Indiana Department of Transportation

County Monroe Route Sare Road Des. No. 1700736

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	Sare Road/Monroe County
Designation Number:	1700736
Project Description/Termini:	Multi-use path on Sare Road from Moores Pike to Buttonwood Lane.

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 _____ _____ _____ _____
ESM Signature Date ES Signature Date

_____ _____
FHWA Signature Date

Release for Public Involvement

_____ _____ _____ _____
ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____
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: Nadeem Siddiki, NS Services

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 March 30, 2018 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 (Appendix G, page1).

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

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

Remarks:

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

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

Sponsor of the Project: Bloomington INDOT District: Seymour

Local Name of the Facility: Sare Road/Moores Pike

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

*If other is selected, please indentify the funding source: _____

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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 purpose of the project is to expand the City of Bloomington's recreational path system and connect a shared use path from Rogers Road to Moores Pike and to facilitate pedestrian crossing conditions at the Sare Road/Moores Pike intersection using the multiuse path.

The need for the project is because currently there is no path connection between Buttonwood Lane and an existing portion of path north of Jackson Creek, leaving a gap in the recreational path system of the city. The City of Bloomington identified a need within their long-range transportation plan to increase connectivity and investment in the existing path system.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Monroe Municipality: City of Bloomington

Limits of Proposed Work: Buttonwood Lane to just north of Moores Pike

Total Work Length: 0.63 Mile(s) Total Work Area: _____ Acre(s)

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

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

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

The City of Bloomington, with funding from the Federal Highway Administration (FHWA), intends to proceed with a multi-use path and intersection improvement project. The proposed project is located within Sections 2, 10, and 11, Township 8 North, Range 1 West in Perry Township in the City of Bloomington, Monroe County, Indiana (Appendix B, pages 1-2).

Currently, there is a multi-use path that extends from Rogers Road (south of the project area) to Buttonwood Lane on the west side of Sare Road along with an existing portion of path (Renwick Trail) that extends south from Moores Pike for approximately 1,065 linear feet (north of Jackson Creek). However, there is no path from Buttonwood Lane to Renwick Trail north of Jackson Creek. There is an existing signalized intersection at the Moores Pike and Sare Road, which is at an approximate 45 degree skew, making it difficult for motorists to see pedestrians at the intersection. The surrounding landscape is urban with residences south of Moores Pike, undeveloped land surrounding Jackson Creek, and multiple shopping centers north of Moores Pike.

Sare Road is a two-lane (south of Moores Pike) and four-lane (north of Moores Pike) urban major collector with a speed limit of 30 miles per hour (mph). Moores Pike is a two-lane urban minor collector with a speed limit of 30 mph.

The preferred alternative is to construct a path along the west side of Sare Road from Buttonwood Lane to approximately 1,065 linear feet south of the Moores Pike intersection, where it will connect to Renwick Trail (Appendix B, pages 3 - 16). The project will include approximately 3,320 linear feet (0.63 mile) of new 10-foot-wide path and will include a new pedestrian bridge that will span Jackson Creek. The clear width of the bridge will be 16 feet and the span will be 75 feet.

Impacts to Jackson Creek will include installation of riprap for stream bank protection within the limits of the new bridge construction.

Improvements at the signalized intersection will improve pedestrian visibility, reduce pedestrian crossing lengths, and improve signal head visibility (Appendix B, pages 14-16). These improvements include 400 linear feet of new sidewalk and 12 new curb ramps that meet current safety standards. The traffic signal equipment will also be upgraded to current standards including the installation of backplates to improve visibility of the traffic signal heads. Additionally, Moores Pike will be reduced from 44 feet wide to 32 feet wide at the intersection to provide shorter crossing lengths for pedestrians.

Additional improvements include repairing and replacing drainage structures associate with two unnamed tributaries within the project area. Unnamed tributary 3 (UNT3) will have a pipe extension (6 linear feet), installation of a new headwall, and riprap placed to protect the stream. Unnamed tributary 4 (UNT4) will have a pipe extension (5 linear feet), installation of a new headwall, and riprap placed to protect the stream.

The termini are Buttonwood Lane to the south, where the current path ends, and approximately 1,065 linear feet south of Moores Pike, where the current path exists. The termini for the intersection improvements are approximately 250 feet west, 160 feet east, 230 feet south, and 250 feet north of the center of the intersection of Moores Pike and Sare Road.

Access to all adjacent properties and facilities will be maintained during construction. The construction of the path along Sare Road and the improvements at the intersection of Moores Pike and Sare Road will require temporary lane restrictions and closures during construction. Please refer to the maintenance of traffic (MOT) section in this document for details.

This alternative meets the purpose and need for this project by providing a connecting portion of the multi-use path on the west side of Sare Road, connecting pedestrian facilities within Bloomington. It also improves pedestrian infrastructure at the intersection of Moores Pike and Sare Road by installing new, more easily visible signal heads, and reducing crosswalk lengths.

OTHER ALTERNATIVES CONSIDERED:

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

No-Build Alternative

The no-build alternative would result in no new path construction along Sare Road or safety improvements at the intersection of Moores Pike and Sare Road. This alternative would not result in the use of any taxpayer or federal money. This alternative does not meet the purpose and need and was therefore discarded.

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

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

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ROADWAY CHARACTER:

Functional Classification: Sare Road – Urban Major Collector
Current ADT: 5,935 VPD (2020) Design Year ADT: 7,245 VPD (2040)
Design Hour Volume (DHV): 725 Truck Percentage (%) 1.5%
Designed Speed (mph): 30 Legal Speed (mph): 30

	Existing		Proposed	
Number of Lanes:	3		3	
Type of Lanes:	2 through lanes, 1 two-way left turn lane		2 through lanes, 1 two-way left turn lane	
Pavement Width:	36	ft.	36	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	0 on west side 5 on east side	ft.	10 on west side 5 on east side	ft.

Setting: [x] Urban [ ] Suburban [ ] Rural
Topography: [x] Level [ ] Rolling [ ] Hilly

Functional Classification: Moores Pike – Urban Major Collector
Current ADT: 7,150 VPD (2020) Design Year ADT: 8,725 VPD (2040)
Design Hour Volume (DHV): 875 Truck Percentage (%) 1.0
Designed Speed (mph): 30 Legal Speed (mph): 30

	Existing		Proposed	
Number of Lanes:	3		3	
Type of Lanes:	2 through lanes, 1 turn lane		2 through lanes, 1 turn lane	
Pavement Width:	44	ft.	32	ft.
Shoulder Width:	N/A	ft.	N/A	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	5	ft.	5	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): N/A Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	None		Pedestrian	
Number of Spans:			1	
Weight Restrictions:		ton	N/A	ton
Height Restrictions:		ft.	N/A	ft.
Curb to Curb Width:		ft.	16	ft.
Outside to Outside Width:		ft.	16	ft.
Shoulder Width:		ft.	3 on west; 3 on east	ft.
Length of Channel Work:			45	ft.

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Structure/NBI Number(s): 53-00076 Sufficiency Rating: 75.3
(Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Pre-stressed concrete		Pre-stressed concrete	
Number of Spans:	1		1	
Weight Restrictions:	20	ton	20	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	30.2	ft.	30.2	ft.
Outside to Outside Width:	30.2	ft.	30.2	ft.
Shoulder Width:	0	ft.	0	ft.
Length of Channel Work:			0	ft.

Structure/NBI Number(s): 53-00123 Sufficiency Rating: 98.6
(Rating, Source of Information)

	Existing		Proposed	
Bridge Type:	Pre-stressed concrete		Pre-stressed concrete	
Number of Spans:	1		1	
Weight Restrictions:	20	ton	20	ton
Height Restrictions:	N/A	ft.	N/A	ft.
Curb to Curb Width:	85	ft.	85	ft.
Outside to Outside Width:	98	ft.	98	ft.
Shoulder Width:	5	ft.	5	ft.
Length of Channel Work:			0	ft.

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

Remarks

Two bridges exist within the project area: Monroe County Bridge Nos. 00076 and 00123. Monroe County Bridge No. 00076 is located 0.3 mile south of the intersection of Moores Pike and Sare Road, carrying Sare Road over Jackson Creek. Monroe County Bridge No. 00123 is under the intersection of Moores Pike and Sare Road carrying the intersection over Jackson Creek. No improvements will be made to either bridge as part of this project.

One pedestrian bridge will be constructed as part of the project to cross Jackson Creek. The bridge will be 16 feet wide with a 75-foot span.

Two existing pipes will be modified for this project:

UNT3: Improvements include a pipe extension (6 linear feet), installation of a new headwall, and riprap placed to protect the stream. Total impacts are 20 linear feet.

UNT4: Improvements include a pipe extension (5 linear feet), installation of a new headwall, and riprap placed to protect the stream. Total impacts are 20 linear feet.

	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.

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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.		
Provisions will be made for through-traffic dependent businesses.		
Provisions will be made to accommodate any local special events or festivals.		
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

Remarks:

The MOT for the project will require short-term lane closures. Traffic will be maintained during construction.

The 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: $ 339,322 (2018) Right-of-Way: $ 144,000 (2019) Construction: $ 1,667,500 (2020)

Anticipated Start Date of Construction Spring 2020

Date project incorporated into STIP July 3, 2017

Is the project in an MPO Area?	Yes	No
	x	

If yes,

Name of MPO Bloomington/Monroe County Metropolitan Planning Organization

Location of Project in TIP Page 24

Date of incorporation by reference into the STIP June 1, 2017

RIGHT OF WAY:

Land Use Impacts	Amount (acres) Permanent	Temporary
Residential	1.75	0.1
Commercial	0.0	0.0
Agricultural	0.0	0.0
Forest	0.0	0.0
Wetlands	0.0	0.0
Other:	0.0	0.0
Other:	0.0	0.0
TOTAL	1.75	0.1

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 their impacts on the environmental analysis should be discussed.

Remarks:

Current right-of-way within the project extends approximately 30 to 50 feet from the western edge of Sare Road on some parcels. On others, right-of-way extends to the western edge of Sare Road. Right-of-way along the west side of Sare Road is mostly residential lawn or wooded in areas where the topography is steep.

The project requires approximately 1.75 acres of permanent right-of-way of residential property along the west side of Sare Road. The project also requires approximately 0.1 acres of temporary right-of-way of residential property along the west side of Sare Road.

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.

Early acquisitions of real property without contemporaneous Federal-aid participation and prior to completion of environmental review under NEPA, commonly referred to as "at risk" acquisitions, must comply with the Uniform Act and must not influence the selection of the preferred alternative of the project. These requirements apply to all projects that receive or are expected to receive Federal-aid funding for any part of the project.

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 May 21 and August 30, 2018 by NS Services, the aerial map of the project area (Appendix B, page 2), and the water resources map in the Red Flag Investigation (RFI) report (Appendix E, page 9), there are 8 streams located within the 0.5 mile search radius. A Waters of the U.S.

Determination/Wetland Delineation Report was completed for the project on September 7, 2018. Please refer to Appendix F for the Waters of the U.S. Determination/Wetland Delineation Report. It was determined that likely Waters of the U.S. flow through the project area (Appendix F, page 6). Streams within the project area are Jackson Creek, and 4 unnamed tributaries (UNTs): UNT I , UNT2, UNT3 and UNT4 (Appendix F, page 15). UNTI, UNT2, UNT3 and UNT4 all flow into Jackson Creek. All streams within the project area ultimately flow to the East Fork of the White River, a navigable water, and are thus likely Waters of the U.S. The USACE makes all final determinations regarding jurisdiction. There are no Federal, Wild and Scenic Rivers; State Natural, Scenic, and Recreational Rivers; Outstanding Rivers for Indiana; navigable waterways, or National Rivers Inventory waterways present in the project area.

Jackson Creek flows from north to southwest within the project area and is considered a likely Waters of the U.S. because it ultimately flows into the East Fork of the White River, a navigable water. Jackson Creek crosses the project area at two places. Once at the intersection of Sare Road and Moores Pike and once farther south on Sare Road. Jackson Creek has an ordinary high water mark (OHWM) width of about 20 feet with a depth of 1.5 feet. Impacts to Jackson Creek include the construction of the pedestrian bridge at the southern crossing of the creek within the project area. Impacts to Jackson Creek are anticipated to include installation of riprap for stream bank protection within the limits of the new bridge construction. Total impacts to Jackson Creek are 45 linear feet.

UNT1 is located in the northern tip of the project area. It flows southwest from the east and after exiting the project area, it joins with Jackson Creek. UNT1 is considered a likely Waters of the U.S. because it ultimately flows into the East Fork of the White River, a navigable water. There will be no impacts to UNT1.

UNT2 flows from the northwest to the southeast and joins up with Jackson Creek within the project area. UNT2 is considered a likely Waters of the U.S. There will be no impacts to UNT2.

UNT3 is located along Sare Road/McCartney Lane. It flows east under Sare Road through a culvert and into Jackson Creek outside of the project area. UNT3 is considered a likely Waters of the U.S. because it ultimately flows into the East Fork of the White River, a navigable water. Impacts to UNT3 include the installation of approximately 6 linear feet of pipe extension along with installation of new headwall at the end of the existing pipe to accommodate the new path. Fourteen linear feet of either reconstructed concrete channel or riprap will be installed for scour protection downstream of the new headwall. Total impacts to UNT3 are 20 linear feet.

UNT4 is located along Sare Road, south of South McCartney Lane. It flows east under Sare Road through a culvert and into Jackson Creek outside of the project area. UNT4 is considered a likely Waters of the U.S. because it ultimately flows into the East Fork of the White River, a navigable water. Impacts will include the construction of approximately 5 linear feet of pipe extension along with installation of new headwall at the end of the existing pipe to accommodate the new path. Installation of approximately 15 linear of riprap for scour protection is anticipated downstream of the new headwall. Total impacts to UNT4 are 20 linear feet.

An Indiana Department of Environmental Managements (IDEM) 401 Water Quality Certification (WQC) along with a U.S. Army Corps of Engineers (USACE) 404 permit will likely be required as part of the project. Impacts are anticipated to fall within the guidelines for a Regional General Permit (RGP), and mitigation is not anticipated for these impacts.

Early coordination letters were sent to the Indiana Department of Natural Resources – Division of Fish and Wildlife (IDNR-DFW), the USACE, and the U.S. Fish and Wildlife Service (USFWS) on June 1, 2018. The IDNR-DFW responded on June 28, 2018 with recommendations including minimizing inchannel impacts, using appropriate crossing structures, appropriate times of the year to work in the waterway, and using appropriate measures to limit erosion into the waterway (Appendix C, pages 4-8). IDNR-DFW stated in their response that a Construction in Floodway (CIF) permit will be needed for this project (Appendix C, page 4).

The USFWS responded on February 14, 2019 with standard recommendations to restrict work in the waterway (Appendix C, page 21). The USACE did not respond. All applicable IDNR-DFW and USFWS recommendations are included in the Environmental Commitments section of this CE document.

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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 May 21 and August 30, 2018 by NS Services, the aerial map of the project area (Appendix B, page 2), and the water resources map in the RFI report (Appendix E, page 9), there are 9 lakes located within the 0.5 mile search radius. The nearest lake is 0.05 mile east of the project area. A Waters of the U.S. Determination/Wetland Delineation Report was completed for the project on September 7, 2018. Please refer to Appendix F for the Waters of the U.S. Determination/Wetland Delineation Report. It was determined that there were no other surface waters within the project area. The USACE makes all final determinations regarding jurisdiction. Therefore, no impacts are expected.

Early coordination letters were sent to the IDNR-DFW, the USACE, and the USFWS on June 1, 2018. The IDNR-DFW responded on June 28, 2018 and the USFWS responded on February 14, 2019, but because there are no other surface waters in the project area, there are no applicable recommendations from these agencies. No response was received from the USACE.

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

Total wetland area: 0.0 acre(s) Total wetland area impacted: 0.0 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

Wetlands (*Mark all that apply*)	**Documentation**	**ES Approval Dates**
Wetland Determination	x	N/A
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 review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html), the USGS topographic map (Appendix B, page 1), and the RFI report (Appendix E, page 9), there are 8 wetlands and 6 NWI lines located within the 0.5 mile search radius. The nearest wetland (a freshwater pond) is 0.05 mile east of the project area. The nearest NWI line is within the project area. A site visit was conducted on May 21 and August 30, 2018 by NS Services and no wetlands were identified in the project area.

A Waters of the U.S. Determination/Wetland Delineation Report was completed for the project on September 7, 2018. Please refer to Appendix F for the Waters of the U.S. Determination/Wetland Delineation Report. It was determined that there are no wetlands within the project area. The USACE makes all final determinations regarding jurisdiction. No wetlands were identified in the project area during site reconnaissance (Appendix F, pages 5-6). Therefore, no impacts are expected.

Early coordination letters were sent to the IDNR-DFW, the USACE, and the USFWS on June 1, 2018. The IDNR-DFW responded on June 28, 2018 and the USFWS responded on February 14, 2019. There are no wetlands in the project area, therefore there are no applicable recommendations from these agencies. No response was received from the USACE.

	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 May 21 and August 30, 2018 by NS Services, and the aerial map of the project area (Appendix B, page 2), there are deciduous forest environments within the project area. Vegetation within the project area is comprised primarily of upland species. Grassy areas were comprised of Common Blue Violet (*Viola sororia*), Bermuda grass (*Cynodon dactylon*), and crabgrass (*Digitaria sp.*). Tree areas consisted primarily of sugar maple (*Acer saccharum*), slippery elm (*Ulmus rubra*) and dogwood (*Cornus florida*). Understory species include honeysuckle (*Lonicera morrowii*), goldenrod (*Solidago canadensis*), and multiflora rose (*Rosa multiflora*).

Impacts to terrestrial habitats include 3.0 acres of disturbance for the construction of a 10-foot wide multi-use path and the construction of a pedestrian bridge crossing Jackson Creek. Included in the 3.0 acres is 0.85 acre of tree clearing along with 17 individual trees that will take place for this project.

Avoidance alternatives would not be practicable because this is the only location that this project can be completed to meet the purpose and need. Mitigation is anticipated.

Early coordination letters were sent to the IDNR-DFW, USACE, and the USFWS on June 1, 2018. The IDNR-DFW responded on June 28, 2018 with recommendations to minimize impacts to terrestrial habitats including using bridges instead of culverts, creating favorable wildlife passages, using the narrowest path possible, lining the path with vegetation, using local native plants to restore disturbed areas, minimizing lighting, and revegetation (Appendix C, pages 4-8). IDNR-DFW recommended that a mitigation plan be

developed for any unavoidable habitat impacts that will occur and gave recommendations regarding tree plantings (Appendix C, pages 4-8). The USFWS responded on February 14, 2019 and gave standard recommendations including creating suitable wildlife crossings and not to remove trees or vegetation outside of the construction boundaries (Appendix C, page 21). No response was received from the USACE. All applicable IDNR-DFW and USFWS recommendations are included in the Environmental Commitments section of this CE document.

The project will require 0.32 acre of tree clearing, including 5 individual trees with diameter-at-breast height (dbh) of 10 inches or greater, within the floodplain. Therefore, compensatory mitigation plan for the restoration of the floodplain habitat will likely be required for this project.

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

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

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

Remarks:

Based on a desktop review, a site visit on May 21 and August 30, 2018 by NS Services, the topo map of the project area (Appendix B, page 1), and the RFI report (Appendix E, pages 2-3), the proposed project is located inside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). There are no karst features identified within the project area. In an early coordination letter response, IDNR-DFW stated that should any karst features be located within the construction limits or that may receive drainage from the construction, a karst assessment should be conducted by a qualified geologist and a determination made as to whether or not the karst feature/sinkhole is active (Appendix C, pages 4-8). In an automated response from IGS dated February 13, 2019, they indicated that the project is in a potential karst area, the project is in a floodway, and there is a high potential for bedrock resources (Appendix C, pages 17-19). No karst resources or bedrock were noted during the site visits. Therefore, no impacts are expected.

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

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

Remarks:

Based on a desktop review and the RFI (Appendix E), completed by NS Services on August 23, 2018, the IDNR Monroe County Endangered, Threatened and Rare (ETR) Species List has been checked and is included (Appendix E, pages 13-16). 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 28, 2018, the Natural Heritage Program's Database has been checked and no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project

vicinity (Appendix C, page 4). This project is within the Indiana bat critical habitat.

The project qualifies for the *Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB)*, dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), and USFWS. 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 50-56) and no additional species were found within the project area.

The official species list generated from IPaC indicated no other species present within the project area. The project qualifies for the USFWS Interim Policy. No further coordination is needed with USFWS.

Monroe County is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). In addition, an effect determination key was completed on February 7, 2019, and based on the responses provided, the project was found to "Not Likely to Adversely Affect" the Indiana bat and/or the NLEB (Appendix C, pages 22-49). INDOT reviewed and verified the effect finding on February 8, 2019 and requested USFWS's review of the finding (Appendix C, page 22). 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 Monroe 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. No impacts are expected.

This project is not located within a Wellhead Protection Area. In an early coordination letter response dated June 6, 2018, IDEM stated the project is not located within a wellhead area (Appendix C, page 9). 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 February 7, 2019 by NS Services. 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 NS Services on August 30, 2018, and the RFI report, this project is located in an Urban Area Boundary (UAB) location. An early coordination letter was sent on June 1, 2018, to the Bloomington UAB MS4 coordinator. The MS4 coordinator did not respond within the 30-day time frame. This project will comply with the local stormwater management plan and will likely require a Rule 5 Permit.

Based on a desktop review, a site visit on May 21 and August 30, 2018 by NS Services, and the aerial map of the project area (Appendix B, page 2), this project is located where there is a public water system. The public water system will be affected by relocation as necessary. An early coordination letter was sent on January 22, 2019, to the City of Bloomington utilities (Appendix G, pages 2-3). Coordination with city utilities is ongoing. In their response to the early coordination letter, the USFWS suggested that to protect water quality they recommend using pollutant-trapping technology such as storm drain inserts, etc. to reduce runoff of urban pollutants directly to any stream systems (Appendix C, page 21). Avoidance alternatives are not practical because this is the only location that this project can be completed to meet the purpose and need.

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	x		x

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

Remarks:

Based on a desktop review of the IDNR Indiana Floodway Information Portal website (http://dnrmaps.dnr.in.gov/appsphp/fdms/) by NS Services on February 7, 2019, and the RFI report, this project is located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, pages 21-23). An early coordination letter was sent on February 19, 2019 to the local Floodplain Administrator. The floodplain administrator responded on February 22, 2019 stating that this project will require a CIF Permit (Appendix C, page 20). This encroachment will qualify as a Category 5 impact.

There will be no substantial 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 evaluation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternates will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

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

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

**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 May 21 and August 30, 2018 by NS Services, and the aerial map of the project area (Appendix B, page 2), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	B	1, 2, 8	October 5, 2018	

Results of Research

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

Project Effect

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

Documentation (mark all that apply)	Documentation Prepared	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report			
Archaeological Records Check/ Review	x	October 5, 2018	N/A
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination			
800.11 Documentation			

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

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks:

On October 5, 2018 the INDOT Cultural Resource Office (CRO) determined that this project falls within the guidelines of Category B, Type 1, 2, and 8 under the Minor Projects Programmatic Agreement (MPPA) (Appendix D, pages 1-5). If the scope of the project limits should change, the INDOT CRO office will need to re-examine the information to determine whether the MPPA still applies (Appendix D, page 5). No further consultation is required. This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

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

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

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

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

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

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

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

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

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

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

Remarks:

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

eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Based on a desktop review, a site visit on May 22, 2018 by NS Services, the aerial map of the project area (B-2), the Indiana Historic Buildings, Bridges, and Cemeteries Map, and the RFI report (Appendix E) there are no Section 4(f) resources within or adjacent to the project area. Therefore, no impacts are expected.

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/tools revealed a total of 19 properties in Monroe County. None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

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

Level of MSAT Analysis required?

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

Remarks:

This project is included in the Fiscal Year (FY) 2018-2021 Bloomington/Monroe County Metropolitan Planning Organization Transportation Improvement Program (MPO TIP) and Statewide Transportation Improvement Program (STIP) (Appendix H, pages 1-2).

This project is located in Monroe County, which is currently in attainment for all criteria pollutants according to the IDEM website (https://www.in.gov/idem/airquality/2339.htm), accessed on February 1, 2019 by NS Services. 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	x	

Remarks:

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

SECTION G – COMMUNITY IMPACTS

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

Remarks:

The project will have a positive impact on the area by connecting existing multi-use paths, thereby creating continuous recreational pathways in the area. Additional positive impacts are improvements at the intersection of Sare Road and Moores Pike. There will be no impacts to the tax base or long-term, foreseeable economic impacts.

This project will not permanently alter the alignment of Sare Road or Moores Pike and will have no long-term impacts to school bus or emergency vehicle routes, though a temporary disruption of these services may occur during construction due to traffic maintenance. A schedule of local festivals and events was checked at http://www.fairsandfestivals.net/events on February 7, 2019 by NS Services. Seventeen festivals were found within 25 miles of the project area in years 2019-2021. All of these festivals are more than 0.5 mile from the project area and will not be impacted by this project.

The City of Bloomington Americans with Disabilities Act (ADA) Transition Plan calls for all parks and recreation facilities to be ADA accessible, as well as all public sidewalks. Project implementation will comply with the current ADA Transition Plan.

Indirect and Cumulative Impacts	Yes	No
Will the proposed action result in substantial indirect or cumulative impacts?		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.

This project will connect two existing paths within the Bloomington path system, allowing for increased use of recreational facilities. It will also improve pedestrian features at the intersection. It will not significantly change the surrounding properties, add traffic to Sare Road or Moores Pike, or result in an increase in the population of the area. No substantial indirect or cumulative impacts will result from the project.

Public Facilities & Services

	Yes	No
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.*		x

Remarks:

Based on a desktop review, a site visit on May 21 and August 30, 2018 by NS Services, the aerial map of the project area (Appendix B, page 2), and the RFI report (Appendix E), there is 1 religious facility, 2 cemeteries, 1 school, 3 recreational facilities, 12 trails, and 3 managed lands located within the 0.5 mile of the project. Renwick Trail is within or adjacent to the project area. Renwick Trail extends south from Moores Pike approximately 1,065 feet but is currently privately owned. The current project will construct a tie-in to this path. Direct impacts include a one-day temporary closure impact to connect the paths. Access to this path will be maintained for the remainder of the project.

Additionally, there are 4 types of utilities within the project area. City utilities, fiber optics, electric, and gas lines are present along the west side of Sare Road within the project area. Initial notice letters were sent to utility companies on January 22, 2019 (Appendix G, pages 2-3). Utility coordination is ongoing through WSP and the City of Bloomington.

An early coordination letter was sent to the City of Bloomington Parks and Recreation Department and INDOT Aviation on June 1, 2018. The Parks and Recreation Department did not respond to the early coordination letter. The early coordination letter response from INDOT Office of Aviation, dated June 11, 2018, stated that the nearest public use airport was more than 5 nautical miles south of the project area. The letter also stated that based upon the provided information, 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 exceeds 200 feet above ground level (Appendix C, page 16). This is included as a firm commitment in the Environmental Commitments section of this document.

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

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 the City of Bloomington, 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 1.75 acres of 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 concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the

community of comparison (COC). In this project, the COC is Monroe County. The community that overlaps the project limits is called the affected community (AC). In this project, the AC is Census Tract 10.01. An AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2013-2017 American Community Survey 5-Year Estimates was obtained from the US Census Bureau Website https://factfinder.census.gov/ on February 18, 2019 by NS Services. The data collected for minority and low-income populations within the AC are summarized in the below table.

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

	COC - (Monroe County)	AC-1 - Census Tract 10.01, Monroe County, Indiana
Percent Minority	16.7%	17.9%
125% of COC	87.5%	AC < 125% COC
EJ Population of Concern		No
Percent Low-Income	24.7%	10.1%
125% of COC	87.5%	AC < 125% COC
EJ Population of Concern		No

AC-1, Census Tract 10.01 has a percent minority of (17.9%) which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain minority populations of EJ concern.

AC-1, Census Tract 10.01 has a percent low-income of (10.1%) which is below 50% and is below the 125% COC threshold. Therefore, the AC does not contain low-income populations of EJ concern.

The census data sheets, map, and calculations can be found in Appendix J. 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?	

County Monroe Route Sare Road Des. No. 1700736

	No	Yes/ Date
ES Review of Investigations		Yes/ August 24, 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 23, 2018 by NS Services (Appendix E). Two leaking underground storage tanks (LUSTs), 1 National Pollutant Discharge Elimination System (NPDES) facility, and 2 NPDES pipes are located within 0.5 mile of the project area. No hazmat sites are located within the project area.

The nearest LUST is 0.24 mile from the project area. The NPDES facility, Jackson Creek Outlet, is 0.04 mile from the project area. The nearest NPDES pipe is 0.17 mile from the project area. No impacts are expected because of distance or a No Further Action determination by Indiana Department of Environmental Management (IDEM). Further investigation for hazardous material concerns is not required at this time.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Individual Permit (IP)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	x
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDEM	
Section 401 WQC	x
Isolated Wetlands determination	
Rule 5	x
Other	
Wetland Mitigation required	
Stream Mitigation required	
IDNR	
Construction in a Floodway	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 401 WQC along with USACE 404 permit will likely be required as part of the project. Impacts are anticipated to fall within the guidelines for an RGP, and mitigation is not anticipated for these impacts.

A Rule 5 permit is likely needed because soil disturbance will be greater than one acre.

According to the early coordination letter response from IDNR-DFW on May 4, 2018 and the early coordination letter response from the Bloomington Floodplain Administrator on February 22, 2019, a CIF permit will likely be needed.

Applicable recommendations provided by IDEM, USFWS, and IDNR-DFW are included in the Environmental Commitments section of this document. If Section 401/404, Rule 5, or CIF permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these

recommendations.

