Indiana Department of Transportation

County Washington Route SR 56 and SR 135 Des. No. 1600873 (Lead), 1600875, and 1700168

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	**State Road (SR) 56 and SR 135 / Washington County**
Designation Number:	**SR 56 1600873 (Lead), SR 135 1600875, and Bridge 1700168**
Project Description/Termini:	**Des. No. 1600873 - Pavement replacement, drainage, and pedestrian improvements along SR 56 from 0.09 mile east of W. Jct. of SR 60 to 0.08 mile east of SR 135 (High Street);** **Des. No. 1600875 - Resurfacing and pedestrian improvements along SR 135 from SR 56 to 0.72 mile north of SR 56;** **Des. No. 1700168 - Bridge Project on SR 56 0.20 mile west of SR 135 over Brock Creek**

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):

X	**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)
	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 _____ 2020.03.27 11:30:22 -04'00' _____ _____ _____

ESM Signature Date ES Signature Date

_____ _____

FHWA Signature Date

Release for Public Involvement

DGD 2020.01.03 13:25:38 -05'00' _____ _____

ESM Initials Date ES Initials Date

RC 2-28-20

Certification of Public Involvement _____ 2-28-20

Office of Public Involvement Date

Note: Do not approve until after Section 106 public involvement and all other environmental requirements have been satisfied.

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

Name and Organization of CE/EA Preparer: Susan Castle, Metric Environmental, LLC

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 October 13, 2017 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, pages G-1 to G-2.

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of No Adverse Effect was published in *The Salem Leader* on July 2, 2019 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later on August 1, 2019. The Publisher's Claim and Public Notice appear in Appendix D, pages D-86 to D-87. No comments were received.

This project meets the minimum requirements described in the current INDOT Public Involvement Manual, which required INDOT to offer the public opportunities to submit comment and/or request a public hearing. On January 3, 2020, INDOT released the environmental document for public involvement.

On February 11 and 18, 2020, a legal notice of planned improvement was published in *The Salem Leader* (G-3). The Publisher's Claim and legal notice are located in Appendix G, pages G-3 to G-7. On February 11 and 26, 2020, the legal notice of planned improvement was sent to interested agencies and local officials (Appendix G, pages G-8 to G-13). On February 11, 2020, the legal notice of planned improvement was sent to adjacent property owners (Appendix G, pages G-13 to G-19) From February 11 through February 27, 2020, public comments were accepted and the preliminary environmental document and design plans were available for public review at:

- Salem Public Library, 212 North Main Street, Salem , IN 47167
- INDOT Seymour District Office, 185 Agrico Lane, Seymour, IN 47274.
- INDOT Office of Public Involvement, 100 North Senate Avenue, Room N642, Indianapolis, IN 46204.

No requests to hold a public hearing or comments were received prior to the established deadline date, February 27, 2020. Therefore, public involvement requirements for this project have been fulfilled. This does not preclude the need for additional public involvement or public information meetings in the future.

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: INDOT INDOT District: Seymour
Local Name of the Facility: SR 56 and SR 135

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

*If other is selected, please indentify 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)

The primary need for this project is due to deteriorating pavement along SR 56 and SR 135. The pavement is cracking, rutting, and is showing signs of subgrade failure in places. Drainage along the corridor is substandard in some locations with no ditching while other areas have non-transversal drop-offs, causing frequent ponding. Existing sidewalk along SR 56 is discontinuous. Some of the curbs within the project limits are in poor condition and not American with Disabilities Act (ADA) compliant.

A secondary need for this project is based on the 142 recorded crashes within the project limits during a 4 year crash study period (July 2013 to June 2017). The Road Hazard Analysis Tool (RoadHAT) 3.0 was utilized in analyzing the crash data. The Index of Crash Frequency (ICF) is 0.86. This indicates the crash rate for this portion of SR 56 and SR 135 is in the 65th percentile compared to similar corridors. The following table summarizes the type of crashes.

Type	Backing	Deer	Head On	Object	Opp. Dir. Sideswipe	Off Road	Pedestrian	Right Angle	Rear End	Same Dir. Sideswipe	Total
Total	1 (0)	9 (0)	6 (0)	2 (1)	3 (0)	9 (1)	1 (1)*	46(13)	54(10)	11 (1)	142(26)*

X (Y): X indicates the number of crashes
Y indicates those resulting in injury
* includes 1 fatality

The review of crash data revealed a pattern of right angle and rear end crashes at the following intersections along SR 56; Cox Ferry Road, Shelby Street, Harrison Street, and SR 135. There is a pattern of right angle crashes at Homer Street and SR 135.

Based on the most recent Bridge Inspection Report, dated March 13, 2019, the bridge (#056-88-1478, National Bridge Inventory [NBI] #20180) carrying SR 56 over Brock Creek is showing signs of deterioration. Rebar is exposed on the superstructure arches, north curb, copings, and the north and south nose areas; drains are clogged; there are numerous cracks on the wearing surface and bridge seats; the superstructure arches have cracking with scaling and efflorescence; the footing is exposed at the west abutment; pier cap #2 has cracking with scaling and spalling; there is minor erosion at the northwest corner; and a moderate drift pile in span A and on the nose of pier #2 at the north end. Overall the bridge is in fair condition with minor section loss.

The purpose of this project is to extend the life of the existing pavement, address the cause of numerous accidents, inadequate drainage and pedestrian facilities, and provide a hydraulically sufficient structure in order to perpetuate vehicular traffic over Brock Creek.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Washington Municipality: Salem

Limits of Proposed Work: Pavement Replacement along SR 56 (Des. No. 1600873) from 0.09 mile east of W. Jct. of SR 60 to 0.08 mile east of SR 135 (High Street), Resurfacing SR 135 (Des. No. 1600875) from SR 56 to 0.72 mile north of SR 56, and Bridge Project on SR 56 0.20 mile west of SR 135 over Brock Creek (Des. No. 1700168).

Total Work Length: SR 56 – 1.33 SR 135 – 0.72 Mile(s) Total Work Area: N/A Acre(s)

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	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:

INDOT intends to proceed with road, pedestrian, and drainage improvements along SR 56 (Des. No. 1600873) from 0.09 mile east of SR 60 to 0.08 mile east of SR 135 for approximately 1.30 miles; SR 135 (Des. No. 1600875) from SR 56 to 0.72 mile north of SR 56 for approximately 0.72 mile; and SR 56 Bridge Project over Brock Creek for approximately 0.03 mile (Des. No. 1700168) for a total of approximately 2.05 miles (Appendix B, page B-1). Specifically, the project is located in Sections 8, 13, 17, and 18, Township 2 North, Range 4 East on the 7.5-Minute Salem United States Geological Survey topographic quadrangle (Appendix B, page B-2).

Existing Conditions:

Des. No. 1600873 - SR 56: SR 56, an Urban Arterial, was constructed as a 20 foot (ft.) wide concrete pavement in 1934. The pavement was widened with Hot Mix Asphalt (HMA) to 30 ft. wide in 1941 and has been resurfaced many times since. The pavement is cracking, rutting, and is showing signs of subgrade failure in places. Drainage along the corridor is substandard in some locations with no ditching while other areas have non-transversal drop-offs, causing frequent ponding. Existing sidewalk is intermittent, providing little to no pedestrian use. Some of the curbs within the project limits are in poor condition and not ADA compliant. Overhead utilities exist along north and south sides of the roadway. Land use within the area is residential and commercial (Appendix B, pages B-3 to B-18).

On SR 56, from the beginning of the project limits to Old State Road 60 West, the roadway consists of one 12 ft. wide travel lane adjoined by a 3 ft. wide paved shoulder in each direction. The posted speed limit is 45 miles per hour (MPH) (Appendix B, pages B-45, B-47, B-49, and B-52). Approximately 200 ft. east of the Old State Road 60 West and SR 56 Intersection, the speed limit reduces to 35 MPH. From Cox Ferry Road to Cauble Street, SR 56 narrows to two 11.5 ft. wide through lanes adjoined by a 6 ft. wide paved shoulder in each direction and the speed limit decreases to 30 MPH (Appendix B, pages B-55 and B-57). At the intersection of SR 56 at SR 135 the SR 56 eastbound approach consists of a 15 ft. wide westbound travel lane, 10 ft. wide left-turn only lane, 10 ft. wide through lane, and 10 ft. wide right-turn only lane. At the intersection of SR 56 at SR 135 the SR 56 westbound approach consists of a 12 ft. wide eastbound travel lane, 10 ft. wide left-turn only lane, and 10 ft. wide through / right-turn lane (Appendix B, page B-69). East of SR 135 to High Street, SR 56 is reduced to one 12 ft. wide through lane adjoined by a 4.5 ft. wide paved shoulder in each direction (Appendix B, page B-69).

On SR 56, from the beginning of the project to Cauble Street, no curbing exists. Drainage is generally from east to west, conveyed in shallow roadside drainage ditches, culvert pipes, and occasional inlets. East of Cauble Street to Posey Street, the edge of pavement is bordered by curbing. East of the bridge over Brock Creek, roadside drainage is via ditches, beehive inlets, and storm sewers located along the south side of the roadway. Roadside drainage exits the project site at Highland Creek, through a 24 inch storm sewer, and along the west and east side of Brock Creek. The Plan and Profile are located in Appendix B, pages B-45 to B-70.

Des. No. 1600875 - SR 135: SR 135, an Urban Arterial was constructed 20 ft. wide with an HMA overlay in 1931. The pavement was widened to 30 ft. in 1939, from SR 56 to Homer Street. Several resurfacings have occurred since then. The pavement is cracking, rutting, and is showing signs of subgrade failure in places. Existing sidewalk along SR 135 is mostly continuous along both sides of the road from SR 56 to Homer Street. Some of the sidewalks are brick; however, the majority of the sidewalks are concrete. Large trees are adjacent to the sidewalk and have caused numerous locations of upheaval. Curb ramps are not ADA compliant. Overhead utilities exist along the east side of the roadway. Land use within the area is primarily residential (Appendix B, pages B-3, B-4, and B-19 to B-27).

SR 135, at the intersection of SR 56, southbound travel lanes consist of one 10 ft. wide left-turn only lane and one 14 ft. wide through / right-turn lane. The northbound lane consists of one 19 ft. wide travel lane. Continuing north on SR 135 to W. Homer Street, SR 135 consists of one 22 ft. wide combined travel lane and street parking in each direction with a speed limit of 30 MPH. North of W. Homer Street, the roadway narrows to two 12 ft. wide travel lanes adjoined by a 13 ft. wide grassy area between the road and a sidewalk on the east side of the road until E. Homer Street. After E. Homer Street, the 13 ft. wide grassy area and sidewalk end and a 3 ft. wide concrete drainage gutter begins on both sides of the roadway. Beginning at Reid Avenue, the concrete gutters end and the roadway narrows to one 11 ft. wide through lane adjoined by a 1 ft. wide paved shoulder in both directions. At Emma Street, SR 135 widens to allow a 12 ft. wide travel lane in both directions and a 10 ft. wide shoulder adjacent to the northbound lane for a distance of

approximately 195 ft. Approximately 500 ft. north of Emma Street, the speed limit increases to 45 MPH and the roadway consists of one 12 ft. wide through lane adjoined by a 2 ft. wide paved shoulder in each direction to the end of the project limits.

On SR 135, from SR 56 to Harriet Street, roadside drainage is collected at the curb line and enters into inlets and storm sewer. North of Harriet Street, no curbing exists. Drainage is conveyed in shallow roadside ditches and culverts running north to the end of the project. Roadside drainage exits the project site at the south end, entering into the SR 56 storm sewer system, through a 27 inch clay tile that crosses SR 135 and drains west toward Brock Creek; through a 15 inch corrugated metal pipe (CMP) north of Homer Street; a 4 ft. by 4 ft. reinforced concrete box culvert; and at the north end of the project into Brock Creek (Appendix B, pages B-81 to B-87).

Des. No. 1700168 - Bridge over Brock Creek: The bridge (#056-88-01478, NBI #20180), located 0.20 mile west of SR 135, is a two span concrete cast-in-place, two lane (10 ft. wide each adjoined by 5 ft. wide shoulders and guardrail) arch bridge structure constructed in 1933 with a maximum span of 45 ft. and a structure length of 95 ft., skewed at 15 degrees (Appendix B, pages B-3, B-4, B-15, B-16, and B-27 to B-28).

The structure exhibits heavy scaling and efflorescence. Several arches have cracking in the spandrel walls. The substructure is rated a 5 (out of 10) indicating fair condition, with exposed footing at the West abutment. The Pier Cap No. 2 has cracking and spalling. Both north and south nose areas exhibit exposed rebar while bridge seats have cracking. The bridge also has minor erosion throughout the structure. According to the most recent INDOT inspection report, dated March 13, 2019, the structure was given a sufficiency rating of 72.5 out of 100, indicating fair condition.

