be permanently affected, and 0.23 acre of mowed grass habitat will be temporarily affected as a result of this project. Approximately 0.35 acre of trees will be removed during the winter as a part of this project. These habitats are not considered to be unique or high-quality habitats. Mitigation is not anticipated to be required. Avoidance alternatives would not be practicable because avoiding terrestrial impacts would prevent the purpose of the project, which is in part

to address the narrow lane widths and improve the horizontal and vertical alignments of CR 56, from being met.

Early coordination letters were sent on January 3, 2020 to the IDNR and the USFWS (Appendix C, C1-C4).

USFWS responded on January 10, 2020, stating that they will not be providing a comment letter due to the proposed project having minor impacts on natural resources and no known presence of Federally endangered species in the project area (Appendix C, C5).

IDNR responded on January 29, 2020, with standard recommendations to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources. (Appendix C, C6-C7).

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

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst	**Yes**	**No**
Is the proposed project located within or adjacent to the potential Karst Area of Indiana?		X
Are karst features located within or adjacent to the footprint of the proposed project?		X
If yes, will the project impact any of these karst features?		

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks: Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, B3), and the RFI report (Appendix E, E2 and E7), there are no karst features within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, C8-C10). The IGS Environmental Assessment Report stated that the project area is in an area with moderate liquefaction potential, low potential for bedrock and sand and gravel resources, and no active or abandoned mineral resource extraction sites. The response from IGS has been communicated with the designer on January 17, 2020.

Threatened or Endangered Species	**Presence**	**Impacts** Yes	**Impacts** No
Within the known range of any federal species	X	X	
Any critical habitat identified within project area			
Federal species found in project area (based upon informal consultation)			
State species found in project area (based upon consultation with IDNR)			

	Yes	**No**
Is Section 7 formal consultation required for this action?		X

Remarks: Based on a desktop review and the RFI (Appendix E, E4), completed by BF&S on February 26, 2019, the IDNR DeKalb County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, E10-E11). The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR early coordination response letter dated January 29, 2020 (Appendix C, C6-C7), the Natural Heritage Program's Database has been checked and to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. No critical habitats were identified by the IDNR. No project specific

recommendations were included in the IDNR response to early coordination. According to the Official Species List provided by the USFWS on January 2, 2020 (Appendix C, C13-C18), there are no critical habitats within the project area under the USFWS jurisdiction.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, C13-C18). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened Northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and Northern long-eared bat.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on January 2, 2020, and based on the responses provided, the project was found to "may affect-not likely to adversely affect" the Indiana bat and/or the NLEB. INDOT reviewed and verified the effect finding on January 9, 2020 and requested USFWS's review of the finding (Appendix C, C19-32). No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document

The official species list generated from IPaC indicated no other species present within the project area. The project does not qualify for the USFWS Interim Policy. USFWS responded on January 10, 2020, stating that they will not be providing a comment letter due to the proposed project having minor impacts on natural resources and no known presence of Federally endangered species in the project area (Appendix C, page C11). Further coordination with USFWS is not needed.

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

SECTION B – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area			
Public Water System(s)			
Residential Well(s)	X		X
Source Water Protection Area(s)			
Sole Source Aquifer (SSA)			

If a SSA is present, answer the following:

	Yes	No
Is the Project in the St. Joseph Aquifer System?		
Is the FHWA/EPA SSA MOU Applicable?		
Initial Groundwater Assessment Required?		
Detailed Groundwater Assessment Required?		

Remarks:

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

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on January 23, 2020 by BF&S. This project is not located within a Wellhead Protection Area or Source Water Area. No impacts are expected.

The Indiana Department of Natural Resources Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on January 23, 2020 by BF&S. The nearest well is located along the existing CR 56 approximately 1,000 feet east of the western project terminus and approximately 117 feet north of centerline of CR 56. An additional well is located approximately one mile east of the western project terminus along CR 56 and approximately 65 feet south of the centerline of CR 56. No wells are located within the project area. Therefore, no impacts are expected. Should it be determined during the right-of-way phase that these wells are affected, a cost to cure will likely be included in the appraisal to restore the wells.

Based on a desktop review of the INDOT MS4 website (https://entapps.indot.in.gov/MS4/) by BF&S on February 17, 2020 and the RFI report (Appendix E, E3 and E8); this project is located in an Urban Area Boundary (UAB) location where IDEM has not yet issued a Rule 13 Permit. However, the project will comply with storm water quality management plan as determined and approved by INDOT during design. Measures to comply with the stormwater quality management plan include erosion control measures to eliminate sediment from leaving the site and revegetating any disturbed land.

Based on a desktop review, site visits March 19, and June 10, 2019 by BF&S, the aerial map of the project area (Appendix B, page B4), no public water systems were identified. Therefore, no impacts are expected.

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

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies".

Remarks:

The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) was accessed on February 17, 2020 by BF&S. This project is not located in a regulatory floodplain as determined from approved Federal Emergency Management Agency (FEMA) floodplain map (Appendix F, F13-F14). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

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

Total Points (from Section VII of CPA-106/AD-1006* **158**

**If 160 or greater, see CE Manual for guidance.*

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, site visits on March 19 and June 10, 2019 by BF&S, the aerial map of the project area (Appendix B, B4), the project will convert 8.45 acres of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on January 3, 2020 to Natural Resources Conservation Services (NRCS) (Appendix C, C1-C4). Coordination with NRCS resulted in a score of 158 on the AD 1006 Form (Appendix C, C12). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	3	January 30, 2020	

Results of Research

	Eligible and/or Listed Resource Present
Archaeology	
NRHP Buildings/Site(s)	
NRHP District(s)	
NRHP Bridge(s)	

Project Effect

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

Documentation (mark all that apply)

	Documentation Prepared	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report			
Archaeological Records Check/ Review			
Archaeological Phase Ia Survey Report	X	11/15/2019	
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination			
800.11 Documentation			

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

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please

indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks:

On January 30, 2020 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 3 under the Minor Projects Programmatic Agreement, (Appendix D, D1-D4). Category B, Type 3 includes Condition Ai: work in previously disturbed soils; OR Aii: work in undisturbed soils and an archaeological investigation conducted by the applicant and reviewed by INDOT Cultural Resources Office determines that no National Register-listed or potentially National Register-eligible archaeological resources are present within the project area (*Condition A*). Condition B: Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource. Both Conditions A and B must be met.

An archaeological records check and Phase Ia field reconnaissance was conducted by personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. No resources were identified that possess the significance, integrity, and/or age necessary to be considered potentially eligible for the National Register. The report has been reviewed by INDOT Cultural Resources personnel and it is their opinion that the report is acceptable, and they concurred with the evaluations and recommendations made by Bubb and Culver (November 15, 2019) (Appendix D, D5-D6). No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

Section 4(f) Involvement (mark all that apply)

	Presence	Use	
Parks & Other Recreational Land		**Yes**	**No**
Publicly owned park	☐	☐	☐
Publicly owned recreation area	☐	☐	☐
Other (school, state/national forest, bikeway, etc.)	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*	☐	
"De minimis" Impact*	☐	
Individual Section 4(f)	☐	☐

	Presence	Use	
Wildlife & Waterfowl Refuges		**Yes**	**No**
National Wildlife Refuge	☐	☐	☐
National Natural Landmark	☐	☐	☐
State Wildlife Area	☐	☐	☐
State Nature Preserve	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*	☐	
"De minimis" Impact*	☐	
Individual Section 4(f)	☐	☐

Indiana Department of Transportation

County DeKalb Route County Road 56 Des. No. 1702950

	Presence	Use	
Historic Properties		**Yes**	**No**
Sites eligible and/or listed on the NRHP	☐	☐	☐

	Evaluations Prepared	FHWA Approval date
Programmatic Section 4(f)*	☐	
"De minimis" Impact*	☐	
Individual Section 4(f)	☐	☐

**FHWA approval of the environmental document also serves as approval of any Section 4f Programmatic and/or De minimis evaluation(s) discussed below.*

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

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

Based on a desktop review, site visits on March 19 and June 10, 2019 by BF&S, the aerial map of the project area (Appendix B, B4), and https://maps.indiana.edu/ and the RFI report (Appendix E, E2), there are three existing 4(f) resources located within the 0.5 mile search radius. One proposed trail is located within the project area. Coordination with Northeastern Indiana Regional Coordinating Council (NIRCC), the Official with Jurisdiction for the trail, and Region 3A Development and Regional Planning Commission revealed that the planned trail is located approximately 415 feet east of SR 205 and intersects with CR 56. It is not a current project and will not affect the CR 56 project (Appendix B, B43). Therefore, no use is expected.

	Presence	Use	
Section 6(f) Involvement		**Yes**	**No**
Section 6(f) Property	☐	☐	☐

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

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

A review of 6(f) properties on the Land and Water Conservation Fund (LWCF) website at https://www.lwcfcoalition.com/tools revealed a total of three properties in DeKalb County. None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project	**Yes**	**No**
Is the project in an air quality non-attainment or maintenance area?		X
If YES, then:		
Is the project in the most current MPO TIP?		
Is the project exempt from conformity?		
If the project is NOT exempt from conformity, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Level of MSAT Analysis required?

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

Remarks: This project is included in the Fiscal Year (FY) 2018-2021 Statewide Transportation Improvement Program (STIP) approved on July 3, 2017 and the FY 2020-2024 STIP, approved on July 2, 2019 (Appendix H, H1-H3).

This project is located in DeKalb County, which is currently in attainment for all criteria pollutants according to https://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf. Therefore, the conformity procedures of 40 CFR Part 93 do not apply.

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

SECTION F - NOISE

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

	No	**Yes/ Date**
ES Review of Noise Analysis		

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

SECTION G – COMMUNITY IMPACTS

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

Remarks: The project will be constructed in a rural environment and will not alter local development patterns near the project area.

It is not anticipated the proposed project will result in substantial impacts to community cohesion, property values, or community events. Multiple event websites, including https://dekalbcountyfair.org/, were consulted to check for local festivals, occasions, and events. None were identified within the immediate vicinity of the project area. No increase in local taxes will occur as a result of this project, as all funds will come from the FHWA and established local accounts.

DeKalb County does have an approved Transition Plan which involves improving existing sidewalks and ramps. However, there are no existing or planned sidewalks within the project area.

Early coordination was sent by BF&S to the Mayor of the City of Garrett, Indiana, and the City of Garrett Street Department on January 3, 2020 (Appendix C, pages C1-C4). No response was received from the Mayor of the City of Garrett or the City of Garrett Street Department.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?	Yes	No
		X

Remarks: Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

The project will not change the general land use of the area. The change to the viewshed will be minimal. As a result, this project is not anticipated to have any negative indirect or cumulative impacts to the area. This project will widen CR 56 and address the substandard sight-distance conditions, as well as address the deteriorating roadway conditions, therefore having a positive impact on the safety of the motoring community.

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*	Yes	No
		X

Remarks: Based on a desktop review, site visits on March 19, and June 10, 2019 , the aerial map of the project area (Appendix B, B4) and the RFI report (Appendix E, E2 and E6), there are three trails within the 0.5 mile search radius. There is one planned trail within or adjacent to the project area. NIRCC stated during Early Coordination that the trail would have no effect on the project. Access to all properties will be maintained during construction. Therefore, no impacts are expected.

Early coordination letters were sent to Region 3A and the NIRCC on January 22, 2020 (Appendix C, C1-C4). and initial notices were sent to the following utilities: AEP Transmission, City of Auburn, Frontier Communications, Indiana Fiber Network, and Mediacom Communications on January 29, 2019 (Appendix C, C1-C2).

Region 3A responded on January 22, 2020 and stated that they have no comments to add to the project scope (Appendix C, C41-C42). All applicable Region 3A recommendations are included in the Environmental

Commitments section of this CE document.

The NIRCC responded on February 3, 2020 and stated that the Trail identified along the railroad just east of SR 327 is not a current project and will not affect the project (Appendix C, C43). All applicable NIRCC recommendations are included in the Environmental Commitments section of this CE document.

AEP responded on January 31, 2019 identifying their utilities within the project area (Appendix C, C47-C49).

Ellis Engineering Group responded for IFN on February 8, 2019, identifying where buried fiber is located within the project area (Appendix C, C50).

Frontier responded on February 15, 2019, advising where utilizes are located within the project area (Appendix C, C51-C52).

City of Auburn responded on February 18, 2019, locating where utilizes exist within the project area (Appendix C, C53-C54).

No other responses were received.

Coordination with Conrail Railroad and INDOT Utilities is not necessary. The mapped railroad segment at the west end of the project, as described in the Red Flag Investigation (Appendix E), is a former railroad corridor.

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

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

Remarks:

Under FHWA Order 6640.23A, FHWA and Tippecanoe County, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effects on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent ROW. The project will require 8.45 acre of new permanent ROW. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is DeKalb County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC-1 is Census Tract 206.2 and AC-2 is Census Tract 207. See Appendix I, I13 for the map of the COC and AC-1 and AC-2. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2013-2017 American Community Survey 5-Year Estimates was obtained from the US Census Bureau Website https://factfinder.census.gov/ on January 21, 2020 by BF&S (Appendix I, I9-I12). The data collected for minority and low-income populations within the AC are summarized in the below table.

Table 1: Minority and Low-Income Data (American Community Survey 5-Year Estimates, 2013-2017)

	COC	AC1	AC2
	DeKalb County, Indiana	Census tract 206.2	Census tract 207
LOW-INCOME			
Population for whom poverty status is determined: Total	41,988	4,622	3,574
Income in the past 12 months below poverty level	5,262	944	341
Percent Low-income	**12.5%**	**20.4%**	**9.5%**
125 Percent of COC	**15.7%**	**AC > 125% COC**	**AC <125% COC**
Potential Low-income EJ Impact?		**Yes**	**No**
MINORITY			
Total population: Total	42,524	4,696	3,579
Total population: Not Hispanic or Latino	41,349	4,623	3,531
Total population: Not Hispanic or Latino; White alone	40,454	4,572	3,476
Total population: Not Hispanic or Latino; Black or African American alone	74	4	0
Total population: Not Hispanic or Latino; American Indian and Alaska Native alone	23	0	10
Total population: Not Hispanic or Latino; Asian alone	129	7	18
Total population: Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	0
Total population: Not Hispanic or Latino; Some other race alone	0	0	0
Total population: Not Hispanic or Latino; Two or more races	669	40	27
Total population: Hispanic or Latino	1,175	73	48
Total population: Hispanic or Latino; White alone	900	41	39
Total population: Hispanic or Latino; Black or African American alone	52	0	0
Total population: Hispanic or Latino; American Indian and Alaska Native alone	0	0	0
Total population: Hispanic or Latino; Asian alone	0	0	0
Total population: Hispanic or Latino; Native Hawaiian and Other Pacific Islander alone	0	0	0
Total population: Hispanic or Latino; Some other race alone	146	22	9
Total population: Hispanic or Latino; Two or more races	77	10	0
Number Non-white/minority	**2,070**	**124**	**103**
Percent Non-white/Minority	**4.9%**	**2.6%**	**2.9%**
125 Percent of COC	**6.1%**	**AC <125% COC**	**AC <125% COC**
Potential Minority EJ Impact?		**No**	**No**

The AC-1, Census Tract 206.2, has a percent minority of 2.6% which is below 50% and is below the 125% COC threshold. AC-2, Census Tract 207, has a percent minority of 2.9% which is below 50% and is below the 125% COC threshold. As the impacts are similar across both tracts, this also lends towards no disproportionate/adverse impacts. Therefore, AC-1 and AC-2 do not contain minority population of EJ concern.

AC-1, Census Tract 206.2 has a percent low-income of 20.4% which is below 50% and is above the 125% COC. AC-2, Census Tract 207 has a percent low-income of 9.5% which is below 50% and is below the 125% COC. Therefore, AC-1 is a low-income population of EJ concern.

Conclusion:

It is estimated that approximately 8.45 acres of permanent ROW and approximately 0.25 acre of temporary ROW will be acquired from approximately 20 parcels along the project corridor. New permanent ROW will include ROW being acquired along the project area for up to 50 ft. north and south of the proposed center line of CR 56. This will include ROW from primarily agricultural lands, as well as from eight (8) residential properties, and two (2) commercial properties. No relocations are required as a part of this project. No effect to community cohesion is expected because the project will improve an existing roadway without

changing access to the roadway. Census Tract 206.2 will not experience a disproportionately high and adverse impact because this project will serve to improve the roadway conditions by widening the roadway by 4 ft. and adding 5 ft. shoulders (3 ft. paved, 2 ft. compacted aggregate), and by improving the sight distance conditions, both of which will improve safety along the roadway. The project will also perpetuate access to vehicular traffic along this corridor by addressing the continuing degradation to the existing roadway.

INDOT Environmental Services Division (ESD) has reviewed this project for potential Environmental Justice concerns. INDOT ESD responded on February 24, 2020 (Appendix C, C44) and stated that INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. INDOT also stated that the project would require strip right-of-way, no relocations, would not disrupt community cohesion or create a physical barrier. The project would improve mobility and safety within the project area. Access to all properties will maintained during construction along with an official detour for through traffic. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low incomes populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Relocation of People, Businesses or Farms

	Yes	No
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a Business Information Survey (BIS) required?		X
Is a Conceptual Stage Relocation Study (CSRS) required?		X
Has utility relocation coordination been initiated for this project?	X	

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project. It is anticipated that two utilities, Intelligent Fiber and Frontier Communications, will have some relocation, which was deemed cost effective. However, the majority of utility relocations was deemed unfeasible due to the exorbitant cost of over $200,000 per utility pole.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

	No	Yes/ Date
ES Review of Investigations	X	

Include a summary of findings for each investigation.

Remarks: Based on a review of GIS and available public records, a Red Flag Investigation (RFI) was completed on February 26, 2019 by Butler, Fairman, and Seufert, Inc. (Appendix E, pages E1-E11). One (1) underground storage tank site is located within 0.5 mile of the project area. No sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified within or adjacent to the project area. Further investigation for hazardous material concerns or regulated substances is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Individual Permit (IP)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDEM	
Section 401 WQC	X
Isolated Wetlands determination	
Rule 5	X
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDNR	
Construction in a Floodway	
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	

Remarks:

An IDEM Rule 5 permit will be required since more than one (1) acre of land disturbance will occur as a result of the project.

A USACE 404 Regional General Permit and an IDEM 401 Water Quality Certification are anticipated to be required since Approximately 0.89 acre of wetland impacts are expected to occur. Mitigation is required.

It is the responsibility of the DeKalb County Board of Commissioners, the project sponsor, to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s) and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
4. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
5. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas,

alignments) to avoid tree removal. (USFWS)

6. Tree Removal AMM 2: Apply time of year restrictions (April 1 through September 30) for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 ft. of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (USFWS, IDNR)
7. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (USFWS)
8. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (USFWS)
9. Orange Fencing and signage reading "Do Not Disturb" will be placed around any wetland not to be impacted by construction activities, as well as a note indicated on the construction plans and to the contractor.

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Early Coordination was sent for this project on January 3, 2020, and January 22, 2020 (Appendix C, pages C1-C4). A list of the resource agencies contacted during Early Coordination is provided below, along with the date early coordination was sent and the date the agency responded (if applicable).

AGENCY	SENT DATE	RESPONSE DATE
U.S. Fish and Wildlife Service	January 3, 2020	January 10, 2020
USDA Natural Resources Conservation Service	January 3, 2020	January 10, 2020
Indiana Department of Environmental Management	January 3, 2020	January 3, 2020
Indiana Geological Survey	January 3, 2020	January 3, 2020
U.S. Department of Housing and Urban Development	January 3, 2020	No Response
National Park Service	January 3, 2020	No Response
Northeastern Indiana Regional Coordinating Council	January 22, 2020	February 3, 2020
Region 3A Development and Regional Planning Commission	January 22, 2020	January 22, 2020
Mayor of City of Garrett, Indiana	January 3, 2020	No Response
City of Garrett, Indiana Street Department	January 3, 2020	No Response
U.S. Army Corps of Engineers	January 3, 2020	No Response
Indiana Department of Natural Resources, Division of Fish and Wildlife	January 3, 2020	No Response

APPENDIX TABLE OF CONTENTS

Categorical Exclusion Level 2
County Road 56 Reconstruction
DeKalb County, Indiana
Des. No. 1702950

Appendix A

INDOT Supporting Documentation

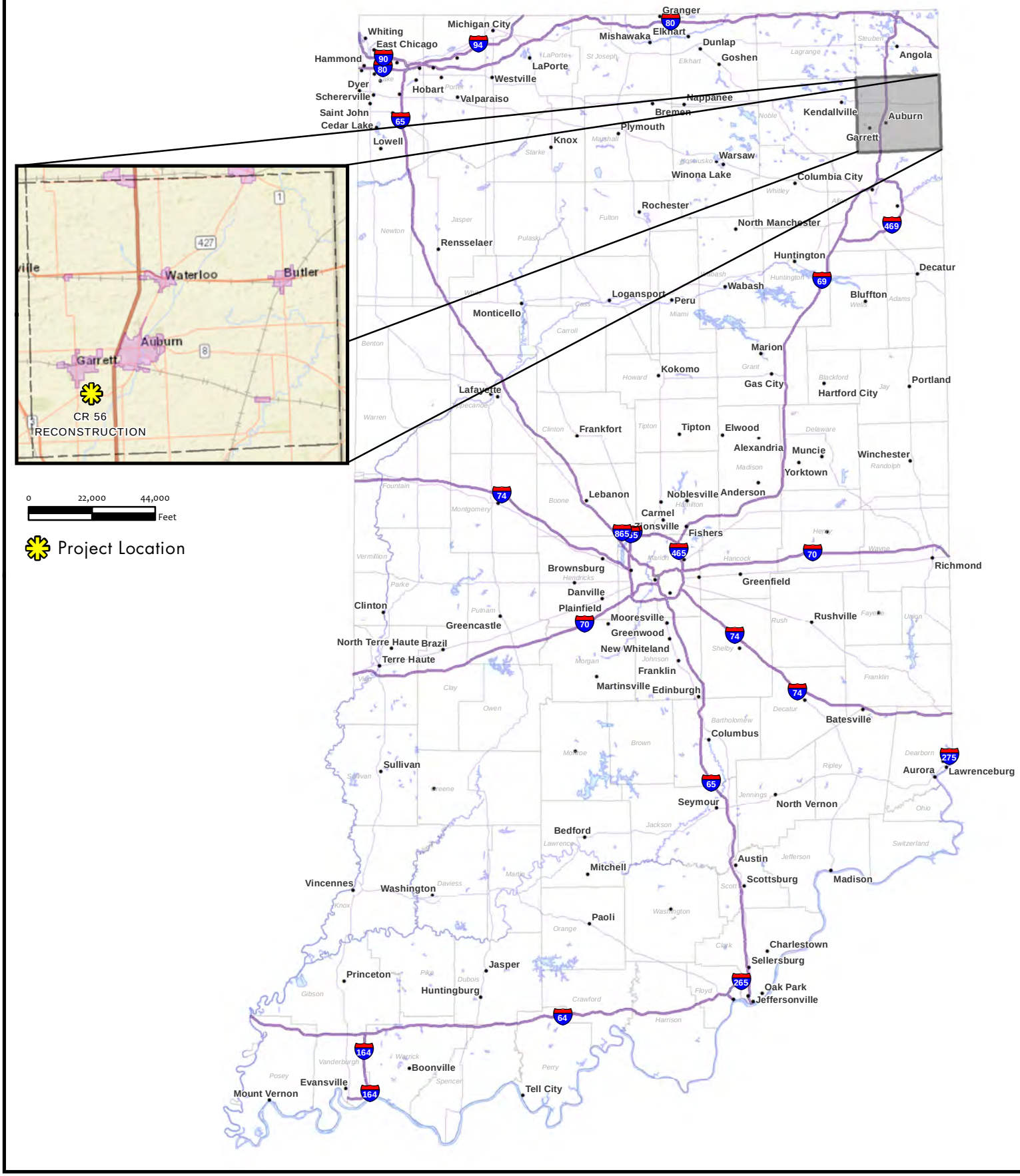
Categorical Exclusion Level Thresholds

	PCE	Level 1	Level 2	Level 3	Level 4[1]
Section 106	Falls within guidelines of Minor Projects PA	"No Historic Properties Affected"	"No Adverse Effect"	-	"Adverse Effect" Or Historic Bridge involvement[2]
Stream Impacts	No construction in waterways or water bodies	< 300 linear feet of stream impacts	≥ 300 linear feet of stream impacts	-	Individual 404 Permit
Wetland Impacts	No adverse impacts to wetlands	< 0.1 acre	-	< 1 acre	≥ 1 acre
Right-of-way[3]	Property acquisition for preservation only or none	< 0.5 acre	≥ 0.5 acre	-	-
Relocations	None	-	-	< 5	≥ 5
Threatened/Endangered Species (Species Specific Programmatic for Indiana bat & northern long eared bat)	"No Effect", "Not likely to Adversely Affect" (Without AMMs[4] or with AMMs required for all projects[5])	"Not likely to Adversely Affect" (With any other AMMs)	-	"Likely to Adversely Affect"	Project does not fall under Species Specific Programmatic
Threatened/Endangered Species (Any other species)	Falls within guidelines of USFWS 2013 Interim Policy	"No Effect", ""Not likely to Adversely Affect"	-	-	"Likely to Adversely Affect"
Environmental Justice	No disproportionately high and adverse impacts	-	-	-	Potential[6]
Sole Source Aquifer	Detailed Assessment Not Required	-	-	-	Detailed Assessment
Floodplain	No Substantial Impacts	-	-	-	Substantial Impacts
Coastal Zone Consistency	Consistent	-	-	-	Not Consistent
National Wild and Scenic River	Not Present	-	-	-	Present
New Alignment	None	-	-	-	Any
Section 4(f) Impacts	None	-	-	-	Any
Section 6(f) Impacts	None	-	-	-	Any
Added Through Lane	None	-	-	-	Any
Permanent Traffic Alteration	None	-	-	-	Any
Coast Guard Permit	None	-	-	-	Any
Noise Analysis Required	No	-	-	-	Yes
Air Quality Analysis Required	No	-	-	-	Yes[7]
Approval Level • **District Env. Supervisor** • **Env. Services Division** • **FHWA**	Concurrence by INDOT District Environmental or Environmental Services	Yes	Yes	Yes Yes	Yes Yes Yes

[1]Coordinate with INDOT Environmental Services. INDOT will then coordinate with the appropriate FHWA Environmental Specialist.
[2]Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement.
[3]Permanent and/or temporary right-of-way.
[4]AMMs = Avoidance and Mitigation Measures.
[5]AMMs determined by the IPAC decision key to be needed that are listed in the USFWS *User's Guide for the Range-wide Programmatic Consultation for Indiana bat and Northern long-eared bat* as "required for all projects".
[6]Potential for causing a disproportionately high and adverse impact.
[7]Hot Spot Analysis and/or MSAT Quantitative Emission Analysis.
*Substantial public or agency controversy may require a higher-level NEPA document.

Appendix B

Graphics



Butler Fairman Seufert
CIVIL ENGINEERS

Map Source: Indiana Map

State Map

CR 56 Reconstruction
from 200 feet east of State Road (SR) 205
to 275 feet west of the northern portion of CR 17
DeKalb County, Indiana Des. No. 1702950

Location Map

February 24, 2020

1:250,000

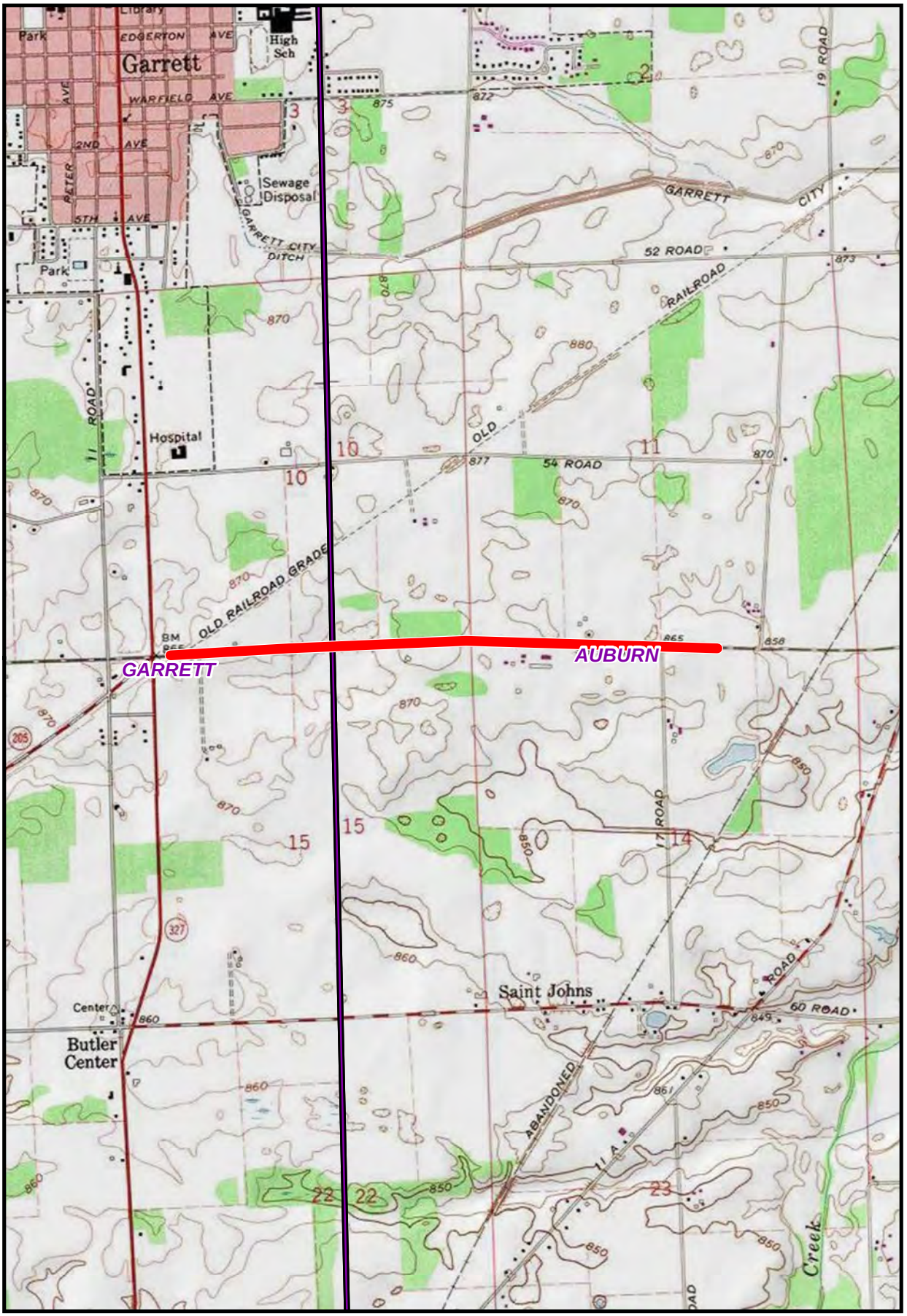
0 2 4 8 mi

0 3.25 6.5 13 km

Location Map

CR 56 Reconstruction
from 200 feet east of State Road (SR) 205
to 275 feet west of the northern portion of CR 17
DeKalb County, Indiana Des. No. 1702950

Indiana Department of Transportation (INDOT), U.S. Census Bureau (USCB), Indiana Geographic Information Council (IGIC), UITS, Indiana Spatial Data Portal



Legend

Project Area

Quadrangle Boundary

Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.