It is the responsibility of the City of Bloomington to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

Firm

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT-ESD)
2. General AMM 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable AMMs. (INDOT/USFWS)
3. Hibernacula AMM 1: For projects located within karst areas, on-site personnel will use best management practices, secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula. Where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography. (INDOT/USFWS)
4. Lighting AMM 1: Direct temporary lighting away from suitable habitat during the active season.
5. Tree Removal AMM 1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to avoid tree removal. (INDOT/USFWS)
6. Tree Removal AMM 2: Apply time of year restrictions for tree removal when bats are not likely to be present, or limit tree removal to 10 or fewer trees per project at any time of year within 100 feet of existing road/ rail surface and outside of documented roosting/foraging habitat or travel corridors; visual emergence survey must be conducted with no bats observed. (INDOT/USFWS)
7. Tree Removal AMM 3: Ensure tree removal is limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits). (INDOT/USFWS)
8. Tree Removal AMM 4: Do not remove documented Indiana bat or NLEB roosts that are still suitable for roosting, or trees within 0.25 miles of roosts, or documented foraging habitat any time of year. (INDOT/USFWS)
9. If the scope of the project limits should change, the INDOT CRO office will need to re-examine the information to determine whether the MPPA still applies. (INDOT CRO)
10. If any human remains are encountered, work shall cease in the immediate area and the human remains left undisturbed. INDOT and FHWA will contact the county coroner and law enforcement officials immediately, and the discovery must be reported to the SHPO within two (2) business days. The discovery must be treated in accordance with IC 14-21-1 and 312 IAC 22. If the remains are determined to be Native American, FHWA will notify the appropriate federally recognized Indian Tribes. (INDOT CRO)
11. Work at the site shall not resume until a plan for the treatment of the human remains is developed and approved in consultation with the SHPO and any appropriate consulting parties. The plan will comply with IC 14-21-1, 312 IAC 22, the current Guidebook for Indiana Historic Sites and Structures Inventory – Archaeological Sites, and all other appropriate federal and state guidelines, statutes, rules, and regulations. (INDOT CRO)
12. Should any karst features be located within the construction limits or that may receive drainage from the construction, a karst assessment should be conducted by a qualified geologist and a determination made as to whether or not the karst feature/sinkhole is active. If a karst assessment is not done, any sinkhole that construction runoff may drain to should be assumed to be active unless assessed by a qualified

geologist with experience in karst geology assessments. To protect active sinkholes (or those not assessed), the most protective erosion control methods should be implemented to avoid potentially impacting sensitive karst ecosystems (such as runoff containment and filtering prior to discharge). (IDNR)

13. 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 exceeds 200 feet above ground level. (INDOT Aviation)

For Further Consideration

1. Any riprap placed at the culvert's outlet should match the outlet invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow does not percolate through the voids below the riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. Natural streambed material should be backfilled within the structure where possible as it can provide refuge for species using the culvert. Natural bed materials such as large cobble and boulders should be placed within the structure (anchored if necessary) to provide flow diversity and roughness/energy dissipation. (IDNR)
2. Any new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. A level area of natural ground under the structure is ideal for wildlife passage. 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). Limit the use of riprap on the channel banks. Riprap may be used only at the toe of the sideslopes up to the 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 Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion. (IDNR)
3. Where hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats or other similar smooth-surfaced materials as these materials will not impair wildlife movement. (IDNR)
4. Where shoulders and side-slopes are needed for this project, we recommend minimizing them in wooded portions of the path (which should be designed with the steepest slope feasible). Where shoulders and side-slopes are not needed, the bike path should be constructed at grade with no shoulders. Where possible, minimize impacts to forested areas by using the narrowest width possible for the path in these areas. (IDNR)
5. Recommend a mitigation plan be developed (and submitted with the permit application) for any unavoidable habitat impacts that will occur. The mitigation site should be located preferably as close to the impact site as possible and adjacent to existing forested riparian habitat. (IDNR)
6. 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. (IDNR)
7. Place the path in or adjacent to existing ROWs where possible to minimize significant impacts to natural resource habitat. Also, utilize previously disturbed or degraded areas. Align the path along or near existing man-made edges or areas that have the potential to be restored or enhanced by path construction (i.e. railroad corridors), rather than routing the path through previously undisturbed areas. (IDNR)
8. When designing or constructing a path, disturb as narrow an area as possible to help minimize negative impacts. Where significant impacts to fish, wildlife or botanical resources are likely due to the path's width, reduce the width to help avoid those impacts. ADA accessibility standards allow departures from the standards under certain conditions, including substantial harm to natural features, habitat, or vegetation (see http://www.access-board.gov/attachments/article/1500/outdoor-rule.pdf, Accessibility Guidelines for Outdoor Developed Areas). (IDNR)

9. Do not focus only on the direct impact of the path's width; also consider the path's impact to the surrounding habitat. Paths can fragment larger habitat areas and reduce the overall usefulness of the site to fish, wildlife, or botanical resources (1 large habitat block is better than 2 small habitat blocks). Paths can cause significant impacts to forested areas, riparian forested corridors along creeks and rivers, and wetland areas. They also may cause sediment and erosion issues or introduce human disturbance into fairly isolated areas containing wildlife habitat. (IDNR)
10. Avoid unnecessary stream crossings. Instead, make use of or modify existing stream crossings or avoid crossing the stream altogether. Where stream crossings are unavoidable, pedestrian bridges with supports/abutments placed no less than 10 feet landward from the tops of the banks on each side of the waterway are recommended. Alternatively, a three-sided culvert may be used. Three-sided culverts should be oversized to allow terrestrial wildlife movement along the creek on unsubmerged dry land at normal water levels. Box-culvert or pipe-culvert crossings are not recommended. (IDNR)
11. Paths designed to follow a stream's course must be placed outside the stream's forested riparian buffer. Also, do not place the path along the tops of the banks of a forested creek. Avoid perpendicular fragmentation of riparian areas (streamside habitat). Where the stream has little or no forested riparian buffer, the path should be no closer than 15 feet from the tops of the banks. (IDNR)
12. Avoid elements identified in the Natural Heritage Database; paths may negatively affect species that require specific natural conditions (vegetation, light levels, moisture, etc.) that are altered as a result of path construction. Rare and high quality habitats, and wildlife habitats that possess high wildlife abundance and diversity, should be avoided by placing the path around the habitat and screening it from the path and path users with a buffer of native vegetation or another method as discussed below. Wetlands and karst features are but two examples of areas to avoid. (IDNR)
13. Raised boardwalks should be constructed in wet areas or near wetlands (paths through wetlands are not recommended). A material such as composite decking should be used rather than treated wood which can leach elements toxic to aquatic life. (IDNR)
14. Screen wildlife habitat from the path corridor. Vegetation, topography, and fences can help reduce the impact of noise and line of site disturbances of path users on wildlife. Walls can create wildlife movement barriers and potential impacts must be considered. Native grass buffers (2 to 3 feet tall) are recommended along the edge of paths near habitat such as wetlands. (IDNR)
15. Lighting should only be used when absolutely necessary. Lighting in forested areas and along creeks, streams, and rivers should be the lowest intensity feasible and shielded to cast light on the path and not diffused into the surroundings to avoid disturbing wildlife circadian rhythms and disorienting night-migrating birds. (IDNR)
16. Any plantings in the riparian areas should be locally native species, not exotic species or horticultural varieties (e.g. "Autumn Blaze" Red Maple). A list of appropriate native woody and herbaceous vegetation can be provided upon request. (IDNR)
17. Path surfaces can have negative effects on surrounding natural areas and deter movement of some species across the path. Some surface materials are more environmentally acceptable than others, such as mulch and mown grass which should be considered as the first options. Asphalt is not recommended as a path surface in the floodway. The conventional maintenance for aging asphalt is to seal it with a blacktop or asphalt sealer. If asphalt is used, then asphalt sealer should not be used for long-term maintenance and repair of the asphalt path surface. In previously disturbed areas, concrete is an acceptable surface material, and porous concrete is preferred wherever ii can be used. (IDNR)
18. Shoulders should be constructed using unconsolidated materials where possible. In some situations, solid shoulders are necessary. In those cases, shoulders should be constructed using porous concrete. (IDNR)
19. Paths that highlight natural resources should skirt the resource and utilize "pulloffs" at specific sites instead of letting the entire path and traffic disturb the resource. (IDNR)
20. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and native shrub and hardwood tree species as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants (e.g. crown-vetch). (IDNR)
21. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush. (IDNR)

22. Do not work in the waterways from April 1 through June 30 without the prior written approval of the Division of Fish & Wildlife. (IDNR)
23. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 3 inches' dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30. (IDNR)
24. Do not construct any temporary runarounds, causeways, cofferdams, pump around or stream diversion systems. (IDNR)
25. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR)
26. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction. (IDNR)
27. Post "Do Not Mow or Spray" signs along the right-of-way. (IDNR)
28. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized. (IDNR)
29. Seed and protect all disturbed slopes that are 3:1 or steeper with biodegradable heavy-duty erosion control blankets (follow manufacturer's recommendations for selection and installation; seed and apply mulch on all other disturbed areas. (IDNR)

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:

Agency	Date Sent	Date Response Received	Appendix
IDNR, DFW	June 1, 2018	June 28, 2018	C-4 to C-8
IDEM, Groundwater Section	June 1, 2018	June 6, 2018	C-9
IDEM, Roadway	February 13, 2019	February 13, 2019	C-10 to C-15
INDOT, Aviation	June 1, 2018	June 11, 2018	C-16
IGS	February 13, 2019	February 13, 2019	C-17 to C-19
Bloomington Floodplain Administrator	February 19, 2019	February 22, 2019	C-20
USFWS	February 13, 2019	February 14, 2019	C-21
National Park Services	June 1, 2018	No Response	N/A
USACE	June 1, 2018	No Response	N/A
Department of Housing & Urban Development	June 1, 2018	No Response	N/A
US Forest Service, Hoosier National Forest	June 1, 2018	No Response	N/A
City of Bloomington MS4 Coordinator	June 1, 2018	No Response	N/A
City of Bloomington Mayor	June 1, 2018	No Response	N/A
Bloomington Parks and Recreation Department	June 1, 2018	No Response	N/A
Monroe County Highway Engineer	June 1, 2018	No Response	N/A
Monroe County Commissioners	June 1, 2018	No Response	N/A
Monroe County Council	June 1, 2018	No Response	N/A
Monroe County Surveyor	June 1, 2018	No Response	N/A
Indiana Gas & Electric	June 1, 2018	No Response	N/A

APPENDICES

Appendix A: INDOT Supporting Documentation
- Categorical Exclusion Threshold Chart (A-1)

Appendix B: Graphics
- Project Location in Topographic Map (B-1)
- Project Location on Aerial Map (B-2)
- Project Plans (B-3 to B-16)
- Photographs (B-17 to B-40)

Appendix C: Early Coordination
- Sample Early Coordination Letter (C-1 to C-2)
- Early Coordination Letter Response Summary (C-3)
- Early Coordination Letter Responses (C-4 to C-21)
- FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (C-22 to C-49)
- USFWS Official Species List (C-50 to C-56)

Appendix D: Section 106 of the NHPA
- MPPA Determination (D-1 to D-5)

Appendix E: Red Flag and Hazardous Materials
- Red Flag Investigation (E-1 to E-16)

Appendix F: Water Resources:
- Delineation of Wetlands and Waters of the US Report (F-1 to F-20)
- FEMA Floodplain Maps (F-21 to F-23)

Appendix G: Public Involvement
- Survey Notice (G-1)
- Initial Notice Letter (G-2 to G-3)

Appendix H: Air Quality
- TIP 2018-2021 (H-1)
- STIP 2018-2021 (H-2)

Appendix J: Environmental Justice Analysis
- Map of COC and AC (J-1)
- U.S. Census Data on Poverty (J-2to J-3)
- U.S. Census Data on Minorities (J-4)
- EJ Calculations (J-5)

APPENDIX A

INDOT SUPPORTING DOCUMENTATION

Categorical Exclusion Threshold Chart (A-1)

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

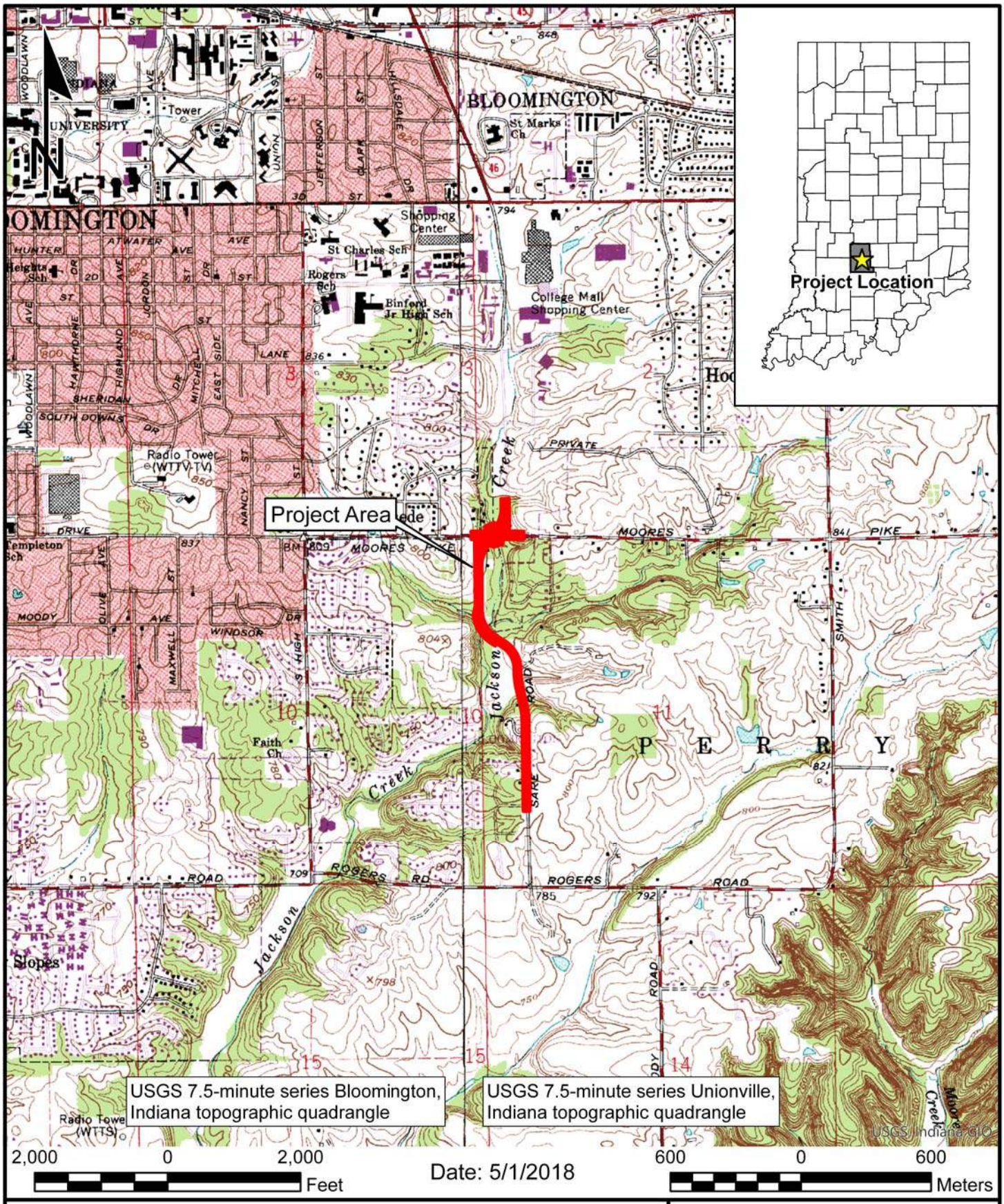
GRAPHICS

Project Location on Topographic Map (B-1)

Project Location on Aerial Map (B-2)

Project Plans (B-3 to B-16)

Photographs (B-17 to B-40)



TOPOGRAPHIC MAP

Des. No. 1700736; Sare Rd. Multiuse Path and Intersection Project in Bloomington, Monroe County, Indiana.

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

NS Services
Environmental & Infrastructure
www.nsenvservices.com

2016 AERIAL MAP

Des. No. 1700736; Sare Rd. Multiuse Path and Intersection Project in Bloomington, Monroe County, Indiana.

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

NS Services
Environmental & Infrastructure
www.nsenvservices.com

PROJECT	DESIGNATION
1700736	1700736
CONTRACT	
R 40294	

INDIANA DEPARTMENT OF TRANSPORTATION

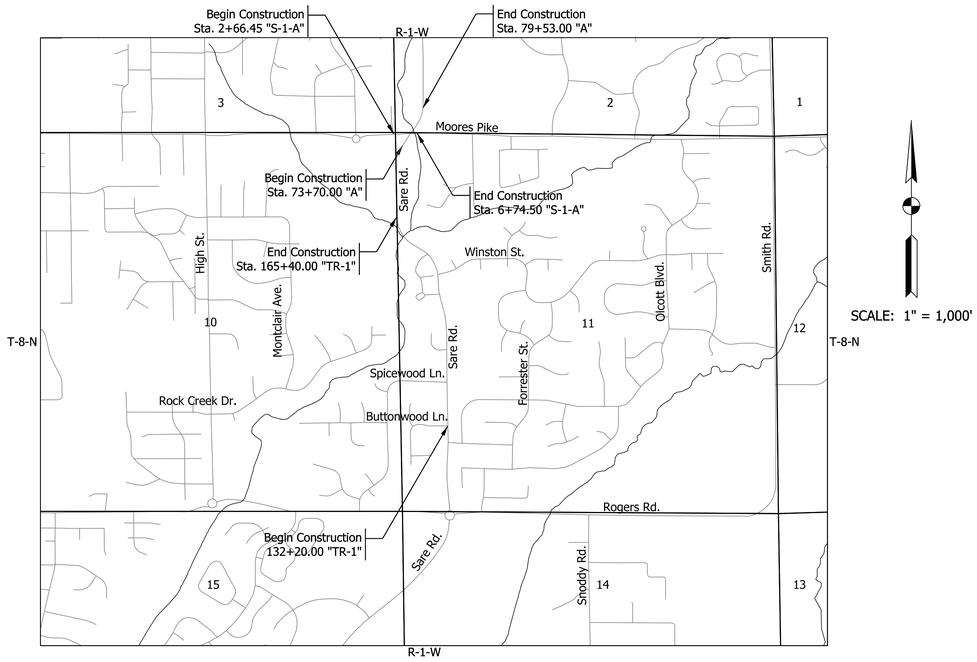
ROAD PLANS

PROJECT NO.

1700736 P.E.
1700736 R/W
1700736 CONST.

NO ADDITIONAL RIGHT OF WAY REQUIRED FOR THIS PROJECT

New Trail Construction along Sare Rd. from
Buttonwood Ln. to Moores Pike in Sections 2, 10, 11,
T-8-N, R-1-W, Perry Township, Monroe County, Indiana



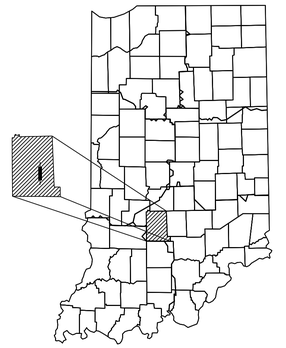
SCALE: 1" = 1,000'

TRAFFIC DATA	SARE ROAD
A.A.D.T. ( )	V.P.D.
A.A.D.T. ( )	V.P.D.
D.H.V ( )	V.P.H.
DIRECTIONAL DISTRIBUTION	%
TRUCKS	% A.A.D.T.
	% D.H.V.

DESIGN DATA	SARE ROAD
DESIGN SPEED	30 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MAJOR COLLECTOR
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE

TRAFFIC DATA	MOORES PIKE
A.A.D.T. ( )	V.P.D.
A.A.D.T. ( )	V.P.D.
D.H.V ( )	V.P.H.
DIRECTIONAL DISTRIBUTION	%
TRUCKS	% A.A.D.T.
	% D.H.V.

DESIGN DATA	MOORES PIKE
DESIGN SPEED	30 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	MINOR COLLECTOR
RURAL/URBAN	URBAN
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY
MONROE

LATITUDE: 39°8'43" N LONGITUDE: 86°29'50" W

GROSS LENGTH: 0.82 MI.
NET LENGTH: 0.82 MI.
MAX. GRADE: 6.85 %

HUC: 05120208090010

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2018
TO BE USED WITH THESE PLANS

WSP USA Inc.
115 W. Washington Street
Suite 1270S
Indianapolis, IN 46204
TEL: 317-972-1706

NOT FOR CONSTRUCTION

PLANS PREPARED BY: WSP USA INC. 317-972-1706 PHONE NUMBER

"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT"

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

DESIGNATION	
1700736	
SURVEY BOOK	SHEETS
	1 of 40
CONTRACT	PROJECT
R 40294	1700736

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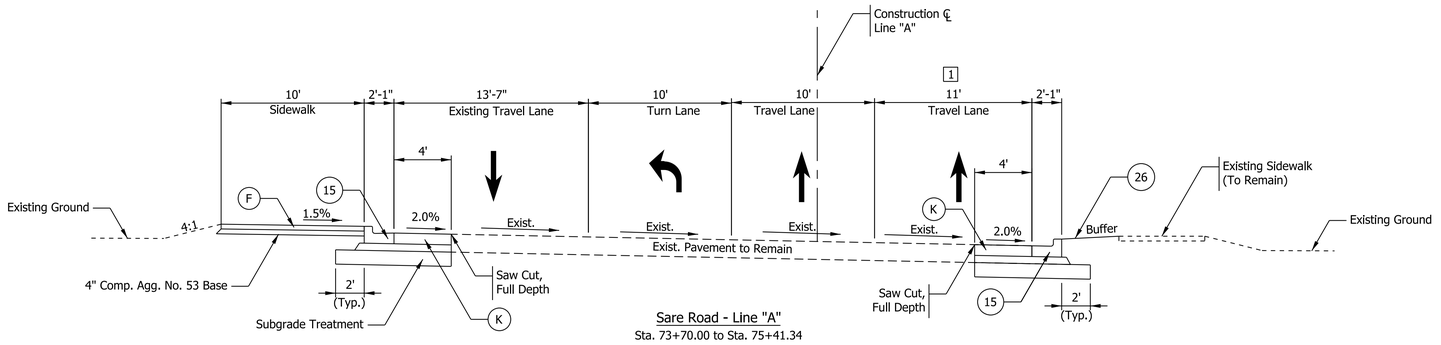

Sare Road - Line "A"
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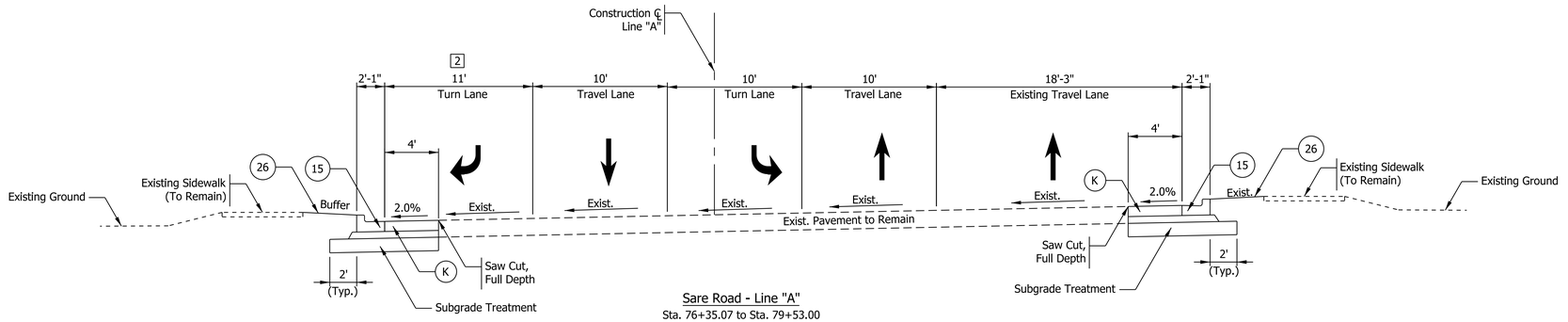

Sare Road - Line "A"
Sta. 76+35.07 to Sta. 79+53.00

[1] Varies from 19' to 11.0' from Sta. 73+70.00 to Sta. 74+25.00

[2] Varies from 22' to 11' from Sta. 78+73.00 to Sta. 79+53.00

(15)	Curb and Gutter, Concrete, Modified	(30)	Handrail, Pedestrian	(K)	HMA Patching, Type C 165 lb/syd HMA Surface, Type C on 330 lb/syd HMA Intermediate, Type C on 825 lb/syd HMA Base, Type C on Subgrade Treatment IC
(22)	Nursery Sod	(31)	Modular Block Wall		
(26)	Center Curb D, Concrete	(F)	Sidewalk, Concrete	(H)	HMA for Sidewalk

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
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VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
	3 of 40
CONTRACT	PROJECT
R-40294	1700736

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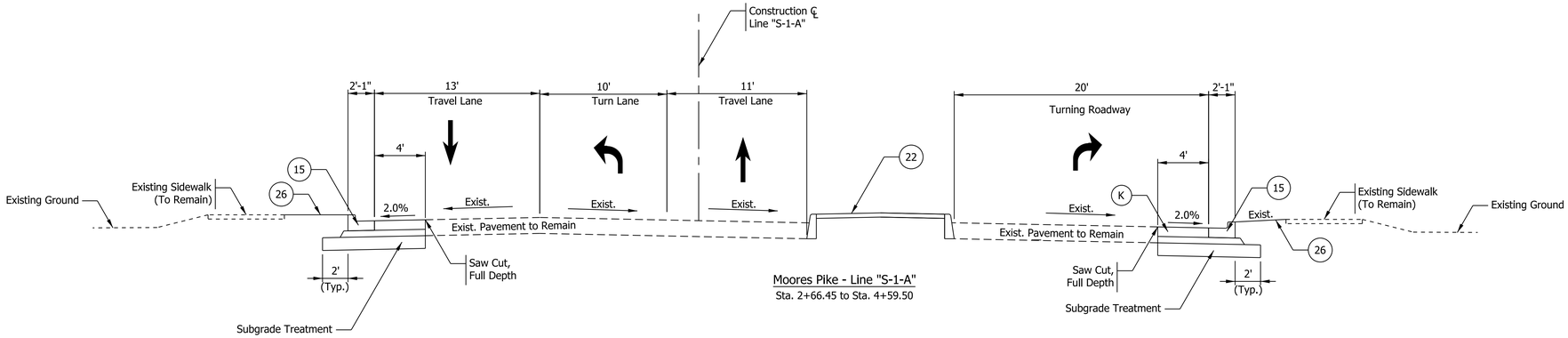

Moores Pike - Line "S-1-A"
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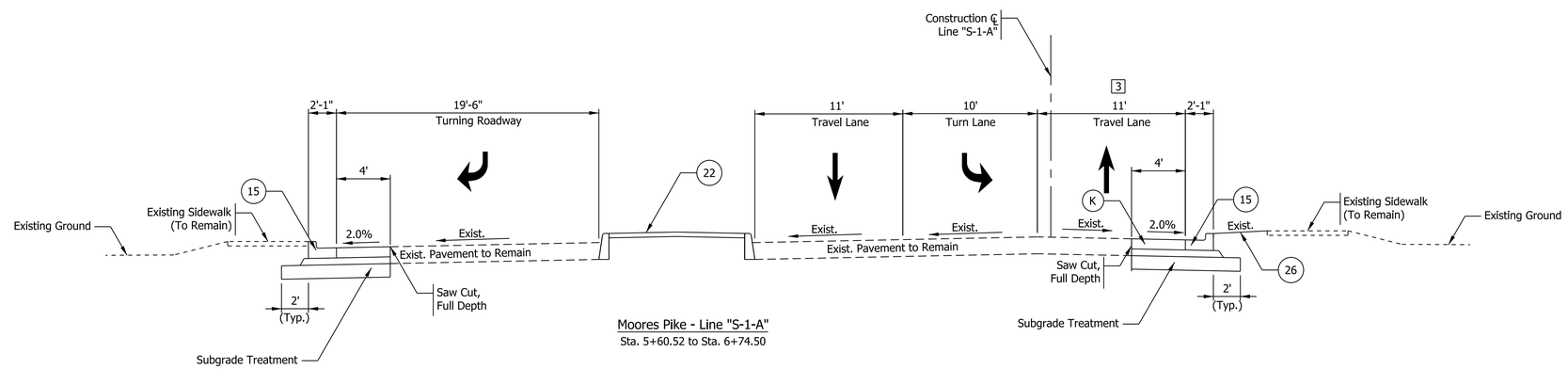

Moores Pike - Line "S-1-A"
Sta. 5+60.52 to Sta. 6+74.50

3 Varies from 18' to 11.0' from Sta. 6+15.00 to Sta. 6+65.00

(15) Curb and Gutter, Concrete, Modified	(30) Handrail, Pedestrian	(K) HMA Patching, Type C 165 lb/syd HMA Surface, Type C on 330 lb/syd HMA Intermediate, Type C on 825 lb/syd HMA Base, Type C on Subgrade Treatment IC
(22) Nursery Sod	(31) Modular Block Wall	
(26) Center Curb D, Concrete	(F) Sidewalk, Concrete	(H) HMA for Sidewalk

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB DRAWN: JLB

CHECKED: MV CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
1"=5'	
VERTICAL SCALE	DESIGNATION
1"=5'	1700736
SURVEY BOOK	SHEETS
	4 of 40
CONTRACT	PROJECT
R-40294	1700736

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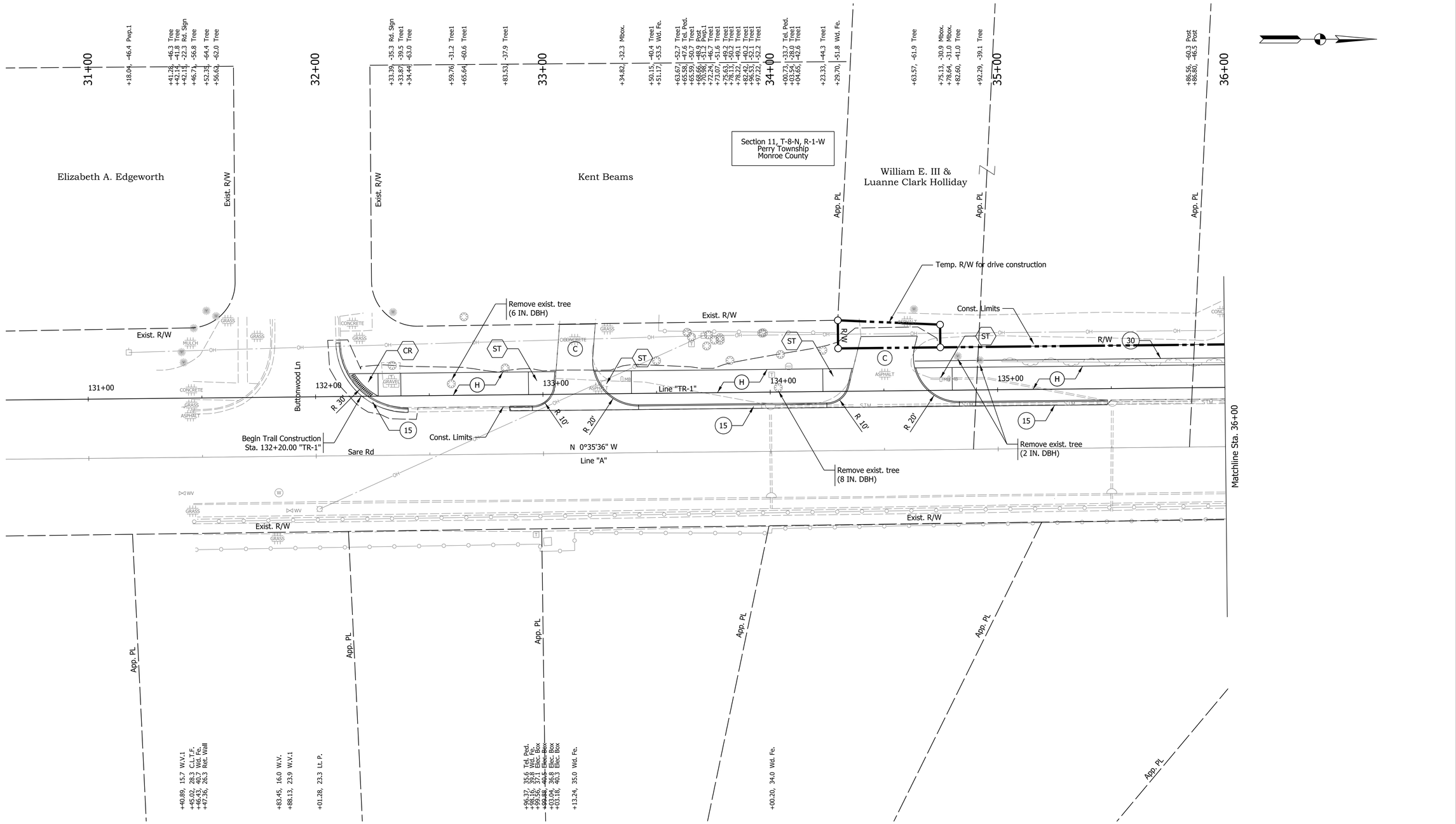

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
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VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
R 40294	1700736

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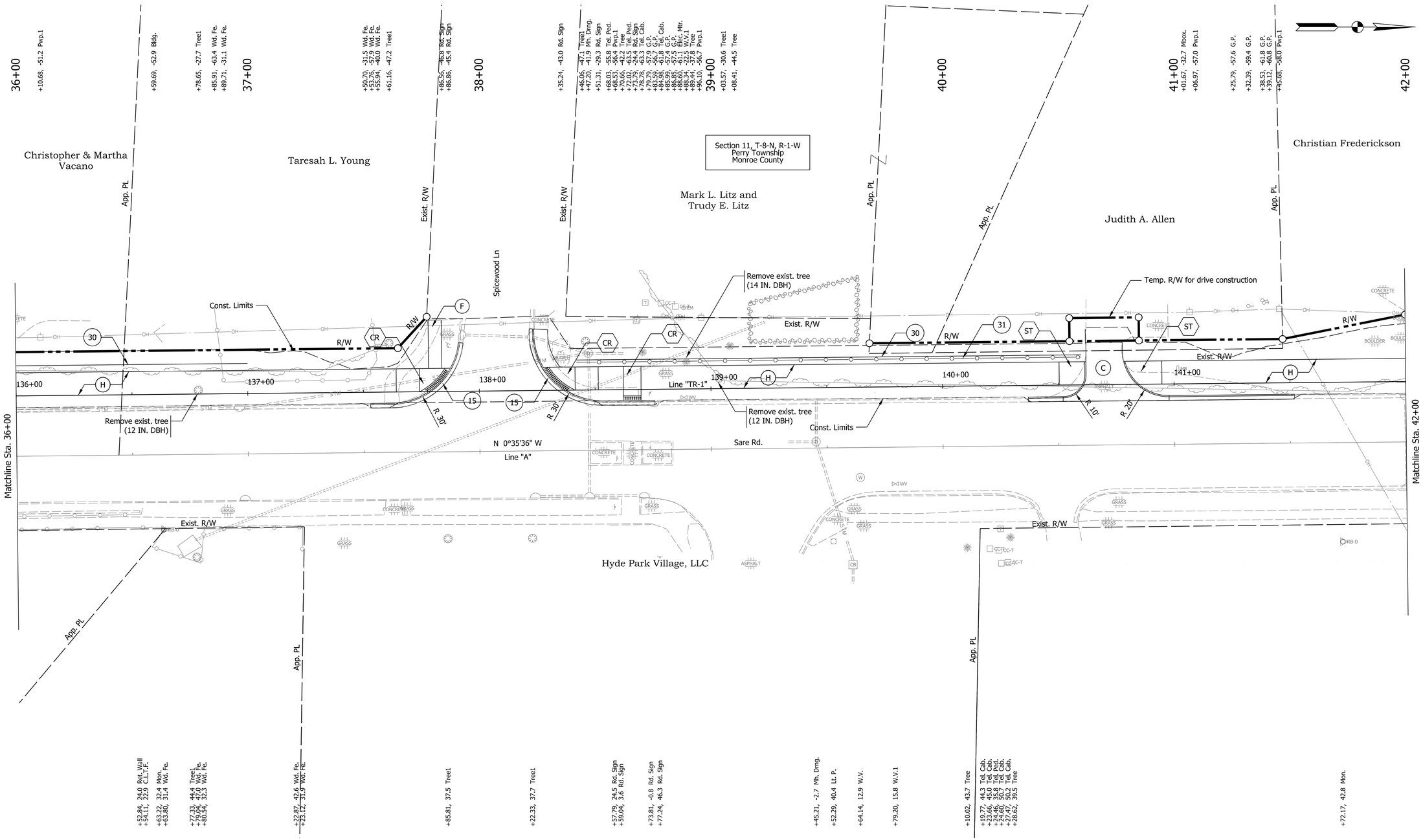

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(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB DRAWN: JLB

CHECKED: MV CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
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HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
R 40294	1700736