Preferred Alternative:

INDOT, with funding from Federal Highway Administration (FHWA) intends to proceed with a pavement replacement project, including pedestrian and storm water improvements along SR 56 (Des. No. 1600873), resurfacing SR 135, including minor pedestrian improvements 135 (Des. No. 1600875), and a bridge project on SR 56 over Brock Creek (Des. No. 1700168), Salem, Washington County, Indiana.

Des. No. 1600873 - SR 56: The preferred alternative along SR 56 includes removing and replacing the roadway pavement, installing new loop detectors, constructing new sidewalks and ADA compliant curbs, establishing new enclosed storm water drainage patterns, new signs, and pavement markings from 0.9 mile east of West Junction of Old Indiana 60/SR 56 to 0.8 mile east of SR 135 (High Street). Storm sewer pipes, inlets, manholes, modified combined concrete curbs and gutters, and concrete curbs will be installed throughout the project limits. A center turn lane will be added from 700 ft. west of Tarr Avenue to Cox Ferry Road due to high density of commercial businesses and the volume of vehicles turning into and from these businesses. The design plans are located in Appendix B, pages B-29 to B-70). The total net project length is approximately 1.30 mile.

The horizontal alignment for the most part is being retained, with the center of the proposed roadway located at or very near the existing roadway centerline. The vertical alignment is being modified in order to best fit the existing corridor. Many locations a slight lowering of the existing grade allows the surface water to drain over the sidewalk and curb then drop into the proposed gutter. Other locations where there are existing cut slopes and/or retaining wall, a slight grade raise reduces the height of the cut slope and/or retaining wall and best fits this tight urban corridor.

New ADA compliant curb ramps will be installed at the southeast corner of SR 56 and Spring Grove Avenue; southwest and southeast corners of SR 56 and Franklin Street; southwest, southeast, and northeast corners of SR 56 and Shelby Street; all four corners of SR 56 and Harrison Street; all four corners of SR 56 and Posey Street; northwest and northeast corners of SR 56 and Mill Street; all four corners of SR 56 and Water Street; southwest and southeast corners of SR 56 and Water Alley; and northwest, northeast, and southwest corners of SR 56 and SR 135.

The new sidewalks will consist of concrete and be ADA-compliant to provide a continuous path for pedestrians along portions of the north and south sides of SR 56. The new sidewalk on the south side of SR 56 will begin at the southeast corner of Spring Grove Avenue and will terminate at the southwest corner of Posey Street, for a total length of 1,320 ft. The new sidewalk on the south side of SR 56 will also be installed beginning at the southeast corner of Water Street and will terminate at the southwest corner of SR 135, for a total length of approximately 270 ft. The new sidewalk on the north side of SR 56 will begin approximately 100 ft. east of its intersection with Shelby Street and terminate at the northwest corner of Posey Street, for a total length of approximately 650 ft. A short segment of sidewalk will be installed between the northeast corner of Posey Street and the bridge over Brock Creek and will continue on the east side of the bridge over Brock Creek terminating at the northwest corner of SR 135, for a total distance of approximately 930 ft.

Existing loop detectors, detector housings, handholes, and wire/conduit disturbed by paving operations at the intersection of SR 56 and SR 135 will be replaced.

Pavement markings, speed limit signs, and other informational signs will be installed throughout the project limits (Appendix B, pages.

One tree, greater than 6 inches in diameter, will be removed from the north side of SR 56, approximately 150 ft. west of Water Street, in order to construct new sidewalk (Appendix B, page B-67). No other trees are planned to be removed.

Des. No. 1600875 - SR 135: The preferred alternative along SR 135 includes milling 1.5 inches and resurfacing the pavement 1.5 inches, upgrading select curbs to meet ADA-compliance, and pavement markings. The horizontal and vertical alignment will not be altered as the roadway will be milled and resurfaced at the same depth. Castings will be adjusted to grade. The southbound dedicated left-turn lane approaching SR 56 will be lengthened approximately 100 ft., resulting in a loss of on-street parking for approximately 75 ft. The remaining on-street parking will be retained. The existing brick wall located at the northeast corner of SR 135 and SR 56 is not to be disturbed. Additionally, the existing hitching posts and carriage steps located within the project limits from SR 56 to Homer Street are not to be disturbed. The design plans are located in Appendix B, pages B-77 to B-87. The total project length along SR 135 is approximately 0.72 mile.

As the design progressed, the installation of new storm water sewers, sidewalks, and the removal of approximately 60 trees, as described in the early coordination (EC) letter (Appendix C, page C-1 to C-5), the Red Flag Investigation (RFI) (Appendix E, pages E-1 to E-19), and the Waters Determination Report (Appendix F, pages F-1 to F-29) was abandoned for two reasons. Cost estimates for SR 56 are higher than what INDOT programmed and fiscal constraints dictated that the additional money for SR 56 came from somewhere. Also, INDOT pavement design determined that the condition of the SR 135 pavement was such that a mill and resurface would still provide adequate design life and road serviceability.

Detectable warning surfaces, which are ADA compliant, will be installed at all for corners at the intersection of Salem Avenue. New ADA compliant curb ramps will be installed at the southwest, northwest, and northeast corners of SR 135 and Homer Street.

Pavement markings will be applied throughout the project limits.

Des. No. 1700168 - Bridge over Brock Creek: The preferred alternative includes removing the existing two span reinforced concrete arch bridge (#056-88-01478, NBI #20180) which carries SR 56 over Brock Creek and replacing it with a continuous reinforced haunched concrete slab bridge consisting of two spans at 46 ft. - 9 inches and a clear roadway width of 31 ft. - 4 inches. One 12 ft. wide travel lane will be provided in each direction, adjoined by 2 ft. wide curb offset (north side), and 4 ft. wide shoulder (south side). New railing will be installed. Approximately 162 tons of riprap over 182 square yards of geotextiles will be placed beneath both ends of the bridge for scour protection. A minor profile grade raise will occur at the structure to satisfy the hydraulic and geometric requirements. The waterway opening will increase slightly from the existing since the waterway area blocked by the arches will be eliminated. The design plans are located in Appendix B, pages B-88 to B-95. The total project length of the bridge over Brock Creek is approximately 158 ft.

Maintenance of Traffic:
SR 56 and SR 135 will be closed to through traffic during construction. A detour will be in place during construction. Access to residents and businesses will be maintained during construction. The proposed Maintenance of Traffic (MOT) is described in the MOT section in this document.

Termini
This project has independent utility because it meets the purpose and need of the project without being connected to any other actions in the area. This project has logical termini because the limits are confined to those required to meet the safety hazards, deteriorated conditions, and maintenance problems for the proposed center turn lane, road, pedestrian, drainage, and bridge improvements.

The preferred alternative meets the stated purpose and need of the project by improving drainage, traffic movements, safe and smooth driving surfaces for 7 to 10 years, the structural integrity of the bridge, as well as meeting ADA compliance.

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: Mill and Resurface and ADA Curb Ramps

This alternative consists of milling 1.5 inches of HMA and replacing it with 1.5 inches of HMA Surface Course. This alternative would not address curb conditions, sidewalk conditions, travel way cross slope, nor would it address any drainage issues that exist along the SR 56 corridor. This alternative is not recommended for SR 56 because by not addressing the poor pavement subgrade and poor roadway drainage, it does not provide a long-term solution to the poor pavement condition through the corridor. As this does not fulfill the Purpose and Need of the project along SR 56, it has been removed from further consideration for SR 56.

Alternative 2, Do-Nothing:

This alternative would leave the existing structure and roads in their current deteriorating states. No additional cost would be incurred by maintaining the continued use of the existing bridge and roadways. Based on the continued deterioration of the structure, the structure would eventually need to be closed. Therefore, this alternative was not considered reasonable or practical and was eliminated from consideration.

No other alternatives were considered.

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;	X
It would not correct the existing roadway geometric deficiencies;	
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:

Functional Classification: SR 56 – Urban Arterial

Current ADT: 14,850 VPD (2018) Design Year ADT: 16,780 VPD (2040)

Design Hour Volume (DHV): 1,520 Truck Percentage (%) 3%

Designed Speed (mph): 30, 35, & 45 Legal Speed (mph): 30, 35, & 45

	Existing		Proposed	
Number of Lanes:	4		5	
Type of Lanes:	2 through and 1 left-turn and 1 right-turn at SR 135		2 through, 1 shared center, and 1 left-turn and 1 right-turn at SR 135	
Pavement Width:	23 - 45	ft.	24 - 44	ft.
Shoulder Width:	3 - 10	ft.	2 - 10	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	5 - 6	ft.	5 - 6	ft.

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

Functional Classification: SR 135 – Urban Arterial

Current ADT: 6,540 VPD (2018) Design Year ADT: 8,400 VPD (2040)

Design Hour Volume (DHV): 976 Truck Percentage (%) 3%

Designed Speed (mph): 30-45 Legal Speed (mph): 30-45

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	Existing		Proposed	
Number of Lanes:	3		3	
Type of Lanes:	2 through and 1 left-turn lane at SR 56		2 through and 1 left-turn lane	
Pavement Width:	22 - 51	ft.	24 - 51	ft.
Shoulder Width:	1 - 2	ft.	2	ft.
Median Width:	0	ft.	0	ft.
Sidewalk Width:	6 - 8	ft.	6 - 8	ft.

Setting:	X	Urban		Suburban		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): 056-88-01478 / 20180 Sufficiency Rating: 72.5 03/13/2019 Bridge Inspection Report
(Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Concrete Cast-in-Place Arch Bridge		Continuous Reinforced Haunched Concrete Slab Bridge	
Number of Spans:	2		2	
Weight Restrictions:	N/A	ton	N/A	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	36	ft.	31’-4”	ft.
Outside to Outside Width:	39	ft.	40	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Length of Channel Work:			120	ft.

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

Remarks:

The undertaking involves replacing the existing 90 ft. long, two span (45 ft. by 45 ft.) concrete cast-in-place arch bridge (#056-88-1478, NBI #20180) carrying SR 56 over Brock Creek. The existing bridge is not eligible for the National Register as indicated in Volume 2 Section 2 Listing of Non-Historic Bridges (https://www.in. gov/indot/2531.htm).

The existing bridge will be replaced with a two span (46 ft. - 9 inches) haunched reinforced concrete slab bridge that will match the existing bridge in length.

Nine storm water pipes and riprap will be installed as described in the table below:

Structure 7A - One 34 linear ft. of 21 inch pipe with 99 tons of riprap on 172 square yards of geotextile and 5 tons of riprap on 11 square yards of geotextile (Appendix B, pages B-47 to B-48).
Structure 7B - One 34 linear ft. of 15 inch pipe with 53 tons of riprap on 97 square yards of geotextile and 3 tons of riprap on 7 square yards of geotextile (Appendix B, pages B-47 to B-48).
Structure 7C - One 39 linear ft. of 15 inch pipe (Appendix B, page B-47).
Structure 7D - One 30 linear ft. of 21 inch pipe with 5 tons of riprap on 11 square yards of geotextile at each end (Appendix B, page B-47).
Structure 7E - One 35 linear ft. of 15 inch pipe with 25 tons of riprap on 45 square yards of geotextile and 3 tons of riprap on 7 square yards of geotextile (Appendix B, pages B-47 to B-48).
Structure 8A - One 40 linear ft. of 18 inch pipe with 3 tons of riprap on 9 square yards of geotextile at each end (Appendix B, page B-47).
Structure 8C - One 105 linear ft. of 15 inch pipe with 3 tons of riprap on 7 square yards of geotextile at each end (Appendix B, page B-49).
Structure 8D - One 51 linear ft. of 15 inch pipe with 37 tons of riprap on 67 square yards of geotextile and 3 tons of riprap on 7 square yards of geotextile (Appendix B, pages B-49 to B-50).

No other bridges or small structures are included in this project.

	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:

The MOT for the projects will require lane closures during phased construction, flaggers, and detours as described below.

Des. No. 1600873 - SR 56: During construction, a detour will be in place utilizing Salem Bypass, SR 135, US 150 and SR 337 adding 61 miles for the traveling public (Appendix B, pages B-35 to B-36). Local detours may be available. The construction sequence will consist of four phases as shown on the plans (Appendix B, pages B-37 to B-44).

Des. No. 1600875 - SR 135: A detour will not be required during construction on SR 135. The Contractor will utilize flaggers for any construction activities where flaggers are deemed necessary by the Engineer to maintain a safe construction zone. Access to the homeowners and businesses will be maintained during construction (Appendix B, page B-80).

Des. No. 1700168 - Bridge over Brock Creek: The bridge project over Brock Creek will be conducted concurrently with the SR 56 roadway project and will utilize the detour explained above (Appendix B, pages B-90 to B-91).