0 1,000 2,000 4,000 Feet

USGS Garrett Quadrangle

CR 56 Reconstruction
DeKalb County, Indiana
Section 10 & 15, Township 33N, Range 12E
Des. No. 1702950

USGS Auburn Quadrangle

Section 10, 11, 14 & 15, Township 33N, Range 12E

BF&S Butler Fairman Seufert CIVIL ENGINEERS

Legend

Project Area

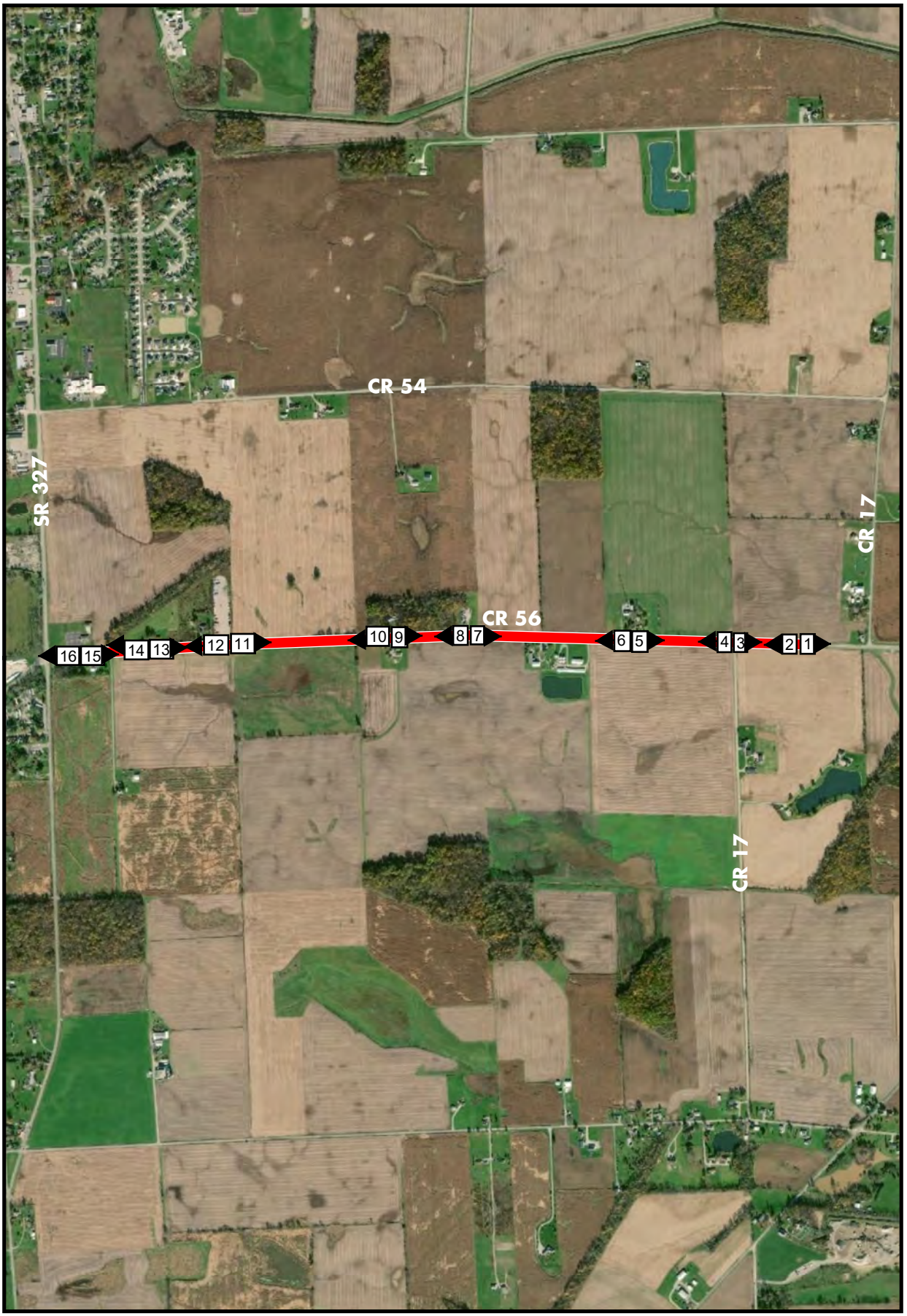
Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.

0 750 1,500 3,000 Feet

Butler Fairman Seufert CIVIL ENGINEERS

Aerial Map

CR 56 Reconstruction
from 200 feet east of State Road (SR) 205
to 275 feet west of the northern portion of CR 17
DeKalb County, Indiana Des. No. 1702950



Legend

Project Area

Photo Point and Direction

#

Map Source: Indiana Geological Survey (IGS), IndianaMap, ArcGIS Online (ESRI) World Imagery.

0 750 1,500 3,000 Feet

Butler Fairman Seufert CIVIL ENGINEERS

Photo Orientation Map

CR 56 Reconstruction
from 200 feet east of State Road (SR) 205
to 275 feet west of the northern portion of CR 17
DeKalb County, Indiana Des. No. 1702950

Photo 1: Looking east along CR 56 near the east project terminus

Photo 2: Looking west along CR 56 near the east project terminus

Photo 3: Looking east along CR 56 from the west junction of CR 17

Photo 4: Looking west along CR 56 from the west junction of CR 17

Photo 5: Looking east along CR 56 from a point approx. 0.2 mile west of the west junction of CR 17

Photo 6: Looking west along CR 56 from a point approx. 0.2 mile west of the west junction of CR 17

Photo 7: Looking east along CR 56 from a point approx. 0.55 mile west of the west of the west junction of CR 17

Photo 8: Looking west along CR 56 from a point approx. 0.55 mile west of the west junction of CR 17

Photo 9: Looking east along CR 56 from a point approx. 0.7 mile east of SR 327

Photo 10: Looking west along CR 56 from a point approx. 0.7 mile east of SR 327

Photo 11: Looking east along CR 56 from a point approx. 0.35 mile east of SR 327

Photo 12: Looking west along CR 56 from a point approx. 0.35 mile west of SR 327

Photo 13: Looking east along CR 56 from a point approx. 0.2 mile east of SR 327

Photo 14: Looking west along CR 56 from a point approx. 0.2 mile east of SR 327

Photo 15: Looking east along CR 56 from the west project terminus

Photo 16: Looking west along CR 56 from the west project terminus

PROJECT	DESIGNATION
1702950	1702950
CONTRACT	
R-4114	

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS
COUNTY ROAD 56

PROJECT NO. 1702950

P.E.
R/W
CONST.

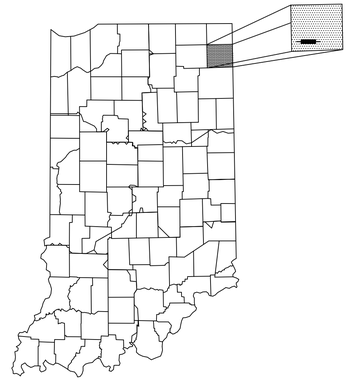
RECONSTRUCTION OF COUNTY ROAD 56 FROM 200 FT. EAST OF SR 205 TO 275 FT. WEST OF THE NORTH SECTION OF COUNTY ROAD 17. ALL WITHIN SECTIONS 10 & 11, TOWNSHIP 33 NORTH, RANGE 12 EAST, IN KEYSER TOWNSHIP OF DEKALB COUNTY, INDIANA.

GROSS LENGTH: 1.55mi.
NET LENGTH: 1.55mi.

SCALES:

PLAN {LONG: 1" = 30' TRANS: 1" = 30' PROFILE {HORIZ: 1" = 30' VERT: 1" = 10' MAX. GRADE: 1.85%

TRAFFIC DATA		C.R. 56
A.A.D.T.	(2015)	3,748 V.P.D.
A.A.D.T.	(2038)	4,573 V.P.D.
D.H.V.	(2022)	355 V.P.H.
DIRECTIONAL DISTRIBUTION		50 %
TRUCKS		10 % A.A.D.T.
		- % D.H.V.
DESIGN DATA		
DESIGN SPEED		55
PROJECT DESIGN CRITERIA		NEW CONSTR. 4R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION		MINOR ARTERIAL
RURAL/URBAN		RURAL
TERRAIN		LEVEL
ACCESS CONTROL		NONE



PROJECT LOCATION SHOWN BY
DeKALB COUNTY

LATITUDE: 41°19'23" N. LONGITUDE: 85°07'04" W.

DEKALB COUNTY BOARD OF COMMISIONERS

Donald D. Gregg, President

Bill Hartman, Vice President

Jackeline Rowan, Vice President

Ben Parker, Highway Department

BEGIN PROJECT
P.O.C. Sta. 14+07.00 "PR-A" =
P.O.T. Sta. 14+07.00 "A", 0.19' Lt.

END PROJECT
P.O.T. Sta. 95+70.00 "A"

SCALE: NONE

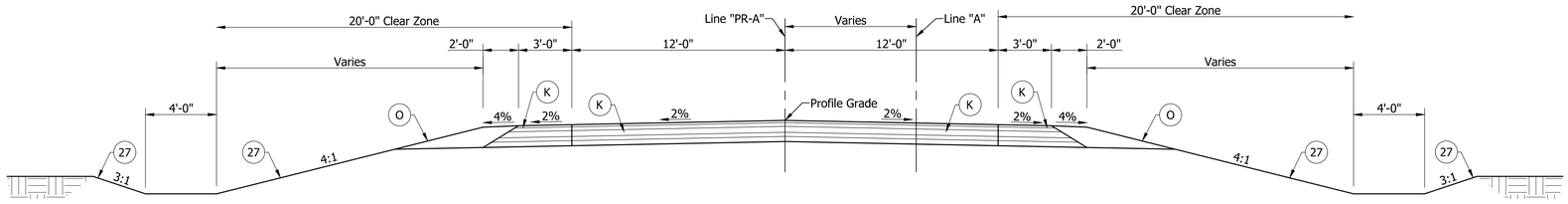
VICINITY MAP
DEKALB COUNTY

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2019 TO BE USED WITH THESE PLANS.

PLANS PREPARED BY: Butler Fairman and Seufert Inc. (317)713-4615 PHONE
CERTIFIED BY: DATE
APPROVED FOR LETTING: INDIANA DEPARTMENT OF TRANSPORTATION DATE

BRIDGE FILE	
DESIGNATION	
1702950	
SURVEY BOOK	SHEET
	---- OF
CONTRACT	PROJECT
R-4114	1702950

BFS NO. 6272



TYPICAL CROSS SECTION

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

Sta. 14+07.00 "A" to Sta. 95+70.00 "A"

LEGEND

- (K) HMA Pavement (To be Determined)
- (O) Variable Depth Comp. AGG. No. 53
- (27) Seed Mixture R

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

DESIGNED: EC DRAWN: JB

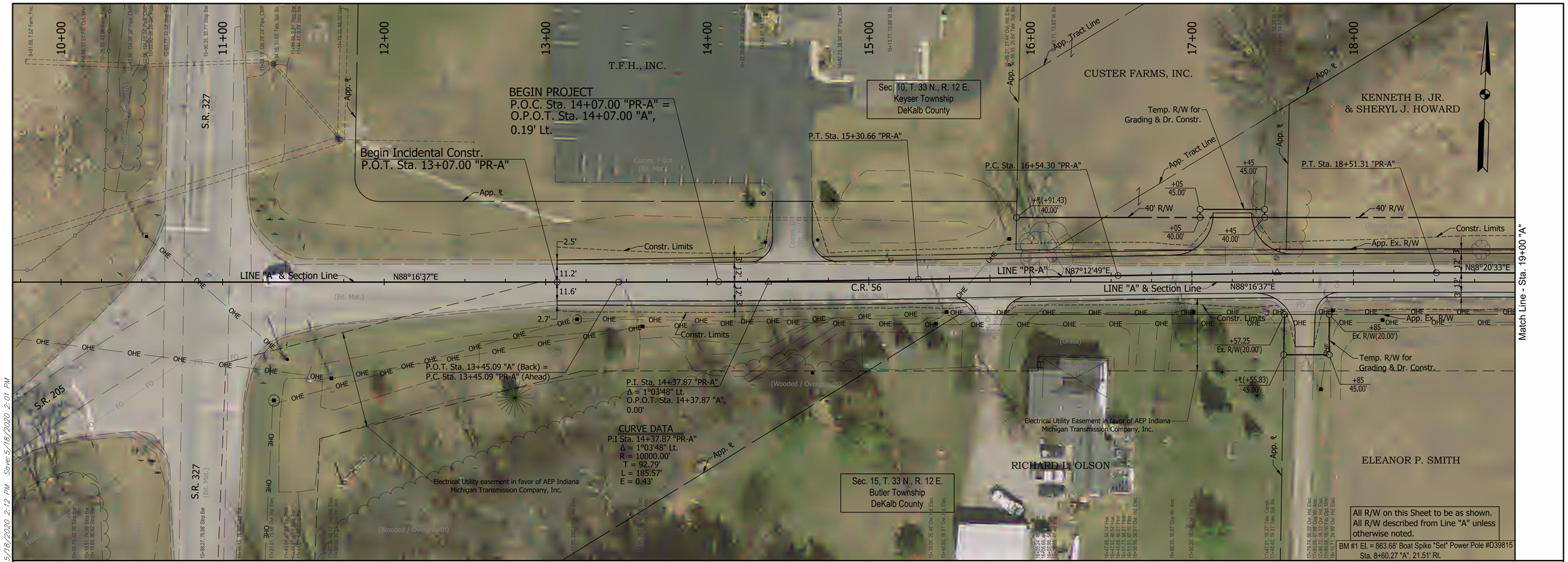
CHECKED: ACE CHECKED: EC

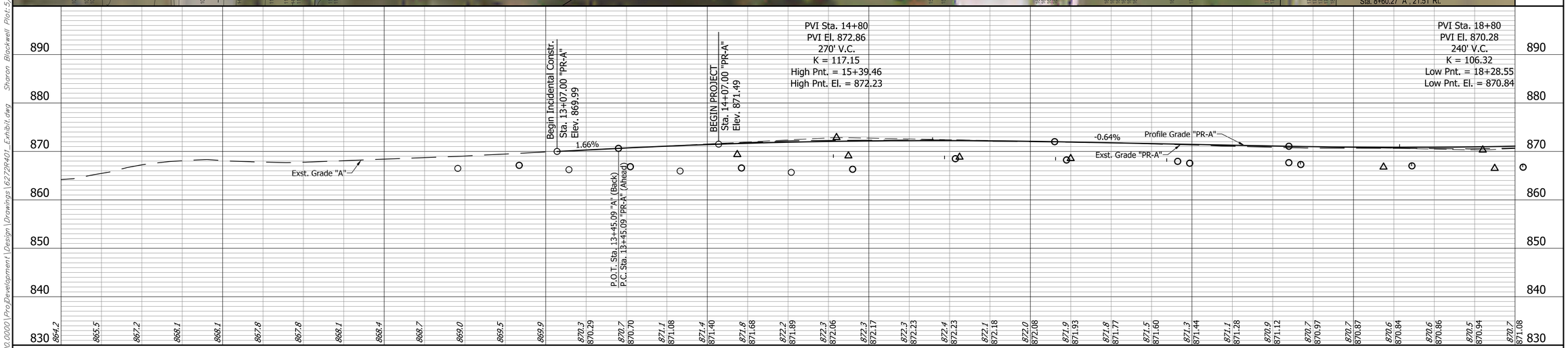
INDIANA
DEPARTMENT OF TRANSPORTATION

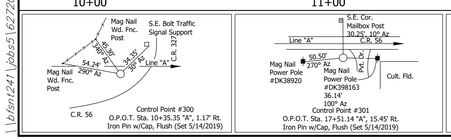
TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS SHOWN	
VERTICAL SCALE	DESIGNATION
N/A	1702950
SURVEY BOOK	SHEET
	---- OF
CONTRACT	PROJECT
R-4114	1702950

BFS NO. 6272







RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

DESIGNED: EC DRAWN: JB

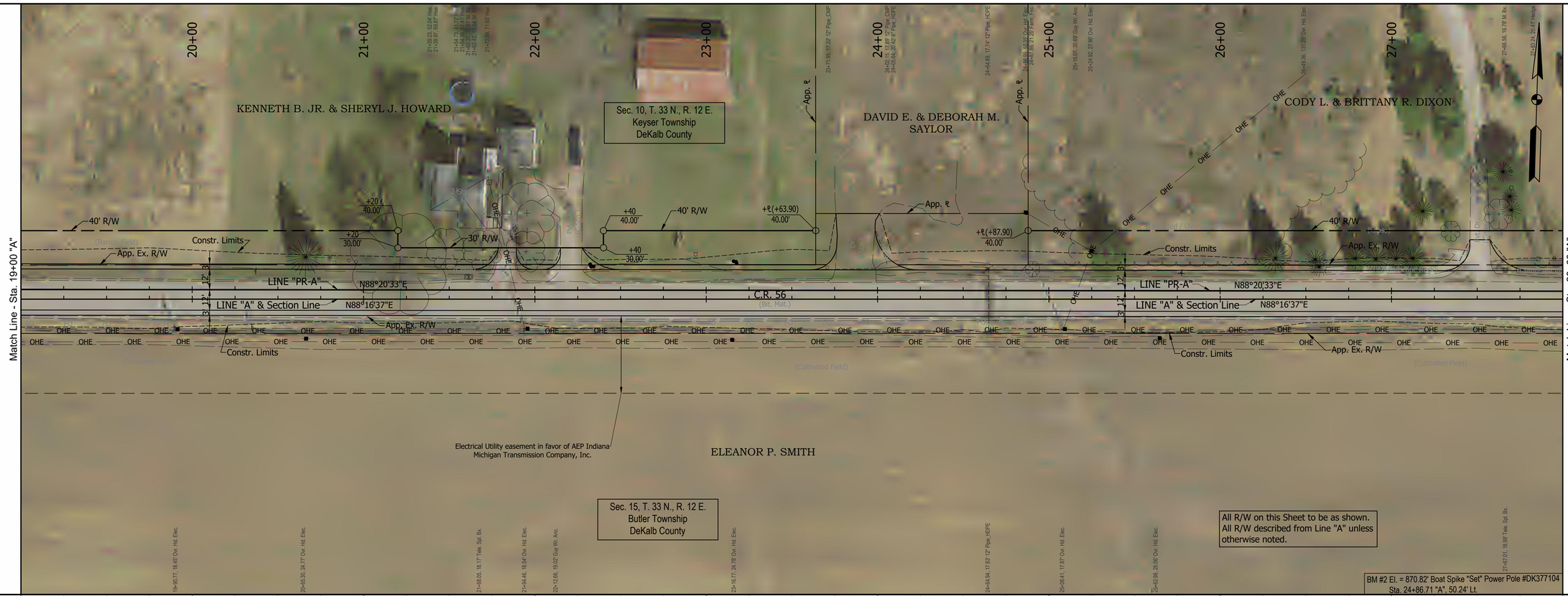
CHECKED: BZ CHECKED: EC

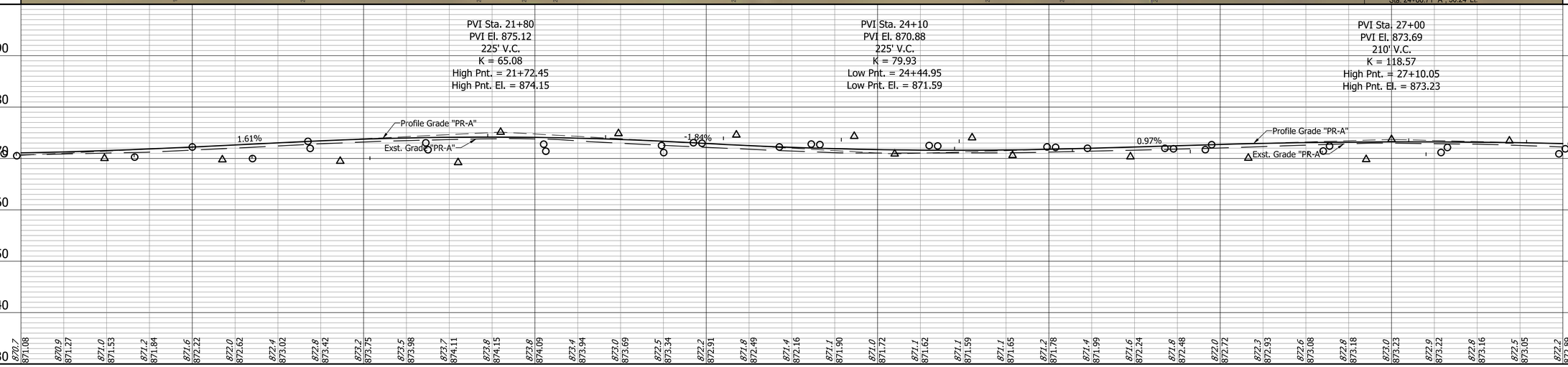
INDIANA
DEPARTMENT OF TRANSPORTATION

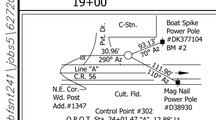
PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BFS NO. 6272







RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: EC DRAWN: JB

CHECKED: BZ CHECKED: EC

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BFS NO. 6272

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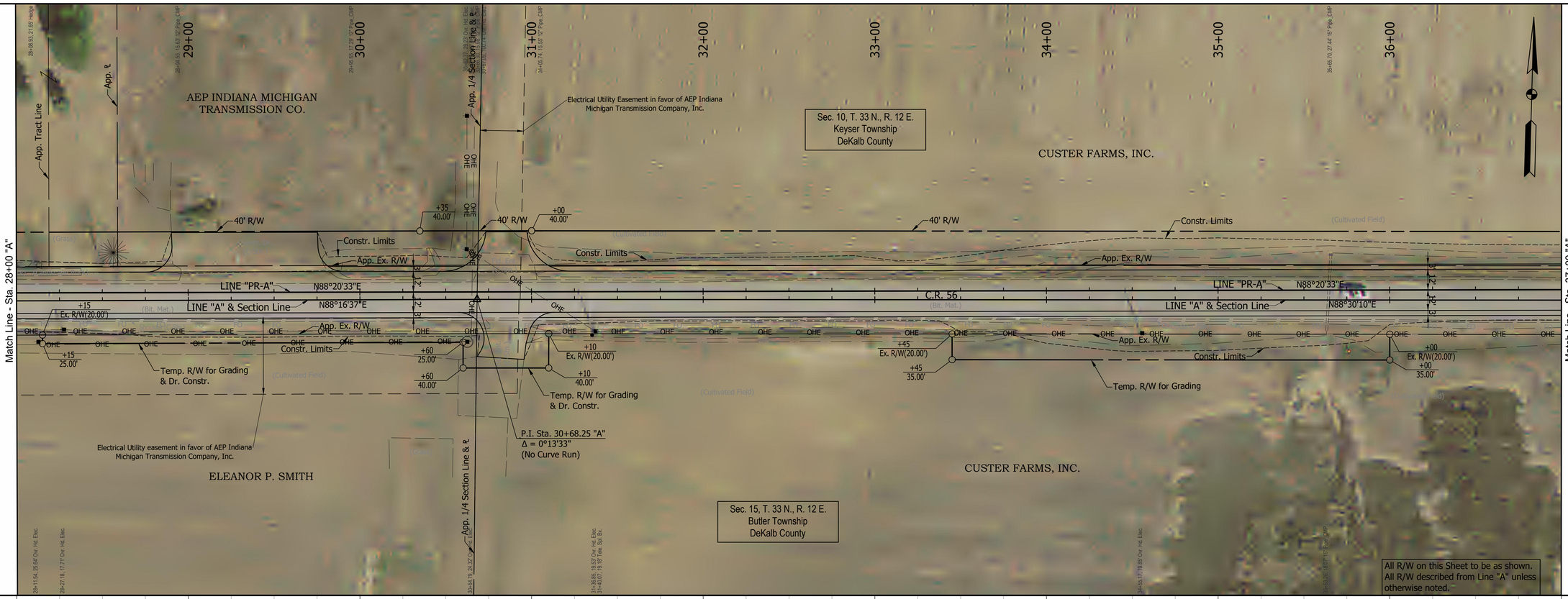
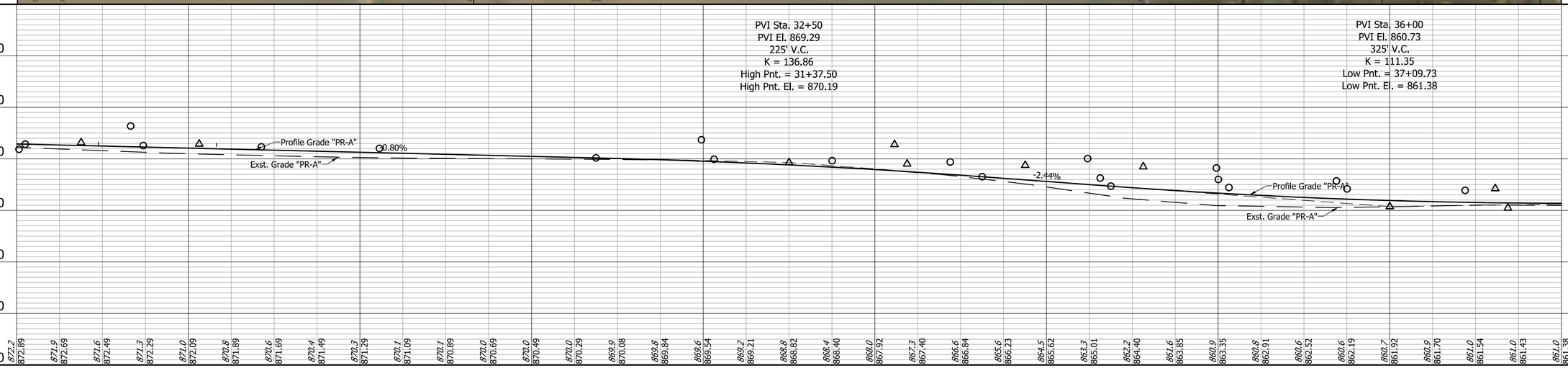




C-Stn. Lot
Mag Nail Power Pole DK377102
Cult. Fld.
Line "A" C.R. 56
Chiseled "X" E. Most Bolt Power Pole 37.89' 260° Az
Δ 34.90' 100° Az
Mag Nail Power Pole DK377102
Control Point #303
O.P.O.T. Sta. 31+02.39 "A", 17.86' Rt, Iron Pin w/Cap, Flush (Set 5/14/2019)

