FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	State Road (SR) 39 at Keller Hill Road / Hendricks & Morgan Counties
Designation Number(s):	2200084
Project Description/Termini:	Intersection improvement project (new roundabout) on SR 39 where it intersects Keller Hill Road, located 0.88 mile south of I-70. The project limits extend approximately 638 feet south and 445 feet north on SR 39 from the center of the intersection, and approximately 369 feet west and 376 feet east on Keller Hill Road from the center of the intersection.

✓	**Categorical Exclusion, Level 2** – Required Signatories: INDOT DE and/or INDOT ESD
	Categorical Exclusion, Level 3 – Required Signatories: INDOT ESD
	Categorical Exclusion, Level 4 – Required Signatories: INDOT ESD and FHWA
	Environmental Assessment (EA) – Required Signatories: INDOT ESD and FHWA
	Additional Investigation (AI) – The proposed action included a design change from the original approved environmental document. Required Signatories must include the appropriate environmental approval authority

Approval

INDOT DE Signature and Date

INDOT ESD Signature and Date

FHWA Signature and Date

Release for Public Involvement

BNE 10/31/2025
INDOT DE Initials and Date

INDOT ESD Initials and Date

Certification of Public Involvement

INDOT Consultant Services Signature and Date

INDOT DE/ESD Reviewer Signature and Date: R.asadpour 10/31/2025

Name and Organization of CE/EA Preparer: Emma Bellefuil / RQAW | DCCM

Note: Refer to the most current INDOT CE Manual, guidance language, and other ESD resources for further guidance regarding any section of this form.

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*?	☐	✓
If No, then:		
Opportunity for a Public Hearing Required?	✓	☐

**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.

Notice of Entry Letters

Notice of Entry letters were mailed to potentially affected property owners near the project area on May 30, 2024, notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area. A sample copy of the Notice of Entry letter is included in Appendix G, pages G-1 to G-2.

Section 106

To meet the public requirements of Section 106, a legal notice of Federal Highway Administration's (FHWA) finding of "No Historic Properties Affected" was published in the *Mooresville-Decatur Times* on August 6, 2025, offering the public an opportunity to submit comments pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later, on September 5, 2025. No public comments were received. The text of the public notice and the affidavit of publication is located in Appendix D, pages D-53 to D-55.

Public Involvement

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 comments 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

Discuss public controversy concerning community and/or natural resource impacts, including what is being done during the project to minimize impacts.

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

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

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: Crawfordsville

Local Name of the Facility: SR 39 and Keller Hill Road

Funding Source (*mark all that apply*): Federal ✓ State ✓ Local ☐ Other* ☐

*If other is selected, please identify the funding source: Not applicable (N/A)

PURPOSE AND NEED:

The need should describe the specific transportation problem or deficiency that the project will address. The purpose should describe the goal or objective of the project. The solution to the traffic problem should NOT be discussed in this section.

Need:

The primary need for the project stems from the above normal crash rate and high crash severity at the SR 39 and Keller Hill Road intersection when compared to other Unsignalized Rural State Intersections. According to the Abbreviated Engineering Assessment (Completed by Parsons for the INDOT Crawfordsville District, January 2022) 19 crashes occurred at this intersection between 2018 and 2020, including one fatal crash (Appendix I, page I-7). According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018-2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47 (Appendix I, page I-7). An ICF over 1.0 is an "above average" crash rate. This means that the intersection's crash frequency is one standard deviation above a "normal" intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16 (Appendix I, page I-7). In this case, the ICC indicates that the severity of the crashes occurring at this location, may be considered "high."

A secondary need for the project stems from the projected increase in traffic volumes at the intersection. The current Level of Service (LOS) of the intersection is B in the AM peak hour, and D in the PM peak hour (Appendix I, page I-37 to I-40). Due to anticipated private development in the area, future traffic growth is anticipated, which would result in a declining LOS at the intersection in both the AM and PM peak hours. According to an analysis ran by the project designer (Appendix I, pages I-41 to I-44), the LOS for the intersection would drop to an F in the AM and PM peak hours if no improvements are made.

Purpose:

The purpose of this project is to reduce the number of crashes at the SR 39 and Keller Hill Road intersection and improve vehicular safety at the intersection.

In addition to the primary purpose of reducing the number and severity of accidents at the intersection, the project would be designed to ensure a LOS of at least a C in the design year 2047.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Hendricks & Morgan Municipality: N/A

Limits of Proposed Work: The project limits extend approximately 638 feet south and 445 feet north on SR 39 from the center of the intersection, and approximately 369 feet west and 376 feet east on Keller Hill Road from the center of the intersection.

Total Work Length: 0.21 north/south 0.14 east/west Mile(s) Total Work Area: 4.69 Acre(s)

	Yes[1]	No
Is an Interstate Access Document (IAD)[1] required?		✓
If yes, when did the FHWA provide a Determination of Engineering and Operational Acceptability?	Date:	

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

Describe location of project including township, range, city, county, roads, etc. Existing conditions should include current conditions, current deficiencies, roadway description, surrounding features, etc. Preferred alternative should include the scope of work, anticipated impacts, and how the project will meet the Purpose and Need. Logical termini and independent utility also need discussed.

INDOT and the Federal Highway Administration (FHWA) propose to proceed with an intersection improvement project.

Location

The project is located at the SR 39 and Keller Hill Road intersection, approximately 0.88 mile south of I-70 and 1.5 miles north of SR 42. The project is within Township 13 North and 14 North, Range 1 West and Section 1 and 36 in Liberty and Monroe Civil Townships in the Mooresville West U.S. Geological Survey (USGS) Quadrangle. Refer to the attached project area maps in Appendix B, pages B-1 to B-2. The nearest town, Monrovia, is located approximately 1.7 miles south of the SR 39 and Keller Hill Road intersection. The project is located in the Indianapolis Metropolitan Planning area and is listed in the Indianapolis Metropolitan

Planning Organization (IMPO) Transportation Improvement Program (TIP).

Existing Conditions

SR 39 is classified as a Major Collector roadway and Keller Hill Road is classified as a Rural Local roadway. This intersection is unsignalized and SR 39 traffic flows through the intersection, while a stop condition is present for traffic on Keller Hill Road. Within the project area, Keller Hill Road consists of two 9-foot-wide travel lanes (one eastbound and one westbound) and up to 1-foot-wide paved outside shoulders. SR 39, in the project area, consists of two 12-foot-wide travel lanes (one northbound and one southbound) and up to 8-foot-wide paved outside shoulders. Two 12-foot-wide right-turn-lanes (one northbound and one southbound) are present at the intersection along SR 39 (Appendix B, pages B-10 to B-12). The project is located in a level and rural area surrounded by agricultural and riparian (wooded) areas.

The 2024 AADT per the turning movement volumes provided by INDOT is 10,578 vehicles per day on SR 39 and 1,295 vehicles per day on Keller Hill Road (Appendix I, page I-19). The truck percentages are 6% for SR 39 and 6% for Keller Hill Road. There were 19 crashes at this intersection between 2018 and 2020 including one fatal crash (Appendix I, page I-7).

Preferred Alternative

The scope of work proposed for this project will include the following:

- Constructing a hybrid single/dual lane (2-by-1) roundabout at the existing intersection. This specifically includes raised concrete splitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout) (Appendix B, page B-40).
- Existing right turn lanes will be removed along SR 39.
- Detention berms will be constructed on both sides of SR 39 to the north and south of intersection at the northern and southern ends of the project.
- New guardrail will also be installed as needed.
- A curb and gutter system with curb turnouts will be constructed to convey drainage away from the intersection.
- New lighting will be added to the intersection (Appendix B, page B-44).
- Driveway culverts will be removed and replaced along with drive reconstruction work.

Please refer to the project plans in Appendix B, pages B-9 to B-45.

There is a secondary desirable outcome to ensure operational efficiency of the intersection in the design year 2047. Although increased traffic volumes due to potential private development in the area is not currently confirmed, future traffic growth is anticipated. To account for this uncertainty, a revised traffic analysis was conducted using a variable growth rate: 1.5 percent compounded annually for the first five years and 1 percent compounded annually thereafter. This approach was designed to capture projected increases in traffic associated with potential developments. Additionally, a stress test assuming a 20 percent increase in traffic volumes was performed for both the preferred alternative (Hybrid 2-by-1 roundabout) and the single lane roundabout alternative. Please refer to the Engineers Report Addendum, completed by Kimley-Horn, in Appendix I, pages I-18 to I-36.

The preferred alternative is expected to satisfy the purpose and need of the project by constructing a roundabout that will maintain traffic flow while reducing the number and severity of collisions.

Impact Summary

The project will not result in any permanent or temporary stream impacts. The project will result in 0.035 acre of permanent impacts to Wetland A and C, and approximately 0.05 acre of temporary impacts to Wetland C, for cumulative impacts totaling 0.04 acre for wetlands. Furthermore, the project will result in approximately 0.6 acre of tree clearing / trimming. There will be approximately 2.82 acres of total soil disturbance for the project. Utility relocations will likely be needed, and utility coordination will be ongoing. Permanent lighting will be installed at the intersection, consisting of 8 new downward facing lights and posts along the approaches of the intersection and around the center of the roundabout.

Maintenance of Traffic (MOT)

The MOT consists of phased construction and will provide a temporary detour route for Keller Hill Road for a short duration. Refer to the *Maintenance of Traffic During Construction* section of this Categorical Exclusion (CE) document for more details.

Logical Termini/Independent Utility

The project limits extend approximately 638 feet south and 445 feet north on SR 39 from the center of the intersection, and approximately 369 feet west and 376 feet east on Keller Hill Road from the center of the intersection. The project termini are logical because they encompass the transportation deficiencies identified in the purpose and need. The project also has independent utility because the construction of the project is not dependent on any other projects in the area and it functions as a standalone project.

OTHER ALTERNATIVES CONSIDERED:

Provide a header for each alternative. Describe all discarded alternatives, including the No Build Alternative. Explain why each discarded alternative was not selected. Make sure to state how each alternative meets or does not meet the Purpose and Need and why.

No Build Alternative

This alternative entails maintaining the existing intersection without implementing any improvements. The no-build alternative would include no changes to either the existing geometry or the roadside features. Although this option avoids immediate costs and environmental impacts, it would permit the continued above normal crash rate, which will not improve vehicular safety. This alternative would not meet the project purpose and need and was therefore discarded from further consideration.

Alternative 1: Install a Traffic Signal

This alternative entails installing a traffic signal at the intersection. This alternative would result in substantially less cost and less environmental impacts as right-of-way would be drastically reduced or eliminated, tree removal/trimming would be avoided, wetland impacts would be avoided, and utility relocations could be avoided. This alternative would not meet the purpose and need for the project as it would not address the above average crash rate or crash severity. Additionally, installing an unwarranted signal could lead to higher crash rates or more severe crashes, and may result in disobedience of the traffic signal in this rural area. Therefore, this alternative was discarded from further consideration (Appendix I, page I-8).

Alternative 2: Single Lane Roundabout

This alternative will consist of constructing a single lane roundabout. This alternative would be similar to that of the preferred alternative with the key difference being one single lane entry and one single circulatory lane for the roundabout. This alternative would have a smaller footprint than the preferred alternative and would result in less cost but similar environmental impacts. An addendum to the engineer's assessment dated October 21, 2024, was prepared to evaluate the options of single-lane roundabout to the preferred alternative of the hybrid single/dual lane roundabout (Appendix I, page I-18 to I-20). The decreased cost, approximately half of the cost of the preferred alternative, would stem mainly from decreased right-of-way, decreased construction cost and less impact to surrounding utilities. While this alternative meets the purpose and need for the project, it would not satisfy the secondary outcome of maintaining a LOS of A and a v/c ratio of less than 1.0. Although this single lane roundabout alternative is projected to operate at an acceptable Level of Service (LOS A) under baseline growth assumptions in the design year 2047, it does not provide sufficient capacity or flexibility to accommodate potential variations in future traffic demand. A stress test assuming a 20 percent increase in traffic volumes showed that during the PM peak hour, the north leg of the single lane roundabout is projected to fail, operating at LOS F with a volume-to-capacity (v/c) ratio exceeding 1.00. A v/c ratio of 1.00 means that the intersection is operating at 100 percent (full) capacity. This condition indicates that the roundabout would be overcapacity, resulting in unacceptable delays and traffic congestion. Therefore, this alternative was ultimately dismissed from further consideration.

The No Build 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):	

ROADWAY CHARACTER:

If the proposed action includes multiple roadways, complete and duplicate for each roadway.

Name of Roadway	SR 39				
Functional Classification:	Major Collector Roadway				
Current ADT:	11,062	VPD (2027)	Design Year ADT:	13,632	VPD (2047)
Design Hour Volume (DHV):	1,220	Truck Percentage (%)	3.2		
Designed Speed (mph):	45	Legal Speed (mph):	45		

	Existing		Proposed	
Number of Lanes:	2-3		4	
Type of Lanes:	Two 12-foot-wide travel lanes (1 northbound & 1 southbound); one 12-foot-wide right turn lane in each direction at the intersection		Varies 12-15.8-foot-wide travel lanes	
Pavement Width:	40	ft.	60-82.5	ft.
Shoulder Width:	6-8	ft.	6-8	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Name of Roadway: Keller Hill Road
Functional Classification: Rural Local Roadway
Current ADT: 1,355 VPD (2027) Design Year ADT: 1,670 VPD (2047)
Design Hour Volume (DHV): 164 Truck Percentage (%): 0.1
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	9-foot-wide travel lanes (1 eastbound & 1 westbound)		Varies 12-21.4-foot-wide travel lanes (1 eastbound & 1 westbound; 2 lanes each direction within the intersection improvement)	
Pavement Width:	20	ft.	28-56	ft.
Shoulder Width:	1	ft.	2-8	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

BRIDGES AND/OR SMALL STRUCTURE(S):

If the proposed action includes multiple structures, complete and duplicate for each bridge and/or small structure. Include both existing and proposed bridge(s) and/or small structure(s) in this section.

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

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

Describe impacts and work involving bridge(s), culvert(s), pipe(s), and small structure(s). Provide details for small structure(s): structure number, type, size (length and dia.), location and impacts to water. Use a table if the number of small structures becomes large. If the table exceeds a complete page, put it in the appendix and summarize the information below with a citation to the table.

There are four driveway culverts within the project area. The driveway culverts will be removed and replaced in kind as a result of the project. Please refer to the project plans for the location of these drive culverts in Appendix B, pages B-34 to B-38. Additionally, please note that culvert (CV-039-032-30.68) is located at the north end of the project area, but it is not part of this project, and it will not be impacted (Appendix B, page B-38).

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		✓
Is a temporary roadway proposed?		✓
Will the project involve the use of a detour or require a ramp closure? (describe below)	✓	
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?		✓
Is there substantial controversy associated with the proposed method for MOT?		✓
Will the project require a sidewalk, curb ramp, and/or bicycle lane closure? (describe below)		✓
Provisions will be made for access by pedestrians and/or bicyclist and so posted (describe below).		✓

Discuss closures, detours, and/or facilities (if any) that will be provided for maintenance of traffic. Any known impacts from these temporary measures should be quantified to the extent possible, particularly with respect to properties such as Section 4(f) resources and wetlands. Discuss any pedestrian/bicycle closures. Any local concerns about access and traffic flow should be detailed as well.

Construction is expected to begin in the fall of 2026 and end in the fall of 2027. The MOT consists of phased construction (Appendix B, pages B-14 to B30).

Pre-Phase 1: Temporary pavement will be installed along the west side of SR 39.

Phase 1: During this phase, SR 39 northbound and southbound traffic will be maintained utilizing a single travel lane in each direction. Two-way traffic will be maintained along Keller Hill Road (west leg). Access to northbound and southbound SR 39 will be controlled by existing stop sign and pavement markings. Keller Hill Road (east leg) will be closed to traffic and detoured. Temporary and permanent pavement will be installed along the east side of SR 39.

Phase 2: SR 39 northbound and southbound traffic will be maintained utilizing a single travel lane in each direction in the constructed SR 39 northbound travel lanes. Both the west and east legs of Keller Hill Road will be closed to traffic and detoured.

Phase 3A: SR 39 southbound and northbound traffic will be maintained utilizing a single lane and temporary traffic signals. Both the west and east legs of Keller Hill Road will be closed to traffic and detoured.

Phase 3B: SR 39 southbound and northbound traffic will be maintained utilizing a single lane and temporary traffic signals. Both the west and east legs of Keller Hill Road will be closed to traffic and detoured.

In addition to the above phased construction, the MOT plan will include a local detour route for Keller Hill Road, as it will close for a short duration of the construction period. The detour route for Keller Hill Road in the west direction will utilize SR 39, SR 42, and Hazelwood Road. The west detour route will add approximately 5.9 miles of travel distance. The detour route for Keller Hill Road in the east direction will utilize SR 39, SR 42, and North Antioch Road. The east detour route will add approximately 3.9 miles of travel distance (Appendix B, pages B-31 to B-32). The MOT will be in effect throughout the duration of the project, which is anticipated to take up to 6 months. Access to all properties will be maintained during construction.

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

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.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ **733,582** (2024) Right-of-Way: $ **100,000** (2026) Construction: $ **4,196,000** (2026 and 2027)

Anticipated Start Date of Construction: Fall of 2026

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0.48	--
Commercial	0.41	0.01
Agricultural	0.31	--
Forest	0.30	--
Wetlands	--	--
Other:	--	--
TOTAL	1.50	0.01

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, reacquisition or easements, either known or suspected, and their impacts on the environmental analysis should be discussed.

The existing right-of-way width on Keller Hill Road varies between 10 and 70 feet from the roadway centerline. The existing right-of-way width on SR 39 varies between 67 and 77 feet from the roadway centerline. The project requires approximately 1.50 acres of permanent right-of-way (0.48 acre from residential property, 0.41 acre from commercial property, 0.31 acre from agricultural property, and 0.30 acre from forested property) in order to properly construct the roundabout. The project also requires approximately 0.01 acre of temporary right-of-way (0.01 acre from commercial property) in order to maintain a drive on the northeast corner of the intersection. The proposed right-of-way will be used for future maintenance of the intersection and for utilities.

This undertaking will not convert property from any Section 4(f) historic property to a transportation use; the INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Historic Properties Affected;" therefore no Section 4(f) evaluation is required.

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

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

SECTION A - EARLY COORDINATION:

List the date(s) coordination was sent and all resource 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.

Early coordination letters were mailed on August 21, 2024 (Appendix C, pages C-1 to C-3).

Agency	Date(s) Sent	Date(s) Response Received	Appendix C Page(s)
INDOT Crawfordsville District	August 21, 2024	Not applicable (N/A)	N/A
FHWA	August 21, 2024	N/A	N/A
Natural Resources Conservation (NRCS)	August 21, 2024	August 23, 2024	Appendix C, pages C-10 to C-11
Indiana Geological and Water Survey (IGWS)	Electronically submitted on August 20, 2024	Automated response on August 20, 2024	Appendix C, pages C-4 to C-6
US Fish and Wildlife Services (USFWS)	December 12, 2024	N/A	N/A
Indiana Department of Natural Resources (IDNR) Division of Fish and Wildlife	August 21, 2024	September 20, 2024	Appendix C, pages C-7 to C-9
IDNR Division of Oil and Gas	August 21, 2024	N/A	N/A
United States Army Corps of Engineers (USACE) Louisville District	August 21, 2024	N/A	N/A
Indianapolis Metropolitan Planning Organization (MPO)	August 21, 2024	N/A	N/A
U.S. Department of Housing and Urban Development (USHUD)	August 21, 2024	N/A	N/A
Hendricks County Board of Commissioners	August 21, 2024	N/A	N/A
Hendricks County Surveyor	August 21, 2024	N/A	N/A
Hendricks County Council Members	August 21, 2024	N/A	N/A
Hendricks County Highway Clerk	August 21, 2024	N/A	N/A
Hendricks County Engineering Department	August 21, 2024	N/A	N/A
Hendricks County MS4	August 21, 2024	N/A	N/A
Hendricks County Clean Water*	N/A	September 23, 2024	Appendix C, page C-12
Morgan County Board of Commissioners	August 21, 2024	N/A	N/A
Morgan County Surveyor	August 21, 2024	N/A	N/A
Morgan County Council Members	August 21, 2024	N/A	N/A
Morgan County Highway Clerk	August 21, 2024	N/A	N/A
Morgan County Engineering Department	August 21, 2024	N/A	N/A
Morgan County MS4	August 21, 2024	N/A	N/A
USFWS IPaC Species List	Electronically submitted on June 25, 2025	Automated response on July 1, 2025	Appendix C, pages C-15 to C-22
USFWS IPaC Concurrence Letter	Electronically submitted on July 11, 2025	Automated response on July 11, 2025	Appendix C, pages C-23 to C-34

*Please note that an early coordination letter was not sent directly to this entity, but a response was received from Butler, Fairman, and Seufert (BF&S) on behalf of Hendricks County Clean Water stating that the project does not appear to have any waterways within the project area which limits the potential for impacts. They went on to state that a review of the site and proposed project does not indicate red flags or unintended impacts as long as all proper permitting and regulatory requirements are met (Appendix C, page C-12).

All applicable agency recommendations are included in the *Environmental Commitments* section of this Categorical Exclusion (CE) document.

SECTION B – ECOLOGICAL RESOURCES:

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

Total stream(s) in project area: **591** Linear feet Total impacted stream(s): **0** Linear feet

Stream Name	Stream Classification	Total Size in Project Area (linear feet)	Permanent Impacts (linear feet / acre)	Temporary Impacts (linear feet / acre)	Comments (i.e. location, flow direction, likely Water of the US, appendix reference)
Unnamed Tributary (UNT) 1 to McCracken Creek	Intermittent	250	N/A	N/A	Flows west to east through CV 039-032-30.68 in the project area. Eventually drains into The White River. Most likely a Water of the US. Refer to Appendix B page B-36.
UNT 2 to McCracken Creek	Intermittent	341	N/A	N/A	Flows southward into UNT 1 to McCracken Creek in the project area. Eventually drains into The White River. Most likely a Water of the US. Refer to Appendix B page B-36.
Total Stream Impacts:			**N/A**	**N/A**	

Describe all streams, rivers, watercourses and other jurisdictional features adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if the streams or rivers are listed on any federal or state lists for Indiana. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on the desktop review, the aerial map of the project area (Appendix B, page B-3), and the Red Flag Investigation (RFI) report (Appendix E, pages E-1 to E-10), there are 21 streams, rivers, watercourses, or other jurisdictional features within the 0.5-mile search radius. There are two streams, rivers, watercourses, or other jurisdictional features within or adjacent to the project area. This number was confirmed by the site visit on August 19, 2024, by RQAW | DCCM.

Waters of the U.S Report

A Waters of the U.S. Determination Report was completed by RQAW | DCCM and approved by INDOT Ecology, Waterway Permitting, and Stormwater Office (EWPSO) on November 14, 2024 (Appendix F, pages F-1 to F-17). It was determined that two likely jurisdictional streams are located within the project area. USACE makes all final determinations regarding jurisdiction.

UNT 1 and UNT 2 to McCracken Creek are not listed as navigable waterways. Both streams function as tributaries with direct surface flow to the White River, a traditional navigable waterway (TNW). Therefore, UNT 1 and UNT 2 to McCracken Creek are likely under the jurisdiction of the USACE as a *Water of the United States*. Additionally, both UNT 1 and UNT 2 to McCracken Creek, lack designation as a Federal Wild and Scenic River, State Natural, Scenic, and Recreation River, or an IDNR Outstanding River. Indiana does not currently have any designated Federal Wild and Scenic Rivers.

UNT 1 to McCracken Creek Impacts

UNT 1 to McCracken Creek will have no permanent or temporary impacts due to no work being done to the existing culvert that the stream segment flows through.

UNT 2 to McCracken Creek Impacts
UNT 2 to McCracken Creek will have no permanent or temporary impacts as the stream segment is located outside of the construction limits.

Total Impacts
The project will have no temporary or permanent impacts to streams, rivers, watercourses, or other jurisdictional features. Because the project will not have any impacts, stream mitigation will not be needed. Refer to the *Permits* section of this CE document for more details.

McCracken Creek is located adjacent to the project area. McCracken Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Early Coordination
In the early coordination response on their behalf, the Hendricks County Clean Water Department stated that a review of the site and the proposed project does not indicate red flags or unintended impacts as long as all proper permitting and regulatory requirements are met (Appendix C, page C-12).

In their early coordination response, the IDNR Division of Fish and Wildlife provided general comments and standard recommendations pertaining to stream impacts. Examples include implementing erosion and sediment control measures and stream bank stabilization measures, minimizing in-channel disturbance, time restrictions for working within the waterway, ensuring Best Management Practices (BMPs) are implemented to limit the migration of polycyclic aromatic hydrocarbons (PAHs) into waterways, incorporating wildlife crossing design, and proper use of / placement of riprap. Refer to the complete list of IDNR Division of Fish and Wildlife recommendations in Appendix C, pages C-7 to C-9. All applicable recommendations are included in the *Environmental Commitments* section of this CE document.

Open Water Feature(s)	**Presence**	**Impacts**	
		Yes	**No**
Reservoirs			
Lakes			
Farm Ponds			
Retention/Detention Basin			
Storm Water Management Facilities			
Other:			

Describe all open water feature(s) identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, the aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-10), there are four open water features within the 0.5-mile search radius. There are no open water features within or adjacent to the project area, which was confirmed by the site visit on August 19, 2024, by RQAW | DCCM.

Waters of the U.S. Report
A *Waters of the U.S. Determination / Wetland Delineation Report* was completed by RQAW | DCCM and approved by INDOT EWPSO on November 14, 2024 (Appendix F, pages F-1 to F-17). It was determined that no open water features are present within the project area. The USACE makes all final determination regarding jurisdiction.

	Presence	**Impacts**	
		Yes	**No**
Wetlands	✓	✓	

Total wetland area: **0.172** Acre(s) Total wetland area impacted: **0.035** Acre(s)

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

Wetland No.	Wetland Classification	Total Size (acres)	Permanent Impacts (acres)	Comments (i.e. location, likely Water of the US, appendix reference)
Wetland A	Palustrine Freshwater Emergent (PEM)	0.013	Perm: 0.013 Temp: 0.0	Located in a depression at the northwest corner of the SR 39 and Keller Hill Road. Drains north via roadside ditch 1 (RSD 1) into UNT 1 to McCracken Creek, which is hydrologically connected to The White River, a TNW. Wetland A is likely a *Water of the U.S*. Refer to Appendix B, page B-35.
Wetland B	Palustrine Scrub Shrub (PSS)	0.083	Perm: 0.0 Temp: 0.0	Located in a depression just north of UNT 1 to McCracken Creek. Likely a *Water of the U.S.* due to its hydrological connection to The White River. Refer to Appendix B, page B-36.
Wetland C	PSS	0.076	Perm: 0.022 Temp: 0.05	Located in a depression just south of UNT 1 to McCracken Creek. Likely a *Water of the U.S.* due to its hydrological connection to The White River. Refer to Appendix B, page B-36.
Total Wetland Impacts:			**Perm: 0.035 Temp: 0.05**	

Wetlands (*Mark all that apply*)	**Documentation**	**ESD Approval Dates**
Wetland Determination	✓	**November 14, 2024**
Wetland Delineation	✓	**November 14, 2024**
USACE Isolated Waters Determination		

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.	✓

Describe all wetlands identified adjacent or within the project area. Include whether or not impacts (both permanent and temporary) will occur to the features identified. Include if features are likely subject to federal or state jurisdiction. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, aerial map of the project area (Appendix B, pages B-3), and the RFI report (Appendix E, pages E-1 and E-10) there are 11 wetlands mapped within the 0.50-mile search radius. There is one wetland within or adjacent to the project area. This number was corrected to three wetlands following the site visit on August 19, 2024, by RQAW | DCCM.

Waters of the U.S. Report
A *Waters of the U.S. Determination Report* was completed by RQAW | DCCM and approved by INDOT EWPSO on November 14, 2024 (Appendix F, pages F-1 to F-17). It was determined that three likely jurisdictional wetlands are located within or adjacent to the project area. The USACE makes all final determinations on jurisdiction.

Wetland A Impacts
Wetland A will have up to approximately 0.013 acre of permanent impacts, from the entire wetland area, due to the construction of the intersection improvement. Wetland A will not have any temporary impacts (Appendix B, page B-35).

Wetland B Impacts
Wetland B will have no permanent or temporary impacts as the entirety of the wetland is outside of the project's construction limits (Appendix B, page B-36).

Wetland C Impacts
Wetland C will have up to approximately 0.022 acre of permanent impacts from the southeastern terminus of the wetland, due to the placement of a detention berm. Wetland C will have up to approximately 0.05 acre of temporary impacts due to the placement of a detention berm (Appendix B, page B-36).

Total Impacts
The total permanent impacts will be up to approximately 0.035 acre of Wetland A and C. The total temporary impacts will be up to approximately 0.05 acre of Wetland C. Avoidance of Wetlands A and C would not be practicable because they are within the limits where work activities are required for the intersection improvement. If the wetlands are avoided, the project would not be able to be properly constructed. However, appropriate sediment and erosion control measures will be implemented to minimize impacts to the wetlands during construction. Additionally, signage will be placed around Wetland B to avoid any impacts. Permits will be required for impacts to wetlands. Please refer to the *Permits* section of the CE for more details. Mitigation may be required for wetland impacts but will ultimately be determined during the permitting process.

Early Coordination
There are no early coordination responses pertaining to wetlands.

	Presence	Impacts	
		Yes	NO
Terrestrial Habitat	✓	✓	

Total terrestrial habitat in project area: **3.32** Acre(s) Total tree clearing: **0.6** Acre(s)

Describe types of terrestrial habitat (i.e. forested, grassland, farmland, lawn, etc.) adjacent or within the project area. Include whether or not impacts will occur to habitat identified. Include total terrestrial habitat impacted and total tree clearing that will occur. Discuss measures to avoid, minimize, and mitigate if impacts will occur.

Based on a desktop review, a site visit on August 19, 2024, by RQAW | DCCM, and aerial map of the project area (Appendix B, page B-3), terrestrial habitat is present within the project area. The terrestrial habitat consists of maintained roadside grasses, agricultural, and riparian (wooded) habitat within and adjacent to the project area. Terrestrial habitat within the project area equals approximately 3.32 acres, which consists of maintained roadside grass, wetland, and riparian (wooded) habitat. Approximately 2.76 acres of soil disturbance of the terrestrial habitat will occur due to improvement of the intersection. Avoidance of the terrestrial habitat would not be practicable because the terrestrial habitat is within the limits where work activities are required for the intersection improvement. If terrestrial habitat impacts did not occur, the project would not be able to be properly constructed. Approximately 0.6 acre of tree clearing or trimming is expected to improve the intersection. Dominant tree species consist of sycamore (*Platanus occidentalis*) and black walnut (*Juglans nigra*). Tree clearing will occur during the inactive bat season (October 1 through March 31). Avoidance of the trees would not be practicable because the trees are within the limits where work activities are required for the intersection improvement. If the trees are not removed, the project would not be able to be properly constructed. Utility coordination will be on going as the project advances to determine all impacts to existing utilities. All relocations will occur within proposed right-of-way. Mitigation may be required for wetland impacts, but will ultimately be determined during the permitting process. Please refer to the *Permits* section of this CE document for more details.

Early Coordination
In their early coordination response, the IDNR Division of Fish and Wildlife recommended revegetating disturbed areas, tree clearing restrictions, and planting trees for trees that are removed (Appendix C, pages C-7 to C-9). All applicable agency recommendations are included in the *Environmental Commitments* section of this CE document.

Protected Species

Federally Listed Bats	**Yes**	**No**
Information for Planning and Consultation (IPaC) determination key completed	✓	
Section 7 informal consultation completed (IPaC cannot be completed)		✓
Section 7 formal consultation Biological Assessment (BA) required		✓

Determination Received for Listed Bats from USFWS: NE [ ] NLAA [✓] LAA [ ]

Other Species not included in IPaC	**Yes**	**No**
Additional federal species found in project area (based on IPaC species list)	✓	
State species (not bird) found in project area (based upon consultation with IDNR)		✓

Migratory Birds	**Yes**	**No**
Known usage or presence of birds (i.e. nests)		✓
State bird species based upon coordination with IDNR		✓

Discuss IDNR coordination and species identified. Describe USFWS Section 7 consultation and determination received for Indiana bat and northern long-eared bat impacts. Discuss if other federally listed species were identified. If so, include consultation that has occurred and the determination that was received. Discuss if migratory birds have been observed and any impacts.

Based on a desktop review and the RFI report (Appendix E, pages E-1 to E-10), completed by RQAW | DCCM on July 12, 2024, the IDNR Hendricks and Morgan Counties Endangered, Threatened and Rare (ETR) Species List has been checked. According to the IDNR Division of Fish and Wildlife early coordination response letter dated September 20, 2024 (Appendix C, page C-7), 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. INDOT Crawfordsville District completed a review of the USFWS bat database on May 20, 2024, and found that there was no presence of endangered bat species in or within 0.5 mile of the project area (Appendix C, pages C-13 to C-14).

Indiana Bat, Northern Long-eared Bat, and Tricolored Bat

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages C-15 to C-22). The project is within the range of the federally endangered Indiana bat (*Myotis sodalis*).

The project qualifies for the Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana Bat, Northern Long-Eared Bat (NLEB), and the Tricolored Bat (TCB). An effect determination key was completed on July 11, 2025, and based on the responses provided, the project was found to *"May Affect, Not Likely to Adversely Affect (NLAA)"* the Indiana bat (Appendix C, pages C-23 to C-34). The INDOT Crawfordsville District reviewed and verified the effect finding and requested USFWS's review of the finding on July 11, 2025. No response was received from USFWS within the 14-day review period; therefore, it was concluded they concur with the finding. Avoidance and Minimization Measures (AMMs), consisting of GAMM1, TRTAMM1-3, and LAMM1-2, are included as firm commitments in the *Environmental Commitments* section of this CE document. AMMs pertain to lighting restrictions, tree removal restrictions, and workers' awareness of AMMs.

The official species list also indicated three other species present within the project area: the federal candidate monarch butterfly (*Danaus plexippus*), the endangered gray bat (*Myotis grisescens*), and the experimental population, non-essential whooping crane (*Grus americana*). As an experimental population, non-essential species, the whooping crane are not given any statutory protection under the Endangered Species Act. Therefore, no further coordination is needed with the USFWS.

The project is in the range of the monarch butterfly (*Danaus plexippus*), which is a proposed threatened species; however, the USFWS has not identified any critical habitat within Indiana. Therefore, as this project will not impact critical habitat of the monarch butterfly, and as it does not jeopardize its continued existence, no further coordination is required under Section 7 of the Endangered Species Act.

The project is in the range of a "non-essential experimental population" of the whooping crane (*Grus americana*), but this population is not covered by protections provided for the natural endangered population of whooping crane.

Regarding the federally endangered gray bat, the USFWS issued a "Blanket Concurrence Letter for Gray Bat Consultation" dated June 25, 2025, providing the FHWA and INDOT with concurrence on "Not Likely to Adversely Affect" determination for projects that may affect the gray bat (Appendix C, pages C-35 to C-36).

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

Geological and Mineral Resources	**Yes**	**No**
Project located within the Indiana Karst Region		✓
Karst features identified within or adjacent to the project area		✓
Oil/gas or exploration/abandoned wells identified in the project area	✓	

Date Karst Evaluation reviewed by INDOT EWPO (if applicable): _____

Discuss if project is located in the Indiana Karst Region and if any karst features have been identified in the project area (from RFI). Discuss response received from IGWS coordination. Discuss if any mines, oil/gas, or exploration/abandoned wells were identified and if impacts will occur. Include discussion of karst study/report was completed and results. (Karst investigation must comply with the current Protection of Karst Features during Planning and Construction guidance and coordinated and reviewed by INDOT EWPO)

Based on a desktop review and the Indiana Karst Region map, the project is located outside the designated karst region of Indiana, as outlined in the most current *Protection of Karst Features during Project Development and Construction*. According to the topo

map of the project area (Appendix B, page B-2) and the RFI report (Appendix E, pages E-1 to E-10), there are no karst features identified within or adjacent to the project area.

The RFI report identified one petroleum well located adjacent to the project area (Appendix E, pages E-1 to E-10).

Early Coordination
In their early coordination response on August 20, 2024, the IGWS did not indicate that karst features exist in the project area (Appendix C, pages C-4 to C-6). The IGWS stated the project is located within an area with high liquefaction potential, 1% Annual Chance Flood Hazard, low potential for bedrock resources, low potential for sand and gravel resources, and indicated the presence of petroleum exploration wells. The response from IGWS was communicated to the project designer on July 18, 2025. Impacts are not expected.

The IDNR Division of Oil and Gas did not respond to the early coordination letter. Impacts to these petroleum wells are not anticipated as they are mapped outside the construction limits for the project and are anticipated to be outside of INDOT right-of-way.

SECTION C – OTHER RESOURCES

	Presence	Impacts	
Drinking Water Resources		Yes	No
Wellhead Protection Area(s)			
Source Water Protection Area(s)			
Water Well(s)			
Urbanized Area Boundary	✓		
Public Water System(s)			

	Yes	No
Is the project located in the St. Joseph Sole Source Aquifer (SSA):		
If Yes, is the FHWA/EPA SSA MOU Applicable?		
If Yes, is a Groundwater Assessment Required?		

Check the appropriate boxes and discuss each topic below. Provide details about impacts and summarize resource-specific coordination responses and any mitigation commitments. Reference responses in the Appendix.

Sole Source Aquifer (SSA)
The project is in Hendricks & Morgan Counties, which is not located within the Saint Joseph SSA, the only designated sole source aquifer in Indiana. Therefore, the FHWA / Environmental Protection Agency (EPA) / INDOT Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project, and a detailed groundwater assessment is not needed. No impacts are expected.

Wellhead Protection Area (WHPA) and Source Water Area (SWA)
The Indiana Department of Environmental Management (IDEM) Source Water Proximity Determinator website (http://www.in.gov/idem/cleanwater/pages/wellhead/) was accessed on February 3, 2025 by RQAW | DCCM. The project is not located within a Wellhead Protection Area or Source Water Area. Therefore, no impacts are expected.

Water Wells
The IDNR Water Well Record Database website (https://www.in.gov/dnr/water/3595.htm) was accessed on February 3, 2025, by RQAW | DCCM. No wells are located near this project. Therefore, no impacts are expected.

Urban Area Boundary (UAB)
Based on a desktop review of the INDOT Municipal Separate Storm Sewer System (MS4) website (https://www.in.gov/idem/cleanwater/ms4s-boundaries-map-for-indiana/) on February 3, 2025, by RQAW | DCCM, the project is located within a UAB. An early coordination letter was sent on August 21, 2024, to the MS4 coordinators for Hendricks and Morgan Counties. The MS4 coordinator from either county did not respond within the 30-day time frame. No impacts are expected are expected as a result of this project.

Public Water Systems

Based on a desktop review, site visit on August 19, 2024, by RQAW | DCCM, aerial map of the project area (Appendix B, page B-3), coordination with the project designer, and the preliminary project plan sheets (Appendix B, page B-34), the project is located where there are nearby public water systems. Morgan County Rural Water has a water main located along west side of SR 39, south of Keller Hill Road that may require relocation due to ditch grading. Utility coordination is currently ongoing to determine impacts.

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

If applicable, indicate the Floodplain Level?

Level 1 [ ] Level 2 [ ] Level 3 [ ] Level 4 [✓] Level 5 [ ]

Use the IDNR Floodway Information Portal to help determine potential impacts. Include floodplain map in appendix. Discuss impacts according to the classification system. If encroachment on a flood plain will occur, coordinate with the Local Flood Plain Administrator during design to insure consistency with the local flood plain planning.

Based on a desktop review of the Indiana Department of Natural Resources Indiana Floodway Information Portal website (IDNR INFIP) by RQAW | DCCM on August 27, 2024, the project area is located in the regulatory floodplain of McCracken Creek as determined from the approved IDNR floodplain map (Appendix F, page F-11). McCracken Creek has an upstream drainage area of 3.516 square miles. An early coordination letter was sent on August 21, 2024, to the local Floodplain Administrator. The floodplain administrator did not respond within the 30-day time period.

The project qualifies as a Category 4 per the current INDOT CE Manual, which states: "One home is located within the base floodplain within 1,000 feet upstream and no homes are located within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency services or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternatives will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Early Coordination

In their early coordination response on September 20, 2024, the IDNR Division of Fish and Wildlife stated that the proposal will require formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1 for any work proposed in the floodway of McCracken Creek (Appendix C, page C-7). An IDNR CIF permit will be anticipated for this project due to construction of stormwater detention berms taking place within the floodplain (Appendix B, page B-34). Refer to the *Permits* section of this CE document for more details.

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

Total Points (from Section VII of CPA-106/AD-1006*) **129**

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

Discuss existing farmland resources in the project area, impacts that will occur to farmland, and mitigation and minimization measures considered.

Per a desktop review, a field visit on August 19, 2024, by RQAW | DCCM, and aerial map of the project area (Appendix B, page B-3), the project will convert less than 0.001 acre of farmland as defined by the Farmland Protection Policy Act. An early coordination letter was sent on August 21, 2024, to the NRCS. Coordination with the NRCS resulted in a score of 129 on the AD 1006 Form (Appendix C, page C-11). NRCS's threshold score for significant impacts to farmland that result in the consideration of alternatives is 160.

Since this project score is less than the threshold, no significant loss of prime, unique, statewide, or local important farmland will result from this project. No alternatives other than those previously discussed in this document will be investigated without reevaluating impacts to prime farmland.

SECTION D – CULTURAL RESOURCES

	Category(ies) and Type(s)	INDOT Approval Date(s)	N/A
Minor Projects PA			✓

Full 106 Effect Finding

No Historic Properties Affected ✓ | No Adverse Effect | Adverse Effect

Eligible and/or Listed Resources Present

NRHP Building/Site/District(s) | Archaeology | NRHP Bridge(s)

Documentation Prepared (mark all that apply)		**ESD Approval Date(s)**	**SHPO Approval Date(s)**
APE, Eligibility and Effect Determination	✓	February 6, 2025	May 1, 2025, and August 28, 2025
800.11 Documentation	✓	July 24, 2025	August 28, 2025
Historic Properties Report or Short Report	✓	February 6, 2025	May 1, 2025
Archaeological Records Check and Assessment			
Archaeological Phase Ia Survey Report	✓	April 1, 2025	May 1, 2025
Archaeological Phase Ic Survey Report			
Other:			

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

If the project falls under the MPPA, describe the category(ies) that the project falls under and any approval dates. If the project requires full Section 106, use the headings provided. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of the paper(s) and the comment period deadline. Include any further Section 106 work which must be completed at a later date, such as mitigation from a MOA or avoidance commitments.

Area of Potential Effect (APE)

The APE is the area in which the proposed project may cause alterations in the character or use of historic resources. The above-ground APE is a polygon in the shape of a plus sign. The APE extends approximately 0.28 mile to 0.30 mile from the center of the SR 39 and Keller Hill Road intersection in all directions. The Archeological APE is defined by approximately 9.6 acres of existing and proposed right-of-way that was investigated for the presence of archaeological resources. In a letter dated May 1, 2025, the Indiana Historic Preservation Officer (SHPO) concurred with the APE (Appendix D, pages D-44 to D-45).

Coordination with Consulting Parties

Early coordination was initiated with potential consulting parties on July 31, 2024, with a letter dated July 29, 2024, by RQAW | DCCM and INDOT Cultural Resources Office (CRO). Refer to an example early coordination letter in Appendix D, pages D-17 to D-19. Early coordination was either mailed or emailed to invited agencies, individuals, and Tribes to be consulting parties (Appendix D, pages D-20 to D-27). [Note: the Indiana State Historic Preservation Officer (SHPO) is an automatic consulting party. The FHWA is the federal agency undertaking the project with INDOT acting on behalf of the FHWA.] Refer to the table below for which invitees (in bold) accepted consulting party status.

Agency / Individual / Tribe	Date Sent	Date(s) Response Received	Appendix D, Page(s)
Indiana Landmarks, Central Regional Office	July 31, 2024	N/A	N/A
Indianapolis Metropolitan Planning Organization (MPO)	July 31, 2024	N/A	N/A
Hendricks County Commissioners	July 31, 2024	N/A	N/A
Hendricks County Highway Superintendent	July 31, 2024	N/A	N/A
Hendricks County Engineer	July 31, 2024	N/A	N/A
Hendricks County Planning Director	July 31, 2024	N/A	N/A
Hendricks County Historian	July 31, 2024	N/A	N/A
Hendricks County Historical Museum President	July 31, 2024	N/A	N/A
Morgan County Commissioners	July 31, 2024	N/A	N/A
Morgan County Engineer	July 31, 2024	N/A	N/A
Morgan County Highway Superintendent	July 31, 2024	N/A	N/A
Morgan County Planning & Zoning	July 31, 2024	N/A	N/A
Morgan County Historian	July 31, 2024	N/A	N/A
Morgan County History Center and Museum President	July 31, 2024	N/A	N/A
Morgan County History & Genealogy Association President	July 31, 2024	N/A	N/A
Eastern Shawnee Tribe of Oklahoma	July 31, 2024	September 30, 2025	D-62
Miami Tribe of Oklahoma	July 31, 2024	N/A	N/A
Peoria Tribe of Indians of Oklahoma	July 31, 2024	N/A	N/A
Pokagon Band of Potawatomi Indians	July 31, 2024	N/A	N/A
Shawnee Tribe	July 31, 2024	October 3, 2024	D-35 to D-36
Turtle Mountain Band of Chippewa Indians	July 31, 2024	August 2, 2024	D-28 to D-30
Forest County Potawatomi Community	July 31, 2024	August 19, 2024 September 3, 2025	D-31 to D-32 D-60 to D-61

In an email dated August 2, 2024, the Turtle Mountain Band of Chippewa Indians Tribal Historic Preservation Officer (THPO) responded to the ECL stating they "concur no affect to historic properties during project Des. 2200084" (Appendix D, pages D-28 to D-30).