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

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering:	$	SR 56-312,000 (2018) SR 135-38,461 (2021) Bridge-200,000 (2018)	Right-of-Way:	$	SR 56 & 135-712,051 (2020) Bridge-75,000 (2021)	Construction:	$	SR 56 & 135-389,700 (2021) SR 56 & 135-6,568,750 (2022) Bridge-1,422,364 (2022)

Anticipated Start Date of Construction: September 2021

Date project incorporated into STIP: 2018-2021 State Transportation Improvement Program (STIP); Amendment #18-02 July 31, 2017, 2018-2021 STIP July 3, 2017, and 2020-2024 STIP July 2, 2019 (Appendix H, pages H-1 to H-4).

	Yes	No
Is the project in an MPO Area?		X

If yes,

Name of MPO: _____

Location of Project in TIP: _____

Date of incorporation by reference into the STIP: _____

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent	Temporary
Residential	SR 56 - 0.808	SR 56 - 0.220
Commercial	SR 56 - 0.243	SR 56 - 0.315
Agricultural		
Forest		
Wetlands		
Other:		
Other:		
TOTAL	1.051	0.535

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:

Des. No. 1600873 - SR 56: The existing right-of-way varies throughout the project limits along SR 56 from 8 ft. to 99 ft. from edge of pavement (Appendix B, pages B-45 to B-70).

The project requires approximately 1.051 acres of permanent right-of-way of which 0.808 acre is residential and 0.243 acre is commercial, throughout the project limits along SR 56. The project also requires approximately 0.535 acre of temporary ROW of which 0.220 acre is residential and 0.315 is commercial, throughout the project limits along SR 56. The right-of-way locations and amounts are provided in Appendix B, pages B-71 to B-76.

Des. No. 1600875 - SR 135: The existing right-of-way varies throughout the project limits along SR 135 from 14 ft. to 36 ft. from edge of pavement. The SR 135 project will be conducted entirely within existing right-of-way. No permanent or temporary right-of-way will be required (Appendix B, pages B-81 to B-87).

Des. No. 1700168 - Bridge over Brock Creek: The existing right-of-way is approximately 25 ft. north and 25 ft. south from the edge of the bridge. The bridge project will be conducted entirely within existing right-of-way. No permanent or temporary right-of-way will be required (Appendix B, page B-92).

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

Remarks:

Based on a desktop review, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), and the water resources map in the RFI report (Appendix E, page E-12), there are sixteen streams and rivers within the 0.5 mile search radius. There are three streams present within or adjacent to the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on May 4, 2018. Please refer to Appendix E, pages E-1 to E-29 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are three streams and five non-jurisdictional roadside ditches located within the project study limits. The U.S. Army corps of Engineers (USACE) makes all final determinations regarding jurisdiction.

Brock Creek intersects the project area (Appendix F, page F-14). Brock Creek is associated with a solid blue line on the USGS topographic map, indicating it is perennial. This stream is classified by the National Wetland Inventory (NWI) as a Riverine, Lower Perennial, Unconsolidated Bottom, Permanently Flooded (R2UBH) stream. The Ordinary High Watermark (OHWM) was an average of 14 ft. in width and 0.8 ft. in depth within the project study limits. Brock Creek flows from northwest to southeast and is approximately 158 linear ft. in length (0.051 acre) within the project study limits. Brock Creek flows southwest into West Fork Blue River, which flows south into Blue River, a Section 10 Traditional Navigable Water (TNW). Therefore, Brock Creek should be considered a jurisdictional Water of the U.S. According to the U.S.G.S. *Indiana StreamStats,* the drainage area upstream of the project study limits is 7.87 square miles. The bridge project, Des. No. 1700168, over Brock Creek will result in the placement of approximately 162 tons of riprap over 182 square yards of geotextiles beneath both the east and west ends of the bridge. A total of 0.042 acre below the OHWM and 120 linear ft. of stream will be impacted (Appendix B, page B-94). No mitigation will be required.

An unnamed tributary (UNT 1) to Highland Creek flows from southeast to northwest and is approximately 79 linear ft. in length (0.002 acre) within the project study limits (Appendix F, page F-11). This stream flows northwest outside of the project limits and into Highland Creek, which flows southwest into West Fork Blue River, which flows south into Blue River, a Section 10 TNW. Therefore, UNT 1 should be considered a jurisdictional Water of the U.S. This stream is carried under SR 56 via a culvert. No construction is planned beyond the edge of pavement where UNT 1 is located. Therefore, no impacts to UNT 1 are expected.

An UNT to Brock Creek (UNT 2) flows from east to west and is approximately 68 linear ft. in length (0.002 acre) within the project study limits (Appendix F, page F-18). This stream flows west outside of the project limits and into Brock Creek, which flows southwest into West Fork Blue River, which flows south into Blue River, a Section 10 TNW. Therefore, UNT 2 should be considered a jurisdictional Water of the U.S. This stream is piped under SR 135. No construction is planned beyond the edge of pavement where UNT 2 is located. Therefore, no impacts to UNT 2 are expected.

In a letter dated June 13, 2018, IDNR-DFW stated any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 (Appendix C, pages C-6 to C-8). The drainage area is greater than one square mile and therefore will require a construction in the floodway permit.

Early coordination letters were sent to Indiana Department of Natural Resources (IDNR) Division of Fish & Wildlife (DFW) and U.S. Army Corps of Engineers (USACE) on May 14, 2018 (Appendix C, pages C-1 to C-5). The USACE did not respond to the early coordination letter. In a letter dated June 13, 2018, IDNR-DFW stated any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. The drainage area is greater than one square mile and therefore will require a construction in the floodway permit. IDNR-DFW also responded with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, pages C-6 to C-8). IDNR-DFW provided recommendations regarding structure size and placement, bank stabilization, minimizing use of riprap in the stream and methods for riprap placement, minimizing in-channel disturbance, and avoiding work in the waterway from April 1 through June 30. All applicable IDNR-DFW recommendations are included in the Environmental Commitments section of this CE document.

On May 14, 2018 and October 18, 2019, Metric generated an automatic Indiana Department of Environmental Management (IDEM) Proposed Roadway Construction Projects letter, in which IDEM recommended obtaining the appropriate USACE 404 and IDEM 401 permits (Appendix C, pages C-9 to C-16). All applicable IDEM recommendations are addressed by the INDOT Design Manual.

Indiana Department of Transportation

County Washington Route SR 56 and SR 135 Des. No. 1600873 (Lead), 1600875, and 1700168

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

Remarks: Based on a desktop review, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), and the water resources map in the RFI report (Appendix E, page E-12), there are four lakes located within the 0.5 mile search radius. There are no other surface waters present within or adjacent to the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on May 4, 2018. Please refer to Appendix E, pages E-1 to E-29 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that there are no other surface waters located within the project study limits. The USACE makes all final determinations regarding jurisdiction.

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

Total wetland area: 0 acre(s) Total wetland area impacted: 0 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
N/A	N/A	N/A	N/A	N/A

Wetlands (*Mark all that apply*)	**Documentation**	**ES Approval Dates**
Wetland Determination		
Wetland Delineation		
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;	
Substantial adverse social, economic, or environmental impacts, or	
The project not meeting the identified needs.	

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

Remarks:

Based on a desktop review, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), and the water resources map in the RFI report (Appendix E, page E-12), there are six wetlands located within the 0.5 mile search radius. There are no wetlands present within or adjacent to the project area.

A *Waters of the U.S. Determination / Wetland Delineation Report* was approved by INDOT Ecology and Waterway Permitting Office on May 4, 2018. Please refer to Appendix F, pages F-1 to F-29 for the *Waters of the U.S. Determination / Wetland Delineation Report*. It was determined that no wetlands are located within or adjacent to the project area. The USACE makes all final determinations regarding jurisdiction.

	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, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), there are ten types of terrestrial habitat within the project area. The dominant vegetation located within the project area is Johnson Grass (*Sorghum halepense*), Ground Ivy (*Glechoma hederacea*), Reed Canary Grass (*Phalaris arundinacea*), and Annual Vine (*Echinocystis lobate*) from the herb stratum. Lawn is present throughout as well.

The sidewalks will be constructed within lawn areas along SR 56. Approximately 0.10 acre of lawn will be removed to construct a portion of the new sidewalk along the north side of SR 56 from Station (Sta.) 138+00 to Sta. 144+00 (Appendix B, page B-67). One tree will be removed to construct the new sidewalk on the north side of SR 56, west of Water Street (Appendix B, page B-70).

As the design progressed, the plan to remove approximately 60 trees, as described in the EC letter (Appendix C, page C-1 to C-5), the RFI (Appendix E, pages E-1 to E-19), and the Waters Determination Report (Appendix F, pages F-1 to F-29) was abandoned. No trees will be removed along SR 135.

An early coordination letter was sent to IDNR-DFW on May 14, 2018 (Appendix C, pages C-1 to C-5). The IDNR-DFW responded on June 13, 2018 with recommendations to avoid or minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible and compensate for impacts (Appendix C, pages C-6 to C-8). IDNR-DFW recommendations include revegetating disturbed areas, do not cut trees from April 1 through September 30, and erosion control materials and methods.

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?		X

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 inside 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, page B-2), the RFI report (Appendix E, page E-12), and the approved *Waters of the U.S. Determination / Wetland Delineation Report* (Appendix F, page F-3) there are karst features identified within or adjacent to the project area. Three cave entrance density areas are located within the 0.5 mile of the project area. One cave entrance density location intersects the project area. This data layer from *IndianaMap* shows the density (number of entrances per square kilometer) of mapped cave entrances in southern Indiana. Locations of individual cave entrances are not shown with this data. The cave entrance density within the project area was 1 per square kilometer.

A karst study was required after consultation with INDOT ESD. The field inspection was conducted on July 15, 2019 by a Lochmueller Group licensed geologist with karst terrain experience. Potential karst and karst related features observed during the field inspection include five sinkholes, one karst spring, and one soil pipe.

- A soil filled sinkhole is located approximately 30 ft. south of the SR 56 travel lane along and adjacent to a poorly defined drainage flowing to a 54 inch corrugated metal pipe (CMP) crossing SR 56. This feature is potentially a modification to a pre-existing karst sinkhole or swallet. Surface drainage from the roadway is directed to a grassy swale on the south side of SR 56 and a roadside ditch on the north side. Drainage on the south side of SR 56 flows toward this sinkhole and the cross culvert. Drainage on the north side of SR 56 all flows southwest along SR 56 to Highland Creek. Upon project completion, runoff from the roadway will generally remain the same as current conditions. While the drainage pattern will remain the same, the definition of the south ditch and addition/replacement of drive culverts could result in minor flow changes. This minor adjustment is not anticipated to have a negative effect on this sinkhole.
- Two soil filled karst sinkholes with low infiltration are located approximately 200 ft. south of SR 56 and one soil and rock debris filled karst sinkhole with low infiltration is located approximately 125 ft. south of SR 56. Currently, runoff from the roadway is captured by vegetated roadside ditches located both north and south of SR 56 and is directed west and southwest away from these three sinkholes. Due to the location and elevation of the three sinkholes relative to the roadway, the sinkholes do not receive any runoff from SR 56. The project will construct new modified combined concrete curb and gutter, which will capture runoff before it reaches the existing roadside ditches and continue to direct it to the west and southwest away from the features. Runoff from SR 56 will not reach the features post-construction. The hydrology of the features will not be affected by the project.
- A very shallow soil filled sinkhole with low infiltration is located between SR 56 and Cox Ferry Road. This feature appears to have been modified or created by previous construction. Due to the grade of the roadway, this sinkhole currently receives minimal runoff from SR 56 from the area immediately adjacent to the Cox Ferry intersection. The project will include the construction of new modified combined concrete curb and gutter near the feature. Post-construction, the curb and gutter will collect runoff from SR 56 and direct it away from the feature to the storm sewer system. Minor grading associated with the project will minimize or eliminate the surface ponding potential at this location. No significant changes to the hydrology of this feature are anticipated as a result of the project based on the very minimal ponding and infiltration potential that exists currently.
- A karst spring was observed flowing from a constructed rock headwall located outside of the right-of-way on the northeast quadrant of N. Mill Street and SR 56. Clear water flowing from the spring does not appear to be associated with gray water effluent from the nearby home. Discharge is estimated to be less than one gallon per hour, suggesting this feature may be ephemeral with no flow during some parts of the year. This is corroborated by earlier Google Earth imagery from September 2013 which shows no signs of saturation in the area associated with this spring. The discharge fans out in the grass yard and infiltrates into the soil and underlying karst. The feature is located north of a drainage feature that carries runoff from SR 56 west across Mill Street and on to Brock Creek and is not receiving runoff from the SR 56 roadway. The project will construct new modified combined concrete curb and gutter near this karst spring, which will continue to direct runoff toward the same drainage feature and on to Brock Creek. While the source of the spring water is not identified, there were no sink features identified as a part of this survey associated with SR 56 that would contribute to this spring flow. No changes to the hydrology of the karst spring are anticipated with the project.
- A soil pipe sink feature is located just east of SR 135. The soil pipe is located in a low grassy area with surface runoff directed toward a culvert under SR 135. The culvert entrance has had a grout apron added presumably to capture runoff that was infiltrating downward into underlying karst. This apron has more recently been undermined showing a perimeter gap between the concrete and soil, evidence of water and soil piping downward into the underlying karst. The soil piping is also evidenced by multiple soil holes around the trees immediately up-stream/up-gradient of the concrete apron. Only Hot Mix Asphalt (HMA) resurfacing and surface milling will occur in this area of SR 135. No grading will occur; therefore, the hydrology of this feature will not be affected by the project. However, it is anticipated based on the location of the soil pipe that the associated karst flow path does cross under SR 135 and discharge to Brock Creek to the west.