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE

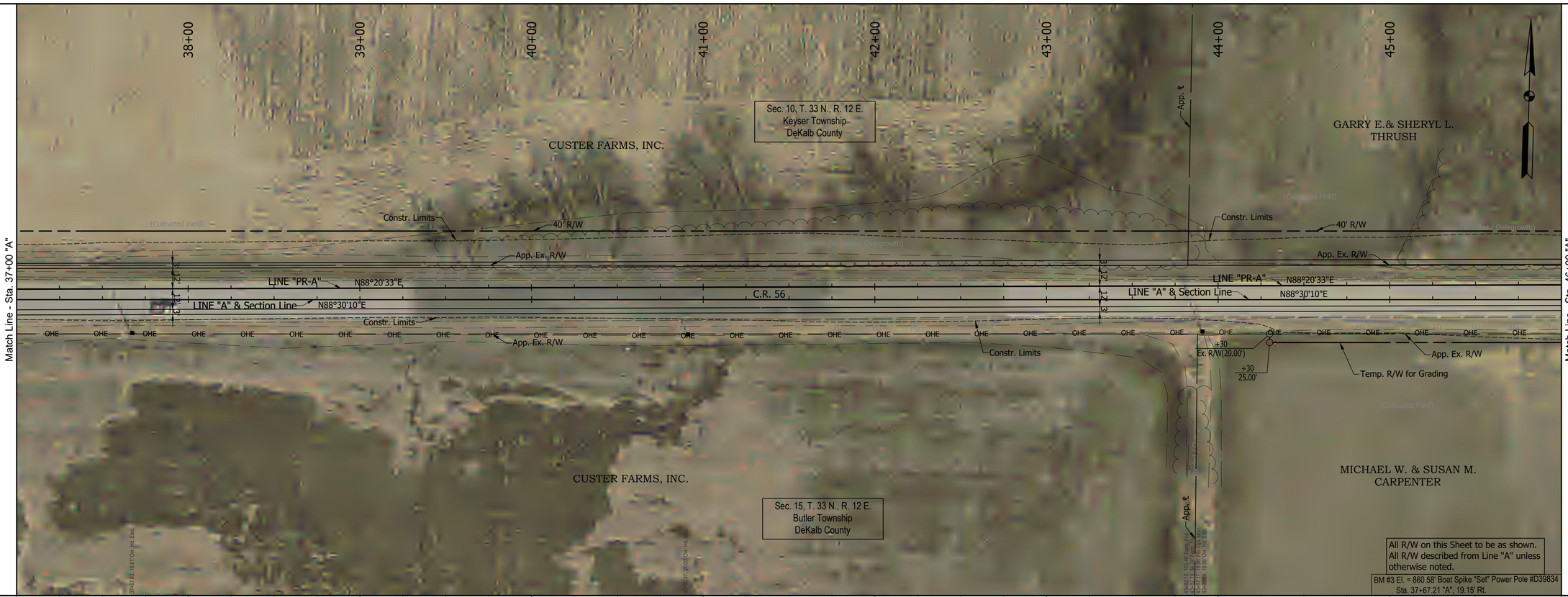
DESIGNED: EC DRAWN: JB
CHECKED: BZ CHECKED: EC

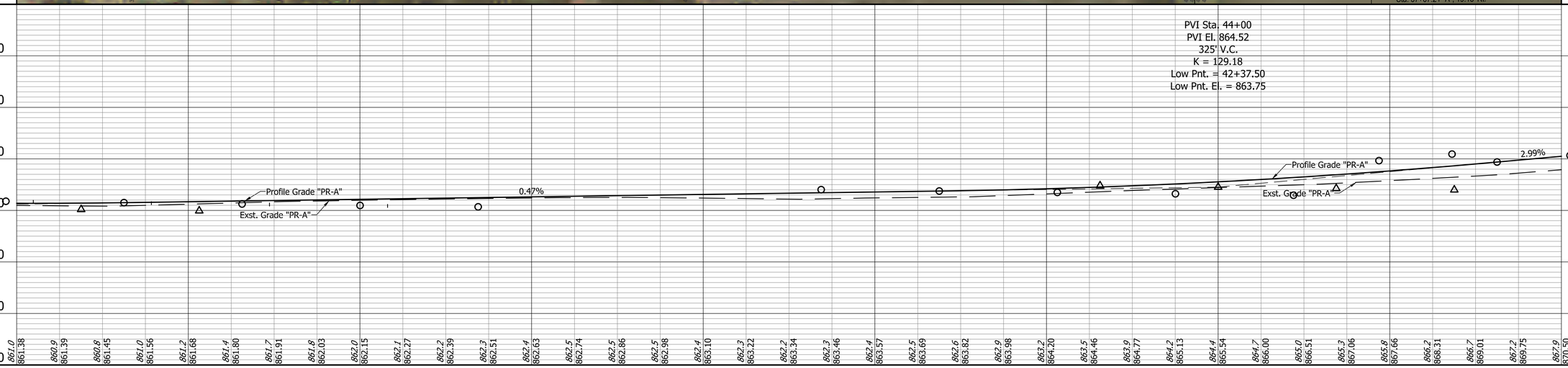
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BFS NO. 6272





N.R.A.
Line "A"
C.R. 56

Control Point #304
O.P.O.T. Sta. 40+76.76 "A", 15.65' Rt.
Iron Pin w/Cap, Flush (Set 5/14/2019)

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

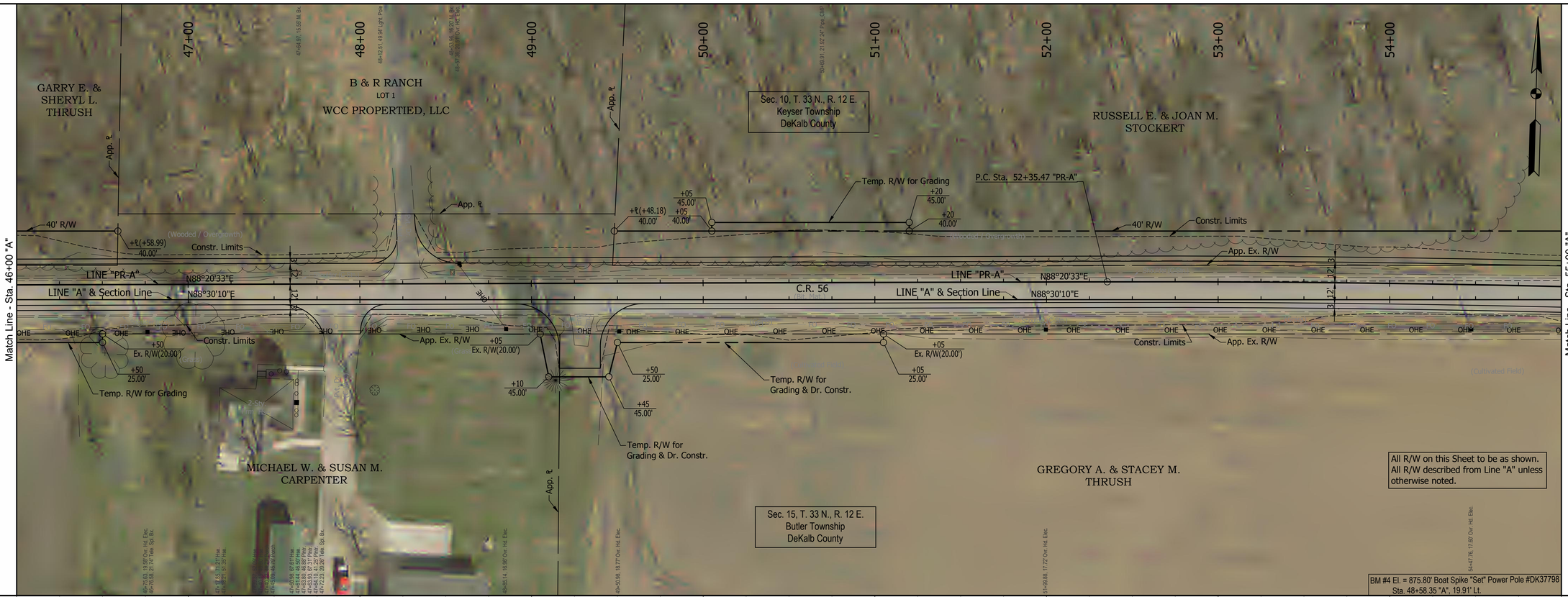
DESIGNED: EC DRAWN: JB
CHECKED: BZ CHECKED: EC

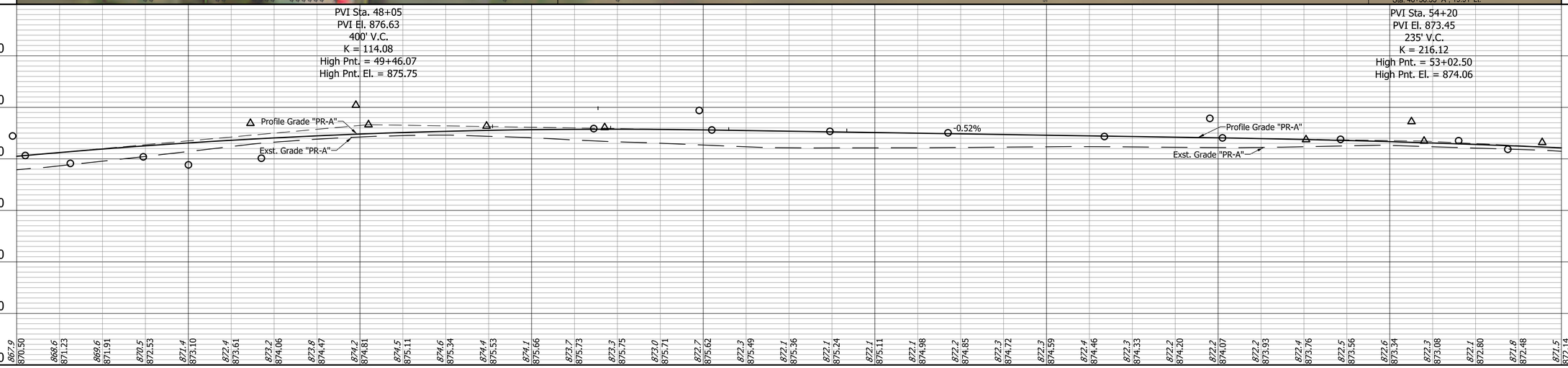
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BR'S NO. 6272





Control Point #305
O.P.O.T. Sta. 48+14.61 "A", 14.21' Rt.
Iron Pin w/Cap, Flush (Set 5/14/2019)

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

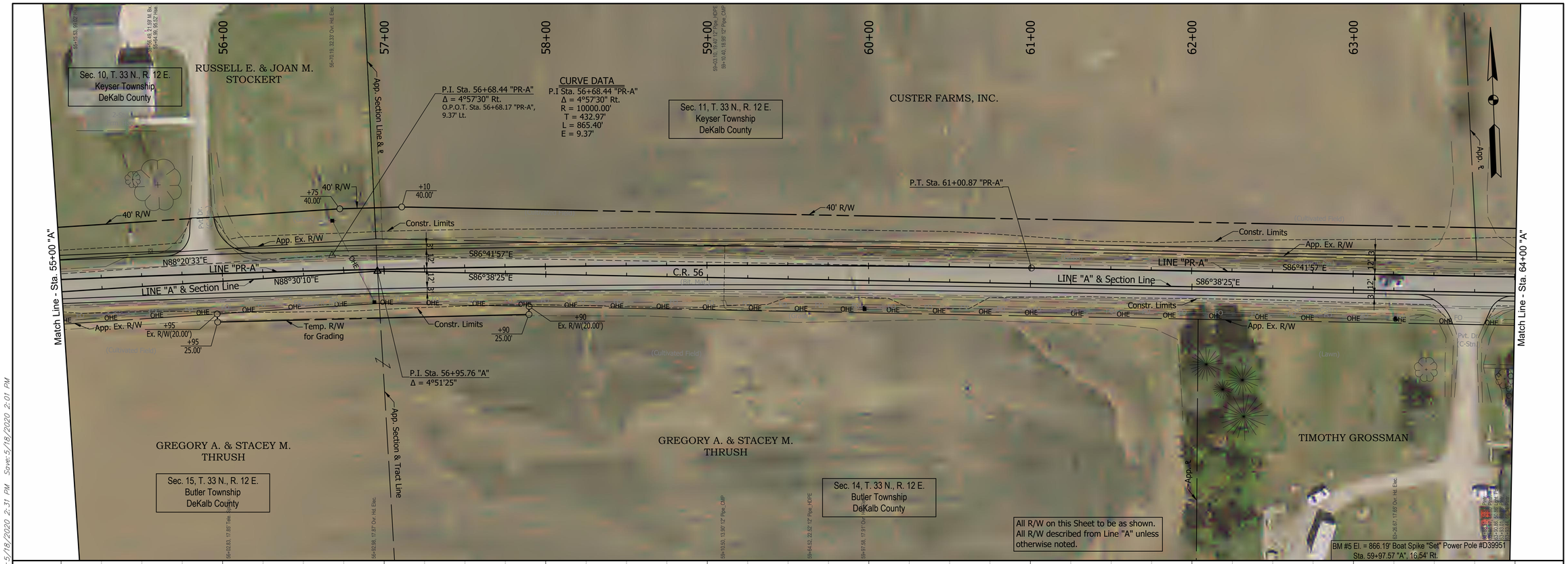
DESIGNED: EC DRAWN: JB
CHECKED: BZ CHECKED: EC

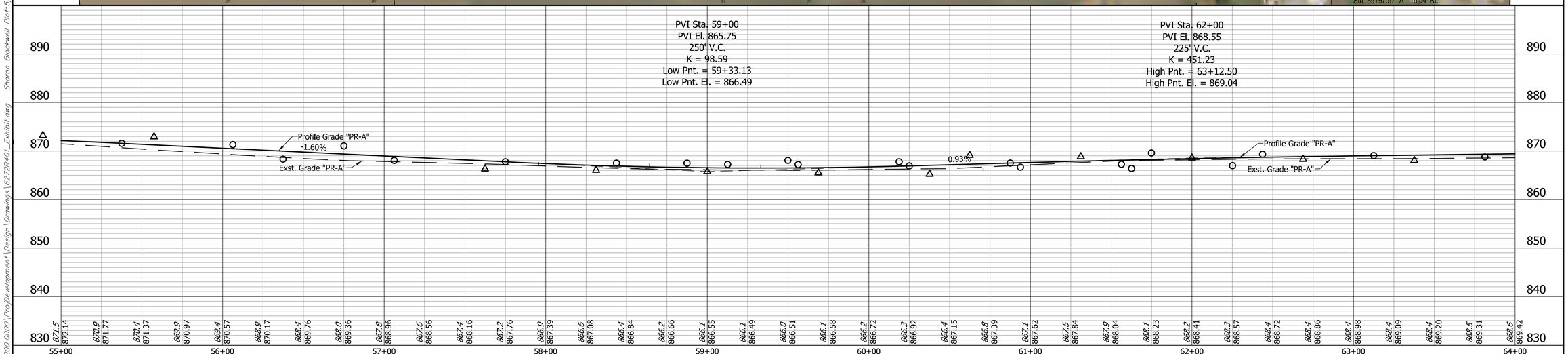
INDIANA
DEPARTMENT OF TRANSPORTATION

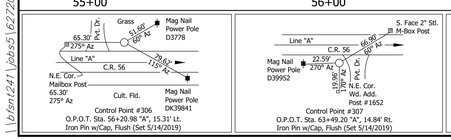
PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BFS NO. 6272







RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: EC | DRAWN: JB

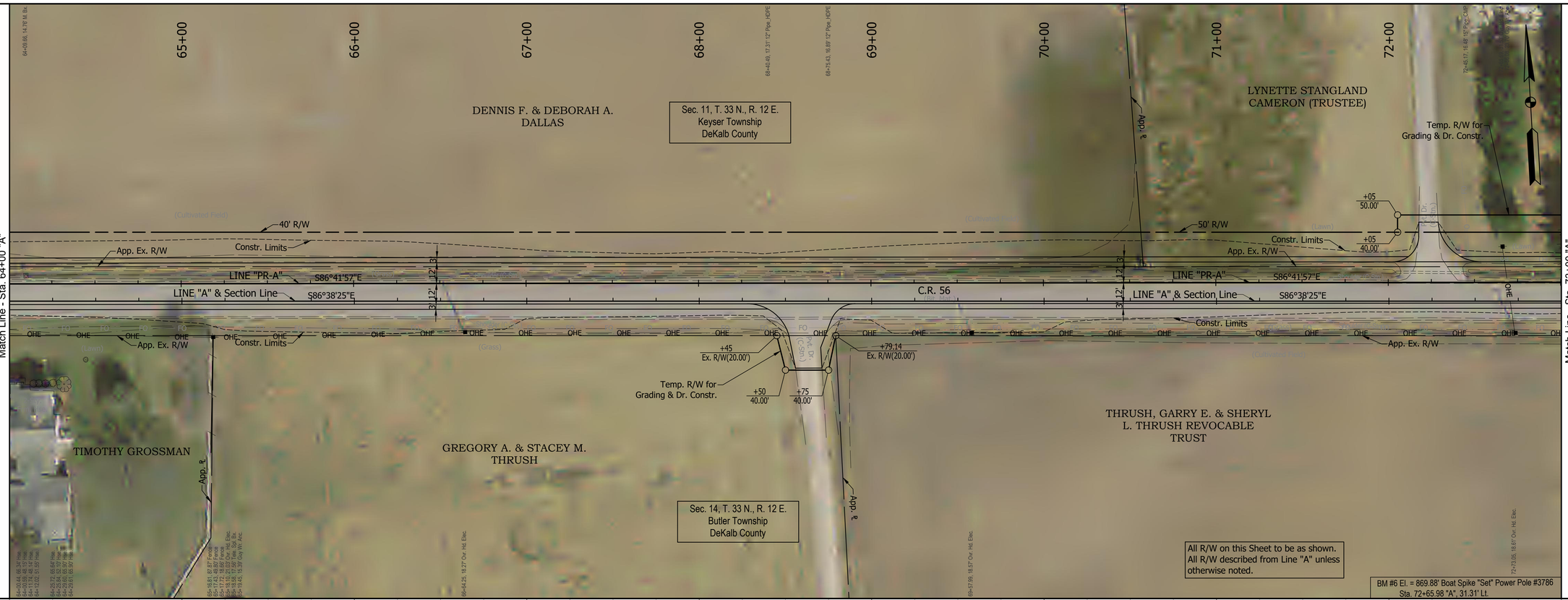
CHECKED: BZ | CHECKED: EC

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

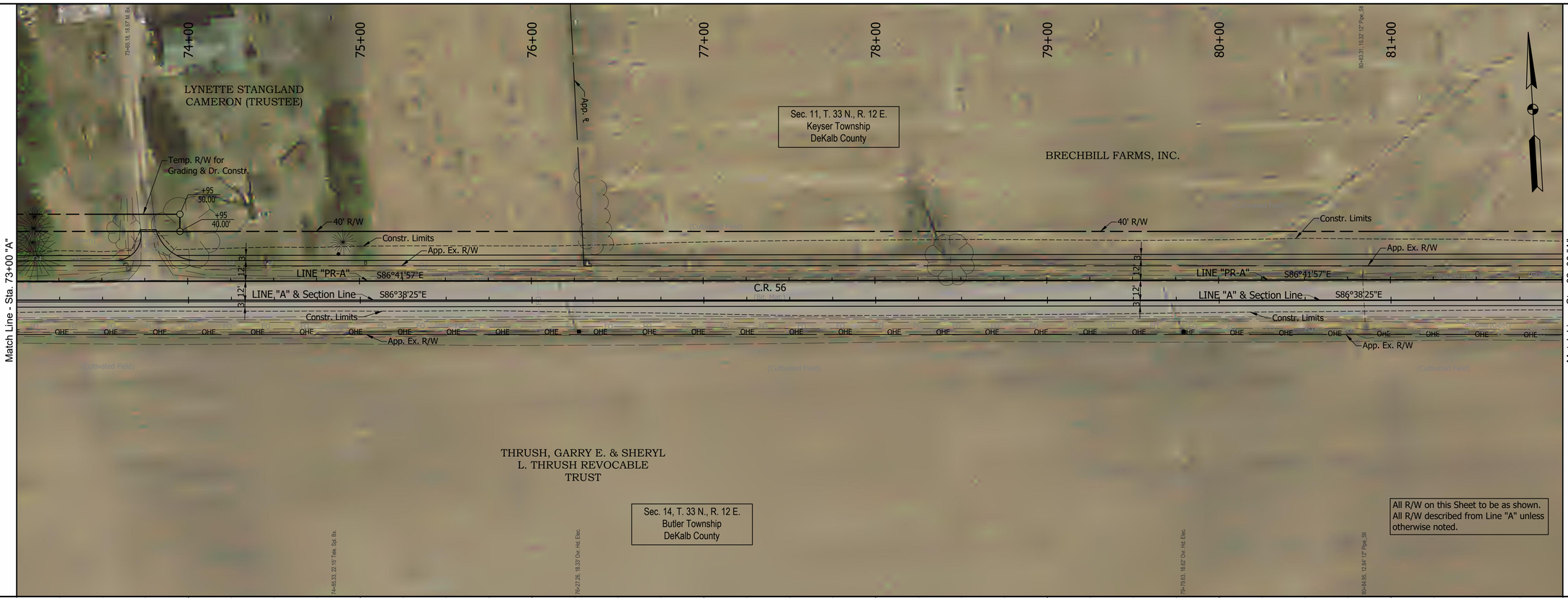
BFS NO. 6272



RECOMMENDED FOR APPROVAL: DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION
DESIGNED: EC DRAWN: JB CHECKED: BZ CHECKED: EC	PLAN & PROFILE LINE "A" COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

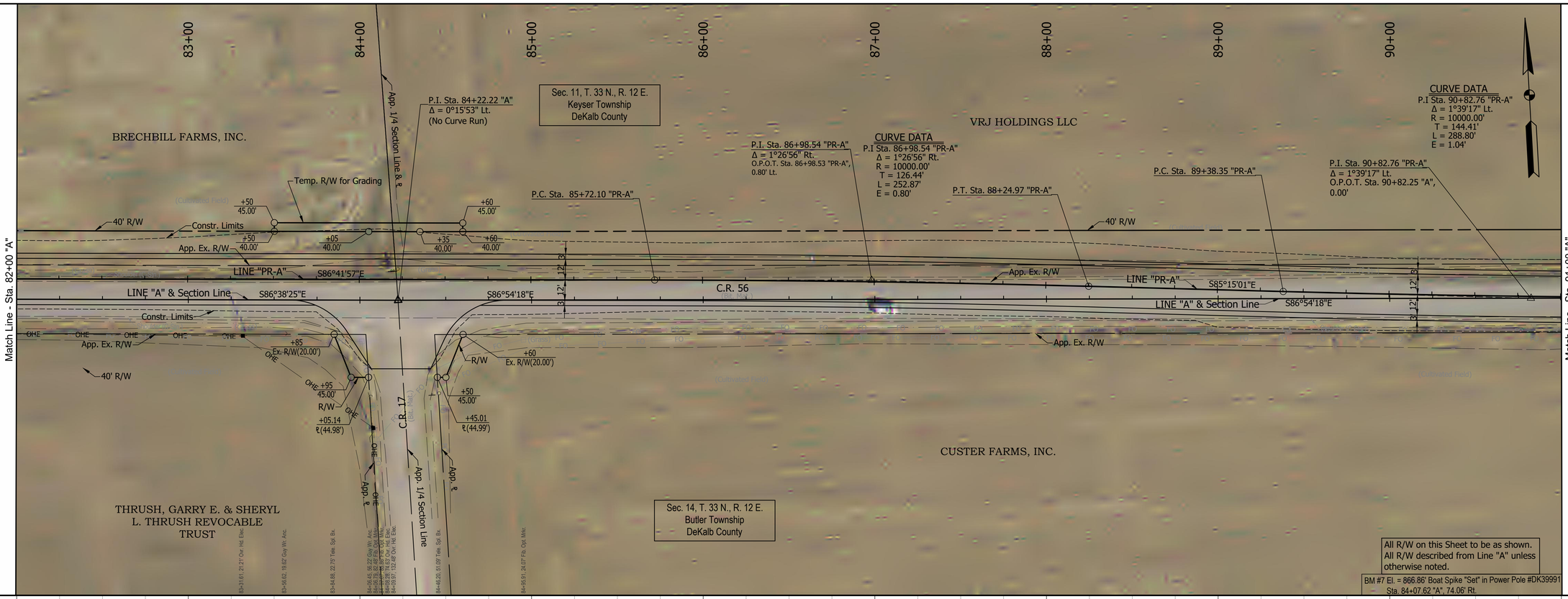
BFS NO. 6272

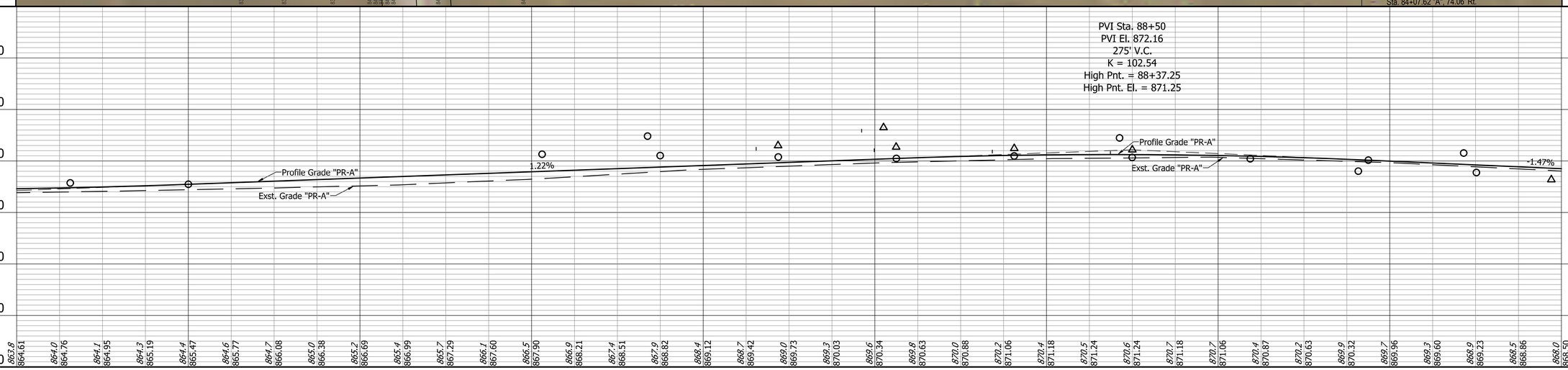


						RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 30' / BRIDGE FILE:
						DESIGNED: EC DRAWN: JB	PLAN & PROFILE LINE "A" COUNTY ROAD 56	VERTICAL SCALE: 1" = 10' / DESIGNATION: 1702950
						CHECKED: BZ CHECKED: EC		SURVEY BOOK: ---- / SHEET: ---- OF 70
								CONTRACT: R-41141 / PROJECT: 1702950

BFS NO. 6272

\\fsn1241\Jobs5\6272000\0000\Proj\Development\Design\Drawings\6272PR01_Exhibit.dwg Sharon Blackwell Plot: 5/18/2020 2:33 PM Save: 5/18/2020 2:01 PM





Control Point #309
O.P.O.T. Sta. 83+86.93 "A", 29.06' Rt.
Iron Pin w/Cap, Flush (Set 5/14/2019)

Control Point #310
O.P.O.T. Sta. 89+33.69 "A", 22.53' Rt.
Iron Pin w/Cap, Flush (Set 5/14/2019)

RECOMMENDED FOR APPROVAL: _____ DESIGN ENGINEER _____ DATE

DESIGNED: EC DRAWN: JB

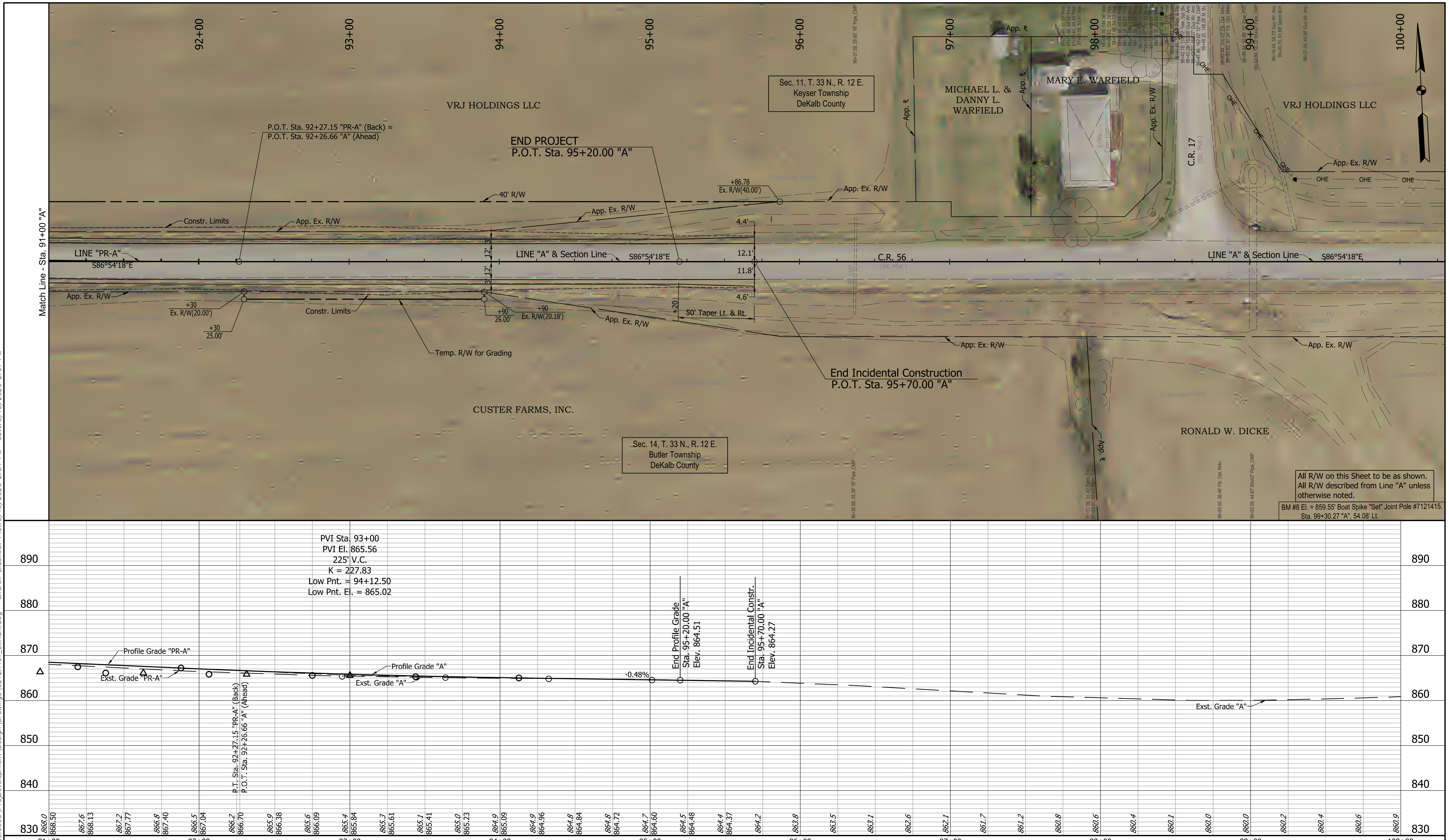
CHECKED: BZ CHECKED: EC

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "A"
COUNTY ROAD 56

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1702950
SURVEY BOOK	SHEET
	---- OF 70
CONTRACT	PROJECT
R-41141	1702950

BFS NO. 6272



92+00
93+00
94+00
95+00
96+00
97+00
98+00
99+00
100+00
VRJ HOLDINGS LLC
P.O.T. Sta. 92+27.15 "PR-A" (Back) =
P.O.T. Sta. 92+26.66 "A" (Ahead)
END PROJECT
P.O.T. Sta. 95+20.00 "A"
Sec. 11, T. 33 N., R. 12 E.
Keyser Township
DeKalb County
MICHAEL L. &
DANNY L.
WARFIELD
MARY E. WARFIELD
C.R. 17
Match Line - Sta. 91+00 "A"
40' R/W
Constr. Limits
App. Ex. R/W
LINE "PR-A"
S86°54'18"E
LINE "A" & Section Line
C.R. 56
50' Taper Lt. & Rt.
Ex. R/W(20.00')
Ex. R/W(20.18')
Ex. R/W(40.00')
Temp. R/W for Grading
End Incidental Construction
P.O.T. Sta. 95+70.00 "A"
CUSTER FARMS, INC.
Sec. 14, T. 33 N., R. 12 E.
Butler Township
DeKalb County
RONALD W. DICKE
All R/W on this Sheet to be as shown.
All R/W described from Line "A" unless otherwise noted.
BM #8 El. = 859.55' Boat Spike "Set" Joint Pole #7121415.
Sta. 99+30.27 "A", 54.08' Lt.
PVI Sta. 93+00
PVI El. 865.56
225' V.C.
K = 227.83
Low Pnt. = 94+12.50
Low Pnt. El. = 865.02
Profile Grade "PR-A"
Exst. Grade "PR-A"
Profile Grade "A"
Exst. Grade "A"
-0.48%
P.T. Sta. 92+27.15 "PR-A" (Back)
P.O.T. Sta. 92+26.66 "A" (Ahead)
End Profile Grade
Sta. 95+20.00 "A"
Elev. 864.51
End Incidental Constr.
Sta. 95+70.00 "A"
Elev. 864.27
890
880
870
860
850
840
830
91+00

Control Point #311
O.P.O.T. Sta. 98+47.46 "A", 24.90' Rt.
Iron Pin w/Cap, Flush (Set 5/14/2019)

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER	DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 30' / BRIDGE FILE
DESIGNED: EC	DRAWN: JB	PLAN & PROFILE LINE "A" COUNTY ROAD 56	VERTICAL SCALE 1" = 10' / DESIGNATION 1702950
CHECKED: BZ	CHECKED: EC		SURVEY BOOK ---- / SHEET OF 70
			CONTRACT R-41141 / PROJECT 1702950

6272

BFS NO.