In an email dated August 19, 2024, the Forest County Potawatomi Community (FCPC) offered the finding of "No Historic Properties Affected" (Appendix D, pages D-31 to D-32).

The Indiana SHPO responded to the ECL on September 3, 2024, stating that they were not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already invited (Appendix D, pages D-33 to D-34).

In an email dated October 3, 2024, the Shawnee Tribe's Tribal Historic Preservation Department accepted consulting party status and stated they "concur that no known historic properties will be negatively impacted by this project" (Appendix D, pages D-35 to D-36).

No other responses were received for the early coordination letter dated July 29, 2024, which was distributed on July 31, 2024.

Archaeology

A Phase 1a archaeological reconnaissance (Rusche, 2025) was conducted by Cultural Resources Analysts (CRA) personnel who meet the Secretary of Interior's Professional Qualification Standards as per 36 CFR Part 61. As a result of this effort, two previously recorded archaeological sites and twenty-four unrecorded archaeological sites within the project area were identified. Portions of the proposed project lie within the previously recorded sites 12-MG-227 and 12-MG-316 boundaries. Site 12-MG-227 is an isolated find of an unknown precontact origin. Due to being an isolated find, the site was not recommended eligible for the National Register for

Historic Places (NRHP) and no additional work was recommended. Site 12-MG-316 is a lithic scatter of an unknown precontact origin. Due to the sparse nature of the site, it was not recommended eligible for the NRHP and no additional work was recommended (Appendix D, pages D-68 to D-69).

The report has been reviewed by INDOT CRO personnel who meet the Secretary of Interior's Professional Qualification Standards as per 36 CFR Part 61. INDOT CRO deemed the report to be acceptable and concurred with the evaluations and recommendations made in it. Therefore, there are no archaeological concerns with this project as long as the project scope does not change. The Phase Ia report was sent to consulting parties on April 2 and April 3, 2025 (Appendix D, pages D-37 to D-43). A weblink to the Phase Ia report was also provided to tribes.

In a letter dated May 1, 2025, Chad Slider on behalf of Beth McCord, Deputy State Historic Preservation Officer, concurred with the archaeological report findings that there are no resources listed or eligible for the NRHP within the APE and no further archaeological investigations appear necessary (Appendix D, pages D-44 to D-45).

Historic Properties

The APE was investigated for the existence of any historic properties and/or structures by a qualified professional from RQAW | DCCM on July 11, 2024. Based on the site visit and associated documentary research, the historian did not identify any properties on, or eligible for listing, on the NRHP (Appendix D, pages D-66 to D-67).

A HPSR was prepared by qualified professionals from RQAW | DCCM (Kopf, 2025). The report documented that no properties are on, or eligible for listing in the NRHP. The HPSR was sent to consulting parties on April 2 and April 3, 2025 (Appendix D, pages D-37 to D-43). A weblink to the HPSR was also provided.

In a letter dated May 1, 2025, Chad Slider on behalf of Beth McCord, Deputy State Historic Preservation Officer, concurred with the conclusions in the HPSR that there are no resources listed or eligible for the NRHP within the APE (Appendix D, pages D-44 to D-45).

Documentation Findings

The 800.11 documentation was prepared by qualified professionals from RQAW | DCCM (Boot and Kopf, 2025) (Appendix D, pages D-1 to D-7). The 800.11 documented the Section 106 effect finding is "No Historic Properties Affected." The 800.11 document was signed by INDOT CRO, on behalf of the FHWA, on July 24, 2025 (Appendix D, pages D-1 D-7). The 800.11 documentation was sent to consulting parties, tribes, and DHPA, including the Indiana SHPO on July 28, 2025 (Appendix D, pages D-46 to D-57).

In a letter dated August 28, 2025, the Indiana SHPO concurred with the "No Historic Properties Affected" Section 106 effect finding (Appendix D, pages D-58 to D-59).

In an email dated September 3, 2025, the FCPC offered the finding of "No Historic Properties Affected" (Appendix D, pages D-60 to D-61).

In a letter dated September 30, 2025, the Eastern Shawnee Tribe of Oklahoma responded that the project proposes "No Adverse Effect" or endangerment to known sites of the Eastern Shawnee Tribe (Appendix D, page D-62).

Public Involvement

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of "No Historic Properties Affected" was published in the *Mooresville-Decatur Times* on August 6, 2025, offering the public an opportunity to submit comments pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4). The public comment period closed 30 days later, on September 5, 2025. No public comments were received. The text of the public notice and the affidavit of publication is located in Appendix D, pages D-63 to D-65.

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

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

	Presence	Use	
Parks and Other Recreational Land		Yes	No
Publicly owned park			
Publicly owned recreation area			
Other (school, state/national forest, bikeway, etc.)			
Wildlife and Waterfowl Refuges			
National Wildlife Refuge			
National Natural Landmark			
State Wildlife Area			
State Nature Preserve			
Historic Properties			
Site eligible and/or listed on the NRHP	✓		✓

	Evaluations Prepared
Programmatic Section 4(f)	
"De minimis" Impact	
Individual Section 4(f)	
Any exception included in 23 CFR 774.13	

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the discussion below. Individual Section 4(f) documentation must be included in the appendix and summarized below. Discuss proposed alternatives that satisfy the requirements of Section 4(f). FHWA has identified various exceptions to the requirement for Section 4(f) approval. Refer to 23 CFR § 774.13 - Exceptions.

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 National Register of Historic Places (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, aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-10), there is one potential Section 4(f) resource located within the 0.50-mile search radius. According to additional research, and by the site visit conducted on August 19, 2024, by RQAW | DCCM, there are no Section 4(f) resources located within or immediately adjacent to the project area. Therefore, no Section 4(f) use is expected.

Early Coordination

An early coordination letter was sent to the Hendricks and Morgan Counties Board of Commissioners on August 21, 2024. No response was received within the 30-day response period.

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

Discuss Section 6(f) resources present or not present. Discuss if any conversion would occur as a result of this project. If conversion will occur, discuss the conversion approval.

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

A review of 6(f) properties on the INDOT ESD website revealed a total of 3 properties in Hendricks County and 4 properties in Morgan County, for a total of 7 properties (Appendix I, page I-1). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources.

SECTION F – Air Quality

STIP/TIP and Conformity Status of the Project	Yes	No
Is the project in the most current STIP/TIP?	✓	
Is the project located in an MPO Area?	✓	
Is the project in an air quality non-attainment or maintenance area?		✓
If Yes, then:		
Is the project in the most current MPO TIP?		
Is the project exempt from conformity?		
If No, then:		
Is the project in the Transportation Plan (TP)?		
Is a hot spot analysis required (CO/PM)?		

Location in STIP:

Name of MPO (if applicable): Indianapolis MPO

Location in TIP (if applicable): FY 2024-2027 (Appendix H, page H-1)

Level of MSAT Analysis required?

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

Describe if the project is listed in the STIP and if it is in a TIP. Describe the attainment status of the county(ies) where the project is located. Indicate whether the project is exempt from a conformity determination. If the project is not exempt, include information about the TP and TIP. Describe if a hot spot analysis is required and the MSAT Level.

Statewide Transportation Improvement Program (STIP)

This project is included in the Fiscal Year (FY) 2024-2028 IMPO TIP; therefore, it is also incorporated into the 2024-2028 STIP by reference (Appendix H, pages H-4 and H-5).

Attainment Status

The project is in Hendricks and Morgan Counties. Hendricks County is currently in maintenance for 8-Hour Ozone (1997) and PM-2.5 (1997) and Morgan County is currently in maintenance for Ozone (1997) according to the Environmental Protection Agency (EPA) Green Book website (https://www.epa.gov/green-book). Ozone nonattainment for the year 1997 was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V Environmental Protection Agency, Et. Al. Decision. The project's design concept and scope are accurately reflected in both the Indianapolis Metropolitan Planning Organization Transportation Plan (TP) and the Transportation Improvement Program (TIP), and both conform to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met. Under 40 CFR 93.123, this is not a project of air quality concern and a hot spot analysis for PM-2.5 is not required.

Mobile Source Air Toxins (MSAT)

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

SECTION G – NOISE

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

Date Noise Analysis was approved/technically sufficient by INDOT ESD:

Describe if the project is a Type I or Type III project. If it is a Type I project, describe the studies completed to date and if noise impacts were identified. If noise impacts were identified, describe if abatement is feasible and reasonable and include a statement of likelihood.

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 H – COMMUNITY IMPACTS

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

Discuss how the project complies with the area's local/regional development patterns; whether the project will impact community cohesion; and impact community events. Discuss how the project conforms with the ADA Transition Plan.

The project will comply with a local/regional development patterns for the area. The project is not anticipated to result in substantial impacts to the community because it will not hinder access to properties within the area, divide existing communities, or cause negative economic impacts to the surrounding area. Therefore, the project will have minimal or no negative impacts to the community or local economy.

Hendricks County has an approved Americans with Disabilities (ADA) transition plan, which can be found at: https://www.co.hendricks.in.us/egov/documents/1715363409_71198.pdf. Morgan County also has an approved ADA transition plan, which can be found at: https://morgancounty.in.gov/egov/documents/1733332079_31717.pdf. Since there are no existing pedestrian facilities in the project area and none are proposed for this project, the Hendricks County and Morgan County ADA transition plans do not apply.

Public Facilities and Services

Discuss what public facilities and services are present in the project area and impacts (such as MOT) that will occur to them. Include how the impacts have been minimized and what coordination has occurred. Some examples of public facilities and services include health facilities, educational facilities, public and private utilities, emergency services, religious institutions, airports, transportation or public pedestrian and bicycle facilities.

Per a desktop review, an aerial map of the project area (Appendix B, page B-3), and the RFI report (Appendix E, pages E-1 to E-10), there are no public facilities mapped within 0.5 mile of the project. There are no public facilities within or adjacent to the project area, which was confirmed by the site visit on August 19, 2024, by RQAW | DCCM.

Per a desktop review and an aerial map of the project area (Appendix B, page B-3), there is one private facility within the 0.5-mile search radius. The *Ted Everett Farm* is located in the southwest corner of the project area. Access to this facility will be relocated. Access to all other facilities will be maintained during construction.

Utilities known to be existing in the adjacent property consist of electrical utilities for Hendricks Power Cooperative and AES – Transmission, gas utility for Centerpoint Energy, water utilities for Citizens Water and Morgan County Rural Water Corporation, communications utility for Everstream, telephone utility for Endeavor Communications, and sewer utility for Hendricks County Regional Sewer District.

Utilities that will or may require relocation include the following:

- Morgan County Rural Water is located along west side of SR 39, south of Keller Hill Road and may require relocation due to ditch grading. Still to be determined but coordination will be ongoing as the project advances.
- Citizens Energy Group water is located on the east side of SR 39 and has a blow off valve located in the roadway that will need to be relocated.
- Endeavor will be relocating all of their underground facilities and pedestals.

- Sparklight telecommunications will be relocating existing poles.
- CenterPoint Energy has a gas line located on the northside of Keller Hill Road and east side of SR 39. This gas line may require relocation, but coordination is still on going and will continue as the project advances.
- Hendricks County Regional Sewer will need to be relocated. Exact extent is not known, but they have an air release valve that will need to be raised to proposed ground elevation and will be in conflict with the new inlet structures, curb conflicts, and manholes.
- Hendricks Power has seven poles that carry an overhead service line that will need to be relocated.
- AES Corporation has four overhead electric poles that will be in conflict and need to be relocated.

Utility coordination will be on going as the project advances to determine all impacts to existing utilities. All relocations will occur within proposed right-of-way.

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?		
Does the project require an EJ analysis?		
If YES, then:		
Are any EJ populations located within the project area?		
Will the project result in adversely high and disproportionate impacts to EJ populations?		

Indicate if EJ issues were identified during project development. If an EJ analysis was not required, discuss why. If an EJ analysis was required, describe how the EJ population was identified. Include if the project has a disproportionately high or adverse effect on EJ populations and explain your reasoning. If yes, describe actions to avoid, minimize and mitigate these effects.

Due to the issuance of recent federal Executive Orders (EO) from January 2025, including EO 14154, EO 14148, and EO 12898 has been rescinded and this section is no longer applicable.

Relocation of People, Businesses or Farms	**Yes**	**No**
Will the proposed action result in the relocation of people, businesses or farms?		✓
Is a BIS or CSRS required?		✓

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

Discuss any relocations that will occur due to the project. If a BIS or CSRS is required, discuss the results in the discussion below.

No relocations of people, businesses, or farms, will occur as a result of this project. However, one driveway to a residential property and one driveway to a commercial property will be modified. The driveway off SR 39 for the residential property on the southeast corner of the intersection, which is currently a full access driveway, will be modified to a right-in/right-out driveway. The property will maintain a full access driveway off Keller Hill Road. Additionally, the east driveway off Keller Hill Road for the commercial property on the southwest corner of the intersection, which currently has two full access driveways, will be removed. The driveway on the west corner of the commercial property will remain as full access.

SECTION I – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

Date RFI concurrence by INDOT SAM (if applicable): July 12, 2024

Include a summary of the potential hazardous material concerns found during review. Discuss in depth sites found within, directly adjacent to, or ones that could impact the project area. Refer to current INDOT SAM guidance. If additional documentation (special

provisions, pay quantities, etc.) will be needed, include in discussion. Include applicable commitments.

Based on a review of Geographic Information System (GIS) and available public records, the RFI report was completed on July 12, 2024, by RQAW | DCCM (Appendix E, pages E-1 to E-10). Thirteen sites with hazardous material concerns (hazmat sites) or sites involved with regulated substances were identified within 0.5-mile of the project area.

- Two Leaking Underground Storage (LUST) sites.
- Three Institutional Controls sites.
- Eight NPDES Pipe Locations.

The project does not have any impact on the above listed hazmat resources.

Because the RFI is older than one year, a supplemental review of the GIS layers used for the RFI was conducted on July 29, 2025, by RQAW | DCCM. One additional Institutional Control site was found during the supplemental review of the GIS layers. The additional Institutional Control site is confined in the boundaries of a previously recorded site documented in the RFI, located approximately 0.46 mile north of the project area. No other additional RFI resources were found during the supplemental review. INDOT SAM concurred on July 30, 2025, that an addendum is not warranted for this project as the additional resource would not result in any impacts to the project (Appendix E, pages E-11 to E-12).

Further investigation for hazardous material concerns or regulated substances is not required at this time.

Part IV – Permits and Commitments

PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Nationwide Permit (NWP)	✓
Regional General Permit (RGP)	
Individual Permit (IP)	
Other	
IN Department of Environmental Management (401/Rule 5)	
Nationwide Permit (NWP)	✓
Regional General Permit (RGP)	
Individual Permit (IP)	
Isolated Wetlands	
Rule 5	✓
Other	
IN Department of Natural Resources	
Construction in a Floodway	✓
Navigable Waterway Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the discussion below)	

List the permits likely required for the project and summarize why the permits are needed, including permits designated as "Other."

Because the project will involve water resource impacts, a USACE Section 404 Nationwide Wide (NWP) and an IDEM Section 401 Water Quality Certification (WQC) are anticipated. The project will result in approximately 0.035 acre of wetlands. Mitigation may be required for wetland impacts but will ultimately be determined during the permitting process.

As this project will result in more than one acre of land disturbance, an IDEM Construction Stormwater General Permit (CSGP) will be required.

In their early coordination response, the IDNR Division of Fish and Wildlife stated the project may require formal approval for construction in a floodway if any construction, excavation, or filling in or on the floodway of a stream of other flowing waterbody that has a drainage area greater than one square mile (Appendix C, page C-8). An IDNR CIF permit will be anticipated due to construction of stormwater detention berms taking place within the floodplain.

Applicable recommendations provided by resource agencies are included in the *Environmental Commitments* section of this CE document. If permits are found to be necessary, the conditions of the permit will be the requirements of the project and will supersede these recommendations. It is the responsibility of the project sponsor to identify and obtain all required permits.

ENVIRONMENTAL COMMITMENTS

List all commitments and include the name of agency/organization requesting/requiring the commitment(s). Listed commitments should be numbered.

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. Changes to scope of work include tree or habit removal, temporary and / or permanent lighting changes, and / or hibernacula / karst impacts not included in the original environmental documentation. (INDOT ESD and INDOT Crawfordsville District)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
4. GAMM1: Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs. (USFWS)
5. LAMM1: Direct temporary lighting away from suitable habitat during the active season. (USFWS)
6. LAMM2: When installing new/additional permanent lighting or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those Transportation Agencies using the Backlight Uplight and Glare (BUG) system developed by the Illuminating Engineering Society, the project should be as close to 0 for all three ratings with a priority of “uplight” of 0 and “backlight” as low as practicable. (USFWS)
7. TRTAMM1: Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely. (USFWS)
8. TRTAMM2: Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits. (USFWS and IDNR DFW)
9. TRTAMM3: Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB. (USFWS)
10. All wetland boundaries will be shown on the final design plan sheets and “Do Not Disturb Outside Construction Limits” will be added to the plan sheets. (INDOT Crawfordsville District)
11. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure. (INDOT SAM)

For Further Consideration:

1. Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ration based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree removed (trees that are 10” diameter-at-breast height (dbh)) with two trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location. (IDNR DFW)
2. Where possible, road runoff should be directed to riprap turnouts and sediment filtration prior to entering a stream to reduce impacts to aquatic species. We recommend the use of pollutant trapping technology such as storm drain insert to reduce

the runoff of roadside pollutants where appropriate. (IDNR DFW)

3. Do not construct any temporary runarounds, access bridges, causeways, cofferdams, diversions, or pumparounds. (IDNR DFW)
4. Use minimum average 6-inch graded riprap stone extended below the normal water level to provide to provide habitat for aquatic organisms in the voids. (IDNR DFW)
5. Protect the area around and below any concentrated discharge points, down to the waterway's normal flow level, with an appropriate structural armament such as riprap. (IDNR DFW)

Appendix A: INDOT Supporting Documentation
Categorical Exclusion Level Thresholds A-1

Appendix B: Graphics
General Location Map B-1
Topographic Map B-2
Aerial Photograph Location Key Map B-3
Project Area Photographs B-4
Preliminary Design Plan Sheets B-9

Appendix C: Early Coordination
Example Early Coordination Letter (*attachments omitted*) C-1
IGWS Electronic Response C-4
IDNR Division of Fish and Wildlife Response C-7
USDA Response C-10
Hendricks County Clean Water Response C-12
USFWS Coordination
Bat Database Check Coordination C-13
IPaC Species List Letter C-15
IPaC Concurrence Verification Letter C-23
USFWS Gray Bat Concurrence Letter C-35

Appendix D: Section 106 of the National Historic Preservation Act (NHPA)
800.11 Documentation *(some appendices omitted)* D-1
800.11 Documentation Finding Distributed to Consulting Parties Coordination D-46
800.11 Documentation Finding Distributed to Tribes Coordination D-48
800.11 Documentation Finding Distributed to Consulting Parties Coordination D-49
Legal Notice and Signed Publisher's Affidavit D-63

Appendix E: Red Flag Investigation and Hazardous Materials
Red Flag Investigation E-1
INDOT SAM RFI Addendum Coordination E-11

Appendix F: Water Resources
Waters of the U.S. Report (*some graphics omitted*) F-1

Appendix G: Public Involvement
Example Notice of Entry Letter G-1
INDOT Notice of Entry for Survey or Investigation Letter G-2

Appendix H: Air Quality
FY 2026-2029 IMPO Transportation Improvement Program (*relevant page only*) H-1
TIP/STIP Approval Letters (*relevant page only*) H-2

Appendix I: Other Information

LWCF County Property List for Indiana I-1
Abbreviated Engineering Assessment *(some appendices omitted)* I-2
Abbreviated Engineering Assessment Addendum *(some appendices omitted)* I-18
Existing Level of Service AM Peak Hours I-37
Existing Level of Service PM Peak Hours I-39
No-Build Level of Service AM Peak Hours I-41
No-Build Level of Service PM Peak Hours I-43

Categorical Exclusion

Appendix A

INDOT Supporting Documentation

Des. Number 2200084
Categorical Exclusion Level Thresholds

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

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

Categorical Exclusion

Appendix B

Graphics



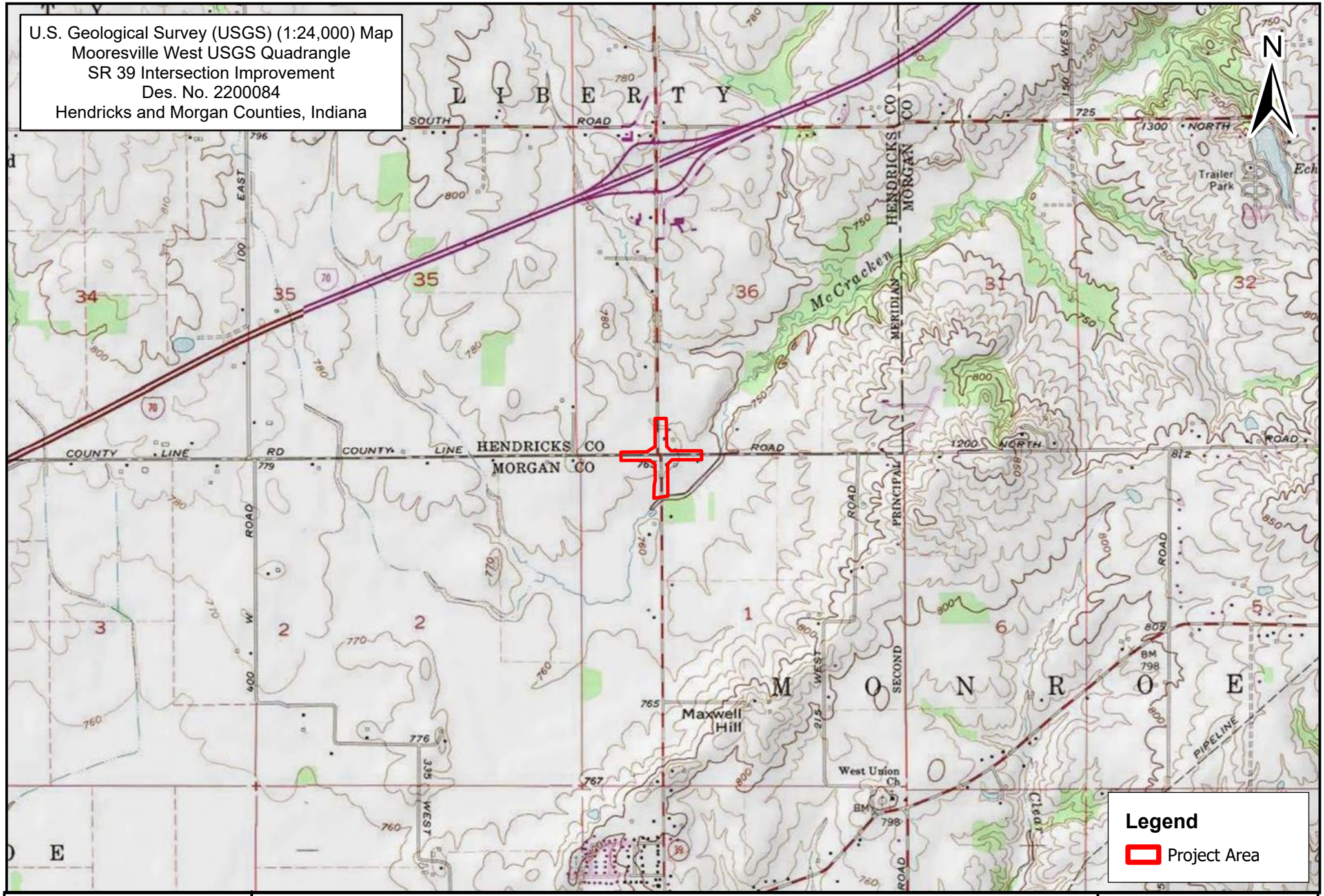
RQAW

DCCM

Project Location

0 0.42 0.85 1.7 Miles

Township: Washington
Counties: Hendricks and Morgan
Date: 07/24/2025



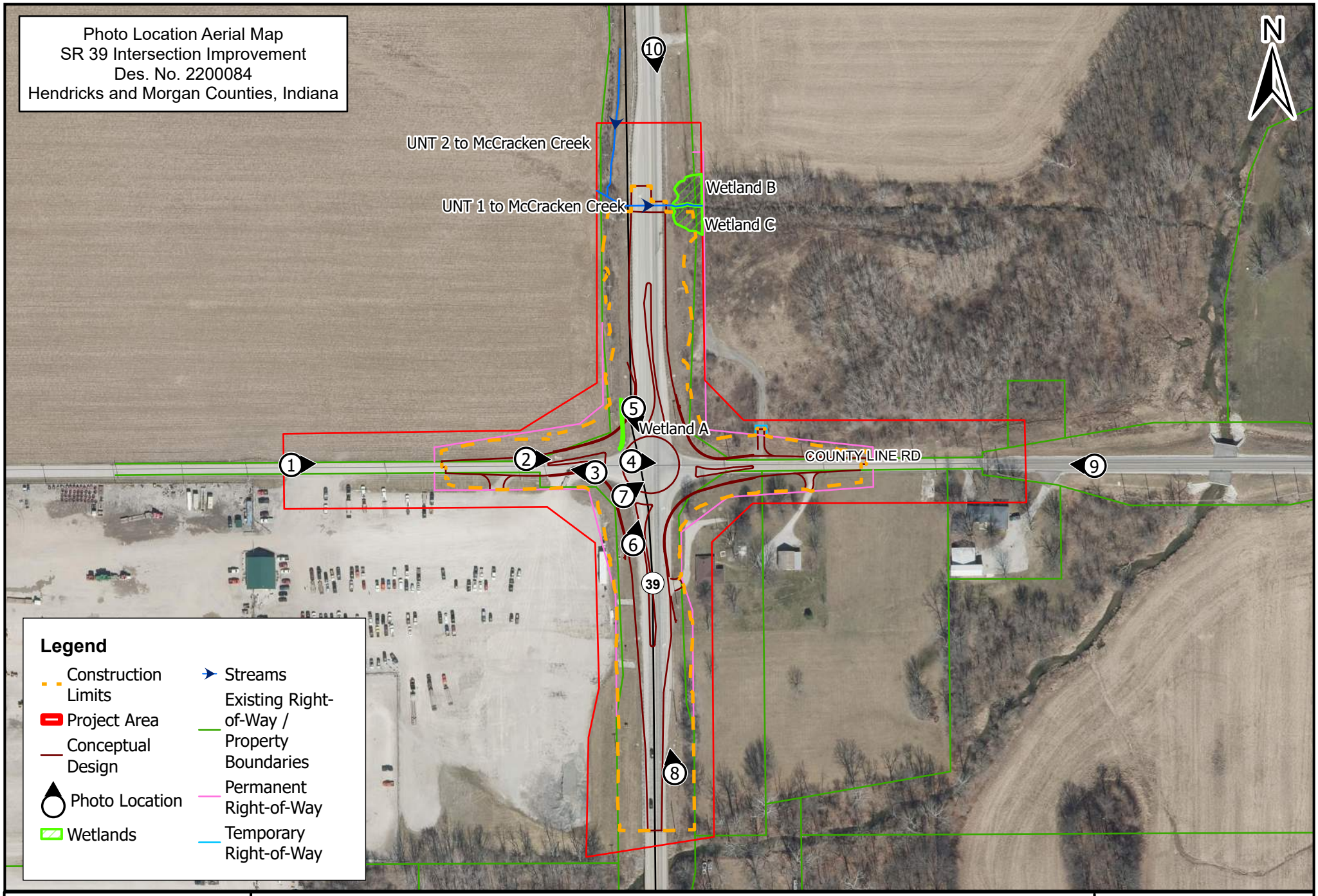
RQAW

DCCM

USGS Topographic Map

0 0.5 1 2 Miles

Township: Washington
Counties: Hendricks and Morgan
Date: 4/22/2025



RQAW

DCCM

Photo Location Aerial Map

0 0.05 0.1 0.2 Miles

Township: Washington
Counties: Hendricks and Morgan
Date: 07/24/2025



1. Looking east on Keller Hill Road, from the western terminus of the project area.



3. Looking west at Keller Hill Road from western edge of SR 39 and Keller Hill Road intersection.



2. Looking east at the SR 39 and Keller Hill Road intersection, from the northwest corner on Keller Hill Road.



4. Looking east at Keller Hill road from center of western edge of SR 39 and Keller Hill Road intersection.



5. Facing north looking at Wetland A.



6. Looking northeast at SR 39 from southwest corner of SR 39 and Keller Hill Road intersection.



7. Looking southeast at SR 39 from northwest corner of SR 39 and Keller Hill Road intersection.



8. Looking north at SR 39, from southern terminus of project area.



9. Looking east at Keller Hill Road, eastern terminus of project area.



11. Facing southeast looking at Wetland B.



10. Facing east (downstream) looking at UNT 1 to McCracken Creek and Wetlands B and C.



12. Facing east (downstream) looking at UNT 1 to McCracken Creek and Wetlands B and C.



13. Facing west (upstream) looking at UNT 1 to McCracken Creek.



15. Facing south (downstream) looking at UNT 2 to McCracken Creek.



14. Facing northwest (upstream) looking at UNT 1 to McCracken Creek.



16. Facing south looking at a maintained roadside and surroundings along SR 39.



17. Looking south at SR 39, northern terminus of project area.

PROJECT	DESIGNATION
2200084	2200084
CONTRACT	
R-44389	

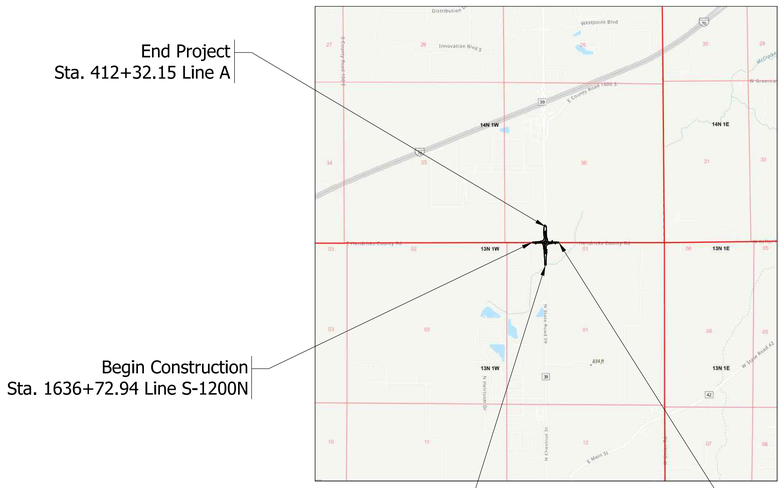
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: SR 39 FROM: RP 30+51 TO: RP 30+71

PROJECT NO. 2200084 P.E.
2200084 R/W
2200084 CONST.

Intersection Improvement on SR 39 at Keller Hill Road
Located 0.88 Miles South of I-70
Section 36, T-14-N, R-1-W, Liberty Township, Hendricks County, Indiana and
Section 1, T-13-N, R-1-W, Monroe Township, Morgan County, Indiana



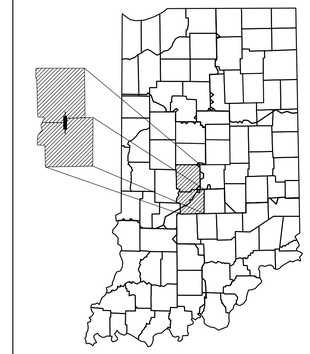
SCALE: 1" = 2500'

TRAFFIC DATA (SR 39)		
A.A.D.T.	(2027)	11,062 V.P.D.
A.A.D.T.	(2047)	13,632 V.P.D.
D.H.V	(2047)	1,220 V.P.H.
DIRECTIONAL DISTRIBUTION		48 / 52 %
TRUCKS		5.9 % A.A.D.T.
		3.2 % D.H.V.

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

TRAFFIC DATA (Keller Hill Rd)		
A.A.D.T.	(2027)	1,355 V.P.D.
A.A.D.T.	(2047)	1,670 V.P.D.
D.H.V	(2047)	164 V.P.H.
DIRECTIONAL DISTRIBUTION		89 / 11 %
TRUCKS		6.3 % A.A.D.T.
		0.1 % D.H.V.

DESIGN DATA	
DESIGN SPEED	50 M.P.H.
PROJECT DESIGN CRITERIA	NEW CONSTRUCTION (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	LOCAL
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE



PROJECT LOCATION SHOWN BY
HENDRICKS AND MORGAN COUNTIES

LATITUDE: 39° 36' 2.8" N LONGITUDE: 86° 28' 46" W

GROSS LENGTH: 0.35 MI.
NET LENGTH: 0.35 MI.
MAX. GRADE: 2.95 %

HUC: 051202011307

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

STAGE 2 PLANS
NOT FOR CONSTRUCTION
04/02/2025

Plot: 4/2/2025 1:32 PM
File:
Model: Title Sheet

PLANS PREPARED BY: _____ PHONE NUMBER

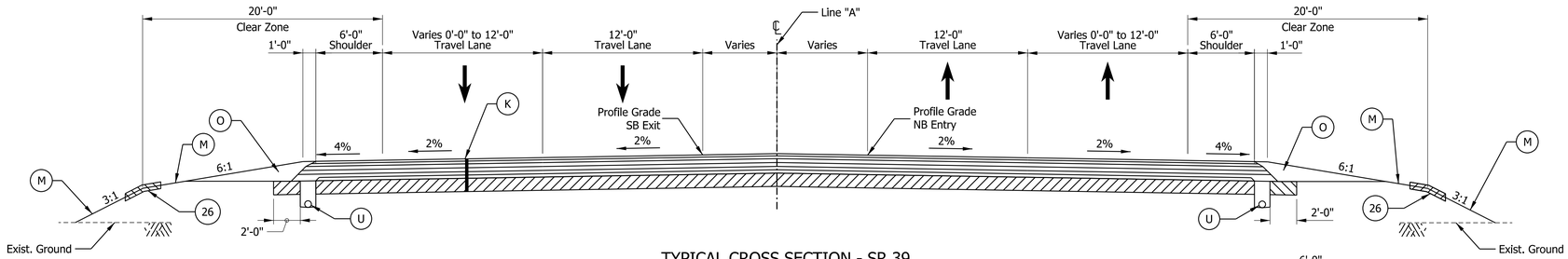
"THIS MEDIA SHOULD NOT BE CONSIDERED A CERTIFIED DOCUMENT."

CERTIFIED BY: _____ DATE

RECOMMENDED FOR LETTING: _____ DATE
INDIANA DEPARTMENT OF TRANSPORTATION

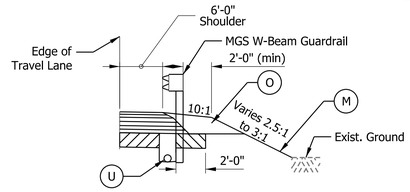
BRIDGE FILE	
N/A	
DESIGNATION	
2200084	

SURVEY BOOK	SHEETS		
ELECTRONIC	1	of	59
CONTRACT	PROJECT		
R-44389	2200084		



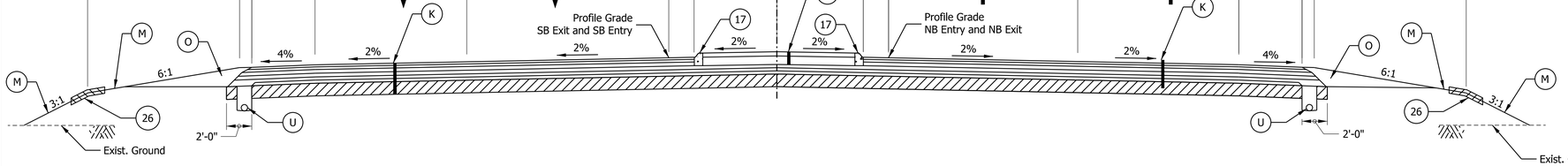
TYPICAL CROSS SECTION - SR 39

Line "A" Sta. 401+47.00 to Sta. 404+69.92



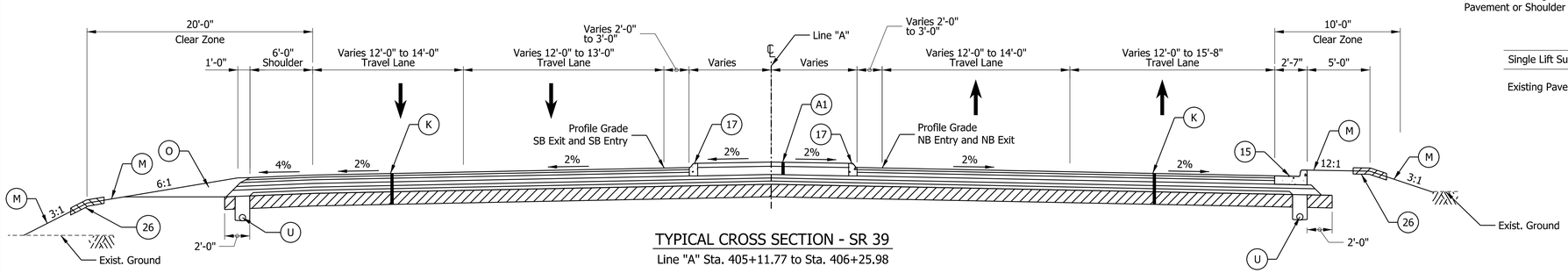
ALT. END TREATMENT

Lt. Line "A" Sta. 401+47.00 to Sta. 404+96.14
Rt. Line "A" Sta. 401+47.00 to Sta. 402+46.65
Rt. Line "A" Sta. 409+11.84 to Sta. 409+69.10



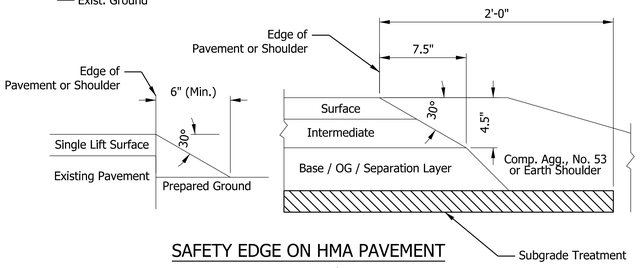
TYPICAL CROSS SECTION - SR 39

Line "A" Sta. 404+69.92 to Sta. 405+11.77



TYPICAL CROSS SECTION - SR 39

Line "A" Sta. 405+11.77 to Sta. 406+25.98



SAFETY EDGE ON HMA PAVEMENT

Not to Scale

LEGEND

- (A) PCCP, 9" (Stained Red) w/ 15' D-1 Joint Spacing (1.5" Dowel Bars), on 12" Compacted Aggregate, No. 53
- (A1) PCCP, 4" (Stained Red), on 8" Compacted Aggregate, No. 53
- (F) Sidewalk, Concrete, on Subgrade Treatment, Type III
- (K) Full-Depth HMA Pavement Design
  220 LBS/SYS, QC/QA-HMA, 3, 58E, Surface, 9.5 mm
  275 LBS/SYS, QC/QA-HMA, 3, 58E, Intermediate, 19.0 mm
  770 LBS/SYS, QC/QA-HMA, 3, 58S, Base, 25.0 mm (Placed in 2 Lifts), on
  300 LBS/SYS, QC/QA-HMA, 3, 58S, Intermediate, OG, 19mm, on
  3" Compacted Aggregate, No. 53, on
  Subgrade Treatment, Type IC
- (L) Landscaping, TBD
- (M) Mulched Seeding, R
- (O) Compacted Agregate, No. 53
- (R) Mill and Overlay, TBD
- (U) Underdrain, 6"
- (14) Integral Concrete Curb
- (15) Combined Concrete Curb and Gutter (Vertical)
- (16) Rolled Curb, Sloping
- (17) Concrete Curb, Type B (Sloping)
- (26) Sodding

Plot: 4/2/2025 3:56 PM

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JGC | DRAWN: JGC

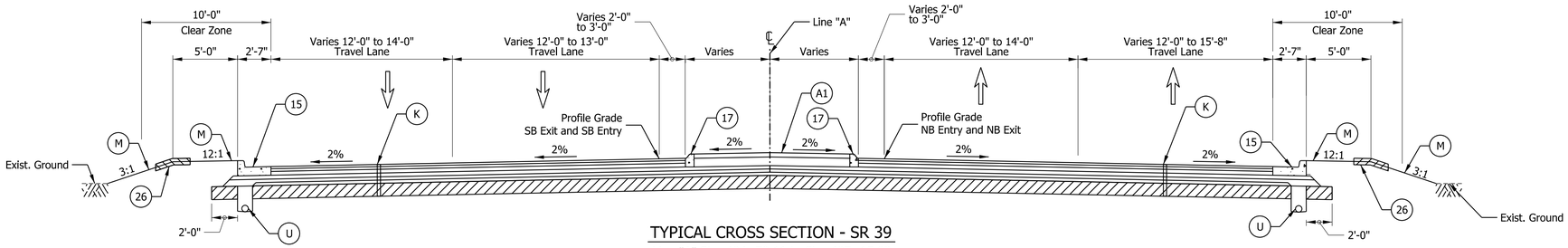
CHECKED: TAH | CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

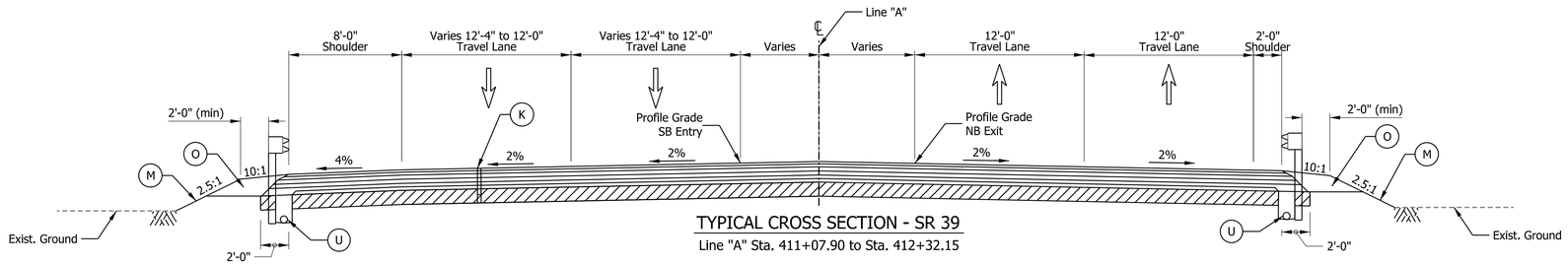
SCALE	BRIDGE FILE
1" = 5'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	3 of 59
CONTRACT	PROJECT
R-44389	2200084

File:
Model:Typ Secs



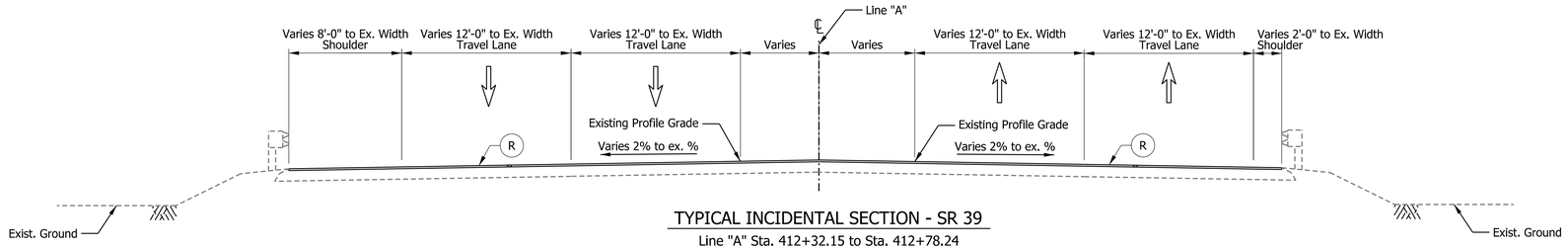
TYPICAL CROSS SECTION - SR 39

Line "A" Sta. 404+70.11 to Sta. 407+15.93
Line "A" Sta. 408+61.93 to Sta. 409+69.10