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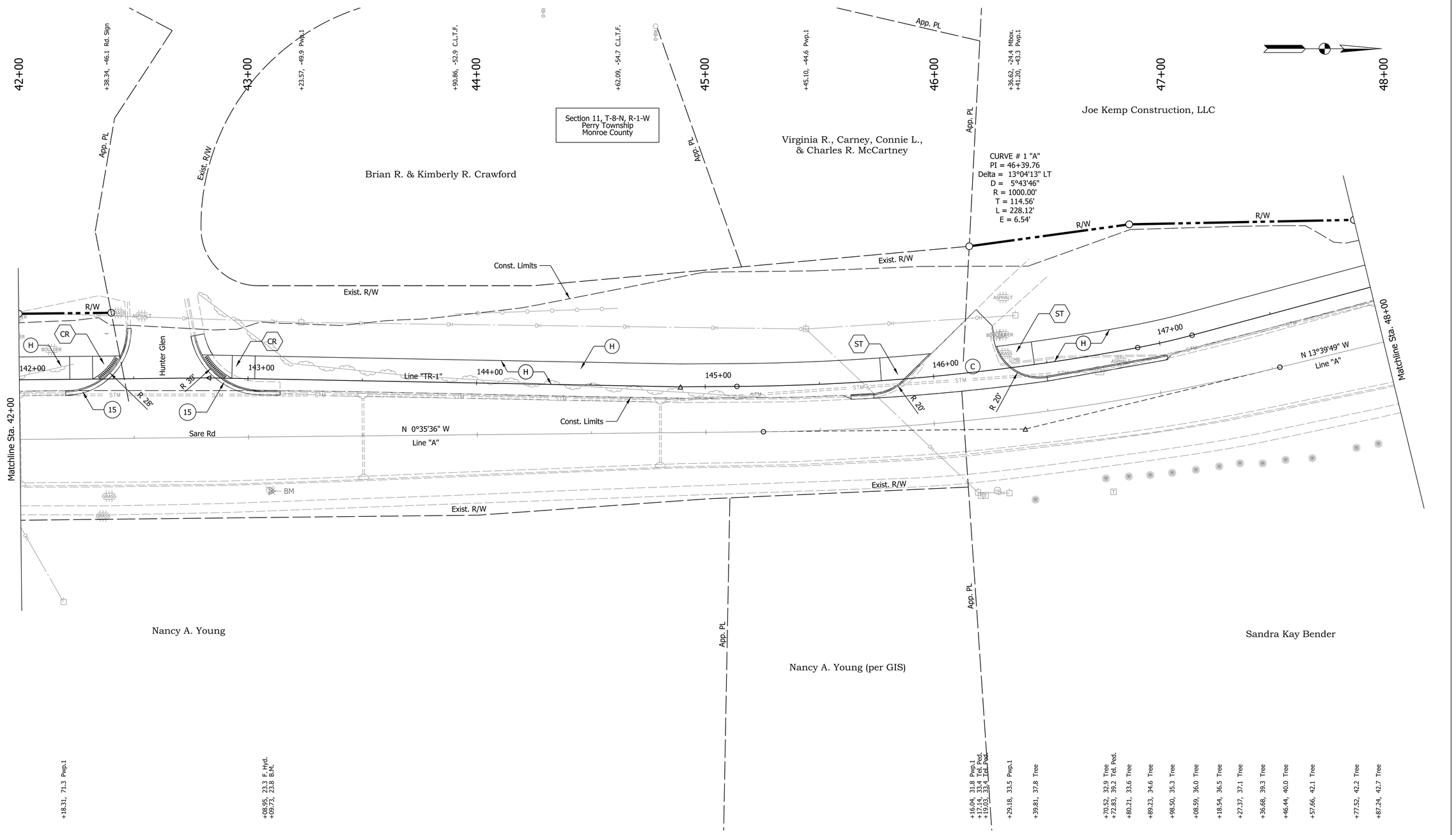

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB DRAWN: JLB

CHECKED: MV CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
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VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
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CONTRACT	PROJECT
R 40294	1700736

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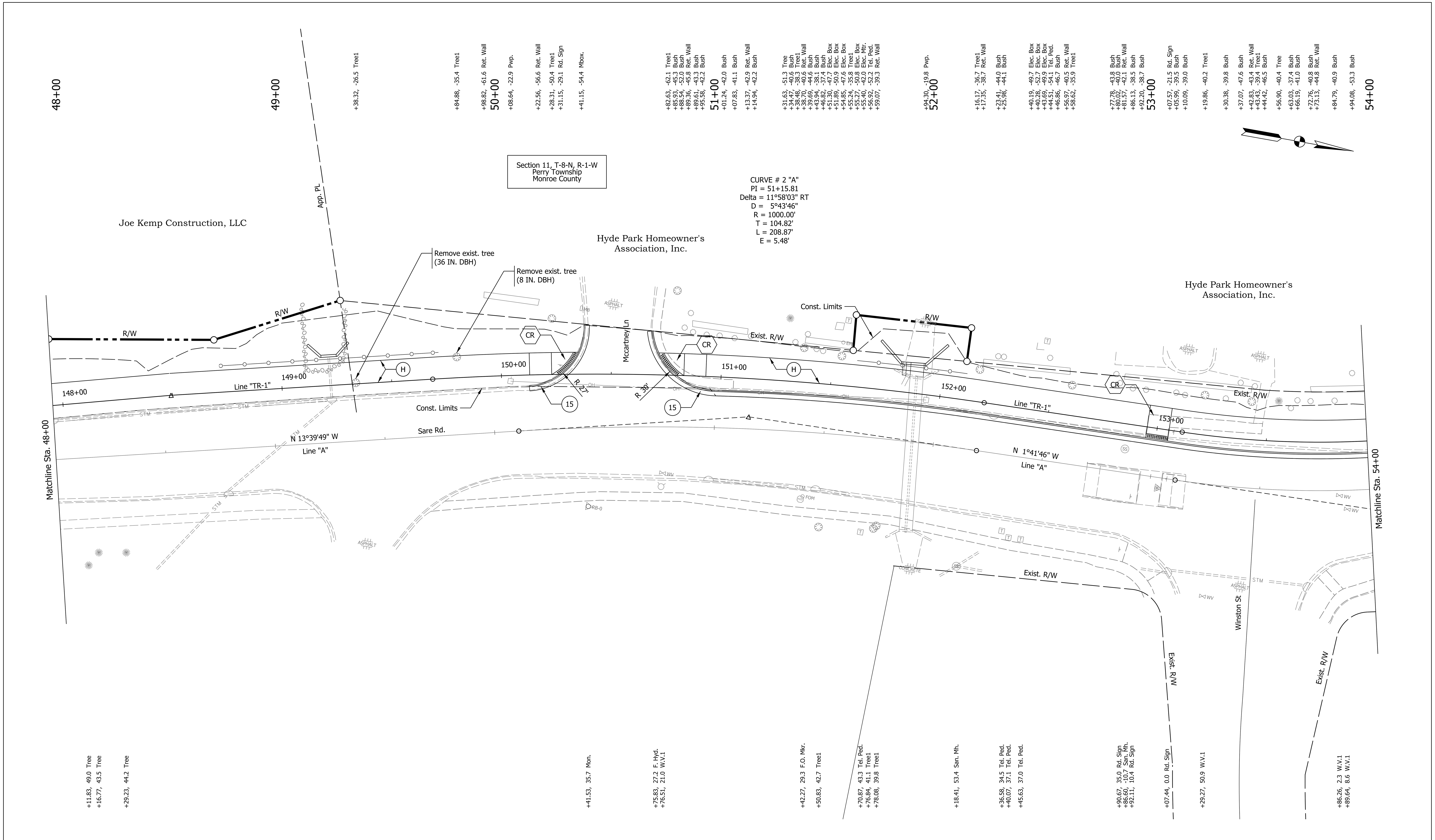

H	HMA For Sidewalk	13	Curb, Concrete	30	Modular Block Wall	CR	Curb Ramp, Concrete
C	PCCP For Approaches, 6 IN	15	Curb and Gutter, Concrete, Modified	31	Hand Rail, Pedestrian	ST	Sidewalk Transition, Concrete
F	Sidewalk, Concrete	22	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JLB DRAWN: JLB
CHECKED: MV CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 48+00.00 TO STA. 54+00.00

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1"=20'	
VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	SHEETS
	12 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:01 AM
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54+00

+04.90, -40.6 Bush
+12.74, -50.7 Bush
+14.41, -40.3 Tree1
+16.90, -43.5 Ret. Wall
+39.53, -47.7 Tree
+40.45, -37.5 Bush
+45.15, -36.5 Bush
+47.47, -43.0 Bush
+51.02, -46.0 Ret. Wall
+51.59, -43.2 Bush
+51.88, -36.5 Bush
+57.68, -53.9 Tree1
+58.06, -43.1 Bush
+59.46, -41.9 W.V.I.
+64.80, -42.9 Bush
+69.30, -53.7 Bush
+69.56, -41.8 Bush
+81.38, -42.5 Bush

55+00

+87.22, -41.6 Bush
+91.59, -52.2 Bush
+97.31, -51.9 Bush
+04.76, -41.1 Bush
+08.50, -40.4 Bush
+15.08, -44.5 Ret. Wall
+17.55, -46.2 Bush
+19.38, -38.7 Bush
+58.01, -46.2 Ret. Wall
+62.78, -42.7 Tree1
+70.23, -43.0 Bush
+73.71, -43.7 Bush
+76.07, -41.0 Bush
+85.82, -44.1 Bush
+87.15, -50.1 Bush
+90.52, -43.4 Bush
+91.23, -50.4 Tel. Ped.
+93.84, -48.4 Bush

56+00

+96.62, -42.3 Bush
+01.36, -43.7 Ret. Wall
+01.40, -48.6 Bush
+04.70, -46.6 Bush
+05.21, -42.6 Bush
+12.75, -43.8 Bush
+14.04, -50.4 Bush
+19.05, -50.9 Bush
+21.32, -40.9 B.M.
+24.40, -43.4 Lt. P.
+25.92, -48.5 Ret. Wall
+29.20, -46.4 Bush
+65.41, -34.4 Bush
+66.28, -29.8 Bush
+66.35, -42.0 Bush
+66.52, -37.3 Bush
+66.94, -43.6 Rd. Sign
+66.99, -45.4 Bush
+67.63, -32.6 Bush
+02.12, -44.6 Bush
+02.56, -49.7 Bush
+04.86, -39.8 Bush

57+00

+06.48, -42.0 Tel. Ped.
+09.23, -42.6 Bush
+23.37, -51.1 Bush
+27.83, -51.5 Bush
+34.75, -54.6 Tree1
+51.59, -49.0 Bush
+53.30, -41.3 Bush
+55.30, -61.9 Bldg.
+63.74, -42.4 Bush
+75.61, -43.8 Bush
+82.25, -64.3 G.Mtr.
+93.69, -38.8 Tree1
+06.31, -28.8 Tree1

58+00

+09.43, -37.6 Tel. Ped.
+11.33, -68.0 Bldg
+16.22, -35.1 Tel. Ped.
+35.34, -27.6 Tree1

59+00

+64.42, -28.4 Tree1
+75.47, -37.7 Tel. Ped.

Hyde Park Homeowner's Association, Inc.

CURVE # 3 "A"
PI = 55+49.48
Delta = 56°00'04" LT
D = 12°47'21"
R = 448.00'
T = 238.21'
L = 437.88'
E = 59.39'

Section 11, T-8-N, R-1-W
Perry Township
Monroe County

Hyde Park Homeowner's Association, Inc.

Remove exist. tree (24 IN. DBH)
Remove exist. tree (20 IN. DBH)
Remove exist. tree (20 IN. DBH)
Exist. R/W
App. PL
Matchline Sta. 54+00
154+00
Const. Limits
155+00
Exist. R/W
156+00
R 25
Const. Limits
Sare Rd.
Mccartney Ln
R 23
157+00
158+00
Line "TR-1"
N 57°41'50" W
Line "A"
Matchline Sta. 59+00
App. PL
Exist. R/W
App. PL

Patricia Murphy Pizzo
Revocable Living Trust

+13.63, 38.1 W.V.1
+13.69, 36.2 F. Hyd.
+17.18, 33.2 Tree1
+44.15, 27.2 Rd. Sign
+97.37, 25.7 Tree1
+39.75, 25.7 Tree1
+03.96, 32.7 Rd. N.
+40.35, 41.5 Tel. Ped.
+43.15, 41.6 Tel. Ped.
+47.92, 30.6 Tel. Ped.
+54.50, 30.2 Tel. Ped.
+69.64, 27.0 Tree1
+79.51, 59.7 C.L.T.F.
+90.63, 30.3 C.L.T.F.

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 54+00.00 TO STA. 59+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	14 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:01 AM

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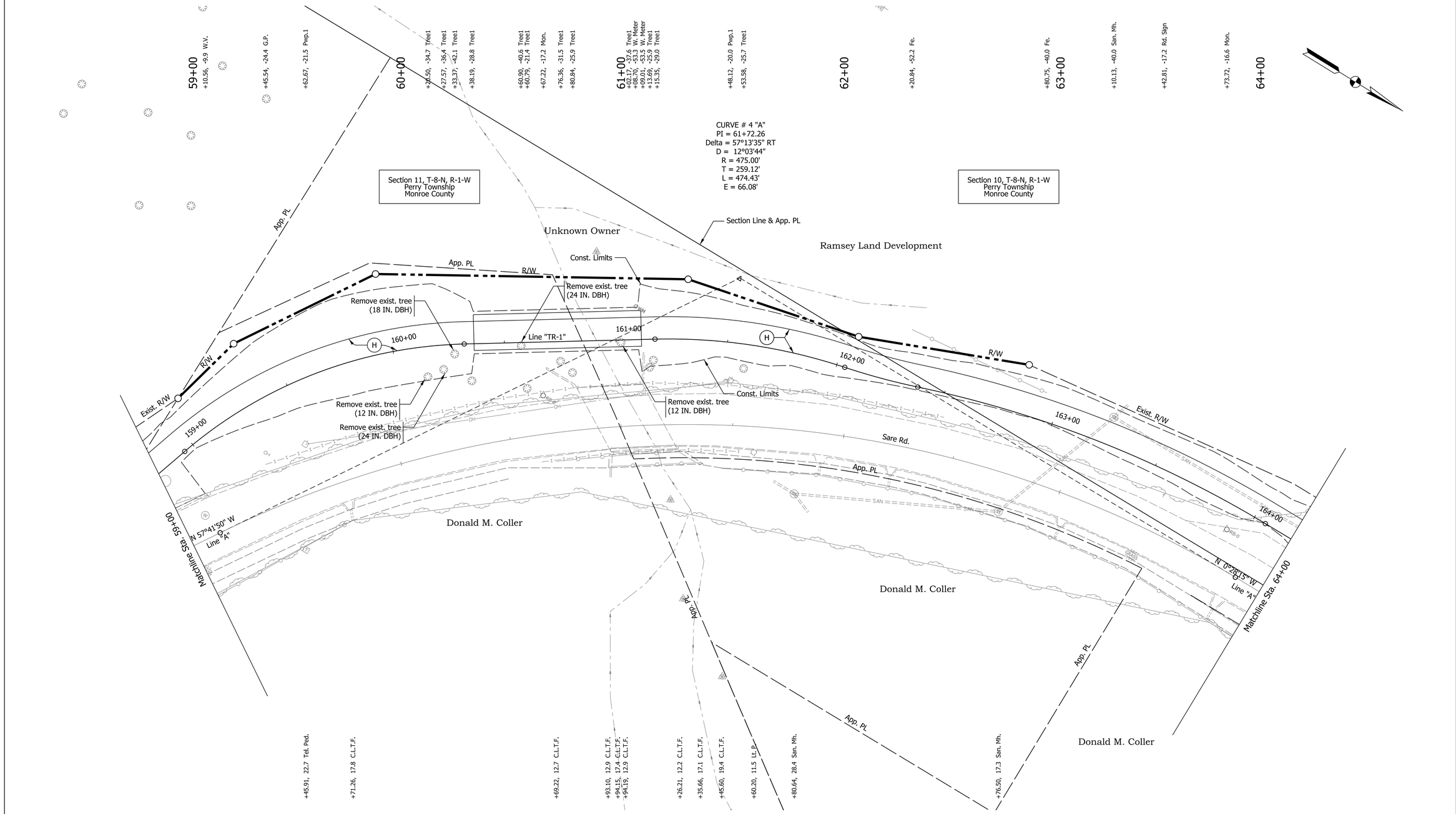


(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 59+00.00 TO STA. 64+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	16 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

T:\188456\Roadway\Sheet Files\Sht Plan 20_06.dgn

64+00

+43.91, -22.1 C.L.T.F.

+89.10, -20.5 C.L.T.F.

65+00

+53.32, -17.1 Tel. Ped.

+93.03, -34.7 San. Mh.
+95.55, -46.8 Bush
+96.62, -63.5 Ret. Wall1

66+00

+02.56, -44.4 Bush

+11.81, -46.0 Bush

+19.81, -45.0 Bush
+21.59, -48.5 Mh.

+39.73, -44.5 Mh. Drng.

+48.82, -16.8 F.O. Mkr.

+63.42, -44.9 Tree

+74.77, -49.1 Tree

+80.40, -37.7 Bush

+88.32, -37.4 Bush
+93.78, -38.1 Bush
+97.33, -32.0 Bush

67+00

+04.86, -33.9 Bush

+25.92, -39.0 Bush

+33.51, -41.8 Bush
+37.88, -47.1 Mh. Drng.

+49.23, -49.0 Bush

+61.47, -45.8 Bush
+61.57, -45.9 Bush

+77.90, -50.1 Ret. Wall1
+83.75, -48.0 Tree1

+93.41, -46.1 Bush

68+00

+02.09, -42.3 Bush
+06.27, -43.9 Bush

+18.58, -21.6 San. Mh.

+24.52, -43.2 Bush
+24.69, -46.1 Bush

+38.37, -50.2 Ret. Wall1
+39.12, -33.1 Mh. Drng.
+39.17, -59.9 Ret. Wall1

+53.44, -57.6 Bldg.
+56.56, -46.7 Bush
+56.90, -51.5 Bush
+58.88, -56.3 Elec. Mtr.

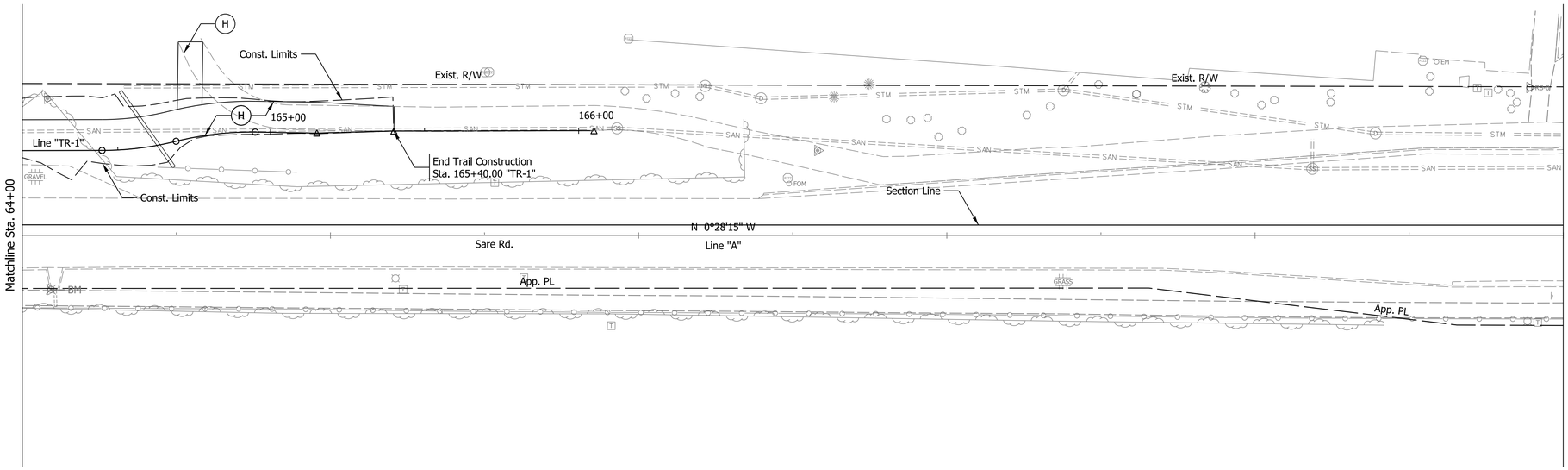
+66.17, -48.4 Elec. Box
+66.47, -47.4 Elec. Box
+69.31, -47.9 Elec. Box
+69.48, -51.7 Elec. Box
+72.20, -43.2 Tel. Ped.
+74.61, -53.5 Bldg.
+75.65, -46.2 Tel. Ped.
+78.83, -47.4 Bush

+82.81, -46.1 Bush
+83.37, -43.2 Bush
+84.97, -41.0 Bush
+88.88, -52.6 Bldg.

69+00

+89.13, -48.0 Mon.

Section 10, T-8-N, R-1-W
Perry Township
Monroe County



Donald M. Coller

Section 11, T-8-N, R-1-W
Perry Township
Monroe County

+09.29, 17.5 B.M.

+21.11, 13.9 Lt. P.
+23.57, 17.5 Tel. Ped.

+62.77, 13.7 Tel. Ped.

+91.12, 29.3 Tel. Ped.

+88.40, 27.8 Lt. P.
+91.71, 28.2 Tel. Ped.
+96.08, 19.6 Rd. Sign

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 64+00.00 TO STA. 69+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	18 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

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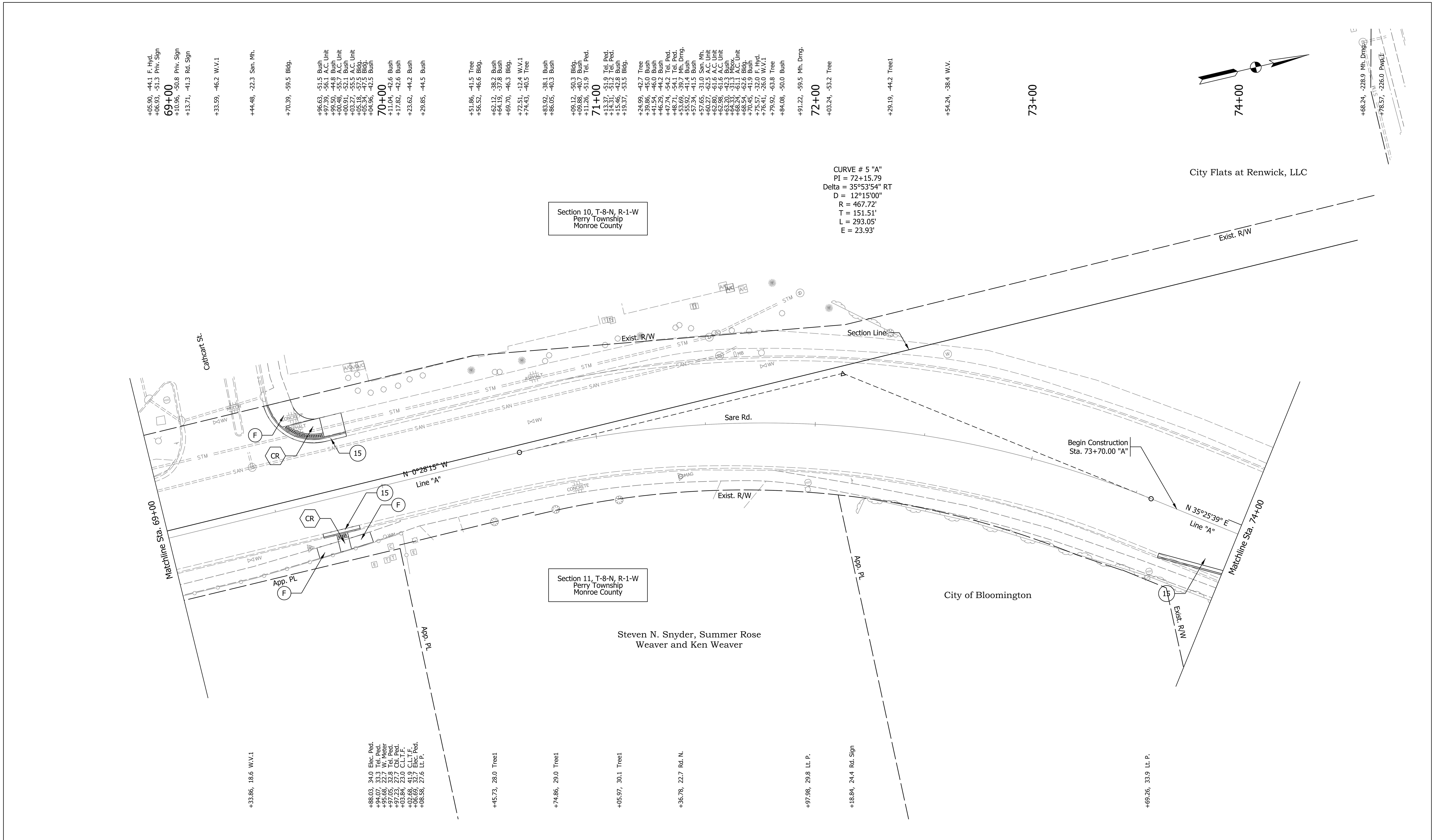

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER ____ DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 69+00.00 TO STA. 74+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	20 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

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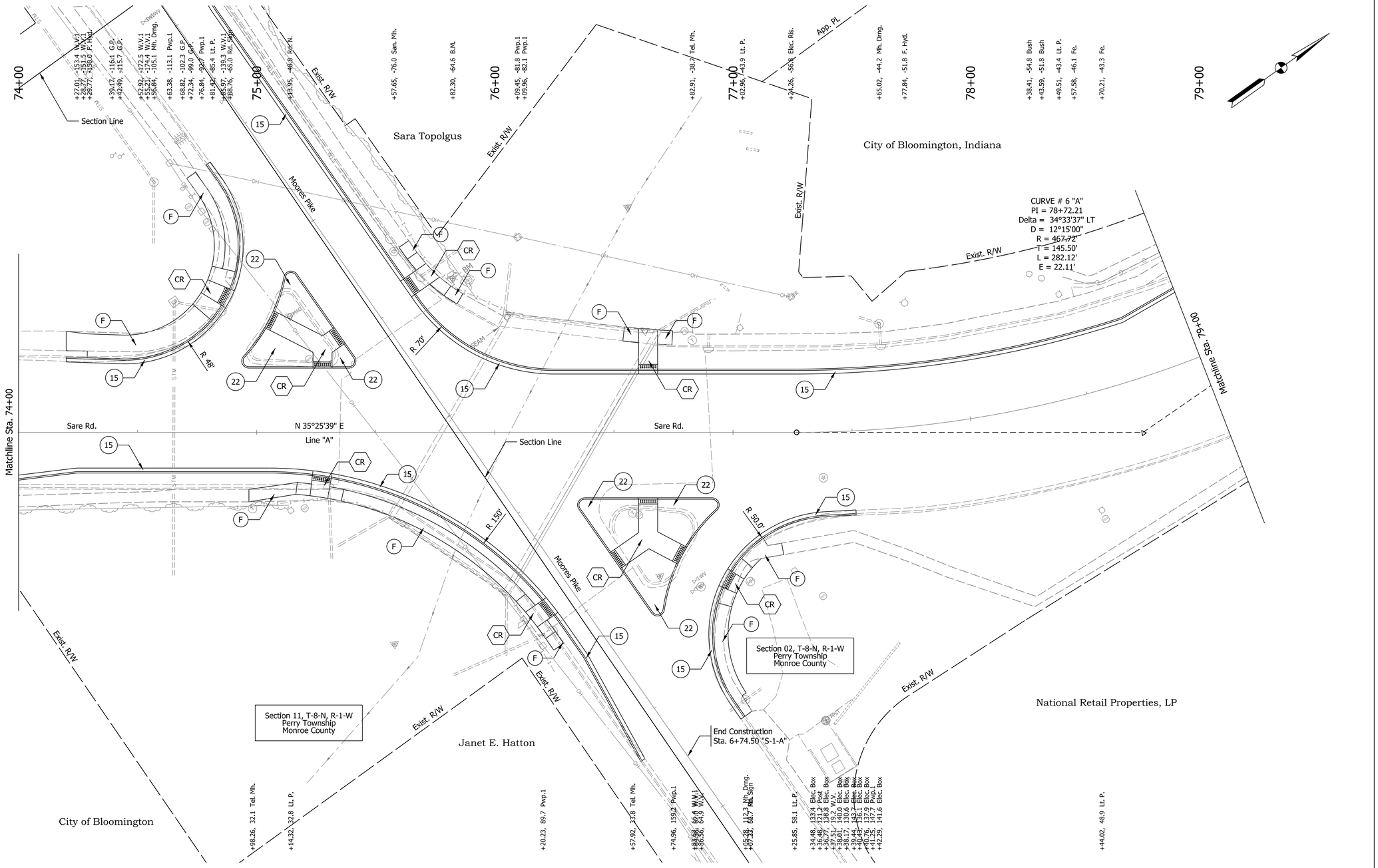

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete		

(CR)	Curb Ramp, Concrete
(ST)	Sidewalk Transition, Concrete

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB DRAWN: JLB

CHECKED: MV CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 74+00.00 TO STA. 79+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	21 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

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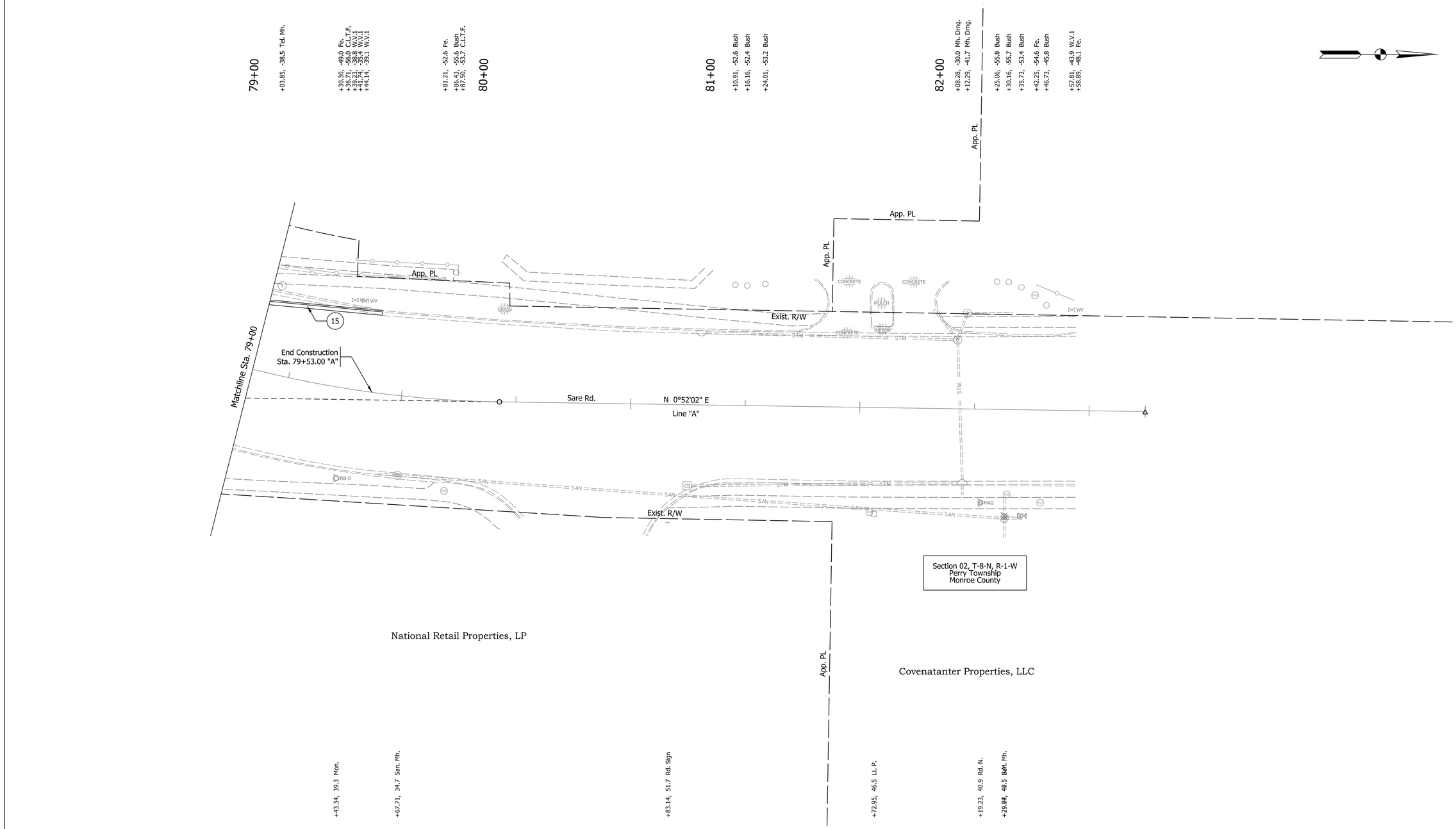

(H)	HMA For Sidewalk	(13)	Curb, Concrete	(30)	Modular Block Wall	(CR)	Curb Ramp, Concrete
(C)	PCCP For Approaches, 6 IN	(15)	Curb and Gutter, Concrete, Modified	(31)	Hand Rail, Pedestrian	(ST)	Sidewalk Transition, Concrete
(F)	Sidewalk, Concrete	(22)	Center Curb D, Concrete				

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "A"
STA. 79+00.00 TO STA. 82+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	22 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