Proposed Activities, Direct Impacts and Recommendations:
The proposed project involves disturbance of the surface in the right-of-way adjacent to the existing roadway, embankment and ditches, and utilities. This disturbance will occur below an elevation of 790 to 750 ft., which is within the elevation range of the local limestone bedrock (880 to 680 ft. approximately) and within the elevation range of observed karst features and potential karst systems based on documentation from the karst field reconnaissance. The karst

spring identified during this field review is located just outside of the right-of-way, in the northeast quadrant of N. Mill Street and SR 56. The spring should be indicated on the construction plans as a do not disturb area and protected from construction activity. Bridge piers and bents excavation should be monitored for any bedrock voids or fissures that may warrant further karst investigation. Erosion control measures are needed to protect the karst features noted along and just outside of the right-of-way from impacts resulting from runoff from any disturbed areas during construction.

Based on the completed surface karst inspection and observation of karst features documented in the report there is minimal potential for direct impacts to karst from the planned construction. Avoidance of identified features should be included in the project planning to minimize impacts (this excludes the planned grading at SR 56 and Cox Ferry Road). The karst and karst related features described are not likely to present a karst concern related to the project construction. Soil covered or otherwise unknown karst features in bedrock may be found during construction with possible direct impacts to the underlying karst system. This includes the potential of impacts associated with the installation of the storm sewer as well as subsequent channeling of groundwater within the pipe trench which could activate buried karst features that are not currently hydrologically active. Measures to minimize channeling and movement of groundwater along the pipe trench should be included to minimize the potential for impacts associated with such a groundwater hydrology change.

In the event that a bedrock void, karst flowpath, or troglobitic species are encountered during construction, work should be stopped in the immediate area and a karst qualified geologist should be contacted immediately to determine if additional karst investigations are needed and to address the stipulations of the Karst Memorandum of Understanding (MOU).

In the early coordination response, the Indiana Geological Survey (IGS) did indicate that karst features may exist in the project area. IGS also indicated geological hazards include floodway; mineral resources include a high potential for bedrock and no sand and gravel resources are documented in the area, a high potential for sand and gravel; active or abandoned mineral resource extraction sites include petroleum exploration wells and abandoned industrial minerals quarries (Appendix C, pages C-17 to C-19). Response from IGS has been communicated with the designer on September 21, 2019.

Threatened or Endangered Species	**Presence**	**Impacts**	
		Yes	**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)	X		X

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

Remarks:

Based on a desktop review and the RFI report (Appendix E, pages E-1 to E-15), completed by Metric on August 27, 2018, the IDNR Washington County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in (Appendix E, pages E-16 to E-19). The highlighted species on the list reflect the federal and state identified ETR species located within the county.

According to the IDNR-DFW early coordination response letter dated June 13, 2018 (Appendix C, pages C-6 to C-8) the Natural Heritage Program's Database has been checked. The American Badger (*Taxidea taxus*), a state species of special concern, has been documented within a half mile southwest of the project area. The IDNR-DFW indicated that impacts to the American badger or its preferred habitat are unlikely as a result of this project.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-20 to C-25). 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 NLEB.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and 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 February 8, 2018, and based on the responses provided, the project was found to "*may affect, but is not likely to adversely affect*" the Indiana bat and/or the NLEB (Appendix C, pages C-26 to C-40). INDOT reviewed and verified the effect finding on February 11, 2019 and requested USFW's review of the finding. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Mitigation Measures (AMMs) are included as firm commitments in the *Environmental Commitments* section of this document.

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

SECTION B – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area			
Public Water System(s)	X		X
Residential Well(s)			
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 Washington 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 IDEM's Wellhead Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on December 6, 2019 by Metric. 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 August 26, 2019 by Metric. No wells are located near this project. Therefore, no impacts are expected.

Based on a desktop review of the INDOT MS4 website (https://entapps.indot.in.gov/MS4/) by Metric on August 26, 2019, and the RFI report; this project is located in an Urban Area Boundary (UAB) location; however, a Rule 13 Permit from IDEM has not been issued for Washington County. No further coordination is necessary at this time.

Based on a desktop review, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), this project is located where there is a public water system. The public water system will not be affected because this project does not involve removing or replacing the public water system. On September 19, 2017, the designer coordinated with Salem Utilities - Water. Salem Utilities – Water did not respond to the designer's coordination; however, a representative from Salem Utilities – Water attended the field check meeting on April 4, 2018. The representative indicated a water line exists along the west side SR 135, (in the parking lane (south of Homer), and in the proposed sidewalk (north of Homer). Along SR 56 existing water is mostly along the north side of the roadway, sometimes in the roadway, and sometimes north of the roadway. The designer, utility coordinator, and city of Salem, will work together, to determine impacts to their facilities, and what relocations will be necessary.

Indiana Department of Transportation

County Washington Route SR 56 and SR 135 Des. No. 1600873 (Lead), 1600875, and 1700168

Flood Plains	**Presence**	**Impacts**	
		Yes	**No**
Longitudinal Encroachment			
Transverse Encroachment	X	X	
Project located within a regulated floodplain	X	X	
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:

Based on a desktop review of The Indiana Department of Natural Resources Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by Metric on May 3, 2018, and the RFI report; this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page F-11). An early coordination letter was sent on October 2, 2019 to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time frame. This project qualifies as a Category 4 per the current INDOT CE Manual, which includes projects involving replacement of existing drainage structures on essentially the same alignment.

Category 4 states no homes are located within the base floodplain within 1,000 ft. upstream and no homes are located within the base floodplain within 1,000 ft. downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans." The site must be inspected upstream and downstream to determine existing conditions that affect the design of the replacement structure. For major drainage structure (opening larger than 100 square ft.), a hydraulic design study is prepared as part of the engineering assessment to assess the impacts of various structure sizes on the flood risk within the floodplain.

In a letter dated June 13, 2018, IDNR-DFW stated any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 (Appendix C, pages C-6 to C-8). The drainage area is greater than one square mile and therefore will require a construction in the floodway permit.

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

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

**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, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), the project is adjacent to pasture lands at the northern portion of the project area along SR 135 (Des. No. 1600875). An early coordination letter was sent on May 14, 2018, to Natural Resources Conservation Services (NRCS). On May 21, 2018, NRCS responded that they would not be able to determine impacts due to lack of site specific information (Appendix C, page C-41). Additional coordination was not conducted because the project is limited to the edge of pavement and therefore, will not convert any acres of farmland as defined by the Farmland Protection Policy Act. No impacts are expected.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance				X

Results of Research

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

Project Effect

No Historic Properties Affected [ ] No Adverse Effect [X] 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	X	February 21, 2018	March 21, 2018
Archaeological Records Check/ Review	X	August 27, 2018	October 1, 2018
Archaeological Phase Ia Survey Report	X	August 27, 2018	October 1, 2018
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination	X	April 11, 2019	May 13, 2019
800.11 Documentation	X	June 27, 2019	July 26, 2019

		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:

INDOT, acting on behalf of the FHWA, is required to comply with Section 106 of the National Historic Preservation Act of 1966 as amended (Section 106) and its implementing federal regulation, 36 CFR 800. Section 106 and 36 CFR 800 outline a process that requires INDOT to evaluate the effects of its undertakings on properties that are listed on or eligible for listing on the National Register of Historic Places (NRHP). The following information summarizes the steps INDOT took to identify the cultural resources listed on or eligible for listing on the NRHP and the expected impacts the proposed project would have on those resources.

Area of Potential Effect (APE):
Qualified professionals working for Green3, LLC and meeting the *Secretary of the Interior's Professional Qualification Standards* defined the APE (Appendix D, page D-20). The APE is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist, as defined by 36 CFR Section 800.16(d). The APE of the project includes all properties adjacent to the project and those with a proximate viewshed of the project. Forested areas, rolling landscape and bends in the road limited the APE. The APE is approximately 2.8 miles in length and approximately 0.14-mile wide at its widest point,

near the eastern terminus of the project on SR 56.

Coordination with Consulting Parties:
Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, requires Federal Agencies, or their representatives, to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2(c) and the *INDOT Cultural Resources Manual*, consulting parties were invited to participate in efforts to identify historic properties potentially affected by this undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. On February 27, 2018, ten potential consulting parties were invited via e-mail to view the early coordination letter and Historic Property Report on the Indiana Section 106 Consultation and Outreach Portal Enterprise (INSCOPE).

The following agencies and organizations were invited to be Consulting Parties for the project on February 27, 2018. Five organizations accepted the invitation (Appendix D, pages D-51 to D-65).

Invited Consulting Party	Invitation Sent	Reply Received	Response
Miami Tribe of Oklahoma	02/27/2018	02/27/2018	Yes
Indiana Landmarks, Southern Regional Office	02/27/2018	03/12/18	Yes
Delaware Tribe of Indians, Oklahoma	02/27/2018	None	N/A
Washington County Historical Society	02/27/2018	03/15/2018	Yes
Washington County Historian	02/27/2018	03/15/2018	Yes
Mayor, City of Salem	02/27/2018	None	N/A
Eastern Shawnee Tribe of Oklahoma	02/27/2018	None	N/A
Peoria Tribe of Indians of Oklahoma	02/27/2018	None	N/A
Pokagon Band of Potawatomi Indians	02/27/2018	None	N/A
Delaware Nation of Oklahoma	02/27/2018	03/14/2018	Yes

INDOT Cultural Resources Office (CRO), IDNR State Historic Preservation Officer (SHPO), and FHWA are automatic consulting parties.

On March 14, 2018, a representative from the Washington County Historical Society, phoned Green3, LLC to discuss the stone walls, hitching posts and stone steps located within the project area. The historian mentioned interest in the preservation of several features and asked to be notified of public meetings over the project. The historian also mentioned several residents have contacted him asking if he knew if they should plan to remove their old posts prior to the project. On March 15, 2018, a representative from Green3, LLC responded to the Washington County Historian confirming their consulting party status. In addition, the representative from Green3, LLC mentioned to inform the residents not to remove any of the features and explained why (Appendix D, pages D-62 to D-65).

No other invited consulting parties responded.

Archaeology:
An Archaeological Records check reviewing the State Historical Architectural and Archaeological Research Database (SHAARD), site maps on file with the IDNR, Division of Historic Preservation and Archaeology (DHPA), cultural resource management reports, cemetery records and historical data was completed by Green3, LLC. The records review indicated that this area has been utilized throughout prehistory One of the most prominent sites is the Ana Lynn site (12-Ws-284), a Late Prehistoric village site that is situated east of Salem. In regards to the project area, the data indicates that this area would have been more heavily utilized during the Archaic period of prehistory.

As a result of the field survey, no archaeological resources were identified within the project area and it was recommended that the project be allowed to proceed as planned. No further work is recommended for the project.

The *Phase Ia Archaeological Report* was completed by Green 3, LLC on August 14, 2018, a portion of which is located in Appendix D, pages D-83 to D-85. Officially on October 24, 2019, INDOT CRO notified the Tribes how to retrieve the archaeology report from IN SCOPE for their review (Appendix D, pages D-88). As noted in the correspondence (Appendix D, page D-88), the *Phase Ia Archaeological Report* was posted to IN SCOPE in August 2018; however, notification to the tribes was not sent at that time.

In a letter, dated October 1, 2018, the SHPO indicated that they have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area; and it is their opinion that no

further archaeological investigations appear necessary at this proposed project area. However, this identification is subject to the project activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered form the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. In addition, if any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires that the discovery be reported to IDNR-DHPA within two (2) business days (Appendix D, pages D-68 to D-69). The SHPO commitments to be followed are provided in the Environmental Commitments Section in this document.