TYPICAL CROSS SECTION - SR 39

Line "A" Sta. 411+07.90 to Sta. 412+32.15



TYPICAL INCIDENTAL SECTION - SR 39

Line "A" Sta. 412+32.15 to Sta. 412+78.24

LEGEND

- (A) PCCP, 9" (Stained Red) w/ 15' D-1 Joint Spacing (1.5" Dowel Bars), on 12" Compacted Aggregate, No. 53
- (A1) PCCP, 4" (Stained Red), on 8" Compacted Aggregate, No. 53
- (F) Sidewalk, Concrete, on Subgrade Treatment, Type III
- (K) Full-Depth HMA Pavement Design
  220 LBS/SYS, QC/QA-HMA, 3, 58E, Surface, 9.5 mm
  275 LBS/SYS, QC/QA-HMA, 3, 58E, Intermediate, 19.0 mm
  770 LBS/SYS, QC/QA-HMA, 3, 58S, Base, 25.0 mm (Placed in
  300 LBS/SYS, QC/QA-HMA, 3, 58S, Intermediate, OG, 19mm
  3" Compacted Aggregate, No. 53, on
  Subgrade Treatment, Type IC
- (L) Landscaping, TBD
- (M) Mulched Seeding, R
- (O) Compacted Agregate, No. 53
- (R) Mill and Overlay, TBD
- (U) Underdrain, 6"
- (14) Integral Concrete Curb
- (15) Combined Concrete Curb and Gutter (Vertical)
- (16) Rolled Curb, Sloping
- (17) Concrete Curb, Type B (Sloping)
- (26) Sodding

Plot: 4/2/2025 3:57 PM
File:
Model: Typ Secs 2

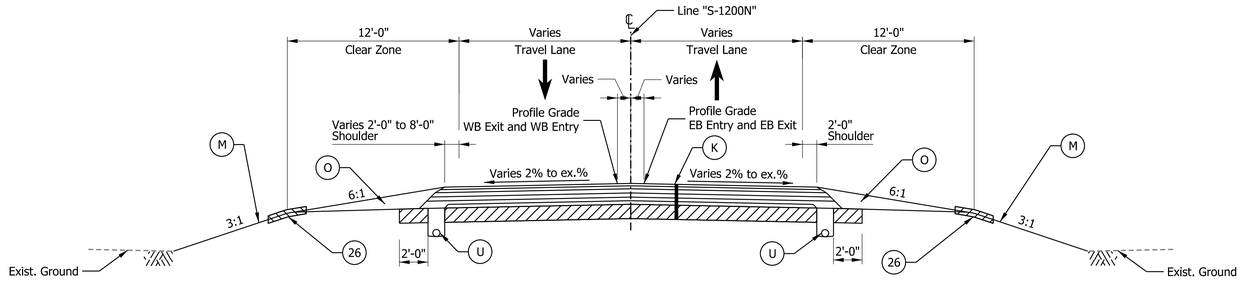
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

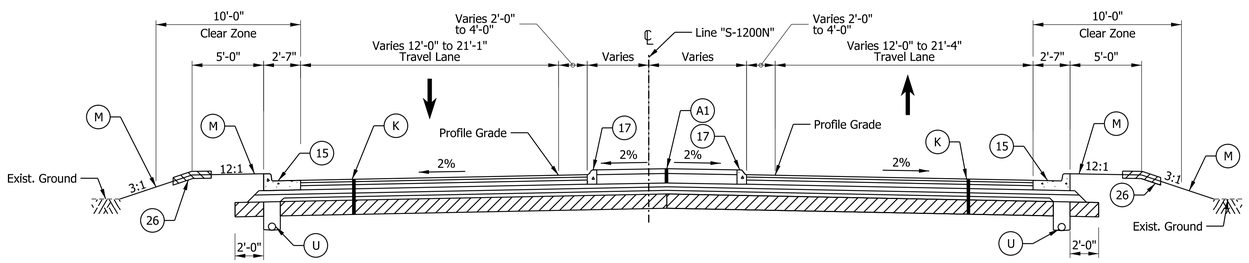
TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
1" = 5'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	4 of 59
CONTRACT	PROJECT
R-44389	2200084



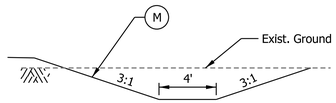
TYPICAL CROSS SECTION - KELLER HILL ROAD

Line "S-1200N" Sta. 1636+72.94 to Sta. 1638+59.60
Line "S-1200N" Sta. 1642+19.50 to Sta. 1644+18.08

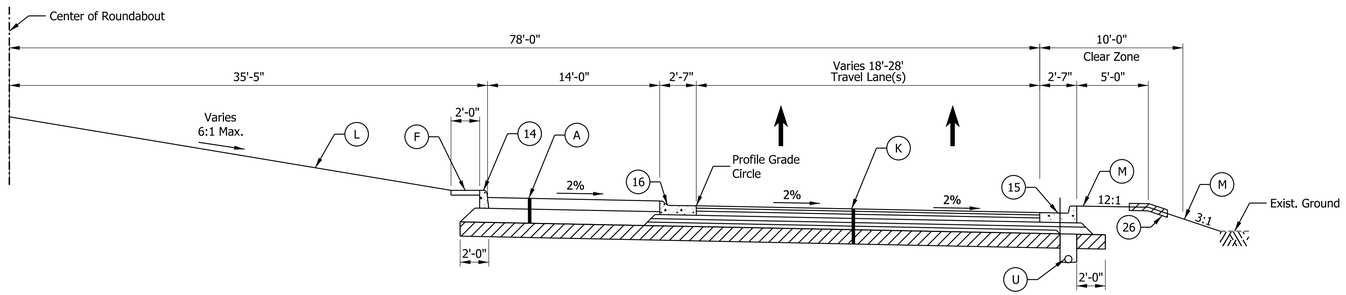


TYPICAL CROSS SECTION - KELLER HILL ROAD

Line "S-1200N" Sta. 1638+59.60 to Sta. 1639+56.98
Line "S-1200N" Sta. 1641+22.12 to Sta. 1642+19.50



TYPICAL DITCH SECTION



TYPICAL CROSS SECTION - CIRCULATORY ROADWAY

Line "Circle" Sta. 0+00.00 to Sta. 3+14.16

LEGEND

- (A) PCCP, 9" (Stained Red) w/ 15' D-1 Joint Spacing (1.5" Dowel Bars), on 12" Compacted Aggregate, No. 53
- (A1) PCCP, 4" (Stained Red), on 8" Compacted Aggregate, No. 53
- (F) Sidewalk, Concrete, on Subgrade Treatment, Type III
- (K) Full-Depth HMA Pavement Design
  220 LBS/SYS, QC/QA-HMA, 3, 58E, Surface, 9.5 mm
  275 LBS/SYS, QC/QA-HMA, 3, 58E, Intermediate, 19.0 mm
  770 LBS/SYS, QC/QA-HMA, 3, 58S, Base, 25.0 mm (Placed in 2 Lifts), on
  300 LBS/SYS, QC/QA-HMA, 3, 58S, Intermediate, OG, 19mm, on
  3" Compacted Aggregate, No. 53, on
  Subgrade Treatment, Type IC
- (L) Landscaping, TBD
- (M) Mulched Seeding, R
- (O) Compacted Agregate, No. 53
- (R) Mill and Overlay, TBD
- (U) Underdrain, 6"
- (14) Integral Concrete Curb
- (15) Combined Concrete Curb and Gutter (Vertical)
- (16) Rolled Curb, Sloping
- (17) Concrete Curb, Type B (Sloping)
- (26) Sodding

Plot: 4/2/2025 3:57 PM
File:
Model:Typ Secs 2

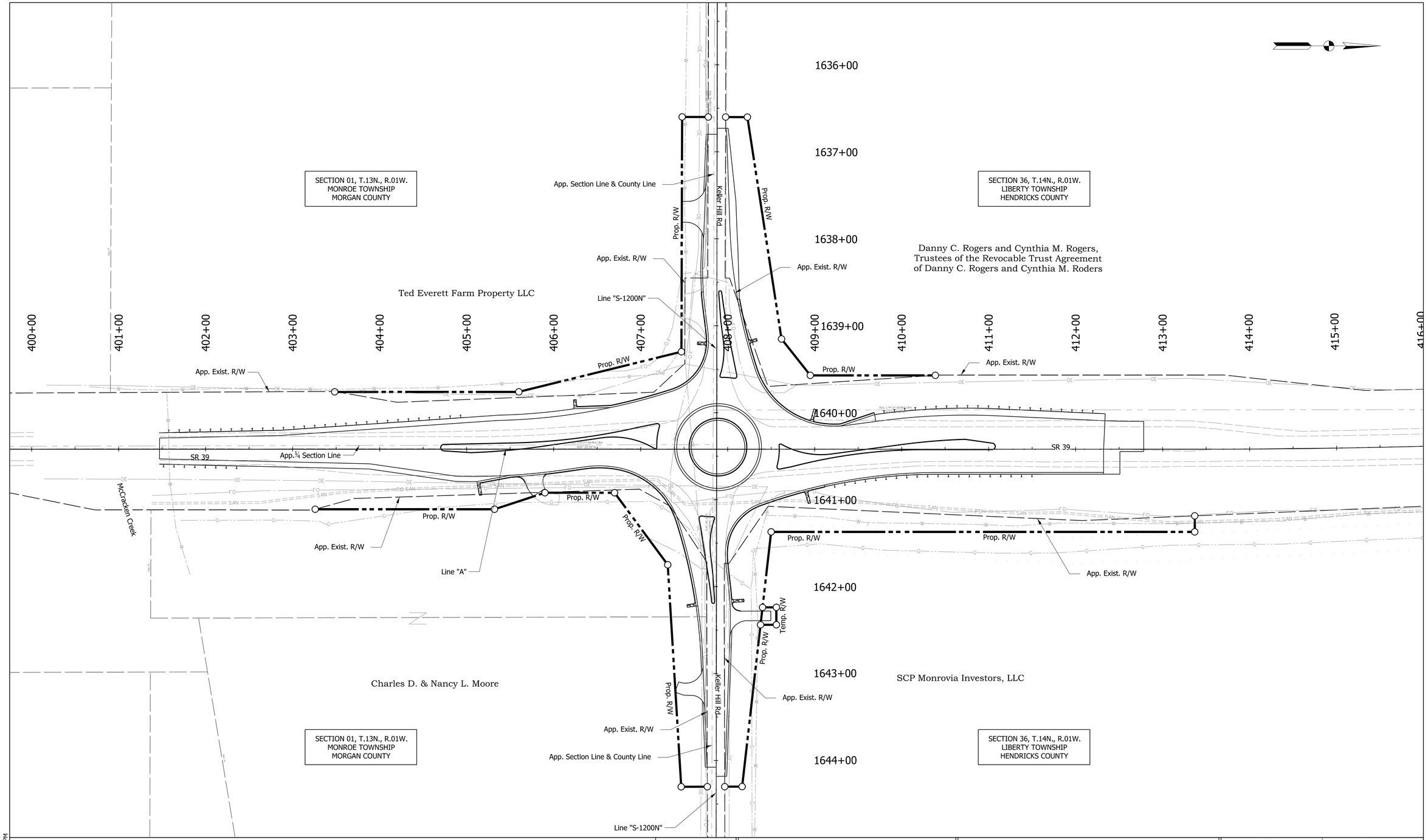
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

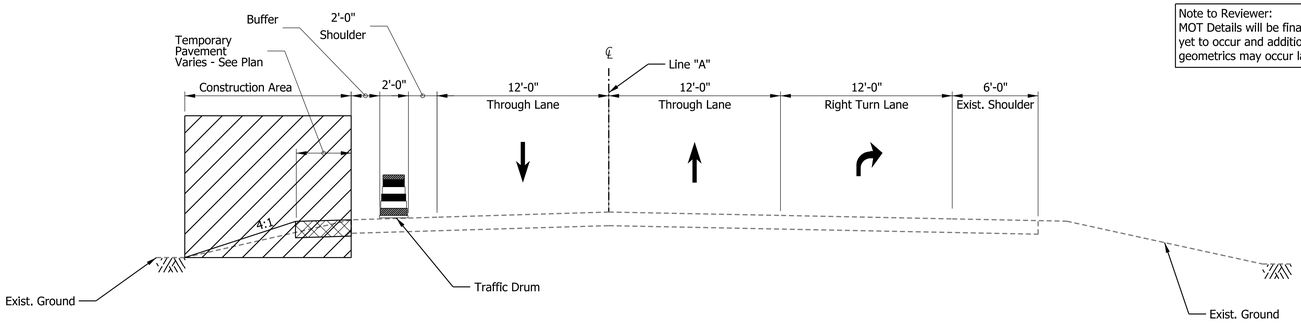
TYPICAL CROSS SECTIONS

SCALE	BRIDGE FILE
1" = 5'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	5 of 59
CONTRACT	PROJECT
R-44389	2200084



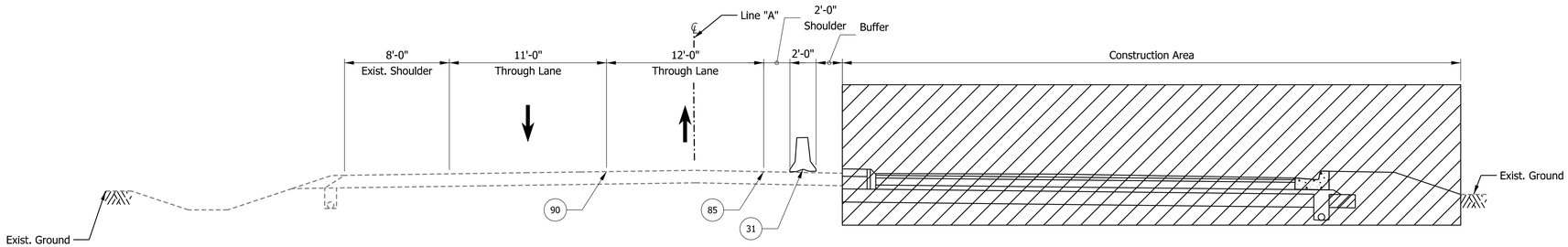
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	SCALE: 1" = 50'	BRIDGE FILE: N/A
			DESIGNATION: 2200084
DESIGNED: HNM DRAWN: HNM	PLAT NO. 1	SURVEY BOOK	SHEETS: 6 of 59
CHECKED: TAH CHECKED: TAH		ELECTRONIC	
		CONTRACT: R-44389	PROJECT: 2200084

Plot: 4/2/2025 1:33 PM
File: c:\pw\kh1\d0406453\2200084_RD_Sht_Plat Sheet.dgn
Model: Plat1 - SR 39 [Sheet]

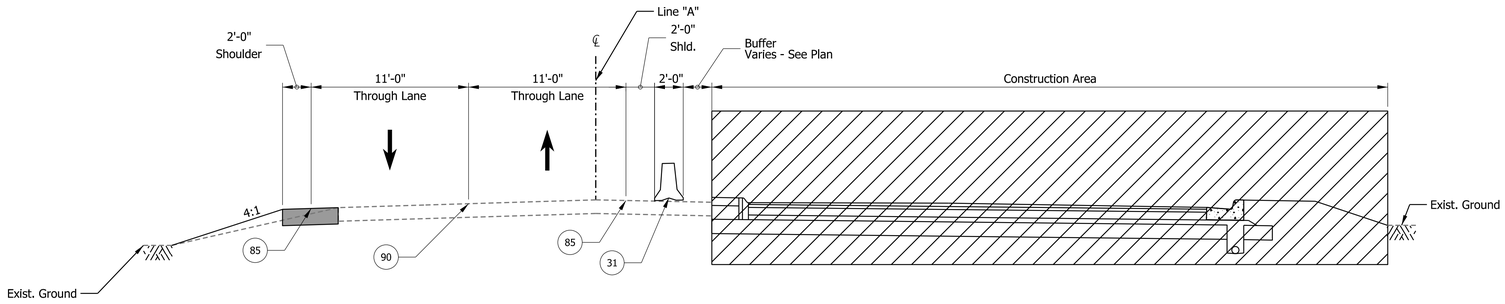


MOT TYPICAL SECTION - SR 39 (South Approach)- PRE-PHASE 1

Note to Reviewer:
MOT Details will be finalized by FFC, as TMP coordination is yet to occur and additional changes to the north approach geometrics may occur late in project development.



MOT TYPICAL SECTION - SR 39 (North Approach)- PHASE 1



MOT TYPICAL SECTION - SR 39 (South Approach)- PHASE 1

MAINTENANCE OF TRAFFIC PHASING NOTES:

PRE-PHASE 1:

1. TEMPORARY PAVEMENT WILL BE INSTALLED ALONG THE WEST SIDE OF SR 39 AS INDICATED IN THE PHASE 1 PLANS, UTILIZING SHOULDER CLOSURE OPERATIONS PER STANDARD DRAWING E 801-TCSC-06.

PHASE 1:

2. SR 39 NB AND SB TRAFFIC WILL BE MAINTAINED UTILIZING A SINGLE TRAVEL LANE IN EACH DIRECTION AS INDICATED IN PHASE 1 PLANS.
3. TWO-WAY TRAFFIC WILL BE MAINTAINED ALONG KELLER HILL RD (WEST LEG). ACCESS TO NB AND SB SR 39 WILL BE CONTROLLED BY EXISTING STOP SIGN AND PAVEMENT MARKINGS.
4. KELLER HILL ROAD (EAST LEG) WILL BE CLOSED TO TRAFFIC AND DETOURED.
5. PROPOSED PERMANENT AND TEMPORARY PAVEMENT WILL BE INSTALLED ALONG THE EAST SIDE OF SR 39 AS INDICATED IN THE PHASE 1 PLANS.

PHASE 2.

6. SR 39 NB AND SB TRAFFIC WILL BE MAINTAINED UTILIZING A SINGLE TRAVEL LANE IN EACH DIRECTION IN THE ULTIMATE SR 39 NB TRAVEL LANES, AS INDICATED IN PHASE 2 PLANS.
7. BOTH THE WEST AND EAST LEGS OF KELLER HILL RD WILL BE CLOSED TO TRAFFIC AND DETOURED.

PHASE 3A:

8. SR 39 SB AND NB TRAFFIC WILL BE MAINTAINED UTILIZING A SINGLE LANE AND TEMPORARY TRAFFIC SIGNALS.
9. BOTH THE WEST AND EAST LEGS OF KELLER HILL RD WILL BE CLOSED TO TRAFFIC AND DETOURED.

PHASE 3B.

10. SR 39 SB AND NB TRAFFIC WILL BE MAINTAINED UTILIZING A SINGLE LANE AND TEMPORARY TRAFFIC SIGNALS.
11. BOTH THE WEST AND EAST LEGS OF KELLER HILL RD WILL BE CLOSED TO TRAFFIC AND DETOURED.

MOT QUANTITIES	
ITEM	QUANTITY
Construction Sign A	To Be Completed at Stage 3
Construction Sign A	
Detour Route Marker Assembly	
Road Closure Sign Assembly	
Barricade, III-A	
Barricade, III-B	
Temporary Barrier, Type 2	
Temporary Signal	
Temporary Pavement	

Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

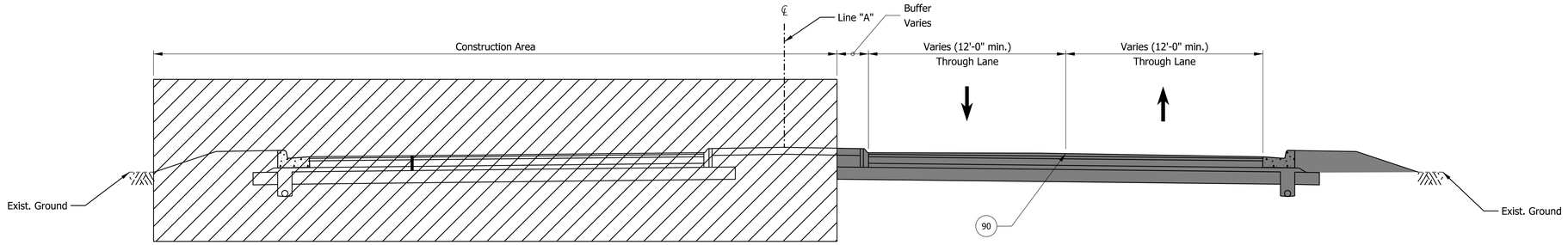
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
SUMMARY

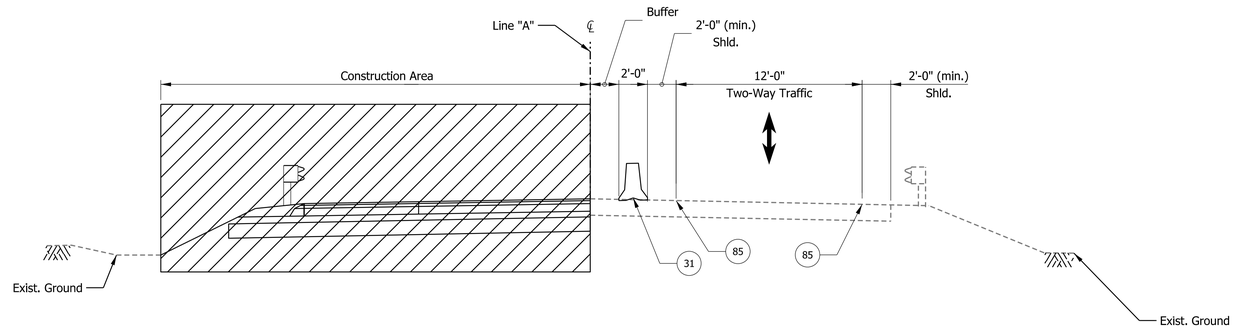
SCALE	BRIDGE FILE
1" = 5'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS		
ELECTRONIC	10	of	59
CONTRACT	PROJECT		
R-44389	2200084		

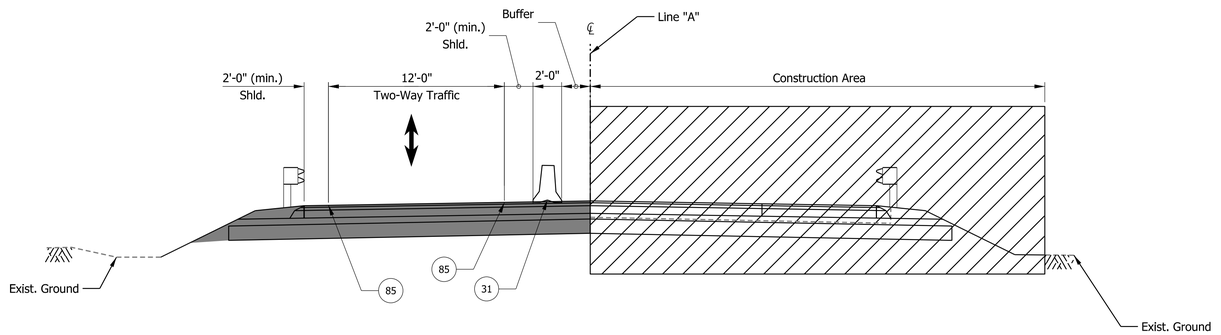
Plot: 4/2/2025 1:34 PM
File:
Model:MOT Typ Sections 1



MOT TYPICAL SECTION - SR 39 - PHASE 2



MOT TYPICAL SECTION - SR 39 - PHASE 3A



MOT TYPICAL SECTION - SR 39 - PHASE 3B

Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

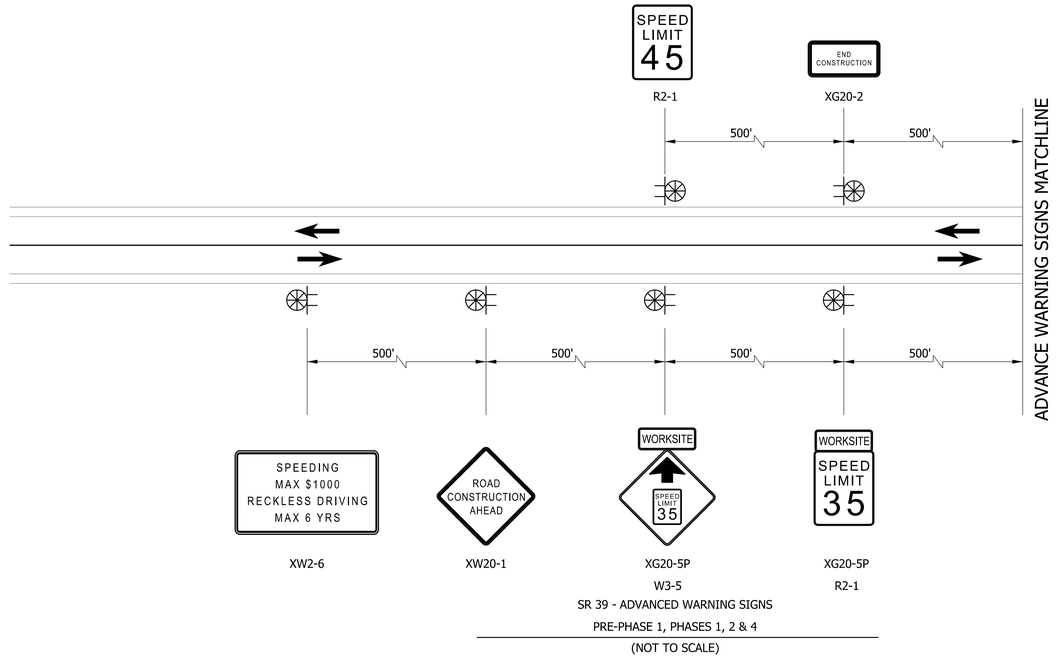
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
SUMMARY

SCALE	BRIDGE FILE
1" = 5'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	11 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:35 PM
File:
Model: MOT Typ Sections 2



SR 39 - ADVANCED WARNING SIGNS

PRE-PHASE 1, PHASES 1, 2 & 4

(NOT TO SCALE)

Plot: 4/2/2025 1:35 PM

File:
Model:Adv Signage 1

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

CHECKED: TAH CHECKED: TAH

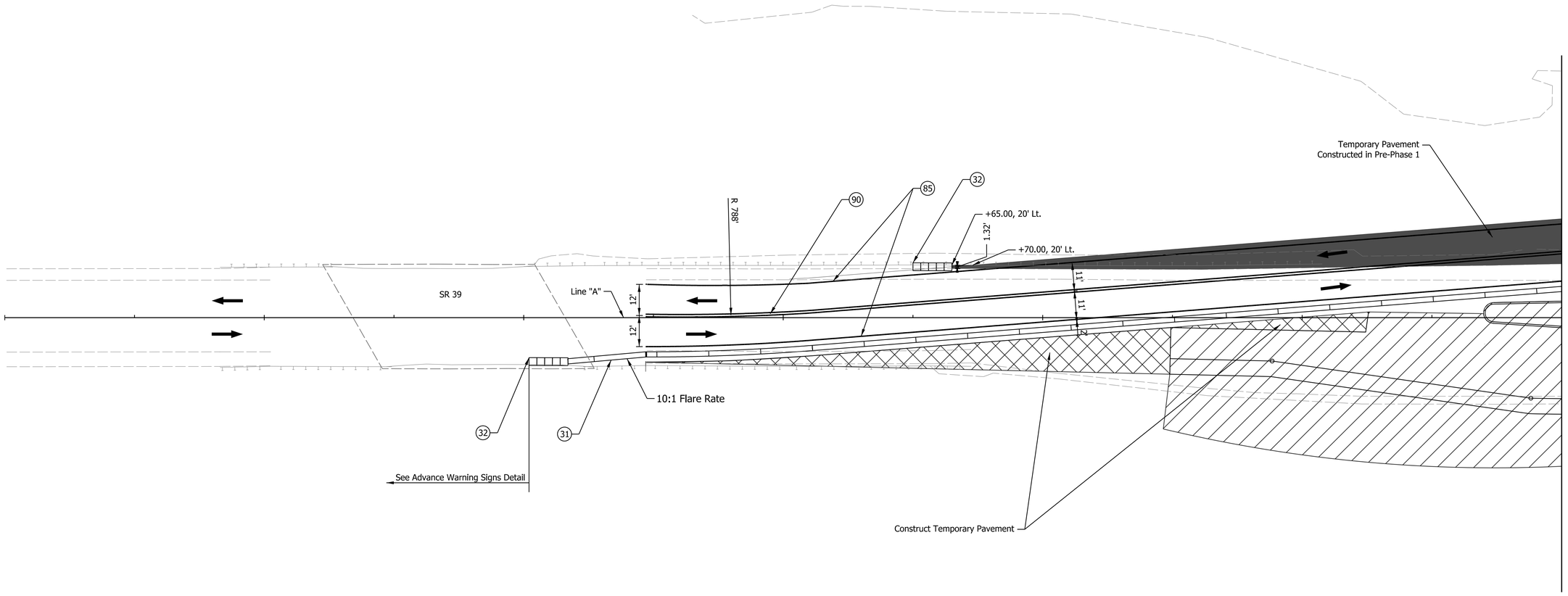
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
ADVANCED SIGN DETAIL

SCALE	BRIDGE FILE
N/A	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	12 of 59
CONTRACT	PROJECT
R-44389	2200084

399+00 400+00 401+00 402+00 403+00 404+00 405+00

Note to Reviewer:
MOT Details will be finalized by FFC, as TMP coordination is yet to occur and additional changes to the north approach geometrics may occur late in project development.



Construction Area	30 Temporary Traffic Signal, Portable	85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31 Temporary Traffic Barrier, Type 2	87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32 Energy- Absorbing Terminal, CZ, TL-2	89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic	Channelizing Device	90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:35 PM
File:
Model:Line A - Plan 1 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

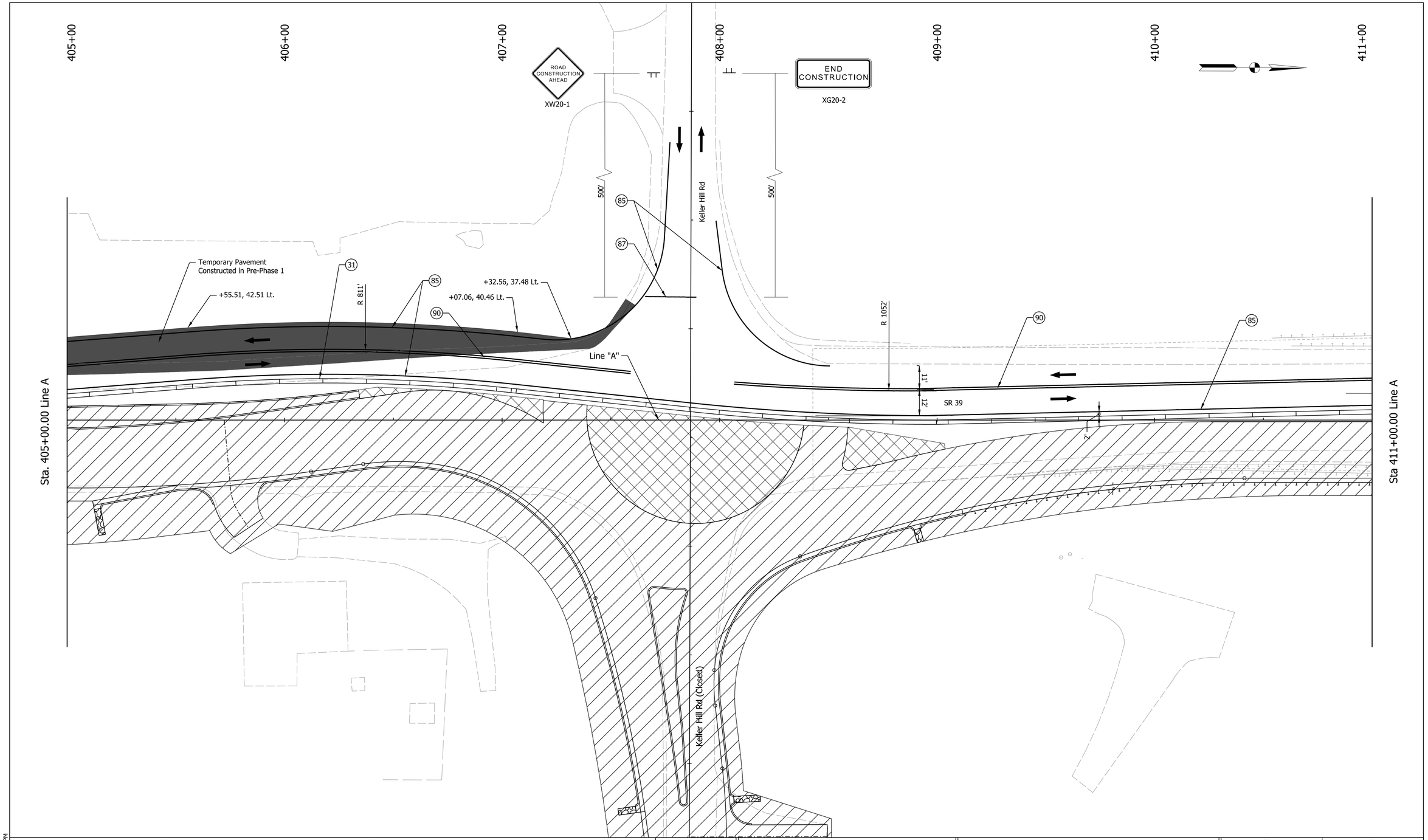
DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	13 of 59
CONTRACT	PROJECT
R-44389	2200084



Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:35 PM
File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

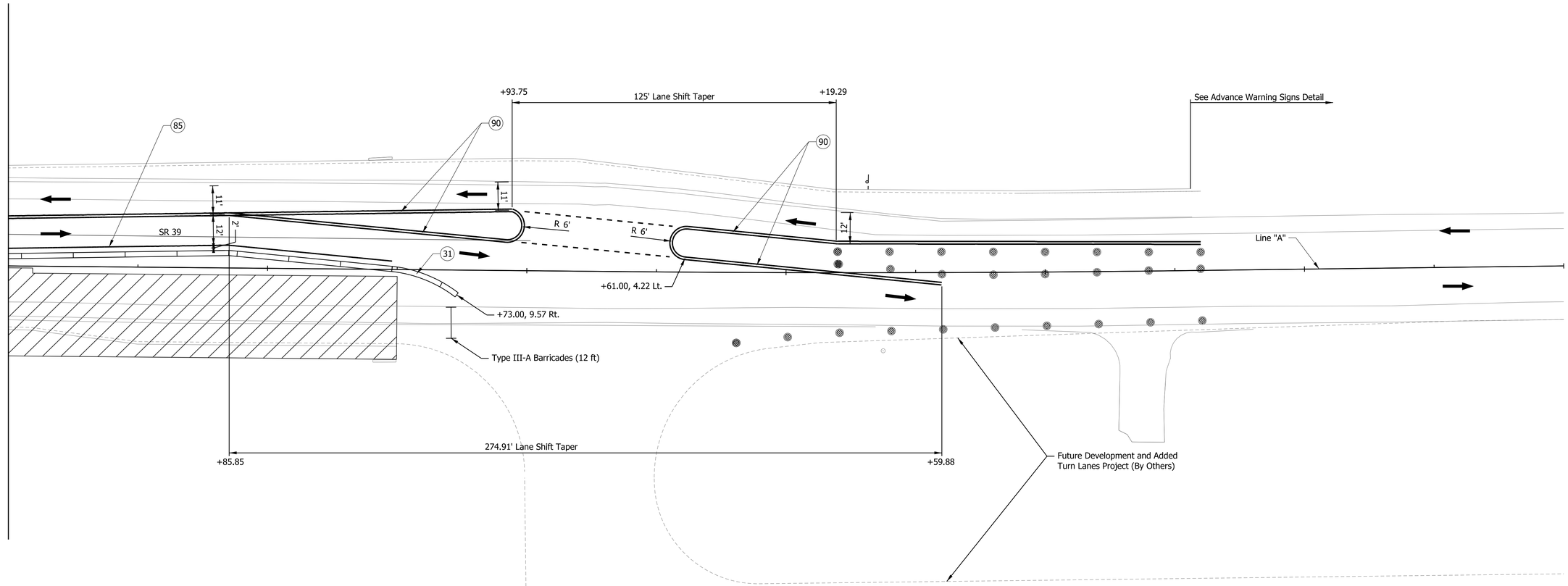
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	14 of 59
CONTRACT	PROJECT
R-44389	2200084

411+00 412+00 413+00 414+00 415+00 416+00 417+00

Sta. 411+00.00 Line A



Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:36 PM
File:
Model:Line A - Plan 3 [Sheet]

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

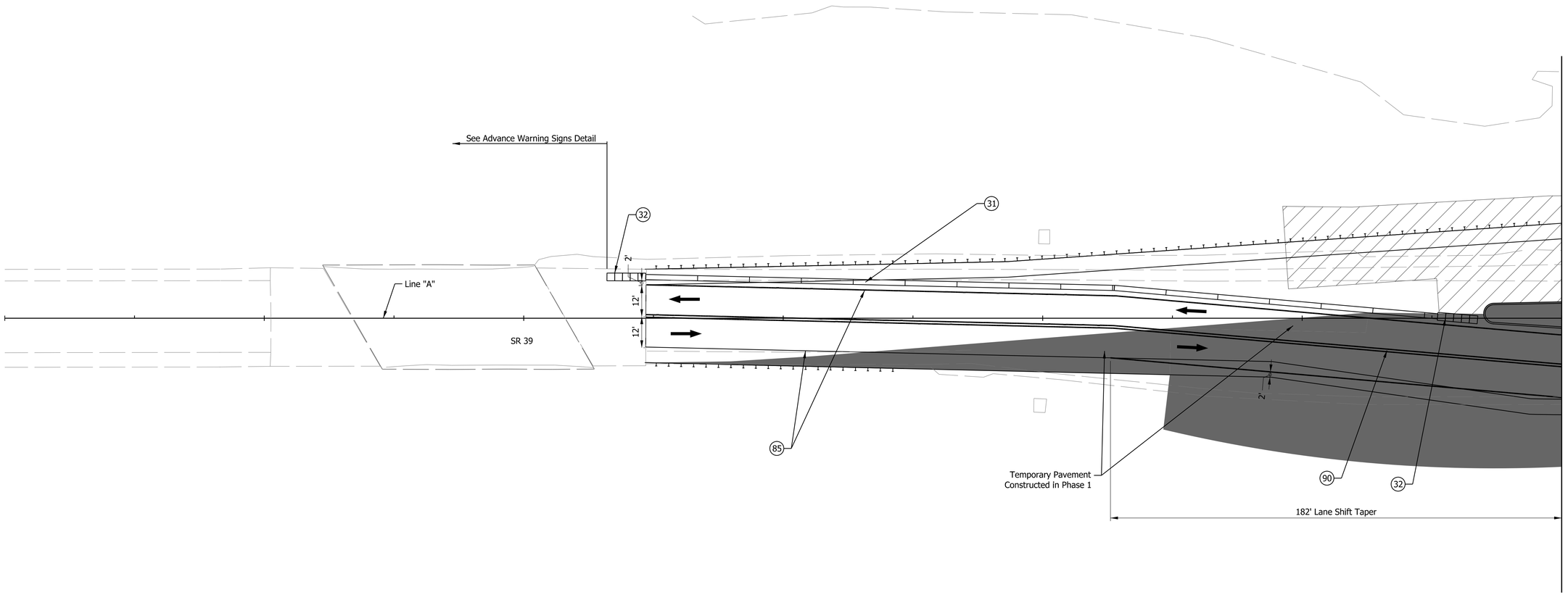
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	15 of 59
CONTRACT	PROJECT
R-44389	2200084

399+00 400+00 401+00 402+00 403+00 404+00 405+00



Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:36 PM
File:
Model:Line A - Plan 1 [Sheet]

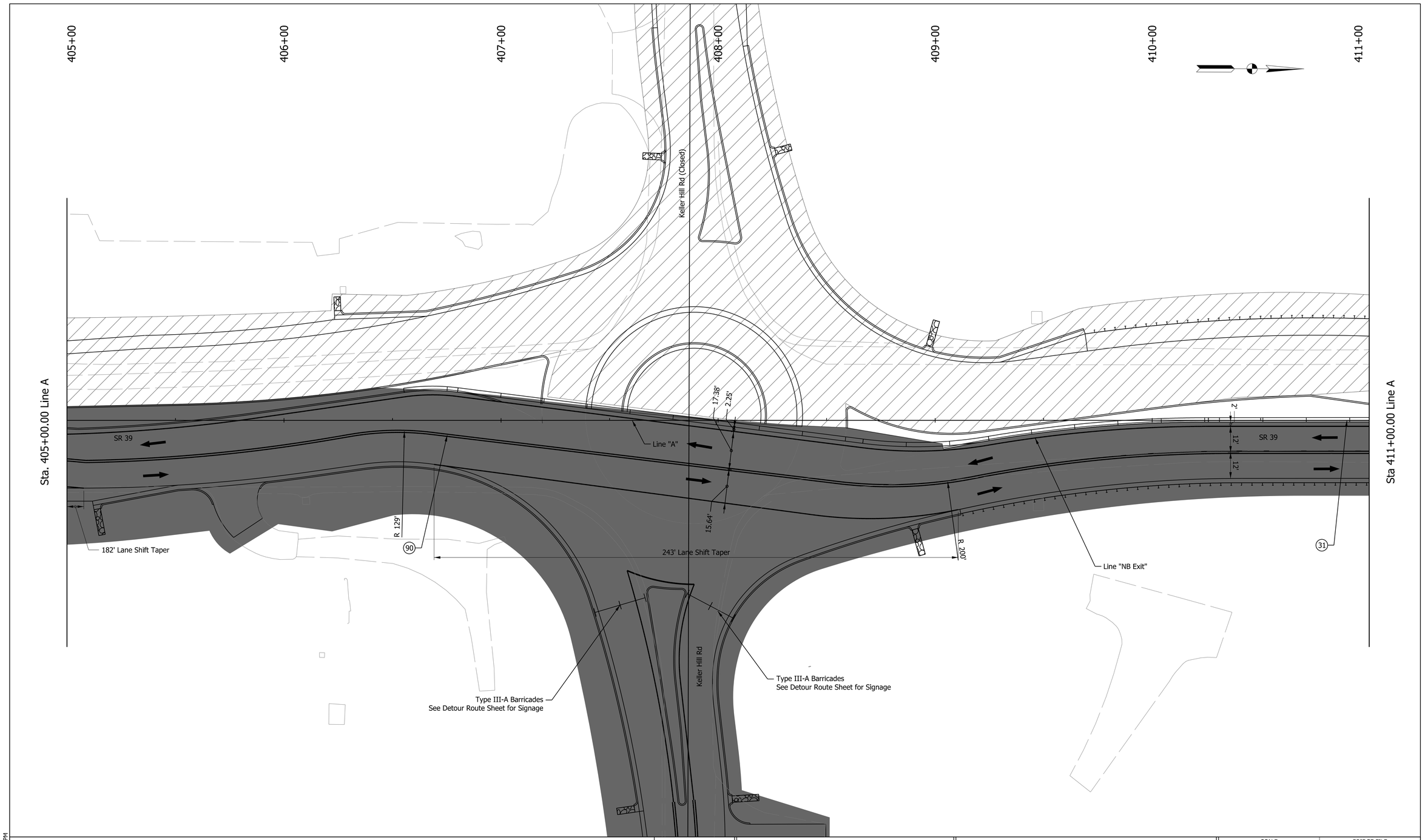
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	16 of 59
CONTRACT	PROJECT
R-44389	2200084



Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:37 PM
File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	17 of 59
CONTRACT	PROJECT
R-44389	2200084

411+00 412+00 413+00 414+00 415+00 416+00 417+00

Sta. 411+00.00 Line A

+33.00

265' Lane Shift Taper

+98.00

See Advance Warning Signs Detail

90 85 31 89 32

2'

12'

12'

12'

12'

SR 39

Line "A"

110' Lane Shift Taper

+32.24

+44.80

Line "NB Exit"

89

Future Development and Added
Turn Lanes Project (By Others)

Construction Area	30 Temporary Traffic Signal, Portable	85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31 Temporary Traffic Barrier, Type 2	87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32 Energy- Absorbing Terminal, CZ, TL-2	89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic	Channelizing Device	90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:37 PM

File:
Model:Line A - Plan 3 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

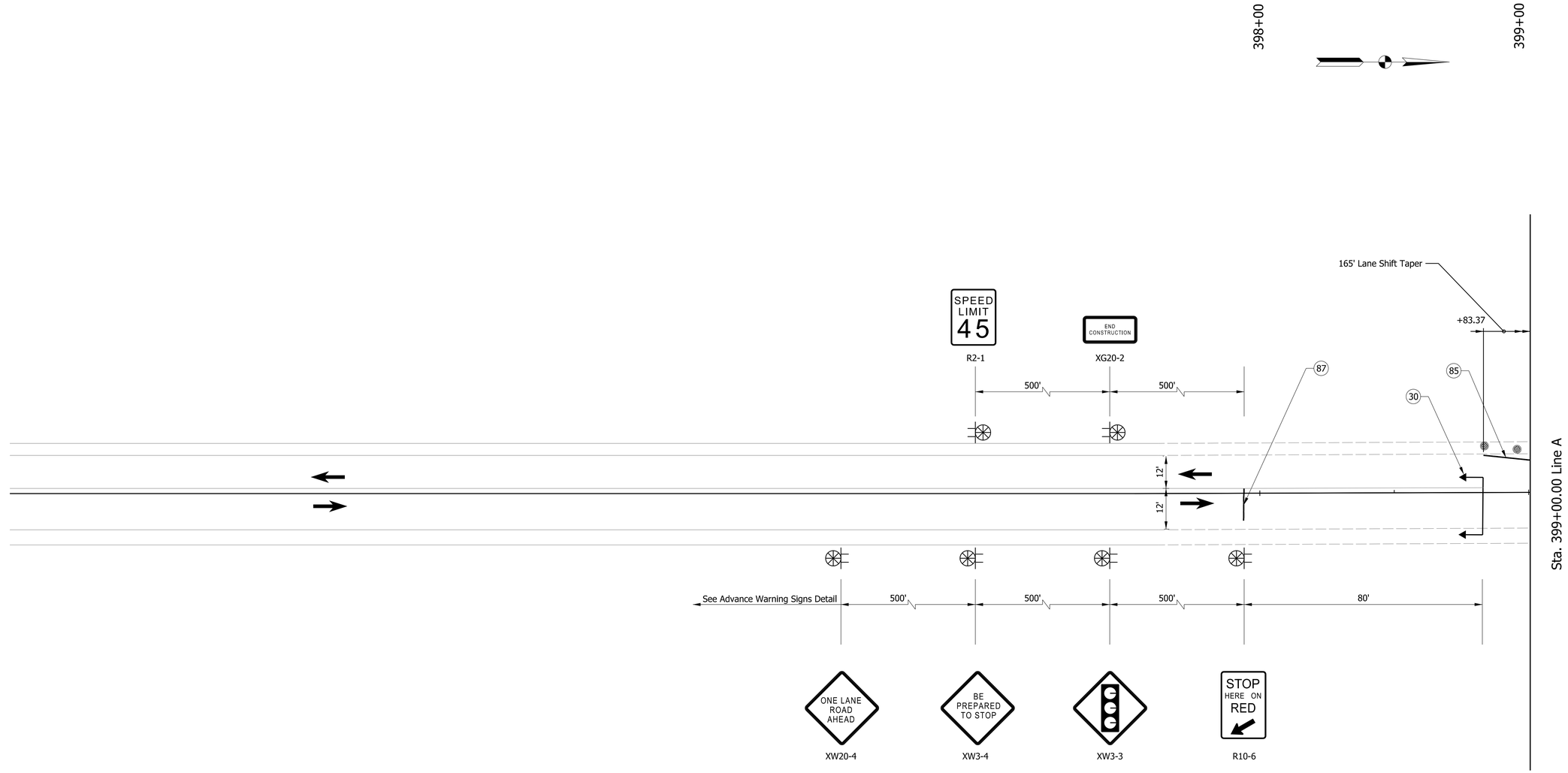
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	18 of 59
CONTRACT	PROJECT
R-44389	2200084



Plot: 4/2/2025 1:37 PM

Construction Area	30	Temporary Traffic Signal, Portable	85	Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31	Temporary Traffic Barrier, Type 2	87	Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32	Energy- Absorbing Terminal, CZ, TL-2	89	Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic		Channelizing Device	90	Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

File:
Model:Line A - Plan 0 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	19 of 59
CONTRACT	PROJECT
R-44389	2200084

399+00 400+00 401+00 402+00 403+00 404+00 405+00

Sta. 399+00.00 Line A

Sta. 405+00.00 Line A

165' Lane Shift Taper

+48.03

10:1 Flare Rate

32

Line "A"

31

85

SR 39

12'

80' Lane Shift Taper

+68.13

+48.08

12'

32

Construction Area

Temporary Pavement

Previously Constructed

Flow of Traffic

30 Temporary Traffic Signal, Portable

31 Temporary Traffic Barrier, Type 2

32 Energy- Absorbing Terminal, CZ, TL-2

Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.