\\bfsn124\jobs5\6272200.0000\ProjDevelopment\Design\Drawings\6272R401_Exhibit.dwg Sharon Blackwell Plot: 5/18/2020 2:34 PM Save: 5/18/2020 2:01 PM

Appendix C

Early Coordination

Sample Early Coordination Letter

Butler Fairman Seufert
CIVIL ENGINEERS

Headquarters:
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-5920
t 317.713.4615
f 317.713.4616
e bfs@BFSEngr.com
www.BFSEngr.com

Branch Locations:
Ft. Wayne
Lafayette
Louisville
Merrillville
Plainfield

Founded 1961

Member ACEC INDIANA

January 3, 2020

Ms. Elizabeth McCloskey
US Fish and Wildlife Service
Northern Indiana Suboffice
P.O. Box 2616
Chesterton, IN 46304-5716

RE: Des No. 1702950, County Road 56 Reconstruction, near City of Garrett, DeKalb County, Indiana

Dear Ms. McCloskey:

Our firm has been retained by the DeKalb County Board of Commissioners to prepare an environmental study for the above-referenced project involving the reconstruction of CR 56 from approximately 200 feet east of SR 327 to approximately 275 feet west of the east junction of County Road 17 in DeKalb County, Indiana. Prior to the completion of our environmental studies, we are requesting technical assistance from your agency.

Please respond within 30 days so that the project may proceed as scheduled. If we have not received a response within 30 days, we will assume you have no comments you wish to contribute to the project scope and we will proceed with the environmental analysis. Project information and graphics are enclosed. If you have any questions, do not hesitate to contact this office.

Thank you for your consideration of this request.

Sincerely,

BUTLER, FAIRMAN and SEUFERT, INC.

Ryan L. Scott
rscott@bfsengr.com

RS:sc

The attachments have been omitted to reduce the number of pages, and can be found in Appendix B, B1-B18 and Appendix E, E10-E11.

Enclosures:

Project Description
State Map
Quadrangle Map
Aerial Map
Photo Key
Photo Pages
National Wetlands Inventory Map
Soils Map
DeKalb County ETR Species List
FEMA Map

cc:

Rickie Clark, Hearings Manager
INDOT Office of Communications
100 North Senate Avenue, Room 642
Indianapolis, IN 46204

Karen Novak
Environmental Team Lead
INDOT Fort Wayne District
5333 Hatfield Road
Fort Wayne, IN 46808

Christie Stanifer, Environmental Coordinator
Division of Water, Environmental Unit
Indiana Department of Natural Resources
402 West Washington Street, W-264
Indianapolis, IN 46204-2641

Ms. Elizabeth McCloskey
US Fish and Wildlife Service
Northern Indiana Suboffice
P.O. Box 2616
Chesterton, IN 46304-5716

Michael Wurl, Regional Environmental Officer
Chicago Regional Office
U.S. Dpt. of Housing and Urban Dvlpt.
Metcalf Fed. Bldg.
77 W. Jackson Blvd. Room 2401
Chicago, IL 60604

Hector Santiago & Scott Blackburn
National Park Service, Department of Interior
601 Riverfront Drive
Omaha, NE 68102

Jane Hardisty, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

Tim Lawson
Utilities and Railroad Administrator
Indiana Department of Transportation
100 N. Senate Ave. IGCN 642
Indianapolis, IN 46204

Detroit District, Corps of Engineers
Environmental Analysis Branch, CENCE-PL-E
Department of Army, Detroit District,
Corps of Engineers
477 Michigan Ave.
Detroit, MI 48226

Ben Parker
Highway Superintendent
306 Ensley Avenue
Auburn, IN 46707

Donald D. Grogg
County Commissioner, President
6250 County Road 31
Auburn, IN 46706

Project Description

The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950). The project is located approximately 1.8 miles southeast of the City of Garrett, Keyser Township, Indiana. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the United States Geological Survey (USGS) Garrett, Indiana Quadrangle, and Sections 10, 11, 14 and 15, Township 33 North, Range 12 East of the USGS Auburn, Indiana Quadrangle.

The purpose of the project is to address ongoing roadway deterioration, and narrow roadway geometrics along CR 56. The need for the project is supported by the presence of alligator and block cracks, edge cracking, and extensive patching that is in poor condition throughout the project area. In addition, sections of the existing roadway either have no shoulders or are bordered by narrow earth or gravel shoulder areas less than 1-foot wide.

The proposed project would include reconstruction of approximately 1.55 miles of CR 56, including widening the roadway from the existing typical clear roadway width of 22 feet, to a proposed typical clear roadway width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). The roadway will be shifted to the north, a maximum of 14 feet at any point, to avoid impacting the existing power transmission poles on the south side of the road. Stormwater drainage along the project area will continue to be facilitated by open roadside drainage. The typical roadside ditches constructed for this project will have 4-foot wide flat bottoms and 4:1 side slopes.

It is estimated that approximately 8.45 acres of permanent right-of-way (ROW) and approximately 0.25 acre of temporary ROW will be acquired from approximately 20 parcels along the project corridor.

There will be no changes to permanent lighting as a result of this project. No nighttime construction is anticipated, and no temporary lighting is anticipated to be used.

The majority of the project will include minor adjustments (less than 2 feet) to the existing vertical alignment of the roadway. Excavation up to a depth of 15 feet is estimated to occur under the roadway within a section of peat and marl, which must be excavated and replaced with consolidated fill to reduce the potential for future roadway settling. This area is located approximately 0.5 mile east of SR 327.

It is anticipated that the project area will be closed for approximately one construction year, and a detour will be implemented. The proposed detour will utilize SR 327, SR 8, and Interstate (I) 69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles to a through trip.

General Existing and Proposed Parameters

	Existing	Proposed
Project Length:	N/A	1.55 miles.
Right-of-way:		
Permanent	N/A	6.5 acres (estimate)
Temporary	N/A	2.0 acres (estimate)
Vertical Alignment:	Level	Level
Horizontal Alignment:	Straight	Straight
Land Use:	Residential/Agricultural	Residential/Agricultural

Channelization, Bank Shaping and In-Stream Work: None

Temporary Runaround and Equipment Crossing: None

Design Speed	55 mph	No Change

Existing and Proposed Roadway

	Existing	Proposed
Pavement Width:	20 ft.	30 ft.
Number of Lanes:	2 @ 10 ft.	2 @ 12 ft.
Surface:	Asphalt	Asphalt
Shoulders:	0 to 1 ft.	2 @ 5 ft. (3 ft. paved and 2 ft. compacted aggregate)
Curb and gutter:	None	None
Sidewalks:	None	None
Access control:	None	None
Side slopes:	2:1 or flatter	4:1 or flatter
Functional Classification:	Rural Minor Arterial	Rural Minor Arterial

Additional Design Parameters Unique to the Project:

Standard INDOT erosion control measures will be used.

From: McCloskey, Elizabeth
To: Ryan Scott
Subject: Re: [EXTERNAL] Early Coordination Request_CR 56 Reconstruction_DeKalb County_Des No 1702950
Date: Friday, January 10, 2020 12:44:58 PM

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

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

On Fri, Jan 3, 2020 at 10:28 AM Ryan Scott <RScott@bfsengr.com> wrote:

> Ms. McCloskey,
>
> Please see the attached early coordination request for your review and response.
>
> Thank you,
>
> **Ryan Scott**
> **Director of Environmental Services**
>
> Butler, Fairman & Seufert, Inc.
> 8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302
> p (317) 713-4615 | f (317) 713-4616
> RScott@bfsengr.com | www.BFSEngr.com
>
> 
>
>
>
> **Disclaimer**

THIS IS NOT A PERMIT

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

DNR #: ER-22098 **Request Received:** January 3, 2020

Requestor: Butler, Fairman & Seufert Inc
Ryan L Scott
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240

Project: CR 56 roadway reconstruction between SR 327 and CR 17, near Garrett; Des #1702950

County/Site info: DeKalb

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

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

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

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

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

1) Forested & Riparian Habitat:
We recommend a mitigation plan be developed for any unavoidable habitat impacts that will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20190130-IR-312190041NRA.xml.pdf.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees).

2) Wetland Habitat:
Due to the presence or potential presence of wetland habitat on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as

THIS IS NOT A PERMIT

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

soon as possible upon completion.
2. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
3. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
4. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
5. Do not excavate or place fill in any riparian wetland.

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

Date: January 29, 2020

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

INDIANA
GEOLOGICAL SURVEY

Organization and Project Information

Project ID:	6272
Des. ID:	1702950
Project Title:	Reconstruction of CR 56
Name of Organization:	Butler, Fairman and Seufert, Inc.
Requested by:	Ryan Scott

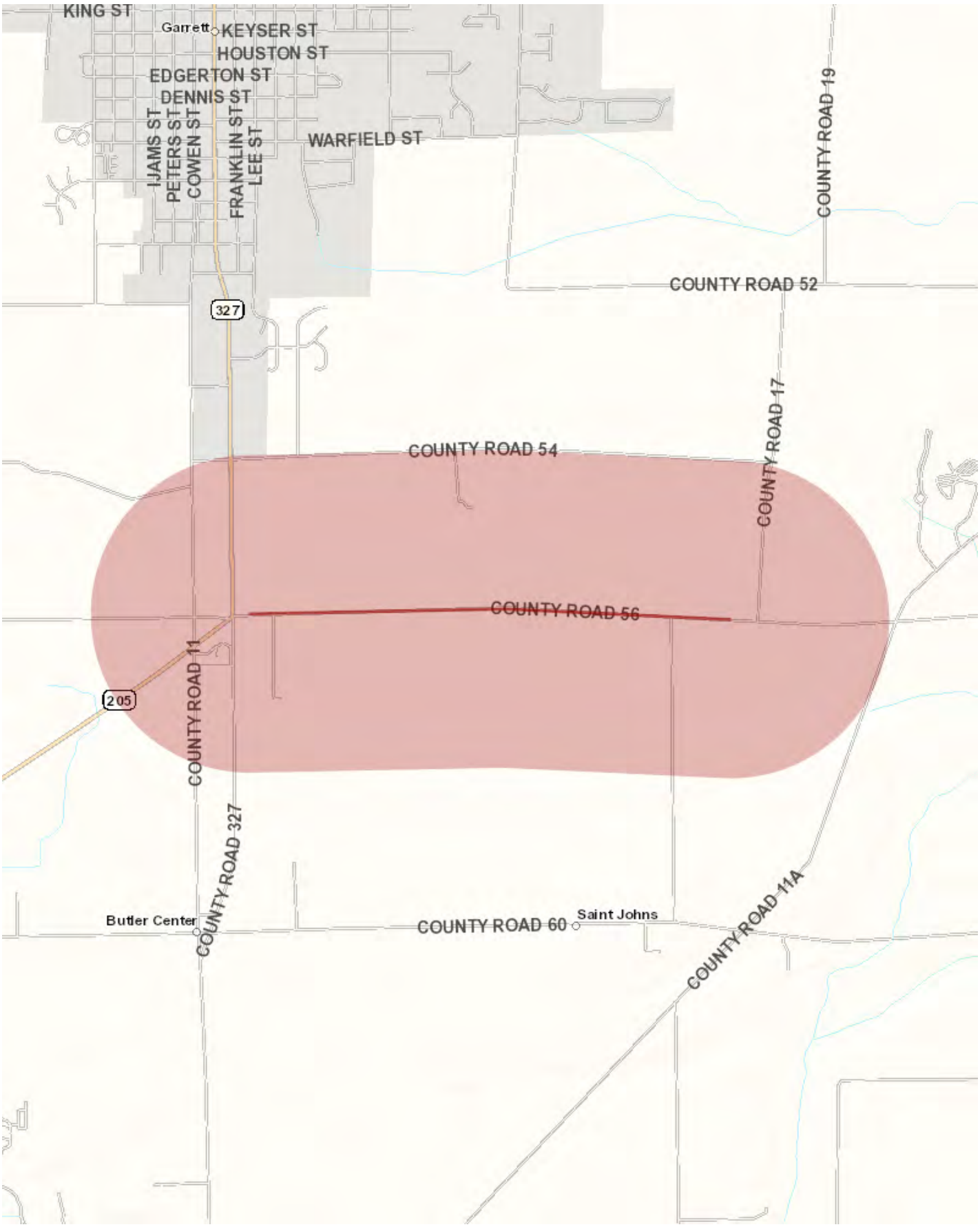
Environmental Assessment Report

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

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

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

Date: January 03, 2020



Metadata:

- https://maps.indiana.edu/metadata/Geology/Seismic_Earthquake_Liquefaction_Potential.html
- https://maps.indiana.edu/metadata/Geology/Industrial_Minerals_Sand_Gravel_Resources.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

USDA
United States Department of Agriculture

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

January 10, 2020

Ryan L. Scott
Butler, Fairman & Seufert
8450 Westfield Boulevard, Suite 300
Indianapolis, Indiana 46240

Dear Mr. Scott:

The proposed project to proceed with road reconstruction along County Road 56 in DeKalb County, Indiana, (Des No 1702950) as referred to in your letter received January 3, 2020, will cause a conversion of prime farmland.

The attached packet of information is for your use completing Parts VI and VII of the AD-1106. After Completion, the federal funding agency needs to forward one copy to NRCS for our records.

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

Sincerely,

JERRY RAYNOR Digitally signed by JERRY RAYNOR
Date: 2020.01.13 21:24:24 -05'00'

JERRY RAYNOR
State Conservationist

Enclosures

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request January 3, 2020
Name of Project DES1702950_CR56	Federal Agency Involved FHWA
Proposed Land Use Road Rehabilitation of existing ROW	County and State Dekalb County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 1/3/2020 / Person Completing Form: JRA

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size: 206 ac
Major Crop(s): Corn	Farmable Land In Govt. Jurisdiction Acres: 226810 % 97	Amount of Farmland As Defined in FPPA Acres: 210956 % 91	
Name of Land Evaluation System Used: LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS: 1/10/2020	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	8.45			
B. Total Acres To Be Converted Indirectly	0.00			
C. Total Acres In Site	12.20			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	6.32			
B. Total Acres Statewide Important or Local Important Farmland	0.56			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.003			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	29			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	82			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	13			
2. Perimeter In Non-urban Use	(10)	10			
3. Percent Of Site Being Farmed	(20)	13			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	4			
8. Creation Of Non-farmable Farmland	(10)	2			
9. Availability Of Farm Support Services	(5)	5			
10. On-Farm Investments	(20)	10			
11. Effects Of Conversion On Farm Support Services	(10)	2			
12. Compatibility With Existing Agricultural Use	(10)	2			
TOTAL SITE ASSESSMENT POINTS	160	76	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	82	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	76	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	158	0	0	0

Site Selected: A | Date Of Selection 01/18/2020 | Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

The majority of the project follows closely to the existing roadway centerline, thus minimizing the impacts to adjacent farmland.

Name of Federal agency representative completing this form: Ryan Scott | Date: 01/18/2020

(See Instructions on reverse side) **Form AD-1006 (03-02)**

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: January 02, 2020
Consultation Code: 03E12000-2020-SLI-0507
Event Code: 03E12000-2020-E-02258
Project Name: Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 03E12000-2020-SLI-0507

Event Code: 03E12000-2020-E-02258

Project Name: Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)

Project Type: TRANSPORTATION

Project Description: The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950). The project is located approximately 1.8 miles southeast of the City of Garrett, Keyser Township, Indiana. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the United States Geological Survey (USGS) Garrett, Indiana Quadrangle, and Sections 10, 11, 14 and 15, Township 33 North, Range 12 East of the USGS Auburn, Indiana Quadrangle.

The purpose of the project is to address ongoing roadway deterioration, and narrow roadway geometrics along CR 56. The need for the project is supported by the presence of alligator and block cracks, edge cracking, and extensive patching that is in poor condition throughout the project area. In addition, sections of the existing roadway either have no shoulders or are bordered by narrow earth or gravel shoulder areas less than 1-foot wide.

The proposed project would include reconstruction of approximately 1.55 miles of CR 56, including widening the roadway from the existing typical clear roadway width of 22 feet, to a proposed typical clear roadway width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). The roadway will be shifted to the north, a maximum of 14 feet at any point, to avoid impacting the existing power transmission poles on the south side of the road. Stormwater drainage along the project area will continue to be facilitated by open roadside drainage. The typical roadside ditches constructed for this project will have 4-foot wide flat bottoms and 4:1 side slopes.

It is estimated that approximately 8.45 acres of permanent right-of-way (ROW) and approximately 0.25 acre of temporary ROW will be acquired from approximately 20 parcels along the project corridor. The existing ROW width is approximately 23 feet centered on the roadway centerline. The proposed ROW width will vary from 40-50 feet centered on the

roadway centerline.

There will be no changes to permanent lighting as a result of this project. No nighttime construction is anticipated, and no temporary lighting is anticipated to be used.

The majority of the project will include minor adjustments (less than 2 feet) to the existing vertical alignment of the roadway. Excavation up to a depth of 15 feet is estimated to occur under the roadway within a section of peat and marl, which must be excavated and replaced with consolidated fill to reduce the potential for future roadway settling. This area is located approximately 0.5 mile east of SR 327.

It is anticipated that the project area will be closed for approximately one construction year, and a detour will be implemented. The proposed detour will utilize SR 327, SR 8, and Interstate (I) 69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles to a through trip.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/41.32284395951572N85.12920320642708W

Counties: DeKalb, IN

Endangered Species Act Species

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

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

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

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

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

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273
http://www.fws.gov/midwest/Endangered/section7/s7process/step1.html

In Reply Refer To: January 09, 2020
Consultation Code: 03E12000-2020-I-0507
Event Code: 03E12000-2020-E-02494
Project Name: Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)

Subject: Concurrence verification letter for the 'Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request to verify that the **Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

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

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

Project Description

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

Name

Reconstruction of County Road 56 in DeKalb County (Des. No. 1702950)

Description

The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950). The project is located approximately 1.8 miles southeast of the City of Garrett, Keyser Township, Indiana. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the United States Geological Survey (USGS) Garrett, Indiana Quadrangle, and Sections 10, 11, 14 and 15, Township 33 North, Range 12 East of the USGS Auburn, Indiana Quadrangle.

The purpose of the project is to address ongoing roadway deterioration, and narrow roadway geometrics along CR 56. The need for the project is supported by the presence of alligator and block cracks, edge cracking, and extensive patching that is in poor condition throughout the project area. In addition, sections of the existing roadway either have no shoulders or are bordered by narrow earth or gravel shoulder areas less than 1-foot wide.

The proposed project would include reconstruction of approximately 1.55 miles of CR 56, including widening the roadway from the existing typical clear roadway width of 22 feet, to a proposed typical clear roadway width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). The roadway will be shifted to the north, a maximum of 14 feet at any point, to avoid impacting the existing power transmission poles on the south side of the road. Stormwater drainage along the project area will continue to be facilitated by open roadside drainage. The typical roadside ditches constructed for this project will have 4-foot wide flat bottoms and 4:1 side slopes.

It is estimated that approximately 8.45 acres of permanent right-of-way (ROW) and approximately 0.25 acre of temporary ROW will be acquired from approximately 20 parcels along the project corridor. The existing ROW width is approximately 23 feet centered on the roadway centerline. The proposed ROW width will vary from 40-50 feet centered on the roadway centerline.

There will be no changes to permanent lighting as a result of this project. No nighttime construction is anticipated, and no temporary lighting is anticipated to be used.

The project is located within 1,000 feet of suitable summer bat habitat, and approximately

0.35 acre of tree clearing is anticipated (in suitable but undocumented habitat). Clearing is anticipated to occur outside of the active bat season.

The majority of the project will include minor adjustments (less than 2 feet) to the existing vertical alignment of the roadway. Excavation up to a depth of 15 feet is estimated to occur under the roadway within a section of peat and marl, which must be excavated and replaced with consolidated fill to reduce the potential for future roadway settling. This area is located approximately 0.5 mile east of SR 327.

It is anticipated that the project area will be closed for approximately one construction year, and a detour will be implemented. The proposed detour will utilize SR 327, SR 8, and Interstate (I) 69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles to a through trip.

Construction of the project is anticipated to being in Winter 2022 and end in Fall 2022.

Determination Key Result

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

Qualification Interview

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

3. Which Federal Agency is the lead for the action?
   A) Federal Highway Administration (FHWA)

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

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

   No

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

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

   No

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

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

   No

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

   No

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

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

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

   Yes

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

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

   Yes

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

    No

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

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

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

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

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

    No

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

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

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

    No

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

    Yes

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

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

    B) During the inactive season

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

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

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

    No

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

    No

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

    Yes

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

    No

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

    No

24. Does the project include slash pile burning?

    No

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

    No

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

    No

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

    No

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

    No

29. Does the project include percussives or other activities (**not including tree removal/ trimming or bridge/structure work**) that will increase noise levels above existing traffic/ background levels?

    Yes

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

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

    Yes

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

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

    Yes

32. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge and/or structure activities, temporary or permanent lighting, or use of percussives, limited to actions that DO NOT cause any additional stressors to the bat species?

    Examples: lining roadways, unlighted signage , rail road crossing signals, signal lighting, and minor road repair such as asphalt fill of potholes, etc.

    Yes

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

    No

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

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and conducted during the active season within undocumented habitat.

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

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

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

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

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

Automatically answered

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

38. **General AMM 1**

Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

Yes

39. **Tree Removal AMM 1**

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

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

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

Yes

40. **Tree Removal AMM 3**

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

Yes

41. **Tree Removal AMM 4**
    Can the project avoid cutting down/removal of *all* (1) **documented**[1] Indiana bat or NLEB roosts[2] (that are still suitable for roosting), (2) trees **within** 0.25 miles of roosts, and (3) documented foraging habitat any time of year?

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

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

    Yes

Project Questionnaire

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

   Yes

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

   No

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

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

   0.35

Avoidance And Minimization Measures (AMMs)

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

GENERAL AMM 1

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

TREE REMOVAL AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

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

This key was last updated in IPaC on December 02, 2019. Keys are subject to periodic revision.

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

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

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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

DeKalb County BOC
Mr. Donald D. Grogg
100 South Main Street
Auburn , IN 46706
Date

Butler, Fairman and Seufert, Inc.
Ryan L. Scott
8450 Westfield Blvd. Suite 300
Indianapolis , IN 46240

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950).

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

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

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

WATER AND BIOTIC QUALITY

1. Section 404 of the Clean Water Act requires that you obtain a permit from the U.S. Army Corps of Engineers (USACE) before discharging dredged or fill materials into any wetlands or other waters, such as rivers, lakes, streams, and ditches. Other activities regulated include the relocation, channelization, widening, or other such alteration of a stream, and the mechanical

clearing (use of heavy construction equipment) of wetlands. Thus, as a project owner or sponsor, it is your responsibility to ensure that no wetlands are disturbed without the proper permit. Although you may initially refer to the U.S. Fish and Wildlife Service National Wetland Inventory maps as a means of identifying potential areas of concern, please be mindful that those maps do not depict jurisdictional wetlands regulated by the USACE or the Department of Environmental Management. A valid jurisdictional wetlands determination can only be made by the USACE, using the 1987 Wetland Delineation Manual.

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

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

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

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

3. If the USACE determines that a wetland or other water body is isolated and not subject to Clean Water Act regulation, it is still regulated by the state of Indiana . A State Isolated Wetland permit from IDEM's Office of Water Quality (OWQ) is required for any activity that results in the discharge of dredged or fill materials into isolated wetlands. To learn more about isolated wetlands, contact the OWQ Wetlands Program at 317-233-8488.

4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at:

http://www.in.gov/idem/4384.htm (http://www.in.gov/idem/4384.htm) for the appropriate staff contact to further discuss your project.

5. Work within the one-hundred year floodway of a given water body is regulated by the Department of Natural Resources, Division of Water. The Division issues permits for activities regulated under the follow statutes:
    - IC 14-26-2 Lakes Preservation Act 312 IAC 11
    - IC 14-26-5 Lowering of Ten Acre Lakes Act No related code
    - IC 14-28-1 Flood Control Act 310 IAC 6-1
    - IC 14-29-1 Navigable Waterways Act 312 IAC 6
    - IC 14-29-3 Sand and Gravel Permits Act 312 IAC 6
    - IC 14-29-4 Construction of Channels Act No related code

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

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

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

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

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

    Please be mindful that approximately 149 Municipal Separate Storm Sewer System (MS4) areas are now being established by various local governmental entities throughout the state as part of

the implementation of Phase II federal storm water requirements. All of these MS4 areas will eventually take responsibility for Construction Plan review, inspection, and enforcement. As these MS4 areas obtain program approval from IDEM, they will be added to a list of MS4 areas posted on the IDEM Website at: http://www.in.gov/idem/4900.htm (http://www.in.gov/idem/4900.htm).

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

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

7. For projects involving impacts to fish and botanical resources, contact the Department of Natural Resources - Division of Fish and Wildlife (317/232-4080) for addition project input.

8. For projects involving water main construction, water main extensions, and new public water supplies, contact the Office of Water Quality - Drinking Water Branch (317-308-3299) regarding the need for permits.

9. For projects involving effluent discharges to waters of the State of Indiana , contact the Office of Water Quality - Permits Branch (317-233-0468) regarding the need for a National Pollutant Discharge Elimination System (NPDES) permit.

10. For projects involving the construction of wastewater facilities and sewer lines, contact the Office of Water Quality - Permits Branch (317-232-8675) regarding the need for permits.

AIR QUALITY

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

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

   However, IDEM generally recommends that you take vegetative wastes to a registered yard waste composting facility or that the waste be chipped or shredded with composting on site (you must register with IDEM if more than 2,000 pounds is to be composted; contact 317/232-0066). The finished compost can then be used as a mulch or soil amendment. You also may bury any

vegetative wastes (such as leaves, twigs, branches, limbs, tree trunks and stumps) onsite, although burying large quantities of such material can lead to subsidence problems, later on.

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

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

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

   The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher, EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf (http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf).) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

   To learn more about radon, radon risks, and ways to reduce exposure visit: http://www.in.gov/isdh/regsvcs/radhealth/radon.htm (http://www.in.gov/isdh/regsvcs/radhealth/radon.htm), http://www.in.gov/idem/4145.htm (http://www.in.gov/idem/4145.htm), or http://www.epa.gov/radon/index.html (http://www.epa.gov/radon/index.html).