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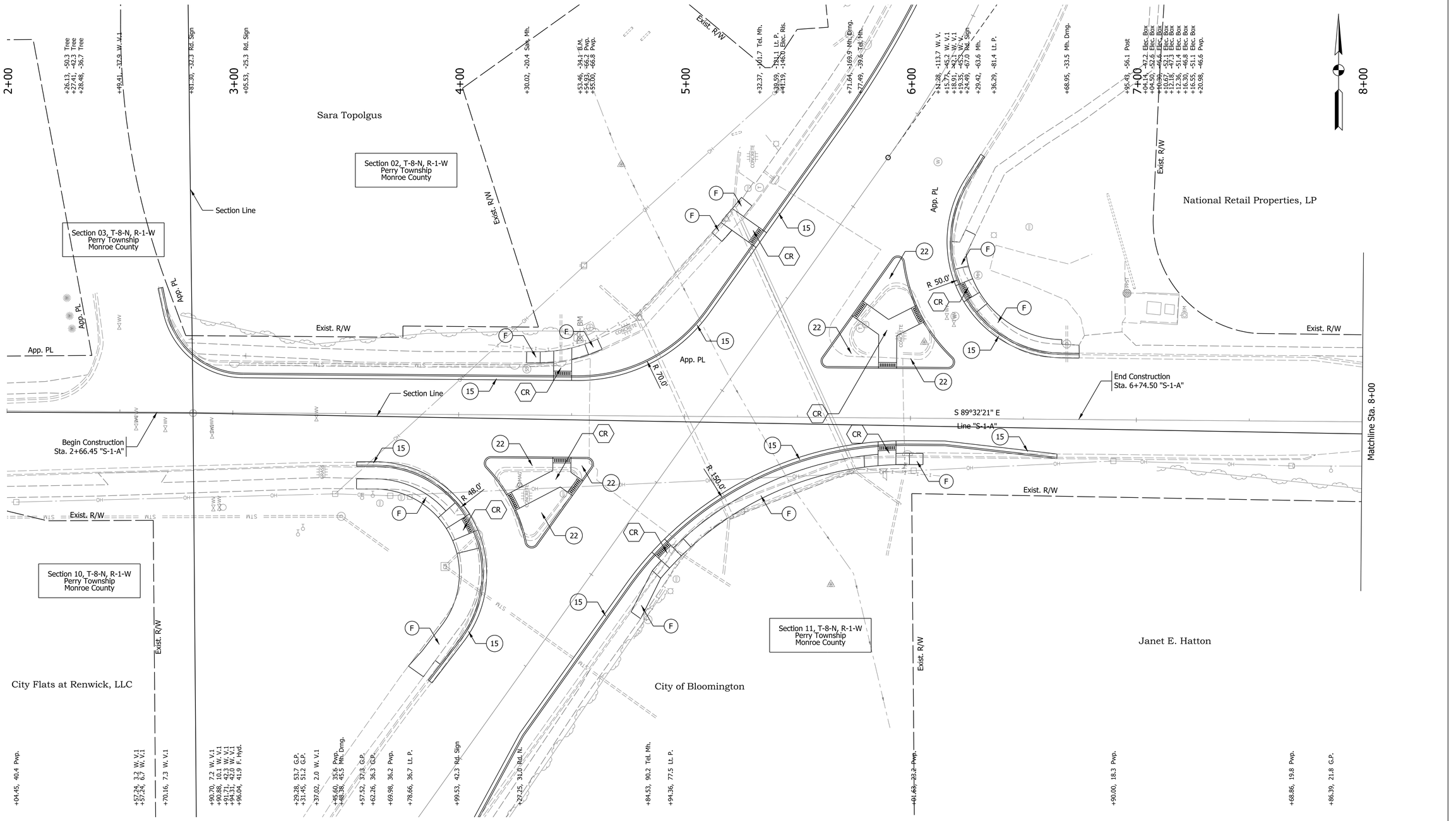

H	HMA For Sidewalk	13	Curb, Concrete	30	Modular Block Wall
C	PCCP For Approaches, 6 IN	15	Curb and Gutter, Concrete, Modified	31	Hand Rail, Pedestrian
F	Sidewalk, Concrete	22	Center Curb D, Concrete		

CR	Curb Ramp, Concrete		
ST	Sidewalk Transition, Concrete		

NOT FOR CONSTRUCTION

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JLB | DRAWN: JLB

CHECKED: MV | CHECKED: MV

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
LINE "S-1-A"
STA. 2+00.00 TO STA. 8+00.00

HORIZONTAL SCALE	BRIDGE FILE
1"=20'	
VERTICAL SCALE	DESIGNATION
N/A	1700736
SURVEY BOOK	SHEETS
	23 of 40
CONTRACT	PROJECT
R 40294	1700736

Plot: 1/29/2019 9:02 AM

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Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana

250 0 250 Feet

Sources:
Non

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

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

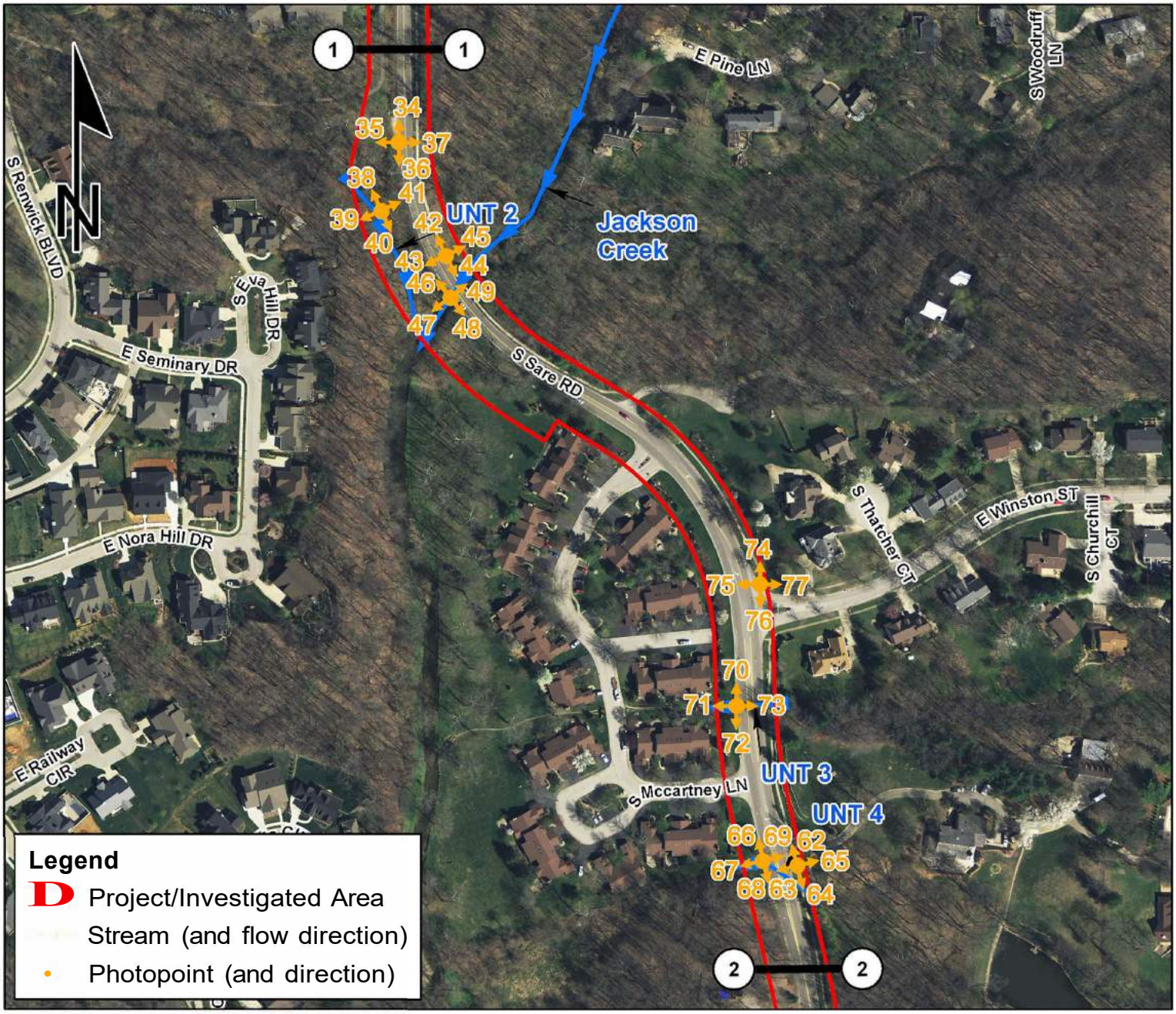
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Date: 9/5/2018

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

SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736
MONROE COUNTY, INDIANA

Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana



250 0 250 Feet

Sources:
Non

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

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

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

Date: 9/5/2018

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

SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736
MONROE COUNTY, INDIANA

Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana

250 0 250 Feet

Sources:
Non

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

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

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

Date: 9/5/2018

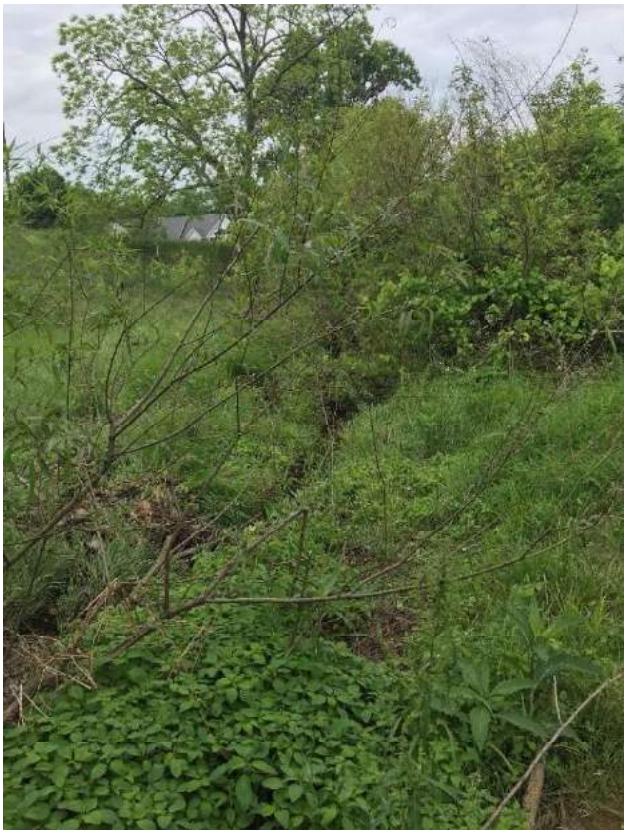
This map is intended to serve as an aid in graphic representation only. This information is not warranted for accuracy or other purposes.

SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736
MONROE COUNTY, INDIANA

Photopoint 1: Soil sample taken from the soil pit (DEL1) adjacent to UNT1. Soil was found to be non-hydric. Photo taken 5/21/2018.

Photopoint 2: Soil Pit (DEL1) taken adjacent to UNT1 to 18 inches. Vegetation is common blue violet (*Viola sororia*) and bermuda grass (*Cynodon dactylon*). Photo taken 5/21/2018.

Photopoint 3: Taken north of UNT1 facing north. Upland vegetation. Photo taken 5/21/2018.

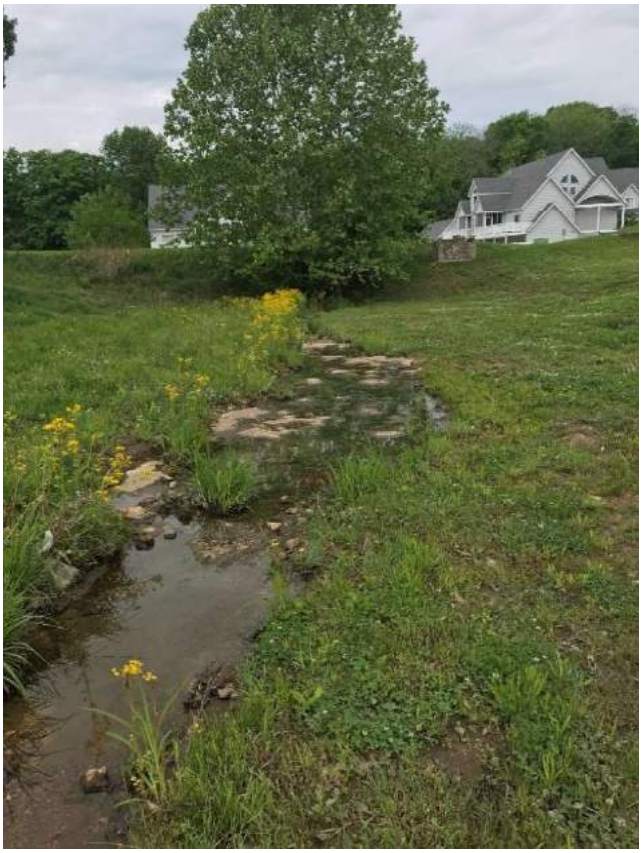


Photopoint 4: Taken north of UNT1 facing west (downstream) towards S College Mall Rd. Photo taken 5/21/2018.

Photopoint 5: Taken north of UNT1 facing south across UNT1. Upland vegetation. Photo taken 5/21/2018.

Photopoint 6: Taken north of UNT1 facing east, upstream towards culvert (red arrow). UNT1 flows under the Virginia Creeper (*Parthenocissus quinquefolia*). Photo taken 5/21/2018.

Photopoint 7: Taken north of UNT1 facing north. No apparent channel from culvert (red arrow). Photo taken 5/21/2018.



Photopoint 8: Taken north of UNT1 facing west (downstream) towards S College Mall Rd. Photo taken 5/21/2018.

Photopoint 9: Taken north of UNT1 facing south across UNT1. Flow coming from culvert does not reach UNT1 as a defined channel. Photo taken 5/21/2018.

Photopoint 10: Taken north of UNT1 facing east, upstream towards culvert. Photo taken 5/21/2018.

Photopoint 11: Taken facing north, north of E Moores Pike. Photo taken 5/21/2018.

Photopoint 12: Taken facing west, north of E Moores Pike towards S College Mall Rd. Photo taken 5/21/2018.

Photopoint 13: Taken facing south, north of E Moores Pike towards E Moores Pike. Photo taken 5/21/2018.

Photopoint 14: Taken facing east, north of E Moores Pike. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 15: Taken facing north, south of E Moores Pike, upstream in Jackson Creek. Photo taken 5/21/2018.

Photopoint 16: Taken facing west, south of E Moores Pike. Upland vegetation. Photo taken 5/21/2018.

Photopoint 17: Taken facing south, south of E Moores Pike, downstream in Jackson Creek. Photo taken 5/21/2018.

Photopoint 18: Taken facing east, south of E Moores Pike. Upland Deciduous Forest. Photo taken 5/21/2018.

Photopoint 19: Taken facing north, north of E Moores Pike. Facing upstream in Jackson Creek (red arrow). Photo taken 5/21/2018.

Photopoint 20: Taken facing west, north of E Moores Across Jackson Creek. Photo taken 5/21/2018.

Photopoint 21: Taken facing south, north of E Moores, downstream in Jackson Creek. Photo taken 5/21/2018.

Photopoint 22: Taken facing east, north of E Moores. Steep incline up to road. Photo taken 5/21/2018.

Photopoint 23: Taken facing north, north of E Moores Pike. Facing upstream in Jackson Creek. Photo taken 5/21/2018.

Photopoint 24: Taken facing south, north of E Moores Pike towards E Moores Pike overpass.

Photo 25: Taken facing east, north of E Moores. Photo taken 5/21/2018.

Photopoint 26: Taken facing NE, south of Moores Pike. Small drainage present that dissappears as it goes down stream. Photo taken 5/21/2018.

Photopoint 27: Taken facing NW, south of Moores Pike. Photo taken 5/21/2018.

Photopoint 28: Taken facing SE, south of Moores Pike. No roadside ditch present. Photo taken 5/21/2018.

Photopoint 29: Taken facing SW, south of Moores Pike, towards Sare Rd. Photo taken 5/21/2018.

Photopoint 30: Taken facing north, south of Moores Pike, on Sare Rd. Steep dropoff to the west. No roadside ditch present. Photo taken 5/21/2018.

Photopoint 31: Taken facing west, south of Moores Pike, on Sare Rd. Photo taken 5/21/2018.

Photopoint 32: Taken facing south, south of Moores Pike, on Sare Rd. Steep dropoff to Jackson Creek. Photo taken 5/21/2018.

Photopoint 33: Taken facing east, south of Moores Pike, on Sare Rd. Photo taken 5/21/2018.

Photopoint 34: Taken facing north of Sare Rd.
Photo taken 5/21/2018.

Photopoint 35: Facing west from Sare Rd. Upland.
Photo taken 5/21/2018.

Photopoint 36: Taken facing south from Sare Rd.
Photo taken 5/21/2018.

Photopoint 37: Facing east from Sare Rd, looking towards downstream UNT2 (red arrow). Photo taken 5/21/2018.

Photopoint 38: Taken facing northwest, west of Sare Rd, upstream in UNT2. Photo taken 5/21/2018.

Photopoint 39: Taken facing west, west of sare Rd. Upland deciduous forest. Photo taken 5/21/2018.

Photopoint 40: Taken facing southeast, west of Sare Rd, downstream in UNT2. Photo taken 5/21/2018.

Photopoint 41: Taken facing east, west of Sare Rd. Photo taken 5/21/2018.

Photopoint 42: Taken facing north on Sare Rd, near Jackson Creek. Photo taken 5/21/2018.

Photopoint 43: Taken facing west on Sare Rd, near Jackson Creek. Photo taken 5/21/2018.

Photopoint 44: Taken facing south on Sare Rd, near Jackson Creek. Photo taken 5/21/2018.

Photopoint 45: Taken facing east on Sare Rd, overlooking Jackson Creek. Photo taken 5/21/2018.

Photopoint 46: Taken facing north on Sare Rd, over Jackson Creek. Photo taken 5/21/2018.

Photopoint 47: Taken facing west on Sare Rd, overlooking Jackson Creek. Photo taken 5/21/2018.

Photopoint 48: Taken facing south on Sare Rd, over Jackson Creek. Photo taken 5/21/2018.

Photopoint 49: Taken facing east on Sare Rd, over Jackson Creek (red arrow). Photo taken 5/21/2018.

Photopoint 50: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 51: Taken facing west on Sare Rd down Buttonwood Ln. No roadside ditch. Photo taken 5/21/2018.

Photopoint 52: Taken facing south on Sare Rd. No roadside ditch present. Photo taken 5/21/2018.

Photopoint 53: Taken facing east on Sare Rd. Photo taken 5/21/2018.

Photopoint 54: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 55: Taken facing west on Sare Rd. Photo taken 5/21/2018.

Photopoint 56: Photo taken south on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 57: Photo taken East on Sare Rd. Photo taken 5/21/2018.

Photopoint 58: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 59: Taken facing west on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 60: Taken facing south on Sare Rd looking past Spicewood Lane. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 61: Taken facing east on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 62: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 63: Taken facing west on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 64: Taken facing south on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 65: Takenn facing east on Sare Rd, towards UNT4 (upstream).

Photopoint 66: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 67: Taken facing west on Sare Rd towards UNT4 (downstream). Photo taken 5/21/2018.

Photopoint 68: Taken facing south on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 69: Taken facing east on Sare Rd. Red arrow points to UNT4 culvert. Photo taken 5/21/2018.

Photopoint 70: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 8/30/2018.

Photopoint 71: Taken facing west from Sare Rd, downstream in UNT3. Photo taken 8/30/2018.

Photopoint 72: Taken facing south on Sare Rd. No roadside ditches present. Photo taken 8/30/2018.

Photopoint 73: Taken facing east from Sare Rd, upstream in UNT3. Photo taken 8/30/2018.

Photopoint 74: Taken facing north on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 75: Taken facing west on Sare Rd. Photo taken 5/21/2018.

Photopoint 76: Taken facing south on Sare Rd. Photo taken 5/21/2018.

Photopoint 77: Taken facing east on Sare Rd. Photo taken 5/21/2018.

Photopoint 78: Taken facing north on Sare Rd. Photo taken 5/21/2018.

Photopoint 79: Taken facing west on Sare Rd towards apartment complex. Photo taken 5/21/2018.

Photopoint 80: Taken facing south on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

Photopoint 81: Taken facing east on Sare Rd. No roadside ditches present. Photo taken 5/21/2018.

APPENDIX C

EARLY COORDINATION

NS Services
Environmental & Infrastructure
www.nsenvservices.com

4974 S Cobblestone Dr
Zionsville, IN 46077

Ph: (317) 753-4758
Fax: (317) 769-4718

June 1, 2018

Environmental Coordinator
environmentalreview@dnr.in.gov
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington St., Room W273
Indianapolis, Indiana 46204

Re: Des. No.: 1700736, Sare Road Multiuse Path and Intersection Improvement Project
Bloomington, Monroe County, Indiana

To Whom It May Concern:

The Indiana Department of Transportation (INDOT) and Federal Highway Administration (FHWA) intends to proceed with a project involving the aforementioned improvements in Monroe County. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply.** We will incorporate your comments into a study of the project's environmental impacts.

The project includes a new 10-foot wide multi-use path to be constructed along the west side of Sare Road from Buttonwood Lane to Moores Pike along with a new pedestrian bridge to be constructed across Jackson Creek. The project will also include intersection improvements at the Sare Road and Moores Pike intersection consisting of new signal equipment and improved curb ramps at the intersection.

Since this is a trail project most of the construction will occur without impacting traffic. For the portion of trail that is to be constructed along Sare Road, short term lane closures are expected to allow for construction. During these lane closures at least one lane of traffic will be maintained on Sare Road and traffic will be controlled by flagging operations. At the intersection of Moores Pike and Sare Road it is anticipated that intermittent lane closures will be necessary for curb/sidewalk improvements, however traffic will be maintained on the existing roadways during construction.

Land use near the project is primarily urban and includes residences, a park, businesses, and retail centers. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects" dated October 25, 2017.

NS Services will investigate the areas of additional right-of-way for archaeological and historic resources for Section 106 compliance. The results of this investigation will be forwarded to the State Historic Preservation Officer for review and concurrence.

Should we not receive your response **within thirty (30) calendar days** from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project. However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please feel free to contact Nadeem Siddiki at (317) 753-4758 or n.siddiki@nsenvservices.com. Thank you in advance for your input.

Sincerely,

NS Services, Inc.

Nadeem Siddiki, PE

President

ATTACHMENTS: Location Topographic Map, Aerial Map

Cc: Environmental Manager, INDOT – Seymour District Office - bwilliamson@indot.IN.gov
Indiana Geological Survey – IGSenvir@indiana.edu
Field Supervisor, US Fish & Wildlife Service, Bloomington, IN - robin_mcwilliams@fws.gov
US Department of Housing & Urban Development, Chicago, IL - Michael.e.wurl@hud.gov
Regional Environmental Coordinator, Midwest Regional Office, National Park Service, Omaha, NE
State Conservationist, Natural Resource Conservation Service, Indianapolis, IN
rick.neilson@in.usda.gov
Manager, Public Hearings, INDOT, Indianapolis, IN - RCLARK@indot.IN.gov
Indiana Department of Environmental Management – Groundwater - jsulliva@idem.IN.gov
Indiana Department of Environmental Management
Indiana Department of Transportation, Office of Aviation – afrench2@indot.in.gov
US Forest Service, Hoosier National Forest – kamick@fs.fed.us
City of Bloomington MS4 Coordinator – pedenp@bloomington.in.gov
City of Bloomington Mayor - mayor@bloomington.in.gov
Bloomington City Council - council@bloomington.in.gov
Bloomington Parks and Recreation Department - williamd@bloomington.in.gov
Monroe County Highway Engineer - bayers@co.monroe.in.us
Monroe County Commissioners - commissionersoffice@co.monroe.in.us
Monroe County Council - mflory@co.monroe.in.us
Monroe County Surveyor – tenright@co.monroe.in.us
Indiana Gas & Electric

Early Coordination Response Summary
Des. No. 1700736
Sare Road Multiuse Path and Intersection Improvement Project
Bloomington, Monroe County, Indiana

1. Indiana Department of Natural Resources, Division of Fish & Wildlife - Responded on June 28, 2018
2. Indiana Department of Environmental Management, Groundwater Section - Responded on June 6, 2018
3. Indiana Department of Environmental Management, Roadway – Responded on February 13, 2019
4. Indiana Department of Transportation, Aviation Section- Responded on June 11, 2018
5. Indiana Geological Survey, Environmental Geology Section – Responded on February 13, 2019
6. Bloomington Floodplain Administrator – Responded on February 22, 2019
7. U.S. Fish and Wildlife Service – Responded on February 14, 2019
8. National Park Service, Regional Environmental Coordinator- No response
9. US Army Corps of Engineers – No response
10. U.S. Department of Housing and Urban Development – No response
11. US Forest Service, Hoosier National Forest - No response
12. City of Bloomington MS4 Coordinator - No response
13. City of Bloomington Mayor – No response
14. Bloomington Parks and Recreation Department – No response
15. Monroe County Highway Engineer – No response
16. Monroe County Commissioners – No response
17. Monroe County Council – No response
18. Monroe County Surveyor – No response
19. Indiana Gas & Electric No response

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

DNR #: ER-20608 **Request Received:** June 1, 2018

Requestor: NS Services Environmental and Infrastructure
Nadeem Siddiki
4974 South Cobblestone Drive
Zionsville, IN 46077

Project: Construction of a multi-use path along Sare Road from Buttonwood Lane to Moores Pike, with a new pedestrian bridge over Jackson Creek, Bloomington; Des #1700736

County/Site info: Monroe

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

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

Regulatory Assessment: This proposal will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1. Please submit a copy of this letter with the permit application.

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

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

A) Stream Crossings:
For purposes of maintaining fish and wildlife passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the bankful width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

Any riprap placed at the culvert's outlet should match the outlet/invert elevation at the upstream edge of the riprap apron. Smaller stone and fines should be mixed in to match the existing stream substrate particle distribution and provide impermeability of the riprap apron/substrate so the flow does not percolate through the voids below the riprap apron's surface. The slope of the riprap should be no steeper than 20:1 from the lip of the culvert pipe to the streambed. Riprap on the inlet side should have a slope no steeper than 5:1. Natural streambed material should be backfilled within the structure where possible as it can provide refuge for species using the culvert. Natural bed

materials such as large cobble and boulders should be placed within the structure (anchored if necessary) to provide flow diversity and roughness/energy dissipation.

Sump depth for a pipe or box culvert should be increased/adjusted to match the structure's design life according to the background rate of bed degradation/downcutting so that the culvert does not become perched long before the culvert requires replacement. Culvert width and gradient should be appropriate for the site conditions so that flows do not scour out material from the culvert. Stream simulation design should be applied with any crossing structure. Additional information is available in Publication No. FHWA-HIF-11-008, Federal Highway Administration, Culvert Design for Aquatic Organism Passage, October 2010 (http://www.fhwa.dot.gov/engineering/hydraulics/pubs/11008/hif11008.pdf).

B) Wildlife Passage:
Any new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. A level area of natural ground under the structure is ideal for wildlife passage. 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). Limit the use of riprap on the channel banks. 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 Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

Where hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats or other similar smooth-surfaced materials as these materials will not impair wildlife movement.

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

C) Riparian & Forested Habitat:
Where shoulders and side-slopes are needed for this project, we recommend minimizing them in wooded portions of the trail (which should be designed with the steepest slope feasible). Where shoulders and side-slopes are not needed, the bike path should be constructed at grade with no shoulders. Where possible, minimize impacts to forested areas by using the narrowest width possible for the path in these areas.

We recommend a mitigation plan be developed (and submitted with the permit application) for any unavoidable habitat impacts that will occur. The mitigation site should be located preferably as close to the impact site as possible and adjacent to existing forested riparian habitat. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf.

Impacts to non-wetland forest of one (1) acre or more should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least

2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees). Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

D) Karst Features:
While the topographic maps do not suggest the presence of karst depressions based on the elevation contours, the Bloomington area is generally characterized by underlying karst geology. Therefore, we recommend implementation of the 1993 INDOT-IDNR-IDEM-USFWS Karst Memorandum of Understanding during all phases of this project (see http://www.in.gov/indot/files/38_karst.pdf).

Should any karst features be located within the construction limits or that may receive drainage from the construction, a karst assessment should be conducted by a qualified geologist and a determination made as to whether or not the karst feature/sinkhole is active. If a karst assessment is not done, any sinkhole that construction runoff may drain to should be assumed to be active unless assessed by a qualified geologist with experience in karst geology assessments. To protect active sinkholes (or those not assessed), the most protective erosion control methods should be implemented to avoid potentially impacting sensitive karst ecosystems (such as runoff containment and filtering prior to discharge).

Construction should be avoided within 25' of the topmost closed contour of any active karst features. Where construction within the closed contours of a karst feature is unavoidable, runoff should be filtered prior to discharge.

E) Trail Guidelines:
The following is a basic list of recommendations from IDNR Division of Fish and Wildlife to consider when planning trails to minimize impacts to fish, wildlife, and botanical resources.

1. Place the trail in or adjacent to existing right-of-ways where possible to minimize significant impacts to natural resource habitat. Also, utilize previously disturbed or degraded areas. Align the trail along or near existing man-made edges or areas that have the potential to be restored or enhanced by trail construction (i.e. railroad corridors), rather than routing the trail through previously undisturbed areas.
2. When designing or constructing a trail, disturb as narrow an area as possible to help minimize negative impacts. Where significant impacts to fish, wildlife or botanical resources are likely due to the trail's width, reduce the width to help avoid those impacts. ADA accessibility standards allow departures from the standards under certain conditions, including substantial harm to natural features, habitat, or vegetation (see http://www.access-board.gov/attachments/article/1500/outdoor-rule.pdf, Accessibility Guidelines for Outdoor Developed Areas).
3. Do not focus only on the direct impact of the trail's width; also consider the trail's impact to the surrounding habitat. Trails can fragment larger habitat areas and reduce the overall usefulness of the site to fish, wildlife, or botanical resources (1 large habitat block is better than 2 small habitat blocks). Trails can cause significant impacts to forested areas, riparian forested corridors along creeks and rivers, and wetland areas. They also may cause sediment and erosion issues or introduce human disturbance into fairly isolated areas containing wildlife habitat.
4. Avoid unnecessary stream crossings. Instead, make use of or modify existing stream crossings or avoid crossing the stream altogether. Where stream crossings are unavoidable, pedestrian bridges with supports/abutments placed no less than 10 feet landward from the tops of the banks on each side of the waterway are recommended. Alternatively, a three-sided culvert may be used. Three-sided culverts should be oversized to allow terrestrial wildlife movement along the creek on unsubmerged dry

land at normal water levels. Box-culvert or pipe-culvert crossings are not recommended.
5. Trails designed to follow a stream's course must be placed outside the stream's forested riparian buffer. Also, do not place the trail along the tops of the banks of a forested creek. Avoid perpendicular fragmentation of riparian areas (streamside habitat). Where the stream has little or no forested riparian buffer, the trail should be no closer than 15 feet from the tops of the banks.
6. Avoid elements identified in the Natural Heritage Database; trails may negatively affect species that require specific natural conditions (vegetation, light levels, moisture, etc.) that are altered as a result of trail construction. Rare and high quality habitats, and wildlife habitats that possess high wildlife abundance and diversity, should be avoided by placing the trail around the habitat and screening it from the trail and trail users with a buffer of native vegetation or another method as discussed below. Wetlands and karst features are but two examples of areas to avoid.
7. Raised boardwalks should be constructed in wet areas or near wetlands (trails through wetlands are not recommended). A material such as composite decking should be used rather than treated wood which can leach elements toxic to aquatic life.
8. Screen wildlife habitat from the trail corridor. Vegetation, topography, and fences can help reduce the impact of noise and line of site disturbances of trail users on wildlife. Walls can create wildlife movement barriers and potential impacts must be considered. Native grass buffers (2 to 3 feet tall) are recommended along the edge of trails near habitat such as wetlands.
9. Lighting should only be used when absolutely necessary. Lighting in forested areas and along creeks, streams, and rivers should be the lowest intensity feasible and shielded to cast light on the path and not diffused into the surroundings to avoid disturbing wildlife circadian rhythms and disorienting night-migrating birds.
10. Any plantings in the riparian areas should be locally native species, not exotic species or horticultural varieties (e.g. "Autumn Blaze" Red Maple). A list of appropriate native woody and herbaceous vegetation can be provided upon request.
11. Trail surfaces can have negative effects on surrounding natural areas and deter movement of some species across the trail. Some surface materials are more environmentally acceptable than others, such as mulch and mown grass which should be considered as the first options. Asphalt is not recommended as a trail surface in the floodway. The conventional maintenance for aging asphalt is to seal it with a blacktop or asphalt sealer. Research has shown that as these sealers break down over time, they move into the aquatic environment and are highly toxic to aquatic life. If asphalt is used then asphalt sealer should not be used for long-term maintenance and repair of the asphalt trail surface. In previously disturbed areas, concrete is an acceptable surface material, and porous concrete is preferred wherever it can be used.
12. Shoulders should be constructed using unconsolidated materials where possible. In some situations, solid shoulders are necessary. In those cases, shoulders should be constructed using porous concrete.
13. Trails that highlight natural resources should skirt the resource and utilize "pulloffs" at specific sites instead of letting the entire trail and traffic disturb the resource.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of native grasses, sedges, wildflowers, and native shrub and hardwood tree species as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants (e.g. crown-vetch).
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting

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

(greater than 3 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
5. Do not construct any temporary runarounds, causeways, cofferdams, pump around or stream diversion systems.
6. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
7. Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
8. Post "Do Not Mow or Spray" signs along the right-of-way.
9. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
10. Seed and protect all disturbed slopes that are 3:1 or steeper with biodegradable heavy-duty erosion control blankets (follow manufacturer's recommendations for selection and installation; seed and apply mulch on all other disturbed areas.

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

Christie L Stanifer

Date: June 28, 2018

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

Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov
Eric J. Holcomb
Governor
Bruno Pigott
Commissioner

June 6, 2018

66-33
NS Services Environmental Infrastructure
Attention: Nadeem Siddiki
4974 South Cobblestone Drive
Zionsville, Indiana 46077

Dear Nadeem Siddiki,

RE: Wellhead Protection Area
Proximity Determination
Des No 1700736,
Sare Road Multiuse Path and
Intersection Improvement Project
Bloomington, Monroe County,
Indiana

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

Note: the Drinking Water Branch has launched a new self service feature which allows one to determine wellhead proximity without submitting the application form. Use the following instructions:

1. Go to http://idemmaps.idem.in.gov/whpa2/
2. Use the search tool located in the upper left hand corner of the application to zoom to your site of interest by way of city, county, or address; or use the mouse to click on the site of interest displayed on the map.
3. Once the site of interest has been located and selected, use the print tool to create a .pdf of a wellhead protection area proximity determination response.

In the future please consider using this self service feature if it is suits your needs.

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

Sincerely,

Alisha Turnbow

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

Indiana Department of Environmental Management

We Protect Hoosiers and Our Environment.

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

City of Bloomington
Neil Kopper
401 N Morton St
Suite 130
Bloomington , IN 47404
Date

NS Services, LLC
Anne Shaw
4974 S. Cobblestone Dr.
Zionsville , IN 46077

Dear Grant Administrator or Other Finance Approval Authority:

RE: The City of Bloomington intends to proceed with construction of a new multi-use path to be constructed along Sare Road including a pedestrian bridge crossing of Jackson Creek and intersection improvements at the intersection of Sare Road and Moores Pike in the City of Bloomington, Indiana.