87 Temporary Pavement Marking, Removable, White, Solid, 24 in.

89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.

90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

RECOMMENDED FOR APPROVAL

DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	20 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:38 PM

File:
Model:Line A - Plan 1 [Sheet]

405+00
406+00
407+00
408+00
409+00
410+00
411+00

Type III-A Barricades
See Detour Sheet for Signage

Keller Hill Rd (Closed)

Type III-A Barricades
See Detour Sheet for Signage

440' Lane Shift Taper

406+00
407+00
408+00
409+00
410+00
411+00

Sta. 405+00.00 Line A

SR 39

20'

13.5'

13.42'

14'

SR 39

12.5'

85

Sta 411+00.00 Line A

Type III-A Barricades
See Detour Sheet for Signage

Keller Hill Rd (Closed)

Type III-A Barricades
See Detour Sheet for Signage

Plot: 4/2/2025 1:38 PM

Construction Area	30 Temporary Traffic Signal, Portable	85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31 Temporary Traffic Barrier, Type 2	87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32 Energy- Absorbing Terminal, CZ, TL-2	89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic	Channelizing Device	90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	21 of 59
CONTRACT	PROJECT
R-44389	2200084

411+00
412+00
413+00
414+00
415+00
416+00
417+00

440' Lane Shift Taper

Type III-A Barricades

412+00
413+00
414+00
415+00
416+00

30
87

12'

Sta. 411+00.00 Line A

SR 39

Line "A"

Line "NB Exit"

85

ONLY

R3-5(R)
R3-2

Future Development and Added
Turn Lanes Project (By Others)

Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

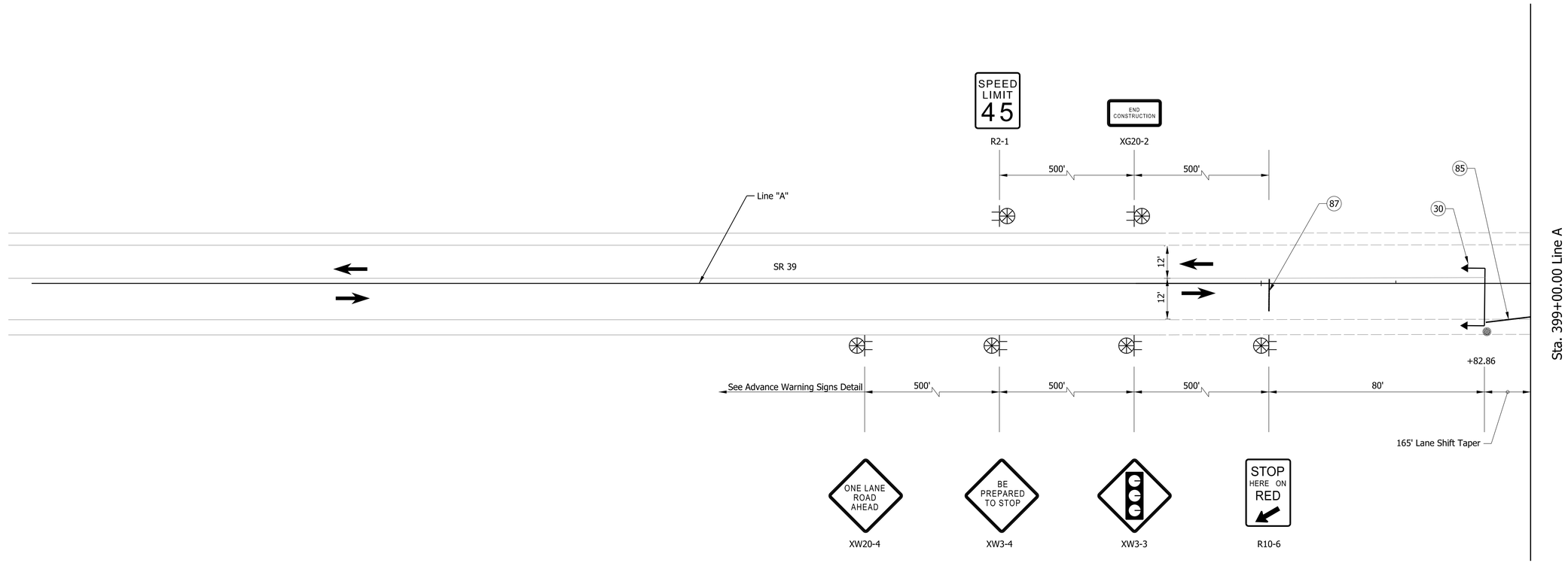
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	22 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:39 PM
File:
Model:Line A - Plan 3 [Sheet]



Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

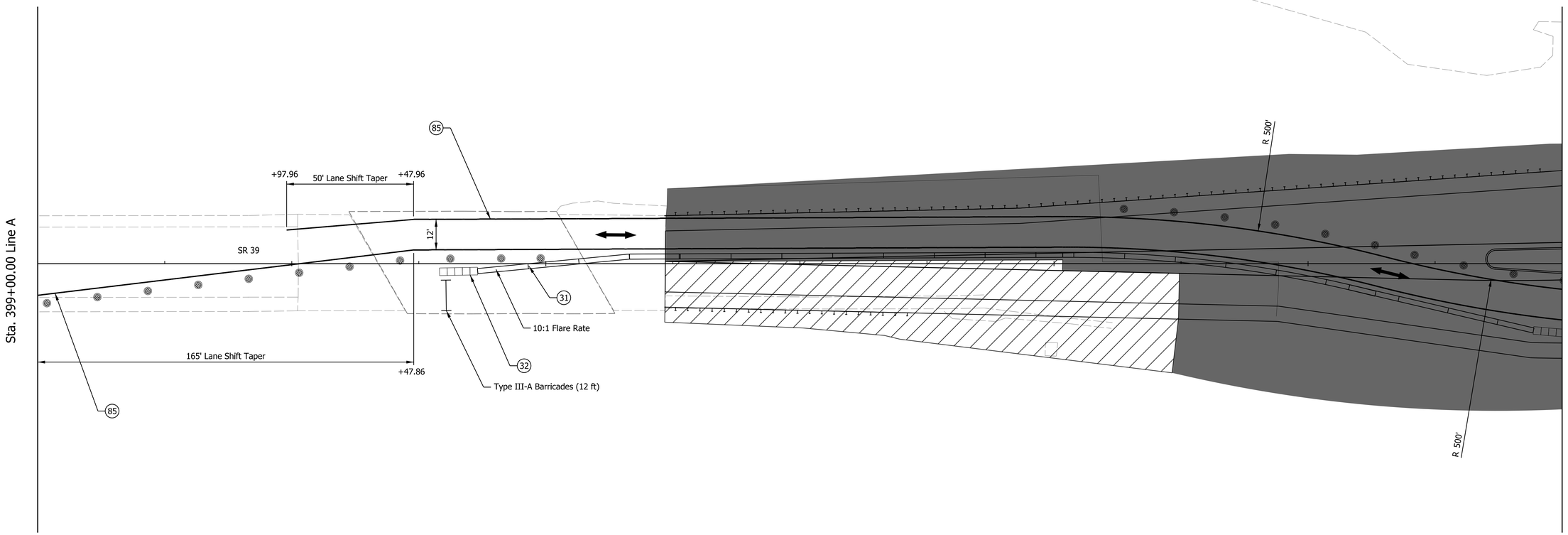
SURVEY BOOK	SHEETS
ELECTRONIC	23 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:39 PM
File:
Model:Line A - Plan 0 [Sheet]

399+00 400+00 401+00 402+00 403+00 404+00 405+00

Sta. 399+00.00 Line A

Sta. 405+00.00 Line A



Construction Area	30 Temporary Traffic Signal, Portable	85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31 Temporary Traffic Barrier, Type 2	87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32 Energy- Absorbing Terminal, CZ, TL-2	89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic	Channelizing Device	90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:39 PM

File:
Model:Line A - Plan 1 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	24 of 59
CONTRACT	PROJECT
R-44389	2200084

405+00
406+00
407+00
408+00
409+00
410+00
411+00

Sta. 405+00.00 Line A

Sta 411+00.00 Line A
(See Phase 3A)

Keller Hill Rd

Type III-A Barricades
See Detour Sheet for Signage

Type III-A Barricades
See Detour Sheet for Signage

Type III-A Barricades
See Detour Sheet for Signage

Type III-A Barricades
See Detour Sheet for Signage

13.5'
2'
5'
13'
440'
+80.00
85
85

Construction Area
Temporary Pavement
Previously Constructed
Flow of Traffic

30 Temporary Traffic Signal, Portable
31 Temporary Traffic Barrier, Type 2
32 Energy- Absorbing Terminal, CZ, TL-2
Channelizing Device

85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:40 PM
File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JGC DRAWN: JGC
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	25 of 59
CONTRACT	PROJECT
R-44389	2200084

411+00
412+00
413+00
414+00
415+00
416+00
417+00

Sta. 411+00.00 Line A

440' Lane Shift Taper
+16.00
Type III-A Barricades
85
30
87
d

ONLY
R3-5(R)
R3-2

Future Development and Added
Turn Lanes Project (By Others)

Construction Area	30 Temporary Traffic Signal, Portable	85 Temporary Pavement Marking, Removable, White, Solid, 6 in.
Temporary Pavement	31 Temporary Traffic Barrier, Type 2	87 Temporary Pavement Marking, Removable, White, Solid, 24 in.
Previously Constructed	32 Energy- Absorbing Terminal, CZ, TL-2	89 Temporary Pavement Marking, Removable, Yellow, Solid, 6 in.
Flow of Traffic	Channelizing Device	90 Temporary Pavement Marking, Removable, Double Yellow, Solid, 6 in.

Plot: 4/2/2025 1:40 PM
File:
Model:Line A - Plan 3 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

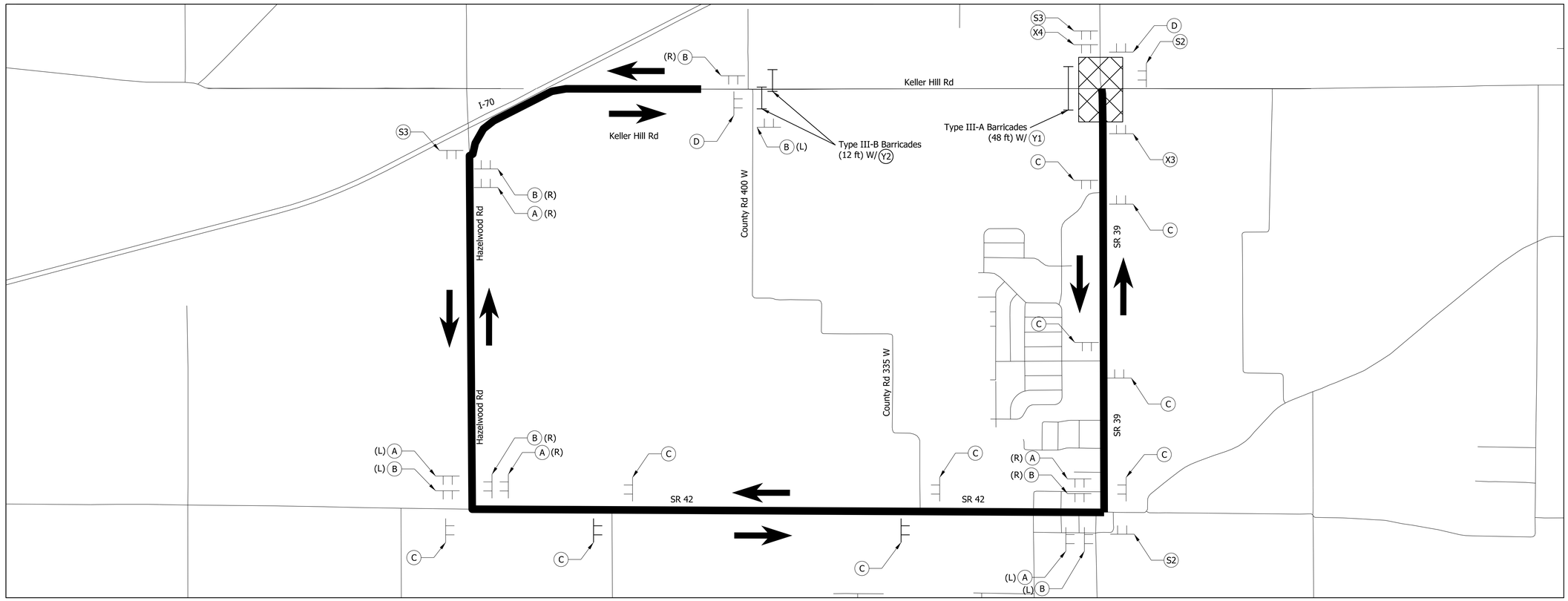
DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

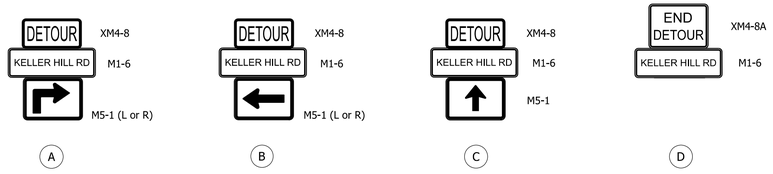
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3B

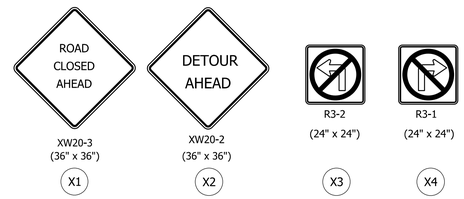
SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	26 of 59
CONTRACT	PROJECT
R-44389	2200084

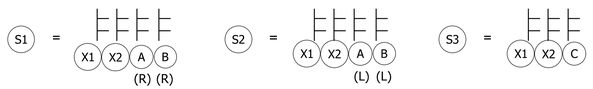




Detour Signs



Construction Signs



Sign Sequences



Road Closure Sign Assemblies

Notes:

1) Keller Hill Rd shall be closed to through traffic as shown on the plans.
2) Thru traffic shall be detoured along SR 39, IN-42, and Hazelwood Road.
3) Access to all driveways and public roadways in closure area shall be maintained through construction.
4) Distance between signs shall be 500' unless otherwise noted, or if site conditions prohibit.
5) Sign placements shall be in accordance with INDOT Standard Drawing E 801-TCDT-01.
6) For detour route marker assemblies, utilize M3-2 (East) sign for all assemblies on counter-clockwise movement around detour route, and M3-4 (West) sign for all assemblies on clockwise movement around detour route.

Detour Route
Closure Area
Flow of Traffic
Construction Sign
Low Intensity Flashing Yellow Light
Barricade

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

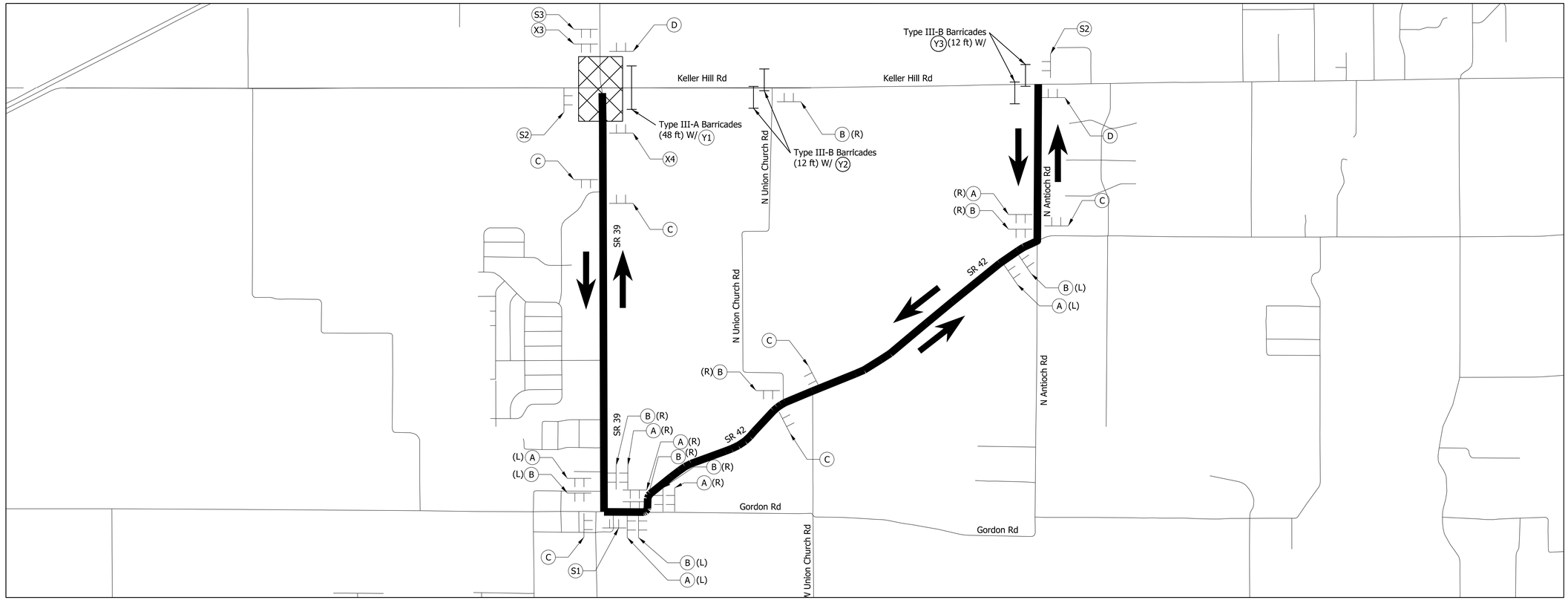
DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

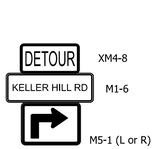
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
DETOUR ROUTE
KELLER HILL RD (WEST)

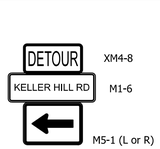
SCALE	BRIDGE FILE
1" = 2,000'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	27 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:40 PM
File:
Model:County Line Road Closure - Sheet

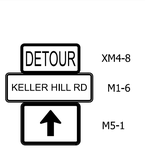




A



B



C



D



X1



X2



X3



X4

Detour Signs

Construction Signs



Y1



Y2



Y3

Road Closure Sign Assemblies

S1 = X1 X2 A B (R) (R)

S2 = X1 X2 A B (L) (L)

S3 = X1 X2 C

Sign Sequences

Notes:

1) Keller Hill Road shall be closed to through traffic as shown on the plans.
2) Thru traffic shall be detoured along SR 39, N Antioch Rd, and IN-42.
3) Access to all driveways and public roadways in closure area shall be maintained through construction.
4) Distance between signs shall be 500' unless otherwise noted, or if site conditions prohibit.
5) Sign placements shall be in accordance with INDOT Standard Drawing E 801-TCDT-01.
6) For detour route marker assemblies, utilize M3-2 (East) sign for all assemblies on counter-clockwise movement around detour route, and M3-4 (West) sign for all assemblies on clockwise movement around detour route.

Detour Route
Closure Area
Flow of Traffic
Construction Sign
Low Intensity Flashing Yellow Light
Barricade

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

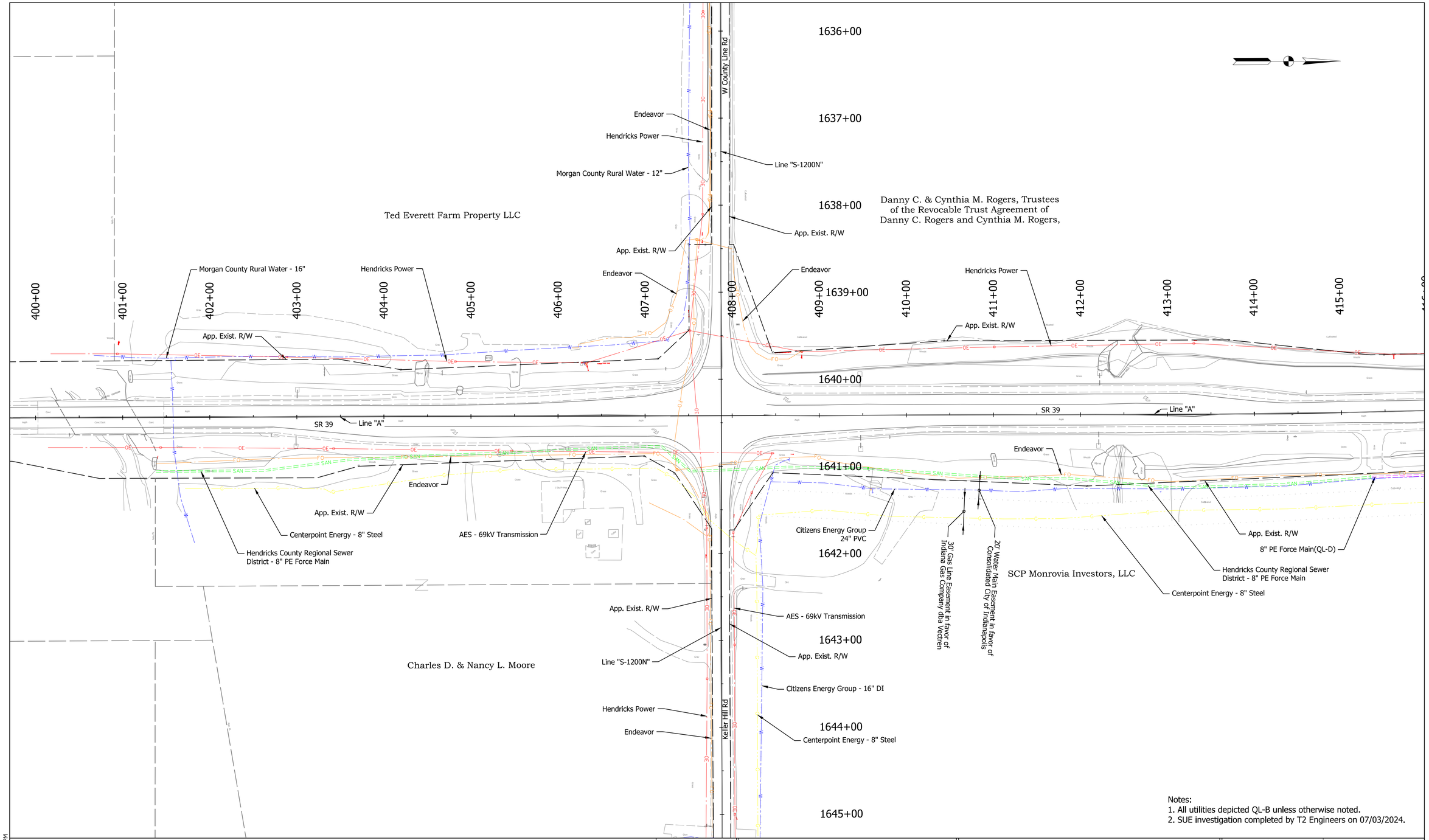
MAINTENANCE OF TRAFFIC
DETOUR ROUTE
KELLER HILL RD (EAST)

SCALE	BRIDGE FILE
1" = 2,000'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	28 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:41 PM

File:
Model:Keller Hill Road Closure - Sheet



Notes:
1. All utilities depicted QL-B unless otherwise noted.
2. SUE investigation completed by T2 Engineers on 07/03/2024.

Plot: 4/2/2025 1:41 PM

File:
Model:Existing Utilities Sheet

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: NSP CHECKED: NSP

INDIANA DEPARTMENT OF TRANSPORTATION

EXISTING UTILITIES

SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	29 of 59
CONTRACT	PROJECT
R-44389	2200084

399+83,19.4"-Aluminum Guardrail
400+00
400+24.2,20.1'-Benchmark=MOR C08
400+28.4,19.5'-Aluminum Guardrail
400+44,27.5'-Ordinary High Water=Elev. 747.68
400+75.4,21.9'-12" Plastic
400+94,73.3'-Power Pole
400+95.3,87.2'-Guy Anchor
400+95.9,87.9'-Guy Anchor
401+00
400+96.2,86.6'-Guy Anchor
400+99.9,19.7'-Aluminum Guardrail
401+03.51,20.21'-Benchmark=TBM 201/ CUT SQUARE
401+52,68.1'-Water Shutoff Valve
401+54.8,66.1'-U.G. Water Marker
401+55.7,65.3'-Water Shutoff Valve
401+61.2,65.7'-Water Shutoff Valve
402+00
402+58.4,20.3'-Aluminum Guardrail
402+88.5,69'-Power Pole
403+00
403+00.6,31.3'-6" PVC
403+31.8,50.1'-Sign-STATE FOOTBALL CHAMPS
403+31.8,55.1'-Comm. Sign-MONROVIA LODGE
404+00
404+07.7,20.7'-Aluminum Guardrail
404+19.6,54.1'-Conc. R/W Marker
404+67.1,50.4'-Sign-ENTERING MORGAN COUNTY
404+82.3,63.2'-Power Pole

SECTION 01, T.13N., R.01W.
MONROE TOWNSHIP
MORGAN COUNTY

Kristen Noel West

Ted Everett Farm Property LLC

APP. PL

Woods

Grass

Grav

+54, STR DET-03
20' of 6" RCP

Detention Berm (See Detention Berm Detail)

+P.L. (+48.35)
66' Lt.

Const. Limits

Prop. R/W

App. Exist. R/W

262.5 LFT of MGS W-Beam Guardrail, 6'-3" Spa.
w/ 37'-6" MGS Height Transition, and 1
Guardrail End Treatment, Type OS Req'd.

+86.59, 15.84' Lt.
Begin Merge Taper

TBM#201
N: 117706.8679
E: 793144.4247
Elev: 759.62

Riprap

Begin Project No. 2200084
STA 401+47.05 "A"

6'

12'

App. 1/4-1/4 Section Line

N 00°19'04" W

SR 39

Asph

N 00°10'42" W

Line "A"

Conc Deck

Conc

260 lft of Guardrail, Remove Red'd.

Line "SB Exit"

R 4'

Line "NB Entry"

8'

24'

+88.41, 17.00' Rt.
Begin Lane Taper

+88.11, 31.00' Rt.
End Lane Taper

McCracken Creek

125 lft of Guardrail, Remove Red'd.

Sta. 405+00.00 Line A

Angela L. Russell & Jimmy J. Wasnidge

Charles D. & Nancy L. Moore

+56, STR DET-04
20' of 6" RCP

50.0 LFT of MGS W-Beam Guardrail, 6'-3" Spa.
w/ 37'-6" MGS Height Transition Req'd.
and 12'-6" MGS W-Beam Cable Terminal Anchor

+P.L. (+25.91)
69' Rt.

Detention Berm (See Detention Berm Detail)

Notes:
1. All Existing Topography and R/W Described from Line "A" Unless Otherwise Noted.
2. All Station/Offsets Described from Line "A" Unless Otherwise Noted.
3. See Roundabout Geometric Tie-Ups for Proposed Alignment Information.

399+83,19.2'-Aluminum Guardrail
400+38.9,19.5'-Sign=MM 30 +48
400+49.2,18.9'-Aluminum Guardrail
401+22.9,18.9'-Aluminum Guardrail
APP. PL
401+27.8,18.8'-Aluminum Guardrail
401+30.3,49.7'-U.G. Water Anchor
401+43.4,34.5'-Power Pole
401+51.6,77.7'-U.G. Gas Marker
402+70.6,20.4'-Sign- INTERSECTION AHEAD
402+72.5,18.8'-Aluminum Guardrail
402+99.3,32.8'-6" PVC
403+42.3'-Power Pole
403+70.8,56.1'-Conc. R/W Marker
404+18.9,99.1'-18" Twin-Ash
404+84.8,18'-Painted Right Turn Arrow
404+98.3,85.5'-Stump
404+99.7,79'-Stump

Plot: 4/2/2025 1:41 PM

(A) PCCP, 9", Stained Red (See Typ. Sections)	(K1) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 6" Compacted Aggregate No. 53, on Subgrade Treatment Type II	(K2) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 660#/sys HMA Base, on Subgrade Treatment, Type II, on Geogrid, Type 1B	(14) Integral Concrete Curb
(A1) PCCP, 4", Stained Red (See Typ. Sections)			(15) Combined Concrete Curb & Gutter (Vertical)
(F) Sidewalk, Concrete, 4"	(L) Landscaping, TBD		(16) Rolled Curb (Sloping)
(K) Full-Depth HMA Pavement (See Typ. Sections)		(R) Mill and Overlay, TBD	(17) Concrete Curb, Type B (Sloping)

File:
Model:Line A - Plan 1 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN
SR 39 - LINE A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	30 of 59
CONTRACT	PROJECT
R-44389	2200084

Sta. 405+00.00 Line A

Sta 411+00.00 Line A

406+27.1,58.6'-TM_Control Cabinet
406+27.3,63.5'-Electric Meter
406+32.9,97.1'-Telephone Riser
406+33.2,56.2'-Power Pole
406+33.7,56.8'-Guy Anchor
406+35.5,52.1'-Guy Anchor
406+35.5,52.1'-Guy Anchor

406+48.6,60.1'-Guy Anchor
406+49.0,60.2'-Guy Anchor
406+50.5,60.3'-Guy Anchor
406+54.7,60.8'-Guy Anchor

406+59.4,60.7'-Guy Anchor

406+84.8,83.4'-Water Shutoff Valve
406+84.8,83.5'-Water Shutoff Valve

407+15.1,65.9'-Conc. R/W Marker
407+15.8,38.3'-Sign-COUNTY LINE

406+00

407+00

408+00

408+47.7,24.8'-Conc. R/W Marker
408+48.1,72.1'-Guy Anchor
408+51.0,72.2'-Guy Anchor
408+57.8,72.5'-Guy Anchor
408+58.8,18.6'-Painted Right Turn Arrow

408+60.7,72.5'-Guy Anchor
408+64.5,72.6'-Guy Anchor

408+79.4,72.6'-Telephone Riser
408+79.8,65.3'-Guy Anchor
408+80.2,65.6'-Guy Anchor
408+80.6,66.0'-Guy Anchor
408+80.3,73.3'-Power Pole

409+00

410+00

410+43.6,85.6'-Conc. R/W Marker

410+62.9,34.1'-Aluminum Guardrail

Sta. 1639+00.00 Line S-1200N

1639+00 Line "S-1200N"

Ted Everett Farm Property LLC

1639+20.8,36.6'-Guy Anchor
1639+25.8,36.3'-Guy Anchor
1639+27.4,36.2'-Guy Anchor
1639+28.1,36.3'-Guy Anchor

SECTION 01, T.13N., R.01W.
MONROE TOWNSHIP
MORGAN COUNTY

Notes:
1. All Existing Topography and R/W Described from Line "A" Unless Otherwise Noted.
2. All Station/Offsets Described from Line "A" Unless Otherwise Noted.
3. See Roundabout Geometric Tie-Ups for Proposed Alignment Information.

TBM#200
N: 118355.2930
E: 793064.3714
Elev: 765.38

CP#100
N: 118328.4966
E: 793108.5447
Elev: 763.50

1639+43.6,36.9'-Conc. R/W Marker
1639+43.85,34.69'-Benchmark-TBM 200/ MAG IN PWP
1639+44.1,35.2'-Power Pole
1639+48.9,25.1'-Sign-STOP

Str. OUT-5
+25.37, 46.58' Lt.
Construct 5 Lft. Curb Turnout

+60
66' Lt.

Const. Limits

Prop. R/W

+23.33, 46.51' Lt.
Begin Shld. Taper

+65.61, 48.05' Lt.
End Shld. Taper

+30 "Line S-1200N"
40' Rt.

Str. OUT-4
+20.56, 11.05' Rt. "Line S-1200N"
Construct 7 Lft. Curb Turnout

Line "EB Entry"

Keller Hill Rd

+15 "Line S-1200N"
75' Lt.

Const. Limits

+95
85' Lt.

Str. OUT-3
+18.42, 37.52' Lt. "Line S-1200N"
Construct 7 Lft. Curb Turnout

Line "WB Exit"

Str. OUT-2
+96.72, 32.16' Lt.
Construct 7 Lft. Curb Turnout

Wetland A

Danny C. & Cynthia M. Rogers, Trustees of the Revocable Trust Agreement of Danny C. Rogers and Cynthia M. Rogers,

SECTION 36, T.14N., R.01W.
LIBERTY TOWNSHIP
HENDRICKS COUNTY

1639+36.7,20'-Sign-STOP/50 MPH

+P.L. (+38.67)
85' Lt.

Const. Limits

1639+50.9,2.6'-Low Wire

+69.10, 39.89' Lt.
End Shld. Taper

250 lft of MGS W-Beam Guardrail, 6'-3" Spa.
with 12'-6" MGS W-Beam Cable Terminal Anchor.
Connect to Exist. MGS Guardrail Built by Others.

App. 1.4-1/4 Section Line
+30.03, 26.83' Lt.
Begin Shld. Taper

1640+00 Line "S-1200N"

+72.76, 11.72' Lt.

SR 39

Line SB Entry

+36.27, 33.14' Lt.
End Merge Taper

Line "SB Exit"

App. 1.4-1/4 Section Line

N 00°10'42" W

Line "A"

Line "NB Entry"

SR 39

Line "NB Exit"

200 lft of MGS W-Beam Guardrail, 6'-3" Spa.
with Guardrail End Treatment, Type OS.
Connect to Exist. MGS Guardrail Built by Others.

+11.41, 41.04' Rt.

Line "RAB"

1641+00 Line "S-1200N"

App. Exist. R/W

Str. 01
+35.24
Inlet, E-7 and
76' of 12" Pipe Req'd.

+90
50 Rt.

+51.09, 29.87' Lt.
End Shld. Taper

+75
Class I Drive

+70
50' Rt.

Const. Limits

Str. OUT-1
+90.25, 48.22' Rt.
Construct 7 Lft. Curb Turnout

+32
69' Rt.

1.0 Tons Riprap, Revetment
over 4.5 Sys Geotextiles,
Type 2A Req'd

+80.71, 74.92' Rt.
Corner of Building

Line "EB Exit"

Line "WB Entry"

Line "S-1200N"

Const. Limits

1641+18.7,22.1'-Sign-STOP

1641+23.9,42.8'-Water Shutoff Valve

1641+30.3,35.9'-Power Pole

1641+32.1,42.8'-14" Ash
1641+35.7,19.5'-Sign-STOP

Str. OUT-6
+13.81, 38.87' Rt.
Construct 5 Lft. Curb Turnout

+11.73, 37.22' Rt.
Begin Shld. Taper

Charles D. & Nancy L. Moore

SCP Monrovia Investors, LLC

+50
95' Lt.

1641+44.2,44.3'-U.G. Gas Marker

1641+55.5,15.6'-Guy Anchor

1641+59.5,72.8'-Bush

1641+68.1,15.7'-Sign-50 MPH
1641+70.8,15.7'-Power Pole
1641+73,17.6'-Conc. R/W Marker

1641+79.9,15.3'-Fiber Optic Pedestal

SECTION 01, T.13N., R.01W.
MONROE TOWNSHIP
MORGAN COUNTY

SECTION 36, T.14N., R.01W.
LIBERTY TOWNSHIP
HENDRICKS COUNTY

1641+76.3,14.7'-Power Pole
1641+80.9,14.6'-Sign-DETOUR

1641+93.3,42.2'-Gas Shutoff Valve

1641+98.3,116.5'-24" Oak

405+00.4,93.3'-20" Ash-Dead

405+39.4,42.5'-15" Plastic
405+42.90.3'-24" Maple

405+46.6,39.7'-Power Pole

405+77.2,92.5'-Bush
405+77.4,75.6'-Bush
405+77.7,57.7'-Bush
405+80.7,74.9'-Bbg Cor

406+09.3,37.2'-15" Plastic in Catch Basin
406+10.1,37.1'-Catch Basin-Square

406+22.2,106.3'-Chainlink Fence

406+28.3,73.8'-Bbg Cor
406+28.7,118.4'-Bbg Cor

406+68.9,130.2'-Bbg Cor
406+73.4,110.8'-Bush
406+74.8,105.3'-Chainlink Fce.
406+76.0,111.6'-Power Pole
406+76.8,111.8'-Power Pole
406+78.8,102.6'-Bush

406+98.79,8'-Flag Pole
406+98.5,60.4'-24" Oak
406+98.8,46.1'-Conc. R/W Marker

407+09.7,90.7'-Bush

407+15.6,18.1'-Painted Right Turn Arrow

407+31.5,56.6'-Conc. R/W Marker
407+35.5,56.8'-Telephone Vault

+75 "Line S-1200N"
55' Lt.

N 89°59'34" E

App. Section Line

408+52.2,65.4'-Water Shutoff Valve
408+54,55.2'-Water Shutoff Valve

408+70.4,44.5'-Guy Anchor

409+31.6,26.6'-Aluminum Guardrail

409+47.5,37.6'-6" PVC

409+56.0,9'-Sewer Manhole
409+56.2,57.9'-Top of Casting
409+56.1,61.3'-Top of Casting
409+57.1,84.9'-Telephone Riser
409+61.1,89.2'-Fire Hydrant

409+81.2,25.1'-Sign-45 MPH

410+08.4,20.6'-Aluminum Guardrail

Sta. 1642+00.00 Line S-1200N

(A) PCCP, 9", Stained Red (See Typ. Sections)
(A1) PCCP, 4", Stained Red (See Typ. Sections)
(F) Sidewalk, Concrete, 4"
(K) Full-Depth HMA Pavement (See Typ. Sections)
(K1) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 6" Compacted Aggregate No. 53, on Subgrade Treatment Type II
(L) Landscaping, TBD
(K2) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 660#/sys HMA Base, on Subgrade Treatment, Type II, on Geogrid, Type 1B
(R) Mill and Overlay, TBD
(14) Integral Concrete Curb
(15) Combined Concrete Curb & Gutter (Vertical)
(16) Rolled Curb (Sloping)
(17) Concrete Curb, Type B (Sloping)

Plot: 4/2/2025 1:42 PM
File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

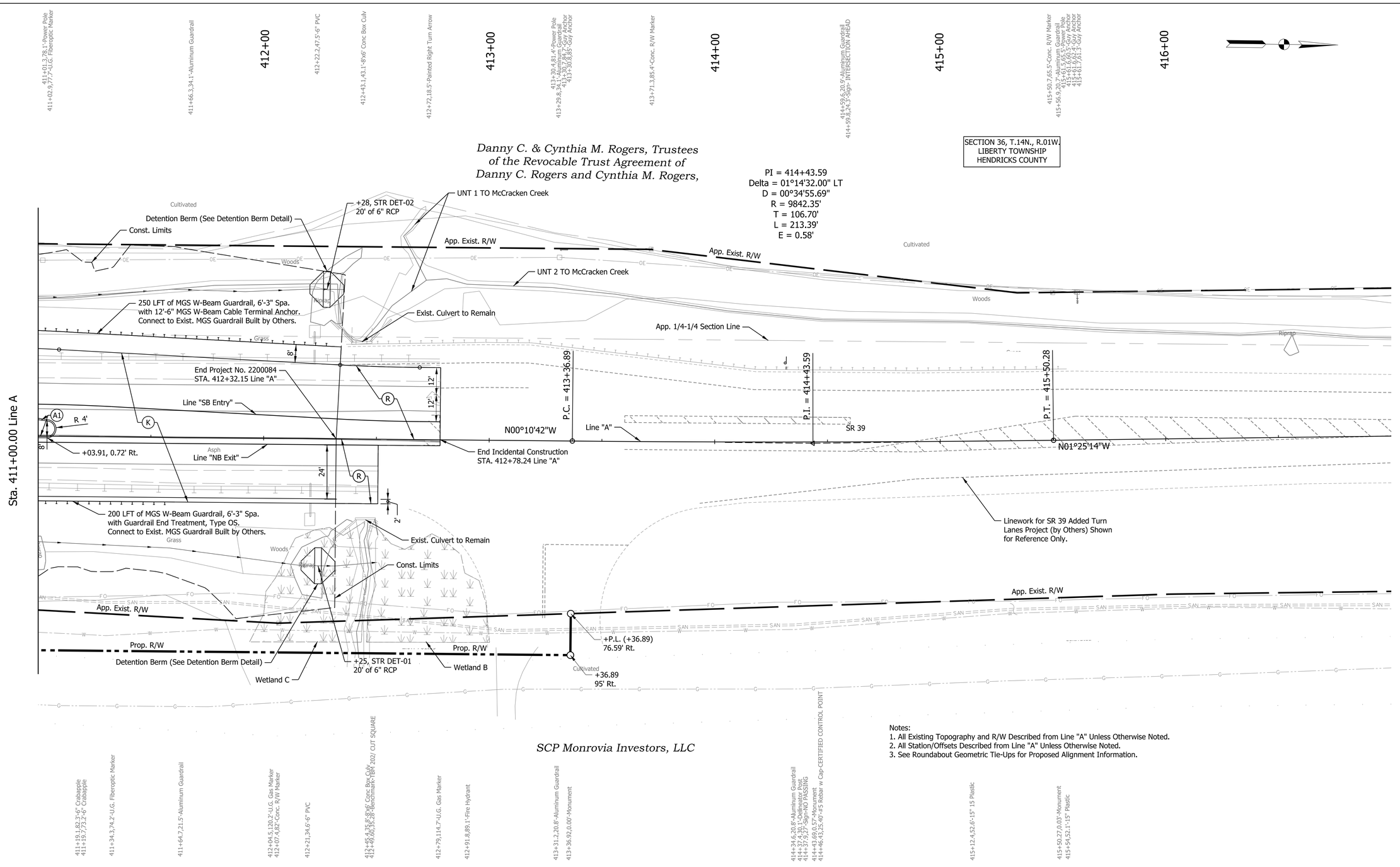
DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN
SR 39 - LINE A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	31 of 59
CONTRACT	PROJECT
R-44389	2200084



Notes:
1. All Existing Topography and R/W Described from Line "A" Unless Otherwise Noted.
2. All Station/Offsets Described from Line "A" Unless Otherwise Noted.
3. See Roundabout Geometric Tie-Ups for Proposed Alignment Information.