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

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

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

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

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

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

4. With respect to lead-based paint removal: IDEM encourages all efforts to minimize human exposure to lead-based paint chips and dust. IDEM is particularly concerned that young children exposed to lead can suffer from learning disabilities. Although lead-based paint abatement efforts are not mandatory, any abatement that is conducted within housing built before January 1, 1978 , or a child-occupied facility is required to comply with all lead-based paint work practice standards, licensing and notification requirements. For more information about lead-based paint removal visit: http://www.in.gov/isdh/19131.htm (http://www.in.gov/isdh/19131.htm).

5. Ensure that asphalt paving plants are permitted and operate properly. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (http://www.ai.org/legislative/iac/T03260/A00080.PDF (http://www.ai.org/legislative/iac/T03260/A00080.PDF)).

6. If your project involves the construction of a new source of air emissions or the modification of an existing source of air emissions or air pollution control equipment, it will need to be reviewed by the IDEM Office of Air Quality (OAQ). A registration or permit may be required under 326 IAC 2 (View at: www.ai.org/legislative/iac/t03260/a00020.pdf (http://www.ai.org/legislative/iac/t03260/a00020.pdf).) New sources that use or emit hazardous air pollutants may be subject to Section 112 of the Clean Air Act and corresponding state air regulations governing hazardous air pollutants.

7. For more information on air permits visit: http://www.in.gov/idem/4223.htm (http://www.in.gov/idem/4223.htm), or to initiate the IDEM air permitting process, please contact

the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or OAMPROD atdem.state.in.us.

LAND QUALITY

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

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

FINAL REMARKS

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

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

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

Signature(s) of the Applicant

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

Project Description

The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950).

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

Date: 01-06-2020

Signature of the INDOT
Project Engineer or Other Responsible Agent
W L Hartman / President
William L Hartman ~~Mr. Donald D. Gregg~~

Date: January 3, 2020

Signature of the
For Hire Consultant

Ryan L. Scott

From: Matt Brinkman
To: Jenni Lee
Subject: RE: Early Coordination Request for Des No. 1702950, CR 56, DeKalb County
Date: Wednesday, January 22, 2020 1:17:03 PM

Jenni,
We have reviewed the documentation that you sent. We have no comments to add to the project scope.
Thank you,
Matt

Matt Brinkman
Executive Director
Region 3-A
217 Fairview Blvd
Kendallville, IN 46755
260-347-4714 office

From: Jenni Lee [mailto:JLee@bfsengr.com]
Sent: Wednesday, January 22, 2020 10:16 AM
To: Matt Brinkman
Cc: Ryan Scott
Subject: Early Coordination Request for Des No. 1702950, CR 56, DeKalb County

Dear Mr. Brinkman:

Our firm has been retained by the DeKalb County Board of Commissioners to prepare an environmental study for the project with Des No 1702950, CR 56 Reconstruction. Please find attached a request for technical assistance from your agency. In order to keep the project on schedule we are requesting an expedited review from your agency. Please respond within 7 days, if possible.

The NIRCC is included in this early coordination request due to the planned trail that crosses the western end of the project area approximately 415 feet east of SR 205, which is part of the Northeast Indiana United Trails Plan which has been adopted by the Northeastern Indiana Regional Coordinating Council and Region 3A Development and Regional Planning Commission. This is a snip of the trail location relative to the project area:

Please let me know if you have any questions.

Respectfully,

Jenni Lee
Environmental Scientist

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300 | Indianapolis, IN 46240-8302 |
p 317-713-4615 | f 317-713-4616
JLee@bfsengr.com | www.BFSEngr.com

February 3, 2020

Ryan L. Scott
Butler Fairman & Seufert
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240-5920

Re: DES 1702950 County Road 56 Reconstruction

Location: Dekalb County

Dear Mr. Scott:

Members of our staff reviewed your letter and report, dated January 22, 2020 concerning the Early Coordination of the County Road 56 reconstruction project in Dekalb County. The NIRCC staff has the following comments regarding this project.

- The Trail identified along the abandoned Railroad just east of SR 205 is not a current project and will not affect the project.
- There are potential wetlands that intersect the project approximately .5 miles east of SR 205.

Thank you for the opportunity to comment on this project. If you have any questions, please do not hesitate to contact our office.

Sincerely,

Stacey Gorsuch
Principal Transportation Planner

200 East Berry Street Suite 230
Fort Wayne, Indiana 46802-2735

Website
www.nircc.com

Executive Director: Daniel S. Avery
Telephone: (260) 449-7309
Fax: (260) 449-8652

Jenni Lee

From: Bales, Ronald <rbales@indot.IN.gov>
Sent: Monday, February 24, 2020 8:50 AM
To: Jenni Lee
Cc: Miller, Brandon; Malone, Barbara
Subject: RE: Possible Environmental Justice Effect for Des No 1702950, CR 56 Reconstruction
Attachments: Project Description_6272.docx; EJ Map_6272.pdf; aff_reports_EJ_Results from Census Page_6272.pdf; EJ Worksheet_Des No 1702950, CR 56 Reconstruction.xlsx; CR 56 PLANS_6272.pdf

INDOT-Environmental Services Division (ESD) has reviewed the project information along with the Environmental Justice (EJ) Analysis for the above referenced project. The project would require strip right-of-way, no relocations, would not disrupt community cohesion or create a physical barrier. The project would improve mobility and safety within the project area. Access to all properties will maintained during construction along with an official detour for through traffic. With the information provided, INDOT-ESD would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low incomes populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. No further EJ Analysis is required.

Ron Bales
INDOT-Environmental Services Division
Office: (317) 234-4916
Email: rbales@indot.in.gov

From: Jenni Lee [mailto:JLee@bfsengr.com]
Sent: Wednesday, January 22, 2020 3:36 PM
To: Bales, Ronald <rbales@indot.IN.gov>
Subject: FW: Possible Environmental Justice Effect for Des No 1702950, CR 56 Reconstruction

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Ron,

This is an LPA project for the DeKalb County Board Of Commissioners. The Environmental Justice analysis detected a potential low-income effect. The results are below. The project overlaps two Census tracts. I performed the analysis for each Census Tract and for their combined populations as well. Please find attached the project description, The Census Map, the American Fact finder data used for the analysis, and the Environmental Justice workbook I used for the analysis.

Please advise how to proceed.

Table 1: Minority and Low-Income Data (American Community Survey 5-Year Estimates, 2013-2017

COC	AC1 & 2 combined	
DeKalb County, Indiana	Census tracts 206.02 and 207 combined	Cen

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

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

Date: 1/30/2020

Project Designation Number: 1702950

Route Number: CR 56

Project Description: Road Reconstruction from SR 337 to E JCT of CR 17

The Dekalb County Commissioners propose a federal aid project involving the reconstruction of County Road (CR) 56 from approximately 300 feet east of State Road (SR) 327 to 275 feet west of the east junction of CR 17 (Des. No. 1702950). The project is located approximately 1.8 miles southeast of the City of Garrett, Keyser Township, Indiana and approximately 0.5 mile east of SR 327. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the United States Geological Survey (USGS) Garrett, Indiana Quadrangle, and Sections 10, 11, 14 and 15, Township 33 North, Range 12 East of the USGS Auburn, Indiana Quadrangle.

The purpose of the project is to address ongoing roadway deterioration, and narrow roadway geometrics along CR 56. The need for the project is supported by the presence of alligator and block cracks, edge cracking, and extensive patching that is in poor condition throughout the project area. In addition, sections of the existing roadway either have no shoulders or are bordered by narrow earth or gravel shoulder areas less than 1-foot wide.

The proposed project would include reconstruction of approximately 1.55 miles of CR 56, including widening the roadway from the existing typical clear roadway width of 22 feet, to a proposed typical clear roadway width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). The roadway would be shifted to the north, a maximum of 14 feet at any point, to avoid impacting the existing power transmission poles on the south side of the road. Stormwater drainage along the project area would continue to be facilitated by open roadside drainage. The typical roadside ditches constructed for this project would have 4-foot wide flat bottoms and 4:1 side slopes.

It is estimated that approximately 8.45 acres of permanent right-of-way (ROW) and approximately 0.25 acre of temporary ROW will be acquired from approximately 20 parcels along the project corridor. There would be no changes to permanent lighting as a result of this project. No nighttime construction is anticipated, and no temporary lighting would be anticipated to be used.

The majority of the project would include minor adjustments (less than 2 feet) to the existing vertical alignment of the roadway. Excavation up to a depth of 15 feet would be estimated to occur under the roadway within a section of peat and marl, which would require excavation and replacement with consolidated fill to reduce the potential for future roadway settling.

It is anticipated that the project area would be closed for approximately one construction year, and a detour would be implemented. The proposed detour would utilize SR 327, SR 8, and Interstate (I) 69. The detour is approximately 9.6 miles in length, adding approximately 9.4 miles to a through trip.

Feature crossed (if applicable):

Township: Keyser and Butler townships

City/County: DeKalb County

Information reviewed (please check all that apply):

General project location map ☒ USGS map ☒ Aerial photograph ☒

Written description of project area ☐ General project area photos ☐

Previously completed archaeology reports ☐ Interim Report ☒

Previously completed historic property reports ☐

Soil survey data ☐ Bridge inspection information ☐

Other (please specify): SHAARD GIS; online street-view imagery; DeKalb County property records (accessed via https://beacon.schneidercorp.com/Application.aspx?AppID=385&LayerID=6053&PageTypeID=2&PageID=3292)

Bubb, Louis and Emily Culver
2019 Phase Ia Field Reconnaissance for the Reconstruction of C.R. 56 from S.R. 205 to C.R. 17 (1702950) in Butler and Keyser Townships, Dekalb County, Indiana. Report on file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

Results of the Records Review for Above-Ground Resources:

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for DeKalb County. No listed resources are located near the project area.

The *DeKalb County Interim Report* (2003; Keyser Township Scattered Sites and Butler Township Scattered Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. The National Register & IHSSI information is available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD), and the Indiana Historic Buildings, Bridges, and Cemeteries Map (IHBBCM). The SHAARD and IHBBCM information was checked against the Interim Report hard copy maps. No IHSSI properties are located adjacent to the project area.

Land adjacent to the project area includes agricultural and wooded areas. Above-ground resources adjacent to the project area consist of late twentieth-century commercial properties, late nineteenth-century vernacular houses (common types altered by additions and replacement materials, e.g. roofs, windows, and siding), late twentieth-century houses, and outbuildings associated with the residential structures. None of the properties adjacent to the project area possess the significance, integrity, and/or age necessary to be considered potentially eligible for the National Register.

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

Archaeology Report Author/Date:

Louis Bubb and Emily Culver/November 15, 2019

Summary of Archaeology Investigation Results:

An archaeological records check and Phase Ia field reconnaissance (Bubb and Culver 2019) were conducted by 106 Consulting personnel who meet the Secretary of the Interior's Professional

Qualification Standards as per 36 CFR Part 61. The records check identified no previously recorded sites within or adjacent to the project area nor has it been examined by a previous archaeological survey. The project area consisted of approximately 14 acres of new and existing r/w that was investigated through a combination of pedestrian survey, visual inspection and shovel probing. Approximately 75% of the project area consisted of agricultural fields with 30-75% visibility and was examined through pedestrian transects. The remainder was subject to shovel probing at 15m intervals or visual inspection. Five new archaeological sites were identified; two (2) were prehistoric, two (2) were historic and one (1) contained both prehistoric and historic materials. The prehistoric sites and components (n= 3) were all isolated finds. None of them contained diagnostic elements, fire-cracked rock, or any other evidence of cultural features. These three (3) prehistoric sites and prehistoric components lack the potential to provide new and significant cultural information through additional archaeological research (Criterion D). It is recommended that they be considered ***not eligible*** for the National Register of Historic Places. The historic sites and components (n= 3) were each artifact scatters interpreted to represent dump sites. They each contained sparse (n≤ 5 artifacts) cultural debris and none exhibited any evidence of cultural features or diagnostic horizons capable of providing significant cultural information through additional archaeological research (Criterion D). It is recommended that these three (3) historic sites and historic components be considered ***not eligible*** for the National Register of Historic Places. The report has been reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable, and we concur with the evaluations and recommendations made by Bubb and Culver (November 15, 2019). Therefore, there are no archaeological concerns.

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

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

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

Condition A (Archaeological Resources)

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

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

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

Condition B (Above-Ground Resources)

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

If no, please explain:

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

INDOT Cultural Resources staff reviewer(s): Anthony Ross and Shaun Miller

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

Phase Ia Field Reconnaissance for the Reconstruction of C.R. 56 from S.R. 205 to C.R. 17 (Des. 1702950) in Butler and Keyser Townships, Dekalb County, Indiana

Prepared by:

Louis Bubb, MA & Emily Culver, MA

Submitted By:

Louis Bubb, MA
Principal Investigator
106 Consulting LLC
4425 Redmont Avenue
Deer Park, Ohio 45236
513.620.6770
LouisBubb@Gmail.com

Submitted To:

Ms. Elizabet Biggio
Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240-8302
317.713.4615

Lead Agency:

Federal Highway Administration

November 15, 2019

Louis Bubb, MA, Principal Investigator
Project #106C – 0370

VII: Recommendations

From October 8-10th, 2019, 106 Consulting, LLC (106C) conducted a Phase Ia cultural resources survey for the proposed reconstruction of C.R 56 from S.R. 205 to C.R. 17 (Des. 1702950) in Butler and Keyser Townships, Dekalb County, Indiana. This investigation was conducted at the behest of Ms. Elizabet Biggio of Butler, Fairman & Seufert, Inc. in order to satisfy the requirements of Section 106 of the National Historic Preservation Act.

The goals of this investigation were (1) to confirm or deny the presence of archaeological resources within the project area and, if located, (2) to offer preliminary interpretations regarding their eligibility for inclusion in the National Register of Historic Places. The investigation consisted of an initial records review (which utilized site records, maps and other materials on file at the Indiana Division of Historic Preservation and Archaeology (DHPA) to identify previously recorded cultural resources within and around the survey area) and a Phase Ia field reconnaissance (to document any cultural resources located within the survey area).

The literature review indicated that the proposed project area had not been subject to prior investigation by a professional archaeologist. Two (2) archaeological sites had been documented within 1.6 km (1.0 mi) of the project area and several map documented structures – which often mark the presence of undocumented historic sites – were noted within or adjacent to it. As such, a Phase Ia field reconnaissance was warranted.

Five (5) undocumented cultural resources – 12Dk0412 through 12Dk0416 – were recorded during this Phase Ia field reconnaissance. Of those, two (2) were prehistoric, two (2) were historic and one (1) contained both prehistoric and historic materials.

The prehistoric sites and components (n= 3) were all isolated finds. None of them contained diagnostic elements, fire-cracked rock, or any other evidence of cultural features. These three (3) prehistoric sites and prehistoric components lack the potential to provide new and significant cultural information through additional archaeological research (Criterion D). It is recommended that they be considered ***not eligible*** for the National Register of Historic Places.

The historic sites and components (n= 3) were each artifact scatters interpreted to represent dump sites. They each contained sparse (n≤ 5 artifacts) cultural debris and none exhibited any evidence of cultural features or diagnostic horizons capable of providing significant cultural information through additional archaeological research (Criterion D). It is recommended that these three (3) historic sites and historic components be considered ***not eligible*** for the National Register of Historic Places.

No archaeological sites eligible for inclusion to the National Register of Historic Places are located inside the proposed project area. Therefore, no further archaeological assessment seems warranted. Project clearance is recommended.

Please be advised that this report itself does not, in itself, grant project clearance. In the unlikely event that unrecorded archaeological deposits are encountered during construction, earthmoving in their vicinity must cease and INDOT-CRO and DHPA contacted to determine the next appropriate actions. Similarly, if human remains are observed, earthmoving in their vicinity must cease and INDOT-CRO, the DHPA, and local law enforcement must be contacted.

Appendix E

Red Flag Investigation and Hazardous Materials Investigations

Butler Fairman Seufert
CIVIL ENGINEERS

Headquarters:
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Fort Wayne
Jeffersonville
Lafayette
Merrillville
Plainfield

Founded 1961

Member ACEC INDIANA

Date: February 26, 2019

From: Jennifer Lee
Butler, Fairman and Seufert, Inc.
8450 Westfield Boulevard, Suite 300
Indianapolis, IN 46240
jlee@bfsengr.com

Re: RED FLAG INVESTIGATION
DES #1702950, Local Project
Road Reconstruction
County Road 56, from 200 ft E of SR 205 to 275 ft W of CR 17
Dekalb County, Indiana

PROJECT DESCRIPTION

Brief Description of Project: This project involves the reconstruction of CR 56 from 200 feet east of State Road (SR) 205 to 275 feet west of the north section of CR 17. The proposed project would include reconstruction of approximately 1.55 miles of CR 56, from 200 feet east of State Road (SR) 205 to 275 feet west of the north section of CR 17, including widening the roadway from the existing typical width of 21 feet, to a proposed typical width of 30 feet, which would include two (2) 12-foot through lanes and two (2) 5-foot shoulders (3-foot paved, 2-foot compacted aggregate). The roadway will be shifted to the north to avoid impacting the existing power transmission poles on the south side of the road. Drainage improvements will be made, including installation of new roadside ditches as well as erosion protection.

Bridge and/or Culvert Project: Yes ☐ No ☒ **Structure #**

If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).

Proposed right of way: Temporary ☒ # Acres 2.0 **Permanent** ☒ # Acres 6.5

Type of excavation: Excavation will occur over the extent of the project area, up to a depth of approximately 15 feet.

Maintenance of traffic: CR 56 will be closed and a detour will be implemented utilizing SR 327, SR 8, and I-69. Access to all private properties will be maintained.

Work in waterway: Yes ☐ No ☐ **Below ordinary high water mark:** Yes ☐ No ☐

State Project: ☐ **LPA:** ☒

Any other factors influencing recommendations: The project description is subject to additional changes as preliminary design progresses.

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	**N/A**	Recreational Facilities	**N/A**
Airports[1]	**N/A**	Pipelines	**1**
Cemeteries	**N/A**	Railroads	**2**
Hospitals	**N/A**	Trails	**3**
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.

Explanation:

Pipelines: One (1) pipeline segment is located within the 0.5 mile search radius. The pipeline segment, associated with Northern Indiana Fuel & Light Co., is mapped approximately 0.33 mile northwest of the project area. No impact is expected.

Railroads: Two (2) railroad segments are mapped within the 0.5 mile search radius. The nearest railroad, associated with Conrail Railroad is abandoned and overlaps the project area. Coordination with Conrail Railroad should occur.

Trails: Three (3) trail segments are mapped within the 0.5 mile search radius. The nearest trail, Rail Trial Southwest Dekalb Co to Ohio State Line, overlaps the project area. Coordination with the Northeastern Indiana Regional Coordinating Council should occur.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**2**	Canal Routes – Historic	**N/A**
Karst Springs	**N/A**	NWI – Wetlands	**23**
Canal Structures – Historic	**N/A**	Lakes	**1**
NPS NRI Listed	**N/A**	Floodplain – DFIRM	**2**
NWI-Lines	**1**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**N/A**	Sinkhole Areas	**N/A**
Rivers and Streams	**N/A**	Sinking-Stream Basins	**N/A**

Explanation:

NWI – Points: Two (2) NWI points are mapped within the 0.5 mile search radius. The nearest NWI point is mapped approximately 0.15 mile north of the project area. No impacted is expected.

NWI – Lines: One (1) NWI line is mapped within the 0.5 mile search radius. The nearest NWI line is mapped approximately 0.10 mile northwest of the project area. No impact is expected.

NWI – Wetlands: 23 wetland polygons are located within the 0.5 mile search radius. The nearest wetland polygon overlaps the project area. A Waters of the US Report is recommended and coordination with the appropriate agency, if applicable, will occur.

Lakes: One (1) lake polygon is mapped within the 0.5 miles search radius. The lake polygon is mapped approximately 0.29 mile south of the project area. No impact is expected.

Floodplain – DFIRM: Two (2) floodplain polygons are mapped within the 0.5 mile search radius. The nearest floodplain polygon is mapped approximately 0.47 mile southeast of the project area. No impact is expected.

URBANIZED AREA BOUNDARY SUMMARY

Urbanized Area Boundary (UAB): This project lies within the Town of Garrett, IN UAB; however, a Rule 13 Permit from IDEM has not been issued. No further coordination is necessary at this time.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation:

No mining or mineral exploration resources were identified within the 0.5 mile search radius.

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

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

Explanation:

Underground Storage Tank (UST) Sites: One (1) UST site mapped within the 0.5 mile search radius. Benson Enterprise, Inc., 5727 CR #11, Garrett, Indiana, Dekalb County, and Agency ID 687, is mapped approximately 0.17 mile southwest of the project area. This site was formerly the site of a gas station. According to the IDEM Virtual File Cabinet (VFC), the UST was closed in-place on May 3, 1995. There was no evidence of petroleum related contamination in the soil. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Dekalb 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 endangered 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 area is located in a rural area, surrounded by farm fields and some residential properties. 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:
Railroads: The nearest railroad, Conrail Railroad, runs northeast/southwest through the far west end of the project. Coordination with INDOT Utilities and Railroads should occur.

Trails: The nearest trail, Rail Trial SW Dekalb Co to Ohio State Line, is mapped running northeast/southwest through the far west end of the project. Coordination with the Northeastern Indiana Regional Coordinating Council should occur.

WATER RESOURCES:
NWI – Wetlands: The nearest wetland polygon is mapped within the project area, approximately 0.50 mile east of the west end of the project. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

URBANIZED AREA BOUNDARY: N/A

MINING /MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: N/A

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

Prepared by:
Jennifer Lee
Environmental Scientist
Butler, Fairman and Seufert, Inc.

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

SITE LOCATION: YES

INFRASTRUCTURE: YES

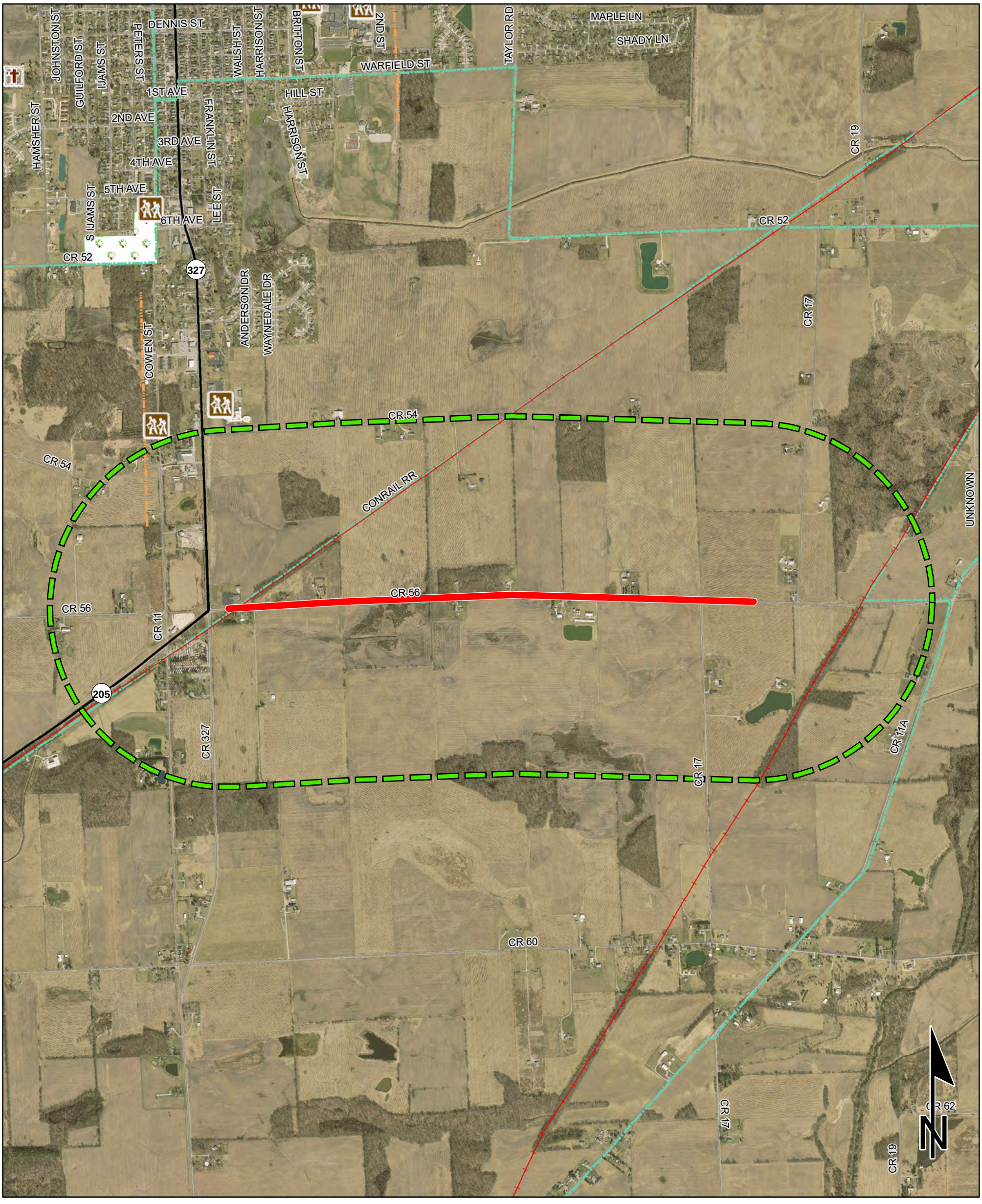
WATER RESOURCES: YES

URBANIZED AREA BOUNDARY: YES

MINING/MINERAL EXPLORATION: N/A

HAZMAT CONCERNS: YES

Red Flag Investigation - Infrastructure
CR 56 Reconstruction
DeKalb County, Indiana
Des. No. 1702950



0.35 0.175 0 0.35 Miles

Sources:

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

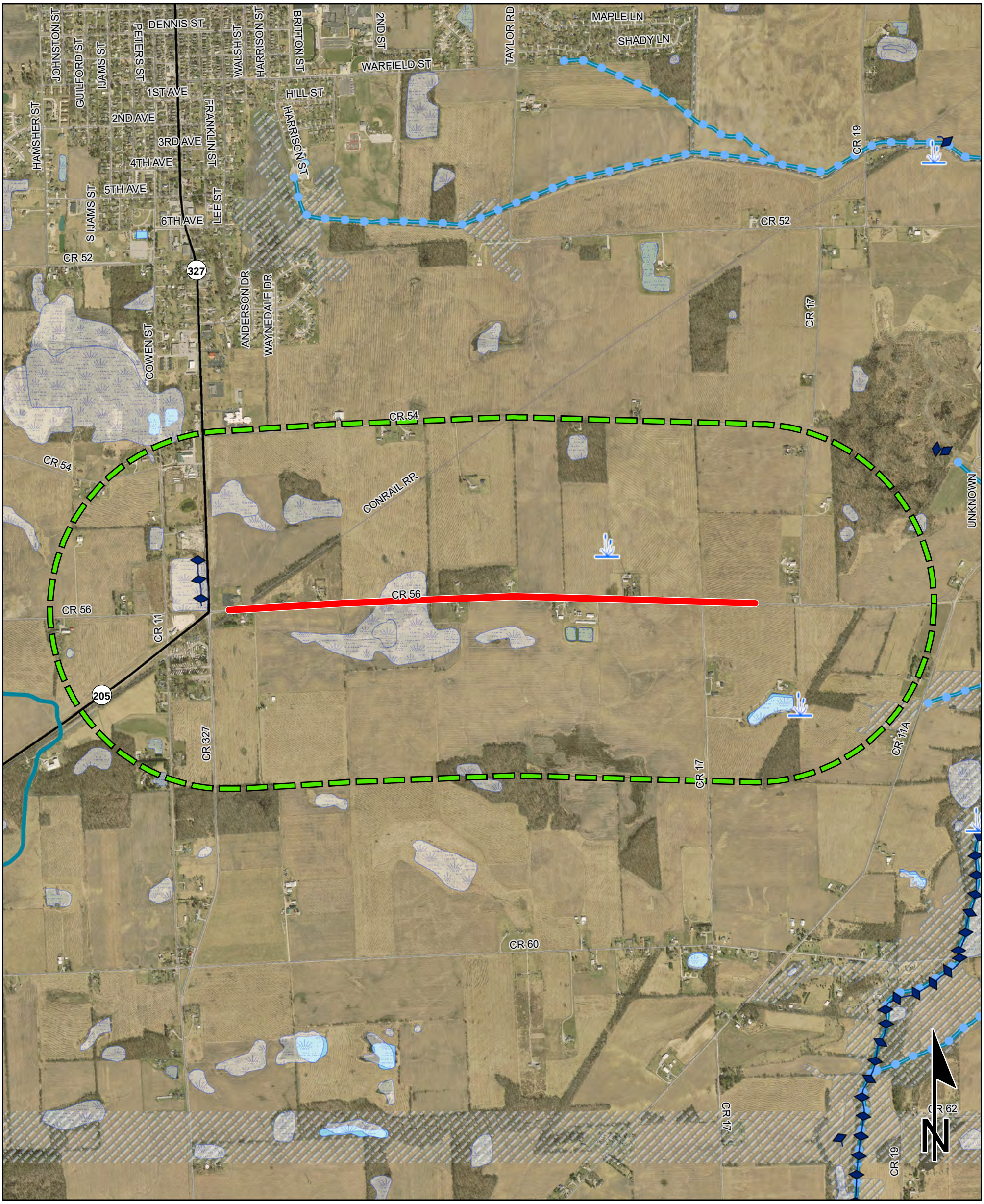
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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

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

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

Red Flag Investigation - Water Resources
CR 56 Reconstruction
DeKalb County, Indiana
Des. No. 1702950



0.35 0.175 0 0.35 Miles

Sources:

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

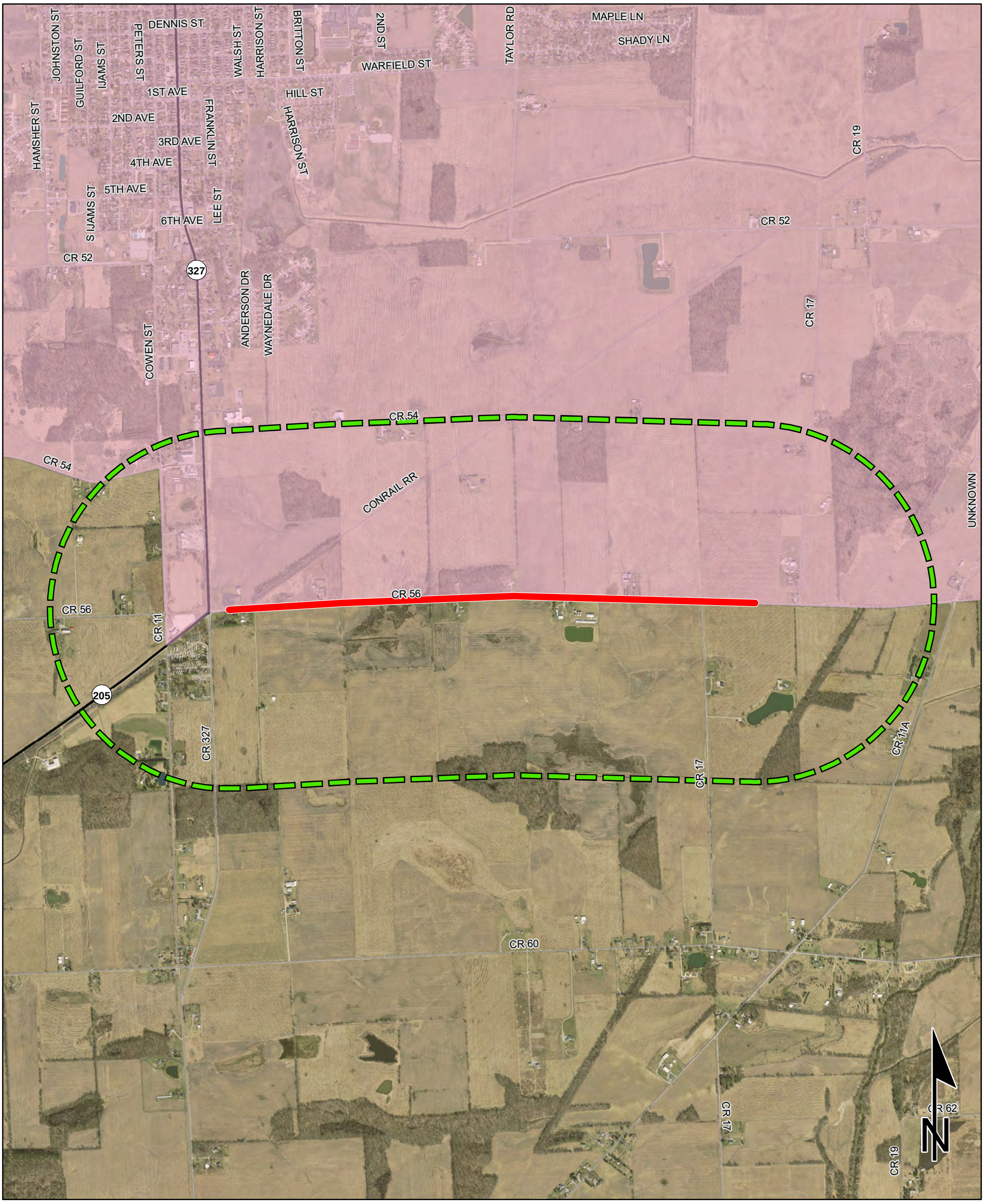
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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

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

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

Red Flag Investigation - Urbanized Area Boundary
CR 56 Reconstruction
DeKalb County, Indiana
Des. No. 1702950



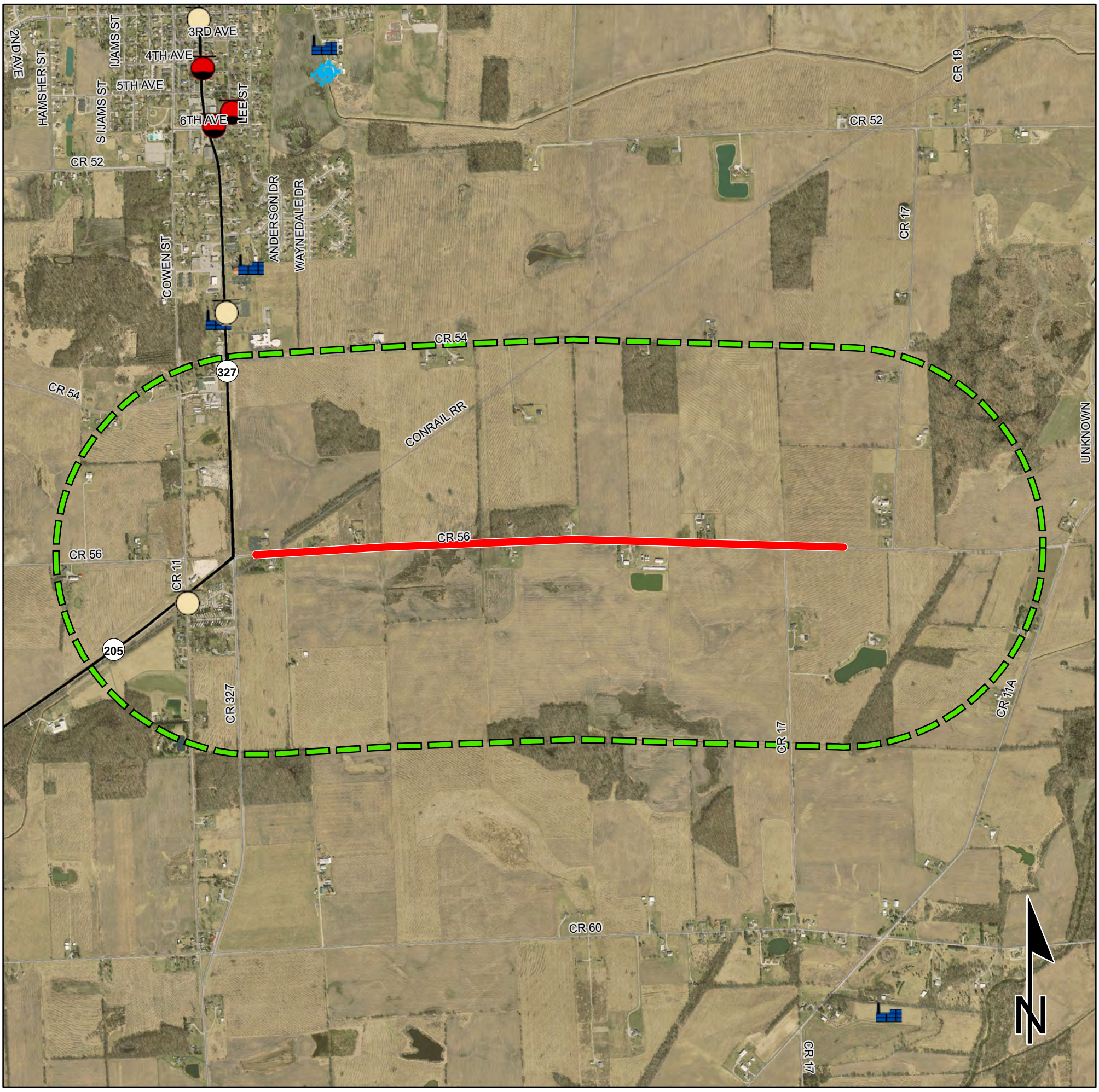
0.35 0.175 0 0.35 Miles

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

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

UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Hazardous Material Concerns
CR 56 Reconstruction
DeKalb County, Indiana
Des. No. 1702950



- 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

0.35 0.175 0 0.35 Miles

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

Sources:

Non Orthophotography

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

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

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

Indiana County Endangered, Threatened and Rare Species List

County: De Kalb

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma obliquata perobliqua	White catspaw	LE	SE	G1T1	SX
Epioblasma rangiana	Northern Riffleshell	LE	SE	G2	S1
Fusconaia subrotunda	Longsolid	C	SX	G3	SX
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G4G5	S2
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Simpsonaias ambigua	Salamander Mussel	C	SSC	G3	S2
Toxolasma lividus	Purple Lilliput	C	SSC	G3Q	S2
Villosa fabalis	Rayed Bean	LE	SE	G2	S1
Insect: Lepidoptera (Butterflies & Moths)					
Catocala marmorata	Marbled Underwing Moth		SE	G3G4	S1
Fish					
Moxostoma valenciennesi	Greater Redhorse		SE	G4	S2
Amphibian					
Ambystoma laterale	Blue-spotted Salamander		SSC	G5	S2
Reptile					
Emydoidea blandingii	Blanding's Turtle	C	SE	G4	S2
Thamnophis butleri	Butler's Garter Snake		SE	G4	S1
Bird					
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B
Circus hudsonius	Northern Harrier		SE	G5	S2
Cistothorus platensis	Sedge Wren		SE	G5	S3B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Pandion haliaetus	Osprey		SSC	G5	S1B
Rallus limicola	Virginia Rail		SE	G5	S3B
Mammal					
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Andromeda glaucophylla	Bog Rosemary		ST	G5T5	S2
Botrychium simplex	Least Grape-fern		SE	G5	S1
Carex echinata	Little Prickly Sedge		SE	G5	S1
Dactylorhiza viridis	Long-bract Green Orchis		SE	G5	S1
Eriophorum spissum	Dense Cotton-grass		SX	G5T5	SX
Glyceria grandis	American Manna-grass		SE	G5	S1

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: De Kalb

Species Name	Common Name	FED	STATE	GRANK	SRANK
Lathyrus ochroleucus	Pale Vetchling Peavine		SE	G5	S1
Luzula acuminata	Hairy Woodrush		SE	G5	S1
Milium effusum	Tall Millet-grass		ST	G5	S1
Panax trifolius	Dwarf Ginseng		WL	G5	S3
Platanthera orbiculata	Large Roundleaf Orchid		SX	G5	SX
Poa alsodes	Grove Meadow Grass		SR	G4G5	S3
Poa paludigena	Bog Bluegrass		SR	G3	S3
Potamogeton friesii	Fries' Pondweed		SE	G5	S1
Potamogeton richardsonii	Redheadgrass		SR	G5	S2
Ripariosida hermaphrodita	Virginia Mallow		SE	G3	S1
Utricularia cornuta	Horned Bladderwort		SE	G5	S1
High Quality Natural Community					
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - upland dry-mesic Northern Lakes	Northern Lakes Dry-mesic Upland Forest		SG	GNR	S1
Forest - upland mesic Central Till Plain	Central Till Plain Mesic Upland Forest		SG	GNR	S3
Forest - upland mesic Northern Lakes	Northern Lakes Mesic Upland Forest		SG	GNR	S1
Wetland - swamp shrub	Shrub Swamp		SG	GU	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

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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

Ecological and Water Resources

Waters of the US Determination Report

Reconstruction of State Road (SR) 56
DeKalb County, Indiana, Des No. 1702950

Looking East Along the North Side of CR 56
Photo taken on June 10, 2019

Butler, Fairman & Seufert, Inc.
8450 Westfield Blvd., Suite 300
Indianapolis, IN 46240
(317) 713-4615
www.bfsengr.com

May 12, 2020

Waters of the U.S. Determination Report

INVESTIGATION FOR
COUNTY ROAD 56
ROAD RECONSTRUCTION
NEAR GARRETT, DEKALB COUNTY, INDIANA

PREPARED BY: RYAN SCOTT
RSCOTT@BFSENGER.COM

"WATERS OF THE U.S." DETERMINATION REPORT

Reconstruction of State Road (SR) 56
DeKalb County, Indiana
Des No. 1702950
Prepared By:
Butler, Fairman & Seufert, Inc.
May 12, 2020

Date of Field Investigation(s): March 19, 2019, June 10, 2019

Project Location: The project is located along SR 56 from approximately 0.08 mile east of SR 327 and continuing east for approximately 3 miles, in DeKalb County, Indiana. The project is also located in Sections 10 and 15, Township 33 North, Range 12 East of the U.S. Geological Survey (USGS) Garrett Quadrangle, and Sections 10, 11, 14, and 15, Township 33 North, Range 12 East of the USGS Auburn Quadrangle.

LAT 41.3227354 N; LONG -85.1315661 W

Project Description:

The DeKalb County Commissioners, with funding from the Federal Highway Administration (FWHA), proposes a roadway reconstruction project to CR 56 from 200 feet east of SR 327 to 275 feet west of the north junction of CR 17. This is a federal aid project.

DESKTOP RECONNAISSANCE

Site(s) Background:

Prior to the field investigation, several reference materials were consulted to gain information about the site. The USGS Garrett and Auburn, IN quadrangle maps and Light Detection and Ranging (LiDAR) mapping were used to determine contours of the site and locate any water bodies in the area, as well as to provide a legal description of the area. The Soil Conservation Service's [now known as the Natural Resources Conservation Service (NRCS)], 1982 *Soil Survey of DeKalb County, Indiana* Panel 31 was consulted to determine if the project area contained any soils listed in either the *Hydric Soils of the United States* manual or the state list of hydric soils publication, along with a description of characteristics displayed by the mapped soil types of the area. The USFWS NWI map was used to find and classify any previously catalogued wetlands in the project area. The project overlaps a mapped wetland. The Indiana Department of Natural Resources' (IDNR) floodplain map was consulted to gain an understanding of historic flood locations and frequency. All of this information provided a background for the hydrologic regime of the area.

Soils:

According to the Soil Survey Geographic (SSURGO) Database for DeKalb County, Indiana, the project area does contain soil areas with nationally listed hydric soils. The following soil type is mapped within the proposed study limits.

Soil Map Summary Table
Reconstruction of CR 56
DeKalb County, Indiana
Des No. 1702950

Soil Name	Map Abbreviation	Hydric Range
Pewamo silty clay	Pe	Hydric (100%)
Blount silt loam, 1 to 4% slopes, eroded	BaB2	Hydric (1-32%) 4% Hydric Inclusions
Houghton muck, drained	Hw	Hydric (100%) 100% Hydric Inclusions
Morley silt loam 6 – 12% slopes, eroded	MoC2	Hydric (1 to 32%) 3% Hydric Inclusions

National Wetland Inventory (NWI) Information:

There are wetlands or linear water features identified in or near the project area. The following water resources are mapped within the proposed project limits.

NWI Information Summary Table
Reconstruction of CR 56
DeKalb County, Indiana
Des No. 1702950

Wetland/Water Feature Type	Classification (per Cowardin et. al.)	Size (acres)	Location (approximate)
Freshwater Emergent Wetland	PEM1Bd	5.70	Within the study area north of CR 56 approximately 0.42 mile east of SR 327
Freshwater Emergent Wetland	PEM1A	26.13	Within the study area south of CR 56 approximately 0.42 mile east of SR 327

The results of the NWI mapping indicates that two (2) water resources, both Freshwater Emergent Wetlands, are mapped within the study area.

Hydrologic Unit Code (HUC): 041000030707; Dosch Ditch-Cedar Creek

Attached documents:

* Maps (State and Topographic, Water Resources Aerial, LiDAR, NRCS Soils, NWI, FEMA FIRM)
* Photographs with orientation map
* Wetland Data Sheets
* Preliminary Jurisdictional Determination Form and Table

FIELD RECONNAISSANCE

The footprint of the investigation consisted of the area that has the potential to be impacted based on all possible design scenarios. The area of investigation was evaluated for the presence or absence of wetlands and waterways. Approximately 19 acres were investigated. The study limits extend along CR 56, from a location approximately 200 feet east of SR 327 to 275 feet west of the north junction of CR 17, and including approximately 50 feet north and south of the existing centerline of the roadway. The study area is located in a rural landscape consisting of primarily agricultural land use, as well as some residential land use. The area was investigated by walking transects east to west within the study limits for the project and looking for any visual evidence of waterway or wetland characteristics. All areas mapped as wetlands on the U.S. Fish and Wildlife Service's (USFWS) National Wetland Inventory (NWI) map were investigated. Sampling points, also referred to as data points, were taken where wetland characteristics were observed during field reconnaissance. Sampling points were paired with a sampling point outside the potential wetland area to support the location of the wetland boundary. Any drainage features that display a defined channel and ordinary high-water mark (OHWM) were considered potentially jurisdictional streams. Any water features that did not meet these criteria were not considered as streams. The location of all wetland data points, wetland boundaries, and potentially jurisdictional roadside ditches, were recorded using handheld GPS equipment.

Stream Feature Discussion:

According to the NWI mapper, there are no stream features mapped within the study area. However, according to the StreamStats website (https://streamstats.usgs.gov/ss/) there are two (2) streams within the study area that meet and become one (1) stream where they cross CR 56 approximately 0.64 mile east of SR 327. The StreamStats website reports that the upstream drainage area of both streams combined where they cross CR 56 is 0.127 square mile. During field reconnaissance a corrugated metal pipe (CMP) was located at this location; however, no defined channel and ordinary high-water mark (OHWM) were observed in the study area surrounding the CMP. No other potential stream features were identified during the field reconnaissance of the remaining project area.

Wetland Feature Discussion:

Three (3) suspected wetland features were investigated within the study limits. This included the two NWI-mapped freshwater emergent wetlands on the north and south sides of CR 56 approximately 0.42 mile east of SR 327, as well as unmapped agricultural field depression area located in the southeast quadrant of the CR 56 intersection with the south junction of CR 17.

A total of six (6) data points were collected for this project, which are summarized in the table below.

Data Point Summary Table
Reconstruction of CR 56
DeKalb County, Indiana
Des No. 1702950

Data Point	Vegetation	Soils	Hydrology	Wetland
1A	Yes	Yes	Yes	Yes
1B	Yes	No	No	No
2A	Yes	Yes	Yes	Yes
2B	No	No	No	No
3A	Yes	Yes	Yes	Yes
3B	No	No	No	No

Wetland Summary Table
Reconstruction of CR 56
DeKalb County, Indiana
Des No. 1702950

Wetland Name	Photos	Lat/Long	Type	Total Area in Study Limits (acres)	Quality	Likely a water of the US?
Wetland 1	1-2	41.322819/ -85.124991	Emergent	0.66	Poor	Yes
Wetland 2	5-6	41.323145/ -85.124733	Emergent	0.92	Poor	Yes
Wetland 3	9-10	41.322548/ -85.107572	Emergent	0.16	Poor	Yes

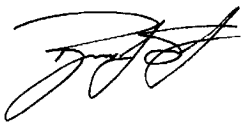
Open Water Discussion:

There are no mapped freshwater ponds or lakes within or adjacent to the project area. No freshwater ponds or lakes were observed in the study area. Therefore, no open water features were investigated during field reconnaissance.

Conclusion and Recommendations:

Field observations confirmed there are no streams and three (3) wetland areas present within the project area. Wetlands 1, 2 and 3 are likely "Waters of the US" and "Waters of the State." 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."

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



Ryan Scott
Director of Environmental Services
Butler, Fairman, & Seufert, Inc.

Supporting Documentation:

NOTE: Photos and Aerials Removed for Space Conservation. See Appendix B.

USFWS NWI Maps
Natural Resources Conservation Service Soils Map
FEMA FIRM Maps
LIDAR Map
Detailed Aerial Maps
Photo Sheets
Wetland Data Forms
Preliminary JD Form

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U.S. Fish and Wildlife Service
National Wetlands Inventory

CR 56 Reconstruction (Des No 1702950)
DeKalb County, IN
(West Map)

January 15, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Approximate Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

North

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Project Area

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

U.S. Fish and Wildlife Service
National Wetlands Inventory

CR 56 Reconstruction (Des No 1702950)
DeKalb County, IN
(East Map)

January 15, 2020

Wetlands

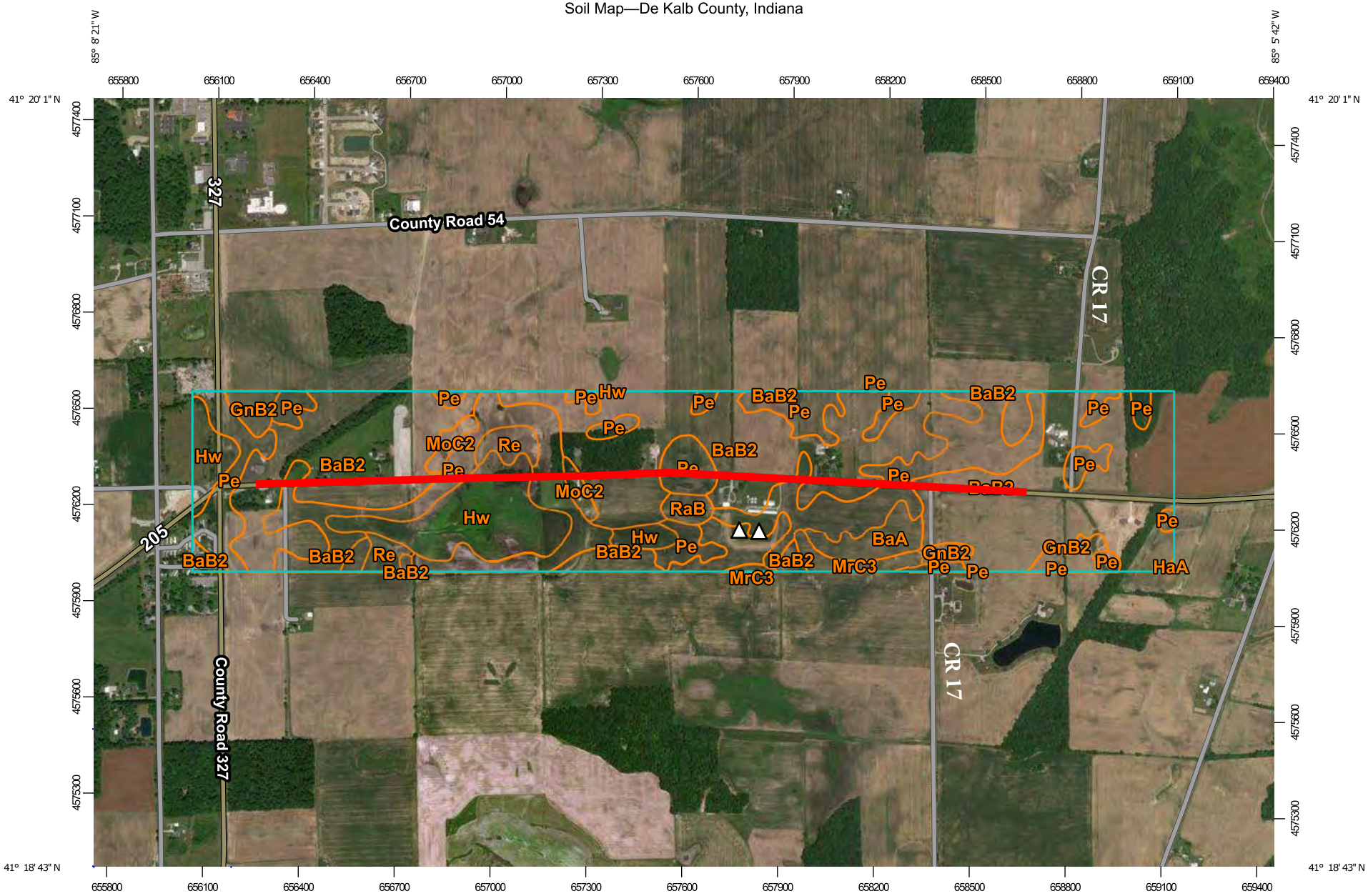
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Approximate Study Area
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

North

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Project Area

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper



Map Scale: 1:16,900 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 250 500 1000 1500

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

Project Area

Reconstruction of CR 56 from 200 feet east of SR 327 to 275 feet west of the east junction of CR 17
Near City of Garrett, DeKalb County, IN
Des. No. 1702950

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: De Kalb County, Indiana
Survey Area Data: Version 23, Sep 6, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 14, 2012—Dec 27, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BaA	Blount silt loam, 0 to 2 percent slopes	8.4	2.0%
BaB2	Blount silt loam, 1 to 4 percent slopes, eroded	225.8	52.7%
GnB2	Glynwood loam, 2 to 6 percent slopes, eroded	9.9	2.3%
HaA	Haskins loam, 0 to 3 percent slopes	0.2	0.0%
Hw	Houghton muck, drained	40.2	9.4%
MoC2	Morley silt loam, 6 to 12 percent slopes, eroded	4.9	1.1%
MrC3	Morley silty clay loam, 6 to 12 percent slopes, severely eroded	5.6	1.3%
Pe	Pewamo silty clay	122.8	28.7%
RaB	Rawson sandy loam, 2 to 6 percent slopes	3.2	0.8%
Re	Rensselaer loam, 0 to 1 percent slopes	7.4	1.7%
Totals for Area of Interest		**428.5**	**100.0%**

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/20/2020 at 11:37:59 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA

Legend

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- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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National Flood Hazard Layer FIRMette

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
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OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

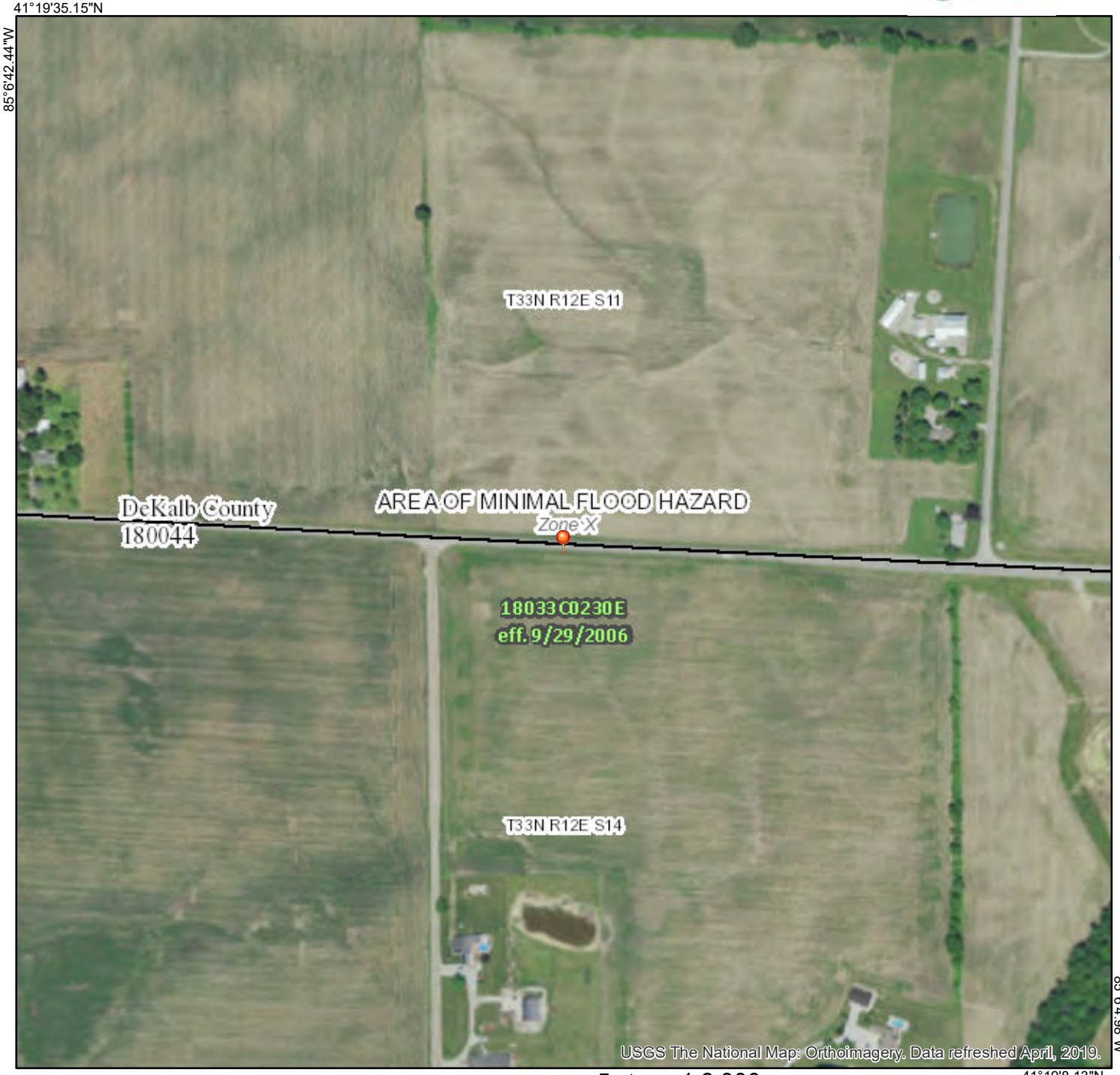
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/20/2020 at 11:43:23 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- **SPECIAL FLOOD HAZARD AREAS**
  - Without Base Flood Elevation (BFE) *Zone A, V, A99*
  - With BFE or Depth *Zone AE, AO, AH, VE, AR*
  - Regulatory Floodway
- **OTHER AREAS OF FLOOD HAZARD**
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- **OTHER FEATURES**
  - 20.2 — Cross Sections with 1% Annual Chance
  - 17.5 — Water Surface Elevation
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- **MAP PANELS**
  - Digital Data Available
  - No Digital Data Available
  - Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 1/20/2020 at 11:44:38 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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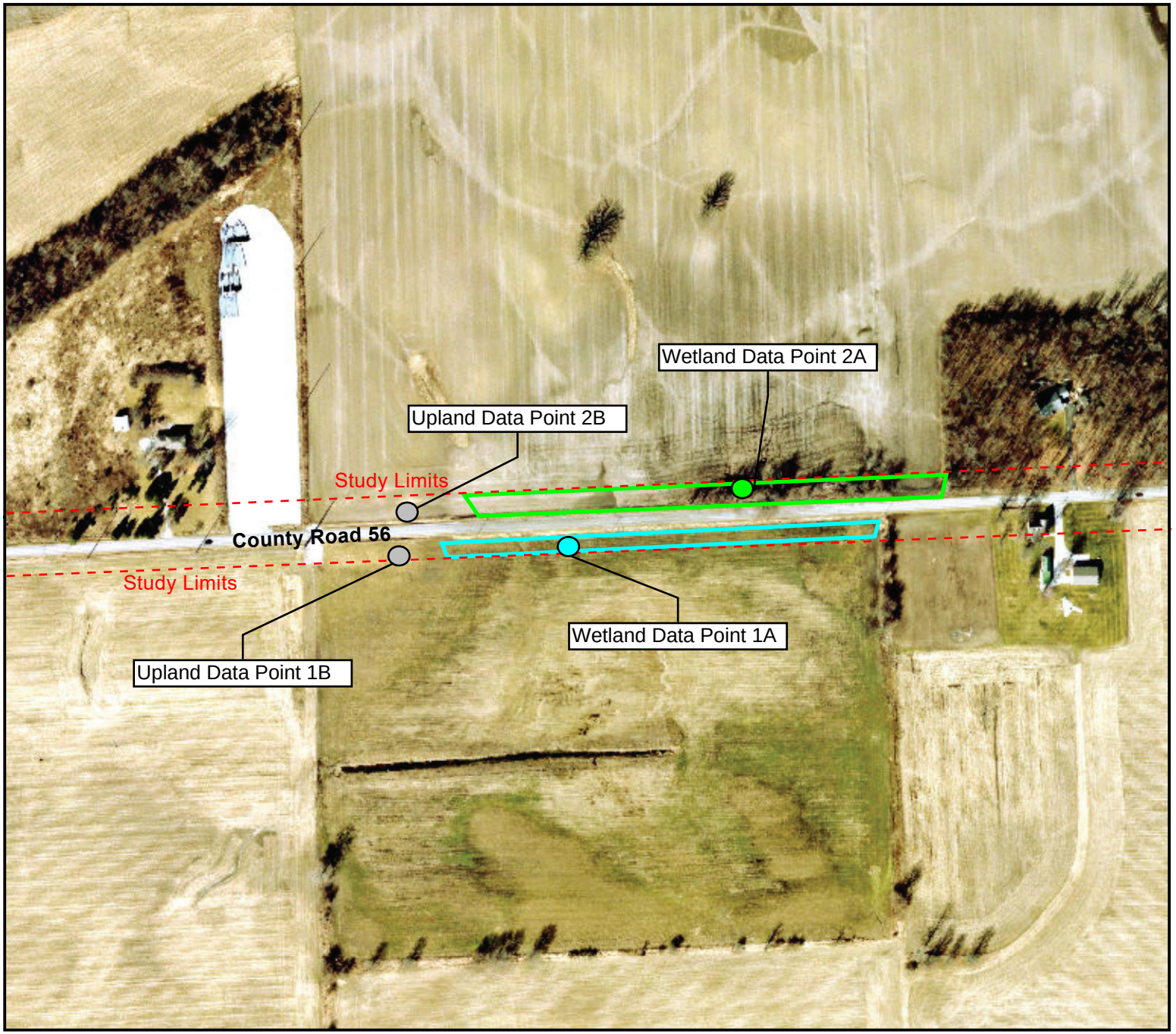
Reconstruction of CR 56, DeKalb County, IN (Des. No. 1702950)