The Indiana Department of Environmental Management (IDEM) is aware that many local government or not-for-profit entities are seeking grant monies, a bond issuance, or another public funding mechanism to cover some portion of the cost of a public works, infrastructure, or community development project. IDEM also is aware that in order to be eligible for such funding assistance, applicants are required to first evaluate the potential impacts that their particular project may have on the environment. In order to assist applicants seeking such financial assistance and to ensure that such projects do not have an adverse impact on the environment, IDEM has prepared the following list of environmental issues that each applicant must consider in order to minimize environmental impacts in compliance with all relevant state laws.

IDEM recommends that each applicant consider the following issues when moving forward with their project. IDEM also requests that, in addition to submitting the information requested above, each applicant also sign the attached certification, attesting to the fact that they have read the letter in its entirety, agree to abide by the recommendations of the letter, and to apply for any permits required from IDEM for the completion of their project.

IDEM recommends that any person(s) intending to complete a public works, infrastructure, or community development project using any public funding consider each of the following applicable recommendations and requirements:

WATER AND BIOTIC QUALITY

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

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

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

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

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

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

4. If your project will impact more than 0.5 acres of wetland, stream relocation, or other large-scale alterations to bodies of water such as the creation of a dam or a water diversion, you should seek additional input from the Office of Water Quality, Wetlands staff at 317-233-8488.

5. Work within the one-hundred year floodway of a given body of water is regulated by the Department of Natural Resources, Division of Water. Contact this agency at 317-232-4160 for further information.

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

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

   To obtain, and operate under, a Rule 5 permit you will first need to develop a Construction Plan (http://www.in.gov/idem/4917.htm#constreq (http://www.in.gov/idem/4917.htm#constreq)), and as described in 327 IAC 15-5-6.5 (http://www.in.gov/legislative/iac/T03270/A00150 [PDF] (http://www.in.gov/legislative

/iac/T03270/A00150.PDF), pages 16 through 19). Before you may apply for a Rule 5 Permit, or begin construction, you must submit your Construction Plan to your county Soil and Water Conservation District (SWCD) (http://www.in.gov/isda/soil/contacts/map.html (http://www.in.gov/isda/soil/contacts/map.html)).

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

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

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

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

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

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

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

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

AIR QUALITY

The above-noted project (see page 1) should be designed to minimize any impact on ambient air quality in, or near, the project area. The project must comply with all federal and state air pollution regulations. Consideration should be given to the following:

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

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

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

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

3. The U.S. EPA and the U.S. Surgeon General recommend that people not have long-term exposure to radon at levels above 4 pCi/L. For a county-by-county map of predicted radon levels in Indiana , visit http://www.in.gov/idem/4267.htm (http://www.in.gov/idem/4267.htm).

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

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

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

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

   For questions on asbestos demolition and renovation activities, you can also call IDEM's Lead/Asbestos

section at 1-888-574-8150.

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

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

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

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

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

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

8. For more information on air permits, visit http://www.in.gov/idem/4223.htm (http://www.in.gov/idem/4223.htm), or to initiate the IDEM air permitting process, please contact the Office of Air Quality Permit Reviewer of the Day at (317) 233-0178 or oamprod at idem.in.gov.

LAND QUALITY

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

1. If the site is found to contain any areas used to dispose of solid or hazardous waste, you need to contact the Office of Land Quality (OLQ) at 317-308-3103.

2. All solid wastes generated by the project, or removed from the project site, need to be taken to a properly permitted solid waste processing or disposal facility. For more information, visit http://www.in.gov /idem/4998.htm (http://www.in.gov/idem/4998.htm).

3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous

waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.

4. If Polychlorinated Biphenyls (PCBs) are found at this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding management of any PCB wastes from this site.

5. If there are any asbestos disposal issues related to this site, please contact the Industrial Waste Section of OLQ at 317-308-3103 for information regarding the management of asbestos wastes. (Asbestos removal is addressed above, under Air Quality.)

6. If the project involves the installation or removal of an underground storage tank, or involves contamination from an underground storage tank, you must 9ontact the IDEM Underground Storage Tank program at 317-308-3039(http://www.in.gov/idem/4999. htm (http://www.in.gov/idem/4999. htm)).

FINAL REMARKS

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

Please note that this letter does not constitutes a permit, license, endorsement, or any other form of approval on the part of either the Indiana Department of Environmental Management or any other Indiana state agency.

Should you have any questions relating to the content or recommendations of this letter, or if you have additional questions about whether a more complete environmental review of your project should be conducted, please feel free to contact Steve Howell at (317) 232-8587, snhowell@idem.in.gov.

Signature(s) of the Applicant

I acknowledge that I am seeking grant monies, a bond issuance, or other public funding mechanism to cover some portion of the cost of the public works, infrastructure, or community development project as described herein, which I am working (possibly with others) to complete.

Project Description

The City of Bloomington intends to proceed with construction of a new multi-use path to be constructed along Sare Road including a pedestrian bridge crossing of Jackson Creek and intersection improvements at the intersection of Sare Road and Moores Pike in the City of Bloomington, Indiana.

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

Dated Signature of the Public Owner Contact/Responsible Elected Official _____

Neil Kopper

Dated Signature of the Project February 13, 2019

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N955
Indianapolis, Indiana 46204

PHONE: (317) 232-1477
FAX: (317) 232-1499

Eric Holcomb, Governor
Joe McGuinness, Commissioner

June 11, 2018

Mr. Nadeem Siddiki, PE
NS Services
4974 S Cobblestone Dr.
Zionsville, IN 46077

Subject: Early Coordination Review (Des. No. 1700736)

Dear Mr. Siddiki,

In response to your request on June 1, 2018 for early coordination review of the Sare Road multiuse path and intersection improvement project in Bloomington, Monroe County, Indiana; the Indiana Department of Transportation, Office of Aviation has reviewed the information and provides the following:

Are there any existing or proposed public-use airports within 5 nautical miles of the project limits *(IC 8-21-10-6)***?**
The nearest public-use airport is located beyond five nautical miles of the proposed project site.

Will an Indiana Tall Structure permit *(IC 8-21-10-3-a)* **and/or Noise Sensitive** *(IC 8-21-10-3-b)* **permit be required?**
Based upon the provided information, 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 exceeds 200 feet above ground level.

For any questions related to Indiana Tall Structure and/or Noise Sensitive permitting, please contact James Kinder at (317) 232-1485 or jkinder2@indot.in.gov.

Sincerely,

Adam French

Adam French, MPA
Chief Airport Inspector, Office of Aviation
Indiana Department of Transportation

Organization and Project Information

Project ID: 18324
Des. ID: 1700736
Project Title: Sare Road Trail
Name of Organization: City of Bloomington
Requested by: Anne Shaw

Environmental Assessment Report

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

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

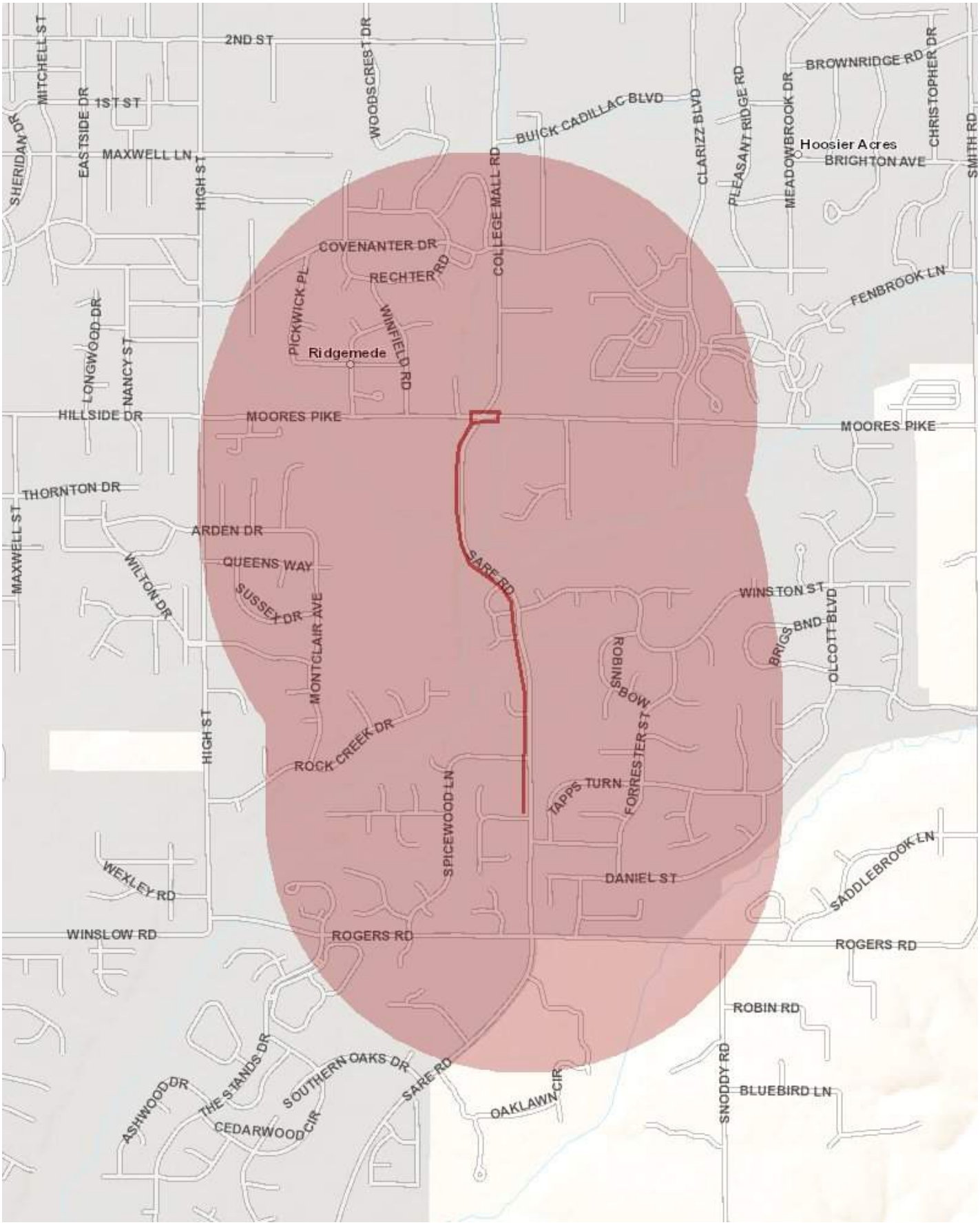
DISCLAIMER:

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

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

C-17

Date: February 13, 2019



Metadata:

- https://maps.indiana.edu/metadata/Hydrology/Karst_Cave_Density.html
- https://maps.indiana.edu/metadata/Hydrology/Floodplains_FIRM.html
- https://maps.indiana.edu/metadata/Geology/Bedrock_Geology.html

Des. No. 1700736 Sare Road Multi-Use Trail

Carl Buddin <buddinc@bloomington.in.gov> Fri, Feb 22, 2019 at 2:41 PM
To: Anne Shaw <a.shaw@nsenvservices.com>

Anne,

Based on the project description and maps, it appears this project will require a construction in the floodplain permit from the Indiana Department of Natural Resources.

This is my only comment for the project.

Thanks,
Carl Buddin
[Quoted text hidden]
--

Carl Buddin

Senior Zoning Compliance Planner

Planning and Transportation Dept
City of Bloomington, IN
buddinc@bloomington.in.gov
812-349-3573
bloomington.in.gov

Des. 1700736 Sare Road Bloomington Trail

McWilliams, Robin <robin_mcwilliams@fws.gov> Thu, Feb 14, 2019 at 1:04 PM
To: Anne Shaw <a.shaw@nsenvservices.com>

Dear Anne,

No problem. Most important thing is to get the project going in IPAC. There are no other listed species in Monroe County so you should be ok. I have included our typical recommendations below. To protect water quality we recommend using pollutant-trapping technology such as storm drain inserts, etc. to reduce runoff of urban pollutants directly to any stream systems.

Standard Recommendations:

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

2. Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap.

Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community.

3. Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure.

4. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

5. Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion will be vegetated following INDOT's standard specifications.

6. Avoid all work within the inundated part of the stream channel (in perennial streams and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams.

7. Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing.

Robin McWilliams Munson

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

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

[Quoted text hidden]

United States Department of the Interior

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

IPaC Record Locator: 659-13890035 February 07, 2019

Subject: Consistency letter for the 'Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN' project (TAILS 03E12000-2018-R-1841) under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated to verify that the **Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN** (Proposed Action) may rely on the concurrence provided in the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 *et seq.*).

Based on the information you provided (Project Description shown below), you have determined that the Proposed Action is within the scope and adheres to the criteria of the PBO, including the adoption of applicable avoidance and minimization measures, and may affect, but is not likely to adversely affect the endangered Indiana bat (*Myotis sodalis*) and/or the threatened Northern long-eared bat (*Myotis septentrionalis*). Consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*) is required.

This "may affect - not likely to adversely affect" determination becomes effective when the lead Federal action agency or designated non-federal representative uses it to ask the Service to rely on the PBO to satisfy the agency's consultation requirements for this project.

Please provide this consistency letter to the lead Federal action agency or its designated non-federal representative with a request for its review, and as the agency deems appropriate, to submit for concurrence verification through the IPaC system. The lead Federal action agency or

designated non-federal representative should log into IPaC using their agency email account and click "Search by record locator". They will need to enter the record locator **659-13890035**.

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

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

Project Description

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

Name

Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN

Description

The City of Bloomington intends to proceed with construction of a new multi-use path to be constructed along Sare Road including a pedestrian bridge crossing of Jackson Creek and intersection improvements at the intersection of Sare Road and Moores Pike in the City of Bloomington, Indiana.

Suitable bat habitat is present in and near the project area in the form of mature trees. There will be tree clearing for this project. A total of 0.85 acre of trees will be cleared for this project.

There will be no permanent or temporary lighting needed for this project.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project is located in an urban area surrounded by residences, commercial buildings, and some forested areas along Jackson Creek. A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area (RFI approved August 24, 2018).

Determination Key Result

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

Qualification Interview

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

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

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

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

   No

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

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

   No

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

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

   No

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

   Yes

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

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

   No

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

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

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

   Yes

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

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

    Yes

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

    No

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

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

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

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

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

    No

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

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

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

    No

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

    Yes

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

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

    B) During the inactive season

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

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

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

    No

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

    No

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

    Yes

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

    No

24. Does the project include maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins)?

    No

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

    No

26. Does the project include slash pile burning?

    No

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

    No

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

    No

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

    No

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

    No

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

    Yes

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

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

    Yes

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

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

    Yes

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/ trimming, bridge or structure removal, replacement, and/or maintenance, lighting, or use of percussives, limited to actions that DO NOT cause any stressors to the bat species, including as described in the BA/BO (i.e. activities that do not involve ground disturbance, percussive noise, temporary or permanent lighting, tree removal/trimming, nor bridge/ structure activities)?

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

    No

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

    No

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

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and are not within documented habitat

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

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

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

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

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

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

40. **General AMM 1**
    Will the project ensure *all* operators, employees, and contractors working in areas of known or presumed bat habitat are aware of *all* FHWA/FRA/FTA (Transportation Agencies) environmental commitments, including all applicable Avoidance and Minimization Measures?

    Yes

41. **Hibernacula AMM 1**
    Will the project ensure that on-site personnel will use best management practices[1], secondary containment measures, or other standard spill prevention and countermeasures to avoid impacts to possible hibernacula?

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

    Yes

42. **Hibernacula AMM 1**
    Will the project ensure that, where practicable, a 300 foot buffer will be employed to separate fueling areas and other major containment risk activities from caves, sinkholes, losing streams, and springs in karst topography?

    Yes

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

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

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

Yes

44. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Indiana bats are not likely to be present (e.g., the inactive season)[1]?

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

Automatically answered
Yes

45. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Northern long-eared bats are not likely to be present (e.g., the inactive season)[1]?

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

Automatically answered
Yes

46. **Tree Removal AMM 3**
Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

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

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

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

Yes

48. **Lighting AMM 1**
Will *all* **temporary** lighting used during the removal of suitable habitat and/or the removal/trimming of trees within suitable habitat be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

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

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?
No

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

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

0.85

Avoidance And Minimization Measures (AMMs)

These measures **were accepted** as part of this determination key result:

GENERAL AMM 1

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

HIBERNACULA AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

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

This key was last updated in IPaC on March 16, 2018. Keys are subject to periodic revision.

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

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

United States Department of the Interior

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

In Reply Refer To: February 08, 2019
Consultation Code: 03E12000-2018-I-1841
Event Code: 03E12000-2019-E-02300
Project Name: Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN

Subject: Concurrence verification letter for the 'Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN' project under the revised February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat.

To whom it may concern:

The U.S. Fish and Wildlife Service (Service) has received your request dated to verify that the **Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN** (Proposed Action) may rely on the concurrence provided in the February 5, 2018, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat and Northern Long-eared Bat (PBO) to satisfy requirements under Section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (87 Stat. 884, as amended; 16 U.S.C 1531 *et seq.*).

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

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

identify a small subset of actions having impacts that were unanticipated. In such instances, Service Field Offices may request additional information that is necessary to verify inclusion of the proposed action under the PBO.

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

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

Project Description

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

Name

Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN

Description

The City of Bloomington intends to proceed with construction of a new multi-use path to be constructed along Sare Road including a pedestrian bridge crossing of Jackson Creek and intersection improvements at the intersection of Sare Road and Moores Pike in the City of Bloomington, Indiana.

Suitable bat habitat is present in and near the project area in the form of mature trees. There will be tree clearing for this project. A total of 0.85 acre of trees will be cleared for this project.

There will be no permanent or temporary lighting needed for this project.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project is located in an urban area surrounded by residences, commercial buildings, and some forested areas along Jackson Creek. A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area (RFI approved August 24, 2018).

Determination Key Result

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

Qualification Interview

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

   [1] See Indiana bat species profile

   Automatically answered
   Yes

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

   [1] See Northern long-eared bat species profile

   Automatically answered
   Yes

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

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

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

   No

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

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

   No

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

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

   No

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

   Yes

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

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

   No

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

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

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

   Yes

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

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

    Yes

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

    No

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

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

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

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

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

    No

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

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

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

    No

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

    Yes

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

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

    B) During the inactive season

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

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

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

    No

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

    Yes

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

    B) During the inactive season

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

    Yes

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

    No

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

    No

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

    Yes

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

    No

24. Does the project include maintenance of the surrounding landscape at existing facilities (e.g., rest areas, stormwater detention basins)?

    No

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

    No

26. Does the project include slash pile burning?

    No

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

    No

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

    No

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

    No

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

    No

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

    Yes

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

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

    Yes

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

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

    Yes

34. Are *all* project activities that are **not associated with** habitat removal, tree removal/trimming, bridge or structure removal, replacement, and/or maintenance, lighting, or use of percussives, limited to actions that DO NOT cause any stressors to the bat species, including as described in the BA/BO (i.e. activities that do not involve ground disturbance, percussive noise, temporary or permanent lighting, tree removal/trimming, nor bridge/structure activities)?

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

    No

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

    No

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

    Automatically answered
    Yes, because the activities are within 300 feet of the existing road/rail surface, greater than 0.5 miles from a hibernacula, and are not within documented habitat

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

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

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

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

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

    Automatically answered

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

40. **General AMM 1**

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

    Yes

41. **Hibernacula AMM 1**

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

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

    Yes

42. **Hibernacula AMM 1**

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

    Yes

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

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

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

Yes

44. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Indiana bats are not likely to be present (e.g., the inactive season)[1]?

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

Automatically answered
Yes

45. **Tree Removal AMM 2**
Can *all* tree removal activities be restricted to when Northern long-eared bats are not likely to be present (e.g., the inactive season)[1]?

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

Automatically answered
Yes

46. **Tree Removal AMM 3**
Can tree removal be limited to that specified in project plans and ensure that contractors understand clearing limits and how they are marked in the field (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits)?

Yes

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

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

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

Yes

48. **Lighting AMM 1**
Will *all* **temporary** lighting used during the removal of suitable habitat and/or the removal/trimming of trees within suitable habitat be directed away from suitable habitat during the active season?

Yes

Project Questionnaire

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

2. Have you made a May Affect determination for *any* other species on the FWS IPaC generated species list?
No

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

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

0.85

Avoidance And Minimization Measures (AMMs)

These measures **were accepted** as part of this determination key result:

GENERAL AMM 1

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

HIBERNACULA AMM 1

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

LIGHTING AMM 1

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

TREE REMOVAL AMM 1

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

TREE REMOVAL AMM 2

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

TREE REMOVAL AMM 3

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

TREE REMOVAL AMM 4

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

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

This key was last updated in IPaC on March 16, 2018. Keys are subject to periodic revision.

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

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

United States Department of the Interior

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

In Reply Refer To: February 07, 2019
Consultation Code: 03E12000-2018-SLI-1841
Event Code: 03E12000-2019-E-02198
Project Name: Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN

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

To Whom It May Concern:

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

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

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

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

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

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

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

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

Attachment(s):

- Official Species List

Official Species List

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

This species list is provided by:

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

Project Summary

Consultation Code: 03E12000-2018-SLI-1841

Event Code: 03E12000-2019-E-02198

Project Name: Des. No. 1700376 Sare Road Multiuse Path and Intersection Improvement Project, Bloomington, IN

Project Type: TRANSPORTATION

Project Description: The City of Bloomington intends to proceed with construction of a new multi-use path to be constructed along Sare Road including a pedestrian bridge crossing of Jackson Creek and intersection improvements at the intersection of Sare Road and Moores Pike in the City of Bloomington, Indiana.

Suitable bat habitat is present in and near the project area in the form of mature trees. There will be tree clearing for this project. A total of 0.85 acre of trees will be cleared for this project.

There will be no permanent or temporary lighting needed for this project.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The project is located in an urban area surrounded by residences, commercial buildings, and some forested areas along Jackson Creek. A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area (RFI approved August 24, 2018).

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.1453954023023N86.49709266327295W

Counties: Monroe, IN

Endangered Species Act Species

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

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

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

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

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

Mammals

NAME	STATUS
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/1/office/31440.pdf	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Incidental take of the NLEB is not prohibited here. Federal agencies may consult using the 4(d) rule streamlined process. Transportation projects may consult using the programmatic process. See www.fws.gov/midwest/endangered/mammals/nleb/index.html Species profile: https://ecos.fws.gov/ecp/species/9045 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/10043/office/31440.pdf	Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Indiana Bat *Myotis sodalis* https://ecos.fws.gov/ecp/species/5949#crithab	Final

APPENDIX D
SECTION 106 OF THE NHPA

MPPA Determination (D-1 to D-5)

Minor Projects PA Project Assessment Form

Date: 10/05/18

Project Designation Number: 1700736

Route Number: Sare Road

Project Description: Bike/Pedestrian Facilities, Multi-Use Trail from Moores Pike to Buttonwood Lane

The City of Bloomington intends to proceed with a project that includes a new 10 foot wide multi-use path to be constructed along the west side of Sare Road from Buttonwood Lane to Moores Pike along with a new pedestrian bridge to be constructed across Jackson Creek. The project will also include intersection improvements at the Sare Road and Moores Pike intersection consisting of new signal equipment and improved curb ramps at the intersection.

Feature crossed (if applicable):

Township: Perry Township

City/County: Bloomington/Monroe County

Information reviewed (please check all that apply):

☑ General project location map ☑ USGS map ☑ Aerial photograph ☑ Soil survey data

☐ Written description of project area ☐ General project area photos ☑ Interim Report

☐ Previously completed historic property reports ☑ Previously completed archaeology reports

☐ Bridge Inspection Information

Other (please specify): SHAARD; SHAARD GIS; online street-view imagery; IHBBC Map;

Myers, Jeffrey A.
1982 Archaeological Reconnaissance of the Bloomington Southeast Arterial Corridor Alternates. Project M-X335(1); RS-8352(1). Report of file, Indiana Department of Transportation, Cultural Resources Office, Indianapolis, In.

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

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

B-1. Replacement, repair, or installation of curbs, curb ramps, or sidewalks, including when such projects are associated with roadway work such as surface replacement, reconstruction, rehabilitation, or resurfacing projects, including overlays, shoulder treatments, pavement repair, seal coating, pavement grinding, and pavement marking, under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

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

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

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

Condition B (Above-Ground Resources)

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

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

ii. Work occurs adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource under one of the two additional conditions listed below *(EITHER Condition a OR Condition b must be met and field work and documentation must be completed as described below)*:

   a. No unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps; stepped or elevated sidewalks; historic brick or stone retaining walls; or other historic features, are present in the project area adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; *OR*

   b. Unusual features, including but not limited to historic brick or stone sidewalks, curbs or curb ramps; stepped or elevated sidewalks; historic brick or stone retaining walls; or other historic features, are present in the project area adjacent to or within a National Register-listed or National Register-eligible individual above-ground resource or district and ANY ONE of the conditions *(1, 2, or 3)* listed below must be fulfilled:

      1. Unusual features described above will not be impacted by the project. Firm commitments regarding the avoidance of these features must be listed in the MPPA determination form and the NEPA document and must be entered into the INDOT Project Commitments Database. These projects will also be flagged for quality assurance reviews by INDOT Cultural Resources Office during/after project construction.
      2. Unusual features described above have been determined not to contribute to the significance of the historic resource by INDOT Cultural Resources Office in consultation with the SHPO based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians, which shows that these features do not contribute to the significance of the historic resource.
      3. Impacts to unusual features described above have been determined by INDOT Cultural Resources Office to be so minimal that they do not diminish any of the characteristics that contribute to the significance of the historic resource, based on an analysis and justification prepared by their staff or review of such information from other qualified professional historians; AND

B-2. Installation of new lighting, signals, signage and other traffic control devices under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

Condition A (Archaeological Resources)

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

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

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

Condition B (Above-Ground Resources)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource; AND

B-8. Construction of pedestrian facilities including trails, multi-use paths, greenways, and associated minor activities defined below, under the following conditions ***[BOTH Condition A, which pertains to Archaeological Resources, and Condition B, which pertains to Above-Ground Resources, must be satisfied]***:

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

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

Condition B (Above-Ground Resources)
Work does not occur adjacent to or within a National Register-listed or National Register-eligible district or individual above-ground resource.

Activities associated with this category include the following:

- Pavement surface replacement, rehabilitation, resurfacing, and reconstruction work, including widening, laying down of crushed stone or gravel, shoulder treatments, pavement repair, seal coating, pavement grinding, pavement marking, etc.;
- Installation of new signals, signage, and other traffic control devices;
- Installation of new safety appurtenances such as guardrails and barriers;
- Installation of plant materials and hardscape landscaping elements, including, but not limited to bike racks, benches, trash cans, lighting, and other amenities;
- Trail heads and parking lots;
- Installation of pipes, culverts, and pedestrian bridges.

If no, please explain:

Additional comments:

With regard to above-ground resources, an INDOT Cultural Resources historian who meets the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61 performed a desktop review, checking the Indiana Register of Historic Sites and Structures (State Register) and National Register of Historic Places (National Register) lists for Monroe County. No National Register-listed resources are located within the 0.15

mile of the project area, a distance which would serve as an adequate area of potential effect (APE) given the scope of the project and the surrounding terrain.

The *City of Bloomington County Interim Report* (2004; City of Bloomington Scattered Sites, Far East Sites) of the Indiana Historic Sites and Structures Inventory (IHSSI) was also consulted. However, in 2015 as part of mitigation for the construction of I-69, the City of Bloomington was resurveyed. These records are only available in the Indiana State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) map, which also contains National Register information. The information contained in these databases supersede the Interim Report hard copies. The following IHSSI sites are within 0.15 mile of the project area:

IHSSI #105-055-61567, Duplex, 1440-1442 S Winfield Rd., c. 1960, rated "contributing"
IHSSI #105-055-61584, House, 1441 S Winfield Rd., c. 1960, rated "contributing"
IHSSI #105-639-61588, House, 1416 S Sare Rd., c. 1970, rated "contributing"
IHSSI #105-639-61589, Quentin and Nathalie Hope House, 1418 S Sare Rd., c. 1970, rated "contributing"
IHSSI #105-639-61590, House, 1419 S Sare Rd., c. 1960, rated "contributing"
IHSSI #105-639-61013, House, 2712 E Bluff Ct., 1967, rated "contributing"
IHSSI #105-639-61019, House, 2716 E Bluff Ct., 1970, rated "contributing"
IHSSI #105-639-61026, House, 2718 E Bluff Ct., 1940, rated "outstanding"
IHSSI #105-639-61090, House, 2820 S Hunter Glen, 1967, rated "notable"

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

The INDOT CRO historian reviewed the project area. IHSSI #105-639-61026, House, rated "outstanding" is located in the Bittner Woods subdivision, approximately 650 feet east of the project area. Dense tree coverage from both deciduous and coniferous trees between the subdivision and the project area block any potential visual impacts to the "outstanding" house. IHSSI #105-639-61090, House, rated "notable" is located to the west of the project area on a short street and cul-de-sac off Sare Rd. The house is set on a slope with the front lawn rising up in front of the house. This typography and the presence of twenty-first century house and mature deciduous and coniferous trees completely block any viewshed to the project area. For the purposes of this determination, these properties are not considered adjacent to the project area.

The land surrounding the project area is primarily a suburban residential area with some mixed-use buildings present at the Moores Pike & Sare Rd. intersection. Trees line the street for most of the project area. From online streetview imagery, all the buildings appear to be modern construction dating from the mid-twentieth century to early-twenty-first century. Since the IHSSI survey was completed only three years ago, it is unlikely that any other National Register-eligible resources are present adjacent to this project. Given the surrounding typology and limited project scope no impacts to National Register-eligible properties will occur.

The only curb work to be completed will occur at the intersection of Moores Pike and Sare Rd. No National Register-listed or eligible properties are located adjacent to the intersection. Condition B-i of Category B-1 is appropriate for this project.

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

With regard to archaeological resources, the proposed project area was previously surveyed prior to the construction of Sare Road (Myers 1982). No sites were recorded in or adjacent to the proposed project area at the intersection of Sare Road and Moores Pike or along the west of Sare Road between Moores Pike and Buttonwood

Lane. Two sites were identified 100 feet or more west of the proposed trail installation on the west side of Sare Road and will not be impacted by its construction. According to SHAARD, no sites have been documented in or adjacent to the project area since the 1982 survey. All trail work will occur in soils disturbed by the somewhat recent construction of Sare Road, widespread suburban development, curbing, storm sewers, road cuts, and existing sidewalks/trails. The intersection of Moores Pike and Sare Road is disturbed by existing curbing, curb ramps, and sidewalks, pedestrian islands, traffic signal, light, and pedestrian poles, signage, and utility easements. All of the proposed curb ramps have been updated previously and the excavation for new ramps will occur in disturbed soils. Since the proposed project is confined to work in previously disturbed soils, there are no archaeological concerns.

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

INDOT Cultural Resources staff reviewer(s): Shaun Miller and Kelyn Alexander

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

APPENDIX E
RED FLAG AND HAZARDOUS MATERIALS

Red Flag Investigation (E-1 to E-16)

NS Services
Environmental & Infrastructure
www.nsenvservices.com

4974 S Cobblestone Dr
Zionsville, IN 46077

Ph: (317) 753-4758
Fax: (317) 769-4718

August 23, 2018

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

From: Anne Shaw
NS Services
4974 S cobblestone Drive
Zionsville, IN 46077
a.shaw@nsenvservices.com

Re: Red Flag Investigations (RFI)
Des. No. 1700736
Sare Road Multiuse Path and Intersection Improvement Project
Bloomington, Monroe County, Indiana

Narrative: The project includes a new 10-foot wide multi-use path to be constructed along the west side of Sare Road from Buttonwood Lane to Moores Pike along with a new pedestrian bridge to be constructed across Jackson Creek. The project will also include intersection improvements at the Sare Road and Moores Pike intersection consisting of new signal equipment and improved curb ramps at the intersection.

Bridge and/or Culvert Project: Yes ☐ No ☑ Structure # _____

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

Proposed right of way: Temporary ☐ # Acres _____ Permanent ☑ # Acres 0.5-10.0.

Type of excavation: The excavation for the new trail is anticipated to be a maximum of 2 feet. Excavation for the footings for the new pedestrian bridge at Jackson Creek are anticipated to reach a depth of 10 feet below existing ground. The excavation will occur outside of the Jackson Creek channel. There are four (4) locations where retaining walls are anticipated along the path, at these locations excavation for wall footings are expected to reach a maximum of 4 feet.

Maintenance of traffic: Since this is a trail project most of the construction will occur without impacting traffic. For the portion of trail that is to be constructed along Sare Road, short term lane closures are expected to allow for construction. During these lane closures at least one lane of traffic will be maintained on Sare Road and traffic will be controlled by flagging operations. At the intersection of Moores Pike and Sare Road it is anticipated that intermittent lane closures will be necessary for curb/sidewalk improvements at the intersection, however traffic will be maintained on the existing roadways during construction.

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

State Project: ☐LPA: ☑

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

Infrastructure Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Religious Facilities	1	Recreational Facilities	3
Airports	N/A	Pipelines	1
Cemeteries	2	Railroads	N/A
Hospitals	N/A	Trails	12
Schools	1	Managed Lands	3

Explanation:

Religious Facilities: One (1) religious facility is located within the 0.5 mile search radius. The nearest facility, Sherwood Oaks Christian Church, is 0.40 mile southwest of the project area. No impacted is expected.

Cemeteries: Two (2) cemeteries are located within the 0.5 mile search radius. The nearest cemetery, Covenanter Cemetery (CR-53-157), is 0.44 mile west of the project area. No impact is expected.

Schools: One (1) school is located within the 0.5 mile search radius. The nearest facility, Learning Tree Preschool & Kindergarten, is 0.41 mile southwest of the project area. No impacted is expected.

Recreational Facilities: Three (3) recreational facilities are located within the 0.5 mile search radius. The nearest facility, Southeast Park, is 0.27 mile west of the project area. No impact is expected.

Pipelines: One (1) pipeline is located within the 0.5 mile search radius. An 8-inch natural gas pipeline owned by Indiana Gas Company is 0.05 mile south of the project area. Coordination with Indiana Gas will occur.

Trails: Twelve (12) trails are located within the 0.5 mile search radius. The planned Sare Road Trail is within the project area. Coordination with Bloomington Parks and Recreation will occur.