Plot: 4/2/2025 1:43 PM

- (A) PCCP, 9", Stained Red (See Typ. Sections)
- (A1) PCCP, 4", Stained Red (See Typ. Sections)
- (F) Sidewalk, Concrete, 4"
- (K) Full-Depth HMA Pavement (See Typ. Sections)
- (K1) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 6" Compacted Aggregate No. 53, on Subgrade Treatment Type II
- (L) Landscaping, TBD
- (K2) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 660#/sys HMA Base, on Subgrade Treatment, Type II, on Geogrid, Type 1B
- (R) Mill and Overlay, TBD
- (14) Integral Concrete Curb
- (15) Combined Concrete Curb & Gutter (Vertical)
- (16) Rolled Curb (Sloping)
- (17) Concrete Curb, Type B (Sloping)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

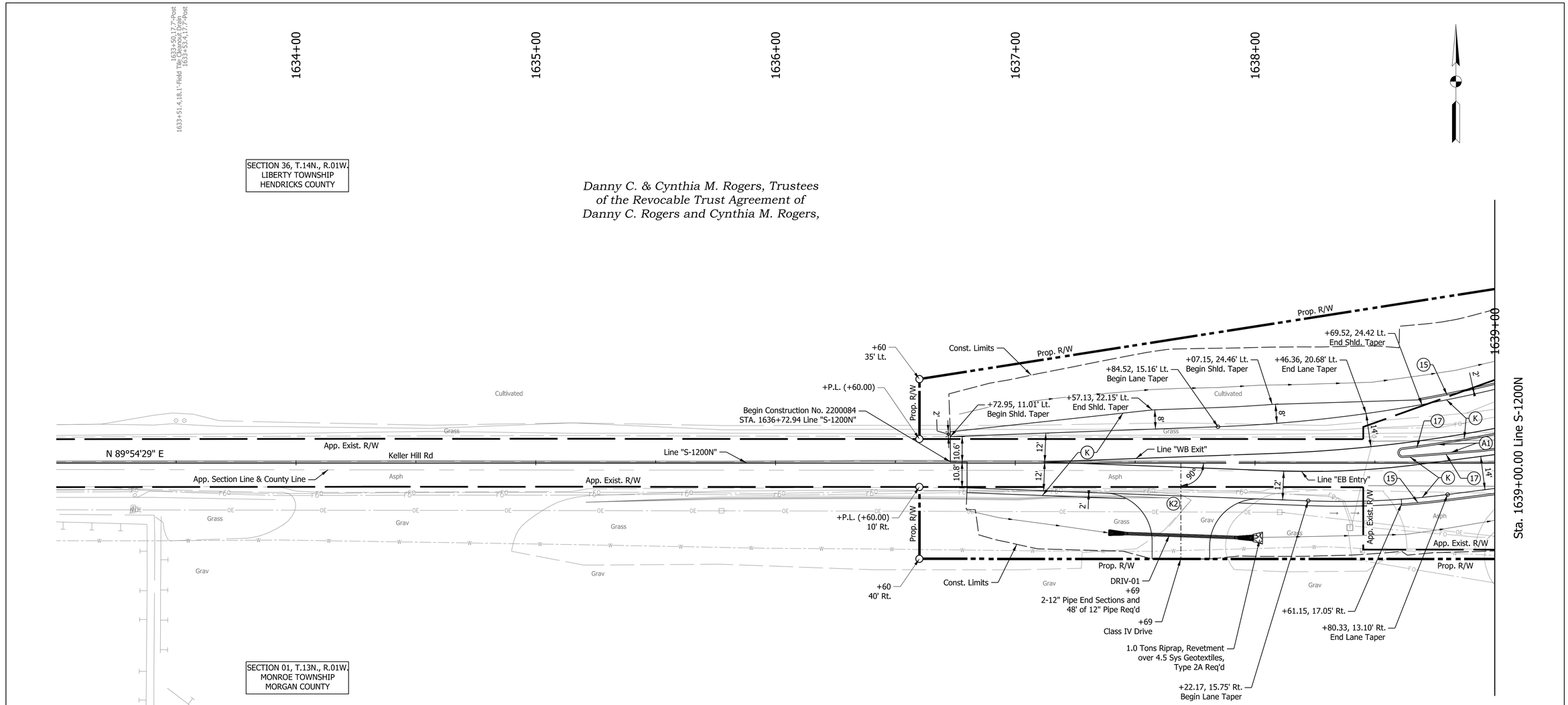
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN
SR 39 - LINE A

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	32 of 59
CONTRACT	PROJECT
R-44389	2200084

File:
Model:Line A - Plan 3 [Sheet]



Notes:
1. All Existing Topography and R/W Described from Line "S-1200N" Unless Otherwise Noted.
2. All Station/Offsets Described from Line "S-1200N" Unless Otherwise Noted.
3. See Roundabout Geometric Tie-Ups for Proposed Alignment Information.

- (A) PCCP, 9", Stained Red (See Typ. Sections)
- (A1) PCCP, 4", Stained Red (See Typ. Sections)
- (F) Sidewalk, Concrete, 4"
- (K) Full-Depth HMA Pavement (See Typ. Sections)
- (K1) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 6" Compacted Aggregate No. 53, on Subgrade Treatment Type II
- (L) Landscaping, TBD
- (K2) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 660#/sys HMA Base, on Subgrade Treatment, Type II, on Geogrid, Type 1B
- (R) Mill and Overlay, TBD
- (14) Integral Concrete Curb
- (15) Combined Concrete Curb & Gutter (Vertical)
- (16) Rolled Curb (Sloping)
- (17) Concrete Curb, Type B (Sloping)

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN
KELLER HILL RD - LINE S-1200N

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	33 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:44 PM

File: c:\pw\kh1\d0406453\2200084_RD_Sht_Plan.dgn
Model: Line S-1200N - Plan 4 [Sheet]

Sta. 1642+00.00 Line S-1200N

1641+99.8,36.1'-Gas Shutoff Valve
1642+00.6,42.2'-U.G. Gas Marker
1642+40.1,25.6'-Comm. Sign-NO TRESPASSING
1642+55.6,20.1'-Stump
1642+90.5,18'-Stump
1642+95.7,16.1'-Guy Anchor
1643+05.4,15.8'-Power Pole
1644+99.9,14.8'-Power Pole
1645+06.17.3'-Guy Anchor
1645+49.8,29.8'-Guy Anchor
1645+62.9,48.5'-Fire Hydrant
1645+63.1,47.6'-Water Valve
1645+64.2,29.5'-Guy Anchor
1645+77.3,28'-Power Pole
1646+21.5,16.3'-Power Pole
1646+57.2,18.2'-Guy Anchor
1646+64.8,40.7'-U.G. Gas Marker
1646+96.1,18.1'-Sign-DETOUR
1646+77.80,-73.74,14"-5/5 Rebar w Cap-K&G FIRM 01141
1647+78.2,28.7'-Power Pole
1647+89.5,28.4'-Guy Anchor
1647+92.2,28.5'-Guy Anchor

1643+00 | 1644+00 | 1645+00 | 1646+00 | 1647+00

SECTION 36, T.14N., R.01W.
LIBERTY TOWNSHIP
HENDRICKS COUNTY

SECTION 01, T.13N., R.01W.
MONROE TOWNSHIP
MORGAN COUNTY

SCP Monrovia Investors, LLC

THE DEPARTMENT OF PUBLIC UTILITIES FOR THE CITY OF INDIANAPOLIS, ACTING BY AND THROUGH THE BOARD OF DIRECTORS FOR UTILITIES, AS TRUSTEE, IN FURTHERANCE OF THE PUBLIC CHARITABLE TRUST FOR THE WATER SYSTEM

Charles D. & Nancy L. Moore

Arthur Ray Stricker III & Brittni Cagle

David L. Everett and Barbara L. Everett Joint Revocable Trust dtd 03/08/06

+02.19, 15.18' Lt.
Begin Lane Taper
Str. OUT-8
+16.66, 18.57' Lt.
Construct 7 Lft. Curb Turnout
+24
70' Lt.
+24
R/W (54.09' Lt.)
+34
Class II Drive
+44
70' Lt.
DRIV-03
+34
2-12" Pipe End Sections
29' of 12" Pipe Req'd.
Temp. R/W
+44
R/W (51.75' Lt.)
Prop. R/W
1.0 Tons Riprap, Revetment over 4.5 Sys Geotextiles, Type 2A Req'd
+64.22, 16.24 Lt.
End Lane Taper
+18.12, 18.62' Lt.
+30
30' Lt.
Prop. R/W
Const. Limits
+P.L. (+30)
10' Lt.
End Construction No. 2200084
STA 1644+18.08 "S-1200N"
Prop. R/W
Line "WB Entry"
App. Exist. R/W
App. Section Line & County Line
Line "S-1200N"
N90°00'00"E
Keller Hill Rd
App. Exist. R/W
Line "EB Exit"
+23.98, 20.05' Rt.
Begin Lane Taper
+22.35, 22.32' Rt.
+84.12, 14.80' Rt.
End Lane Taper
+P.L. (+30)
10' Rt.
Prop. R/W
Const. Limits
+30
40' Rt.
+18
Class II Drive
DRIV-02
+18
2-12" Pipe End Sections
35' of 12" Pipe Req'd.
1.0 Tons Riprap, Revetment over 4.5 Sys Geotextiles, Type 2A Req'd
Str. OUT-7
+20.85, 22.55' Rt.
Construct 5 Lft. Curb Turnout
CP#101
N: 118375.5290
E: 793633.3278
Elev: 754.66
App. PL
App. Exist. R/W
Split Level Fr & Stone Hse
2 Sty Fr
Woods
Grass
Asph
Grav
Dirt
Prop. R/W

1642+01.5,16.7'-Guy Anchor
1642+02.4,16.7'-Guy Anchor
1642+07.6,72.9'-20" Maple
1642+07.0,113.6'-Chainlink Fce.
1643+04.8,18.4'-Mailbox
1643+44.1,16.1'-Power Pole
1643+46.1,6.6'-U.G. Fiberoptic Marker
1645+12.72,16.28'-#5 Rebar w Cap-CERTIFIED CONTROL POINT
1645+13.21,3.3'-Sign-"STOP AHEAD
1645+17.1,13.2'-Post
1645+56.8,36.4'-Water Shutoff Valve
1645+58.2,50.6'-Water Shutoff Valve
1645+62.5,70.6'-Water Shutoff Valve
1645+62.7,63.7'-Water Shutoff Valve
1645+32.4,49.2'-Electric Control Cabinet
1645+32.7,45.1'-Electric Control Cabinet
1645+33.2,63.7'-Water Shutoff Valve
1645+38.4,61.2'-Capped Vert Pipe
1645+39.8,119.7'-Post
1645+40.4,73.1'-Electric Riser
1645+42.3,35.8'-Water Shutoff Valve
1645+43.4,35.6'-Water Shutoff Valve
1645+57.6,19.2'-Guy Anchor
1645+58.0,19.2'-Guy Anchor
1645+62.2,82.8'-Double Cherry
1645+63.4,70.3'-3 Twin-Ash
1645+65.8,29.5'-Post
1645+66.8,87.2'-Power Optic Pedestal
1645+66.6,87.1'-36" Maple
1645+67.9,7.6'-Bldg Cor
1645+91.2,98.7'-Bldg Cor
1645+93.8,97.2'-AC Unit
1645+94.9,97.3'-Electric Meter
1645+95.6,96.9'-Water Meter
1645+95.7,75.1'-Bldg Cor
1646+10.9,47.2'-Stump
1646+16,15.8'-Guy Anchor
1646+27.9,48.5'-40" Maple
1646+34.9,14.6'-Mailbox #2699
1646+51.2,21'-Power Pole
1646+54.8,49.9'-24" Maple
1646+66.9,77.7'-Bldg Cor
1646+69,80.3'-AC Unit
1646+75.8,50.7'-30" Maple
1647+04.3,116.9'-36" Maple
1647+16.4,25.5'-Catch Basin-Round
1647+17.3,25.4'-18" RCP in Catch Basin
1647+17.4,25.7'-Top of Casting
1647+76.4,29.3'-18" RCP

Notes:
1. All Existing Topography and R/W Described from Line "S-1200N" Unless Otherwise Noted.
2. All Station/Offsets Described from Line "S-1200N" Unless Otherwise Noted.
3. See Roundabout Geometric Tie-Ups for Proposed Alignment Information.

(A) PCCP, 9", Stained Red (See Typ. Sections)
(A1) PCCP, 4", Stained Red (See Typ. Sections)
(F) Sidewalk, Concrete, 4"
(K) Full-Depth HMA Pavement (See Typ. Sections)
(K1) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 6" Compacted Aggregate No. 53, on Subgrade Treatment Type II
(L) Landscaping, TBD
(K2) HMA for Approaches, Type B 165#/syd HMA Surface on 275#/syd HMA Intermediate on 660#/sys HMA Base, on Subgrade Treatment, Type II, on Geogrid, Type 1B
(R) Mill and Overlay, TBD
(14) Integral Concrete Curb
(15) Combined Concrete Curb & Gutter (Vertical)
(16) Rolled Curb (Sloping)
(17) Concrete Curb, Type B (Sloping)

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

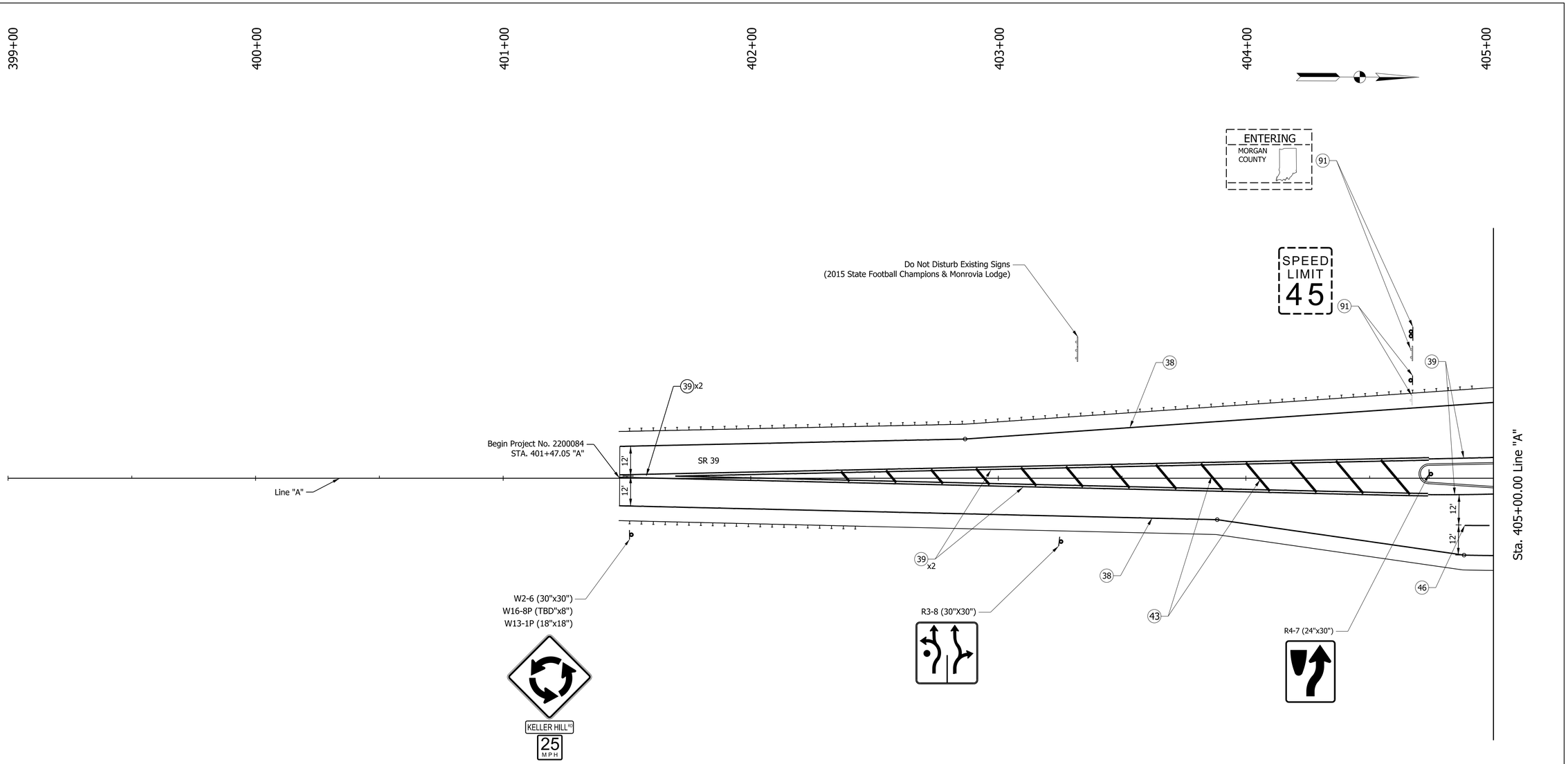
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN
KELLER HILL RD - LINE S-1200N

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	34 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:45 PM
File:
Model:Line S-1200N-1 - Plan 5 [Sheet]



Notes:
All stationing described from Line "A", except as noted.

See Sign Sheet Post Summary Table for addtional details.

37	Pavement Message Marking, Thermoplastic	41	Line, Thermoplastic, Solid, Yellow, 8 in.	45	Line, Thermoplastic, Dotted, White, 6 in., 3 ft. Line, 9 ft. Gap
38	Line, Thermoplastic, Solid, White, 6 in.	42	Transverse Marking, Thermoplastic, Crosshatch Line, White, 8 in.	46	Line, Thermoplastic, Broken, White, 6 in., 10 ft. Line, 30 ft. Gap
39	Line, Thermoplastic, Solid, Yellow, 6 in.	43	Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.	47	Transverse Marking, Thermoplastic, Yield Line, White, 36 in., "Shark Teeth"
40	Line, Thermoplastic, Solid, White, 8 in.	44	Line, Thermoplastic, Dotted, White, 12 in., 2 ft. Line, 2 ft. Gap		

90	No Change Req'd. to Existing Sign and Supports		
91	Reset Existing Sign and Supports		
99	Remove Existing Sign		

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING DETAILS

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	39 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:47 PM
File:
Model:Line A - Plan 1 [Sheet]

405+00 406+00 407+00 408+00 409+00 410+00 411+00

Sta. 1639+00.00 Line "S-1200N"

1639+00

Sta. 405+00.00 Line "A"

Sta 411+00.00 Line "A"

W4-2(R) (30"x30")

M3-3 "SOUTH" (24" X 12")
M1-5 "INDIANA 39" (24" X 24")
M6-2 (21" X 15")

ENTER
Morgan County
LEAVE
Hendricks County

R1-2
(36" X 36" X 36")

Keller Hill Rd

KELLER HILL RD
D1-1d "KELLER HILL RD"
(TBD"x8")

21.77'

18.76'

27.45'

Line "S-1200N"

32.85'

Line "A"

1640+00

SR 39

14'

14'

32.22'

27.53'

12'

12'

18.57'

21.31'

R1-2
(36" X 36" X 36")

R6-1 (36" X 12")
R6-4a (48" X 24")

ONE WAY

KELLER HILL RD
D1-1d "KELLER HILL RD"
(TBD"x8")

1641+00

M3-1 "NORTH" (24" X 12")
M1-5 "INDIANA 39" (24" X 24")
M6-2 (21" X 15")

ENTER
Hendricks County
LEAVE
Morgan County

1642+00

Sta. 1642+00.00 Line "S-1200N"

Notes:
All stationing described from Line "A", except as noted.

See Sign Sheet Post Summary Table for addtional details.

37 Pavement Message Marking, Thermoplastic	41 Line, Thermoplastic, Solid, Yellow, 8 in.	45 Line, Thermoplastic, Dotted, White, 6 in., 3 ft. Line, 9 ft. Gap	90 No Change Req'd. to Existing Sign and Supports		
38 Line, Thermoplastic, Solid, White, 6 in.	42 Transverse Marking, Thermoplastic, Crosshatch Line, White, 8 in.	46 Line, Thermoplastic, Broken, White, 6 in., 10 ft. Line, 30 ft. Gap	91 Reset Existing Sign and Supports		
39 Line, Thermoplastic, Solid, Yellow, 6 in.	43 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.	47 Transverse Marking, Thermoplastic, Yield Line, White, 36 in., "Shark Teeth"	99 Remove Existing Sign		
40 Line, Thermoplastic, Solid, White, 8 in.	44 Line, Thermoplastic, Dotted, White, 12 in., 2 ft. Line, 2 ft. Gap				

Plot: 4/2/2025 1:47 PM

File:
Model:Line A - Plan 2 [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

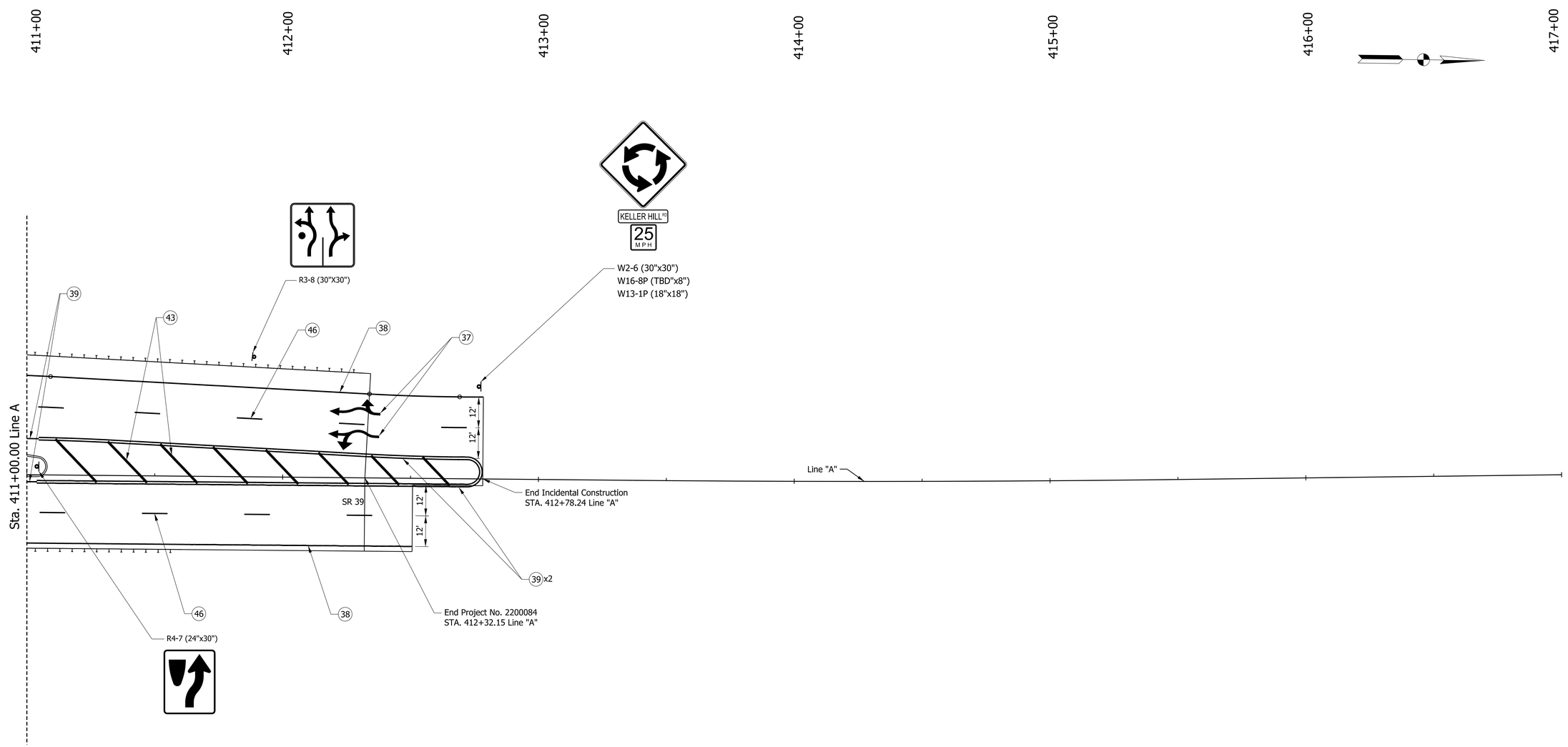
DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING DETAILS

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	40 of 59
CONTRACT	PROJECT
R-44389	2200084



Notes:
All stationing described from Line "A", except as noted.

See Sign Sheet Post Summary Table for addtional details.

37	Pavement Message Marking, Thermoplastic	41	Line, Thermoplastic, Solid, Yellow, 8 in.	45	Line, Thermoplastic, Dotted, White, 6 in., 3 ft. Line, 9 ft. Gap	90	No Change Req'd. to Existing Sign and Supports
38	Line, Thermoplastic, Solid, White, 6 in.	42	Transverse Marking, Thermoplastic, Crosshatch Line, White, 8 in.	46	Line, Thermoplastic, Broken, White, 6 in., 10 ft. Line, 30 ft. Gap	91	Reset Existing Sign and Supports
39	Line, Thermoplastic, Solid, Yellow, 6 in.	43	Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.	47	Transverse Marking, Thermoplastic, Yield Line, White, 36 in., "Shark Teeth"	99	Remove Existing Sign
40	Line, Thermoplastic, Solid, White, 8 in.	44	Line, Thermoplastic, Dotted, White, 12 in., 2 ft. Line, 2 ft. Gap				

Plot: 4/2/2025 1:47 PM
File:
Model:Line A - Plan 3 [Sheet]

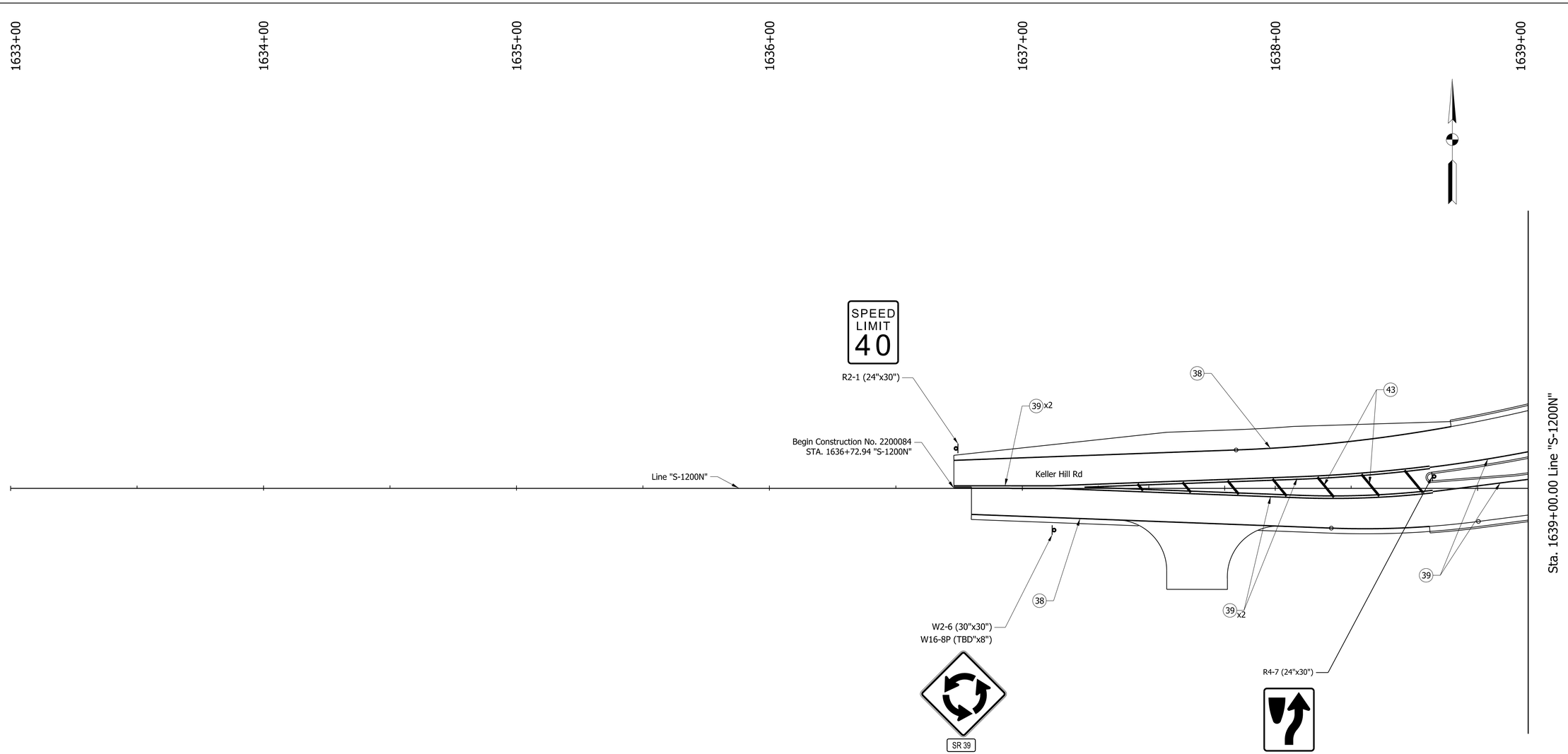
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING DETAILS

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	41 of 59
CONTRACT	PROJECT
R-44389	2200084



Notes:
All stationing described from Line "S-1200N", except as noted.

See Sign Sheet Post Summary Table for addtional details.

37 Pavement Message Marking, Thermoplastic	41 Line, Thermoplastic, Solid, Yellow, 8 in.	45 Line, Thermoplastic, Dotted, White, 6 in., 3 ft. Line, 9 ft. Gap	90 No Change Req'd. to Existing Sign and Supports
38 Line, Thermoplastic, Solid, White, 6 in.	42 Transverse Marking, Thermoplastic, Crosshatch Line, White, 8 in.	46 Line, Thermoplastic, Broken, White, 6 in., 10 ft. Line, 30 ft. Gap	91 Reset Existing Sign and Supports
39 Line, Thermoplastic, Solid, Yellow, 6 in.	43 Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.	47 Transverse Marking, Thermoplastic, Yield Line, White, 36 in., "Shark Teeth"	99 Remove Existing Sign
40 Line, Thermoplastic, Solid, White, 8 in.	44 Line, Thermoplastic, Dotted, White, 12 in., 2 ft. Line, 2 ft. Gap		

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

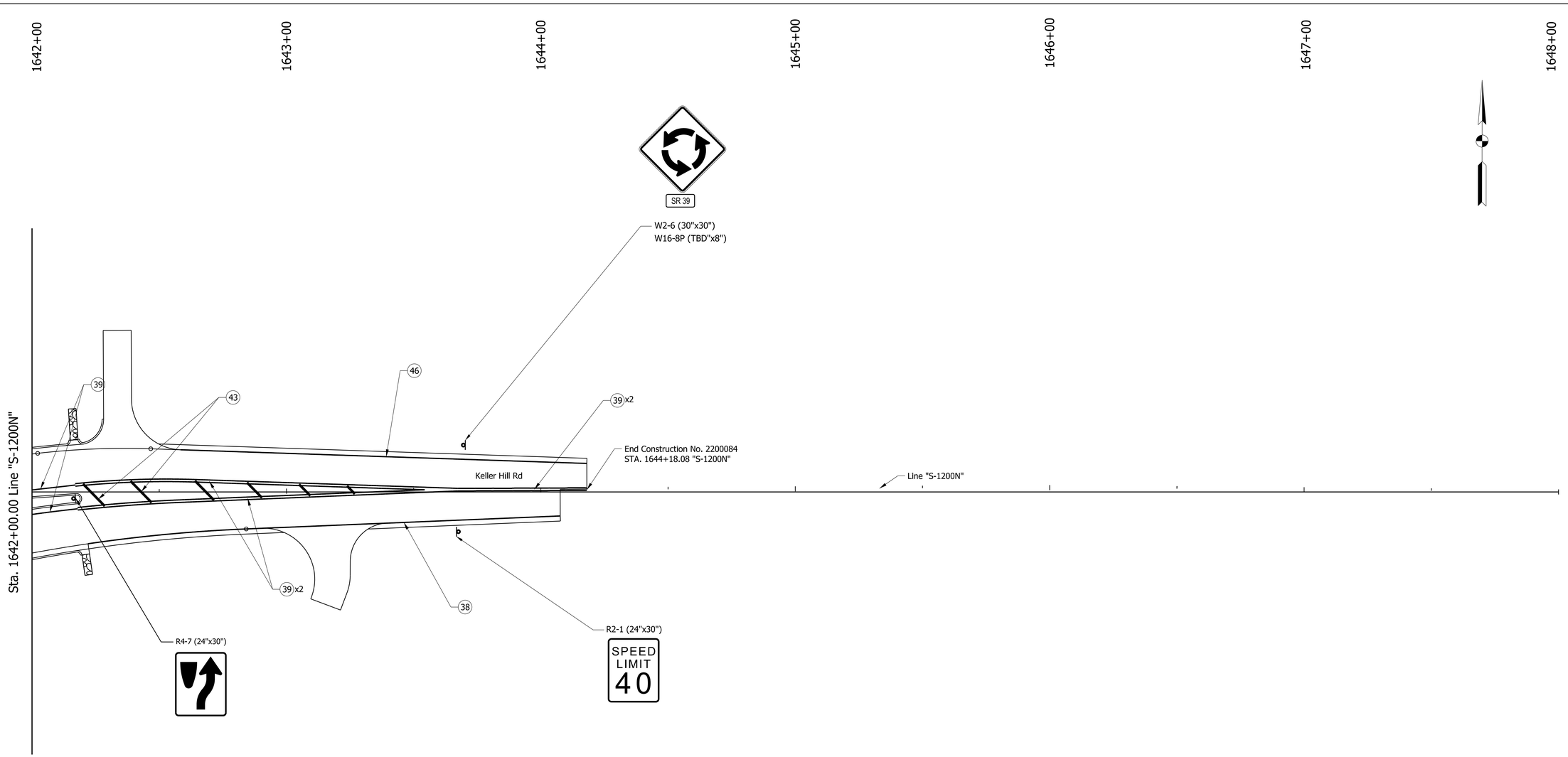
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING DETAILS

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	42 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:47 PM
File: c:\pw\kh1\d0406453\2200084_SN_Sht_Signing_Marking.dgn
Model: Line S-1200N - Plan 4 [Sheet]



Notes:
All stationing described from Line "S-1200N", except as noted.

See Sign Sheet Post Summary Table for addtional details.

37	Pavement Message Marking, Thermoplastic	41	Line, Thermoplastic, Solid, Yellow, 8 in.	45	Line, Thermoplastic, Dotted, White, 6 in., 3 ft. Line, 9 ft. Gap	90	No Change Req'd. to Existing Sign and Supports
38	Line, Thermoplastic, Solid, White, 6 in.	42	Transverse Marking, Thermoplastic, Crosshatch Line, White, 8 in.	46	Line, Thermoplastic, Broken, White, 6 in., 10 ft. Line, 30 ft. Gap	91	Reset Existing Sign and Supports
39	Line, Thermoplastic, Solid, Yellow, 6 in.	43	Transverse Marking, Thermoplastic, Crosshatch Line, Yellow, 12 in.	47	Transverse Marking, Thermoplastic, Yield Line, White, 36 in., "Shark Teeth"	99	Remove Existing Sign
40	Line, Thermoplastic, Solid, White, 8 in.	44	Line, Thermoplastic, Dotted, White, 12 in., 2 ft. Line, 2 ft. Gap				

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER _____ DATE

DESIGNED: JMB DRAWN: JMB

CHECKED: TAH CHECKED: TAH

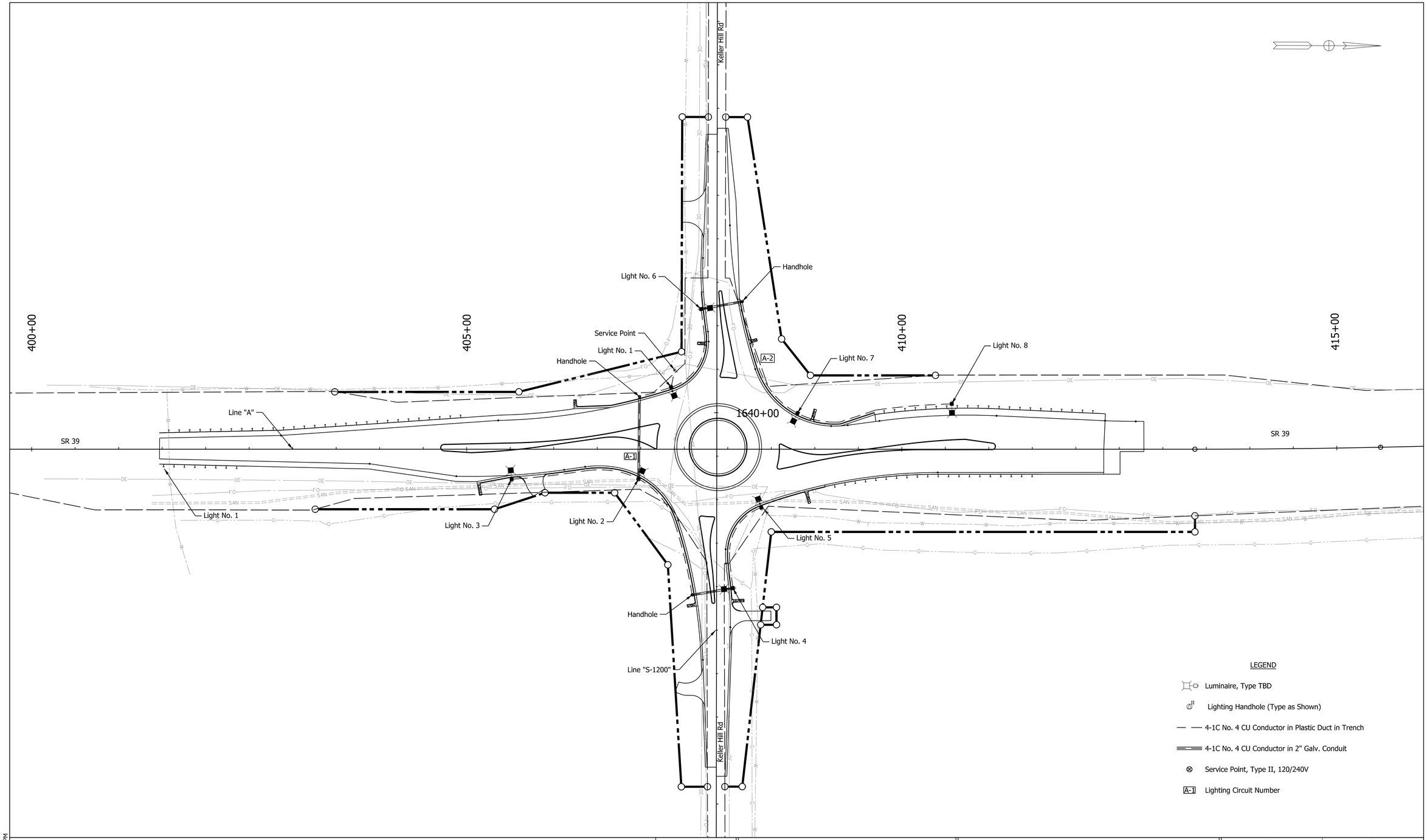
INDIANA
DEPARTMENT OF TRANSPORTATION

SIGNING AND PAVEMENT MARKING DETAILS

SCALE	BRIDGE FILE
1" = 20'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS
ELECTRONIC	43 of 59
CONTRACT	PROJECT
R-44389	2200084

Plot: 4/2/2025 1:47 PM
File:
Model:Line S-1200N-1 - Plan 5 [Sheet]



Plot: 4/2/2025 1:48 PM

File:
Model:Lighting Sheet [Sheet]

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB

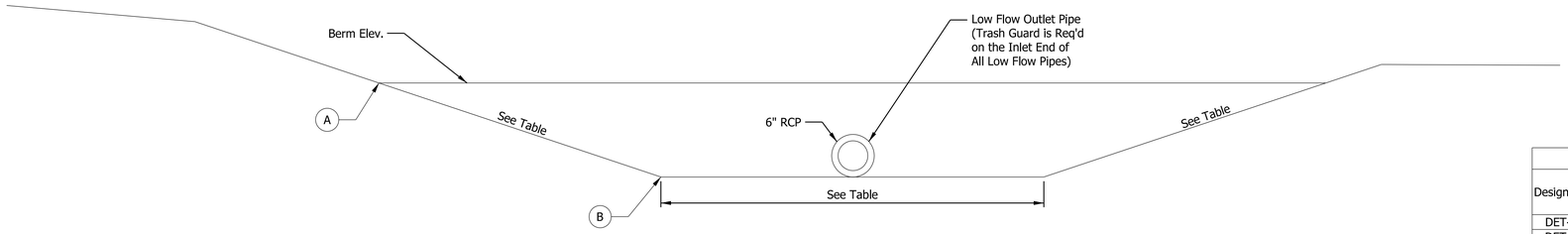
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

LIGHTING PLAN

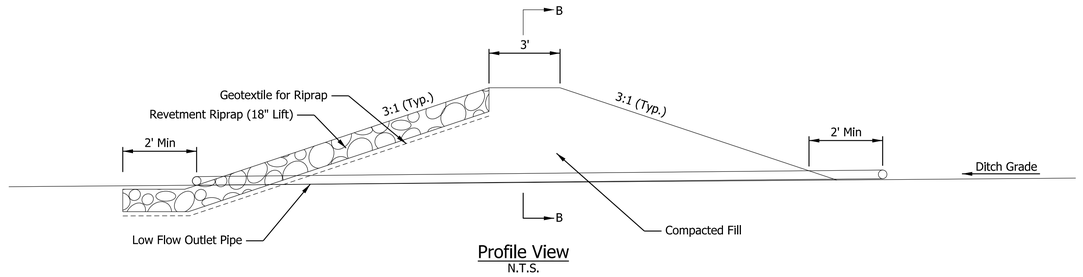
SCALE	BRIDGE FILE
1" = 50'	N/A
	DESIGNATION
	2200084

SURVEY BOOK	SHEETS		
ELECTRONIC	44	of	59
CONTRACT	PROJECT		
R-44389	2200084		

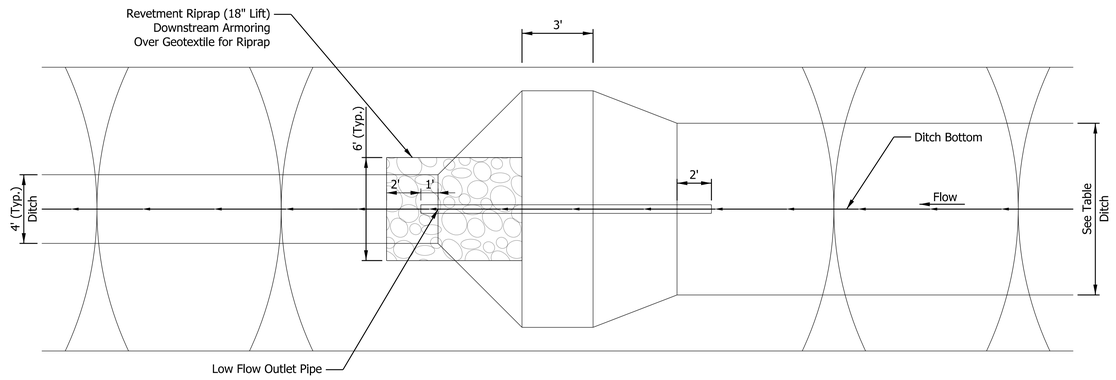


Section B-B at Structure
N.T.S.

DETENTION OUTLET BERM TABLE					
Designation	Ditch Width	Ditch Foreslope	Ditch Backslope	Top of Berm Elevation (A)	Bottom of Berm Elevation (B)
DET-01	4 ft	2.5:1	3:1	759.29	756.36
DET-02	4 ft	2.5:1	3:1	761.93	756.96
DET-03	12 ft	3:1	3:1	754.75	751.79
DET-04	Varies	3:1	3:1	751.00	748.64



Profile View
N.T.S.



Plan View
N.T.S.

ROADSIDE DITCH STORMWATER DETENTION OUTLET BERM DETAIL

Plot: 4/2/2025 1:48 PM
File:
Model:Untitled Sheet

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: JMB DRAWN: JMB
CHECKED: TAH CHECKED: TAH

INDIANA
DEPARTMENT OF TRANSPORTATION

DETENTION BERM DETAIL

SCALE	BRIDGE FILE
N/A	N/A
	DESIGNATION
	2200084
SURVEY BOOK	SHEETS
ELECTRONIC	45 of 59
CONTRACT	PROJECT
R-44389	2200084

Categorical Exclusion

Appendix C

Early Coordination

INDIANA DEPARTMENT OF TRANSPORTATION

Crawfordsville District
41 West 300 North
Crawfordsville, Indiana 47933

PHONE: (855) 463-6848
FAX: (765) 364-9226

Eric Holcomb, Governor
Michael Smith, Commissioner

August 21, 2024

Example Early Coordination Letter

«Agency_1»
«Agency_2»
«Address_1»
«Address_2»
«City», «State» «Zip»

Re: Agencies Early Coordination
Designation (Des.) Number (No.) 2200084
Intersection Improvement Project
State Road (SR) 39 at Keller Hill Road, 0.89 Mile South of I-70
Hendricks and Morgan Counties, Indiana

Dear «Position»,

The Indiana Department of Transportation (INDOT) Crawfordsville District, with federal funding, proposes to proceed with an intersection improvement project located at SR 39 and Keller Hill Road in Hendricks and Morgan Counties, Indiana (Des. No. 2200084). 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 Des. Number and project description in your reply**. We will incorporate your comments into the formal environmental study.