Historic Properties:
Green 3, LLC conducted a Historic Properties Investigation, which included reviewing the NRHP, Indiana Register of Historic Sites and Structures, the State Historic Architectural and Archaeological Research Database (SHAARD), SHARRD Geographic Information System (GIS), Indiana Historic Sites & Structures Inventory (IHSSI), and the Washington County Interim Report for previously identified properties. One resource listed in the NRHP is located within the APE of this project: Salem Downtown Historic District (IHSSI) #175-567-26001-275. In addition, four resources within the APE have been recommended eligible for the NRHP: the North Main Street Historic District (IHSSI) #175-567-27001-050, the Schulz/Gladden House (IHSSI) #175-567-27029 located within North Main Street Historic District and previously rate Notable is recommended eligible, and the two resources that were not previously surveyed, the Warder and Alice Stevens House (IHSSI) #175-567-G2, and the Ray and Hester Ault House (IHSSI) #175-567-G29.

A field survey to identify the historic significance of the properties within the APE was conducted by Green3, LLC on October 19 and November 2, 2017. Four newly identified resources were identified within the APE. One of these resources merited a “Notable” rating. No newly inventoried resources meriting individual ratings of “Outstanding” were identified during the fieldwork conducted for this report.

There is one property currently listed in the NRHP within the APE: Salem Downtown Historic District (IHSSI) #175-567-26001-275.

Salem Downtown Historic District (IHSSI) #175-567-26001-275 The district is composed of commercial and governmental buildings with residential areas from the mid-nineteenth to mid-twentieth centuries. The Salem Downtown Historic District is roughly bounded by SR 56 in the north and Small Street in the south; Water Street on the west and College Avenue on the east. Architectural features include historic sidewalks. The district was listed in the NRHP in 1997 under Criterion A for its influence in architecture, community planning and conservation, transportation, and entertainment/recreation and under Criterion C for its intact architectural integrity.

Four resources are recommended eligible for the NRHP within the APE include:

The North Main Street Historic District (IHSSI) #175-567-27001-050: The North Main Street Historic District is primarily composed of residential houses dating from the 1850’s to the 1960’s with styles ranging from Greek Revival to Ranch. Architectural features of the district include historic hitching posts, stone walls, and brick sidewalks that are over 100 years of age. The district is roughly bounded by the intersection of SR 56 and SR 135 in the south and East Homer Street in the north. As this project is linear, it is along SR 135. The district is considered eligible for the NRHP under Criterion A for its association with the development of Salem, and under Criterion C for its intact architectural integrity.

The Schulz/Gladden House (IHSSI) #175-567-27029: The Schulz/Gladden House, 505 N. Main Street, is a Queen Anne style house constructed by Martha Schulz, who later married Percey Gladden, the owner of several saloons and the first movie theatre in Salem. This house was previously rated as Notable and is located within the North Main Street Historic District. The house is recommended eligible under Criteria A for its association with the social history of Salem and under Criteria C for its intact architectural features.

The Warder and Alice Stevens House (Green3, LLC) #175-567-G2: The Warder and Alice Stevens House, 1201 N. Main Street consists of a Free Classic house, outbuildings, and landscape where construction began in 1891 for Warder W. Stevens and Alice Caspar Stevens. The house is recommended eligible under Criteria B for its association with the lives of persons significant with the past (Warder and Alice Stevens), and under Criteria C, for its distinctive architecture.

The Ray and Hester Ault House (Green, LLC) #175-567-G29 The Ray and Hester Ault House, 116 W. Mulberry Street, is a one-story, flat-roof Modern style house constructed of McCorkle block (an unusual material). The Ault House is recommended eligible under Criteria C for its use of unusual material and modern architecture

Green3, LLC completed the HPR, dated January 30, 2018, a portion of which is located in Appendix D, pages D-81 to D-82. On February 27, 2018, Green3, LLC submitted the HPR to the SHPO, uploaded the HPR to IN SCOPE and notified other consulting parties, excluding Tribes, how to retrieve the document for 30 day review and comment period (Appendix D, pages D-51 to D-55). On February 27, 2018, NDOT CRO notified the Tribes how to retrieve the HPR from IN SCOPE for their 30 day review and comment period (Appendix D, pages D-56 to D-57).

In a letter dated February 27, 2018, a representative from Miami Tribe of Oklahoma stated the Miami Tribe offers no objection to the project at this time, as they are not aware of existing documentation directly linking a specific Miami cultural or historic site to the project area. However, as this site is within the aboriginal homelands of the Miami Tribe, if any human remains or Native American cultural items falling under the Native American Graves Protection and Repatriation Act (NASPRA) or archaeological evidence is discovered during any phase of this project, the Miami Tribe requests immediate consultation with the entity of jurisdiction for the location of discovery. Miami Tribe of Oklahoma's letter, dated February 27, 2018, is located in Appendix D, page D-58.

In a letter dated March 12, 2018, a representative from Indiana Landmarks, Southern Regional Office stated they concur with the findings that the four identified resources are eligible for listing in the NRHP. Indiana Landmarks, Southern Regional Office letter, dated March 12, 2018, is located in Appendix D, page D-59.

In a letter dated March 14, 2018, a representative from Delaware Nation stated they concur at the present time with the proposed project. Delaware Nation's letter, dated March 14, 2018, is located in Appendix D, page D-60 to D-61.

In a letter dated March 21, 2018, the SHPO agreed with the HPR that the NRHP listed Salem Downtown Historic District is located within the APE and that the following properties appear to meet the criteria of eligibility: North Main Street Historic District (IHHSI Site #175-567-27001-050); Schulz/Gladden House at 505 N. Main Street (IHSSI Site #175-567-27029), located within the North Main Street Historic District; Warder and Alice Stevens House at 1201 N. Main Street (Green#, LLC #175-567-G2); and Ray and Hester Ault House at 1116 W. Mulberry Street (Green3, LLC #175-567-G29).

Additionally, the SHPO agrees that no other properties within the APE appear to be eligible for inclusion in the NRHP and that Washington County Bridge No. 056-88-01478 (NBI No. 20180 was previously determined not eligible for the NR in the Indiana Historic Bridge Inventory (Mead & Hunt, 2009), the SHPO concurs with that assessment. The SHPO's letter dated March 21, 2018, is located in Appendix D, pages D-66 to D-67.

Assessment of Effects:
An Assessment of Effects Report, dated April 11, 2019, was prepared to evaluate the potential effects of the project to the one NRHP-listed district, one NRHP-eligible district, and three NRHP-eligible historic properties located within the APE. The Assessment of Effects Report is located in Appendix D, pages D-70 to D-76.

On April 11, 2019, the Assessment of Effects Report was sent to the SHPO, Indiana Landmarks, Southern Regional Office, Washington County Historical Society, Washington County Historian, Miami Tribe of Oklahoma, and Delaware Nation of Oklahoma (Appendix D, pages D-77 to D-78).

In a letter dated May 13, 2019, the SHPO concurred with the Assessment of Effects letter prepared by Green3, LLC, dated April 11, 2019 (Appendix D, pages D-79 to D-80).

No other comments were received from any of the other consulting parties.

Documentation Finding:
On June 27, 2019, INDOT CRO, on behalf of the FHWA, approved the APE and issued a "No Adverse Effect" determination for this project (Appendix D, pages D-7 to D-9). Following this finding, the effect documentation was provided to the SHPO and the other consulting parties for a 30-day review and comment period on June 27, 2019 (Appendix D, pages D-1 to D-3).

In a letter dated July 22, 2019, the Delaware Nation Historic Preservation Department responded in regards to the effect finding documentation that the location of the proposed project does not endanger cultural or religious sites of interest to the Delaware Nation. However, during construction should an archaeological site or artifacts inadvertently be uncovered, all construction and ground disturbing activities should immediately be halted until the appropriate state agencies, as well as this office, are notified (within 24 hours), and a proper archaeological assessment can be made (Appendix D, page D-4).

The SHPO responded with their concurrence regarding the "No Adverse Effect" finding on July 26, 2019 (Appendix D, pages D-5 to D-6).

No other comments were received from any of the other consulting parties.

Public Involvement:
In accordance with 36 CFR 800.2(d), 800.3(e), and 800.6 (a)(4), the views of the public were sought regarding the effect of the proposed project. An announcement was published in *The Salem Leader* on July 2, 2019. A deadline date of August 1, 2019 was established to provide comments on the "No Adverse Effect" determination. No comments were received regarding the "No Adverse Effect" finding during the 30-day public comment period.

The Section 106 process has been completed and the responsibilities of INDOT, acting on behalf of FHWA for Section 106, have been fulfilled. The Publisher's Claim and Public Notice are located in Appendix D, pages D-86 to D-87.

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)		

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

	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, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-2 and E-11), there are four recreational 4(f) resources and eight trail and / or planned segments located within the 0.5 mile search radius. The closest recreational facility, Depaw Park, is owned and operated by the Washington County Commissioners and is located approximately 0.09 mile south of the project area. There are no recreational 4(f) resources located within or adjacent to the project area; therefore, no impact is expected.

Of the eight trail and / or planned segments, two are planned, located within or adjacent to the project area. Salem Community Trail extension south from schools, is a potential urban trail managed by the Salem Park and Recreation Board that may intersect the project area at the east side of Posey Street and Salem Community Trail Courthouse, Fairgrounds, Community Park Trail, is a potential asphalt/concrete urban trail managed by the Salem Park and Recreation Board that may intersect and run adjacent to the west side of SR 135 (Appendix E, page E-11).

On October 23, 2019, Metric attempted to coordinate with Salem Parks and Recreation requesting comments as to any impacts this project could pose on the two planned trails (Appendix C, page C-42). No response was received.

Historical Section 4(f):
Under SAFETEA-LU provisions and the March 12, 2008 regulations, the requirements of Section 4(f) of the U.S. Department of Transportation Act would be considered satisfied if it is determined that a transportation project would have a *de minimis* impact on the Section 4(f) resource in question. A *de minimis* finding subsumes the requirements for all possible planning to minimize harm by reducing the impacts on the Section 4(f) properties to a *de minimis* level. Therefore, the following information describes the identified resource and minimal use of the resource.

This undertaking will not convert property from the North Main Street Historic District, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore, no Section 4(f) evaluation is required for North Main Street Historic District. According to the Section 4(f) policy paper, question 7A, this undertaking will cause temporary use for sidewalk and curb ramp replacements at the intersection of SR 135 and SR 56. Approximately 266 square ft. of bricks will be removed from the sidewalk within the right-of-way to construct new ADA-compliant ramps. A 2 ft. section of ADA Detectable Warning Surface will be installed in the new ramp, the rest of the brick will be re-laid if possible or new brick that matches the existing in size and color will be laid if the existing brick is too damaged to reuse at this location. The new curb will be concrete, as is the existing curb; the new ramp will be constructed entirely with brick. An existing brick wall on the property at the northeast corner of SR 135 and SR 56 will not be affected (Appendix B, page B-69). This temporary occupancy will not constitute a Section 4(f) use because all of the conditions listed in 23 CFR 774.13(d) will be satisfied: (i.e., duration must be temporary; scope of the work must be minor; there are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis; The land being used must be fully restored; and there must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions).

This undertaking will not encroach or convert any of the Section 4(f) historic properties to a pedestrian use. All related construction will occur on the other side of the street from the NRHP boundary. FHWA has determined the appropriate Section 106 finding is "No Adverse Effect"; therefore, no Section 4(f) evaluation is required for any of the Section 4(f) historic properties.

Section 6(f) Involvement	Presence	Use	
		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/map-of-lwcf> revealed a total of four properties in Washington County (Appendix I, page I-1). 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) 2016-2019, 2018-2021, and 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, pages H-1 to H-4).

This project is located in Washington County, which is currently in attainment for all criteria pollutants according to http://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:

This project will have a positive impact to community cohesion and quality of life by adding pedestrian sidewalks where none exist to connect to existing sidewalks along SR 56.

There will be no impact to local mobility, access, pedestrian or motorist safety or emergency services after completion of construction. There will be no permanent adverse alterations to the movement of traffic, land use or the adjacent streetscape. Barricades will be used along the project limits to detain movement from the construction areas at street level; however, no long term effects will result from this proposed project.

On March 14, 2018, Metric sent an early coordination packet to the U.S. Department of Housing and Urban Development (HUD) requesting comments from their area of expertise regarding any possible environmental effects associated with this project (Appendix C, Pages C-1 to C-5). HUD did not respond to the early coordination letter.

No permanent impacts to the community cohesion, local tax base, or property values were identified as a result from the project.

Based on Metric's review of local special events or festivals on October 16, 2019, at www.indianafestivals.org there are four events in Salem, Indiana throughout the year:

- LM Sugarbush Maple Syrup Festival, 321 N. Garrison Hollow Road, Salem. Upcoming dates are February 29 to March 1, 2020 and March 7 to March 8, 2020.
- Friday Night on the Square, Downtown Salem. Upcoming dates are Fridays, May 15, 2020 through September 18, 2020.
- Old Setters Days Festival, John Hay Center/Steven Memorial Museum, Salem. Upcoming dates are September 19 to September 20, 2020.
- Beck's Mill Oktoberfest, 4433 S. Becks Mill Road, Salem. Upcoming date is October 24, 2020.