Managed Lands: Three (3) managed lands are located within the 0.5 mile search radius. The nearest facility, Southeast Park, is 0.27 mile west of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	N/A	Canal Routes - Historic	N/A
Karst Springs	N/A	NWI - Wetlands	8
Canal Structures – Historic	N/A	Lakes	9
NWI - Lines	6	Floodplain - DFIRM	13
NPS NRI Listed	N/A	Cave Entrance Density	1

IDEM 303d Listed Rivers and Streams (Impaired)	N/A	Sinkhole Areas	N/A
Rivers and Streams	8	Sinking-Stream Basins	N/A

Explanation:
NWI Lines: Six (6) NWI lines are located within the 0.5 mile search radius. The nearest NWI line is within the project area. A Waters of the U.S. report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

Rivers and Streams: Eight (8) rivers and streams are located within the 0.5 mile search radius. Jackson Creek is located within the project area. A Waters of the U.S. report will be prepared and coordination with INDOT ES Ecology and Waterway Permitting will occur.

NWI Wetlands: Eight (8) NWI wetlands are located within the 0.5 mile search radius. The nearest wetland (a freshwater pond) is 0.05 mile east of the project area. No impact is expected.

Lakes: Nine (9) lakes are located within the 0.5 mile search radius. The nearest lake is 0.05 mile east of the project area. No impact is expected.

Floodplain Polygons: Thirteen (13) floodplain polygons are located within the 0.5 mile search radius. The nearest floodplain polygon is located within the project area. Coordination with INDOT ES Ecology and Waterway Permitting will occur.

Cave Entrance Densities: One (1) cave entrance density is located within the 0.5 mile search radius. The cave entrance density is located within the project area. Coordination with Indiana Geological Survey will occur.

URBANIZED AREA BOUNDARY SUMMARY
This project lies within the City of Bloomington UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Bloomington MS4 Coordinator at PO Box 1216, Bloomington, IN 47402.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

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

Explanation: No mining/mineral resources were identified within the 0.5 mile search radius

HAZARDOUS MATERIAL CONCERNS TABLE AND SUMMARY

Hazardous Material Concerns Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Superfund	N/A	Manufactured Gas Plant Sites	N/A
RCRA Generator/ TSD	N/A	Open Dump Waste Sites	N/A
RCRA Corrective Action Sites	N/A	Restricted Waste Sites	N/A
State Cleanup Sites	N/A	Waste Transfer Stations	N/A
Septage Waste Sites	N/A	Tire Waste Sites	N/A
Underground Storage Tank (UST) Sites	N/A	Confined Feeding Operations (CFO)	N/A
Voluntary Remediation Program	N/A	Brownfields	N/A
Construction Demolition Waste	N/A	Institutional Controls	N/A
Solid Waste Landfill	N/A	NPDES Facilities	4
Infectious/Medical Waste Sites	N/A	NPDES Pipe Locations	2
Leaking Underground Storage (LUST) Sites	2	Notice of Contamination Sites	N/A

Explanation:
Underground Storage Tanks: Two (2) leaking underground storage tanks (LUSTs) are located within the 0.5 mile search radius. The nearest LUST, located at 2750 East Covenanter Drive (Agency ID 41040), is 0.24 mile north of the project area. This is the site of a Kroger gas station (Kroger J 928). According to an Underground Storage Tank Investigation Report dated February 22, 2017, the facility does meet the equipment, operating, maintenance and financial responsibility requirements set forth in Indiana's UST Rule 329 IAC 9. No records in VFC indicated that a spill has occurred at this site. No impact is expected.

NPDES Facilities: One (1) NPDES facility is located within the 0.5 mile search radius. The nearest NPDES facility, the Jackson Creek Outlet, is 0.04 mile north-northeast of the project area. No impact is expected.

NPDES Pipes: Two (2) NPDES pipe locations are located within the 0.5 mile search radius. The nearest NPDES pipe is 0.17 mile north of the project area. No impact is expected.

ECOLOGICAL INFORMATION
The Monroe County listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is attached with ETR species highlighted. Coordination with USFWS and IDNR will occur.

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area. The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat will need to be completed according to "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects."

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

RECOMMENDATIONS SECTION

INFRASTRUCTURE:
Pipelines: One natural gas pipeline owned by Indiana Gas Company is 0.05 mile south of the project area. Coordination with Indiana Gas will occur.

Trails: The current project is constructing a trail within the project area. Coordination with Bloomington Parks and Recreation will occur.

WATER RESOURCES:
The presence of following water resources will require the preparation of a Waters of the US Report:
Streams: Jackson Creek flows through the project area.

Cave Entrance Density: One cave entrance density is located within the project area. Coordination with Indiana Geological Survey will occur.

Floodplain: The project area is located within a floodplain and will require coordination with INDOT ES Ecology and Waterway Permitting.

URBANIZED AREA BOUNDARY:
This project lies within the City of Bloomington UAB. Post construction Storm Water Quality Best Management Practices (BMPs) may need to be considered. An early coordination letter with topographic and aerial maps showing the project area should be sent to the Bloomington MS4 Coordinator at PO Box 1216, Bloomington, IN 47402.

MINING & MINERAL: N/A

HAZMAT: N/A

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

August 24, 2018

INDOT Environmental Services concurrence: Nicole Fohey-Breting (Signature)

Prepared by:

NS Services
Nadeem Siddiki, PE
Project Manager

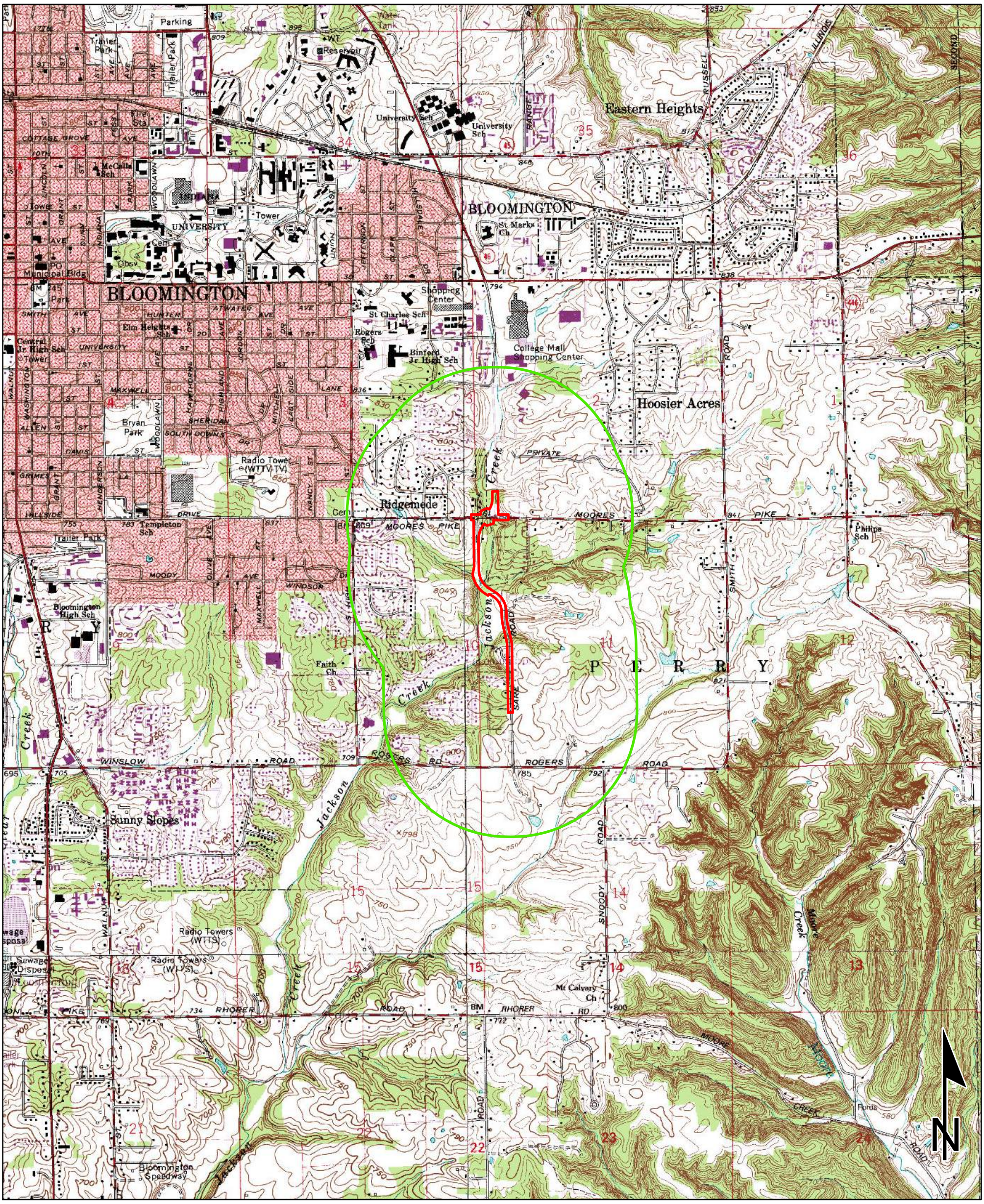
Attachments

Graphics:
A map for each report section with a 0.5 mile radius buffer around all project area(s) showing all items

identified as possible items of concern is attached.
GENERAL SITE MAP SHOWING PROJECT AREA: YES
INFRASTRUCTURE: YES
WATER RESOURCES: YES
MINING/MINERAL EXPLORATION: YES
HAZMAT CONCERNS: YES
Natural Heritage Database List of Potential flora and fauna listed species occurrences

Red Flag Investigation - Topographic
Sare Road and Moores Pike, Des. No. 1700736, Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 8/22/2018



0.5 0.25 0 0.5 Miles

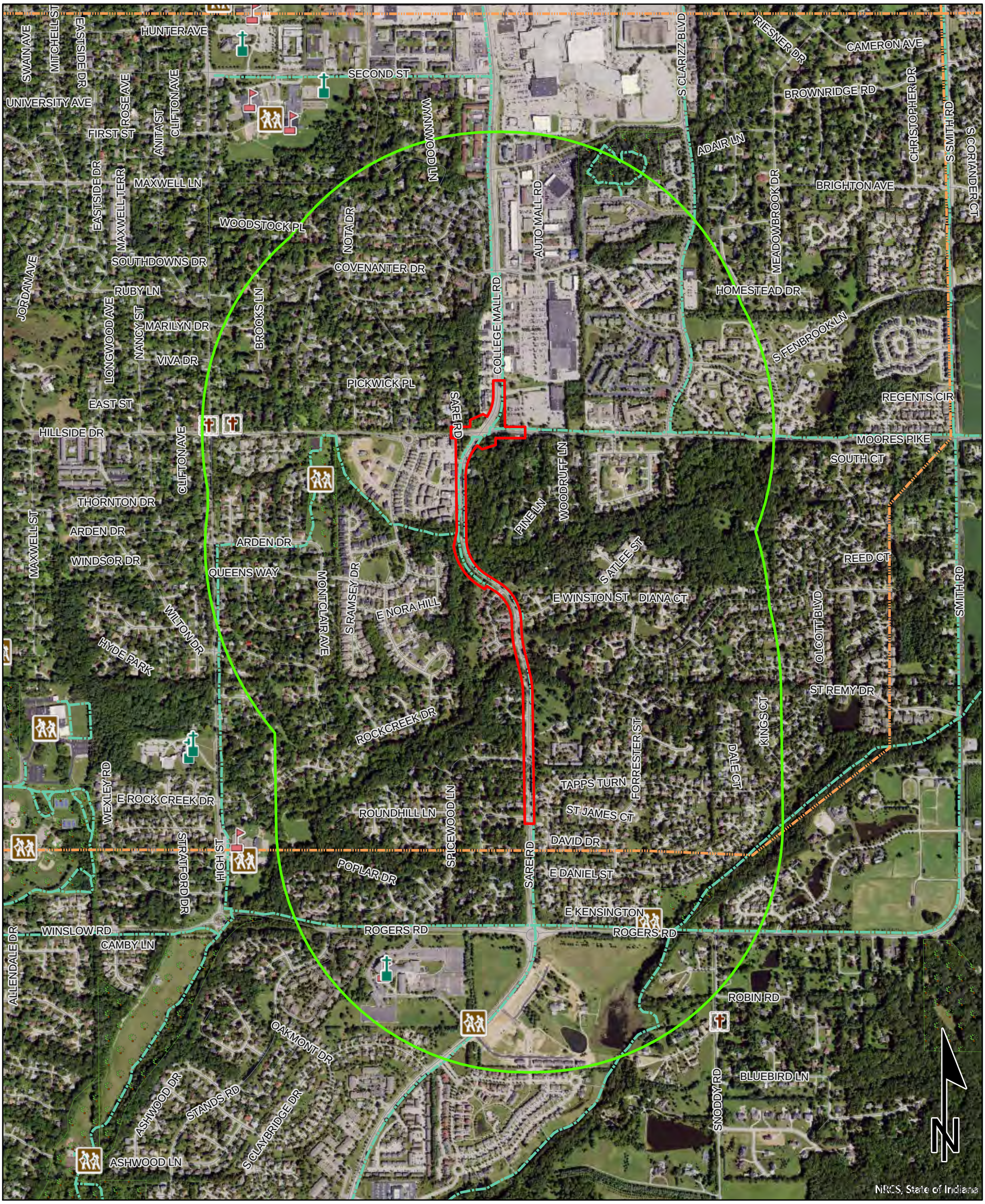
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

BLOOMINGTON & UNIONVILLE, INDIANA, QUADRANGLES
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
Sare Road and Moores Pike, Des. No. 1700736, Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 5/1/2018



0.2 0.1 0 0.2 Miles

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

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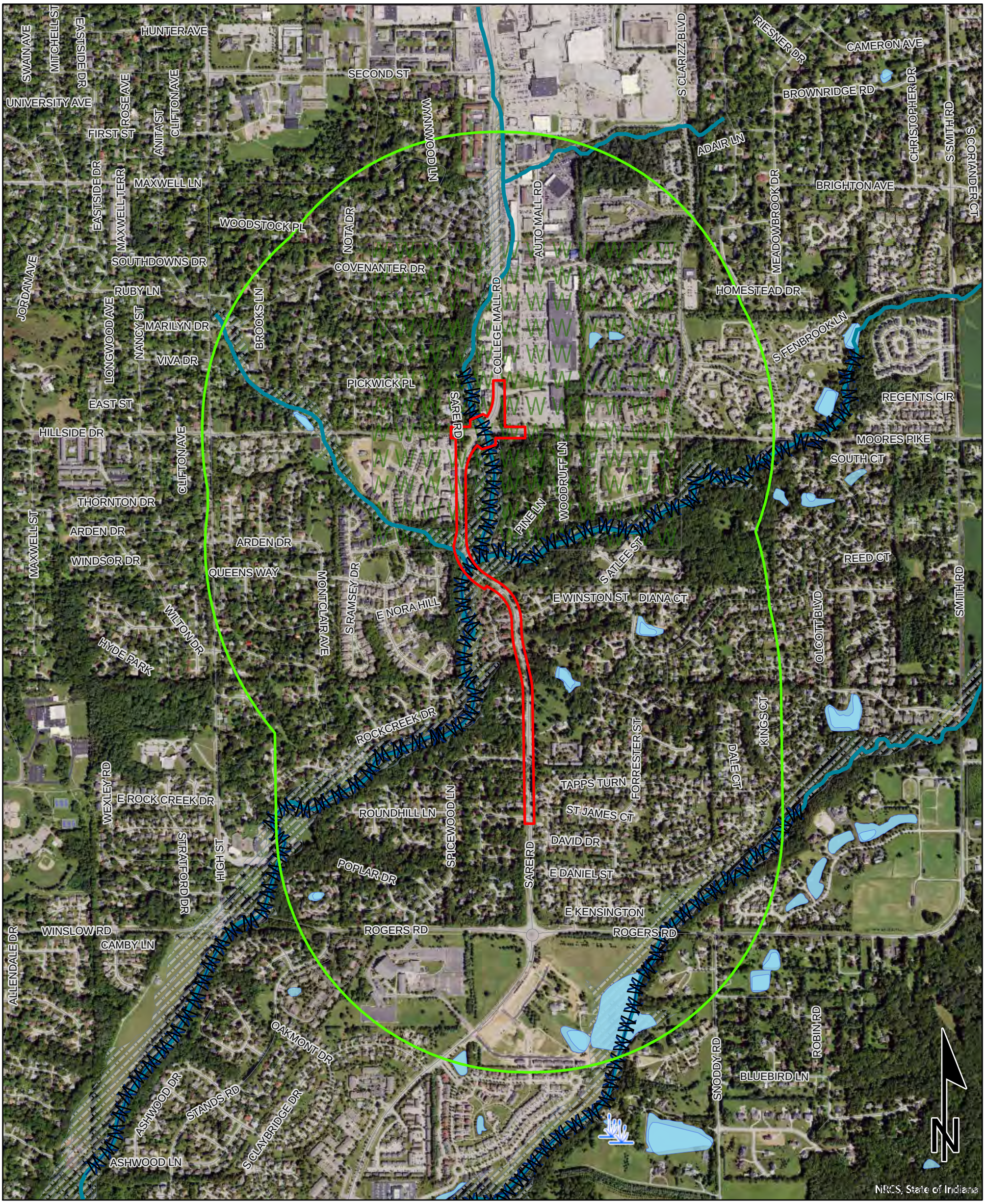
- Religious Facility
- Airport
- Cemeteries
- Hospital
- School
- Recreation Facility
- Pipeline
- Railroad
- Trails
- Managed Lands
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Water Resources
Sare Road and Moores Pike, Des. No. 1700736, Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 5/1/2018



0.2 0.1 0 0.2 Miles

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

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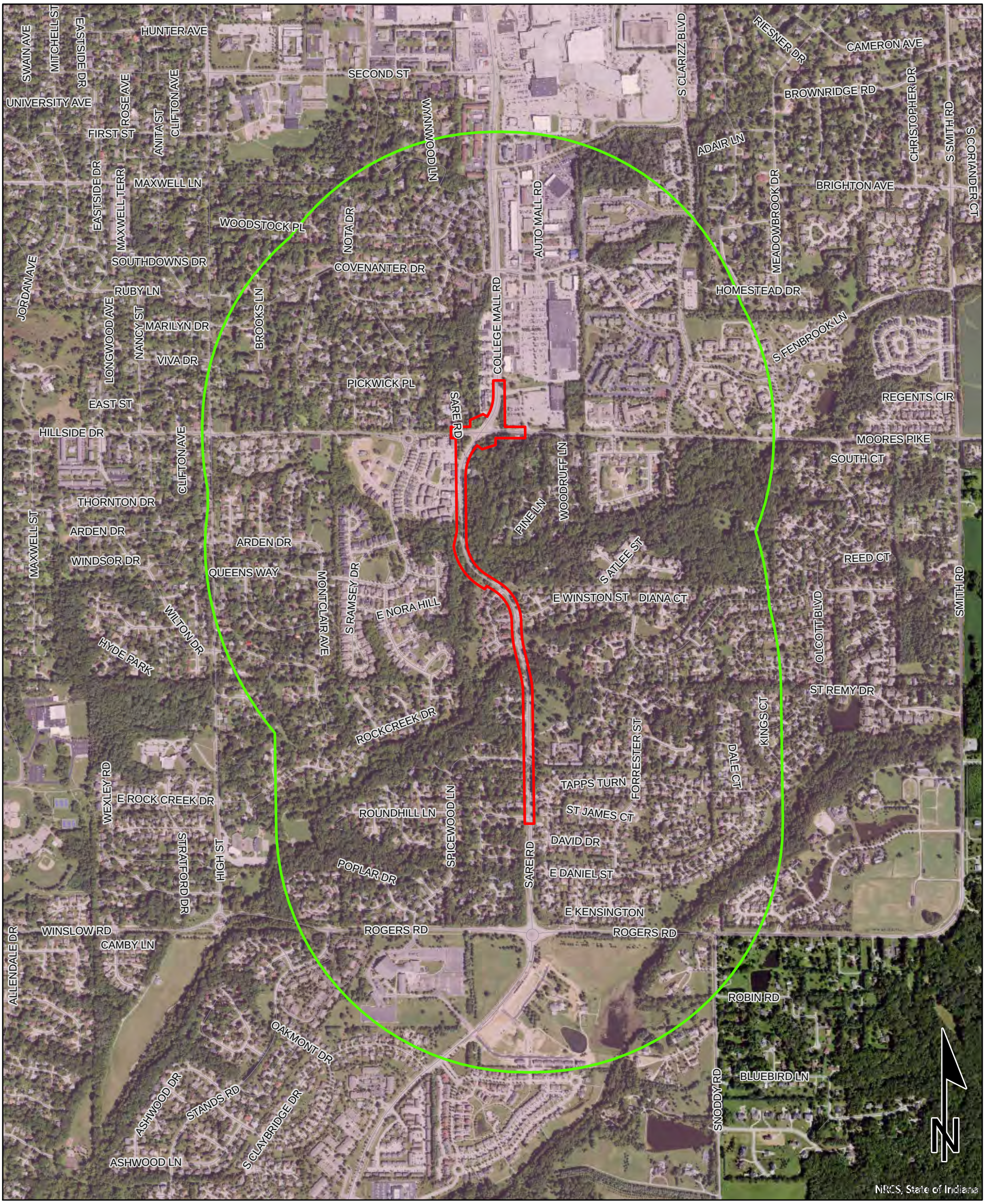
- NWI - Point
- Karst Spring
- NWI- Line
- Impaired_Stream_Lake
- NPS NRI listed
- River
- Canal Structure - Historic
- Canal Route - Historic
- Wetlands
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- County Boundary
- Project Area
- Half Mile Radius
- Toll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

Red Flag Investigation - Urbanized Area Boundary
Sare Road and Moores Pike, Des. No. 1700736,
Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 5/1/2018



0.2 0.1 0 0.2 Miles

Sources:

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

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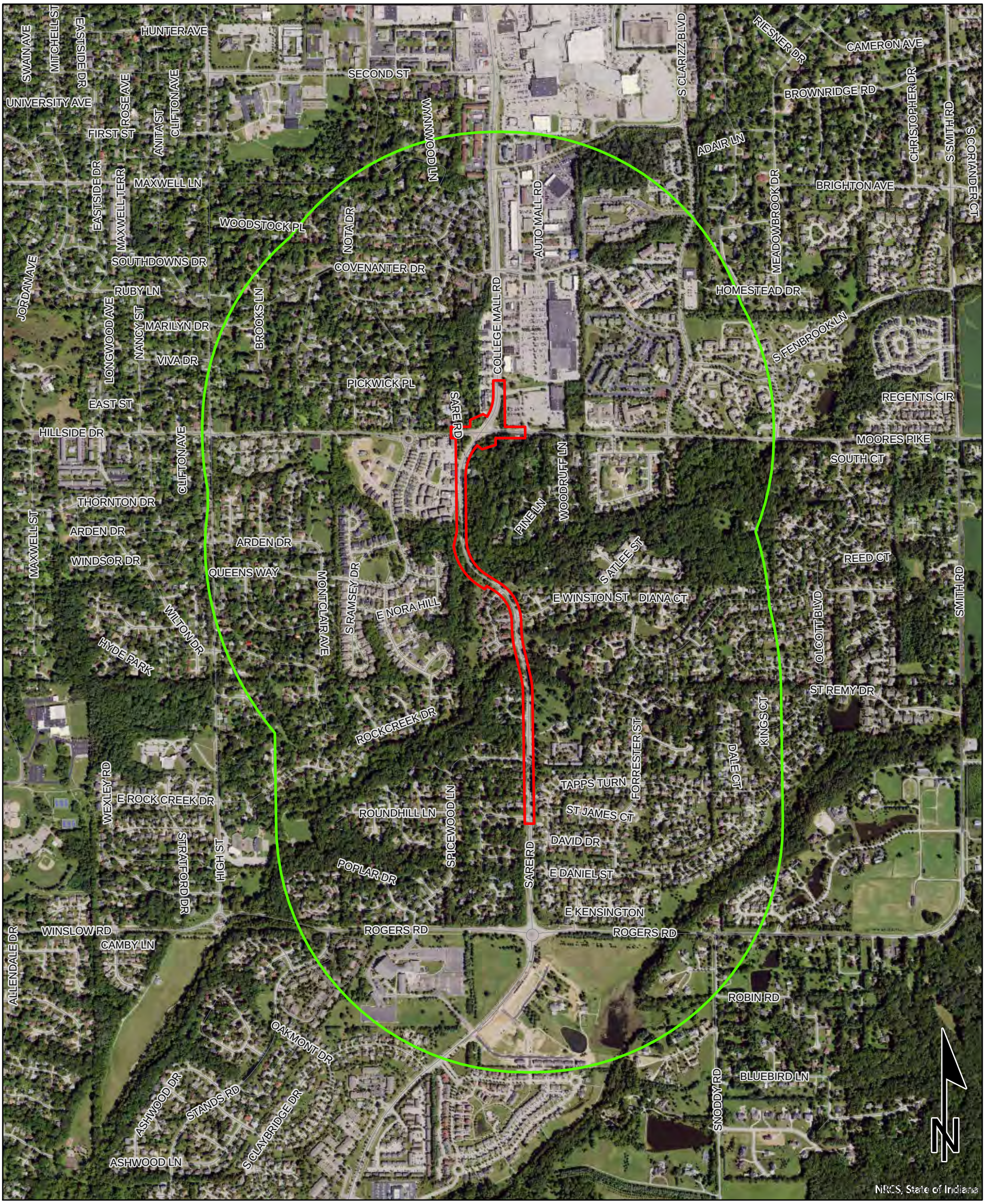
UAB
County Boundary
Project Area
Half Mile Radius
Toll
Interstate
State Route
US Route
Local Road

Red Flag Investigation - Mining/Mineral Exploration
Sare Road and Moores Pike, Des. No. 1700736, Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 5/1/2018



0.2 0.1 0 0.2 Miles

Sources:

Non Orthophotography

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

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

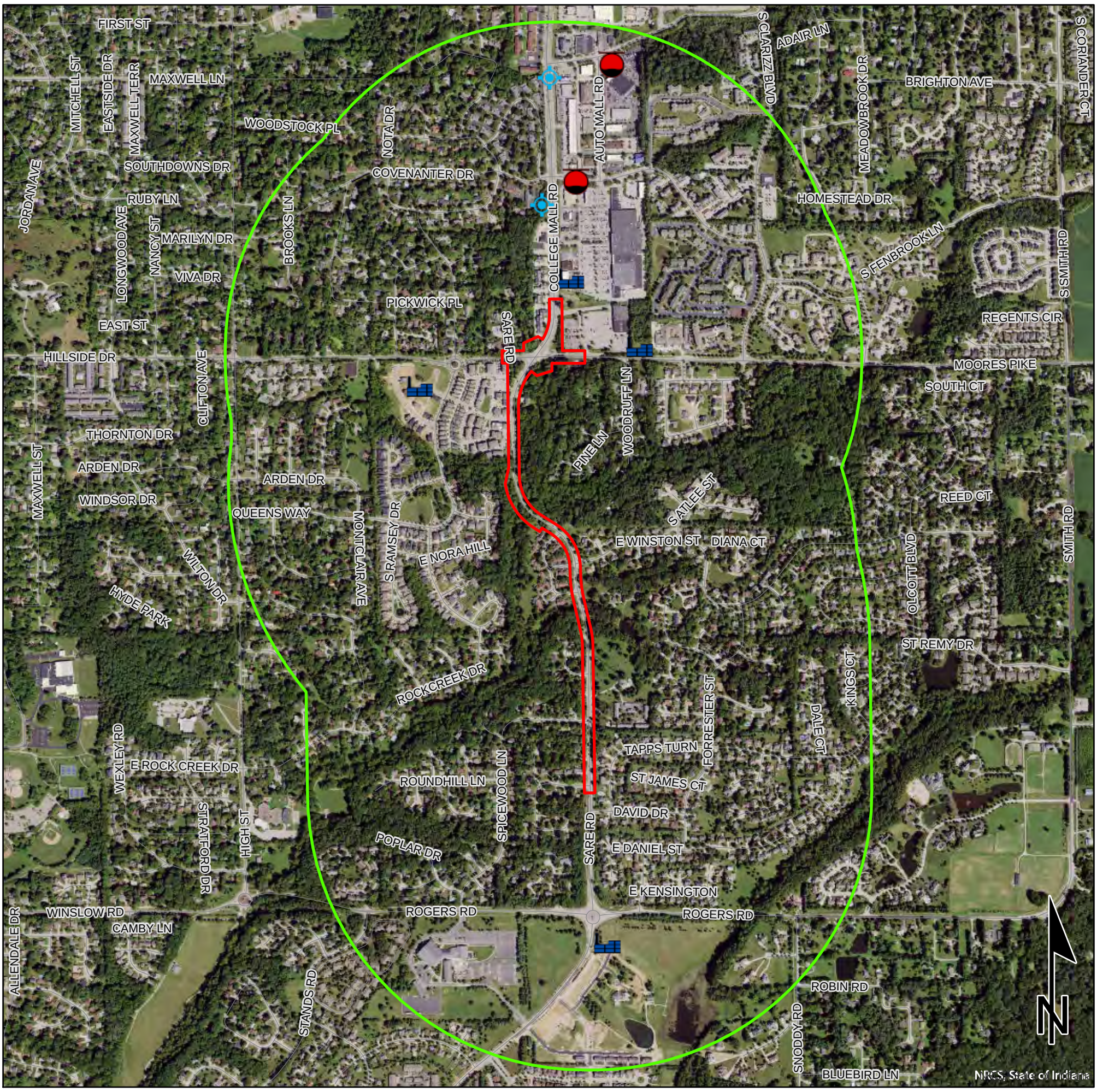
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

- Oil and Gas Wells
- Mineral Resources
- Mine - Surface
- Mine - Underground
- County Boundary
- Project Area
- Half Mile Radius
- Toll
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Materials Concerns
Sare Road and Moores Pike, Des. No. 1700736,
Multiuse Path and Intersection Improvement
Monroe County, Indiana

Date: 5/1/2018



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

0.2 0.1 0 0.2 Miles

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Sources:
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Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

Indiana County Endangered, Threatened and Rare Species List

County: Monroe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Diplopoda					
Conotyla bollmani	Bollman's Cave Milliped		WL	G5	S3
Crustacean: Malacostraca					
Caecidotea jordani	Jordan's groundwater isopod		SE	G2G3	S1
Crangonyx packardi	Packard's Cave Amphipod		WL	G4	S3
Orconectes inermis testii	Troglobitic Crayfish		SR	G5T3	S3
Crustacean: Ostracoda					
Pseudocandona jeanneli	Jeannel's Cave Ostracod		SE	G2	S1
Sagittocythere barri	Barr's Commensal Cave Ostracod		WL	G5	S3S4
Mollusk: Bivalvia (Mussels)					
Cyprogenia stegaria	Eastern Fanshell Pearlymussel	LE	SE	G1Q	S1
Epioblasma torulosa torulosa	Tubercled Blossom	LE	SE	G2TX	SX
Fusconaia subrotunda	Longsolid	C	SE	G3	SX
Obovaria subrotunda	Round Hickorynut	C	SE	G4	S1
Pleurobema clava	Clubshell	LE	SE	G1G2	S1
Quadrula cylindrica cylindrica	Rabbitsfoot	LT	SE	G3G4T3	S1
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Mollusk: Gastropoda					
Fontigens cryptica	Hidden Springs Snail		SE	G1	S1
Punctum minutissimum	Small Spot			G5	S2
Ellipluran: Collembola					
Hypogastrura gibbosus	Humped Springtail		WL	GNR	SNR
Isotoma anglicana	A Springtail		WL	GNR	SNR
Pseudosinella argentea	A Springtail		SE	GNR	S1
Pseudosinella collina	Hilly Springtail		SR	GNR	S2?
Pseudosinella fonsa	Fountain Cave Springtail		ST	G3G4	S2
Sinella alata	Springtail		WL	G5	S4
Insect: Coleoptera (Beetles)					
Aleochara lucifuga	Rove beetle		WL	GNR	S4
Atheta annexa	Rove beetle		WL	G4	S4
Dynastes tityus	Unicorn Beetle		SR	GNR	S2
Nicrophorus americanus	American Burying Beetle	LE	SX	G2G3	SX
Pseudanophthalmus shilohensis mayfieldensis	Monroe cave ground beetle		SE	G1G2T1T2	S1S2
Pseudanophthalmus stricticollis	Marengo Cave Ground Beetle		WL	G4	S3
Insect: Lepidoptera (Butterflies & Moths)					
Artogeia virginiensis	West Virginia White		SR	G3?	S3
Celastrina nigra	Dusky Azure		ST	G4	S2
Insect: Odonata (Dragonflies & Damselflies)					
Rhionaeschna mutata	Spatterdock Darner		ST	G4	S2S3

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

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

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

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

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

Indiana County Endangered, Threatened and Rare Species List

County: Monroe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Tachopteryx thoreyi	Gray Petaltail		wl	G4	S3
Insect: Tricoptera (Caddisflies)					
Agapetus gelbae	An Agapetus Caddisfly		ST	G3	S2
Diplectrona metaqui	A Diplectronan Caddisfly		ST	G4G5	S2
Goera stylata	A Northern Casemaker Caddisfly		SE	G5	S1
Homoplectra doringa	A Homoplectran Caddisfly		SE	G5	S1
Arachnida					
Dolomedes scriptus	Lined Nursery Web Spider			G5	S1?
Nesticus carteri	Carter's Cave Spider			GNR	S1
Fish					
Amblyopsis hoosieri	Hoosier cavefish	C	SE	G2	S1
Amphibian					
Acris blanchardi	Northern Cricket Frog		SSC	G5	S4
Hemidactylium scutatum	Four-toed Salamander		SSC	G5	S2
Lithobates areolatus circulosus	Northern Crawfish Frog		SE	G4T4	S2
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Reptile					
Clonophis kirtlandii	Kirtland's Snake	C	SE	G2	S2
Crotalus horridus	Timber Rattlesnake		SE	G4	S2
Opheodrys aestivus	Rough Green Snake		SSC	G5	S3
Terrapene carolina carolina	Eastern Box Turtle		SSC	G5T5	S3
Thamnophis proximus proximus	Western Ribbon Snake		SSC	G5T5	S3
Bird					
Accipiter striatus	Sharp-shinned Hawk		SSC	G5	S2B
Aimophila aestivalis	Bachman's Sparrow			G3	SXB
Ardea alba	Great Egret		SSC	G5	S1B
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Buteo platypterus	Broad-winged Hawk		SSC	G5	S3B
Coragyps atratus	Black Vulture			G5	S1N,S2B
Dendroica virens	Black-throated Green Warbler			G5	S2B
Haliaeetus leucocephalus	Bald Eagle		SSC	G5	S2
Helmitheros vermivorus	Worm-eating Warbler		SSC	G5	S3B
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Mniotilta varia	Black-and-white Warbler		SSC	G5	S1S2B
Setophaga cerulea	Cerulean Warbler		SE	G4	S3B
Vermivora chrysoptera	Golden-winged Warbler	C	SE	G4	S1B
Wilsonia citrina	Hooded Warbler		SSC	G5	S3B
Mammal					