Project Location
The project is located at the SR 39 and Keller Hill Road intersection, approximately 0.89 mile south of I-70 and 1.5 miles north of SR 42. The project is within Township 13 North and 14 North, Range 1 West and Section 1 and 36 in Liberty and Monroe Townships in Mooresville West U.S. Geological Survey (USGS) Quadrangle. Refer to attached project area maps.

Existing Conditions
Within the project area, SR 39 is classified as a major collector roadway and Keller Hill Road is classified as a rural local roadway. This intersection is unsignalized and SR 39 traffic flows through the intersection, while a stop condition is present for traffic on Keller Hill Road. Keller Hill Road consists of two 9-foot-wide travel lanes (one eastbound and one westbound) and up to 1-foot-wide paved outside shoulders. SR 39 consists of two 12-foot-wide travel lanes (one northbound and one southbound) and up to 8-foot-wide paved outside shoulders. Twelve-foot-wide right-turn-lanes (one northbound and one southbound) are present at the intersection along SR 39. The posted speed along SR 39 is 55 miles per hour (mph) and 50 mph along Keller Hill Road. The project is in a rural area and the current adjacent land use is predominantly a mix of commercial, agricultural, and residential properties. The existing right-of-way varies from the edge of pavement to 50+ feet from the roadway centerline. Refer to attached project area photos.

There are roadside ditches along the east and west sides of SR 39 and the north and south sides of Keller Hill Road. In addition to the roadside ditches, a drive culvert exists underneath the driveway of the parcel on northbound SR 39 south of the intersection. This ditch and culvert flow to the south, away from the project location. Underdrains are present under the shoulders on SR 39.

The draft need stems from the above normal crash rate and high crash severity of the SR 39 and Keller Hill Road intersection when compared to other unsignalized rural state intersections. The draft purpose of this project is to reduce the number of crashes and improve safety at the intersection.

Proposed Conditions

The proposed project will involve constructing either a single-lane or dual-lane roundabout with a design that would include raised splitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). The existing right turn lanes would be removed, and grading will be required to match the existing pavement elevation. New guardrail would likely be needed in the southbound direction of SR 39 as the turn lane pavement would be removed. Due to the curb and gutter required for the roundabout, a storm sewer would likely be installed to carry water from the intersection. However, options are currently being investigated to use curb turnouts into ditches in lieu of a storm sewer system.

Further investigation on the exact amount of right-of-way is needed, but permanent and temporary right-of-way is not anticipated to exceed 1 acre. Up to 0.9 acre of tree clearing and/or trimming would be needed. Construction is anticipated to begin in fall of 2026. The maintenance of traffic (MOT) would involve closing Keller Hill Road for a short duration during construction while phasing the construction on SR 39. Construction would require two phases. Traffic would be shifted onto one side on SR 39 and half of the roundabout would be built then shifted to the other side to build the second half of the roundabout. A temporary traffic signal would be needed for one-way operation and a local detour would be provided for Keller Hill Road. Access to all properties would be maintained during construction.

Since the early coordination letter was sent, the permanent and temporary right-of-way amounts have increased due to the project being designed as a "hybrid" roundabout.

Resources

To identify potential environmental concerns within the project vicinity, a Red Flag Investigation was prepared by RQAW. Coordination with any applicable agencies / owners will occur.

A site visit will be performed by RQAW to identify any ecological resources present within the project area. Once complete, RQAW will prepare a *Waters of the U.S. Report* to document any ecological resources.

The project is anticipated to qualify for the Range-wide Programmatic Agreement for the Indiana bat and northern long-eared bat by completing the Information for Planning and Consultation (IPaC).

Coordination will occur with the INDOT Cultural Resources Office (CRO) to evaluate the project area for archaeological and historic resources and for Section 106 compliance. The results of this study will be forwarded to the State Historic Preservation Officer (SHPO) for review and concurrence, as appropriate.

Please provide your response within 30 calendar days from the date of this letter. However, if you feel 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 contact Emma Bellefuil of the Environmental Department at RQAW (317-588-1778 or ebellefuil@dccm.com) and Destiny Golladay, the INDOT Project Manager (765-361-5242 or dgolladay@indot.in.gov).

Thank you in advance for your input,



Emma Bellefuil
RQAW | NEPA Specialist

Omitted to avoid duplication. see graphics in Appendix B of this CE document.

Appendices:

- Appendix A: Project Area Maps and Photographs

Cc:

- INDOT Crawfordsville District (electronic coordination)
- FHWA (electronic coordination)
- IGWS (electronic submission)
- USHUD (electronic coordination)
- NRCS (electronic coordination)
- USACE, Louisville District (electronic coordination)
- Indianapolis MPO (electronic coordination)
- IDNR, Division of Fish and Wildlife (electronic coordination)
- IDNR, Division of Oil and Gas (electronic coordination)
- Hendricks County Council (electronic coordination)
- Hendricks County Board of Commissioners (electronic coordination)
- Hendricks County Surveyor's Office (electronic coordination)
- Hendricks County Highway Department (electronic coordination)
- Hendricks County Engineering Department (electronic coordination)
- Hendricks County MS4 (electronic coordination)
- Morgan County Council (electronic coordination)
- Morgan County Board of Commissioners (electronic coordination)
- Morgan County Surveyor's Office (electronic coordination)
- Morgan County Highway Department (electronic coordination)
- Morgan County Engineering Department (electronic coordination)
- Morgan County MS4 (electronic coordination)

Organization and Project Information

Organization Name: RQAW

Last Name: Bellefuil

Email: ebellefuil@rqaw.com

City: Fishers

Zip: 46038

Destination Id: 2200084

Project Description: Constructing a single or dual-lane roundabout with a raised splitter islands, truck apron, non-transversable central island, and appropriate entry path deflection. Existing right turn lanes would be removed, and grading will be required to match the existing pavement.

First Name: Emma

Phone: (317) 731-3751

Address Line 1: 8770 North Street, Suite 110

State: IN

Customer Id: 2200084

Project Title: SR 39 Intersection Improvement

Environmental Assessment Report

Geological Hazards:

1. 1% Annual Chance Flood Hazard
2. High liquefaction potential

Mineral Resources:

1. Bedrock Resource: Low Potential
2. Sand and Gravel Resource: Low Potential

Active or abandoned mineral resources extraction sites:

1. Petroleum Exploration Wells

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

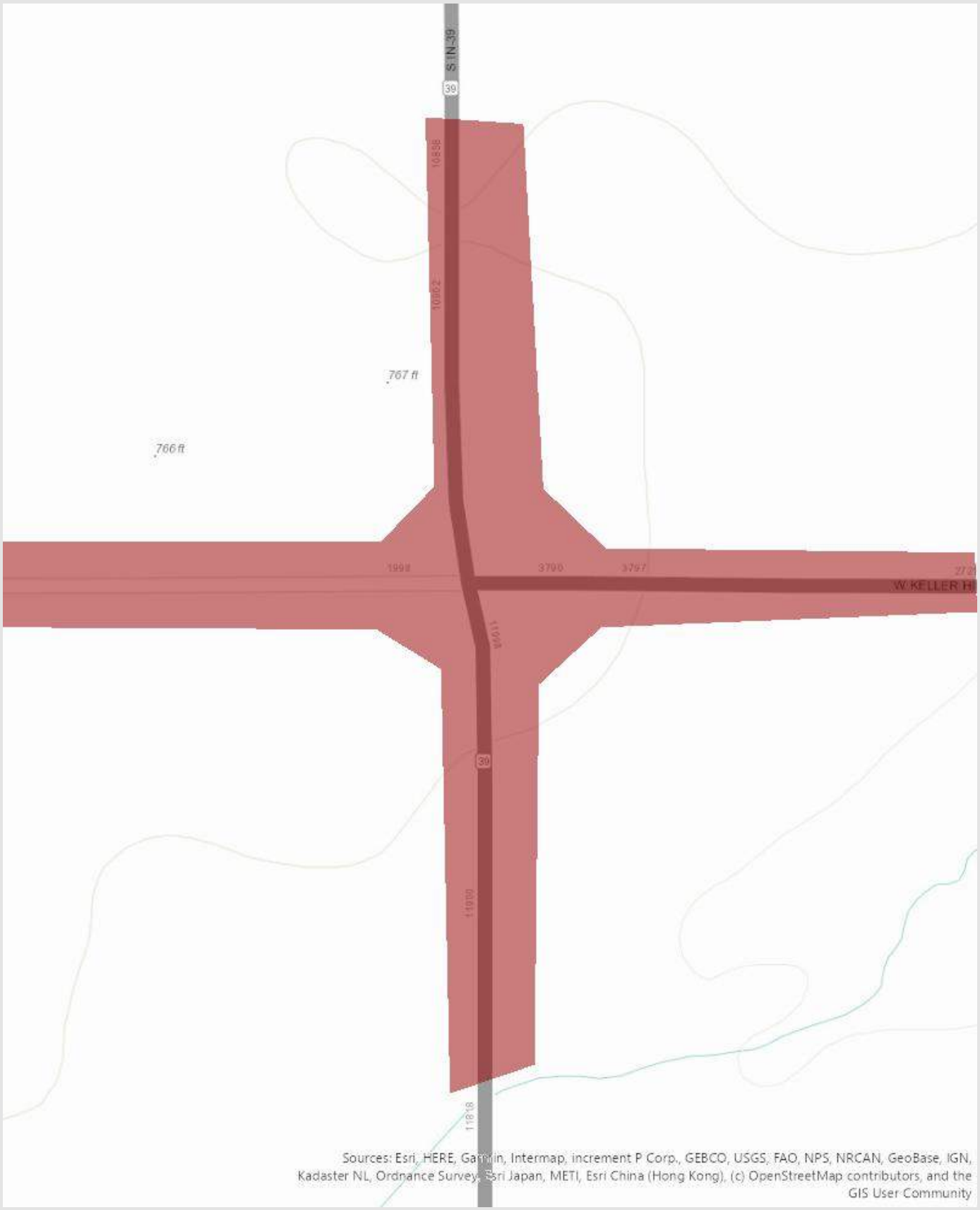
Address: 1001 E. 10th St., Bloomington, IN 47405

Email: IGSEnvir@indiana.edu

Phone: (812) 855-7428

Copyright 2024 The Trustees of Indiana University, Copyright Complaints

Privacy Notice



Copyright 2024 The Trustees of Indiana University, Copyright Complaints

Privacy Notice

Metadata:

https://gisdata.in.gov/server/rest/services/Hosted/FIRM_Flood_Hazard_Zones_2023/FeatureServer/info/metadata

https://portal.igs.indiana.edu/arcgis/rest/services/Seismic_Earthquake_Liquefaction_Potential/MapServer/info/metadata/

https://portal.igs.indiana.edu/arcgis/rest/services/Bedrock_Geology/MapServer/info/metadata/

https://portal.igs.indiana.edu/arcgis/rest/services/Industrial_Minerals_SandAndGravel_Resources/MapServer/info/metadata/

https://igws.indiana.edu/pdms/

Copyright 2024 The Trustees of Indiana University, Copyright Complaints

Privacy Notice

THIS IS NOT A PERMIT

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

DNR#: ER-26776

Request Received: August 21, 2024

Requestor:
Emma Bellefuil
RQAW Environmental
8770 North Street
Fishers, IN 46038

Project:
SR 39 & East Hendricks County Road (Keller Hill Road) single-lane or dual-lane roundabout construction and possible storm sewer installation, 0.89 mile south of I-70 and 1.5 miles north of SR 42; Crawfordsville District, Des #2200084

County/Site Info: Hendricks, Morgan Counties

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

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

We recommend the use of pollutant trapping technology such as storm drain inserts to reduce the runoff of roadside pollutants where appropriate.

B) Drainage and Stormwater Management

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

C) Tree Removal

We recommend a mitigation plan be developed (and submitted with the permit application, if required) for any unavoidable habitat impacts that will occur. The DNR's Habitat Mitigation Guidelines (and plant lists) can be found online at: https://www.in.gov/nrc/files/IB-17.pdf.

Impacts to non-wetland forest of one (1) acre or more in a rural or urban area should be mitigated at a minimum 2:1 ratio based on area of impact. Impacts to non-wetland forest under one (1) acre but at least 0.10 acre in a rural or urban area should be mitigated at a minimum 1:1 ratio based on area of impact. Impacts under 0.10 acre in a rural area typically do not require mitigation or additional plantings beyond seeding and stabilizing disturbed areas, though there are exceptions for high quality habitat sites. Impacts under 0.10 acre in an urban area should be mitigated by replacing each mature tree removed (trees that are 10” diameter-at-breast height (dbh)) with two trees of 3-gallon stock or larger. Seeding and stabilizing disturbed areas is required regardless of the impact amount and location.

The mitigation site should be located in the floodway, downstream of the one (1) square mile drainage area of that stream (or another stream within the 8-digit HUC, preferably as close to the impact site as possible) and adjacent to existing forested riparian habitat.

The Division of Fish and Wildlife recommends avoiding removing trees to the greatest extent possible and replacing trees that must be removed. Trees are important to fish and wildlife resources in urban and rural areas. Indiana’s trees also provide millions of dollars of tangible benefits to Indiana communities. Their shade and beauty contribute to the quality of life. They provide significant increases in real estate values, create attractive settings for commercial businesses, and improve community neighborhood appeal. Trees decrease energy consumption by providing shade and acting as windbreaks. They reduce water treatment costs and impede soil erosion by slowing the runoff of stormwater. Trees also cool the air temperature, cleanse pollutants from the air, and produce oxygen while absorbing carbon dioxide. Trees are an integral component of the environment. Proactively managing and maintaining a tree population will ultimately maximize the benefits afforded by their aesthetic and ecological functions. The following links give a good overview of the benefits of a tree management program and how to select the right species to avoid the negative impacts of non-native invasive species such as the common and popular Bradford pear: https://www.in.gov/dnr/forestry/forestry-publications-and-presentations/ (scroll down to the Community & Urban Forestry section).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas that are not currently mowed and maintained with a mixture of grasses, sedges, and wildflowers native to Central Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion; turf-type grasses (including low-endophyte, friendly endophyte, and endophyte free tall fescue but excluding all other varieties of tall fescue) may be used in currently mowed areas only. A native herbaceous seed mixture must include at least 5 species of grasses and sedges and 5 species of wildflowers.

2. Minimize and contain within the project limits 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 (3 inches or greater diameter-at-breast height, 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, access bridges, causeways, cofferdams, diversions, or pumparounds.
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. Do not use broken concrete as riprap.
8. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
9. The sideslopes of the outlet section must be 2:1 or flatter.
10. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
11. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
12. Protect the area around and below any concentrated discharge points, down to the waterway's normal flow level, with an appropriate structural armament such as riprap.
13. Plant two trees of 3-gallon stock or larger for each tree which is removed that is 10 inches or greater in diameter-at-breast height.

Contact Staff:
Our agency appreciates this opportunity to be of service. Please contact me at RVanVoorhis@dnr.IN.gov or (317) 232-8163 if we can be of further assistance.

Rachel Van Voorhis **Date:** September 20, 2024
Rachel Van Voorhis
Environmental Coordinator
Division of Fish and Wildlife

United States Department of Agriculture

Farm Production and Conservation

Natural Resources Conservation Service

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

August 23, 2024

Emma Bellefuil
RQAW Corporation
8770 North Street, Suite 110
Fishers, Indiana 46038

Dear Emma Bellefuil:

The proposed SR 39 at Keller Hill Road, Intersection Improvement Project in Hendricks and Morgan Counties, Indiana, (Des. No. 2200084), as referred to in your letter received on August 21, 2024, will cause a conversion of prime farmland.

The attached packet of information is for your use competing Parts VI and VII of the AD-1006. After completion, the federal funding agency needs to forward one copy to NRCS for our records.

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

Sincerely,

JOHN ALLEN

Digitally signed by JOHN ALLEN
Date: 2024.08.23 13:57:45 -04'00'

JOHN ALLEN
State Soil Scientist

Enclosers

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

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	
Name of Project DES2200084_SR39 at Keller Hill Rd (M		Federal Agency Involved	
Proposed Land Use		County and State Morgan County, IN	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS 8/23/2024	Person Completing Form: JRA
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☑ NO ☐	Acres Irrigated	Average Farm Size 273 ac
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 197744 % 75	Amount of Farmland As Defined in FPPA Acres: 15087 % 58	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	0.29			
B. Total Acres To Be Converted Indirectly	0.00			
C. Total Acres In Site	0.29			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	0.29			
B. Total Acres Statewide Important or Local Important Farmland	0.00			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.001			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	33			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	79			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	9			
2. Perimeter In Non-urban Use	(10)	7			
3. Percent Of Site Being Farmed	(20)	9			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	5			
6. Distance To Urban Support Services	(15)	5			
7. Size Of Present Farm Unit Compared To Average	(10)	1			
8. Creation Of Non-farmable Farmland	(10)	4			
9. Availability Of Farm Support Services	(5)	1			
10. On-Farm Investments	(20)	5			
11. Effects Of Conversion On Farm Support Services	(10)	2			
12. Compatibility With Existing Agricultural Use	(10)	2			
TOTAL SITE ASSESSMENT POINTS	160	50	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	79	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	50	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	129	0	0	0

Site Selected: Site A	Date Of Selection 8/19/2024	Was A Local Site Assessment Used? YES ☐ NO ☑

Reason For Selection:

Name of Federal agency representative completing this form: Emma Bellefuil	Date: 8/30/2024

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

From: Samantha Groce <SGroce@bfsengr.com>
Sent: Monday, September 23, 2024 12:42 PM
To: Emma Bellefuil
Cc: Christy A. Chalfant
Subject: Early Coordination Response Des. 2200084 Hendricks Co. SR 39 at Keller Hill Road Hendricks Co. Clean Water

You don't often get email from sgroce@bfsengr.com. Learn why this is important

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hello,

This response is regarding the request for early coordination for Des. No. 2200084 Hendricks Co. SR 39 at Keller Hill Road Improvement project, Hendricks County, Indiana. This response is provided on behalf Hendricks County Clean Water.

The proposed intersection improvement project does not appear to have water ways within the project area. Limiting the potential for impacts.

A review of the site and the proposed project does not indicate red flags or unintended impacts as long as all proper permitting and regulatory requirements are met. With the above noted items addressed the environmental effects of my area of expertise shall be minimal.

Thank you for the opportunity to provide comment.

BF&S CIVIL ENGINEERS

Samantha Groce, CESSWI
Stormwater Department Head

Butler, Fairman & Seufert, Inc.
p 317-713-4615 **c** 317-363-8600
SGroce@bfsengr.com | www.bfsengr.com

8450 Westfield Blvd., Suite 300, Indianapolis, IN 46240-8302

www.bfsengr.com

Disclaimer

This email has been scanned for viruses and malware, and may have been automatically archived by **Mimecast Ltd**.

From: Neild, Benjamin <BNeild@indot.IN.gov>
Sent: Monday, May 20, 2024 8:51 AM
To: Emma Bellefuil
Cc: Kurtz, Randy
Subject: RE: USFWS Bat Database Check for Des. No. 2200084

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good morning,
A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula, and capture sites was conducted for Des No. 2200084 on 5/20/2024. There are no documented sites within a half mile of the project area. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the project questionnaire to determine the programmatic consultation's applicability. The IPaC-generated documents must be forwarded to the USFWS for verification if needed.

Benjamin Neild
Environmental Manager, Capital Program Management Division
41 West 300 North
Crawfordsville, IN 47933
Phone: (765) 361-5259
Email: bneild@indot.in.gov

From: Emma Bellefuil <ebellefuil@rqaw.com>
Sent: Thursday, May 16, 2024 9:39 AM
To: Kurtz, Randy <RKurtz@indot.IN.gov>; Neild, Benjamin <BNeild@indot.IN.gov>
Subject: FW: USFWS Bat Database Check for Des. No. 2200084

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

Excuse the previous contacts. Zane or Ben could you please look this over and let me know.

Thank you,

Emma Bellefuil
NEPA Specialist

RQAW | DCCM
317-588-1778 p

From: Emma Bellefuil
Sent: Thursday, May 16, 2024 9:34 AM
To: Kurtz, Randy <rkurtz@indot.in.gov>; bervin@indot.in.gov
Cc: Aaron Lawson <alawson@rqaw.com>
Subject: USFWS Bat Database Check for Des. No. 2200084

Hey Zane and Brock,

When you get the chance can I get you or one of your staff to check the USFWS Database for any known bats within 0.5 mile of the project area? I have attached a site location map and shapefiles for the project area and half mile buffer. Additionally, I have also included the below table which includes coordinates to help you quickly locate this project.

Des No.	Location Description	Counties	Coordinates (Lat./Long.)
2200084	SR 39 at Keller Hill Road, 1.51 Miles North of SR 42	Hendricks and Morgan	39.600772, -86.479536

Let us know if you need anything else.

Thanks in advance!

Emma Bellefuil
NEPA Specialist

A 8770 North St, Fishers, Indiana 46038
P 317-588-1778
RQAW.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

United States Department of the Interior

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

In Reply Refer To: 07/01/2025 15:20:00 UTC
Project Code: 2025-0012950
Project Name: Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties

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

To Whom It May Concern:

To Whom It May Concern:

The purpose of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.), is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

The enclosed species list identifies threatened, endangered, proposed, and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Act.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. You can complete this verification formally or informally or request an updated list by visiting the IPaC website at regular intervals during project planning and implementation.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at Midwest Section 7 Technical Assistance | U.S. Fish & Wildlife Service. This website contains step-by-step instructions to help you determine if your project will have an adverse effect on listed species and to lead you through the Section 7 process.

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

Other Trust Resources and Activities
Bald and Golden Eagles - Although the bald eagle has been removed from the endangered species list, this species and the golden eagle are protected by the Bald and Golden Eagle Act and the Migratory Bird Treaty Act. It is the responsibility of the project proponent to survey the area for any migratory bird nests. If there is an eagle nest on-site while work is on-going, eagles may be disturbed. We recommend avoiding and minimizing disturbance to eagles whenever practicable. If you cannot avoid eagle disturbance, you may seek a permit. A nest take permit is always required for removal, relocation, or obstruction of an eagle nest. For communication and wind energy projects, please refer to additional guidelines below.

Migratory Birds - The Migratory Bird Treaty Act (MBTA) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Service. The Service has the responsibility under the MBTA to proactively prevent the mortality of migratory birds whenever possible and we encourage implementation of recommendations that minimize potential impacts to migratory birds. Such measures include clearing forested habitat outside the nesting season (generally March 1 to August 31) or conducting nest surveys prior to clearing to avoid injury to eggs or nestlings.

Communication Towers - Construction of new communications towers (including radio, television, cellular, and microwave) creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. However, the Service has developed voluntary guidelines for minimizing impacts.

Transmission Lines - Migratory birds, especially large species with long wingspans, heavy bodies, and poor maneuverability can also collide with power lines. In addition, mortality can occur when birds, particularly hawks, eagles, kites, falcons, and owls, attempt to perch on uninsulated or unguarded power poles. To minimize these risks, please refer to guidelines developed by the Avian Power Line Interaction Committee and the Service. Implementation of these measures is especially important along sections of lines adjacent to wetlands or other areas that support large numbers of raptors and migratory birds.

Wind Energy - To minimize impacts to migratory birds and bats, wind energy projects should follow the Service’s Wind Energy Guidelines. In addition, please refer to the Service's Eagle Conservation Plan Guidance, which provides guidance for conserving bald and golden eagles in the course of siting, constructing, and operating wind energy facilities.

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

Project Code: 2025-0012950
Project Name: Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties
Project Type: Road/Hwy - Maintenance/Modification
Project Description: The SR 39 and Keller Hill Road intersection improvement project (Des. Number 2200084) is located 0.89 mile south of I-70 in Hendricks and Morgan Counties, Indiana.

The project consists of constructing a dual-lane roundabout with a design that would include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). The existing right turn lanes would be removed, and grading would be required to match the existing pavement elevation. New guardrail would likely be needed in the southbound direction of SR 39 as the turn lane pavement over it would be removed. Due to the curb and gutter required for the roundabout, a storm sewer would likely be installed to carry water from the intersection. However, options are currently being investigated to use curb turnouts into ditches in lieu of a storm sewer system. Up to 1.50 acres of permanent right-of-way and 0.01 acre of temporary right-of-way would be needed for the project.

A review of the USFWS database by the INDOT Crawfordsville District on May 20, 2024, did not indicate the presence of endangered bat species, in or within, 0.50 mile of the project area. A field visit was conducted on August 19, 2024, by RQAW | DCCM. One structure, CV 039-032-30.68, which is an 8-foot by 6-foot reinforced concrete box (RCB) structure approximately 78 foot in length, is located at the northern terminus of the project limits along SR 39. No work is planned to occur on this structure, but milling and overlaying of the existing pavement above the structure will occur. Bats, or evidence of bats, were not seen or heard at the structure. Suitable summer habitat was observed within/adjacent to the project area.

The project would involve clearing/trimming up to approximately 0.6 acre of trees. All trees would be removed within 100 feet of the existing roadway and would be performed outside of the summer occupancy timeframe (October 1 through March 31). Dominant tree species consist of sycamore (Platanus occidentalis) and black walnut (Juglans nigra).

Temporary lighting may be used during construction. The project would also install permanent lighting consisting of 8 new downward facing lights and posts along the approaches of the intersection and around the

center of the roundabout. Construction is anticipated to begin in fall of 2026.

Per the USFWS official species list, the project is within range of the endangered gray bat. INDOT, on behalf of USFWS, has made a determination for the gray bat of MA-NLAA.

Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.6007659,-86.47953987770703,14z



Counties: Hendricks and Morgan counties, Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 4 threatened, endangered, or candidate species on this species list.

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

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

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

---

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

MAMMALS

NAME	STATUS
Gray Bat *Myotis grisescens* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6329	Endangered
Indiana Bat *Myotis sodalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered

BIRDS

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

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9743	Proposed Threatened

CRITICAL HABITATS

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

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

IPAC USER CONTACT INFORMATION

Agency: Private Entity
Name: Emma Bellefuil
Address: 8770 North Street, Suite 110
City: Fishers
State: IN
Zip: 46038
Email ebellefuil@rqaw.com
Phone: 3175881778

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

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

In Reply Refer To: 07/11/2025 14:00:46 UTC
Project code: 2025-0012950
Project Name: Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties

Subject: Not Likely to Adversely Affect Concurrence verification letter for the 'Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties' project under the December 13, 2024, FHWA, FRA, FTA Programmatic Biological Opinion for Transportation Projects within the Range of the Indiana Bat, Northern Long-eared Bat, and Tricolored Bat.

To whom it may concern:

This letter records the determination of effects to federally listed (or proposed) bat species anticipated to result from the Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties (the Project). This determination is based upon information you entered into the assisted determination key (Dkey) associated with the above referenced Programmatic Biological Opinion/Conference Opinion (PBO/PCO) in the U.S. Fish and Wildlife Service's (Service) Information for Planning and Consultation (IPaC) system on the date listed above to verify that the Project may rely on the concurrence provided in the PBO/PCO to satisfy requirements under section 7(a)(2) of the Endangered Species Act of 1973 (ESA) (16 USC 1536), as amended.

Ensuring Accurate Determinations When Using IPaC:

The Service developed the IPaC system and this Dkey in accordance with the ESA and based on the PBO/PCO. All information submitted by the project proponent into IPaC must accurately represent the full scope and details of the Project.

Failure to accurately represent or implement the Project as detailed in the Dkey invalidates this letter. Answers to certain questions in the Dkey commit the project proponent to implementation of conservation measures that must be followed for the ESA determinations to remain valid. Carefully review this letter, your ESA requirements are <u>NOT</u> yet complete.

Determinations:

Based on the information you provided (Project Description shown below), you have determined that the Project is within the scope and adheres to the criteria of the PBO/PCO, including the adoption of applicable avoidance and minimization measures. Based on your IPaC submission and the PBO/PCO, the Project is consistent with the following effect determinations:

Species	Listing Status	Determination
Indiana Bat (*Myotis sodalis*)	Endangered	NLAA

The tricolored bat is proposed for listing as endangered under the ESA, but not yet listed. For actions that may affect a proposed species, agencies cannot consult, but they can confer under the authority of section 7(a)(4) of the ESA. Such conferences can follow the procedures for a consultation and be adopted as such if the proposed species is listed. Should the tricolored bat be listed, agencies must review projects that are not yet complete, or projects with ongoing effects within the tricolored bat range that previously received a no effect or not likely to adversely affect (NLAA) determination from the key to confirm that the determination is still accurate.

The Service has 14 calendar days to notify the lead Federal action agency or designated non-federal representative if we determine that the Project does not meet the criteria for a NLAA determination under the PBO/PCO. **If the Service does not notify the lead Federal action agency or designated non-federal representative within that timeframe, you may proceed with the Project under the terms of the NLAA concurrence provided in the PBO/PCO**. 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/PCO.

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

For Proposed Actions that include bridge/culvert or structure removal, replacement, and/or maintenance activities:

If your initial bridge, culvert, or structure assessment failed to detect Indiana bat, northern long-eared bat, or tricolored bat use or occupancy, yet bats are later detected prior to, or during construction, promptly notify the local Service Field Office within 2 working days of the discovery. In addition, please document whether incidental take occurred, and if so, the type (i.e. kill or harm) and amount (i.e. number of individuals) and submit documentation to the local Service Field Office within 5 working days from the completion of the bridge, culvert, or structure construction (use Appendix E - Post Assessment Discovery of Bats at Bridge/Culvert or Structure Form in the User's Guide). In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service. In these instances, potential incidental take of Indiana bats, northern long-eared bats, or tricolored bats may be exempted provided that the take is reported to the Service.

If the Project 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 Field Office is required for those species/designated critical habitat. If the Project 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 to contact this Service Field Office

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

- Gray Bat *Myotis grisescens* Endangered
- Monarch Butterfly *Danaus plexippus* Proposed Threatened
- Whooping Crane *Grus americana* Experimental Population, Non-Essential

PROJECT DESCRIPTION

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

NAME

Des 2200084 - SR 39 at Keller Hill Road - Hendricks and Morgan Counties

DESCRIPTION

The SR 39 and Keller Hill Road intersection improvement project (Des. Number 2200084) is located 0.89 mile south of I-70 in Hendricks and Morgan Counties, Indiana.

The project consists of constructing a dual-lane roundabout with a design that would include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). The existing right turn lanes would be removed, and grading would be required to match the existing pavement elevation. New guardrail would likely be needed in the southbound direction of SR 39 as the turn lane pavement over it would be removed. Due to the curb and gutter required for the roundabout, a storm sewer would likely be installed to carry water from the intersection. However, options are currently being investigated to use curb turnouts into ditches in lieu of a storm sewer system. Up to 1.50 acres of permanent right-of-way and 0.01 acre of temporary right-of-way would be needed for the project.

A review of the USFWS database by the INDOT Crawfordsville District on May 20, 2024, did not indicate the presence of endangered bat species, in or within, 0.50 mile of the project area. A field visit was conducted on August 19, 2024, by RQAW | DCCM. One structure, CV 039-032-30.68, which is an 8-foot by 6-foot reinforced concrete box (RCB) structure approximately 78 foot in length, is located at the northern terminus of the project limits along SR 39. No work is planned to occur on this structure, but milling and overlaying of the existing pavement above the structure will occur. Bats, or evidence of bats, were not seen or heard at the structure. Suitable summer habitat was observed within/adjacent to the project area.

The project would involve clearing/trimming up to approximately 0.6 acre of trees. All trees would be removed within 100 feet of the existing roadway and would be performed outside of the summer occupancy timeframe (October 1 through March 31). Dominant tree species consist of sycamore (Platanus occidentalis) and black walnut (Juglans nigra).

Temporary lighting may be used during construction. The project would also install permanent lighting consisting of 8 new downward facing lights and posts along the approaches of the intersection and around the center of the roundabout. Construction is anticipated to begin in fall of 2026.

Per the USFWS official species list, the project is within range of the endangered gray bat. INDOT, on behalf of USFWS, has made a determination for the gray bat of MA-NLAA.

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@39.6007659,-86.47953987770703,14z



DETERMINATION KEY RESULT

Based on your answers provided, this project(s) may affect, but is not likely to adversely affect the Indiana bat, northern long-eared bat or tricolored 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 Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024.

QUALIFICATION INTERVIEW

1. Which Federal Agency is the lead federal agency the action?

   A) Federal Highway Administration (FHWA)

2. Does the Action Area intersect the species list area of the Indiana bat?

   Automatically answered
   Yes

3. Is the project within 0.5 miles radius of an entrance/opening to any known Indiana bat hibernaculum?

   No

4. Is any portion of the action area within a 0.5 mile radius of an entrance/opening to any known NLEB or TCB hibernacula?

   Automatically answered
   No

5. Does your project's activities include raising the road profile above the tree canopy in documented habitat for the Indiana bat, NLEB, or TCB?

   Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

   No

6. Is your project located within a karst area?

   No

7. Will the project include bridge, culvert, or structure removal, replacement, and/or alteration activities?

   Note: For definitions of bridge, culvert, and structure, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat.

   No

8. Do your project’s activities involve tree removal/trimming, temporary lighting, new/additional permanent lighting, ground disturbance, percussives that involves noise/vibration above existing background levels, vibrations, or slash pile burning?

   Yes

9. Is there suitable summer habitat for the Indiana bat, NLEB, or TCB within the project action area?

   Note: See the Service's summer survey guidance for current definitions of suitable habitat [https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html].

   Yes

10. Have P/A surveys for the Indiana bat, NLEB, or TCB been conducted within the suitable summer habitat located within your project action area? This refers to mist-netting or acoustic surveys, not bridge assessments.

    Note: See the Service's survey guidance https://www.fws.gov/midwest/endangered/mammals/inba/inbasummersurveyguidance.html

    No

11. Will the project involve the removal or trimming of trees within suitable habitat for the Indiana bat, NLEB, or TCB?

    Yes

12. Will any tree removal or trimming occur during the bat pup season?

    Note: For more information about bat pup seasons please visit https://www.fws.gov/sites/default/files/documents/2024-10/2024_usfws_rangewide_ibat-nleb_survey_guidelines.pdf

    No

13. Will the removal or trimming of trees occur **within documented habitat** for the Indiana bat, NLEB, or TCB?

    Note: For the definition of documented habitat, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    No

14. Will all tree removal or trimming occur within 100 feet of the road or rail surface?

    Yes

15. Does your project include activities involving the temporary or permanent exclusion of Indiana bats, NLEBs, or TCBs from a bridge/culvert or structure?

    Note: exclusion is conducted to deny bats' entry or reentry into a bridge/culvert or structure. To be effective and to avoid harming bats, it should be done according to established standards.

    No

16. Does your project involve the use of temporary lighting within Indiana bat, NLEB, or TCB suitable habitat?

    Note: For the definition of lighting, refer to Appendix A: https://www.fws.gov/media/users-guide-range-wide-programmatic-consultation-indiana-bat-and-northern-long-eared-bat

    Yes

17. Will the use of temporary lighting be conducted during the Indiana bat, NLEB, or TCB active season?

    Yes

18. Will temporary lighting be directed away from Indiana bat, NLEB, or TCB suitable habitat)?

    Yes

19. Will the project substantially increase baseline light conditions via the use of permanent lighting (replacement or new/additional) in suitable habitat.

    Yes

20. When installing new/additional permanent lighting, can downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting) be used?

    Yes

21. Will your project include percussive activities?

    Note: Refer to Stressor #2 Noise/Vibration on page 109 of the PBO/PCO.

    No

22. Will the project involve the removal or trimming of more than 20 acres of Indiana bat, NLEB, or TCB suitable habitat per 5-mile section of road/rail?

    No

23. Will the removal or trimming of trees occur within 0.5 miles of a known Indiana bat, NLEB, or TCB hibernaculum?

    No

24. Will the removal or trimming of these trees occur during the active season?

    No

25. Will the removal or trimming of trees occur **beyond 100 feet** of the existing road/rail surfaces?

    No

26. Does the Action Area intersect the species list area of the Indiana bat?

    Automatically answered
    Yes

27. Does the Action Area intersect the species list area of the tricolored Bat (TCB)?

    Automatically answered
    No

PROJECT QUESTIONNAIRE

1. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the inactive season (NLAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

0.6

2. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the active season **(outside the pup season and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

3. How many acres of trees are proposed for removal/trimming **outside of documented habitat** for the Indiana bat, NLEB, or TCB within 100 feet of the existing road/rail surfaces during the pup season **(trees must be <9 in DBH, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

4. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surface during the inactive season (LAA)? Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

5. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB between 100-300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15-Feb 15 in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

6. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the inactive season (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

7. How many acres of trees are proposed for removal/trimming **either outside or within documented habitat** for the Indiana bat, NLEB, or TCB beyond 300 feet of the existing road/rail surfaces during the active season **(outside the pup season, and not between Dec 15th-Feb 15th in Zone 1 of the NLEB and TCB YR active areas)** (LAA)?

   Note: If described as number of trees, multiply by 0.09 to convert to acreage and enter that number.

   0

AVOIDANCE AND MINIMIZATION MEASURES (AMMS)

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

GAMM1
Ensure all operators, employees, and contractors working in areas of Indiana bat, NLEB, or TCB suitable habitat are aware of all Transportation Agency environmental commitments, including all applicable AMMs.

LAMM1
Direct temporary lighting away from suitable habitat during the active season

LAMM2
When installing new/additional permanent lighting or replacing existing permanent lights, use downward-facing, full cut-off lens lights (with same intensity or less for replacement lighting); or for those Transportation Agencies using the Backlight Uplight and Glare (BUG) system developed by the Illuminating Engineering Society, the project should be as close to 0 for all three ratings with a priority of "uplight" of 0 and "backlight" as low as practicable. http://www.escolighting.com/PDFfiles/BUG_rating.pdf

TRTAMM1
Modify all phases/aspects of the project (e.g., temporary work areas, alignments) to the extent practicable to avoid tree removal/trimming in excess of what is required to implement the project safely.

TRTAMM2
Ensure tree removal/trimming 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 removal/trimming to ensure contractors stay within clearing limits

TRTAMM3
Ensure tree removal/trimming is limited to the inactive season, occurs within 100 ft of the road/rail surface, and is outside of documented habitat for the Indiana bat, NLEB, and TCB

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

This key was last updated in IPaC on July 02, 2025. Keys are subject to periodic revision.

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

This decision key should only be used to verify project applicability with the Service's Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana bat, northern long-eared bat, and tricolored bat, dated December 13, 2024. The programmatic consultation limited transportation activities that may affect the covered bat species and addresses situations that are both likely and not likely to adversely affect the covered bat species. This decision key will assist in identifying the effect of a specific project/activity and the applicability of the programmatic consultation. The programmatic consultation is not intended to cover all types of transportation actions. Activities outside the scope of the programmatic consultation, or that may affect ESA-listed species other than the Indiana bat, northern long-eared bat, or tricolored bat, or their designated critical habitat, may require additional ESA Section 7 consultation.

IPAC USER CONTACT INFORMATION

Agency: Indiana Department of Transportation
Name: Robabeh Asadpour
Address: 41 West 300 North
City: Crawfordsville
State: IN
Zip: 47933
Email rasadpour@indot.in.gov
Phone: 7653615621

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

United States Department of the Interior

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

June 25, 2025

Ms. Erica Tait
Interim Deputy Division Administrator
Federal Highway Administration
575 N. Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

Ms. Laura Hilden
Environmental Services Director
Indiana Department of Transportation
100 North Senate Ave., N758 – ES
Indianapolis, IN 46204
(sent via email)

Dear Ms. Tait and Ms. Hilden:

This letter provides the Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) with concurrence on "not likely to adversely affect" (NLAA) determinations for select construction and maintenance activities in Indiana that may affect the federally endangered gray bat (*Myotis grisescens*). We provide this letter under the authority of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531-1543).

The programmatic biological opinion[1] (BO) for the federally endangered Indiana bat (*Myotis sodalis*), northern long-eared bat (*Myotis septentrionalis*; NLEB), and tricolored bat (*Perimyotis subflavus*; TCB*)* evaluates a list of proposed actions and potential resulting stressors for these species. In addition to these species, transportation projects may also directly or indirectly affect gray bat roosting, foraging or swarming habitat in similar ways. Therefore, stressors outlined in Section 5.2, 5.3, 5.5 and 5.6 of the BO (pgs. 82 – 157) also apply to gray bats when making section 7 effect determinations. Because gray bats typically do not roost in trees, stressors specifically related to the removal or alteration of roost tree habitat are not relevant. However, removal or alteration of trees that may provide foraging habitat are potential stressors.

[1] Programmatic Biological Opinion/Conference Opinion for Transportation Projects in the Range of the Indiana Bat, Northern Long-Eared Bat, and Tricolored Bat. Revised December 2024. U.S. Fish and Wildlife Service, Bloomington, Minnesota.

Tables 14 and 16 (pgs. 156 and 158) summarize determination conclusions for various activities. Determinations of NLAA and outside scope for Indiana bats, northern long-eared bats, or tricolored bats also apply to gray bats, again with the exclusion of activities specifically related to the removal of potential or known roost trees or tree roosting habitat, which does not apply to this year-round, cave-obligate species. Activities with a "likely to adversely affect" conclusion for Indiana bats, northern long-eared bats, or tricolored bats should be consulted on separately for the gray bat.

We provide this NLAA concurrence for the gray bat for federally funded or approved transportation projects:

1) where the description of the action and the requirements of the BO for the Indiana, northern long-eared, and tricolored bats are met;

2) where INDOT utilizes the BO to review potential stressors and makes a "may affect, but not likely to adversely affect" determination for the Indiana, northern long-eared, or tricolored bat;

3) where INDOT applies to the gray bat the same reasonable and prudent measures and terms and conditions as outlined in the BO that are being applied to the Indiana, northern long-eared, or tricolored bat;

4) that are outside of a 0.5-mile buffer of the Sellersburg gray bat maternity colony.

Implementation of these conditions ensures projects are not likely to adversely affect gray bats. If all the above conditions are met, no further section 7 coordination is needed for the gray bat. This concurrence is valid until any changes are made to the programmatic BO for Indiana bat, northern long-eared bat, and tricolored bat, the status of Indiana bat, northern long-eared bat, tricolored bat, or gray bat changes, or reinitiation of the BO is required (Section 10, page 183).

We appreciate your efforts to protect and conserve fish and wildlife resources. Should you have questions, or if we can be of further assistance, please contact Robin McWilliams Munson at 812-902-1752.

Sincerely,

SUSAN COOPER

Digitally signed by SUSAN COOPER
Date: 2025.06.27 13:03:26 -04'00'

Susan Cooper
Field Supervisor

Categorical Exclusion

Appendix D

Section 106 of the National Historic Preservation Act (NHPA)

SR 39 and Keller Hill Road Intersection Improvement Project

Hendricks and Morgan Counties, Indiana

INDOT Des. No.: 2200084

Indiana DHPA No.: 32664



5/7/2025

Section 106, 800.11(d) Documentation

Prepared for:

The Federal Highway Administration

and INDOT Crawfordsville District

Prepared by:

Hannah Kopf
8770 North Street, Suite 110
Fishers, IN 46038
Phone: (317) 588-1762
www.rqaw.com

RQAW | DCCM

FEDERAL HIGHWAY ADMINISTRATION
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
SR 39 and Keller Hill Road Intersection Improvement Project
Liberty and Monroe Townships, Hendricks and Morgan Counties
DES. NO.: 2200084
DHPA NO.: 32664

AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))

The APE for this project is in the shape of a plus sign. The APE extends approximately 0.28 mile to 0.30 mile from the center of the State Road (SR) 39 and Keller Hill Rd intersection in all directions. Please see Appendix A for maps of the APE. The Archaeological APE is defined by approximately 9.6 acres of existing and proposed right-of-way that was investigated for the presence of archaeological resources.

ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))

As a result of the identification and the evaluation efforts for this project, no properties were identified as listed or eligible for the National Register of Historic Places (NRHP) within the APE for this undertaking.

EFFECT FINDING

The Indiana Department of Transportation (INDOT), acting on the Federal Highway Administration (FHWA)'s behalf, has determined that a "No Historic Properties Affected" finding is appropriate for this undertaking.

INDOT respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)

This undertaking will not convert property from any Section 4(f) historic property to a transportation use; the INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Historic Properties Affected;" therefore no Section 4(f) evaluation is required.



Matthew S. Coon, for FHWA
Manager
INDOT Cultural Resources

July 24, 2025
Approved Date

FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDINGS OF
NO HISTORIC PROPERTIES AFFECTED
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR Section 800.4(d)(1)
SR 39 and Keller Hill Road Intersection Improvement Project
Liberty and Monroe Townships, Hendricks and Morgan Counties
DES. NO.: 2200084
DHPA NO.: 32664

1. DESCRIPTION OF THE UNDERTAKING

The Indiana Department of Transportation (INDOT) Crawfordsville District, with funding from the Federal Highway Administration (FHWA) proposes to proceed with the SR 39 and Keller Hill Rd Intersection Improvement Project, Des. No. 2200084 in Hendricks and Morgan Counties, Indiana. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties.