If these events are held during the proposed construction activities, the commute times to events may be impacted. These events may be held annually. The dates are not likely the same the years subsequent to 2020.

The ADA requires a transition plan by local and state governments. The City of Salem ADA Transportation Plan for Public Rights-of-Way was adopted by the City Council on December 10, 2012. The ADA Transportation Plan provides comprehensive civil rights protections to persons with disabilities in the areas of employment, public services (and transportation), public accommodations (and commercial facilities), telecommunications, and miscellaneous provisions. The City of Salem is committed to ensuring all new construction, reconstruction, road construction or alterations, including federal projects, will be in compliance with ADA. This project will involve construction of ADA compliant curb ramps. The barrier of accessibility to the project area will only be temporary during construction activities.

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.

No indirect or cumulative impacts have been identified as a result of this project. There have been no significant effects identified which are caused by the action and are later in time or farther removed in distance. In addition, there have been no significant effects identified which may induce changes in the patterns of land use, population density or growth rate, or related effects on air and water or other natural systems, including ecosystems. No significant impacts on the environment have been identified which will result from the incremental impact of the proposed action when added to other past, present, and reasonably foreseeable future actions. This project will improve road and bridge conditions, add and improve pedestrian facilities, and storm water drainage in an area that is already developed. None of the resource agencies or consulting parties identified or made known any substantial negative impacts.

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, a site visit on October 5, 2017 by Metric, the aerial map of the project area (Appendix B, page B-3) and the RFI report (Appendix E, pages E-2, E-3, and E-4, there are fourteen religious facilities, one airport, one hospital, four schools, one pipeline, one railroad, and eight trails located within the 0.5 mile of the project.

One religious facility, Christian Life Baptist Church, is located adjacent to the western project limits at 1311 SR 56. The construction activities adjacent to the church include installing inlets and storm drainage pipes during Phase 1A construction activities. Access to all drives will be maintained during construction. On October 23, 2014, Metric sent the early coordination letter, maps, construction plans, and MOT diagrams to Christian Life Baptist Church to inform them of the project and MOT. No response was received. The other thirteen religious facilities are not located within or adjacent to the project area; therefore, no impacts are expected.

One Airport, Salem Municipal Airport is located approximately 0.9 mile southwest of the project area. An early coordination letter was sent to Indiana Department of Transportation, Office of Aviation on May14, 2018 (Appendix C, pages C-1 to C-5). Indiana Department of Transportation, Office of Aviation responded on May 29, 2018 that an Indiana Tall Structure permit would not be required unless the project involves the construction of a temporary (e.g., crane) or permanent structure that penetrates a 100:1 slope from the nearest point of the Salem Municipal Airport runway (Appendix C, page C-43). This project will not create a temporary or permanent structure that would penetrate a 100:1 slope from the nearest point of Salem Municipal Airport runway. No impact is expected.

As discussed in Section D of this document, of the eight trail and / or planned segments, two are planned, located within or adjacent to the project area. Salem Community Trail extension south from schools, is a potential urban trail managed by the Salem Park and Recreation Board that may intersect the project area at the east side of Posey Street and Salem Community Trail Courthouse, Fairgrounds, Community Park Trail, is a potential asphalt/concrete urban trail managed by the Salem Park and Recreation Board that may intersect and run adjacent to the west side of SR 135 (Appendix E, page E-11).

On October 23, 2019, Metric attempted to coordinate with Salem Parks and Recreation requesting comments as to any impacts this project could pose on the two planned trails (Appendix C, page C-42). No response was received.

The hospital, schools, and railroad are not located within or adjacent to the project area. No impacts are expected.

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.

Indiana Department of Transportation

County Washington Route SR 56 and SR 135 Des. No. 1600873 (Lead), 1600875, and 1700168

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 INDOT, as a recipient of funding from FHWA, are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. Per the current INDOT Categorical Exclusion Manual, an Environmental Justice (EJ) Analysis is required for any project that has two or more relocations or 0.5 acre of additional permanent right-of-way. The project will require 1.051 acre of additional permanent right-of-way. Therefore, an EJ Analysis is required.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concerns 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 Washington County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 9675. 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 2017 American Community Survey [ACS] 5-year estimates was obtained from the US Census Bureau Website https://factfinder.census.gov/ on October 24, 2019 by Metric. The data collected for minority and low-income populations within the AC are summarized in the below table.

Table: Minority and Low-Income Data (2017 American Community Survey [ACS] 5-year estimates)

	COC Washington County	AC Census Tract 9675
Percent Minority	3.09%	3.82%
125% of COC	3.86%	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	13.26%	15.09%
125% of COC	16.58%	AC < 125% COC
EJ Population of Concern		No

AC, Census Tract 9675 has a percent minority of 3.82% which is below 50% and is below the 125% COC threshold. Therefore, AC does not contain minority populations of EJ concern.

AC, Census Tract 9675 has a percent low-income of 15.09% which is below 50% and is below the 125% COC threshold. Therefore, AC does not contain low-income populations of EJ concern.

Conclusion
The census data sheets, map, and calculations can be found in Appendix I, pages I-2 to I-7. No further environmental justice analysis is warranted.

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		X
Is a 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.

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		Yes / August 28, 2018

Include a summary of findings for each investigation.

Remarks:

Based on a review of GIS and available public records, an RFI was completed on August 27, 2018 by Metric (Appendix E, pages E-1 to E-19). Two Brownfield sites, one Confined Feeding Operations, four Resource Conservation and Recovery Act (RCRA) Generators, nine Leaking Underground Storage Tank (LUST) sites, two National Pollutant Discharge Elimination System (NPDES) facilities, two NPDES pipe locations, eighteen Underground Storage Tank (UST) sites, and one Institutional Control site are located within 0.5 mile of the project area. Two of the UST sites and two of the LUST sites could affect the project area.

- UST Site: Cooper's Transmission Service (AI ID#: 60190, Regulatory ID#: 17526) 1117 West Mulberry Street adjoins the project area along SR 56. According to the IDEM VFC, two (2) USTs were removed from the site in 1991. Confirmatory soil analytical results identified TPH concentrations, which were below applicable IDEM RCG SLs. The USTs were installed in 1968. In addition to petroleum contamination, it is likely that lead could be encountered within the soil and/or groundwater. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary.

- UST Site: Eddie Gilstrap Motors Incorporated (AI ID#: 58913, Regulatory ID#: 7670) 1008 West Mulberry Street adjoins the project area along SR 56. According to the IDEM VFC, four USTs were registered at the site in 1986. Information regarding the current status of the USTs, or any spills or releases associated with the USTs, was not located during this investigation. A Phase II Environmental Site Assessment (ESA) is recommended.

- LUST Site: Salem Tobacco Road (AI ID#: 58985, Regulatory ID#:6588) adjoins the project area along SR 56 at 1305 West Mulberry Street. According to the IDEM VFC, the facility was previously a filling station. Since 2006 several subsurface investigations and monitoring activities have been conducted at the site. The most recent quarterly groundwater monitoring report, dated November 17, 2017, reported concentrations of benzene and naphthalene above the applicable IDEM RCG residential groundwater screening criteria. Residual adsorbed and dissolved chemicals of concern (CoCs) remain on-site along the property boundary and have not been fully delineated. It is likely that residual petroleum CoCs extend into SR 56. If excavation occurs in this area, proper removal and disposal of soil and/or groundwater will be necessary.

- LUST Site: Swifty #142 / Sunoco/ LLB3 Food Mart, LLC. (AI ID#: 11342, Regulatory ID#: 238) adjoins the project area along SR 56 at 306 North Main Street. According to the IDEM VFC files, four USTs consisting of two (2) 10,000-gallon gasoline, one (1) 12,000 gallon gasoline, and one (1) 6,000 gallon diesel UST's have been registered at the site since 1990. In 2000, a subsurface investigation measured organic vapors with a photoionization detector above 100 parts per million. The most recent inspection, conducted July 7, 2016, reported the facility as nonoperational. According to the inspection report, the four USTs were still present, the facility had no power, no leak detection or inventory control activities were being conducted, and no corrosion protection records were available. IDEM and the State of Indiana have filed a legal case against the facility in an Agreed Order dated July 13, 2017. A Phase II ESA is recommended.

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	X
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 Section 401 RGP and a USACE 404 RGP are anticipated to be required to remove and replace the existing structure on SR 56 over Brock Creek and install riprap. Final decisions regarding the type of permits will be made by USACE and IDEM.

A National Pollutant Discharge Elimination System (NPDES) General Permit for Erosion Control (Rule 5) will be required, as greater than 1 acre of land will be disturbed. Prior to the initiation of construction, it will be the responsibility of the contractor to submit the Notice of Intent to IDEM regarding the intent to operate the proposed construction project in a manner consistent with the rule.

This project will require the formal approval from IDNR Division of Water for construction in a floodway (CIF).

Applicable recommendations provided by IDNR-DFW are included in the Environmental Commitments section of this document. If a CIF permit is found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

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

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, INDOT ESD and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD and INDOT Seymour District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction activity that would block or limit access. (INDOT ESD)

3. USFWS Bridge/Structure Assessment shall take place no earlier than two (2) years prior to the start of construction. If construction will begin after (March 13, 2021), an inspection of the structure by a qualified individual must be performed. Inspection of the structure should check for presence of bats/bat indicators and/or presence of birds. The results of the inspection must indicate no signs of bats or birds. If signs of bats or birds are documented during this inspection, the INDOT District Environmental Manager must be contacted immediately. (INDOT ESD)
4. In the event that a bedrock void, karst flowpath, or troglobitic species are encountered during construction, work should be stopped in the immediate area and a karst qualified geologist should be contacted immediately to determine if additional karst investigations are needed and to address the stipulations of the Karst MOU. (INDOT ESD)
5. The karst spring, located in the northeast quadrant of N. Mill Street and SR 56, should be indicated on the construction plans as a do not disturb area and protected from construction activity. (INDOT ESD)
6. Bridge piers and bents excavation should be monitored for any bedrock voids or fissures that may warrant further karst investigation. (INDO ESD)
7. Erosion control measures are needed to protect the karst features noted in this report along and just outside of the right of way from impacts resulting from runoff from any disturbed areas during construction.(INDOT ESD)
8. The existing brick wall, located at the northeast corner of SR 56 and SR 135; several hitching posts along SR 135; and one set of existing carriage steps on SR 135 are to remain in place as noted on the design plans. (INDOT CRO and SHPO)
9. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. (SHPO)
10. If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires that the discovery be reported to IDNR-DHPA within two (2) business days. In that event, please call (317) 232-1646. (SHPO)
11. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWAQ/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (USFWS)
12. Hibernacula AMM 1: For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 ft. buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography. (USFWS)
13. Lighting AMM 1: Direct lighting away from suitable habitat during the active season. (USFWS)
14. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (USFWS)
15. 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 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)
16. 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)
17. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 mile of roosts, or documented foraging habitat any time of year. (USFWS)
18. Cooper's Transmission Service (AI ID#: 60190, Regulatory ID#: 17526) 1117 West Mulberry Street adjoins the project area along SR 56. Before proper removal and disposal of soil and/or groundwater, analysis for lead will be necessary. (INDOT SAM)
19. Eddie Gilstrap Motors Incorporated (AI ID#: 58913, Regulatory ID#: 7670) 1008 West Mulberry Street adjoins the project area along SR 56. A Phase II Environmental Site Assessment (ESA) is recommended. (INDOT SAM)
20. Salem Tobacco Road (AI ID#: 58985, Regulatory ID#:6588) adjoins the project area along SR 56 at 1305 West Mulberry Street. It is likely that residual petroleum CoCs extend into SR 56. If excavation occurs in this area, proper removal and disposal of soil and/or groundwater will be necessary. (INDOT SAM)
21. Swifty #142 / Sunoco/ LLB3 Food Mart, LLC. (AI ID#: 11342, Regulatory ID#: 238) adjoins the project area along SR 56 at 306 North Main Street. A Phase II ESA is recommended. (INDOT SAM)

For Further Consideration:

22. All plant material, mud, and debris should be removed and all water drained from any equipment before entering or leaving the waterway to prevent the spread of aquatic and terrestrial invasive species. (IDNR-DFW)
23. Do not construct any temporary runarounds or causeways. (IDNR-DFW)
24. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR-DFW)
25. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting from April 1 through September 30. (IDNR-DFW)
26. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR-DFW)
27. Grouted riprap is not recommended due to negative impacts to fish, wildlife, and botanical resources. (IDNR-DFW)
28. If possible, the project design should avoid inclusion of a cofferdam. If a cofferdam is deemed critical for the construction to occur, please submit a justification for the necessity of the cofferdam with any permit application. (IDNR-DFW)
29. 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 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR-DFW)
30. Operate equipment used to replace the bridge from the existing roadway. (IDNR-DFW)
31. Operate equipment used to replace/rehabilitate/modify stream crossings from the existing roadways whenever possible. (IDNR-DFW)
32. Plant five trees, at least 2 inches in diameter-at-breast height, for each tree which is removed that is ten inches or greater in diameter-at-breast height. (IDNR-DFW)
33. Protect the area around and below any concentrated discharge points, down to the waterway's normal flow level, with appropriate structural armament such as riprap. (IDNR-DFW)
34. Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to [site indicated] and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR-DFW)
35. The new, replacement, or rehabbed structure should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. (IDNR-DFW)
36. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR-DFW)
37. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR-DFW)
38. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction (IDNR-DFW)
39. Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30); except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS)
40. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels, and diversion fencing. (USFWS)
41. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS)
42. Restrict below low-water work in streams to placement of culverts, piers, pilings, and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
43. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles, and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)