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
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Indiana County Endangered, Threatened and Rare Species List

County: Monroe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Lasiurus borealis	Eastern Red Bat		SSC	G3G4	S4
Lasiurus cinereus	Hoary Bat		SSC	G3G4	S4
Mustela nivalis	Least Weasel		SSC	G5	S2?
Myotis lucifugus	Little Brown Bat	C	SSC	G3	S2
Myotis septentrionalis	Northern Long Eared Bat	LT	SSC	G1G2	S2S3
Myotis sodalis	Indiana Bat or Social Myotis	LE	SE	G2	S1
Neotoma magister	Allegheny Woodrat		SE	G3G4	S2
Perimyotis subflavus	Tricolored Bat		SSC	G2G3	S2S3
Sorex fumeus	Smoky Shrew		SSC	G5	S2
Sorex hoyi	Pygmy Shrew		SSC	G5	S2
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Acalypha deamii	Mercury		SR	G4?	S2
Armoracia aquatica	Lake Cress		SE	G4?	S1
Carex timida	Timid Sedge		SE	G2G4	S1
Castanea dentata	American Chestnut		WL	G4	S3
Catalpa speciosa	Northern Catalpa		SR	G4?	S2
Cypripedium parviflorum var. pubescens	Large Yellow Lady's-slipper		WL	G5T5	S3
Epigaea repens	Trailing Arbutus		WL	G5	S3
Hydrastis canadensis	Golden Seal		WL	G3G4	S3
Juglans cinerea	Butternut		WL	G4	S3
Linum striatum	Ridged Yellow Flax		WL	G5	S3
Liparis loeselii	Loesel's Twayblade		WL	G5	S3
Lithospermum incisum	Narrow-leaved Puccoon		SE	G5	S1
Malaxis unifolia	Green Adder's-mouth Orchid		SE	G5	S1
Oryzopsis racemosa	Black-fruit Mountain-ricegrass		SR	G5	S2
Oxalis illinoensis	Illinois Woodsorrel		WL	G4Q	S2
Panax quinquefolius	American Ginseng		WL	G3G4	S3
Platanthera flava var. herbiola	Pale Green Orchis		WL	G4?T4Q	S3
Potamogeton pusillus	Slender Pondweed		WL	G5	S2
Rubus centralis	Illinois Blackberry		SE	G2?Q	S1
Zannichellia palustris	Horned Pondweed		SR	G5	S2
Zizia aptera	Golden Alexanders		SR	G5	S2
High Quality Natural Community					
Forest - floodplain mesic	Mesic Floodplain Forest		SG	G3?	S1
Forest - upland dry Highland Rim	Highland Rim Dry Upland Forest			GNR	S3
Forest - upland dry-mesic Highland Rim	Highland Rim Dry-mesic Upland Forest			GNR	S3
Forest - upland mesic Highland Rim	Highland Rim Mesic Upland Forest			GNR	S3

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
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Indiana County Endangered, Threatened and Rare Species List

County: Monroe

Species Name	Common Name	FED	STATE	GRANK	SRANK
Primary - cave aquatic	Aquatic Cave		SG	GNR	SNR
Primary - cliff limestone	Limestone Cliff		SG	GU	S1
Other Significant Feature					
Geomorphic - Nonglacial Erosional Feature - Water Fall and Cascade	Water Fall and Cascade			GNR	SNR

APPENDIX F
WATER RESOURCES

Wetland Delineation and Waters of the U.S. Report (F-1 to F-20)

FEMA Flood Hazard Maps (F-21 to F-23)

WETLAND DELINEATION AND WATERS OF THE US REPORT

Sare Rd. Multiuse Path and Intersection Project
Monroe Co., IN

Des. No. 1700736

Prepared for:

WSP
115 W. Washington St.
Indianapolis, IN 46204

Prepared by:

NS SERVICES
ENVIRONMENTAL & INFRASTRUCTURE

September 7, 2018

WETLAND DELINEATION AND WATERS OF THE US REPORT
Sare Rd. Multiuse Path and Intersection Project, Monroe Co., IN DES 1700736
Prepared by: Shannon Bonifacio, NS Services
Completed Date: September 7, 2018

Project: The Sare Rd. Multiuse Path and Intersection Project will include the installation of a multi-use path, a pedestrian bridge and intersection improvements within the City of Bloomington, IN.

Dates of Waters Field Investigation: May 21 and August 30, 2018 investigator Shannon Bonifacio.

Location:
Section 2, 3, 10 and 11; Township: 8N; Range: 1W,
Bloomington and Unionville, IN 2016 quadrangles.
Monroe County, IN
Reference Post (s): Intersection of Sare Rd. and Moores Pike
Structure Number (s): N/A
Latitude/longitude: 39.150457/ -86.498365 (Google Earth)

Topography and Landscape: The project area has a mixed watershed of streets, houses, apartment complexes, businesses and upland vegetation. The topography has rolling hills and drains generally to the south towards the East Fork of the White River.

National Wetland Inventory (NWI) Information: NWI shows one wetland less than 0.25 miles to the north of E Hunters Glen Rd and east of Sare Rd.

Soils:
According to the Soil Survey Geographic (SSURGO) Database (NRCS) for Monroe County, Indiana, ten soils are present within the project area:

Map Abbreviation	Soil Name	Classification
Ba	Bartle silt loam, 0 to 2 percent slopes	not hydric (≤3%)
BdB	Bedford silt loam, 2 to 6 percent slopes	100% non-hydric
CaD	Caneyville silt loam, 12 to 18 percent slopes	100% non-hydric
CoF	Corydon Variant-Caneyville Variant complex, 25 to 70 percent slopes	100% non-hydric
CrC	Crider silt loam, 6 to 12 percent slopes	100% non-hydric
CtC	Crider-Urban land complex, 6 to 12 percent slopes	100% non-hydric
EkB	Elkinsville silt loam, 2 to 6 percent slopes	100% non-hydric
HaE	Hagerstown silt loam, 18 to 25 percent slopes	100% non-hydric
Hd	Haymond silt loam, frequently flooded	not hydric (≤3%)
IvA	Iva silt loam, 0 to 2 percent slopes	not hydric (≤5%)

12 Digit Hydrologic Unit Code (HUC): 051202080801

Attached documents:
Maps (project location, aerial, topographic, NRCS Soils, NWI, Floodzone and LIDAR)
Proposed wetland delineation location/orientation map (Figure 9, 10 and 11)
Site photographs
Delineation Sheets
Pre-JD Determination

1.0 INTRODUCTION

The project includes the construction of a new 10-foot wide multi-use path to be constructed along the west side of Sare Road from Buttonwood Lane to Moores Pike along with a new pedestrian bridge to be constructed across Jackson Creek. The project will also include intersection improvements at the Sare Road and Moores Pike intersection consisting of new signal equipment and improved curb ramps at the intersection.

2.0 FIELD RECONNAISSANCE

Biologist Shannon Bonifacio visited the site on May 21 and August 30, 2018 to evaluate the site for the potential presence of wetlands and other jurisdictional waters and delineate their boundaries. Methods follow *1987 US Army Corps of Engineers (COE)Wetland Delineation Manual* and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual – Midwest Region and COE Regulatory Guidance Letter 16-1 (2016)*.

2.1 SOILS

According to the Natural Resource Conservation Service Soil Data Mapper (NRCS http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx) there are ten non-hydric soils present within the project area. Bartle silt loam 0 to 2 percent slopes (≤3% hydric); Bedford silt loam, 2 to 6 percent slopes (100% non-hydric); Caneyville silt loam, 12 to 18 percent slopes (100% non-hydric); Corydon Variant-Caneyville Variant complex, 25 to 70 percent slopes (100% non-hydric); Crider silt loam, 6 to 12 percent slopes (100% non-hydric); Crider-Urban land complex, 6 to 12 percent slopes (100% non-hydric); Elkinsville silt loam, 2 to 6 percent slopes (100% non-hydric); Hagerstown silt loam, 18 to 25 percent slopes (100% non-hydric); Haymond silt loam, frequently flooded (≤3% hydric); Iva silt loam, 0 to 2 percent slopes (≤5% hydric).

2.2 HYDROLOGY

The drainage area upstream of the project area into Jackson Creek is 1.8 square miles (http://water.usgs.gov/osw/streamstats/indiana.html). The drainage area is 75.1% urban development and 0% wetland per streamstats. Parts of the project area are located within a floozone.

2.3 *STREAMS*

All drainage in the project area drains into the East Fork of the White River, located approximately 21.5 miles south of the project area. Tributaries within the project area are Jackson Creek, UNT1, UNT2 and UNT3. UNT1, UNT2 and UNT3 all flow into Jackson Creek. All tributaries within the project area ultimately flow to the East Fork of the White River, a navigable water, thus likely Jurisdictional Waters of the US.

Jackson Creek

Jackson Creek flows from north to southwest within the project area and is considered a likely Jurisdictional Water of the US. Jackson Creek is a dashed blue-line (intermittent) USGS stream symbol shown on the 2016 Bloomington and Unionville, IN Quadrangle Map. Jackson Creek crosses the project area at two places. Once at the intersection of Sare Rd. and Moores Pike and once futher south on Sare Rd. The area surrounding it is primarily upland deciduous forest bisected by roadway. Water quality Jackson Creek is likely fair, the project is within a largely forested area, however, Jackson Creek is also impacted by being alongside highly trafficked roadways.

The substrate of the majority of Jackson Creek. with-in the project area is cobble-gravel. There are no riffle and pool complexes within UNT channel in this reach. Jackson Creek has an OHWM width of about 20' with a depth of 1.5'. The Cowardin classification for UNT to Wabash River is R4SB3 (riverine, intermittent, streambed, cobble-gravel).

UNT1

UNT1 is located in the northern tip of the project area. It flows southwest from the east and after exiting the project area it joins with Jackson Creek and ultimately flows into the East Fork of White River. It is considered a likely Jurisdictional Water of the US. UNT1 is not a USGS mapped stream. UNT1 is located in a field surrounded by a shopping plaza. Water Quality in UNT1 is likely fair due to it being impacted by being within a highly trafficked area.

One soil pit was taken adjacent to UNT1 to check for wetland characteristics. The area was determined not to be a wetland, see Section 2.4 Wetlands. The substrate of the majority of UNT1 with-in the project area is cobble-gravel. There are no riffle and pool complexes within UNT1 channel in this reach. The OHWM is approximately 5 ft. wide and the depth of OHWM is about 3". The Cowardin classification for UNT1 is R4SB3 (riverine, intermittent, streambed, cobble-gravel).

UNT2

UNT2 flows from the northwest to the southeast and joins up with Jackson Creek within the project area. It is considered a likely Jurisdictional Water of the US. UNT2 is a dashed blue-line (intermittent) USGS stream symbol shown on the 2016 Bloomington and Unionville, IN Quadrangle Map. UNT2 is surrounded by upland deciduous forest bisected by roadway. Water Quality in UNT2 is likely fair. It is located within a largely forested area, however, it is also impacted by being alongside highly trafficked roadways.

The substrate of the majority of UNT2 with-in the project area is bedrock. There are no riffle and pool complexes within UNT2 channel in this reach. The OHWM is approximately 10 ft. wide and the depth of OHWM is about 2'. The Cowardin classification for UNT2 is R4SB1 (riverine, intermittent, streambed, bedrock)

UNT3

UNT3 is located along Sare RdMccartney Ln. It flows east under Sare Rd through a culvert and into Jackson Creek outside of the project area. Due to the fact that UNT3 runs through the uplands and ultimately carries water to Jackson Creek, it is considered a likely Jurisdictional Water of the US. UNT3 is not a USGS mapped stream and runs through a residential area. The channel is concrete on both sides of Sare Rd. It is about 2' wide and 1" deep. Water quality in UNT3 is likely fair due to it being channelized and running through a residential area. The Cowardin classification for UNT3 is R4SB (riverine, intermittent, streambed).

UNT4

UNT4 is located along Sare Rd., S of S Mccartney Ln. It flows east under Sare Rd through a culvert and into Jackson Creek outside of the project area. Since UNT4 also runs through the uplands and ultimately carries water to Jackson Creek, it is considered a likely Jurisdictional Water of the US. UNT4 is not a USGS mapped stream. UNT4 runs through a residential area. East of Sare Rd., the channel is concrete, west of Sare Rd., it is a riprapped channel. Water quality in UNT3 is likely fair due to it being channelized and running through a residential area.

The substrate of the of UNT4 is different on either side of Sare Rd. To the east of Sare Rd the channel is concrete and about 2' wide and 1" deep. To the west of Sare Rd., the channel is riprapped. There are no riffle and pool complexes within UNT3 channel in this reach. The OHWM is approximately 5 ft. wide and the depth of OHWM is about 1'. The Cowardin classification for UNT4 is R4SB (riverine, intermittent, streambed).

Roadside Ditches

No roadside ditches were present within the project area. Most of the area along the roadsides is landscaped and has sidewalks. Drainage has been routed through culverts.

2.4 WETLANDS

National Wetland Inventory (NWI) maps Jackson Creek as "Riverine", and it is shown as a blue line on the NWI map. NWI shows two wetlands less than 0.25 miles to the east of the project area. No wetlands were identified in the project area during site reconnaissance.

One soil pit was taken adjacent to UNT1 to check for wetland characteristics. The area was determined not to be a wetland. Vegetation, Common Blue Violet (*Viola sororia)* and Bermuda Grass (*Cynodon dactylon)*, was either FAC or upland. Additionally, the soil was found to be non-hydric and wetland hydrology was not present.

Vegetation within the project area is comprised primarily of upland species. Grassy areas were comprised of Bermuda grass and crabgrass (*Digitaria sp*.). Tree areas consisted primarily of sugar maple (*Acer Saccharum*), slippery elm (*Ulmus rubra*) and dogwood (*Cornus florida).*

Understory species include honeysuckle (Lonicera morrowii), goldenrod (*Solidago canadensis*), and multiflora rose (*rosa multiflora*).

3.0 CONCLUSIONS

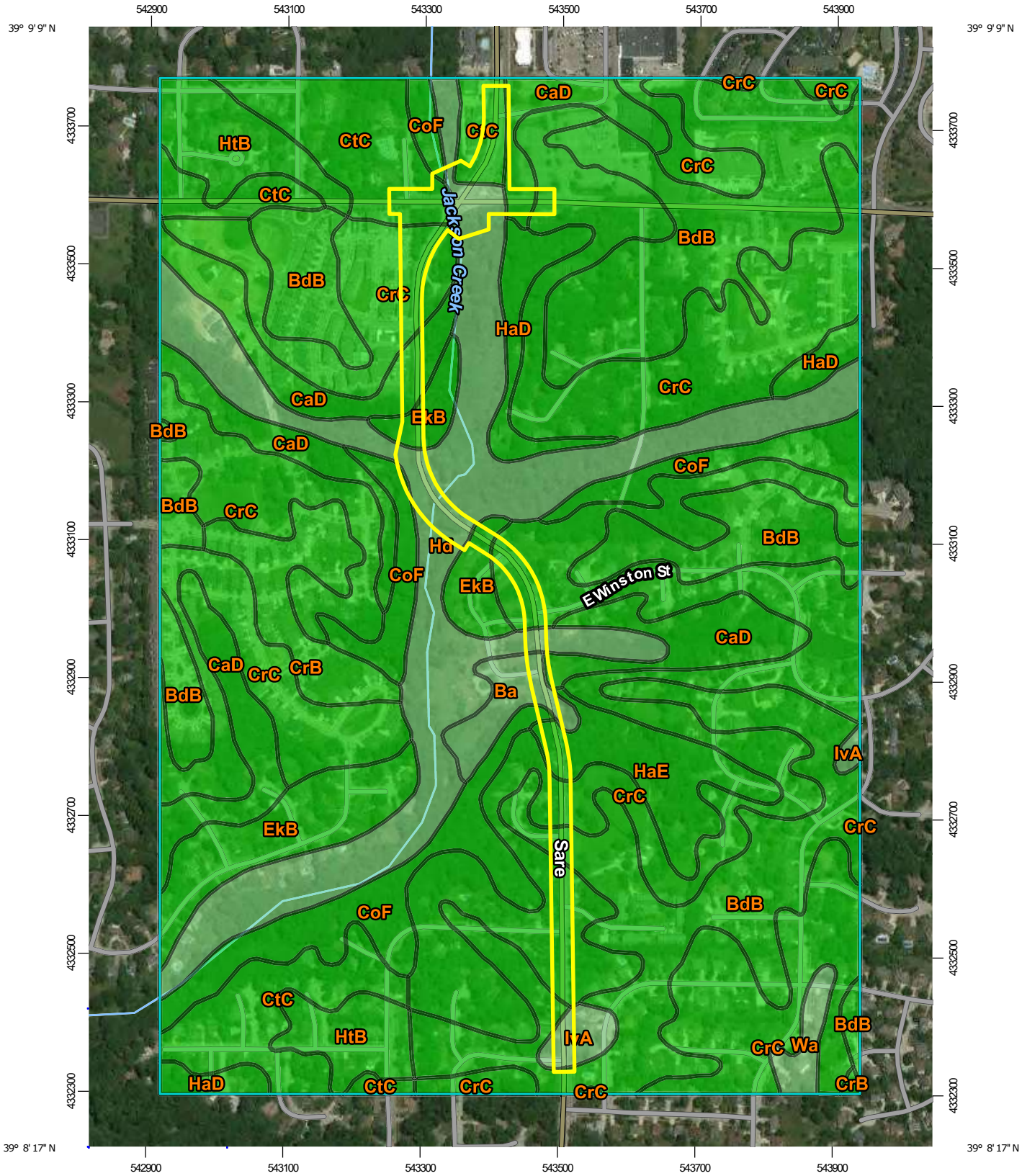
Proposed Jurisdictional Waters of the US were found in the project area. Tributaries within the project area are Jackson Creek, UNT1, UNT2, UNT3 and UNT4. UNT1, UNT2, UNT3 and UNT4 all flow into Jackson Creek. All tributaries within the project area ultimately flow to the East Fork of the White River, a navigable water, thus likely Jurisdictional Waters of the US. No wetlands were found within the project area. However, there is one NWI mapped wetland within 0.25 mile of the project area.

Jackson Creek, UNT1, UNT2, UNT3 and UNT4 should be presumed to be under the jurisdiction of both the USACE and IDEM (**Table 1**). See the attached Preliminary Jurisdictional Determination form in Appendix 4.0. Efforts should be taken to avoid and minimize impacts to these waterways. If impacts are necessary, permitting and possibly mitigation may be required. The final determination of jurisdictional waters is ultimately made by the USACE. This report represents the investigation of the study area with respect to wetlands and Jurisdictional Waters of the US based on the Section 404, Clean Water Act guidelines set forth by the USACE and our best professional judgment.

Table 1. Stream Summary DES 1401288 Happy Hollow Neighborhood Trail, Tippecanoe County, IN.

Stream Name	Photos	Lat/Long	OHWM Width (feet)	OHWM Depth (feet)	USGS Blue-Line?	Substrate	Riffles, Pools?	Quality	Likely Jurisdictional Water of the US?
Jackson Creek	15, 16, 17, 18, 19, 20, 21, 22, 23	39.15060/-86.49847	20’	1.5’	Yes	Cobble-gravel	No	Fair	Yes
UNT1	4, 6, 8, 10	39.15191/-86.49742	5’	0.25’	No	Cobble-gravel	No	Fair	Yes
UNT2	37, 38, 40	39.14684/-86.4988	10’	2’	Yes	Bedrock	No	Fair	Yes
UNT3	71, 73	39.14481/-86.49699	5’	1’	No	Concrete	No	Fair	Yes
UNT4	65, 67	39.143975/-6.496813	2’	1’	No	Riprap	No	Fair	Yes

Hydric Rating by Map Unit—Monroe County, Indiana
(Des. No. 1700736; Sare Road Multiuse Path and Intersection Project)



F-8

MAP LEGEND

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

Soils

Soil Rating Polygons
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Lines
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Soil Rating Points
- Hydric (100%)
- Hydric (66 to 99%)
- Hydric (33 to 65%)
- Hydric (1 to 32%)
- Not Hydric (0%)
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

Soil Survey Area: Monroe County, Indiana
Survey Area Data: Version 24, Oct 2, 2017

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

Date(s) aerial images were photographed: Apr 25, 2014—Mar 20, 2017

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

Hydric Rating by Map Unit

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ba	Bartle silt loam, 0 to 2 percent slopes	3	3.5	0.9%
BdB	Bedford silt loam, 2 to 6 percent slopes	0	74.6	20.0%
CaD	Caneyville silt loam, 12 to 18 percent slopes	0	27.8	7.5%
CoF	Corydon Variant-Caneyville Variant complex, 25 to 70 percent slopes	0	20.4	5.5%
CrB	Crider silt loam, 2 to 6 percent slopes	0	8.3	2.2%
CrC	Crider silt loam, 6 to 12 percent slopes	0	124.7	33.5%
CtC	Crider-Urban land complex, 6 to 12 percent slopes	0	25.2	6.8%
EkB	Elkinsville silt loam, 2 to 6 percent slopes	0	13.9	3.7%
HaD	Hagerstown silt loam, 12 to 18 percent slopes	0	7.3	2.0%
HaE	Hagerstown silt loam, 18 to 25 percent slopes	0	8.3	2.2%
Hd	Haymond silt loam, frequently flooded	3	42.9	11.5%
HtB	Hosmer-Urban land complex, 2 to 12 percent slopes	0	11.5	3.1%
IvA	Iva silt loam, 0 to 2 percent slopes	5	2.3	0.6%
Wa	Wakeland silt loam, frequently flooded	3	2.0	0.5%
Totals for Area of Interest			**372.7**	**100.0%**

Description

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

Rating Options

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower

Figure 6 - National Wetland Inventory Map
Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana

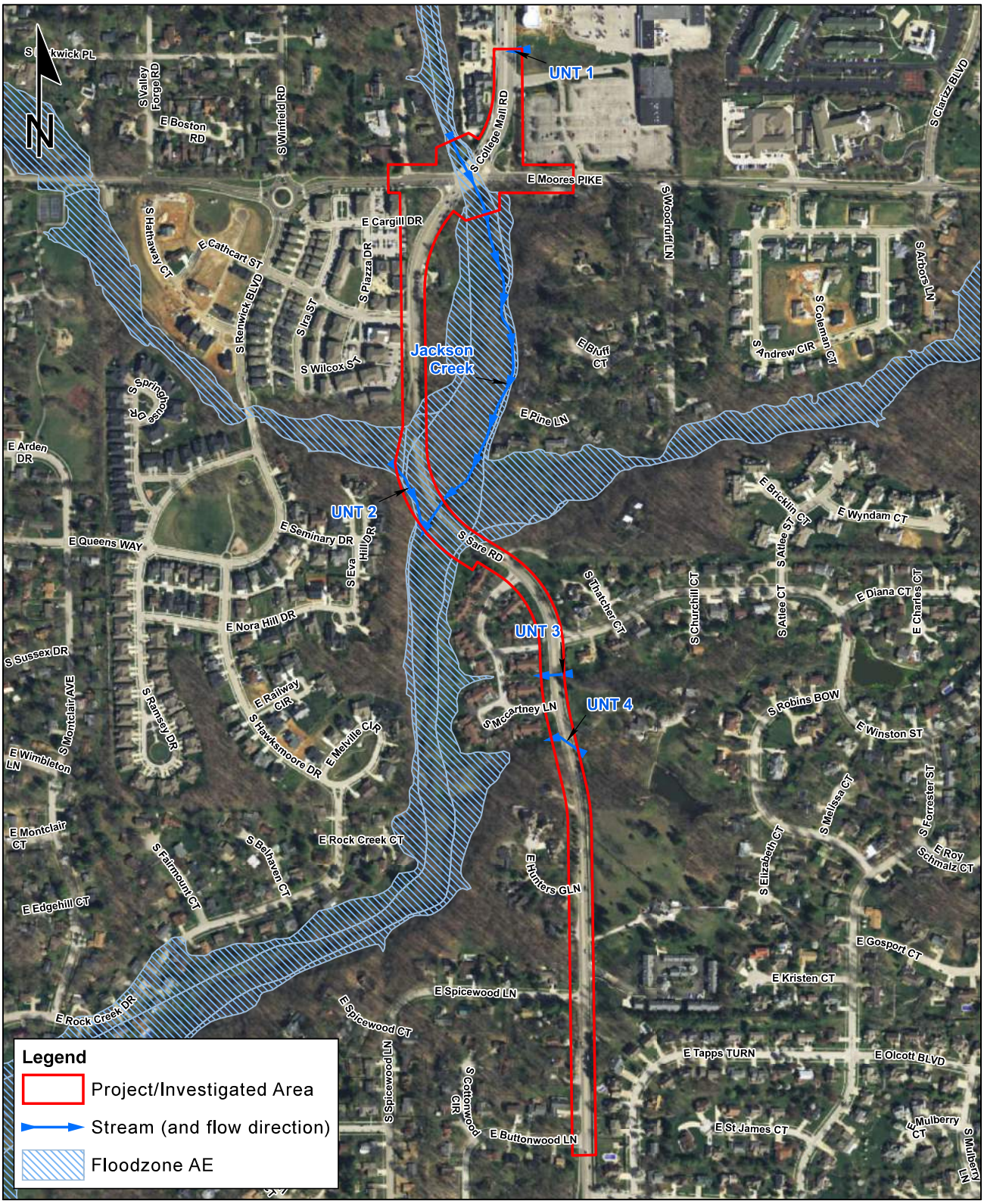
400 200 0 400 Feet

Sources:
Non Orthophotography Data
- Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
Date: 9/6/2018

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

FIGURE 6 - NATIONAL WETLAND INVENTORY MAP
SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736

Figure 7 - Floodzone Map
Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana



400 0 400 Feet

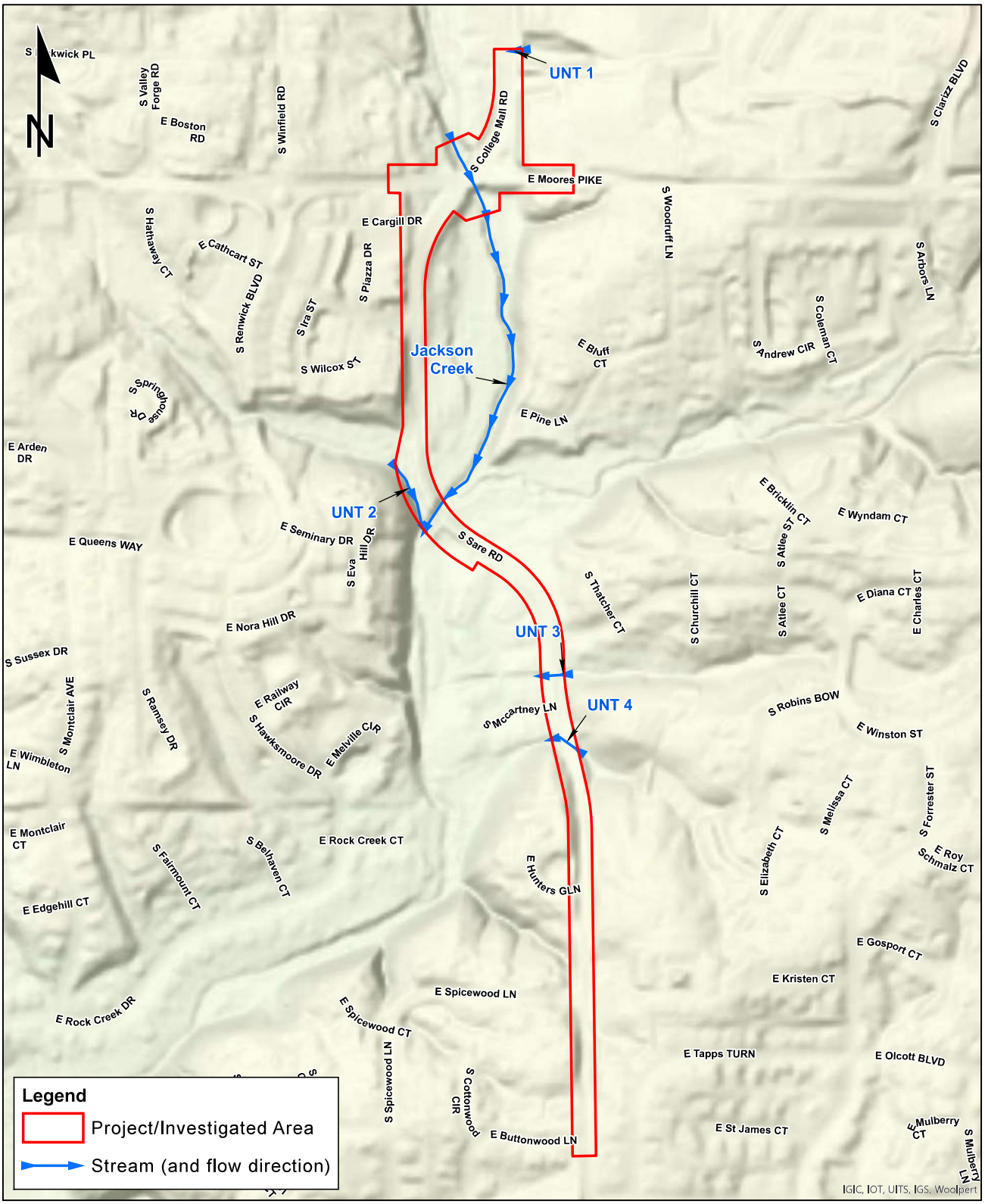
Sources:
Non Orthophotography Data
- Obtained from the State of Indiana Geographical Information Office Library

Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
Date: 9/5/2018

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

FIGURE 7 - FLOODZONE MAP
SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736

Figure 8 - LIDAR Map
Sare Rd. Multiuse Path and Intersection Project
Des. No. 1700736
Bloomington, Monroe County, Indiana



400 0 400 Feet

Sources:
Non Orthophotography Data
- Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83
Date: 9/5/2018

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

FIGURE 8 - LIDAR MAP
SARE ROAD MULTIUSE PATH AND INTERSECTION PROJECT
DES. NO. 1700736

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Sare Rd. Multiuse Path and Intersection Proje | City/County: Monroe | Sampling Date: 5/21/18

Applicant/Owner: INDOT | State: IN | Sampling Point: DEL1

Investigator(s): Shannon Bonifacio | Section,Township, Range: Sections 2,3,10,11 Twnshp 8N, Range 1W

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

Slope (%): 0 | Lat: 39.15191 | Long: -86.49742 | Datum: WGS84

Soil Map Unit Name: CtC-Crider-Urban land complex, 6 to 12 percent slopes | NWI Classification: upland

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

Are vegetation ____, soil ____, or hydrology ____ significantly disturbed? Are "normal circumstances" present? Yes x No ____

Are vegetation ____, soil ____, or hydrology ____ naturally problematic? remarks.)

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

Hydrophytic vegetation present?	no	**Is the Sampled Area within a Wetland?** Yes ____ No x
Hydric soil present?	no	
Wetland hydrology present?	no	

Remarks: (Explain alternative procedures here or in a separate report.)

VEGETATION -- Use scientific names of plants.