Legend

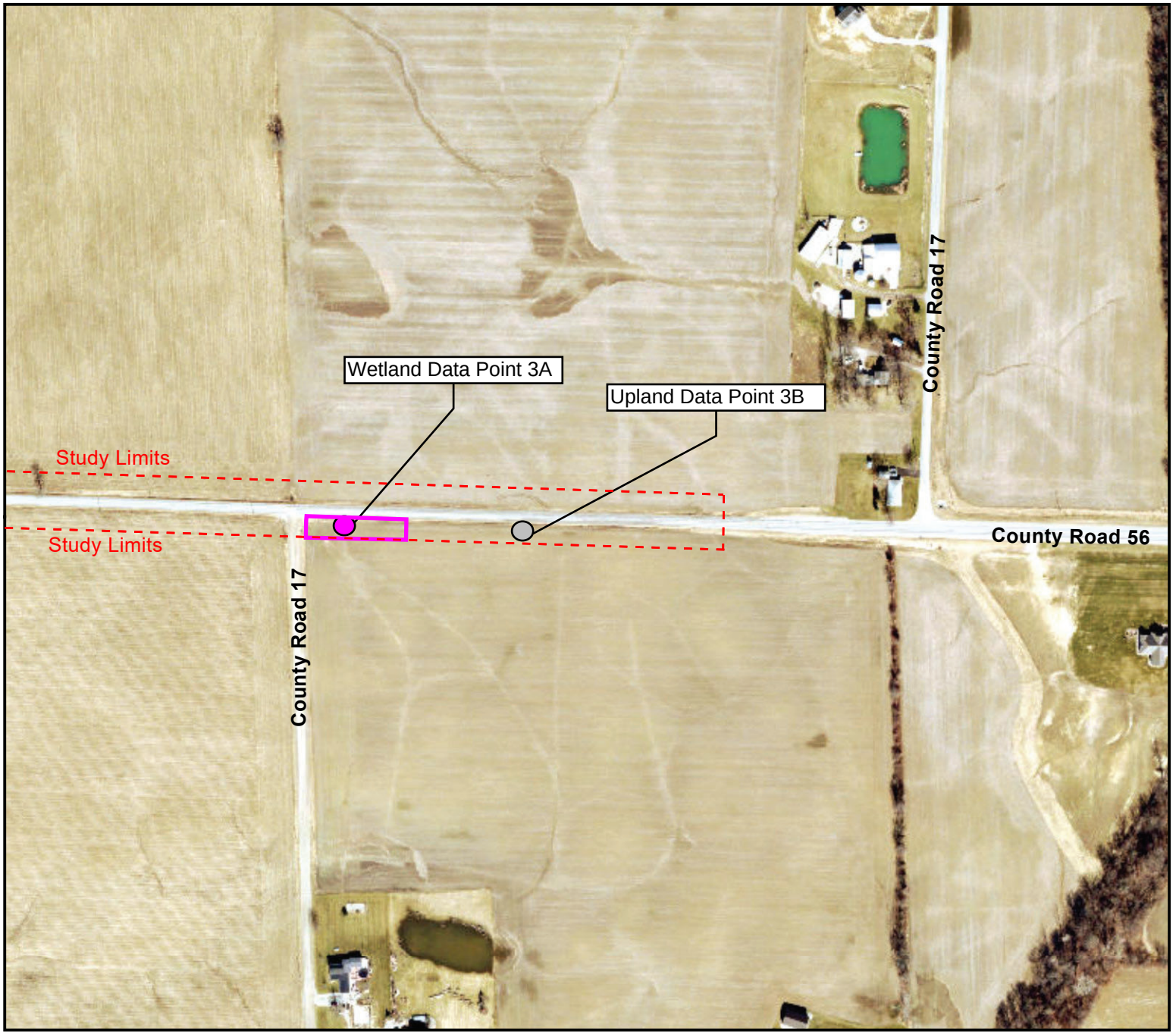
- 2017 Orthophotography
- Wetland 1
- Wetland 2

North:

0 0.1 mi

IndianaMAP

Reconstruction of CR 56, DeKalb County, IN (Des. No. 1702950)



Legend

2017 Orthophotography

Wetland 3

Photo 1: Sample point 1A soil profile

Photo 2: Looking south towards Sample Point 1A

Photo 3: Sample Point 1B soil profile

Photo 4: Looking east along the south side of CR 56 at Sample Point 1B

Photo 5: Looking east towards Sample Point 2A

Photo 6: Soil profile for Sample Point 2A

Photo 7: Looking east along the north side of CR 56 (Sample Point 2B)

Photo 8: Sample Point 2B soil profile

Photo 9: Looking southeast at Sample Point 3A

Photo 10: Soil profile for Sample Point 3A

Photo 11: Looking east along the south side of CR 56 towards Sample Point 3B

Photo 12: Soil profile for Sample Point 3B

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: DeKalb County Board of Commissioners State: IN Sampling Point: 1A

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 0.5% Lat: 41.322891 Long: -85.124762 Datum: NAD83

Soil Map Unit Name: Houghton muck, drained NWI classification: PEM1A, Emergent

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 60' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus bicolor	50	yes	FACW
2. Celtis occidentalis	10		FAC
3.			
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 60' x 20')			
1. Celtis occidentalis	10		FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ambrosia trifida	20	yes	FAC
2. Galium triflorum	5		FACU
3. Geum canadense	5		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 60' x 20')			
1. Parthenocissus quinquefolia	2		FACU
2.			
	2	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	45	x 3 =	135
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	102 (A)		263 (B)

Prevalence Index = B/A = 2.6

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: 1A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10 yr 2/1	100					peat	no ribbon

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [X] 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)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] 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)
- [X] Sediment Deposits (B2)
- [X] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Gauge or Well Data (D9)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] 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 [X] No [ ]

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: DeKalb County Board of Commissioners State: IN Sampling Point: 1B

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 5 Lat: 41.322825 Long: -85.126508 Datum: NAD83

Soil Map Unit Name: Pewamo silty clay NWI classification: none/upland

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. none			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Galium Triflorum	4	NO	FACU
2. Asclepias syriaca	6	NO	FACU
3. Parthenocissus quinquefolia	2	NO	FACU
4. Lamium purpureum	4	NO	FACU
5. Panicum virgatum	20	YES	FAC
6. Ambrosia trifida	20	YES	FAC
7.			
8.			
9.			
10.			
	56 = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. none			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	16	x 4 =	64
UPL species	0	x 5 =	0
Column Totals:	56 (A)		184 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

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

SOIL

Sampling Point: 1B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 1 0	10 yr 4/2	100					silt loam	
10-16	10 yr 4/2	75	10 YR 5/8	25	C	M	s cl loam	With black organic matter

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ 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: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: State: IN Sampling Point: 2A

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 0.5% Lat: 41.323158 Long: -85.123752 Datum: NAD83

Soil Map Unit Name: Houghton muck, drained NWI classification: PEM1A, Emergent

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 60' x 20')	Absolute % Cover	Dominant Species?	Indicator Status
1. Quercus bicolor	50	yes	FACW
2. Celtis occidentalis	10		FAC
3.			
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 60' x 20')			
1. Celtis occidentalis	10		FAC
2.			
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Ambrosia trifida	20	yes	FAC
2. Galium triflorum	5		FACU
3. Geum canadense	5		FAC
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 60' x 20')			
1. Parthenocissus quinquefolia	2		FACU
2.			
	2	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	50	x 2 =	100
FAC species	45	x 3 =	135
FACU species	7	x 4 =	28
UPL species	0	x 5 =	0
Column Totals:	102 (A)		263 (B)

Prevalence Index = B/A = 2.6

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: _____

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10 yr 2/1	100					loam	no ribbon

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- [X] 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)
- [ ] Dark Surface (S7)
- [ ] Iron-Manganese Masses (F12)
- [ ] 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)
- [X] Sediment Deposits (B2)
- [X] Drift Deposits (B3)
- [ ] Algal Mat or Crust (B4)
- [ ] Iron Deposits (B5)
- [ ] Inundation Visible on Aerial Imagery (B7)
- [ ] Sparsely Vegetated Concave Surface (B8)
- [ ] Water-Stained Leaves (B9)
- [ ] Aquatic Fauna (B13)
- [ ] True Aquatic Plants (B14)
- [ ] Hydrogen Sulfide Odor (C1)
- [ ] Oxidized Rhizospheres on Living Roots (C3)
- [ ] Presence of Reduced Iron (C4)
- [ ] Recent Iron Reduction in Tilled Soils (C6)
- [ ] Thin Muck Surface (C7)
- [ ] Gauge or Well Data (D9)
- [ ] Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- [ ] Surface Soil Cracks (B6)
- [ ] 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 [X] No [ ]

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: State: IN Sampling Point: 2B

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 5 Lat: 41.323074 Long: -85.126364 Datum: NAD83

Soil Map Unit Name: Pewamo silty clay NWI classification: none/upland

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	Is the Sampled Area within a Wetland? Yes _____ No X
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. none			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 30' radius)			
1. none			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Galium Triflorum	4	NO	FACU
2. Asclepias syriaca	6	NO	FACU
3. Parthenocissus quinquefolia	2	NO	FACU
4. Lamium purpureum	4	NO	FACU
5. Panicum virgatum	20	YES	FAC
6. Ambrosia trifida	20	YES	FAC
7.			
8.			
9.			
10.			
	56 = Total Cover		
Woody Vine Stratum (Plot size: 30' radius)			
1. none			
2.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

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

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	40	x 3 =	120
FACU species	16	x 4 =	64
UPL species	0	x 5 =	0
Column Totals:	56 (A)		184 (B)

Prevalence Index = B/A = 3.29

Hydrophytic Vegetation Indicators:

__ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

__ 3 - Prevalence Index is ≤3.0[1]

__ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

__ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

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

SOIL

Sampling Point: _____

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10 yr 4/2	100					silt loam	
8-16	10 yr 4/2	75	10 YR 5/8	25	C	M	s cl loam	With black organic matter

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ 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)
- ___ 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: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: DeKalb County Board of Commissioners State: IN Sampling Point: 3A

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 1% Lat: -41.322617 Long: -85.107539 Datum: NAD83

Soil Map Unit Name: Pewamo silty clay NWI classification: None

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundenacea	90	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

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

SOIL

Sampling Point: 3A

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 8	10YR 4/2	100					SCL	
8 - 16	10YR 4/2	90	10 YR 5/8	10	C	M	SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ 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)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ 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 X No _____ Depth (inches): 8

Wetland Hydrology Present? Yes X No _____

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

Remarks:

WETLAND DETERMINATION DATA FORM – Midwest Region

Project/Site: CR 56 Reconstruction City/County: DeKalb Sampling Date: 6/10/2019

Applicant/Owner: DeKalb County Board of Commissioners State: IN Sampling Point: 3B

Investigator(s): Jennifer Lozano & Ryan Scott Section, Township, Range: Sec. 10, 11, 14 & 15, Twp 33N, Range 12E

Landform (hillslope, terrace, etc.): rolling glacial till Local relief (concave, convex, none): slope

Slope (%): 1% Lat: 41.322599 Long: -85.106405 Datum: NAD83

Soil Map Unit Name: Pewamo silty clay NWI classification: None

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

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

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5' radius)			
1. Phalaris arundenacea	90	Y	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
	90 = Total Cover		
Woody Vine Stratum (Plot size: _____)			
1.			
2.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

X 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic Vegetation Present? Yes X No _____

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

SOIL

Sampling Point: 3B

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0 - 16	10YR 4/3	100					SCL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ 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)
- ___ Dark Surface (S7)
- ___ Iron-Manganese Masses (F12)
- ___ 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:

PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: May 11, 2020

B. NAME AND ADDRESS OF PERSON REQUESTING PJD:

Ryan Scott, Butler, Fairman, and Seufert, Inc. 8450 Westfield Blvd. Suite 300, Indianapolis, IN 46240; 317-713-4615; RScott@bfsengr.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:

Reconstruction of CR 56, from 200 feet east of SR 327 to 275 feet west of the east junction of CR 17, DeKalb County, Indiana, Des. No. 1702950

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

State: Indiana County/parish/borough: Dekalb City: N/A
Center coordinates of site (lat/long in degree decimal format):
Lat.: 41.3232533 N Long.: -85.1183128 W

Universal Transverse Mercator: UTM17N NAD83(2011)

Name of nearest waterbody: Unnamed pond

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 JURISTICTION

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 1	41.322819	-85.124991	0.66	Wetland	**Section 404**
Wetland 2	41.323145	-85.124733	0.92	Wetland	**Section 404**
Wetland 3	41.322548	-85.107572	0.16	Wetland	**Section 404**

1. The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

X Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:

Map: See Waters of the U.S. Determination Report .

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:_____.

USGS NHD data.

USGS 8 and 12 digit HUC maps.

X U.S. Geological Survey map(s). Cite scale & quad name: USGS Garrett and Auburn Quadrangles, scale as noted.

X Natural Resources Conservation Service Soil Survey. Citation: Dekalb County Soil Survey

X National wetlands inventory map(s). Cite name: Dekalb County, Indiana.

State/local wetland inventory map(s): _____.

X FEMA/FIRM maps: FEMA Panel Nos. 18033C0209E, and 18033C0230E.

100-year Floodplain Elevation is:_____.(National Geodetic Vertical Datum of 1929)

Photographs: Aerial (Name & Date): 2011 Orthophotography (leaves on).

or Other (Name & Date): Site photos, March 19, and June 10,2019.

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.

May 11, 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.

Appendix G

Public Involvement

Sample Notice of Survey Letter

April 9, 2019

NOTICE OF SURVEY

«Name»
«Address»
«City»

RE: Topographic Survey for the Reconstruction of County Road 56 Between S.R. 205 and the North Section of County Road 17, Dekalb County, Indiana

Dear Property Owner(s):

The Dekalb County Board of Commissioners has selected Butler, Fairman and Seufert, Inc., to survey and design the referenced project. Courthouse records show that you are a property owner within the limits of the area where data will be collected for the project survey. It may be necessary for our employees to enter your property to complete this work. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, our project can eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey is needed for the proper planning and design of this roadway project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If problems do occur, please contact our field crew or contact me at the telephone number or address shown above or the included e-mail address.

Sincerely,

BUTLER, FAIRMAN and SEUFERT, INC.

Mark W. Neal, P.S.
mneal@bfsengr.com

MWN:lm

Appendix H

Air Quality

Excerpt from the INDOT FY 2020-2024 STIP

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
Dekalb County																		
Dekalb County	1592886	Init.	VA VARI	Bridge Inspections	Countywide Bridge Inspection and Inventory Program for Cycle Years 2018-2021	Fort Wayne	0	Multiple		Local Bridge Program	PE	$50,222.14	$0.00	$2,365.84	$45,399.26	$2,457.04		
										Local Funds	PE	$0.00	$12,555.54	$591.46	$11,349.82	$614.26		
Butler	1600776	Init.	ST 1001	Bike/Pedestrian Facilities	E Liberty: N Canal to N Broadway; W Liberty: N Broadway to 529 W Liberty	Fort Wayne	.5	STPBG		Local Transportation Alternatives	CN	$210,800.00	$0.00			$210,800.00		
										Local Funds	CN	$0.00	$52,700.00			$52,700.00		
Indiana Department of Natural Resources	1801753	Init.	VA VARI	Bike/Pedestrian Facilities	Waterloo-Auburn-Waterloo bike /ped extension - DNR # RT-18-004	Fort Wayne	.64	RTP		Recreational Trails Program	CN	$153,280.00	$0.00	$120,000.00	$33,280.00			
										Local Funds	CN	$0.00	$38,320.00	$30,000.00	$8,320.00			
Indiana Department of Natural Resources	1801753	A 05	VA VARI	Bike/Pedestrian Facilities	Waterloo-Auburn-Waterloo bike /ped extension - DNR # RT-18-004	Fort Wayne	.64	RTP	$191,600.00	Recreational Trails Program	CN	$33,280.00	$0.00		$33,280.00			
										Local Funds	CN	$0.00	$8,320.00		$8,320.00			
Comments:No MPO. DNR add CN 191,600 FY 2021. CE working																		
Indiana Department of Transportation	39901 / 1600977	Init.	SR 8	HMA Overlay Minor Structural	From SR 3 S Jct to SR 327	Fort Wayne	4.218	STPBG		Road Construction	CN	$3,947,602.40	$986,900.60		$4,934,503.00			
Indiana Department of Transportation	40474 / 1601101	Init.	SR 1	Pavement Replacement	From 4.30 miles S. of SR 8 to 3. 12 miles S. of SR 8 (St Joe).	Fort Wayne	1.155	STPBG		Road ROW	RW	$313,600.00	$78,400.00	$256,000.00	$136,000.00			
										Road Construction	CN	$10,467,417.60	$2,616,854.40			$13,084,272.00		
										Bridge ROW	RW	$4,000.00	$1,000.00	$5,000.00				
										Bridge Construction	CN	$567,059.20	$141,764.80			$708,824.00		
Indiana Department of Transportation	41083 / 1800545	Init.	SR 101	HMA Overlay, Preventive Maintenance	From 2.60 Miles North of 37 (Allen/Dekalb CL) to SR 8	Fort Wayne	5.976	STPBG		Road Construction	CN	$4,025,924.80	$1,006,481.20		$5,032,406.00			
Indiana Department of Transportation	41083 / 1800545	A 01	SR 101	HMA Overlay, Preventive Maintenance	From 2.60 Miles North of 37 (Allen/Dekalb CL) to SR 8	Fort Wayne	5.976	STPBG	$5,922,281.00	Toll Lease Amendment Proceeds	RW	$80,000.00	$20,000.00	$100,000.00				
Comments:NO MPO. DES 1601022 adding RW to FY 2020 into FY 2020 - 2024 STIP.																		
Dekalb County	41141 / 1702950	Init.	IR 1018	Road Reconstruction (3R/4R Standards)	CR 56: from SR 327 to E Jct of CR 17	Fort Wayne	1.64	STPBG		Local Funds	CN	$0.00	$519,994.80				$519,994.80	
										Local Funds	RW	$0.00	$39,000.00		$39,000.00			
										Group IV Program	CN	$2,079,979.20	$0.00				$2,079,979.20	

Report Created:12/17/2019 11:18:02AM

*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.

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
Dekalb County	41141 / 1702950	Init.	IR 1018	Road Reconstruction (3R/4R Standards)	CR 56: from SR 327 to E Jct of CR 17	Fort Wayne	1.64	STPBG		Group IV Program	RW	$156,000.00	$0.00		$156,000.00			
Indiana Department of Transportation	41545 / 1800053	Init.	US 6	Bridge Replacement, Other Construction	Bridge Over Cedar Creek, 0.39 Miles East of SR 427.	Fort Wayne	.999	NHPP		Bridge ROW	RW	$80,000.00	$20,000.00			$100,000.00		
										Bridge Construction	CN	$2,979,403.20	$744,850.80				$3,724,254.00	
Indiana Department of Transportation	41828 / 1600092	Init.	I 69	Bridge Painting	Bridge painting over NS RR, NB Lane, 0.55 miles S of US 6	Fort Wayne	0	NHPP		Bridge Construction	CN	$511,941.60	$56,882.40	$568,824.00				
Indiana Department of Transportation	41829 / 1700249	Init.	SR 3	Concrete Pavement Restoration (CPR)	From 9.00 miles N of I-69 to 9.49 miles S of US 6	Fort Wayne	5.655	STPBG		Road Construction	CN	$736,956.80	$184,239.20	$921,196.00				
Indiana Department of Transportation	41830 / 1600292	Init.	I 69	Replace Superstructure	Bridge over Cedar Creek, NB Lane, 0.22 miles N of US 6	Fort Wayne	0	NHPP		Bridge Construction	CN	$4,715,818.20	$523,979.80	$5,239,798.00				
Indiana Department of Transportation	41907 / 1802966	Init.	SR 1	HMA Overlay, Preventive Maintenance	From SR 8 East Junction to 4.1 Miles North of SR 8 East Junction (CR32).	Fort Wayne	3.98	STPBG		District Other Construction	CN	$840,000.00	$210,000.00	$1,050,000.00				
Indiana Department of Transportation	42152 / 1900623	A 01	SR 8	HMA Overlay, Preventive Maintenance	From I-69 to 3.12 Miles East of I -69 (CR 35) (Auburn).	Fort Wayne	3.03	STPBG	$3,850,599.00	Road Consulting	PE	$428,500.80	$107,125.20	$535,626.00				
										Road Construction	CN	$2,651,978.40	$662,994.60			$3,314,973.00		
Comments:NO MPO. DES 1900623 adding PE to FY 2020 and CN to FY 2022 into FY 2020 - 2024 STIP.																		
Indiana Department of Transportation	42373 / 1601023	A 01	SR 327	HMA Overlay, Structural	From US 6 to SR 4.	Fort Wayne	6.17	STPBG	$10,682,227.00	Toll Lease Amendment Proceeds	CN	$120,000.00	$30,000.00				$150,000.00	
										Toll Lease Amendment Proceeds	PE	$793,792.00	$198,448.00	$992,240.00				
										Road Construction	CN	$7,631,989.60	$1,907,997.40					$9,539,987.00
Comments:NO MPO. DES 1601023, and 1800144 adding PE to FY 2020 and CN to FY 2023																		
Indiana Department of Transportation	42374 / 1900058	A 01	I 69	Bridge Replacement, Other Construction	Bridge carrying CR27, 1.74 Miles South of SR 6.	Fort Wayne	2	NHPP	$4,236,097.00	Bridge Consulting	PE	$486,000.00	$54,000.00	$540,000.00				
										Bridge Construction	CN	$3,326,487.30	$369,609.70			$60,000.00		$3,636,097.00
Comments:NO MPO. DES 1900058																		
Indiana Department of Transportation	42377 / 1900068	A 01	SR 1	Box Culvert Replacement	Over Wade Ditch, 3.4 miles north of the Allen/ DeKalb County Line	Fort Wayne	.2	STPBG	$2,015,211.00	Bridge ROW	RW	$52,000.00	$13,000.00			$65,000.00		
										Bridge Consulting	PE	$328,000.00	$82,000.00	$410,000.00				
										Bridge Construction	CN	$1,232,168.80	$308,042.20			$40,000.00		$1,500,211.00
Comments:NO MPO. DES 1900075																		

Report Created:12/17/2019 11:18:02AM

*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.

Excerpt from the INDOT FY 2018-2021 STIP

Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Indiana Department of Transportation	40474 / 1701387	A 02	SR 8	Small Structure Pipe Lining	Carrying Wingard Ditch, 4.90 Miles East of I69	Fort Wayne	0	STP	$127,000.00	Bridge Consulting	PE	$48,000.00	$12,000.00	$15,000.00	$45,000.00		
										Bridge ROW	RW	$4,000.00	$1,000.00			$5,000.00	
Comments:NO MPO. Adding PE to FY 2018, PE to FY 2019 and RW to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	40474 / 1701393	A 02	US 6	Replace Superstructure	Bridge Over Matson Ditch, 1.19 Miles East of SR 427	Fort Wayne	0	NHPP	$705,000.00	Bridge Consulting	PE	$128,000.00	$32,000.00	$40,000.00	$120,000.00		
Comments:NO MPO. Adding PE to FY 2018 and PE to FY 2019 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41018 / 1801102	A 17	SR 1	Small Structure Maint and Repair	Carries Wade Ditch, 4.09 Miles South of SR 8	Fort Wayne	0	STP	$77,490.00	Bridge Consulting	PE	$24,000.00	$6,000.00		$30,000.00		
										Bridge Construction	CN	$37,992.00	$9,498.00			$47,490.00	
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41018 / 1801196	A 17	I 69	Repair Or Replace Joints	CR 10 Over I-69, NB/SB, 2.28 Miles South of SR 4	Fort Wayne	0	NHPP	$67,025.00	Bridge Consulting	PE	$27,000.00	$3,000.00		$30,000.00		
										Bridge Construction	CN	$33,322.50	$3,702.50			$37,025.00	
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2020 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41067 / 1800598	A 18	SR 327	Bridge Thin Deck Overlay	Bridge Over N.S. RxR, 0.18 Miles South of US 6.	Fort Wayne	0	STP	$122,330.00	Bridge Construction	CN	$57,864.00	$14,466.00				$72,330.00
										Bridge Consulting	PE	$40,000.00	$10,000.00		$50,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41083 / 1800534	A 18	SR 427	HMA Overlay, Preventive Maintenance	From US 6 to 0.59 Miles North of US 6 (North Limits Waterloo)	Fort Wayne	.56	STP	$449,715.00	Road Construction	CN	$279,772.00	$69,943.00				$349,715.00
										Road Consulting	PE	$80,000.00	$20,000.00		$100,000.00		
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Indiana Department of Transportation	41083 / 1800545	A 18	SR 101	HMA Overlay, Preventive Maintenance	From 2.60 Miles North of 37 (Allen/Dekalb CL) to SR 8	Fort Wayne	5.976	STP	$1,565,055.00	Road Consulting	PE	$160,000.00	$40,000.00		$200,000.00		
										Road Construction	CN	$1,092,044.00	$273,011.00				$1,365,055.00
Comments:NO MPO. Adding PE to FY 2019 and CN to FY 2021 into FY 2018 - 2021 STIP.																	
Dekalb County	41141 / 1702950	A 33	IR 1018	Road Reconstruction (3R/4R Standards)	CR 56: from SR 327 to E Jct of CR 17	Fort Wayne	1.64	STPBG	$2,795,000.00	Group IV Program	PE	$384,070.40	$0.00		$384,070.40		
										100% Local Funds	PE	$0.00	$96,017.60		$96,017.60		
Comments:Add new project to STIP for PE. No MPO																	

Report Created:4/22/2019 2:53:59PM

*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

Transportation Plan

(Update)

DeKalb County

2014

Northeastern Indiana Regional Coordinating Council

RECOMMENDATION

The Northeastern Indiana Regional Coordinating Council recommends that this corridor be monitored to maintain adequate information on the changing travel characteristics of this corridor. In addition, the Northeastern Indiana Regional Coordinating Council feels that special attention should be placed on monitoring the intersections of County Road 35 with State Road 8, County Road 40A, and County Road 46A as development occurs along this corridor.