The proposed undertaking is located at the SR 39 and Keller Hill Rd intersection, approximately 0.89 mile south of I-70 and 1.5 miles north of SR 42. It is within Liberty (Hendricks) and Monroe (Morgan) Townships, Mooresville West U.S. Geological Survey (USGS) Quadrangle, in Section 36, Township 14 North, Range 1 West, and Section 1, Township 13 North, Range 1 West. Adjacent land use is residential, commercial, and agricultural. Please see project graphics in Appendices A, B, and F.

The need for this project is due to the above normal crash rate and high crash severity of the current SR 39 and Keller Hill Rd intersection when compared to other unsignalized rural state intersections. According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018-2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47. An ICF over 1.0 is an "above average" crash rate. This means that the intersection's crash frequency is one standard deviation above a "normal" intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16. In this case, the ICC indicates the severity of the crashes occurring at this location, which according to these numbers may be considered "high."

The purpose of the project is to reduce the number of crashes and improve safety at the intersection. The proposed preferred alternative involves constructing a single/two lane "hybrid" roundabout that would include raised splitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curb with constantly changing radii to reduce the speed of vehicles entering the roundabout). A single/two lane "hybrid" roundabout consists of two (2) through-lanes in one direction (northbound/southbound in this case), and one (1) through-lane in the other direction (eastbound/westbound in this case). A detention berm will be added on either side of SR 39 south of the intersection before McCracken Creek. Guardrail will be replaced throughout the project as needed and curb turnouts will be installed as needed. Access to residences and businesses along SR 39 and Keller Hill Rd will be continuously maintained during construction.

The currently proposed permanent right-of-way acquisition is 1.5 acres and proposed temporary right-of-way acquisition is approximately 0.01 acre. Please see the maps in Appendix A for the exact locations. The project's currently anticipated letting date is FY 2027.

Per 36 CFR 800.16(d), the Area of Potential Effects (APE) is "the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The area of potential effects is influenced by the scale and nature of an undertaking. . ." The APE encompasses the entire project site, including all locations where the project may result in disturbance of the ground; all locations from which the project may be visible or audible; all locations where the project may result in changes in traffic patterns, land use, or public access; and all areas where there may be direct or indirect effects due to the project.

The APE for this project is a polygon in the shape of a plus sign. The APE boundaries were established using guidance in the *INDOT Cultural Resources Manual*. The APE boundaries encompass properties that are adjacent and within the viewshed of the project area and it follows the approximate shape of the project area to account for the mixed land use of developed residential and commercial areas as well as wooded land and open fields. The APE extends approximately 0.28 mile to 0.30 mile from the center of the SR 39 and Keller Hill Rd intersection in all directions. The APE encompasses approximately 120 acres. Please see Appendix A for maps of the APE.

The Archaeological APE is represented by the 9.6-acre survey area that includes the project footprint.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

Per 36 CFR Section 800.4(b), The National Register of Historic Places (NRHP) and the Indiana Register of Historic Sites and Structures (State Register) were checked using the State Historic Architectural and Archaeological Research Database (SHAARD) and the Indiana Historic Buildings, Bridges, and Cemeteries (IHBBC) Map. There are no resources listed in the NRHP or State Register within the APE of this project. The *Hendricks County Interim Report* (1989; Liberty Township) and *Morgan County Interim Report* (1993; Monroe Township) of the Indiana Historic Sites and Structures Inventory (IHSSI) were also consulted. The data was examined, and no previously surveyed properties were identified within the APE. The INDOT-Sponsored *Indiana Historic Bridge Inventory* (IHBI) (February 2009) by M & H Architecture, Inc. was also reviewed. No bridges eligible for listing in the NRHP were identified within the APE. The cemetery registry was also consulted using SHAARD and IHBBC maps. No cemeteries were identified within the APE.

Early coordination for this project was initiated on July 31, 2024, with a letter dated July 29, 2024. The agencies/individuals/Tribes listed below were sent an email with early coordination materials inviting them to become Section 106 consulting parties. All consulting parties were invited to view the early coordination letter on IN SCOPE (INDOT's online portal for public viewing Section 106 documents at https://erms12c.indot.in.gov/Section106Documents/). In addition, a hard copy of the early coordination letter was mailed to the Indiana State Historic Preservation Office (SHPO). The organizations identified in bold responded and agreed to be consulting parties. Please see Appendix C for a table of consulting parties and Appendix D for correspondence.

1. **Beth McCord, for Indiana State Historic Preservation Office (SHPO)**
2. Alex Brooks, Indiana Landmarks, Central Regional Office
3. Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)

4. Bob Gentry, Hendricks County Commissioner- District 1
5. Dennis Dawes, Hendricks County Commissioner- District 2
6. Phyllis A. Palmer, Hendricks County Commissioner- District 3
7. Curt Higginbotham, Hendricks County Highway Superintendent
8. John Ayers, Hendricks County Engineer
9. Timothy Dombrosky, Hendricks County Planning Director
10. John O. Parsons, Hendricks County Historian
11. Pat Baldwin, Hendricks County Historical Museum President
12. Bryan Collier, Morgan County Commissioner- District 1
13. Kenny Hale, Morgan County Commissioner- District 2
14. Don Adams, Morgan County Commissioner- District 3
15. Justin Schneck, Morgan County Engineer
16. William Fisher, Morgan County Highway Superintendent
17. Laura Parker, Morgan County Planning & Zoning
18. Don Adams, Morgan County Historian
19. Darrell French, Morgan County History Center and Museum President
20. Ashley Mills and Ellen Wilson-Pruit, Morgan County History & Genealogy Association President
21. **Eastern Shawnee Tribe of Oklahoma**
22. **Miami Tribe of Oklahoma**
23. Peoria Tribe of Indians of Oklahoma
24. Pokagon Band of Potawatomi Indians
25. **Shawnee Tribe**
26. **Turtle Mountain Band of Chippewa Indians**
27. **Forest County Potawatomi Community**

In an email dated August 2, 2024, the Turtle Mountain Band of Chippewa Indians Tribal Historic Preservation Officer (THPO) responded to the ECL stating they "concur no affect to historic properties during project Des. 2200084."

In an email dated August 19, 2024, the Forest County Potawatomi Community (FCPC) offered the "finding of No Historic Properties Affected."

In an email dated August 28, 2024, the Miami Tribe of Oklahoma responded to the ECL stating they "offer no objection" to the project but wish to remain a consulting party.

The Indiana State Historic Preservation Officer (SHPO) responded to the ECL on September 3, 2024, stating that they were not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already invited.

In an email dated October 3, 2024, the Shawnee Tribe's Tribal Historic Preservation Department accepted consulting party status and stated they "concur that no known historic properties will be negatively impacted by this project."

A Historic Property Short Report (HPSR) (Kopf, 2/7/2025) was completed for this project. Please see Appendix E for an excerpt from the HPSR and the full HPSR can be downloaded from IN SCOPE. On July 11, 2024, RQAW | DCCM's QP historian, Hannah Kopf, conducted fieldwork in the APE. The QP historian documented and photographed all resources within the APE that will be 50 years of age or older at the anticipated letting date (2026). As a result of this field survey and associated documentary research, RQAW | DCCM's QP historian did not recommend any properties eligible for listing in the NRHP.

A Phase Ia Archaeological Reconnaissance was completed by Cultural Resource Analysts, Inc. (CRA) on August 12, 2024. As a result of these efforts, no archaeological sites were identified within the APE and no further work was recommended. INDOT-CRO approved the Phase Ia Archaeological Short Report on April 1, 2025.

On April 2, 2025 and April 3, 2025, copies of the HPSR, Phase Ia Archaeological Short Report (tribes only), and Report Distribution Letter (RDL) dated April 2, 2025, were emailed to the Indiana SHPO while other consulting parties were informed that documents could be viewed electronically by accessing IN SCOPE. Please see Appendix E for excerpts from the HPSR and Phase Ia Report.

In a letter dated May 1, 2025, Indiana SHPO responded to the HPSR and Phase Ia archeology report. The letter states "we agree with the conclusions in the HPSR of the 'Contributing" rated status of the four historic-aged resources documented during the survey and that there are no resources listed or eligible for the NRHP within the APE." With regard to archaeological resources, the letter states "we concur with the opinion of the archaeologist, as expressed in the Indiana Archaeological Short Report (Rusche, 03/27/2025), that no further archaeological investigations appear necessary at the original portions of the proposed project area."

In an email dated May 22, 2025, the Forest County Potawatomi Tribe offered a "No Historic Properties Affected" finding, but wish to remain a consulting party.

In a letter dated June 4, 2025, the Eastern Shawnee Tribe of Oklahoma offered a "No Adverse Effect" determination.

No additional comments were received from consulting parties with regard to the identification of historic properties. Please see Appendix D for all correspondence.

A public notice of the FHWA finding of "No Historic Properties Affected" will be published in *The Mooresville-Decatur Times*. The findings and supporting documentation will be posted on IN SCOPE. A 30-day comment period will be given, and this document will be updated to reflect any comments received.

3. BASIS FOR FINDING

Based on the identification and evaluation efforts, a finding of "No Historic Properties Affected" is appropriate because there are no historic properties present within the area of potential effects.

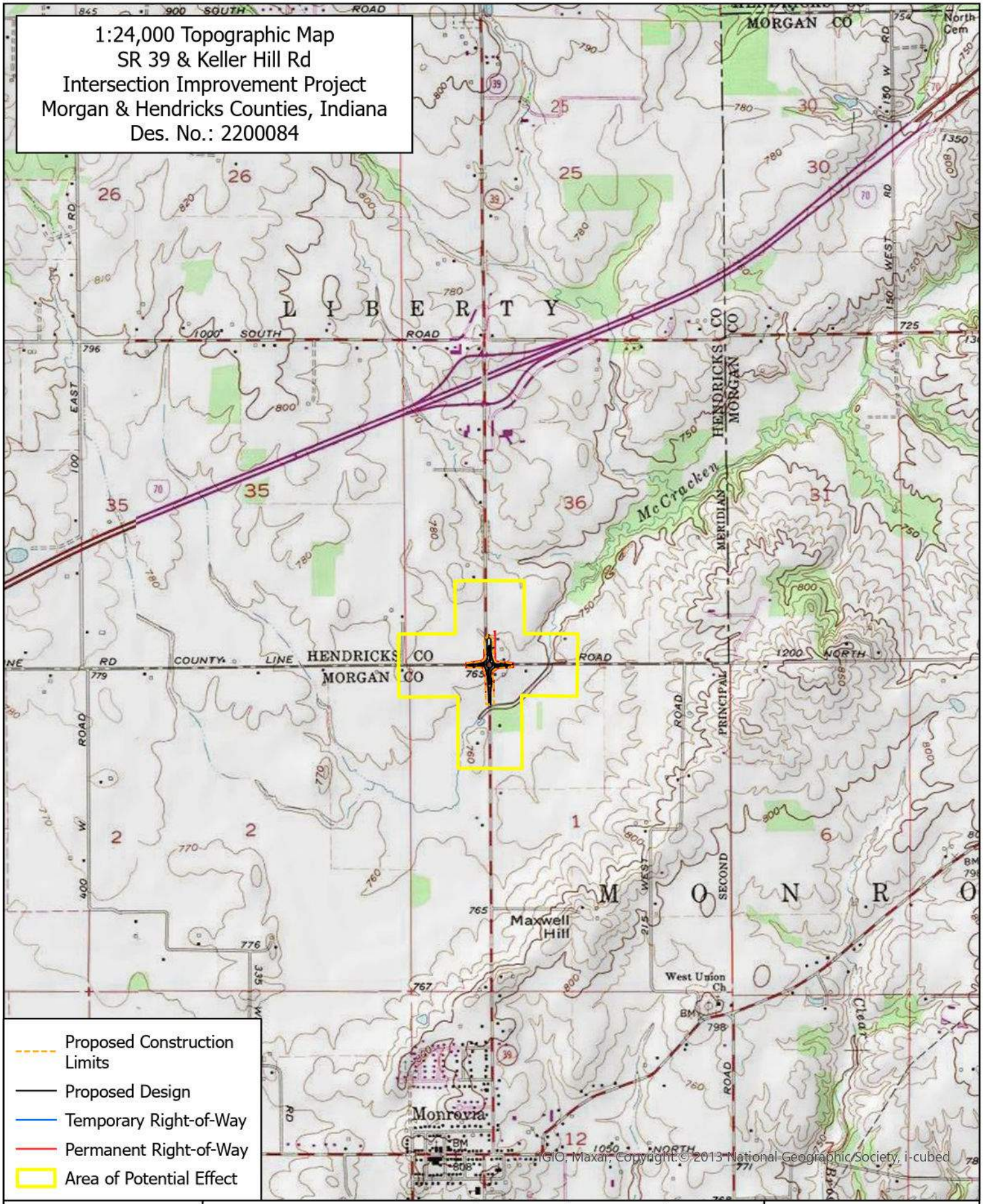
APPENDICES

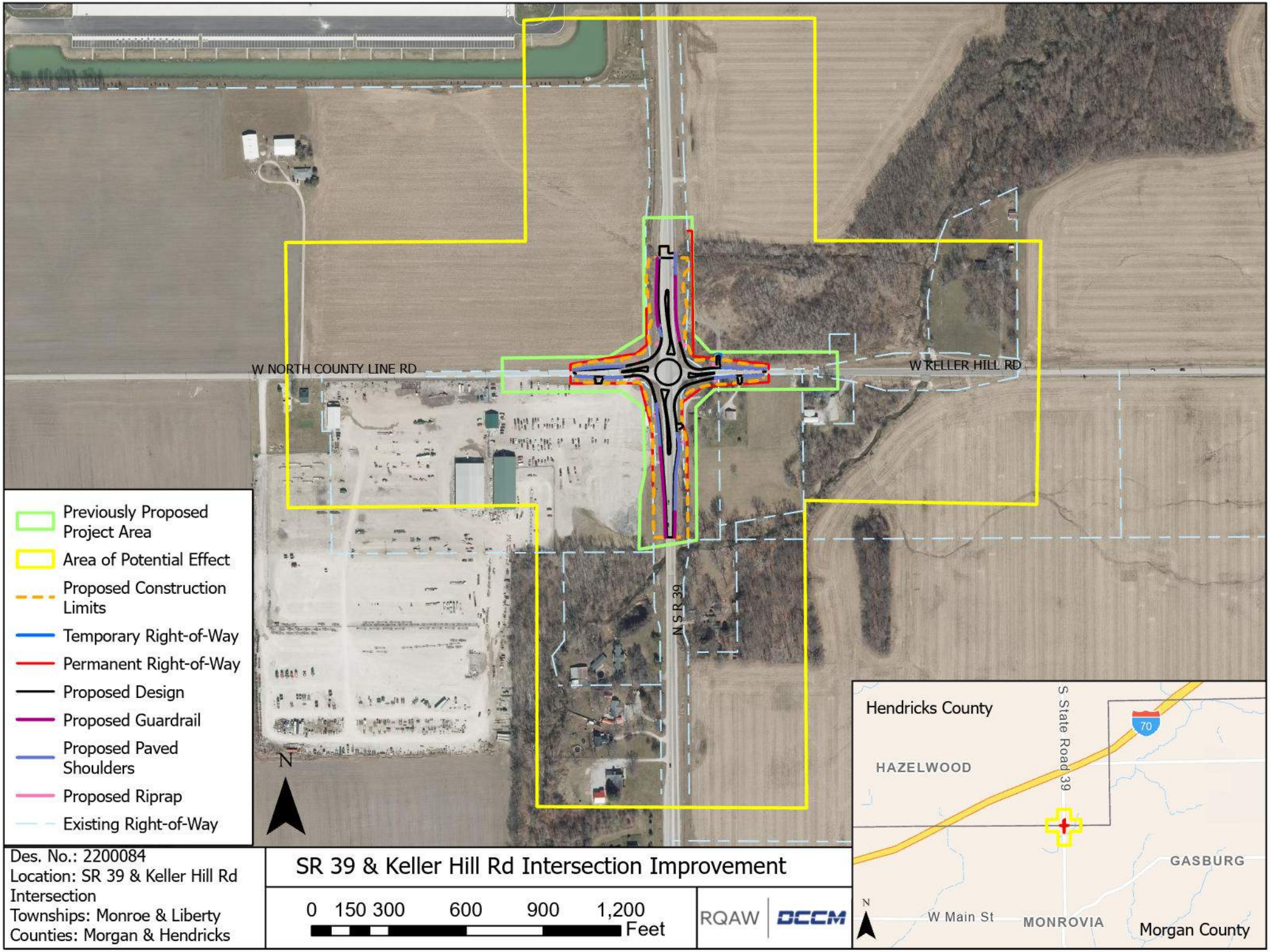
~~APPENDIX A: Project Area Maps~~
~~APPENDIX B: General Photographs~~
APPENDIX C: Consulting Parties List
APPENDIX D: Consulting Parties Correspondence
APPENDIX E: Historic Property Short Report and Archaeology Summaries
~~APPENDIX F: Preliminary Plans~~

Photographs, preliminary plans, and some maps omitted to avoid duplication.

Appendix A:

Project Area Maps


1:24,000 Topographic Map
SR 39 & Keller Hill Rd
Intersection Improvement Project
Morgan & Hendricks Counties, Indiana
Des. No.: 2200084
LIBERTY
MORGAN CO
HENDRICKS CO
MORGAN CO
COUNTY LINE
1000 SOUTH ROAD
1200 NORTH ROAD
McCracken MERIDIAN
HENDRICKS CO
MORGAN CO
Maxwell Hill
West Union Ch
Monrovia
MONROE
Proposed Construction Limits
Proposed Design
Temporary Right-of-Way
Permanent Right-of-Way
Area of Potential Effect
N
0 0.2 0.4 0.8 1.2 Miles
USGS Topographic Map (1:24,000)
Townships:
Monroe & Liberty
Counties:
Morgan & Hendricks
RQAW
DCCM
IGIO, Maxar, Copyright © 2013 National Geographic Society, i-cubed


W NORTH COUNTY LINE RD
W KELLER HILL RD
N S R 39
N
Previously Proposed Project Area
Area of Potential Effect
Proposed Construction Limits
Temporary Right-of-Way
Permanent Right-of-Way
Proposed Design
Proposed Guardrail
Proposed Paved Shoulders
Proposed Riprap
Existing Right-of-Way
Hendricks County
S State Road 39
70
HAZELWOOD
GASBURG
W Main St
MONROVIA
Morgan County
N
Des. No.: 2200084
Location: SR 39 & Keller Hill Rd Intersection
Townships: Monroe & Liberty
Counties: Morgan & Hendricks
SR 39 & Keller Hill Rd Intersection Improvement
0 150 300 600 900 1,200
Feet
RQAW
DCCM

Appendix B:

General Photographs

Omitted to avoid duplication.

Appendix C:

Consulting Parties List

Note: Federal Highway Administration (FHWA), INDOT Cultural Resources Office (INDOT-CRO), and the State Historic Preservation Officer (SHPO) are automatically consulting parties.
Consulting parties that responded are in **bold** and highlighted.

Position	Agency 1	Agency 2	Address 1	Address 2	City	State	Zip	Email	Number
State Historic Preservation Officer	**Division of Historic Preservation & Archaeology**	**Indiana Department of Natural Resources**	**402 W. Washington St.**	**Room W274**	**Indianapolis**	**IN**	**46204**	**BMCcord@dnr.IN.gov**	**317-232-3492**
Alex Brooks	Indiana Landmarks	Community Preservation Specialist at Central Regional Office	1201 Central Ave		Indianapolis	IN	46202	central@indianalandmarks.org abrooks@indianalandmarks.org	317-639-4534
Anna Gremling	Indianapolis Metropolitan Planning Organization		200 E. Washington St.	Ste. 2322	Indianapolis	IN	46024	anna.gremling@indympo.org	317-327-5487
Bob Gentry	Hendricks County Commissioner-District 1	County Commissioners	355 S Washington St	Room 100	Danville	IN	46122	bgentry@co.hendricks.in.us	317-682-7729
Dennis Dawes	Hendricks County Commissioner-District 2	County Commissioners	355 S Washington St	Room 100	Danville	IN	46122	ddawes@co.hendricks.in.us	317-691-5211
Phyllis A. Palmer	Hendricks County Commissioner-District 3	County Commissioners	355 S Washington St	Room 100	Danville	IN	46122	ppalmer@co.hendricks.in.us	317- 697-8722
Curt Higginbotham	Hendricks County Highway Superintendent	Highway Department	930 E Main St		Danville	IN	46122	chigginbotham@co.hendricks.in.us	317-745-9227
John Ayers	Hendricks County Engineer	Engineering Department	355 S Washington St	Room G20	Danville	IN	46122	jayers@co.hendricks.in.us	317-745-9235
Timothy Dombrisky	Hendricks County Planning Director	Planning & Building Department	355 S Washington St	Room G80	Danville	IN	46122	tdombrosky@co.hendricks.in.us	317-745-9346
John O. Parsons	Hendricks County Historian		355 S Washington St	Room 150	Danville	IN	46122	jparsons@co.hendricks.in.us	317-745-9374
Pat Baldwin	Hendricks County Historical Museum, President		170 S. Washington St	PO Box 226	Danville	IN	46122	hcmuseum@co.hendricks.in.us	317-718-6158
Bryan Collier	Morgan County Commissioner- District 1	Commissioner's Office	180 S Main St	Room 112	Martinsville	IN	46151	bcollier@morgancounty.in.gov	765-342-8120
Kenny Hale	Morgan County Commissioner- District 2	Commissioner's Office	180 S Main St	Room 112	Martinsville	IN	46151	khale@morgancounty.in.gov	765-318-3390

Note: Federal Highway Administration (FHWA), INDOT Cultural Resources Office (INDOT-CRO), and the State Historic Preservation Officer (SHPO) are automatically consulting parties.
Consulting parties that responded are in **bold** and highlighted.

Position	Agency 1	Agency 2	Address 1	Address 2	City	State	Zip	Email	Number
Don Adams	Morgan County Commissioner- District 3	Commissioner's Office	180 S Main St	Room 112	Martinsville	IN	46151	dadams@morgancounty.in.gov	317-670-0929
Justin Schneck	Morgan County Engineer	Highway Department	5400 Blue Bluff Rd		Martinsville	IN	46151	jschneck@morgancounty.in.gov	317-831-7989
William Fisher	Morgan County Highway Superintendant	Highway Department	5400 Blue Bluff Rd		Martinsville	IN	46151	wfisher@morgancounty.in.gov	317-831-7989
Laura Parker	Morgan County Planning & Zoning		180 S Main St	Room 204	Martinsville	IN	46151	lparker@morgancounty.in.gov	765-342-1060
Don Adams	Morgan County Historian		180 S Main St		Martinsville	IN	46151	dadams@morgancounty.in.gov	317-670-0929
Darrell French	Morgan County History Center and Museum		127 South Main Street		Martinsville	IN	46151	morgancountyhistorymuseum@gmail.com french4401@gmail.com morgancountyhistorypartnership@gmail.com	765-315-6982
Ashley Mills & Ellen Wilson-Pruit	Morgan County History and Geneology Association	President and Vice President				IN		monkey8711@yahoo.com ellenwilsonpruitt@gmail.com	765-342-7678
	Eastern Shawnee Tribe of Oklahoma								
	Miami Tribe of Oklahoma								
	Peoria Tribe of Indians of Oklahoma								
	Pokagon Band of Potawatomi Indians								
	Shawnee Tribe								
	Turtle Mountain Band of Chippewa Indians								

Note: Federal Highway Administration (FHWA), INDOT Cultural Resources Office (INDOT-CRO), and the State Historic Preservation Officer (SHPO) are automatically consulting parties.
Consulting parties that responded are in **bold** and highlighted.

Position	Agency 1	Agency 2	Address 1	Address 2	City	State	Zip	Email	Number
	Forest County Potawatomi Community								

Appendix D:

Consulting Parties Correspondence

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Eric Holcomb, Governor
Michael Smith, Commissioner

July 29, 2024

This letter was sent to the listed parties.

RE: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project
Des. No. 2200084
Hendricks and Morgan Counties, Indiana

Dear Consulting Party (see attached list),

The Indiana Department of Transportation (INDOT) Crawfordsville District, with funding from the Federal Highway Administration (FHWA) proposes to proceed with the SR 39 and Keller Hill Rd intersection improvement roundabout project, Des. No. 2200084. RQAW is under contract with INDOT to advance the environmental documentation for the referenced project.

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

The proposed undertaking is located at the SR 39 and Keller Hill Rd intersection, approximately 0.89 mile south of I-70 and 1.5 miles north of SR 42, in Hendricks and Morgan Counties, Indiana. It is within Liberty (Hendricks County) and Monroe (Morgan County) Townships, Mooresville West U.S. Geological Survey (USGS) Quadrangle, in Section 36, Township 14 North, Range 1 West, and Section 1, Township 13 North, Range 1 West. The project area can be viewed online at https://arcg.is/jqueP (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

The need for this project is due to the above normal crash rate and high crash severity of the current SR 39 and Keller Hill Rd intersection when compared to other unsignalized rural state intersections. According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018-2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47. An ICF over 1.0 is an “above average” crash rate. This means that the intersection’s crash frequency is one standard deviation above a “normal” intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16. In this case, the ICC indicates the severity of the crashes occurring at this location, which, according to these numbers, may be considered “high.”

The purpose of the project is to reduce the number of crashes and improve safety at the intersection. The proposed alternative anticipates constructing a single or dual lane roundabout that would potentially include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a

curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). These design elements may be subject to change as the project design progresses. Permanent and/or temporary right-of-way acquisition will be required as part of this project. The amounts and limits will be determined during the preliminary design. The project will be let in the fall of 2026.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2 (c), you are hereby requested to be a consulting party to participate in the Section 106 process. Entities that have been invited to participate in the Section 106 consultation process for this project are identified in the attached list. Per 36 CFR 800.3(f), we hereby request that the Indiana State Historic Preservation Officer (SHPO) notify this office if the SHPO staff is aware of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the project.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. At this time, no cultural resource investigations have occurred; however, the results of cultural resource identification and evaluation efforts, both above-ground and archaeological, will be forthcoming. Consulting parties will receive notification when these reports are completed.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party, or if you do not respond, you will not be included on the list of consulting parties for this project. If we do not receive your response in the time allotted, the project will proceed consistent with the proposed design and you will not receive further information about the project unless the design changes.

For questions concerning specific project details, you may contact Hannah Kopf of RQAW at 317.588.1780 or hkopf@rqaw.com. All future responses regarding the proposed project should be forwarded to RQAW at the following address:

Hannah Kopf
Architectural Historian
RQAW
8770 North Street, Suite 110
Fishers, IN, 46038
hkopf@rqaw.com

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosures:

General Location Map
USGS Topographic Map (1:24,000)
Aerial Photograph Map

Omitted to avoid duplication

Distribution List:

Beth McCord, for Indiana State Historic Preservation Officer (SHPO)
Alex Brooks, Indiana Landmarks, Central Regional Office
Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)
Bob Gentry, Hendricks County Commissioner- District 1
Dennis Dawes, Hendricks County Commissioner- District 2
Phyllis A. Palmer, Hendricks County Commissioner- District 3
Curt Higginbotham, Hendricks County Highway Superintendent
John Ayers, Hendricks County Engineer
Timothy Dombrosky, Hendricks County Planning Director
John O. Parsons, Hendricks County Historian
Pat Baldwin, Hendricks County Historical Museum President
Bryan Collier, Morgan County Commissioner- District 1
Kenny Hale, Morgan County Commissioner- District 2
Don Adams, Morgan County Commissioner- District 3
Justin Schneck, Morgan County Engineer
William Fisher, Morgan County Highway Superintendent
Laura Parker, Morgan County Planning & Zoning
Don Adams, Morgan County Historian
Darrell French, Morgan County History Center and Museum President
Anita Zike, Morgan County History & Genealogy Association President
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Turtle Mountain Band of Chippewa Indians
Forest County Potawatomi Community

Hannah Kopf

From: Hannah Kopf
Sent: Wednesday, July 31, 2024 3:05 PM
To: monkey8711@yahoo.com; ellenwilsonpruitt@gmail.com
Subject: FW: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_Early Coordination_2024-07-29.pdf

Ms. Mills and Ms. Wilson-Pruitt,

Please see the correspondence below regarding FHWA project no. 2200084. Our apologies, the original message was sent to Anita Zike, the former president.

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM
317-588-1780 p

From: Hannah Kopf
Sent: Wednesday, July 31, 2024 2:19 PM
To: McCord, Beth K <BMCcord@dnr.IN.gov>; 'central@indianalandmarks.org' <central@indianalandmarks.org>; 'abrooks@indianalandmarks.org' <abrooks@indianalandmarks.org>; 'anna.gremling@indympo.org' <anna.gremling@indympo.org>; 'bgentry@co.hendricks.in.us' <bgentry@co.hendricks.in.us>; 'ddawes@co.hendricks.in.us' <ddawes@co.hendricks.in.us>; 'ppalmer@co.hendricks.in.us' <ppalmer@co.hendricks.in.us>; 'chigginbotham@co.hendricks.in.us' <chigginbotham@co.hendricks.in.us>; 'jayers@co.hendricks.in.us' <jayers@co.hendricks.in.us>; 'tdombrosky@co.hendricks.in.us' <tdombrosky@co.hendricks.in.us>; 'jparsons@co.hendricks.in.us' <jparsons@co.hendricks.in.us>; 'hcmuseum@co.hendricks.in.us' <hcmuseum@co.hendricks.in.us>; 'bcollier@morgancounty.in.gov' <bcollier@morgancounty.in.gov>; 'khale@morgancounty.in.gov' <khale@morgancounty.in.gov>; 'dadams@morgancounty.in.gov' <dadams@morgancounty.in.gov>; 'jschneck@morgancounty.in.gov' <jschneck@morgancounty.in.gov>; 'wfisher@morgancounty.in.gov' <wfisher@morgancounty.in.gov>; 'lparker@morgancounty.in.gov' <lparker@morgancounty.in.gov>; 'dadams@morgancounty.in.gov' <dadams@morgancounty.in.gov>; 'morgancountyhistorymuseum@gmail.com' <morgancountyhistorymuseum@gmail.com>; 'french4401@gmail.com' <french4401@gmail.com>; 'morgancountyhistorypartnership@gmail.com' <morgancountyhistorypartnership@gmail.com>; 'az7678@yahoo.com' <az7678@yahoo.com>
Cc: Kyle J. Boot <KBoot@rqaw.com>; Mikayla Klemp <mklemp@rqaw.com>; Harlan Ford <hford@rqaw.com>; Kelly, Clint <CKelly1@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Coon, Matthew <mcoon@indot.IN.gov>; Walton, David <DWalton@indot.IN.gov>; Payne, Taylor <TaPayne@indot.IN.gov>; Emma Bellefuil <ebellefuil@rqaw.com>; 'tom.heustis@kimley-horn.com' <tom.heustis@kimley-horn.com>
Subject: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

Des. No.: 2200084
Project Description: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project

Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the SR 39 and Keller Hill Rd intersection improvement roundabout project, Des. No. 2200084.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer (SHPO)
Indiana Landmarks, Central Regional Office
Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)
Bob Gentry, Hendricks County Commissioner- District 1
Dennis Dawes, Hendricks County Commissioner- District 2
Phyllis A. Palmer, Hendricks County Commissioner- District 3
Curt Higginbotham, Hendricks County Highway Superintendent
John Ayers, Hendricks County Engineer
Timothy Dombrosky, Hendricks County Planning Director
John O. Parsons, Hendricks County Historian
Pat Baldwin, Hendricks County Historical Museum President
Bryan Collier, Morgan County Commissioner- District 1
Kenny Hale, Morgan County Commissioner- District 2
Don Adams, Morgan County Commissioner- District 3
Justin Schneck, Morgan County Engineer
William Fisher, Morgan County Highway Superintendent
Laura Parker, Morgan County Planning & Zoning
Don Adams, Morgan County Historian
Darrell French, Morgan County History Center and Museum President
~~Anita Zike~~, Morgan County History & Genealogy Association – revised to Ashley Mills and Ellen Wilson-Pruitt
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Turtle Mountain Band of Chippewa Indians
Forest County Potawatomi Community

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.
Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed

consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes**.**

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Wednesday, July 31, 2024 3:49 PM
To: thpo@estoo.net; THPO@MiamiNation.com; bfletcher@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; Section106@shawnee-tribe.com; Larus Longie; Luke.Heider@fcp-nsn.gov
Cc: Coon, Matthew; Branigin, Susan; Walton, David; Kelly, Clint; Hannah Kopf; Carmany-George, Karstin (FHWA)
Subject: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_Early Coordination_2024-07-29.pdf

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084
Project Description: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the SR 39 and Keller Hill Rd intersection improvement roundabout project, Des. No. 2200084.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer (SHPO)
Indiana Landmarks, Central Regional Office
Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)
Bob Gentry, Hendricks County Commissioner- District 1
Dennis Dawes, Hendricks County Commissioner- District 2
Phyllis A. Palmer, Hendricks County Commissioner- District 3
Curt Higginbotham, Hendricks County Highway Superintendent
John Ayers, Hendricks County Engineer
Timothy Dombrosky, Hendricks County Planning Director
John O. Parsons, Hendricks County Historian
Pat Baldwin, Hendricks County Historical Museum President
Bryan Collier, Morgan County Commissioner- District 1
Kenny Hale, Morgan County Commissioner- District 2
Don Adams, Morgan County Commissioner- District 3
Justin Schneck, Morgan County Engineer
William Fisher, Morgan County Highway Superintendent

Laura Parker, Morgan County Planning & Zoning
Don Adams, Morgan County Historian
Darrell French, Morgan County History Center and Museum President
Anita Zike, Morgan County History & Genealogy Association
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Turtle Mountain Band of Chippewa Indians
Forest County Potawatomi Community

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.
Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes**.**

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

Hannah Kopf

From: Hannah Kopf
Sent: Thursday, August 1, 2024 9:28 AM
To: dhpareview@dnr.IN.gov; Burkett, Miriam
Cc: Payne, Taylor
Subject: FW: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_Early Coordination_2024-07-29.pdf; SR39RAB_Des2200084 _DHPAreviewrequest_signed.pdf

Dear Miriam,

In addition to the email below, please accept this electronic submission (with the attached early coordination letter and review request form) for the DHPA's review on the above-referenced FHWA project. Hard copies are also being mailed to your office.

Thank you!
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM
317-588-1780 p

From: Hannah Kopf
Sent: Wednesday, July 31, 2024 2:19 PM
To: McCord, Beth K <BMCcord@dnr.IN.gov>; 'central@indianalandmarks.org' <central@indianalandmarks.org>; 'abrooks@indianalandmarks.org' <abrooks@indianalandmarks.org>; 'anna.gremling@indympo.org' <anna.gremling@indympo.org>; 'bgentry@co.hendricks.in.us' <bgentry@co.hendricks.in.us>; 'ddawes@co.hendricks.in.us' <ddawes@co.hendricks.in.us>; 'ppalmer@co.hendricks.in.us' <ppalmer@co.hendricks.in.us>; 'chigginbotham@co.hendricks.in.us' <chigginbotham@co.hendricks.in.us>; 'jayers@co.hendricks.in.us' <jayers@co.hendricks.in.us>; 'tdombrosky@co.hendricks.in.us' <tdombrosky@co.hendricks.in.us>; 'jparsons@co.hendricks.in.us' <jparsons@co.hendricks.in.us>; 'hcmuseum@co.hendricks.in.us' <hcmuseum@co.hendricks.in.us>; 'bcollier@morgancounty.in.gov' <bcollier@morgancounty.in.gov>; 'khale@morgancounty.in.gov' <khale@morgancounty.in.gov>; 'dadams@morgancounty.in.gov' <dadams@morgancounty.in.gov>; 'jschneck@morgancounty.in.gov' <jschneck@morgancounty.in.gov>; 'wfisher@morgancounty.in.gov' <wfisher@morgancounty.in.gov>; 'lparker@morgancounty.in.gov' <lparker@morgancounty.in.gov>; 'dadams@morgancounty.in.gov' <dadams@morgancounty.in.gov>; 'morgancountyhistorymuseum@gmail.com' <morgancountyhistorymuseum@gmail.com>; 'french4401@gmail.com' <french4401@gmail.com>; 'morgancountyhistorypartnership@gmail.com' <morgancountyhistorypartnership@gmail.com>; 'az7678@yahoo.com' <az7678@yahoo.com>
Cc: Kyle J. Boot <KBoot@rqaw.com>; Mikayla Klemp <mklemp@rqaw.com>; Harlan Ford <hford@rqaw.com>; Kelly, Clint <CKelly1@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Coon, Matthew <mcoon@indot.IN.gov>; Walton, David <DWalton@indot.IN.gov>; Payne, Taylor <TaPayne@indot.IN.gov>; Emma Bellefuil <ebellefuil@rqaw.com>; 'tom.heustis@kimley-horn.com' <tom.heustis@kimley-horn.com>

Subject: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

Des. No.: 2200084
Project Description: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the SR 39 and Keller Hill Rd intersection improvement roundabout project, Des. No. 2200084.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer (SHPO)
Indiana Landmarks, Central Regional Office
Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)
Bob Gentry, Hendricks County Commissioner- District 1
Dennis Dawes, Hendricks County Commissioner- District 2
Phyllis A. Palmer, Hendricks County Commissioner- District 3
Curt Higginbotham, Hendricks County Highway Superintendent
John Ayers, Hendricks County Engineer
Timothy Dombrosky, Hendricks County Planning Director
John O. Parsons, Hendricks County Historian
Pat Baldwin, Hendricks County Historical Museum President
Bryan Collier, Morgan County Commissioner- District 1
Kenny Hale, Morgan County Commissioner- District 2
Don Adams, Morgan County Commissioner- District 3
Justin Schneck, Morgan County Engineer
William Fisher, Morgan County Highway Superintendent
Laura Parker, Morgan County Planning & Zoning
Don Adams, Morgan County Historian
Darrell French, Morgan County History Center and Museum President
Anita Zike, Morgan County History & Genealogy Association
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Turtle Mountain Band of Chippewa Indians
Forest County Potawatomi Community

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be

considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.
Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes**.**

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Tuesday, August 6, 2024 8:21 AM
To: Hannah Kopf
Cc: Coon, Matthew; Branigin, Susan
Subject: FW: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Hannah,

Please see the attached email from the Turtle Mountain Band of Chippewa Indians.

Thank you,

Taylor Payne
Historian
Indiana Department of Transportation
100 North Senate Ave., N758 — ES
Indianapolis, IN 46204
Cell: : (317) 779-5775
Email: tapayne@indot.in.gov
Find us on social media!

****For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv:** https://www.in.gov/indot/3217.htm

****Link to the CRO-Public Web Map App can be found** here.

From: Larus Longie <larus.longie@tmbci.org>
Sent: Friday, August 2, 2024 9:17 AM
To: Payne, Taylor <TaPayne@indot.IN.gov>
Subject: RE: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

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

TMBCI THPO office concur no affect to historic properties during project DES. 2200084.larus Longie THPO

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Wednesday, July 31, 2024 2:49 PM
To: thpo@estoo.net; THPO@MiamiNation.com; bfletcher@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; Section106@shawnee-tribe.com; Larus Longie <larus.longie@tmbci.org>; Luke.Heider@fcp-nsn.gov
Cc: Coon, Matthew <mcoon@indot.IN.gov>; Branigin, Susan <SBranigin@indot.IN.gov>; Walton, David <DWalton@indot.IN.gov>; Kelly, Clint <CKelly1@indot.IN.gov>; Hannah Kopf <hkopf@rqaw.com>; Carmany-George, Karstin (FHWA) <k.carmanygeorge@dot.gov>
Subject: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

---

Des. No.: 2200084
Project Description: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation, with funding from the Federal Highway Administration, proposes to proceed with the SR 39 and Keller Hill Rd intersection improvement roundabout project, Des. No. 2200084.

Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. The following agencies/individuals are being invited to become consulting parties:

Indiana State Historic Preservation Officer (SHPO)
Indiana Landmarks, Central Regional Office
Anna Gremling, Indianapolis Metropolitan Planning Organization (MPO)
Bob Gentry, Hendricks County Commissioner- District 1
Dennis Dawes, Hendricks County Commissioner- District 2
Phyllis A. Palmer, Hendricks County Commissioner- District 3
Curt Higginbotham, Hendricks County Highway Superintendent
John Ayers, Hendricks County Engineer
Timothy Dombrosky, Hendricks County Planning Director
John O. Parsons, Hendricks County Historian
Pat Baldwin, Hendricks County Historical Museum President
Bryan Collier, Morgan County Commissioner- District 1
Kenny Hale, Morgan County Commissioner- District 2
Don Adams, Morgan County Commissioner- District 3
Justin Schneck, Morgan County Engineer
William Fisher, Morgan County Highway Superintendent
Laura Parker, Morgan County Planning & Zoning
Don Adams, Morgan County Historian
Darrell French, Morgan County History Center and Museum President
Anita Zike, Morgan County History & Genealogy Association
Eastern Shawnee Tribe of Oklahoma
Miami Tribe of Oklahoma
Peoria Tribe of Indians of Oklahoma
Pokagon Band of Potawatomi Indians
Shawnee Tribe
Turtle Mountain Band of Chippewa Indians
Forest County Potawatomi Community

This letter is part of the early coordination phase of the environmental review process requesting comments associated with this project. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

Please review the attached letter, which is also located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with your comments on any historic resource impacts incurred as a result of this project so that an environmental report can be completed. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.
Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment. If we do not receive a response from an invited consulting party within the time allotted, the project will proceed consistent with the proposed design. Therefore, if we do not receive a response within thirty (30) days, your agency or organization will not receive any further information on the project unless the scope of work changes**.**

Tribal Contacts please respond to INDOT's Acting Tribal Liaison, Matt Coon at mcoon@indot.in.gov (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Wednesday, August 21, 2024 10:42 AM
To: Hannah Kopf
Subject: FW: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Hannah,

Please see the attached email from Forest County Potawatomi.

Thanks!

Taylor Payne
Historian
Indiana Department of Transportation
100 North Senate Ave., N758 — ES
Indianapolis, IN 46204
Cell: : (317) 779-5775
Email: tapayne@indot.in.gov
Find us on social media!

****For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv:** https://www.in.gov/indot/3217.htm

****Link to the CRO-Public Web Map App can be found** here.

From: Luke Heider <Luke.Heider@fcp-nsn.gov>
Sent: Monday, August 19, 2024 9:23 AM
To: Payne, Taylor <TaPayne@indot.IN.gov>
Subject: FHWA Project: Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project; Hendricks and Morgan Counties, Indiana

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

Dear, To whom it may concern

Pursuant to consultation under Section 106 of the National Historic Preservation Act (1966 as amended), the Forest County Potawatomi Community, a Federally Recognized Native American Tribe, reserves the right to comment on Federal undertakings, as defined under the act.

The response is specific to the project referenced above. We have consulted our cultural resources database and archival materials. The Tribal Historic Preservation Office on behalf of Forest County Potawatomi Community would like to offer the finding of NO HISTORIC PROPERTIES AFFECTED. Should the SHPOs comment differ, the Tribe reserves the right to revisit the finding offered. In the case of inadvertent discovery of human remains and/or archaeological materials, the Tribe requests to be notified of discovery and to participate in consultation regarding treatment and recovery protocols, prior to removal, with appropriate state and federal agencies.

Your interest in protecting cultural and historic properties is appreciated. If you have any questions or concerns, please contact me at the email or number listed below.

Respectfully,

Luke Heider | Tribal Historic Preservation Officer | Land & Natural Resources
Forest County Potawatomi | 5320 Wensaut Lane | PO Box 340, Crandon, WI 54520
P: 715-478-7354 | C: 715-889-0585 | Main: 715-478-7222
www.fcpotawatomi.com | luke.heider@fcp-nsn.gov
Please note the office hours are Monday – Thursday: 7:00 am – 5:00 pm. Our office is closed on Fridays

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·

September 3, 2024

Hannah Kopf, MSHP
Architectural Historian
RQAW | DCCM
8770 North Street, Suite 110
Fishers, Indiana 46038

Federal Agency: Indiana Department of Transportation ("INDOT"), on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: Early coordination letter for the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084; DHPA No. 32664)

Dear Ms. Kopf:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed your submission, which we received August 1, 2024, as attachments to your August 1, 2024, e-mail message to our office, and which consisted of your August 1, 2024, Review Request Submittal Form and INDOT's July 29, 2024, Early Coordination letter; for the above-referenced project, which is proposed for areas located in Hendricks County and in Morgan County, Indiana.

We are not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already has invited. However, if right-of-way is likely to be taken from a potentially historic property, it might be advisable to invite the owner of that property as soon as possible. In your next regular correspondence on this project, please advise us as to which of the invited consulting parties has accepted the invitation.

We look forward to reviewing the proposed area of potential effects and the reports on investigations of above-ground cultural resources and archaeological resources that the early coordination letter indicated will be forthcoming.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084), which is proposed for areas located in Hendricks County and in Morgan County, Indiana, please refer to DHPA No. 32664.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:WTT:

emc: Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Hannah Kopf, RQAW | DCCM
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, October 7, 2024 1:59 PM
To: Hannah Kopf
Subject: FW: Section 106 Consultation - Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Hannah,

Please see attached email from Shawnee Tribe.