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:

Agencies:	Coordination Sent	Response Received
NRCS	May 14, 2018	May 23, 2018
IGS	May 14, 2018	June 6, 2019
INDOT Office of Aviation	May 14, 2018	May 29, 2018
National Parks Service	May 14, 2018	None
IDNR DFW	May 14, 2018	June 13, 2018
HUD	May 14, 2018	None
IDEM Proposed Roadway Construction Projects Letter	October 18, 2019	October 21, 2019
USACE	May 14, 2018	None
Washington County Surveyor	May 14, 2018	May 15, 2018
Hancock County Highway Department	May 14, 2018	None
Hancock County Commissioner	May 14, 2018	None
IDEM Well head Proximity Determinator	May 14, 2018	May 14, 2018
INDOT Public Involvement Office	May 14, 2018	May 15, 2018
Floodplain Administrator	October 2, 2019	None
IDEM Groundwater Section	October 4, 2019	None
Salem Parks and Recreation	October 23, 2019	None
Christian Life Baptist Church	October 23, 2019	None

APPENDICES

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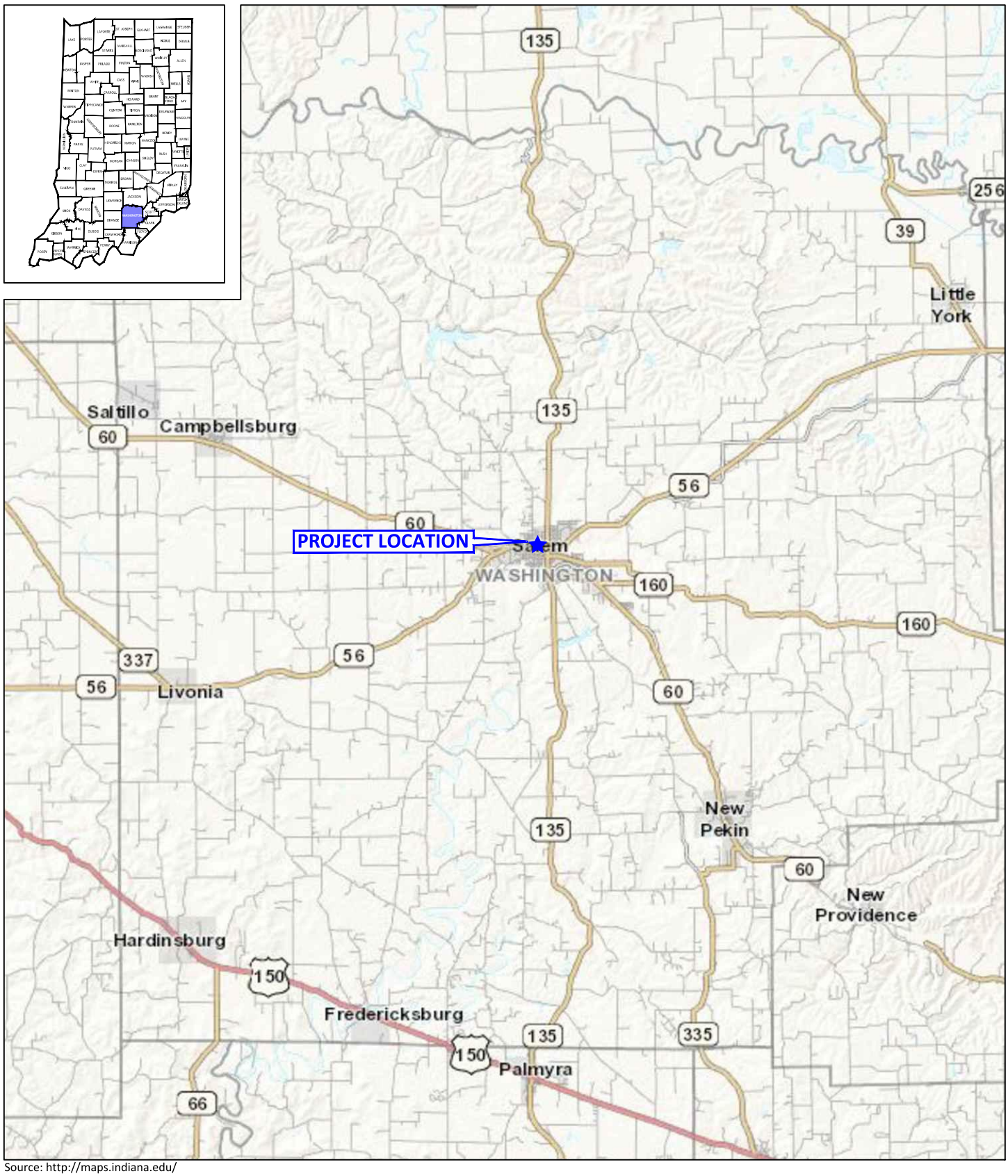
APPENDIX A
INDOT Supporting Documentation

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.

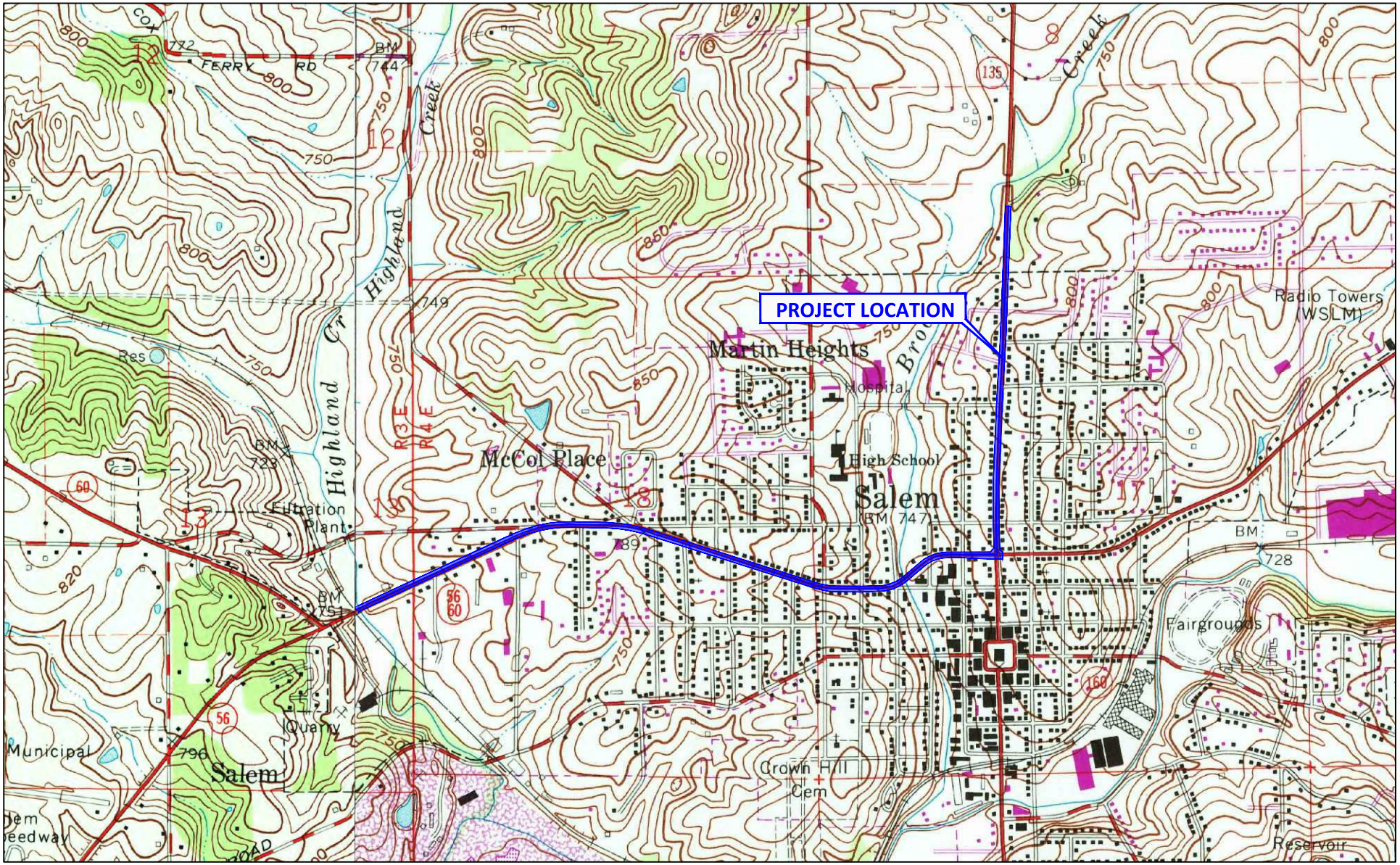
APPENDIX B
Graphics



Source: http://maps.indiana.edu/

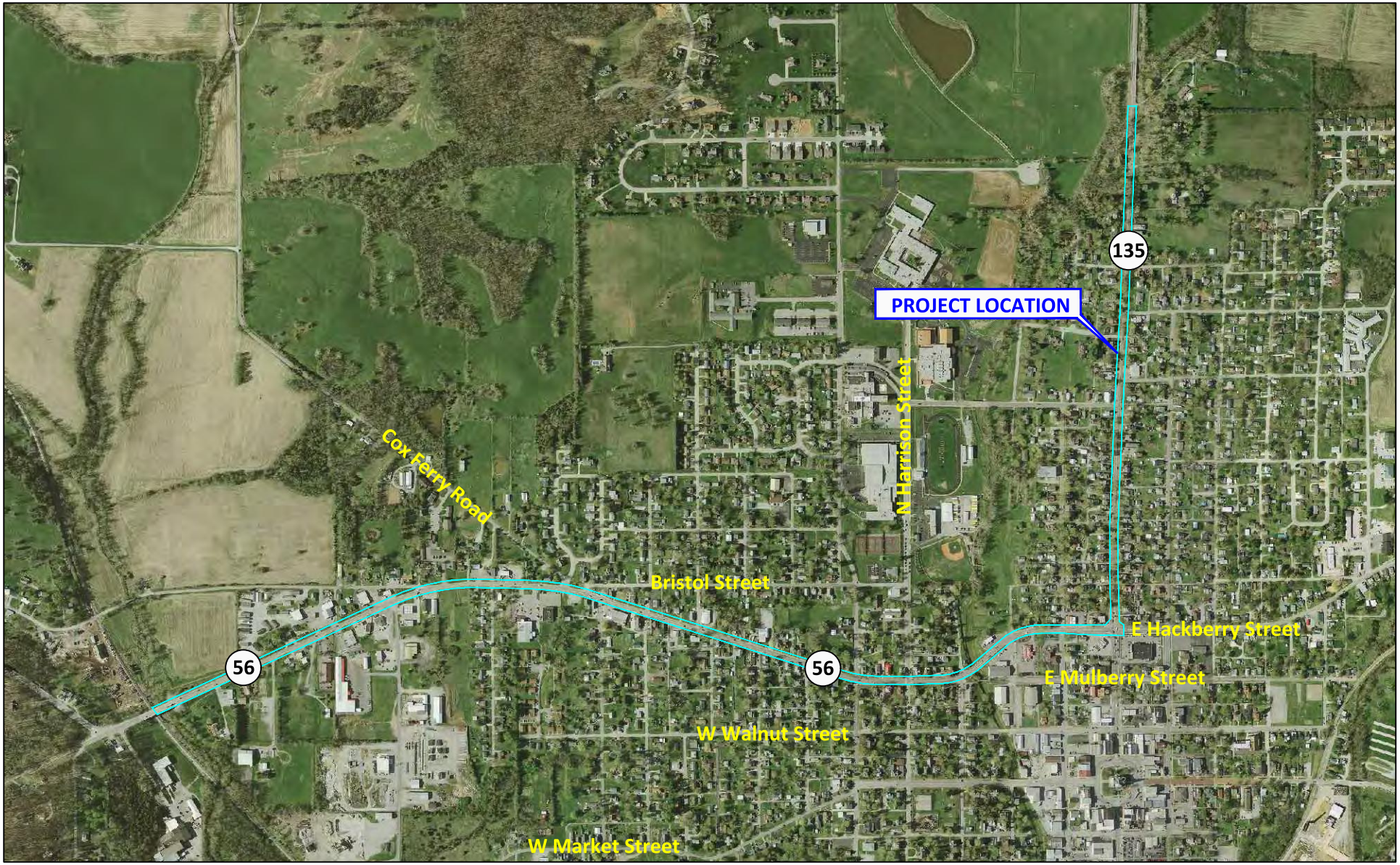
Location Map S.R. 56 and S.R. 135 Road and Sidewalk Reconstruction and Bridge Replacement Salem, Washington County, Indiana Des. Nos. 1600873, 1600875 and 1700168 Metric Project No. 17-0059-2	All locations approximate N W E S Not to Scale	METRIC ENVIRONMENTAL