6. County Road 56 between State Road 205/State Road 327 Intersection & County Road 17

PROBLEM

The roadway is too narrow for the volume of traffic and drainage problems are occurring along this section of roadway. There are plans for future development that Garrett feels will deteriorate the current roadway conditions and operating levels.

FINDINGS

The Northeastern Indiana Regional Coordinating Council conducted two updated counts on County Road 56 east of SR 205/327. The 2008 count showed an AADT of 3,098 and a 2011 count showed the volume at 3,026. The 2011 AADT is consistent with the 2000 count which had an AADT of 2,980. Staff also collected two updated counts on CR 11A west of Interstate 69. The 2008 count showed the volume at 4,719 and a 2011 count showed an AADT of 4,717. Since 2000, the traffic volume has gone up by 23% from an AADT of 3,900 in 2000 to an AADT of 4,717 in 2011. County Road 56 has a bituminous surface twenty feet wide providing for one ten-foot travel lane in each direction.

CR 56 east of SR 205/327
2011 AADT = 3,026 (0.2 mile east of SR 327) 6.76% trucks
2008 AADT = 3,098 (150 feet east of SR 327) no truck % available
2005 AADT = 3,523 (0.1 mile east of SR 327) no truck % available
2003 AADT = 3,453 (200 feet east of SR 327) no truck % available
2002 AADT = 3,454 (0.15 mile east of CR 17) no truck % available
2000 AADT = 2,980 (0.2 mile east of SR 327) no truck % available

CR 11A west of Interstate 69
2011 AADT = 4,717 (200 feet west of Interstate 69) no truck % available
2008 AADT = 4,719 (0.1 mile west of Interstate 69) no truck % available
2005 AADT = 4,901 (0.15 mile west of Interstate 69) no truck % available
2003 AADT = 4,845 (100 feet west of Interstate 69) no truck % available
2002 AADT = 4,617 (150 feet west of Interstate 69) no truck % available
2000 AADT = 3,900 (400 feet west of Interstate 69) no truck % available

CR 11A southwest of CR 56
2011 AADT = 1,392 (0.6 mile northeast of CR 64) no truck % available
2008 AADT = 1,471 (0.1 mile northeast of CR 60) no truck % available

2002 AADT = 1,536 (100 feet southwest of CR 56) no truck % available

ANALYSIS

Recent improvements at the interchange of County Road 11A and Interstate 69 along with proposed developments on County Road 11A may continue to impact the traffic on County Road 56.

RECOMMENDATION

The Northeastern Indiana Regional Coordinating Council proposes that County Road 56 and County Road 11A should continue to be monitored for traffic volume increases. The drainage concerns on County Road 56 should also be investigated. Since the predominant traffic flow to and from Interstate 69 appears to be between County Road 11A and County Road 56, consideration should be given to improving the intersection of these roads to support those movements. This would involve aligning the northwest leg of County Road 11A with County Road 56 and bringing the southwest leg of County Road 11A to County Road 56 at a right angle with stop control.

7. Intersection of State Road 8 and County Road 19

PROBLEM

The westbound traffic on State Road 8 has poor visibility upon approaching the intersection of County Road 19 due to a hill. State Road 8 was improved in 2012 by INDOT and part of the hill was lowered however the sight distance is still an issue. The intersection is also increasing in traffic due to new development in the area which may warrant a signal.

FINDINGS

The Northeastern Indiana Regional Coordinating Council conducted a traffic volume count 0.3 miles south of State Road 8. The 2011 AADT was 1,653. An eight-hour intersection count was also conducted in 2011 at the intersection of County Road 19 and State Road 8. Traffic counts conducted by the Indiana Department of Transportation in 1997 indicated the traffic volume on State Road 8 was 11,360 west of County Road 19 and 15,440 east of County Road 19.

ANALYSIS

An intersection analysis was performed by INDOT in 2011 at this intersection. Signal warrants were not satisfied at that time. There were 10 crashes from 2009 to 2013 at this intersection. There were no crashes reported in 2012 for the intersection which was the year the INDOT improvement occurred

RECOMMENDATION

This location should continue to be monitored for crash data and signal warrants.

ABBREVIATED ENGINEERS ASSESSMENT
SR 56 – DES. No. 1702950

Project Location	The project is located approximately 1.8 miles south of Garret, Indiana all within Section 10 & 11, Township 33N, Range 12E, in Keyser Civil Township on the USGS Auburn & Garret, Indiana Quadrangle.
Project Need and Purpose	The primary purpose of the project is to address ongoing roadway deterioration, narrow roadway geometrics and substandard horizontal and vertical alignments along CR 56. The need for the project is supported by the presence of alligator and block cracks, edge cracking, and extensive patching in poor condition throughout the project area. In addition, sections of the existing roadway either have no shoulders or are bordered by narrow, earth or gravel shoulder areas (0-1 feet in width). Horizontal and vertical alignments along some sections of the roadway appears to create substandard sight-distance conditions.
Existing Facility	Within the proposed project limits, County Road 56 is functionally classified as a Minor Arterial and is not on the National Highway System. The existing roadway width for County Road 56 is approximately 21 feet with 2 lanes at approximately 10 feet 6 inches wide. The existing shoulder widths varies from 0-1'. The side slopes are approximately 2:1 or flatter. There are no sidewalks, medians, or curb and gutter.
Traffic Data	2018 AADT – 3,748 vpd 2038 AADT – 4,573 vpd % Trucks – 10% AADT
Identification of Proposal	The DeKalb County Board of Commissioners proposes a project to improve County Road 56. The Project is a 4R full reconstruction of approximately 1.55 miles. This design will involve the reconstruction of the existing road.

	CR 56 will typically feature two 12 ft. travel lanes and 5 ft wide shoulders, consisting of 3 ft. paved and 2 ft. compacted aggregate. The Roadway will be shifted to the north to avoid impacting the power transmission poles on the south side of the road. The new horizontal and vertical alignment will provide proper sight distance. Roadside safety will be improved and R/W acquired to provide appropriate clear zone. Drainage improvements will include new roadside ditches and erosion protection.

Cost Estimate

Engineering (2018)	$ 275,000
Right-of-Way (2020)	195,000
Reimbursable Utilities (2018)	None*
Construction (2022)	2,309,044**
Construction Inspection (2022)	287,500
Total	$ 3,066,544

* It is not anticipated ** May change depending of the findings of the peat area.

Environmental Issues

There are 22 wetland polygons located within the 0.5 miles search radius. The nearest wetland polygon is mapped within the project area, approximately 0.50 mile east of the west end of the project. A Waters of the US Report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

There is a peat area approximately 3,000 ft. east of SR 327.

Right-of-Way Impact

This section of County Road 56 is adjoined by 25 tax parcels owned by 17 unique title holders.

The proposed right-of-way will need to be acquired from 15-17 properties. This could potentially include the relocation of the Howard property located approximately 1100 ft. east of SR 327 on the north side.

The amount of permanent and temporary right-of-way that will be required was estimated based on existing property lines and estimated limits of construction based on the proposed area of construction.

Two of the owners, Saylor and Rickman, fall in subdivided lots with 50 feet of dedicated right-of-way where additional acquisition may be avoided. Both are on the north side of the corridor. Since all other owners hold title to the road centerline, we completed a search of the Commissioners Records to ascertain whether any petition was made to open the road. In this case, records for both Keyser and Butler Townships indicate a 40-foot total width for the road. The cumulative result of this record review is that 20 to 50 feet of right-of-way from the centerline exists for the entire project area. Outside of that area, acquisition will be required.

The preliminary estimated of temporary right-of-way that could be required will be potentially for building removal, grading and driveway construction. The initial estimated of permanent and temporary right-of-way that may be needed is 6.5 acres and 2.0 acres respectively. However final estimates of permanent and temporary right of way will be determined after the preliminary field check.

Traffic Maintenance

CR 56 will be closed during construction. Traffic traveling east on CR 56 will be rerouted north on SR 327. Then turn east on SR 8 to I-69 south. Traffic traveling west on CR 56 will be reroute to I-69 north then turn west on SR 8 then turn south on SR 327 Traffic will reach the end of detour at the intersection of CR 56 County Road 56 and SR 327.
Access to all private properties will be maintained during construction.

Concurrence

Eduardo Calderin.
Project Manager

09-17-2019
Date

Ben Parker
Highway Superintendent

09-17-2019
Date

B03002

HISPANIC OR LATINO ORIGIN BY RACE

Universe: Total population

2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	DeKalb County, Indiana		Census Tract 206.02, DeKalb County, Indiana		Census Tract 207, DeKalb County, Indiana
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Total:	42,524	*****	4,696	+/-222	3,579
Not Hispanic or Latino:	41,349	*****	4,623	+/-237	3,531
White alone	40,454	+/-24	4,572	+/-235	3,476
Black or African American alone	74	+/-51	4	+/-8	0
American Indian and Alaska Native alone	23	+/-20	0	+/-11	10
Asian alone	129	+/-55	7	+/-11	18
Native Hawaiian and Other Pacific Islander alone	0	+/-24	0	+/-11	0
Some other race alone	0	+/-24	0	+/-11	0
Two or more races:	669	+/-80	40	+/-47	27
Two races including Some other race	0	+/-24	0	+/-11	0
Two races excluding Some other race, and three or more races	669	+/-80	40	+/-47	27
Hispanic or Latino:	1,175	*****	73	+/-54	48
White alone	900	+/-113	41	+/-36	39
Black or African American alone	52	+/-57	0	+/-11	0
American Indian and Alaska Native alone	0	+/-24	0	+/-11	0
Asian alone	0	+/-24	0	+/-11	0
Native Hawaiian and Other Pacific Islander alone	0	+/-24	0	+/-11	0
Some other race alone	146	+/-84	22	+/-37	9
Two or more races:	77	+/-54	10	+/-16	0
Two races including Some other race	16	+/-12	0	+/-11	0
Two races excluding Some other race, and three or more races	61	+/-54	10	+/-16	0

	Census Tract 207, DeKalb County, Indiana
	Margin of Error
Total:	+/-264
Not Hispanic or Latino:	+/-274
White alone	+/-272
Black or African American alone	+/-11
American Indian and Alaska Native alone	+/-17
Asian alone	+/-29
Native Hawaiian and Other Pacific Islander alone	+/-11
Some other race alone	+/-11
Two or more races:	+/-24
Two races including Some other race	+/-11
Two races excluding Some other race, and three or more races	+/-24
Hispanic or Latino:	+/-63
White alone	+/-58
Black or African American alone	+/-11
American Indian and Alaska Native alone	+/-11
Asian alone	+/-11
Native Hawaiian and Other Pacific Islander alone	+/-11
Some other race alone	+/-15
Two or more races:	+/-11
Two races including Some other race	+/-11
Two races excluding Some other race, and three or more races	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

B17001

POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE

Universe: Population for whom poverty status is determined
2013-2017 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

	DeKalb County, Indiana		Census Tract 206.02, DeKalb County, Indiana		Census Tract 207, DeKalb County, Indiana
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Total:	41,988	+/-163	4,622	+/-230	3,574
Income in the past 12 months below poverty level:	5,262	+/-893	944	+/-412	341
Male:	2,338	+/-450	421	+/-213	103
Under 5 years	426	+/-189	117	+/-133	0
5 years	147	+/-79	16	+/-18	0
6 to 11 years	406	+/-125	22	+/-22	30
12 to 14 years	113	+/-86	0	+/-11	0
15 years	19	+/-17	0	+/-11	0
16 and 17 years	51	+/-35	0	+/-11	17
18 to 24 years	112	+/-58	19	+/-25	8
25 to 34 years	220	+/-101	74	+/-68	0
35 to 44 years	192	+/-84	31	+/-28	48
45 to 54 years	274	+/-118	103	+/-86	0
55 to 64 years	160	+/-74	11	+/-15	0
65 to 74 years	113	+/-62	17	+/-19	0
75 years and over	105	+/-63	11	+/-17	0
Female:	2,924	+/-501	523	+/-246	238
Under 5 years	208	+/-105	45	+/-65	0
5 years	2	+/-4	0	+/-11	0
6 to 11 years	469	+/-201	65	+/-75	62
12 to 14 years	182	+/-112	65	+/-74	46
15 years	69	+/-69	0	+/-11	0
16 and 17 years	46	+/-37	0	+/-11	16
18 to 24 years	246	+/-93	29	+/-34	20
25 to 34 years	600	+/-136	129	+/-82	32
35 to 44 years	373	+/-135	40	+/-27	31
45 to 54 years	150	+/-54	58	+/-35	16
55 to 64 years	247	+/-69	66	+/-38	0
65 to 74 years	137	+/-64	0	+/-11	8
75 years and over	195	+/-99	26	+/-27	7
Income in the past 12 months at or above poverty level:	36,726	+/-879	3,678	+/-434	3,233
Male:	18,576	+/-456	1,769	+/-254	1,598

	DeKalb County, Indiana		Census Tract 206.02, DeKalb County, Indiana		Census Tract 207, DeKalb County, Indiana
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate
Under 5 years	884	+/-194	54	+/-60	82
5 years	182	+/-92	30	+/-26	0
6 to 11 years	1,379	+/-188	202	+/-73	108
12 to 14 years	821	+/-159	113	+/-63	53
15 years	287	+/-91	45	+/-50	43
16 and 17 years	598	+/-100	24	+/-27	39
18 to 24 years	1,706	+/-74	177	+/-69	124
25 to 34 years	2,251	+/-118	152	+/-71	177
35 to 44 years	2,390	+/-99	326	+/-95	164
45 to 54 years	2,772	+/-121	254	+/-82	200
55 to 64 years	2,695	+/-81	186	+/-56	299
65 to 74 years	1,705	+/-67	135	+/-49	208
75 years and over	906	+/-52	71	+/-51	101
Female:	18,150	+/-492	1,909	+/-267	1,635
Under 5 years	1,019	+/-108	192	+/-80	94
5 years	271	+/-104	0	+/-11	71
6 to 11 years	1,304	+/-205	73	+/-51	60
12 to 14 years	649	+/-142	94	+/-70	68
15 years	218	+/-89	34	+/-49	19
16 and 17 years	595	+/-129	122	+/-65	52
18 to 24 years	1,469	+/-94	184	+/-74	61
25 to 34 years	1,942	+/-138	205	+/-72	235
35 to 44 years	2,143	+/-160	227	+/-71	103
45 to 54 years	2,839	+/-71	285	+/-73	188
55 to 64 years	2,657	+/-74	188	+/-59	363
65 to 74 years	1,786	+/-71	175	+/-65	224
75 years and over	1,258	+/-115	130	+/-58	97

	Census Tract 207, DeKalb County, Indiana
	Margin of Error
Total:	+/-263
Income in the past 12 months below poverty level:	+/-254
Male:	+/-87
Under 5 years	+/-11
5 years	+/-11
6 to 11 years	+/-41
12 to 14 years	+/-11
15 years	+/-11
16 and 17 years	+/-27
18 to 24 years	+/-14
25 to 34 years	+/-11
35 to 44 years	+/-50
45 to 54 years	+/-11
55 to 64 years	+/-11
65 to 74 years	+/-11
75 years and over	+/-11
Female:	+/-170
Under 5 years	+/-11
5 years	+/-11
6 to 11 years	+/-63
12 to 14 years	+/-61
15 years	+/-11
16 and 17 years	+/-23
18 to 24 years	+/-25
25 to 34 years	+/-43
35 to 44 years	+/-33
45 to 54 years	+/-19
55 to 64 years	+/-11
65 to 74 years	+/-13
75 years and over	+/-13
Income in the past 12 months at or above poverty level:	+/-343
Male:	+/-193
Under 5 years	+/-60
5 years	+/-11
6 to 11 years	+/-50
12 to 14 years	+/-34
15 years	+/-37
16 and 17 years	+/-35
18 to 24 years	+/-49
25 to 34 years	+/-87
35 to 44 years	+/-62
45 to 54 years	+/-69
55 to 64 years	+/-71
65 to 74 years	+/-61
75 years and over	+/-62
Female:	+/-211
Under 5 years	+/-67
5 years	+/-63
6 to 11 years	+/-52
12 to 14 years	+/-41
15 years	+/-23
16 and 17 years	+/-37
18 to 24 years	+/-56
25 to 34 years	+/-91
35 to 44 years	+/-45
45 to 54 years	+/-56
55 to 64 years	+/-70
65 to 74 years	+/-44

	Census Tract 207, DeKalb County, Indiana
	Margin of Error
75 years and over	+/-54

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

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2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
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6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
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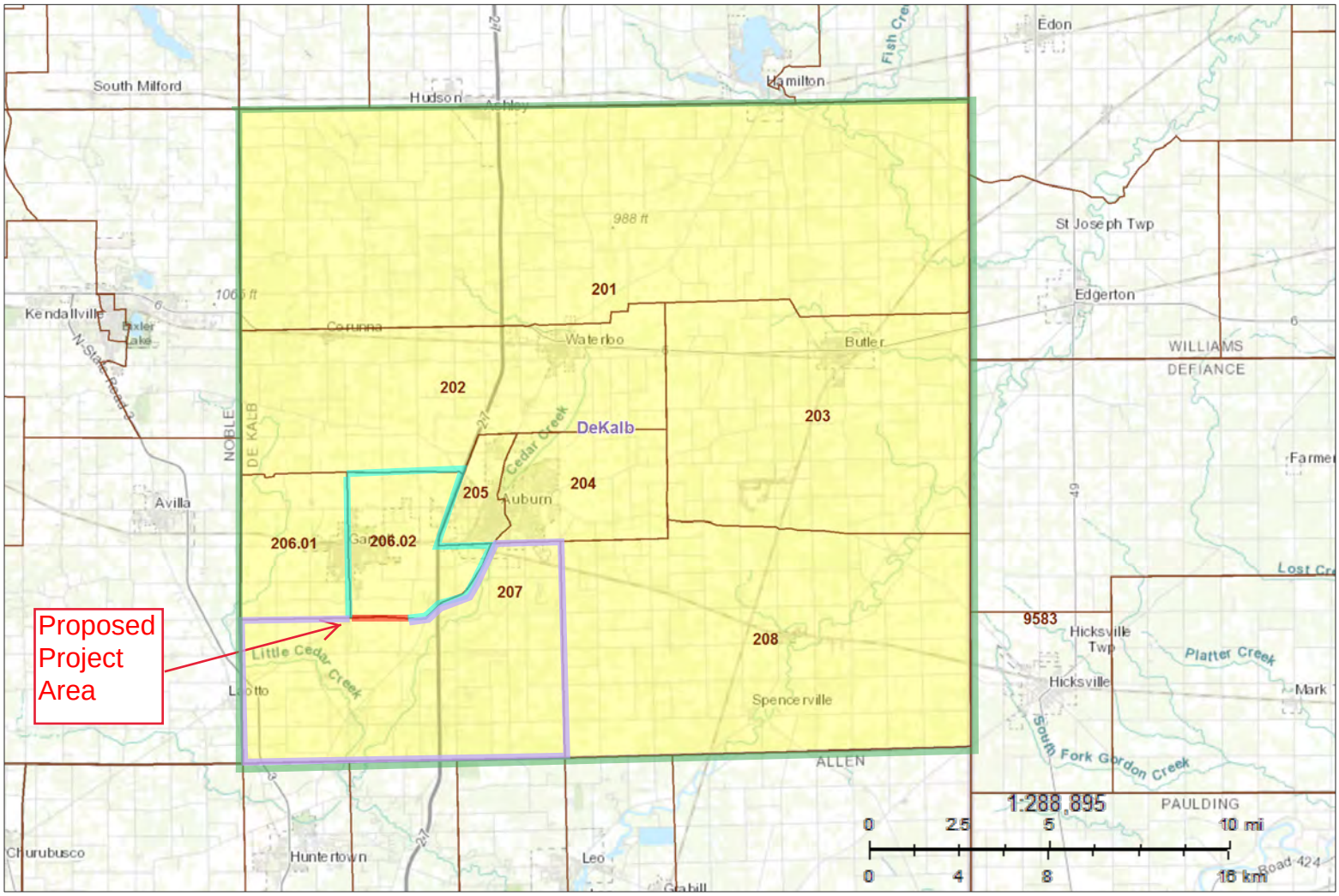
8. An '(X)' means that the estimate is not applicable or not available.

Environmental Justice Map

CR 56 Reconstruction DeKalb County, Indiana
Des. No. 1702950



Legend

Your Selections

- 2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

2017 Boundaries

- County
- Census Tract

- Proposed Project Area
- Affected Community 1 (AC1)
- Affected Community 2 (AC2)
- Community of Comparison (CoC)

Design Element				Manual Section	2 Lanes			4 or More Lanes	
Design Controls	Design-Year Traffic, AADT			40-2.01	< 400	400 ≤ AADT < 2000	≥ 2000	**Undivided	Divided
	Design Forecast Period			40-2.02	20 Years			20 Years	
	*Design Speed, mph (1)			40-3.0	Level: 60 – 70; Rolling: 50 – 60			60	60-70
	Access Control			40-5.0	Partial Control / None			Partial Control / None	
	Level of Service			40-2.0	Desirable: B; Minimum: C			Desirable: B; Minimum: C	
Cross-Section Elements	Travel Lane	*Width		45-1.01	12 ft			12 ft	
		Typical Surface Type (2)		Chp. 304	Asphalt / Concrete			Asphalt / Concrete	
	Shoulder (3)	*Width Usable		45-1.02	6 ft	8 ft	11 ft (3b)	11 ft (3b)	Right: 11 ft (3b) Left: 4 ft (3e)
		*Width Paved		45-1.02	4 ft	6 ft	10 ft (3b)	10 ft (3b)	Right: 10 ft (3b) Left: 4 ft (3e)
		Typical Surface Type (2)		Chp. 304	Asphalt / Concrete			Asphalt / Concrete	
	Cross Slope	*Travel Lane (4)		45-1.01	2%			2%	
		Shoulder (4A)		45-1.02	Paved Width ≤ 4 ft: 2%; Paved Width > 4 ft: 4%			Paved Width ≤ 4 ft: 2%; Paved Width > 4 ft: 4%	
	Auxiliary Lane	Lane Width (5)		45-1.03	Desirable: 12 ft; Minimum: 11 ft			Desirable: 12 ft; Minimum: 11 ft	
		Shoulder Width (6)			Same as Next to Travel Lane			Same as Next to Travel Lane	
	Median Width			45-2.0	N/A			0.0 ft	Desirable: 80 ft Minimum: 16 ft (7)
	Clear-Zone Width			49-2.0	(8)			(8)	
	Side Slopes (9)	Cut	Foreslope	45-3.0	6:1 (10)			6:1 (10)	
			Ditch Width		4 ft (11)			4 ft (11)	
			Backslope		4:1 for 20 ft; 3:1 Max. to Top (12)			4:1 for 20 ft; 3:1 Max. to Top (12)	
		Fill		45-3.0	6:1 to Clear Zone; 3:1 Max. to Toe			6:1 to Clear Zone; 3:1 Max. to Toe	
	Median Slopes			45-2.02	N/A			Desirable: 8:1; Maximum: 5:1	
Bridges	New or Reconstructed Bridge	*Structural Capacity		Chp. 403	HL-93 (13)				
		*Clear-Roadway Width(14)		45-4.01	Full Paved Approach Width				
	Existing Bridge to Remain in Place	*Structural Capacity		Chp. 72	HS-20				
		*Clear-Roadway Width		45-4.01	Travelway Plus 2 ft on Each Side				
	*Vertical Clearance, Arterial Under	New or Replaced Overpassing Bridge (15)		44-4.0	16.5 ft				
		Existing Overpassing Bridge			14 ft				
		Sign Truss / Pedestrian Bridge (15)			New: 17.5 ft; Existing: 17 ft				
	Vertical Clearance, Arterial Over Railroad (16)			Chp. 402-6.01	23 ft				

* Level One controlling criterion, see page 2 of 4

** An arterial of 4 or more lanes on a new location should be designed as Divided.

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Design Element			Manual Section	Rural Arterial			
Alignment Elements	Design Speed		---	50 mph	55 mph	60 mph	70 mph
	*Stopping Sight Distance		42-1.0	425 ft	495 ft	570 ft	730 ft
	Decision Sight Distance	Speed / Path / Direction Change	42-2.0	750 ft	865 ft	990 ft	1105 ft
		Stop Maneuver		465 ft	535 ft	610 ft	780 ft
	Passing Sight Distance		42-3.0	1835 ft	1985 ft	2135 ft	2480 ft
	Intersection Sight Distance, -3% to +3% (20)		46-10.0	P: 630 ft; SUT: 780 ft	P: 730 ft; SUT: 890 ft	P: 840 ft; SUT: 1020 ft	P: 1030 ft; SUT: 1240 ft
	*Minimum Radius, e=8%		43-2.0	750 ft	1000 ft	1290 ft	1650 ft
	*Superelevation Rate		43-3.0	e_{max} = 8% (17)			
	*Horizontal Sight Distance		43-4.0	(18)			
	*Vertical Curvature, K-value	Crest	44-3.0	84	114	151	247
		Sag		96	115	136	181
	*Maximum Grade (19)	Level	44-1.02	4%	4%	3%	3%
		Rolling		5%	5%	4%	4%
	Minimum Grade		44-1.03	Desirable: 0.5%; Minimum: 0.0%			

* Level One controlling criterion. Except as noted in this chapter, the values shown in AASHTO's *A Policy on Geometric Design of Highways and Streets* (the *Green Book*) may be used as minimum values if they are lower than similar values shown herein. A controlling criterion that does not meet the minimum value is a design exception and is subject to approval. See Section 40-8.0.

These criteria apply to a route either on or off the National Highway System, regardless of funding source.

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(1) Design Speed. The minimum design speed should equal the minimum value from the table or the anticipated posted speed limit after construction, whichever is greater. The legal speed limit is 60 mph on a non-posted divided highway.

(2) Surface Type. The pavement-type selection will be determined by the INDOT Office of Pavement Engineering.

(3) Shoulder. The following will apply.
- a. If there are 3 or more lanes in each direction and there is a median barrier, a 10 ft paved shoulder and a 2 ft offset is required.
- b. For new construction with $2000 \leq AADT < 5000$, this may be 8 ft. On a reconstruction project, the usable shoulder width may be 10 ft, and the paved shoulder width may be 8 ft.
- c. The shoulder is paved to the front face of guardrail. The desirable guardrail offset is 2 ft from the usable shoulder width. See Section 49-4.0 for more information.
- d. Usable shoulder width is defined as the distance from the edge of the travel lane to the shoulder break point.
- e. If there are 3 or more lanes in each direction, a full-width shoulder, 11 ft usable and 10 ft paved, is desirable.
- f. If curbs are to be used, the criteria described in Figure 53-6 or 53-7 should be applied.

(4) Cross Slope, Travel Lanes. Cross slopes of 1.5% are acceptable on an existing bridge to remain in place. Where three or more lanes are sloped in the same direction, each successive pair of lanes may have an increased sideslope.

(4A) Cross Slope, Shoulder. See Figure 45-1A(1) or Figure 45-1A(2) for more specific information.

(5) Auxiliary Lane, Lane Width. Truck climbing-lane width is 12 ft.

(6) Auxiliary Lane, Shoulder Width. At a minimum, a 2 ft shoulder may be used adjacent to an auxiliary lane. At a minimum, the shoulder adjacent to a truck climbing lane is 4 ft.

(7) Median Width, Flush. Value is for new construction. A median of 25 ft or narrower should be avoided at an intersection. A median wider than 60 ft is undesirable at a signalized intersection or at an intersection that may become signalized in the foreseeable future. On a reconstruction project, the minimum flush-median width is 14 ft for a roadway with left-turn lanes, or 22 ft for a roadway with concrete median barrier.

(8) Clear-Zone Width. This will vary according to design speed, traffic volume, side slopes, and horizontal curvature. See Section 49-2.0.

(9) Side Slope. Value is for new construction. See Sections 45-3.0 for more information. For a reconstruction project, see Section 49-3.0.

(10) Foreslope. See Sections 49-2.0 and 49-3.0 for the lateral extent of the foreslope in a ditch section.

(11) Ditch Width. A V-ditch should be used in a rock cut.

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(12) Backslope. The backslope for a rock cut will vary according to the height of the cut and the geotechnical requirements. See Sections 45-3.0 and 107-6.01.

(13) Structural Capacity, New or Reconstructed Bridge. The following will apply.
   a. A State-highway bridge within 15 mi of a Toll-Road gate must be designed for Toll-Road loading.
   b. A bridge on an Extra-Heavy-Duty Highway must be designed for the Michigan Train truck-loading configuration.

(14) Width, New or Reconstructed Bridge. See Section 402-6.02(01) for more information. The bridge clear-roadway width is the algebraic sum of the following:
   a. the approach traveled-way width;
   b. the approach usable shoulder width without guardrail; and
   c. a bridge-railing offset (see Figure 402-6H).

(15) Vertical Clearance, Arterial Under. Value includes an additional 6 in. allowance for future pavement overlays. Vertical clearance applies from usable edge to usable edge of shoulders.

(16) Vertical Clearance, Arterial Over Railroad. See Chapter 402-6.01(03) for additional information on railroad clearance under a highway.

(17) Superelevation Rate. See Section 43-3.0 for value of superelevation rate based on design speed and radius.

(18) Horizontal Sight Distance. For a given design speed, the necessary middle ordinate will be determined by the radius and the sight distance which applies at the site. Sometimes, the stopping-sight-distance value for a truck will apply. See the discussion in Section 43-4.0.

(19) Maximum Grade. A grade of 1% steeper may be used for a downgrade on a one-way roadway.

(20) Intersection Sight Distance. For a left turn onto a 2-lane road: P = Passenger car; SUT = single unit truck. See Figure 46-10G for value for a combination truck.

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