Tree Stratum (Plot size: N/A)	Absolute % Cover	Dominant Species	Indicator Staus
1			
2			
3			
4			
5			
	0	= Total Cover	

Sapling/Shrub stratum (Plot size: N/A)			
1			
2			
3			
4			
5			
	0	= Total Cover	

Herb stratum (Plot size: 10)			
1 *Viola sororia*	30	Y	FAC
2 *Cynodon dactylon*	20	Y	UPL
3			
4			
5			
6			
7			
8			
9			
10			
	50	= Total Cover	

Woody vine stratum (Plot size: N/A)			
1			
2			
	0	= Total Cover	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	30	x 3 =	90
FACU species	0	x 4 =	0
UPL species	20	x 5 =	100
Column totals	50 (A)		190 (B)

Prevalence Index = B/A = 3.80

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

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

___ Problematic Hydrophytic Vegetation[1] (Explain)

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

Hydrophytic vegetation present? Yes ____ No X

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

Vegetation is either FAC or UPL

SOIL

Sampling Point: DEL1

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

Depth (Inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/2	90	10YR 6/4	10	C	M		
4-10	10YR 3/3	90	10YR 6/4	10	C	M		
11-15	10YR 5/2	70	10YR 6/8	30	C	M		
16-18	10YR 5/2	50	10YR 6/8	50	C	M		

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

Hydric Soil Indicators:

- ___ Histisol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ 2 cm Muck (A10)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ 5 cm Mucky Peat or Peat (S3)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ Coast Prairie Redox (A16) (**LRR K, L, R**)
- ___ Dark Surface (S7) (**LRR K, L)**
- ___ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- ___ Iron-Manganese Masses (F12) (**LRR K, L, R**)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (explain in remarks)

[3]Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? Yes _____ No x

Remarks:

Soil did not meet the hydric soil crieteria

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ True Aquatic Plants (B14)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Gauge or Well Data (D9)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

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

Field Observations:

Surface water present?	Yes ___	No x	Depth (inches):		
Water table present?	Yes ___	No x	Depth (inches):		
Saturation present? (includes capillary fringe)	Yes ___	No x	Depth (inches):		

Wetland hydrology present? Yes _____ No x

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Wetland hydrology was not present

Appendix 2 - PRELIMINARY JURISDICTIONAL DETERMINATION (PJD) FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PJD: 9/7/2018

B. NAME AND ADDRESS OF PERSON REQUESTING PJD: Shannon Bonifacio, NS Services, 4974 S. Cobblestone Drive, Zionsville, IN 46077

C. DISTRICT OFFICE, FILE NAME, AND NUMBER: 1700736 - Sare Rd. Multiuse Path and Intersection Project

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE TABLE BELOW TO DOCUMENT MULTIPLE AQUATIC RESOURCES AND/OR AQUATIC RESOURCES AT DIFFERENT SITES)

State: IN County/parish/borough: Monroe City: Bloomington

Center coordinates of site (lat/long in degree decimal format):

Lat.: 39.150457 Long.: -86.498365

Universal Transverse Mercator:

Name of nearest waterbody: East Fork of the White River

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

☒ Office (Desk) Determination. Date: 6/7/2018

☒ Field Determination. Date(s): 5/21/2018 and 8/30/2018

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Jackson Creek	39.15060	-86.49847	100 ft	non-wetland	Section 404
UNT1	39.15191	-86.49742	100 ft	non-wetland	Section 404
UNT2	39.14684	-86.4988	100 ft	non-wetland	Section 404
UNT3	39.14481	-86.49699	100 ft	non-wetland	Section 404
UNT4	39.143975	-6.496813	100 ft	non-wetland	Section 404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [■] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Map: _____.
- [■] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [ ] U.S. Geological Survey Hydrologic Atlas: _____.
  - [ ] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [ ] U.S. Geological Survey map(s). Cite scale & quad name: _____.
- [■] Natural Resources Conservation Service Soil Survey. Citation: _____.
- [■] National wetlands inventory map(s). Cite name: _____.
- [ ] State/local wetland inventory map(s): _____.
- [■] FEMA/FIRM maps: _____.
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [■] Photographs: [ ] Aerial (Name & Date): _____.
  or [ ] Other (Name & Date): _____.
- [ ] Previous determination(s). File no. and date of response letter: _____.
- [ ] Other information (please specify): _____.

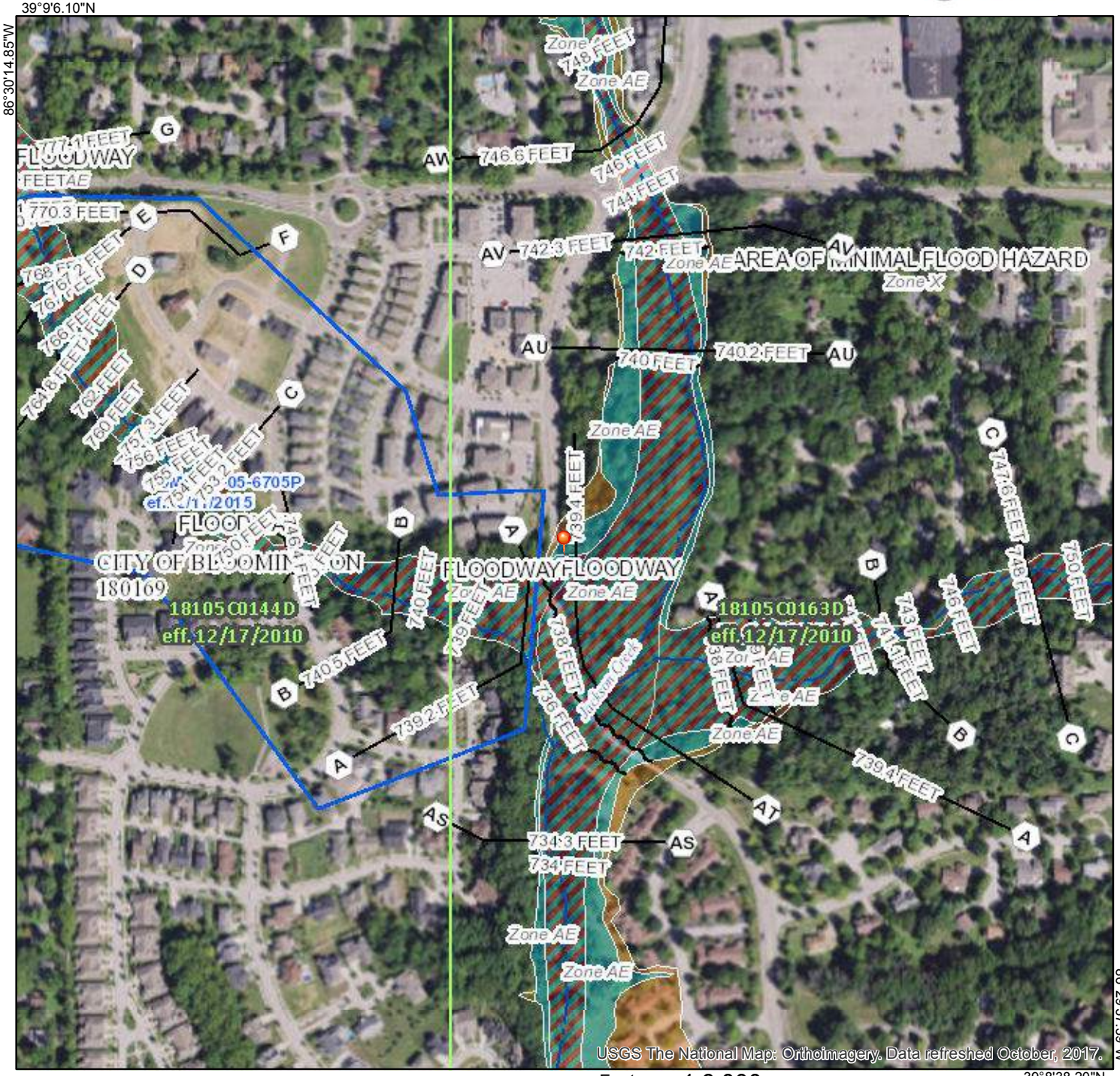
IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

_____	Shannon Bonifacio Digitally signed by Shannon Bonifacio Date: 2018.09.07 15:40:49 -04'00'
Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining the signature is impracticable)[1]

[1] Districts may establish timeframes for requestor to return signed PJD forms. If the requestor does not respond within the established time frame, the district may presume concurrence and no additional follow up is necessary prior to finalizing an action.

National Flood Hazard Layer FIRMette

FEMA



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Legend

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

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

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

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

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

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

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

N

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

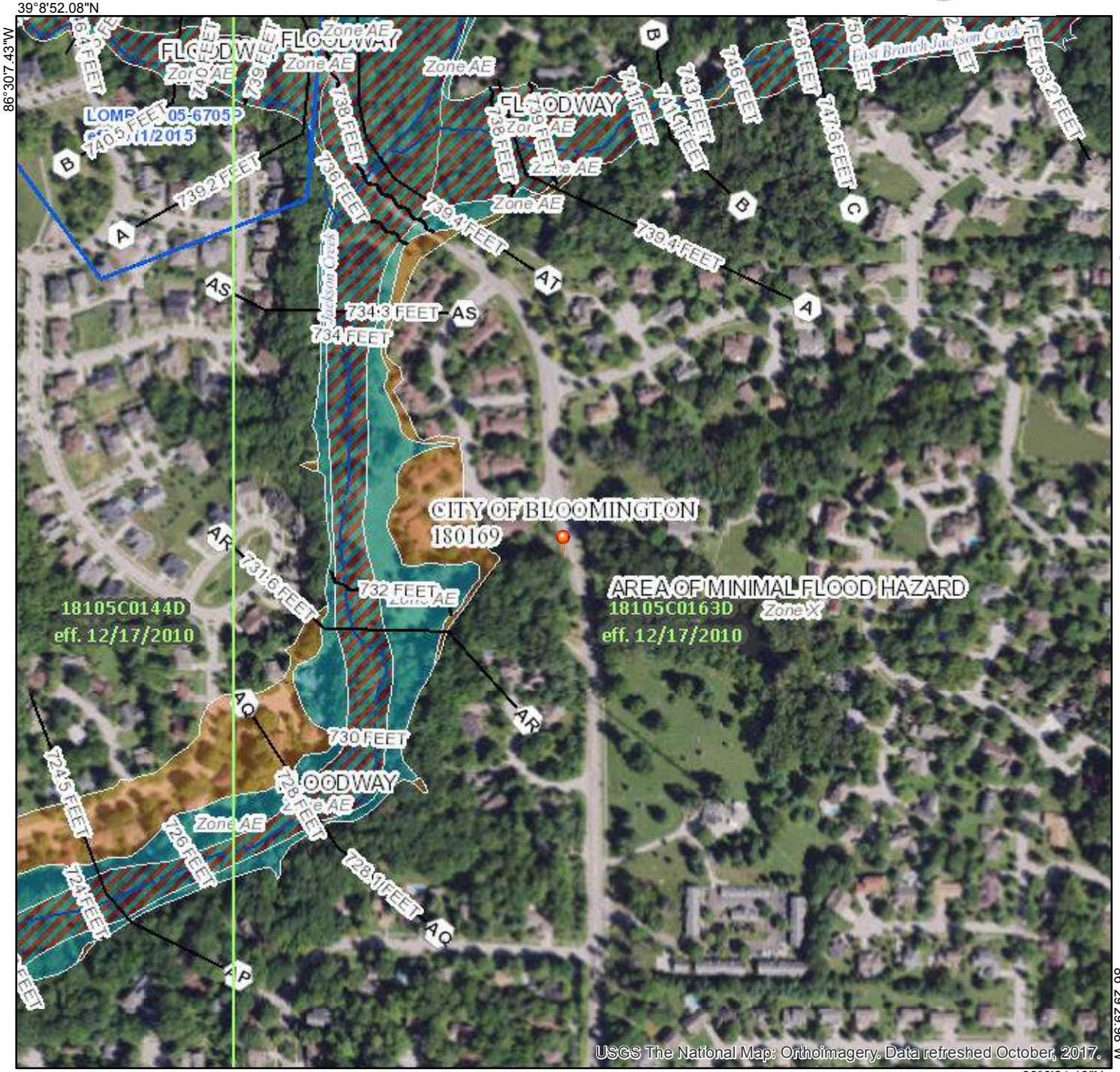
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/26/2019 at 7:54:58 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

National Flood Hazard Layer FIRMette

FEMA



Feet

0 250 500 1,000 1,500 2,000

1:6,000

Legend

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- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

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

N

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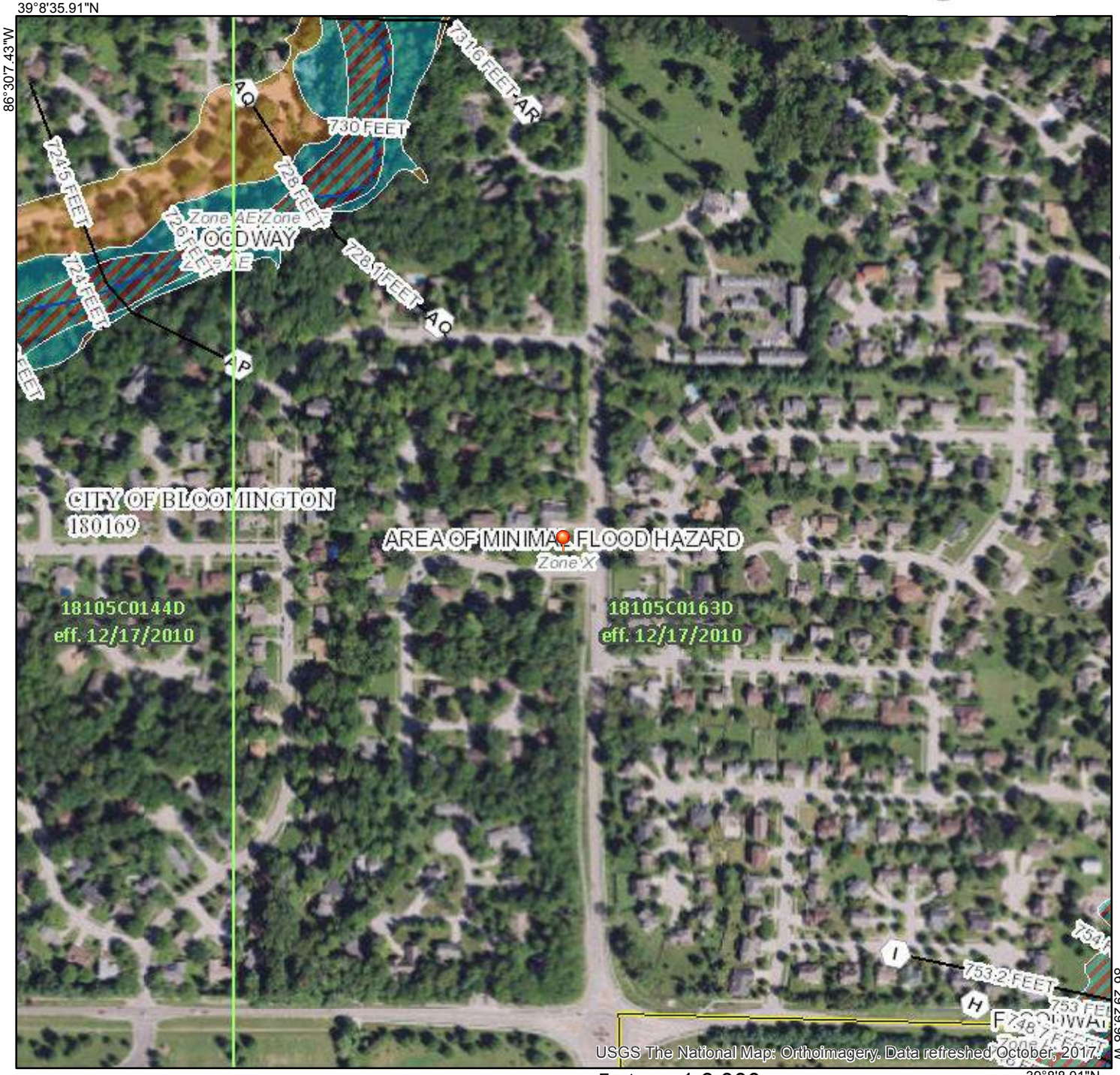
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory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

National Flood Hazard Layer FIRMette

FEMA



0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

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

SPECIAL FLOOD HAZARD AREAS
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- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

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

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 2/26/2019 at 7:54:11 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

APPENDIX G
PUBLIC INVOLVEMENT

Survey Notice (G-1)

Utility Initial Notice (G-2 to G-3)

SJCA P.C.
ENGINEERS & SURVEYORS

Certified MBE, State of Indiana; City of Indianapolis INDOT Certified DBE

Job#18SU002

NOTICE OF SURVEY
March 30, 2018

RE: PROJECT: Sare Road
Road Rehabilitation
Bloomington, Indiana

Dear Property Owner:

Our information indicates that you own or occupy property near this proposed road rehabilitation construction project. Our employees will be doing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is allowed by Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or someone else occupies it, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as buildings, trees, fences, and drives, and obtaining ground elevations. This work is necessary for the proper planning and design of the road rehabilitation construction project. Please be assured of our sincere desire to cause you as little inconvenience as possible during the survey. If any problems do occur, please contact our field crew or contact me at the phone number or address shown below.

We do appreciate your input regarding any issues that this project may encounter during the design phase. Included with this notice is a short questionnaire that you can fill out and return to us in the enclosed self-addressed stamped envelope. Thank you, in advance, for your participation in this process.

Sincerely,

SJCA P.C.

Daniel G. Kovert

Daniel G. Kovert, PE, PS
Director of Surveying
dkovert@sjca-pc.com

January 22, 2019

Subject: Initial Notice of Proposed Improvement Project Des. No. 1700736

Dear Sir/Madam,

Our firm has been assigned the task of utility coordination for the project referenced above by the Indiana Department of Transportation. In accordance with 105 IAC 13-3-1(c), this letter serves as your initial notice of the proposed improvement project Des. No. 1700736 in Monroe County, Indiana.

In accordance with 105 IAC 13-3-1(c), the following information is provided. The dates listed in items (4) and (5) below are the currently scheduled dates.

(1) Name or route number:	Sare Road
(2) Geographical limits:	Multi-use Trail on Sare Road from Moores Pike to Buttonwood Lane
(3) General description of work:	Bike/Pedestrian Facilities
(4) Date approved work plan and cost estimate will be needed:	September 6, 2019
(5) Ready for contracts date:	November 6, 2019
(6) Name of designer and contact information:	John Bowen, WSP USA, (317) 972 - 4524
(7) Major or minor project:	Minor

In accordance with 105 IAC 13-3-1(d), within 30 days (**February 21st**) after receiving the initial notice, the utility shall respond in writing with either a description of the type and location of its facilities within the geographical limits of the proposed improvement project; or a statement that the utility has no facilities within the geographical limits of the improvement project.

Additionally, please provide us the name, telephone number, postal address and email address of the person selected as your designated contact for this project to expedite future communications. We will contact Indiana 811 and request locates for this project prior to our survey. If you would prefer to provide us location information by some other means, please contact this office to discuss.

Please send your response to Mr. Danny Williamson, WSP USA, 115 W. Washington St., Suite 1270s, Indianapolis, IN 46204 at (317) 972-4515, email: danny.williamson@wsp.com. Thank you for your attention to these matters.

Sincerely,

Danny Williamson
Civil Engineer

APPENDIX H

AIR QUALITY

TIP 2018-2021 (H-1)

STIP 2018-2021 (H-2)

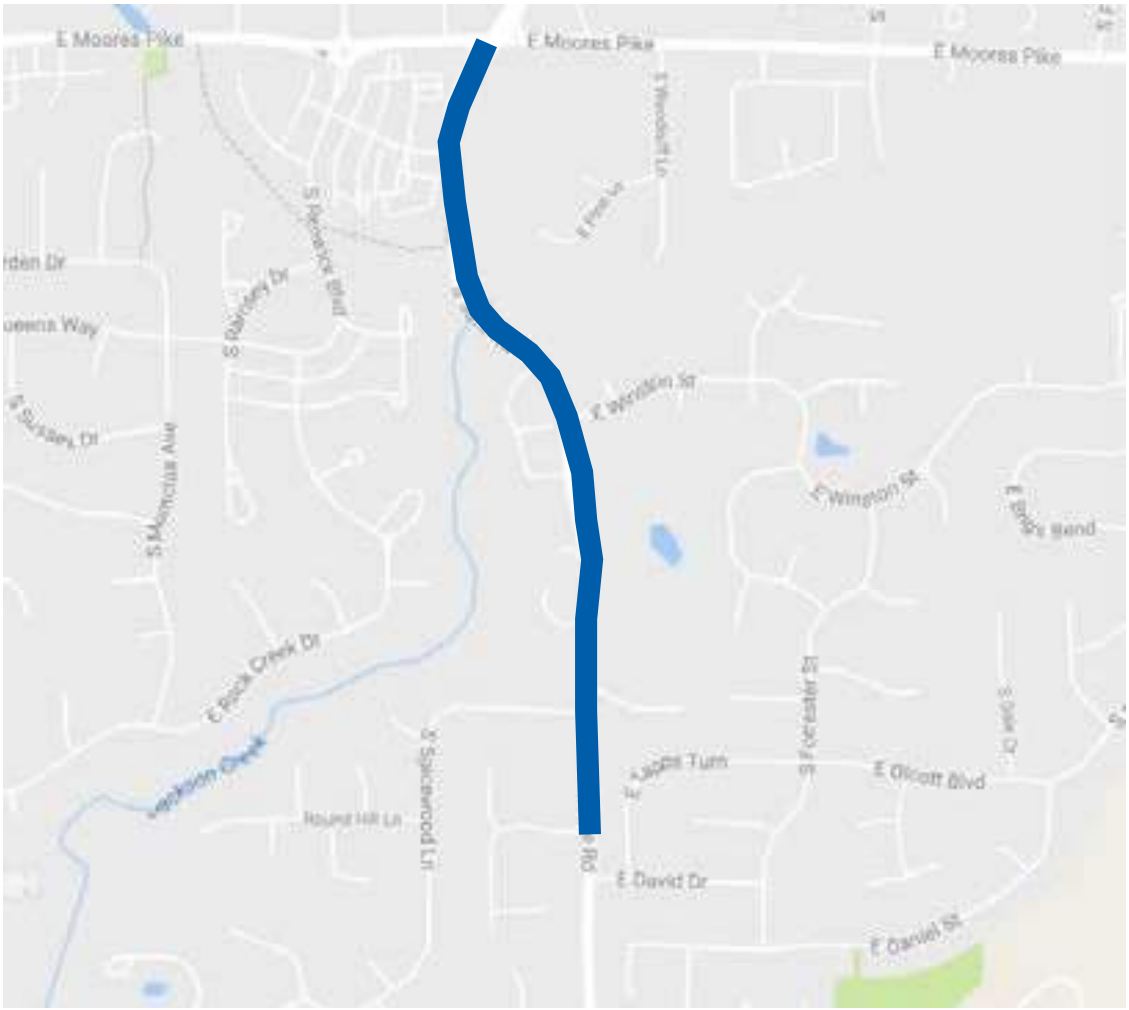
Sare Road Multiuse Path

DES# 1700736

Letting Date: January 15, 2020

Multiuse path construction on Sare Road from approximately Moores Pike to Buttonwood Lane with intersection enhancements along the route as needed to facilitate street crossings. The project also includes intersection improvements at the Sare Road and Moores Pike intersection.

Project Phase	Fiscal Year	Federal Source	Federal Funding	Local Match	Total
PE	2018	STP	$270,491	$68,831	$339,322
RW	2019	-	$-	$144,000	$144,000
CE	2020	STP	$174,000	$43,500	$217,500
CN	2020	STP	$1,160,000	$290,000	$1,450,000
Totals			$1,604,491	$546,331	$2,150,822



Indiana Department of Transportation (INDOT)

State Preservation and Local Initiated Projects FY 2018 - 2021

SPONSOR	CONTRACT # / LEAD DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2018	2019	2020	2021
Bloomington	40293 / 1700735	A 04	ST 1014	Bike/Pedestrian Facilities	From existing B-Line Trail terminus at Adams Street to 17th at Crescent	Seymour	.795	STP	$2,317,500.00	Bloomington MPO	CN	$1,150,000.00	$0.00				$1,150,000.00
										100% Local Funds	CN	$0.00	$287,500.00				$287,500.00
Comments:Amend FY2018-2021 STIP. Add funding for FY19 PE, FY20 R/W, and FY21 CN. This project is in the new BMCMPO FY2018-2021 TIP.																	
Bloomington	40294 / 1700736	A 01	VA 1036	Bike/Pedestrian Facilities	Multi-use Trail on Sare Road from Moores Pike to Buttonwood Lane	Seymour	.833	STP	$2,061,500.00	100% Local Funds	CN	$0.00	$333,500.00			$333,500.00	
										Bloomington MPO	PE	$166,491.00	$0.00	$166,491.00			
										Bloomington MPO	CN	$1,334,000.00	$0.00			$1,334,000.00	
										100% Local Funds	RW	$0.00	$144,000.00		$144,000.00		
										100% Local Funds	PE	$0.00	$83,509.00	$83,509.00			
Comments:Amend new project to current STIP. Add FY18 PE funding, FY19 R/W funding, and FY20 CN funding. This is a new project. Project is in new BMCMPO FY2018-2021 TIP.																	
Bloomington	40336 / 1700974	A 02	VA 1032	Bike/Pedestrian Facilities	Systematic safety improvements expected to include approximately 25	Seymour	0	Safety	$670,000.00	100% Local Funds	PE	$0.00	$100,000.00	$100,000.00			
										Bloomington MPO	CN	$470,684.00	$0.00			$470,684.00	
										100% Local Funds	CN	$0.00	$99,316.00			$99,316.00	
Comments:Amend FY18-21 STIP. Add FY18 PE funding- 100% Local Funds. Add FY20 CN funding- Bloomington MPO HSIP & 100% Local Funds. This project is in the new BMCMPO FY18-21 TIP.																	
Bloomington	40337 / 1700976	A 04	VA 1032	Bike/Pedestrian Facilities	Systematic safety improvements expected to include approximately 25	Seymour	0	Safety	$670,000.00	100% Local Funds	CN	$0.00	$99,316.00				$99,316.00
										100% Local Funds	PE	$0.00	$100,000.00		$100,000.00		
										Bloomington MPO	CN	$470,684.00	$0.00				$470,684.00
Comments:Amend FY2018-2021 STIP. Add funding for FY19 R/W and FY21 CN. This project is in the new BMCMPO FY18-21 STIP.																	
Indiana Department of Transportation	40932 / 1801171	A 24	SR 37	Bridge Thin Deck Overlay	03.65 miles S of SR 45 over Abandoned RR NBL	Seymour	0	NHPP	$435,058.00	Bridge Construction	CN	$316,046.40	$79,011.60			$395,058.00	
										Bridge Consulting	PE	$32,000.00	$8,000.00		$40,000.00		
Comments:Amend PE in FY 2019 and CN in FY 2020. Amended to BMCMPO's TIP per Resolution FY 2018-09 dated 5/11/18.																	
Indiana Department of Transportation	40948 / 1800968	A 24	SR 45	Concrete Pavement Restoration (CPR)	I-69 to 0.38 miles E of I-69 (End of concrete)	Seymour	.38	NHPP	$2,397,557.00	Road Consulting	PE	$16,000.00	$4,000.00		$20,000.00		
										Road Construction	CN	$1,902,045.60	$475,511.40				$2,377,557.00

Report Created:2/11/2019 7:11:58AM

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

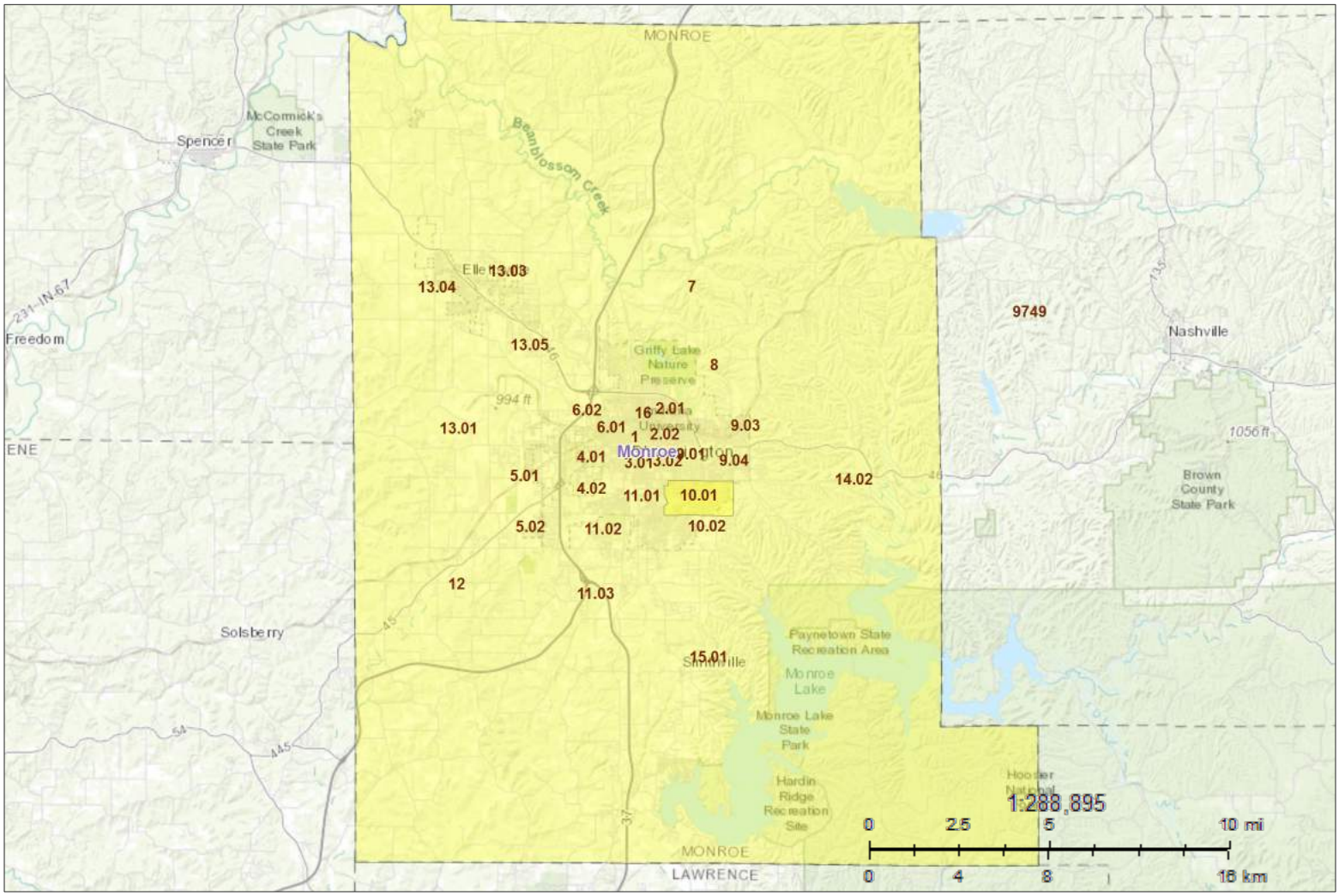
APPENDIX J
ENVIRONMENTAL JUSTICE (EJ) ANALYSIS

Map of COC and AC (J-1)

U.S. Census Data on Poverty (J-2to J-3)

U.S. Census Data on Minorities (J-4)

EJ Calculations (J-5)



Legend

Your Selections

- ☐ 2017 boundaries were used to map 'Your Selections'

Selection Results

No Legend

2017 Boundaries

No Legend

S1701

POVERTY STATUS IN THE PAST 12 MONTHS

2013-2017 American Community Survey 5-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Subject	Monroe County, Indiana			Census Tract 10.01, Monroe County, Indiana		
	Total	Below poverty level	Percent below poverty level	Total	Below poverty level	Percent below poverty level
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Population for whom poverty status is determined	129,312	31,974	24.7%	5,604	564	10.1%
AGE						
Under 18 years	22,489	4,552	20.2%	1,263	99	7.8%
18 to 64 years	90,294	26,510	29.4%	3,289	387	11.8%
60 years and over	23,210	1,566	6.7%	1,514	109	7.2%
65 years and over	16,529	912	5.5%	1,052	78	7.4%
SEX						
Male	65,049	15,442	23.7%	2,593	221	8.5%
Female	64,263	16,532	25.7%	3,011	343	11.4%
RACE AND HISPANIC OR LATINO ORIGIN						
White alone	112,881	24,986	22.1%	4,669	486	10.4%
Black or African American alone	3,980	1,573	39.5%	385	0	0.0%
American Indian and Alaska Native alone	287	66	23.0%	0	0	-
Asian alone	7,157	3,786	52.9%	384	64	16.7%
Native Hawaiian and Other Pacific Islander alone	44	15	34.1%	0	0	-

Subject	Monroe County, Indiana			Census Tract 10.01, Monroe County, Indiana		
	Total	Below poverty level	Percent below poverty level	Total	Below poverty level	Percent below poverty level
	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate
Some other race alone	706	141	20.0%	57	0	0.0%
Two or more races	4,257	1,407	33.1%	109	14	12.8%
Hispanic or Latino origin (of any race)	3,991	1,125	28.2%	125	0	0.0%
White alone, not Hispanic or Latino	110,073	24,129	21.9%	4,601	486	10.6%
Worked full-time, year-round in the past 12 months	13,849	652	4.7%	166	0	0.0%
Worked less than full-time, year-round in the past 12 months	20,682	14,046	67.9%	369	130	35.2%
Did not work	11,626	7,173	61.7%	331	158	47.7%

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2013-2017 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Explanation of Symbols:

1. An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.
2. An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.
3. An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.
4. An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.
5. An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.
6. An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.
7. An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.
8. An '(X)' means that the estimate is not applicable or not available.

DP05

ACS DEMOGRAPHIC AND HOUSING ESTIMATES

2013-2017 American Community Survey 5-Year Estimates

Note: This is a modified view of the original table.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Subject	Monroe County, Indiana		Census Tract 10.01, Monroe County, Indiana	
	Estimate	Percent	Estimate	Percent
RACE				
Total population	144,436	144,436	5,621	5,621
One race	139,761	96.8%	5,509	98.0%
White	124,980	86.5%	4,680	83.3%
Black or African American	4,502	3.1%	388	6.9%
American Indian and Alaska Native	287	0.2%	0	0.0%
Asian	9,126	6.3%	384	6.8%
Native Hawaiian and Other Pacific Islander	44	0.0%	0	0.0%
Some other race	822	0.6%	57	1.0%
Two or more races	4,675	3.2%	112	2.0%
HISPANIC OR LATINO AND RACE				
Total population	144,436	144,436	5,621	5,621
Hispanic or Latino (of any race)	4,799	3.3%	125	2.2%
Not Hispanic or Latino	139,637	96.7%	5,496	97.8%
White alone	121,518	84.1%	4,612	82.0%
Black or African American alone	4,395	3.0%	388	6.9%
American Indian and Alaska Native alone	260	0.2%	0	0.0%
Asian alone	9,093	6.3%	384	6.8%
Native Hawaiian and Other Pacific Islander alone	44	0.0%	0	0.0%
Two or more races	4,242	2.9%	112	2.0%

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

For more information on understanding race and Hispanic origin data, please see the Census 2010 Brief entitled, Overview of Race and Hispanic Origin: 2010, issued March 2011. (pdf format)

Des. No. 1700736 Bloomington Sare Road Multi Use Trail and Intersection Improvements - EJ Analysis					
	Total Population	**Minority**	**% Minority**	**Poverty**	**% Poverty**
Community of Comparison (COC) (Monroe County)	144,436	15,018	16.7%	31,974	24.7%
Affected Community (AC) (Census Tract 10.01)	5,621	829	17.9%	564	10.1%
			16.7% x 125% = 87.5%		24.7% x 125% = 87.5%
			17.9% < 87.5% and 50%		**10.1% < 87.5% and 50%**