P:\2017\17-0059 - USI-INDOT 170202c Seymour District On-Call\Task 2 - SR 56 and SR 135\Exhibits\EC\Location Map.dwg



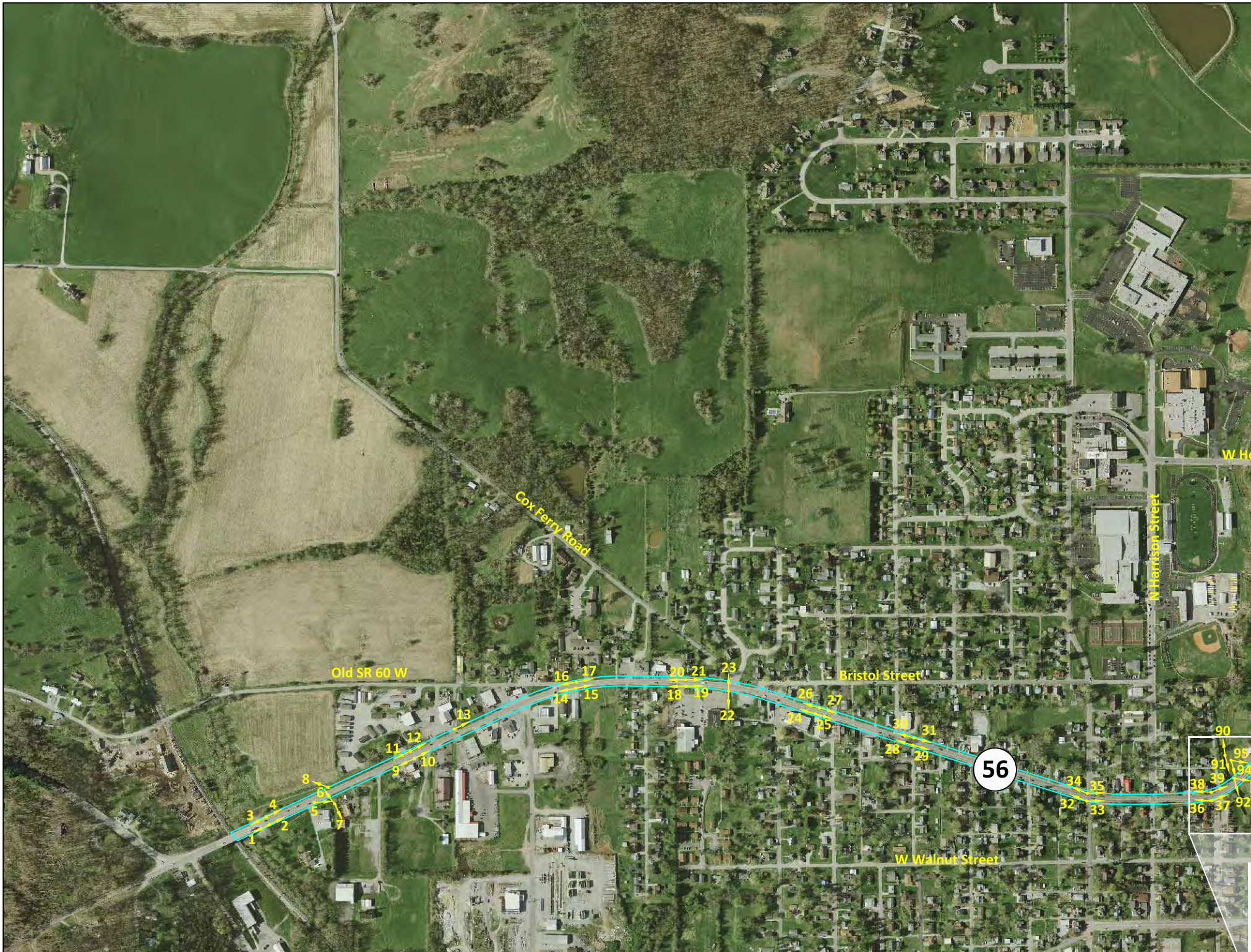
Source: https://geonames.usgs.gov/apex/f?p=262:1:0::NO:RP::

U.S.G.S. Topographic Map S.R. 56 and S.R. 135 Road and Sidewalk Reconstruction and Bridge Replacement Salem, Washington County, Indiana Des. Nos. 1600873, 1600875 and 1700168 Metric Project No. 17-0059-2	Note: All Locations are approximate Base map: Salem, IN 1966 Photorevised 1989 Minor Revisions 1994	N W E S 0 1,500' Scale



Source: http://maps.indiana.edu/

2011 Aerial Photograph S.R. 56 and S.R. 135 Road and Sidewalk Reconstruction and Bridge Replacement Salem, Washington County, Indiana Des. Nos. 1600873, 1600875 and 1700168 Metric Project No. 17-0059-2	Note: All Locations are approximate	N W E S 0 1,000' Scale


Cox Ferry Road
Old SR 60 W
Bristol Street
N Harrison Street
W Walnut Street
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1. View of S.R. 56 looking southwest.

2. View of S.R. 56 looking northeast.

3. View of S.R. 56 looking southwest.

4. View of S.R. 56 looking northeast.

Site Photographs - Photographs taken 10-05-2017
SR 56 and SR 135
Small Town Pavement Replacement and Bridge Project
Salem, Washington County, Indiana
Des. No. 1600873 (Lead), 1600875, and 1700168

METRIC ENVIRONMENTAL

5. View of S.R. 56 right-of-way (ROW) and Unnamed Tributary (UNT) to Highland Creek (UNT 1), looking northeast.

6. View of culvert carrying UNT 1 beneath S.R. 56, looking northwest.

7. View of UNT 1 outside of project study limits, looking southeast.

8. View of S.R. 56 ROW, UNT 1, and roadside ditch (RSD) 1 looking northwest.

Site Photographs - Photographs taken 10-05-2017
SR 56 and SR 135
Small Town Pavement Replacement and Bridge Project
Salem, Washington County, Indiana
Des. No. 1600873 (Lead), 1600875, and 1700168

METRIC ENVIRONMENTAL

9. View of S.R. 56 looking southwest.

10. View of S.R. 56 looking northeast.

11. View of S.R. 56 and RSD 1, looking southwest.

12. View of S.R. 56 and RSD 1, looking northeast.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

13. View of RSD 1 looking northeast.

14. View of S.R. 56 looking southwest.

15. View of S.R. 56 looking northeast.

16. View of S.R. 56 and RSD 2 looking southwest.

Site Photographs - Photographs taken 10-05-2017
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METRIC ENVIRONMENTAL

17. View of S.R. 56 and RSD 2 looking northeast.

18. View of S.R. 56 and RSD 3 looking west.

19. View of S.R. 56 looking east.

20. View of S.R. 56 and RSD 2, looking west.

Site Photographs - Photographs taken 10-05-2017
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METRIC ENVIRONMENTAL

21. View of S.R. 56 and RSD 2, looking east.

22. View of S.R. 56 ROW looking south.

23. View of intersection of S.R. 56 and Cox Ferry Rd looking north.

24. View of S.R. 56 and culvert, near Marshall Ave, looking northwest.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

25. View of S.R. 56, near Marshall Ave, looking southeast.

26. View of S.R. 56 looking northwest.

27. View of S.R. 56 looking southeast.

28. View of S.R. 56 looking northwest.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

29. View of intersection of S.R. 56 and Lockwood St looking southeast.

30. View of S.R. 56 looking northwest.

31. View of S.R. 56 looking southeast.

32. View of S.R. 56 near Shelby St, looking northwest.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

33. View of intersection of S.R. 56 and Shelby St, looking east.

34. View of S.R. 56 near Shelby St, looking northwest.

35. View of intersection of S.R. 56 and Shelby St, looking east.

36. View of S.R. 56 near Posey St, looking west.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

37. View of intersection of S.R. 56 and Posey St, looking northeast.

38. View of S.R. 56 near Posey St, looking west.

39. View of intersection of S.R. 56 and Posey St, looking northeast.

40. View of RSD 4 looking west.

Site Photographs - Photographs taken 10-05-2017
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METRIC ENVIRONMENTAL

41. View of RSD 4, flowing into Brock Creek, looking northeast.

42. View of Brock Creek looking north (upstream) from S.R. 56.

43. View of western bank of Brock Creek looking northwest from S.R. 56.

44. View of eastern bank of Brock Creek looking northeast from S.R. 56.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

45. View of Brock Creek looking south (downstream) from S.R. 56.

46. View of eastern bank of Brock Creek looking southeast from S.R. 56.

47. View of western bank of Brock Creek looking southwest from S.R. 56.

48. View of intersection of S.R. 56 and Mill St, looking southwest.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

49. View of S.R. 56 near Mill St, looking northeast.

50. View of intersection of S.R. 56 and Mill St looking southwest.

51. View of S.R. 56 near Mill St, looking northeast.

52. View of S.R. 56 near S.R. 135, looking west.

Site Photographs - Photographs taken 10-05-2017
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53. View of S.R. 56 near S.R. 135, looking east.

54. View of intersection of S.R. 56 and S.R. 135, looking north.

55. View of S.R. 135 looking south from S.R. 56 intersection.

56. View of S.R. 56 near S.R. 135, looking west.

Site Photographs - Photographs taken 10-05-2017
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57. View of intersection of S.R. 56 and S.R. 135, looking east.

58. View of S.R. 135 near Salem Ave, looking south.

59. View of S.R. 135, near Salem Ave, looking north.

60. View of S.R. 135, near Salem Ave, looking south.

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61. View of S.R. 135, near Salem Ave, looking north.

62. View of S.R. 135 looking south.

63. View of S.R. 135 looking north.

64. View of S.R. 135 looking south.

Site Photographs - Photographs taken 10-05-2017
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65. View of S.R. 135 looking north.

66. View of S.R. 135 near Homer St, looking south.

67. View of intersection of S.R. 135 and Homer St looking north.

68. View of intersection of S.R. 135 and Homer St looking south.

Site Photographs - Photographs taken 10-05-2017
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METRIC ENVIRONMENTAL

69. View of S.R. 135 near Homer St, looking north.

70. View of S.R. 135 near Reid Ave, looking south.

71. View of intersection of S.R. 135 and Reid Ave, looking north.

72. View of S.R. 135 near Reid Ave, looking south.

Site Photographs - Photographs taken 10-05-2017
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73. View of S.R. 135 near Reid Ave, looking north.

74. View of S.R. 135 near Emma St, looking south.

75. View of S.R. 135 near Emma St, looking north.

76. View of S.R. 135 near Emma St, looking south.

Site Photographs - Photographs taken 10-05-2017
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METRIC ENVIRONMENTAL

77. View of S.R. 135 near Emma St, looking north.

78. View of UNT to Brock Creek (UNT 2) from S.R. 135, looking east.

79. View of northern bank of UNT 2 from S.R. 135, looking northeast.

80. View of southern bank of UNT 2 from S.R. 135, looking southeast.

Site Photographs - Photographs taken 10-05-2017
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81. View of UNT 2 from S.R. 135, looking west.

82. View of southern bank of UNT 2 from S.R. 135, looking southwest.

83. View of northern bank of UNT 2 from S.R. 135, looking northwest.

84. View of S.R. 135 near UNT 2, looking south.

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85. View of S.R. 135 near UNT 2, looking north.

86. View of S.R. 135 from northern project boundary, looking south.

87. View of S.R. 135 from northern project boundary, looking north.

88. View of S.R. 135 from northern project boundary, looking south.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

89. View of S.R. 135 from northern project boundary, looking north.

90. View of Brock Creek and S.R. 56 bridge looking south (downstream).

91. View of Brock Creek looking north (upstream).

92. View beneath S.R. 56 bridge looking south.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL

93. View beneath S.R. 56 bridge looking south.

94. View of Brock Creek and S.R. 56 bridge looking south (downstream).

95. View of S.R. 56 bridge looking south.

Site Photographs - Photographs taken 10-05-2017 SR 56 and SR 135 Small Town Pavement Replacement and Bridge Project Salem, Washington County, Indiana Des. No. 1600873 (Lead), 1600875, and 1700168		METRIC ENVIRONMENTAL