Thanks,

Taylor Payne
Historian
Indiana Department of Transportation
100 North Senate Ave., N758 — ES
Indianapolis, IN 46204
Cell: : (317) 779-5775
Email: tapayne@indot.in.gov
Find us on social media!

****For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv:** https://www.in.gov/indot/3217.htm

****Link to the CRO-Public Web Map App can be found** here.

From: Laserfiche Notification <donotreply@laserfiche.com>
Sent: Thursday, October 3, 2024 5:29 PM
To: Payne, Taylor <TaPayne@indot.IN.gov>
Subject: Section 106 Consultation - Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project

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

This email is in response to Des. No. 2200084; ECL, State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement Roundabout Project.

The Shawnee Tribe's Tribal Historic Preservation Department concurs that no known historic properties will be negatively impacted by this project. However, there is still potential for the discovery of unknown resources. We would like to accept your invitation for consultation.

We have no issues or concerns at this time, but in the event archaeological materials are encountered during construction, use, or maintenance of this location, please re-notify us at that time as we would like to resume immediate consultation under such a circumstance.

If you have any questions, you may contact me via email at Section106@shawnee-tribe.com

Erin Paden
TRIBAL HISTORIC PRESERVATION SPECIALIST
Office: (918) 542-2441, x140
Email: epaden@shawnee-tribe.com
29 S Hwy 69A
Miami, OK 74354
shawnee-tribe.com

Hannah Kopf

From: Hannah Kopf
Sent: Wednesday, April 2, 2025 2:26 PM
To: McCord, Beth K
Cc: Payne, Taylor; Alexander, Dawn; Kyle Boot; Harlan Ford; Emma Bellefuil
Subject: FHWA Project: Des. No.2200084; HPSR, Archaeology Short Report, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_HPSR_RDL_2025-04-02.pdf

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084. The Section 106 Early Coordination Letter for this project was originally distributed on July 31, 2024.
As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report and Archaeology Short Report (Tribes only) have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

Tribal Nation representatives please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.DCCM.com |

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Thursday, April 3, 2025 8:22 AM
To: thpo@estoo.net; THPO@MiamiNation.com; bfletcher@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; Section106@shawnee-tribe.com; Larus Longie; Luke Heider; Olivia.Nunway@fcp-nsn.gov
Cc: Carmany-George, Karstin (FHWA); Coon, Matthew; Hannah Kopf
Subject: FHWA Project: Des. No.2200084; HPSR, Archaeology Short Report, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_HPSR_RDL_2025-04-02.pdf

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084. The Section 106 Early Coordination Letter for this project was originally distributed on July 31, 2024.
As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report and Archaeology Short Report (Tribes only) have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

Tribal Nation representatives please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

Hannah Kopf

From: Hannah Kopf
Sent: Thursday, April 3, 2025 9:48 AM
To: dhpareview@dnr.IN.gov
Cc: Kyle Boot; Payne, Taylor; Alexander, Dawn
Subject: FW: FHWA Project: Des. No.2200084; HPSR, Archaeology Short Report, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana - PART 1
Attachments: SR39RAB_Des2200084_HPSR_RDL_2025-04-02.pdf; SR39RAB_Des2200084 _DHPASubmitalForm_HPSR&ArchReport.pdf; SR39RAB_Des2200084_HPSR_2025-02-07.pdf

Dear DHPA Reviewer,

Please accept this electronic submission of the HPSR, RDL, with the DHPA review request form for the DHPA's Section 106 review on the above-referenced FHWA project. These documents can also be found on IN SCOPE (https://erms12c.indot.in.gov/Section106Documents/).

Sincerely,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM
317-588-1780 p

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Thursday, April 3, 2025 8:22 AM
To: thpo@estoo.net; THPO@MiamiNation.com; bfletcher@peoriatribe.com; Matthew.Bussler@pokagonband-nsn.gov; Section106@shawnee-tribe.com; Larus Longie <larus.longie@tmbci.org>; Luke Heider <Luke.Heider@fcp-nsn.gov>; Olivia.Nunway@fcp-nsn.gov
Cc: Carmany-George, Karstin (FHWA) <k.carmanygeorge@dot.gov>; Coon, Matthew <mcoon@indot.IN.gov>; Hannah Kopf <hkopf@dccm.com>
Subject: FHWA Project: Des. No.2200084; HPSR, Archaeology Short Report, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084. The Section 106 Early Coordination Letter for this project was originally distributed on July 31, 2024.
As part of Section 106 of the National Historic Preservation Act, a Historic Property Short Report and Archaeology Short Report (Tribes only) have been prepared and are ready for review and comment by consulting parties.

Please review this documentation located in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE), and respond with any comments that you may have. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

Tribal Nation representatives please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.DCCM.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

April 2, 2025

This letter was sent to the listed parties.

RE: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement
Des. No. 2200084; DHPA No. 32664
Hendricks and Morgan Counties, Indiana

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement roundabout project, Des. No. 2200084.

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter (ECL) was distributed on July 31, 2024.

The proposed undertaking is at the intersection of SR 39 and Keller Hill Rd in Hendricks and Morgan Counties, Indiana. It is within Liberty (Hendricks County) and Monroe (Morgan County) Townships, Mooresville West U.S. Geological Survey (USGS) Quadrangle, in Section 36, Township 14 North, Range 1 West, and Section 1, Township 13 North, Range 1 West. The project area can be viewed online at https://arcg.is/jqueP (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

The need for this project is due to the above normal crash rate and high crash severity of the current SR 39 and Keller Hill Rd intersection when compared to other unsignalized rural state intersections. According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018-2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47. An ICF over 1.0 is an “above average” crash rate. This means that the intersection’s crash frequency is one standard deviation above a “normal” intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16. In this case, the ICC indicates the severity of the crashes occurring at this location, which according to these numbers may be considered “high.”

The purpose of the project is to reduce the number of crashes and improve safety at the intersection. The proposed project alternative involves constructing a single or dual lane roundabout that would potentially include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). These

design elements (and associated activities such as drainage and grading) are subject to change as the project design progresses. Further investigation on the exact amount of right-of-way is needed; at this time, up to 1.0 acre of right-of-way is anticipated to be required. The project is scheduled to let in 2026.

RQAW | DCCM is under contract with the INDOT to advance the environmental documentation for the referenced project. Cultural Resource Analysts, Inc. (CRA) has been subcontracted to complete the archaeological work for the project.

In accordance with 36 CFR 800.2 (c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP.

An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified two previously recorded sites within the project area. As a result of these efforts, sites 12MG227 and 12MG316 were recommended as not eligible for listing in the NRHP and no further work is recommended.

In an email dated August 2, 2024, the Turtle Mountain Band of Chippewa Indians Tribal Historic Preservation Officer (THPO) responded to the ECL stating they "concur no affect [*sic*] to historic properties during project Des. 2200084."

In an email dated August 19, 2024, the Forest County Potawatomi Community (FCPC) THPO offered the "finding of No Historic Properties Affected."

The Indiana State Historic Preservation Officer (SHPO) responded to the ECL on September 3, 2024, stating that they were not aware of any parties who should be invited to participate in the Section 106 consultation on this federal undertaking, beyond those whom INDOT already invited.

In an email dated October 3, 2024, the Shawnee Tribe's Tribal Historic Preservation Department accepted consulting party status and stated they "concur that no known historic properties will be negatively affected by this project."

The Historic Property Short Report and Archaeology Report (Tribes only) are available for review in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any cultural resource impacts incurred as a result of this project. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

All future responses regarding the proposed project, including questions concerning specific project details, should be forwarded to:

Hannah Kopf
Architectural Historian
RQAW | DCCM
8770 North Street, Ste. 110
Fishers, IN 46038
hkopf@dccm.com
317-588-1780.

Tribal Nation representatives please respond to INDOT's Acting Tribal Liaison, Matt Coon mcoon@indot.in.gov; (317-697-9752) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Kari Carmany-George at K.CarmanyGeorge@dot.gov (317-226-5629).

Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosure:

- Aerial Map (with updated project area and APE)
- Topo Map (with updated project area and APE)

Omitted to avoid duplication

Distribution List:

- Wade T. Tharp and Toni Lynn Giffin, Indiana State Historic Preservation Officers (SHPO) – WTharp1@dnr.IN.gov, TGiffin@dnr.IN.gov
- Forest County Potawatomi Community
- Turtle Mountain Band of Chippewa Indians
- Shawnee Tribe

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·

May 1, 2025

Hannah Kopf, MSHP
Architectural Historian
RQAW | DCCM
8770 North Street, Suite 110
Fishers, Indiana 46038

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: Historic property short report (Kopf, 2/7/25), and Indiana Archaeological Short Report (Rusche, 03/27/2025), for the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084; DHPA No. 32664)

Dear Ms. Kopf:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed your April 2, 2025, submission, which enclosed the historic short report ("HPSR", Kopf, 2/7/25) and the Indiana Archaeological Short Report (Rusche, 03/27/2025), and which was received by our office April 2, 2025, for the above-referenced project, which is proposed for areas located in Hendricks County and in Morgan County, Indiana.

The area of potential effects ("APE") proposed in the HPSR appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur.

For the purposes of the Section 106 review of this federal undertaking, we agree with the conclusions in the HPSR that there are no previously recorded National Register of Historic Places ("NRHP") listed or eligible resources located within the APE. Furthermore, we also agree with the conclusions in the HPSR of the "Contributing" rated status of the four historic-aged resources documented during survey and that there are no resources listed or eligible for the NRHP within the APE.

In terms of impacts of proposed project-related ground-disturbing activities to archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana DNR-DHPA, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places ("NRHP") within the proposed project area; and we concur with the opinion of the archaeologist, as expressed in the Indiana Archaeological Short Report (Rusche, 03/27/2025), that no further archaeological investigations appear necessary at the original portions of the proposed project area.

We note that, although the Indiana Archaeological Short Report (Rusche, 03/27/2025) has been uploaded to the Indiana DNR-DHPA SHAARD system database, and that it has been assigned the identifier *AR-55-00375*, the archaeological site resurvey record forms for the two associated archaeological sites—12-Mg-0227 and 12-Mg-0316, both of which were resurveyed during the archaeological investigations—have not yet been uploaded to SHAARD. Please upload these forms to SHAARD as soon as possible, and then notify us, so that we can complete our review.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084), which is proposed for areas located in Hendricks County and in Morgan County, Indiana, please refer to DHPA No. 32664.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wtt

emc: Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Clint Kelly, Indiana Department of Transportation
Hannah Kopf, RQAW | DCCM
Lisa J. Kelley, Cultural Resource Analysts, Inc.
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

Hannah Kopf

From: Hannah Kopf
Sent: Monday, July 28, 2025 9:30 AM
To: McCord, Beth K
Cc: Payne, Taylor; Kyle Boot; Harlan Ford; Emma Bellefuil; Golladay, Destiny
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_800.11RDL_2025-07-28.pdf

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.
Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.DCCM.com |

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, July 28, 2025 9:44 AM
To: Luke Heider; Olivia.Nunway@fcp-nsn.gov; thpo; Section106; thpo@estoo.net
Cc: Tait, Erica (FHWA); Hannah Kopf; Alexander, Dawn
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_800.11RDL_2025-07-28.pdf

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.
Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, July 28, 2025 9:51 AM
To: Larus Longie
Cc: Hannah Kopf; Tait, Erica (FHWA); Alexander, Dawn
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana
Attachments: SR39RAB_Des2200084_800.11RDL_2025-07-28.pdf

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has a signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). The determination is also accessible via the link below. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

SR39RAB_Des2200084_800.11_signed_2025-07-24.pdf.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.
Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP

Hannah Kopf

From: Hannah Kopf
Sent: Monday, July 28, 2025 10:00 AM
To: DNR DHPAReview
Cc: Payne, Taylor; Golladay, Destiny; Kyle Boot; Harlan Ford; Emma Bellefuil
Subject: FW: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana - PART Submission
Attachments: SR39RAB_Des2200084_800.11_signed_2025-07-24_part2_AppendixEandF.pdf

Dear DHPA Reviewer,

This is the second part of a SPLIT submission for Des. 2200084. Please find the second portion of the 800.11 document attached for your review.

Thank you,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM
317-588-1780 p

From: Hannah Kopf
Sent: Monday, July 28, 2025 9:58 AM
To: DNR DHPAReview <dhpareview@dnr.in.gov>
Cc: Payne, Taylor <tapayne@indot.in.gov>; Kyle Boot <kboot@dccm.com>; Harlan Ford <hford@dccm.com>; Emma Bellefuil <ebellefuil@dccm.com>; Golladay, Destiny <dgolladay@indot.in.gov>
Subject: FW: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana - PART 1 Submission

Dear DHPA Reviewer,

Please accept this electronic submission (with the attached RDL and Review Request Submittal Form) for the DHPA's Section 106 review of the above-referenced FHWA project. These documents can also be found on INSCOPE (https://erms12c.indot.in.gov/Section106Documents/). Please note the 800.11 document was too large to send in one file via email so this is a SPLIT submission.

Thank you,
Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM
317-588-1780 p

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, July 28, 2025 9:44 AM
To: Luke Heider <luke.heider@fcp-nsn.gov>; Olivia.Nunway@fcp-nsn.gov; thpo <thpo@miamination.com>; Section106 <section106@shawnee-tribe.com>; thpo@estoo.net
Cc: Tait, Erica (FHWA) <erica.tait@dot.gov>; Hannah Kopf <hkopf@dccm.com>; Alexander, Dawn <DaAlexander@indot.IN.gov>
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Des. No.: 2200084

Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project

Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.

Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,

Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780
RQAW.DCCM.com |

This e-mail, including attachments, may include confidential information and may be used only by the person or entity to which it is addressed. If the reader of this e-mail is not the intended recipient, the reader is hereby notified that any dissemination, distribution, or copying of this e-mail is prohibited. If you have received this e-mail in error, please notify the sender by replying to this message and delete this e-mail immediately.

Hannah Kopf

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Tuesday, July 29, 2025 5:12 PM
To: Hannah Kopf
Cc: Alexander, Dawn
Subject: Fw: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

Follow Up Flag: Follow up
Flag Status: Flagged

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Hannah,

Please see attached response from Turtle Mountain Band of Chippewa Indians.

Taylor Payne (she/her)
Tribal Liaison
Architectural Historian
Indiana Department of Transportation
100 North Senate Ave., N758 — ES
Indianapolis, IN 46204
Cell: (317) 779-5775
Email: tapayne@indot.in.gov
Core Schedule: M-Th, 7:30-5:00
Find us on social media!

****For the latest updates from INDOT's Cultural Resources Office, subscribe to the Environmental Services listserv:** https://www.in.gov/indot/3217.htm
****Link to the CRO-Public Web Map App can be found** here.

From: Larus Longie <larus.longie@tmbci.org>
Sent: Monday, July 28, 2025 3:38 PM
To: Payne, Taylor <TaPayne@indot.IN.gov>
Subject: RE: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

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

TMBCI THPO office concur no effect to historic properties during upgrade project DES. No. 2200084. Larus Longie

---

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, July 28, 2025 8:51 AM
To: Larus Longie <larus.longie@tmbci.org>
Cc: Hannah Kopf <hkopf@dccm.com>; Tait, Erica (FHWA) <erica.tait@dot.gov>; Alexander, Dawn <DaAlexander@indot.IN.gov>
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

Des. No.: 2200084
Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project
Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has a signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). The determination is also accessible via the link below. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

SR39RAB_Des2200084_800.11_signed_2025-07-24.pdf.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.
Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,
Hannah

Hannah Kopf, MSHP
Architectural Historian

INDIANA DEPARTMENT OF TRANSPORTATION

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

PHONE: (855) 463-6848

Mike Braun, Governor
Kent Abernathy, Commissioner

[Date]

This letter was sent to the listed parties.

RE: State Road (SR) 39 and Keller Hill Road (Rd) Intersection Improvement
Des. No. 2200084; DHPA No. 32664
Hendricks and Morgan Counties, Indiana

Dear Consulting Party,

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement roundabout project, Des. No. 2200084.

This letter is part of the Section 106 review process for this project. Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties. We are requesting comments from you regarding the possible effects of this project. Please use the above Des. Number and project description in your reply and your comments will be incorporated into the formal environmental study.

A Section 106 early coordination letter was distributed on July 31, 2024. In addition, a letter distributed on April 2, 2025, notified consulting parties that a Historic Property Short Report (HPSR) and Phase Ia archaeology report (tribes only) were available for review and comment.

The proposed undertaking is at the intersection of SR 39 and Keller Hill Rd in Hendricks and Morgan Counties, Indiana. It is within Liberty (Hendricks County) and Monroe (Morgan County) Townships, Mooresville West U.S. Geological Survey (USGS) Quadrangle, in Section 36, Township 14 North, Range 1 West, and Section 1, Township 13 North, Range 1 West. The project area can be viewed online at https://arcg.is/jqueP (the Des. No. is the most efficient search term once in the CRO - Public Web Map App).

The need for this project is due to the above normal crash rate and high crash severity of the current SR 39 and Keller Hill Rd intersection when compared to other unsignalized rural state intersections. According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018-2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47. An ICF over 1.0 is an “above average” crash rate. This means that the intersection’s crash frequency is one standard deviation above a “normal” intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16. In this case, the ICC indicates the severity of the crashes occurring at this location, which according to these numbers may be considered “high.”

The purpose of the project is to reduce the number of crashes and improve safety at the intersection. The proposed project alternative involves constructing a single/two lane “hybrid” roundabout that would include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a

curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). A single/two lane "hybrid" roundabout consists of two (2) through-lanes in one direction (northbound/southbound in this case), and one (1) through-lane in the other direction (eastbound/westbound in this case). A detention berm will now be added on either side of SR 39 south of the intersection before McCracken Creek. Guardrail will also be replaced throughout the project area as needed and curb turnouts will be installed as needed. Due to design refinement since the previous correspondence, the detention berm, guardrail, and curb turnouts are minor design elements added to the project. It was previously stated that up to 1.0 acre of right-of-way was anticipated to be required. The updated design now anticipates approximately 1.5 acres of permanent right-of-way and .01 acre of temporary right-of-way will be acquired. Please see the attached enclosures depicting these designs. The project's currently anticipated letting date is FY 2027.

RQAW | DCCM is under contract with INDOT to advance the environmental documentation for the referenced project. Cultural Resource Analysts, Inc. (CRA) has been subcontracted to complete the archaeological work for the project.

In accordance with 36 CFR 800.2(c), you were invited to become a consulting party as part of the Section 106 process, or you are hereby invited to become a consulting party as part of the Section 106 process. Entities that have previously accepted consulting party status--as well as additional entities that are currently being invited to become consulting parties--are identified in the attached list.

The Section 106 process involves efforts to identify historic properties potentially affected by the undertaking, to assess the undertaking's effects and to seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. For more information regarding the protection of historic resources, please see the Advisory Council on Historic Preservation's guide: *Protecting Historic Properties: A Citizen's Guide to Section 106 Review* available online at https://www.achp.gov/sites/default/files/documents/2017-01/CitizenGuide.pdf.

The Area of Potential Effects (APE) is the area in which the proposed project may cause alterations in the character or use of historic resources. The APE contains no resources listed in the National Register of Historic Places (NRHP).

A historian who meets the Secretary of the Interior's Professional Qualification Standards identified and evaluated above-ground resources within the APE for potential eligibility for the NRHP. As a result of the historic property identification and evaluation efforts, no above-ground resources are recommended as eligible for listing in the NRHP.

An archaeologist who meets the Secretary of the Interior's Professional Qualification Standards identified two previously recorded sites overlapping the project area. Portions of the survey area within close proximity to the two previously recorded sites, 12-MG-227 and 12-MG-316, were investigated and no archaeological deposits were found. Both sites were previously recommended not eligible for listing in the NRHP and no further work is recommended for this project, Des. No. 2200084.

In a letter dated May 1, 2025, the Indiana's State Historic Preservation Office (SHPO) responded to the HPSR and Phase Ia archeology report. The letter states "we agree with the conclusions in the HPSR of the 'Contributing" rated status of the four historic-aged resources documented during the survey and that there are no resources listed or eligible for the NRHP within the APE." With regard to archaeological resources, the letter states "we concur with the opinion of the archaeologist, as expressed in the Indiana Archaeological Short Report (Rusche, 03/27/2025), that no further archaeological investigations appear necessary at the original portions of the proposed project area." The letter also requested that the two archaeological site resurvey record

forms for sites 12-MG-227 and 12-MG-316 be uploaded to SHAARD. Those two forms were uploaded by CRA on May 2, 2025.

The 800.11/Finding is available for review in IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). You are invited to review these documents and to respond with comments on any cultural resource impacts incurred as a result of this project. We also welcome your related opinions and other input to be considered in the preparation of the environmental document. If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Please review the information and comment within thirty (30) calendar days of receipt. If you indicate that you do not desire to be a consulting party or if you have not previously accepted consulting party status and you do not respond to this letter, you will not be included on the list of consulting parties for this project and will not receive further information about the project unless the design changes.

All future responses regarding the proposed project, including questions concerning specific project details, should be forwarded to:

Hannah Kopf
Architectural Historian
RQAW | DCCM
8770 North St, Ste 110
Fishers, IN 46038
hkopf@dccm.com
317-588-1780.

Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne, at tapayne@indot.in.gov (317-779-5775) with any responses pertaining to this project including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Sincerely,



Matthew S. Coon, Manager
Cultural Resources Office
Environmental Services

Enclosures:
Aerial Map
Topographic Map — Omitted to avoid duplication

Distribution List:
Wade T. Tharp and Tony Lynn Giffin, Indiana SHPO – WTharp1@dnr.IN.gov, TGiffin@dnr.IN.gov
Forest County Potawatomi Community
Eastern Shawnee Tribe of Oklahoma

Miami Tribe of Oklahoma
Turtle Mountain Band of Chippewa Indians
Shawnee Tribe

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov ·

August 28, 2025

Hannah Kopf, MSHP
Architectural Historian
RQAW | DCCM
8770 North Street, Suite 110
Fishers, Indiana 46038

Federal Agency: Indiana Department of Transportation ("INDOT"),
on behalf of Federal Highway Administration, Indiana Division ("FHWA")

Re: Indiana Department of Transportation's finding of "no historic properties affected," on behalf of the Federal Highway Administration, for the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084; DHPA No. 32664)

Dear Ms. Kopf:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement (PA) Among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed your July 28, 2025, submission, which enclosed INDOT's finding and supporting documentation, and which was received by our office July 28, 2025; for the above-indicated project, which is proposed for areas located at Liberty Township, in Hendricks County, and at Monroe Township, in Morgan County, Indiana.

As we previously stated, he area of potential effects ("APE") proposed in the Historic Property Short Report ("HPSR") appears to be of adequate size to encompass the geographic area in which direct and indirect effects of a project of this nature could occur. Additionally, as previously stated, for the purposes of the Section 106 review of this federal undertaking, we agree with the conclusions in the HPSR that there are no previously recorded National Register of Historic Places ("NRHP") listed or eligible resources located within the APE. Furthermore, we also agreed with the conclusions in the HPSR of the "Contributing" rated status of the four historic-aged resources documented during survey and that there are no resources listed or eligible for the NRHP within the APE.

In terms of impacts of proposed project-related ground-disturbing activities to archaeological resources, as previously indicated, based on the submitted information and the documentation available to the staff of the Indiana DNR-DHPA, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area; and we concur with the opinion of the archaeologist, as expressed in the Indiana Archaeological Short Report (Rusche, 03/27/2025), that no further archaeological investigations appear necessary at the original portions of the proposed project area.

Accordingly, we concur with INDOT's July 24, 2025, Section 106 finding of "No Historic Properties Affected" on behalf of FHWA for this federal undertaking.

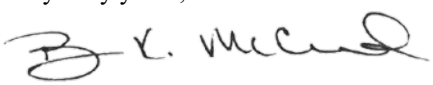
If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and Indiana Code 14-21-1-29) requires that the discovery be reported to the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and Indiana

Code 14-21-1-29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. Part 800.

The Indiana SHPO staff's archaeological reviewer for this project is Wade T. Tharp, and the structures reviewer is Toni Lynn Giffin. However, if you have a question about the Section 106 process, please contact initially the INDOT Cultural Resources staff members who are assigned to this project.

In all future correspondence about the State Road 39 and Keller Hill Road Intersection Improvement Roundabout Project (Des. No. 2200084), which is proposed for areas located at Liberty Township, in Hendricks County, and at Monroe Township, in Morgan County, Indiana, please refer to DHPA No. 32664.

Very truly yours,



Beth K. McCord
Deputy State Historic Preservation Officer

BKM:TLG:WTT:wtt

emc: Matt Coon, Ph.D., Indiana Department of Transportation
Susan Branigin, Indiana Department of Transportation
Clint Kelly, Indiana Department of Transportation
Hannah Kopf, RQAW | DCCM
Toni Lynn Giffin, Indiana DNR-DHPA
Wade T. Tharp, Indiana DNR-DHPA

Hannah Kopf

From: Luke Heider <Luke.Heider@fcp-nsn.gov>
Sent: Wednesday, September 3, 2025 4:36 PM
To: Payne, Taylor
Subject: RE: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

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

Pursuant to consultation under Section 106 of the National Historic Preservation Act (1966 as amended) the Forest County Potawatomi Community (FCPC), a Federally Recognized Native American Tribe, reserves the right to comment on Federal undertakings, as defined under the act.

The Tribal Historic Preservation Office (THPO) staff has reviewed the information you provided for the project. Upon review of site data and supplemental cultural history within our Office, the FCPC THPO is pleased to offer a finding of No Historic Properties affected of significance to the FCPC, however, **we do wish to remain as a consulting party for this project.**

As a standard caveat sent with each proposed project reviewed by the FCPC THPO, the following applies. In the event an Inadvertent Discovery (ID) occurs at any phase of a project or undertaking as defined, and human remains or archaeological materials are exposed as a result of project activities, work should cease immediately, and the Tribe(s) must be included with the SHPO in any consultation regarding treatment and disposition of the find.

Thank you for protecting cultural and historic properties and if you have any questions or concerns, please contact me at the email or number listed below.

Best,

Luke Heider | Tribal Historic Preservation Officer | Land & Natural Resources
Forest County Potawatomi | 5320 Wensaut Lane | PO Box 340, Crandon, WI 54520
P: 715-478-7354 | C: 715-889-0202 | Main: 715-478-7222
www.fcpotawatomi.com | luke.heider@fcp-nsn.gov
Please note the office hours are Monday – Thursday: 7:00 am – 5:00 pm. Our office is closed on Fridays

---

From: Payne, Taylor <TaPayne@indot.IN.gov>
Sent: Monday, July 28, 2025 8:44 AM
To: Luke Heider <Luke.Heider@fcp-nsn.gov>; Olivia Nunway <Olivia.Nunway@fcp-nsn.gov>; thpo <thpo@miamination.com>; Section106 <section106@shawnee-tribe.com>; thpo@estoo.net
Cc: Tait, Erica (FHWA) <erica.tait@dot.gov>; Hannah Kopf <hkopf@dccm.com>; Alexander, Dawn <DaAlexander@indot.IN.gov>
Subject: FHWA Project: Des. No. 2200084; No Historic Properties Affected Finding, SR 39 and Keller Hill Rd Intersection Improvement Project, Hendricks and Morgan Counties, Indiana

Des. No.: 2200084

Project Description: State Route 39 and Keller Hill Road Intersection Improvement Project

Location: Hendricks and Morgan Counties, Indiana

The Indiana Department of Transportation (INDOT), with funding from the Federal Highway Administration (FHWA), proposes to proceed with an intersection improvement project, Des. No. 2200084.

INDOT, on behalf of FHWA, has signed a determination of "No Historic Properties Affected" for this Section 106 undertaking. In accordance with 36 CFR 800.4(d), you and the other Section 106 consulting parties are being provided the documentation for this finding. You can view the determination of "No Historic Properties Affected" electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents/ (the Des. No. is the most efficient search term, once in IN SCOPE). If a hard copy of the materials is needed, please respond to this email with your request within seven (7) days.

Consulting parties have thirty (30) calendar days from receipt of this information to review and provide comment.

Tribal Nation representatives please respond to INDOT's Tribal Liaison, Taylor Payne tapayne@indot.in.gov; (317-779-5775) with any responses pertaining to this project, including to provide INDOT/Indiana FHWA additional information about Tribal resources/concerns and questions/comments regarding cultural resources. The FHWA point of contact is Erica Tait at erica.tait@dot.gov (317-226-7481).

Thank you in advance for your input,

Hannah

Hannah Kopf, MSHP
Architectural Historian

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038
P 317-588-1780

EASTERN SHAWNEE
CULTURAL PRESERVATION DEPARTMENT
70400 East Highway 60, Wyandotte, OK 74370

September 30, 2025
INDOT - Indiana Department of Transportation
100 N. Senate Ave. IGCN642
Indianapolis, IN 46201

RE: ***Des No. 2200084, Hendricks and Morgan County, Indiana***

Dear Ms. Payne,

The Eastern Shawnee Tribe has received your letter regarding the above referenced project(s) within Hendricks and Morgan County, Indiana. The Eastern Shawnee Tribe is committed to protecting sites important to Tribal Heritage, Culture and Religion. Furthermore, the Tribe is particularly concerned with historical sites that may contain but not limited to the burial(s) of human remains and associated funerary objects.

As described in your correspondence, and upon research of our database(s) and files, we find our people occupied these areas historically and/or prehistorically. However, the project proposes **NO Adverse Effect** or endangerment to known sites of interest to the Eastern Shawnee Tribe. Please continue project as planned. However, should this project inadvertently discover an archeological site or object(s) we request that you immediately contact the Eastern Shawnee Tribe, as well as the appropriate state agencies (within 24 hours). We also ask that all ground disturbing activity stop until the Tribe and State agencies are consulted. Please note that any future changes to this project will require additional consultation.

In accordance with the NHPA of 1966 (16 U.S.C. § 470-470w-6), federally funded, licensed, or permitted undertakings that are subject to the Section 106 review process must determine effects to significant historic properties. As clarified in Section 101(d)(6)(A-B), historic properties may have religious and/or cultural significance to Indian Tribes. Section 106 of NHPA requires Federal agencies to consider the effects of their actions on all significant historic properties (36 CFR Part 800) as does the National Environmental Policy Act of 1969 (43 U.S.C. § 4321-4347 and 40 CFR § 1501.7(a). This letter evidences NHPA and NEPA historic properties compliance pertaining to consultation with this Tribe regarding the referenced proposed projects.

Thank you, for contacting the Eastern Shawnee Tribe, we appreciate your cooperation. Should you have any further questions or comments please contact our Office.
Sincerely,

Lora Nuckolls

Lora Nuckolls, Tribal Historic Preservation Officer (THPO)
Eastern Shawnee Tribe of Oklahoma
(918) 238-5151 Ext:1840
THPO@estoo.net

LOCALiQ
South Bend Tribune | The Herald Times
The Times-Mail | Evening World
The Reporter Times
PO Box 630485 Cincinnati, OH 45263-0485

AFFIDAVIT OF PUBLICATION

RQAW
8770 North ST # 110
Fishers IN 46038-2863

STATE OF INDIANA, COUNTY OF MORGAN

The Mooresville Decatur Times is a public newspaper of general circulation, printed in the town of Mooresville, in said County and State, that the notice, of which the annexed is a true copy, was published in regular edition of said paper, issued upon the following dates, to wit:

08/06/2025

Sworn to and subscribed before on 08/06/2025

Legal Clerk

Notary, State of WI, County of Brown

5/15/27

My commission expires

Publication Cost:	$54.08	
Tax Amount:	$0.00	
Payment Cost:	$54.08	
Order No:	11528012	# of Copies:
Customer No:	803633	0
PO #:	LSBN0342128	

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

NANCY HEYRMAN
Notary Public
State of Wisconsin

Form Prescribed by State Board of Accounts

General Form No. 99P (Rev. 2002)

_____

To: MRT Mooresville Decatur -Times

(Government Unit)

_____County, Indiana _____

104 lines, 1.0000 columns wide which equals 104 equivalent lines at $0.52 per line @ 1 days	$54.08
Website Publication	$0.00
Charge for proof(s) of publication	$0.00
TOTAL AMOUNT OF CLAIM	$54.08

Acct #: 803633

Ad #: 11528012

DATA FOR COMPUTING COST

Width of single column 1.53 in

Number of insertions 1

Size of type 7 point

Claim No. _____ Warrant No. _____

IN FAVOR OF

Mooresville Decatur Times
78 E Main St
Martinsville, IN 46151

I have examined the within claim and hereby certify as follows:

That it is in proper form.

That it is duly authenticated as required by law.

That is is based upon statutory authority.

That it is apparently (correct)

(incorrect)

_____

_____

$_____

On Account of Appropriation For

FED ID

83-2810977

Allowed _____, 20_____

In the sum of $_____

_____

I certify that the within claim is true and correct, that the services there-in itemized and for which charge is made were ordered by me and were necessary to the public business.

_____

_____

Public Notice
Des. No. 2200084

The Indiana Department of Transportation (INDOT) Crawfordsville District is planning to undertake an intersection improvement project, funded in part by the Federal Highway Administration. The project is located at the State Road (SR) 39 and Keller Hill Rd intersection, approximately 0.89 mile south of I-70 and 1.5 miles north of SR 42. It is within Liberty and Monroe Townships in Morgan and Hendricks County, Indiana.

Under the preferred alternative, the proposed project would involve constructing a single/two lane "hybrid" roundabout that would include raised splitter islands, truck apron, non-traversable central island, and appropriate entry path deflection. A single/two lane "hybrid" roundabout consists of two (2) through-lanes in one direction (northbound/southbound in this case), and one (1) through-lane in the other direction (eastbound/westbound in this case). A detention berm will be added on either side of SR 39 south of the intersection before McCracken Creek. Guardrail will be replaced throughout the project as needed and curb turnouts will be installed as needed. It is anticipated that approximately 1.5 acre of permanent right-of-way and 0.01 acre of temporary right-of-way will be required for the project.

The proposed action does not impact properties listed in or eligible for the National Register of Historic Places. The Indiana Department of Transportation (INDOT), on behalf of the FHWA, has issued a "No Historic Properties Affected" finding for the project due to the fact that no historic properties are present within the Area of Potential Effects (APE). In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.4(d)(1), the documentation specified in 36 CFR 800. 11(d) is available for inspection in RQAW | DCCM's office. Additionally, this documentation can be viewed electronically by accessing INDOT's Section 106 document posting website IN SCOPE at http://erms12c.indot.in.gov/Section106Documents. This documentation serves as the basis for the "No Historic Properties Affected" finding. The views of the public on this effect finding are being sought. Please reply with any comments to Hannah Kopf at 8770 North Street, Suite 110, Fishers, IN 46038, 317-588-1780, hkopf@dccm.com no later than September 5, 2025.

In accordance with the "Americans with Disabilities Act", if you have a disability for which INDOT needs to provide accessibility to the document(s) such as interpreters or readers, please contact INDOT Project Manager, Destiny Golladay, 765-978-1335, and dgolladay@indot.in.gov.

HSPAXLP
August 6 2025
LSBN0342128

Appendix E:

Historic Property Short Report & Archaeology Report Summaries

SR 39 and Keller Hill Road Intersection Improvement Project

Hendricks and Morgan Counties, Indiana

INDOT Des. No.: 2200084

Indiana DHPA No.: 32664



02/07/2025

Historic Property Short Report

Prepared for:

The Federal Highway Administration

and INDOT Crawfordsville District

Prepared by:

Hannah Kopf
8770 North Street, Suite 110
Fishers, IN 46038
Phone: (317) 588-1762
www.rqaw.com

VI. CONCLUSIONS

The APE contains no properties listed in the NRHP.

As a result of identification and evaluation efforts for this project, no properties are recommended eligible for listing in the NRHP.

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (R3 / 3-22)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology (DHPA).

Name(s) of author(s)	Date *(month, day, year)*
Michael Rusche, RPA 5909	March 27, 2025

Title of project
A Phase Ia Archaeological Reconnaissance for the Proposed SR 39 and Keller Hill Road Intersection Improvement Project, Located 0.89 mile South of I-70, in Hendricks and Morgan Counties, Indiana (INDOT Des. No. 2200084)

This document is being used to report on the results of:
☐ Records check only ☒ Records check and Phase 1a archaeological reconnaissance
☐ An addendum to a previous archaeological report. *For an addendum, provide the following information.*

Name(s) of author(s) of previous report	
N/A	
Title of previous report	
N/A	
Date of previous report *(month, day, year)*	**DHPA number**
N/A	N/A

PROJECT OVERVIEW

Description of project
The proposed project is located within Hendricks and Morgan Counties, Indiana (Figures 1 and 2). The need for this project is due to the above normal crash rate and high crash severity of the current SR 39 and Keller Hill Road intersection when compared to other unsignalized rural state intersections. According to a Road Hazard Analysis Tool (RoadHAT) study conducted between 2018 and 2020, the SR 39 and Keller Hill Road intersection has an Index Crash Frequency (ICF) of 1.47. An ICF over 1.0 is an "above average" crash rate. This means that the intersection's crash frequency is above a "normal" intersection of a similar type in Indiana. The same RoadHAT study determined that this intersection has an Index of Crash Costs (ICC) of 2.16. In this case, the ICC indicates the severity of the crashes occurring at this location, which according to these numbers may be considered "high." The purpose of the project is to reduce the number of crashes and improve safety at the intersection. The proposed project alternatives anticipate constructing a single or dual lane roundabout that would potentially include raised spitter islands, truck apron, non-traversable center island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). These design elements (and associated activities such as drainage and grading) are subject to change as the project design progresses. The exact amount of right-of-way (ROW) is yet to be determined, but up to 0.4 ha (1.0 acre) of ROW is anticipated to be required at this time. The survey limits span distances of 200 m (656 ft) south of the intersection, 185 m (607 ft) north of the intersection, and 198 m (650 ft) east and west of the intersection, extending approximately 19 m (62 ft) outside the current ROW and cover 3.9 ha (9.6 acres), including all potential project-related ground disturbance and ROW needs (Figure 3).

INDOT designation number(s)	Project number	DHPA number	DHPA plan number
2200084	CRA Project Number I240228; Contract Publication Series 24-253	N/A	N/A

Prepared for: *(Company / Institution / Agency)*
RQAW

Name of contact
Joe Dabkowski

Address *(number and street, city, state, and ZIP code)*
8770 N Street, Suite 110

Telephone number	E-mail address
(317) 588-1762	jdabkowski@rqaw.com

Name of principal investigator
Lisa Kelley

Name of company / institution
Cultural Resource Analysts, Inc.

Address *(number and street, city, state, and ZIP code)*
201 NW 4th Street, Suite 204

Telephone number	E-mail address
(317) 588-1762	ljkelley@crai-ky.com

Signature of principal investigator *(Required)*	Date *(month, day, year)*
Lisa Kelley	March 27, 2025

RECOMMENDATIONS

Records check *(Check all that apply)*

- ☐ No archaeological investigation is recommended before the project is allowed to proceed because the records check has determined that the project area does not have the potential to contain archaeological resources.
- ☐ A Phase 1a archaeological reconnaissance is recommended.
- ☒ Based upon the records check results, a Phase 1a archaeological reconnaissance was recommended and has been conducted.
- ☐ A cemetery development plan may be required under Indiana Code 14-21-1-26.5 because project ground disturbance will be within 100 feet of a cemetery.

Phase 1a archaeological reconnaissance *(Check all that apply)*

- ☒ It is recommended that the project be allowed to proceed as planned because the Phase 1a archaeological reconnaissance has located no archaeological sites within the project area and/or previously recorded sites that were investigated warrant no additional investigation.
- ☐ It is recommended that Phase 1c archaeological subsurface reconnaissance be conducted before the project is allowed to proceed. The Phase 1a archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits.

Other recommendations / commitments

None

Appendix F:

Preliminary Plans

Omitted to avoid duplication

Categorical Exclusion

Appendix E

Red Flag and Hazardous Materials

INDIANA DEPARTMENT OF TRANSPORTATION

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

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

Eric Holcomb, Governor
Michael Smith, Commissioner

Date: July 12, 2024

To: Site Assessment & Management
Environmental Policy Office - Environmental Services Division
Indiana Department of Transportation
100 N Senate Avenue, Room N758-ES
Indianapolis, IN 46204

From: Emma Bellefuil
RQAW | DCCM
8770 North Street, Suite 110
Fishers, Indiana
ebellefuil@rqaw.com

Re: RED FLAG INVESTIGATION
DES #2200084, State Project
Intersection Improvement Project
State Road (SR) 39 at Keller Hill Rd., 0.89 Mile South of I-70
Hendricks and Morgan Counties, Indiana

PROJECT DESCRIPTION

Brief Description of Project: The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT), Crawfordsville District, propose to proceed with an Intersection Improvement project on SR 39 at Keller Hill Road in Hendricks and Morgan Counties, Indiana. The proposed project will involve constructing a single lane or dual lane roundabout that would include raised splitter islands, truck apron, non-traversable central island, and appropriate entry path deflection (i.e. a curve with constantly changing radii to reduce the speed of vehicles entering the roundabout). The existing right turn lanes would be removed, and grading will be required to match the existing pavement elevation. New guardrail may be needed if the existing guardrail along the southbound lane of SR 39 is removed. Additionally, this project would require the use of either curb and gutter with drainage turnouts or installation of a storm sewer system to handle stormwater runoff. The removal/replacement of guardrail and the use of curb and gutter or storm sewer system will be dependent on the selection of a single lane or dual lane roundabout and proposed roundabout geometry. Existing drives within the project limits may be relocated and reconstructed further away from the proposed roundabout for better access control and traffic movement.

Bridge and/or Culvert Project: Yes ☐ No ☒ Structure # _____N/A_____
If this is a bridge project, is the bridge Historical? Yes ☐ No ☐ , Select ☐ Non-Select ☐
(Note: If the project involves a historical bridge, please include the bridge information in the Recommendations Section of the report).
Proposed right of way: Temporary ☒ # Acres To Be Determined (TBD) Permanent ☒ # Acres TBD Not Applicable ☐
Type of excavation: Excavation is not anticipated to exceed 10 feet below ground surface (bgs) for the installation of a storm sewer system, if determined necessary.

Maintenance of traffic: The maintenance of traffic (MOT) proposes to close Keller Hill Road for a short duration during construction while phasing the construction on SR 39. Traffic would be shifted onto one side of SR 39 and half of the roundabout would be built then switched to the other side to build the other half. A temporary traffic signal would be needed for one-way operation. A local detour will be provided for Keller Hill Road, but the route has not been determined at this time.

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

State Project: ☒ LPA: ☐

Any other factors influencing recommendations: N/A

INFRASTRUCTURE TABLE AND SUMMARY

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

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

Explanation:

Trails: One (1) trail segment is located within the 0.5 mile search radius. Homestead Neighborhood Trails is located approximately 0.26 mile southwest of the project area. No impact is expected.

WATER RESOURCES TABLE AND SUMMARY

Water Resources Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
NWI - Points	**N/A**	Canal Routes - Historic	**N/A**
Karst Springs	**N/A**	NWI - Wetlands	**11**
Canal Structures – Historic	**N/A**	Lakes	**4**
NPS NRI Listed	**N/A**	Floodplain - DFIRM	**1**
NWI-Lines	**N/A**	Cave Entrance Density	**N/A**
IDEM 303d Listed Streams and Lakes (Impaired)	**6**	Sinkhole Areas	**N/A**
Rivers and Streams	**21**	Sinking-Stream Basins	**N/A**

Explanation:

IDEM 303d Listed Streams and Lakes (Impaired): Six (6) 303d Listed Stream segments are located within the 0.5 mile search radius. The nearest stream segment, McCracken Creek, is located adjacent to the project area. McCracken Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

Rivers and Streams: Twenty-one (21) river and stream segments are located within the 0.5 mile search radius. Five (5) river and stream segments of McCracken Creek are located adjacent to the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

NWI - Wetlands: Eleven (11) wetland polygons are located within the 0.5 mile search radius. The nearest wetland polygon is located adjacent to the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Lakes: Four (4) lake polygons are located within the 0.5 mile search radius. The nearest lake polygon is located adjacent to the project area. A Waters of the US Report is recommended based on mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur.

Floodplains: One (1) floodplain polygon is located within the 0.5 mile search radius. The floodplain polygon is located approximately 0.38 northeast of the project area. No impact is expected.

MINING AND MINERAL EXPLORATION TABLE AND SUMMARY

Mining/Mineral Exploration Indicate the number of items of concern found within the 0.5 mile search radius. If there are no items, please indicate N/A:			
Petroleum Wells	**1**	Mineral Resources	**N/A**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

Petroleum Wells: One (1) petroleum well is located within the 0.5 mile search radius. This petroleum well is located within the project area. Coordination with Indiana Department of Natural Resources (IDNR) Oil and Gas Division will occur.

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	**3**
Solid Waste Landfill	**N/A**	NPDES Facilities	**8**
Infectious/Medical Waste Sites	**N/A**	NPDES Pipe Locations	**N/A**
Leaking Underground Storage (LUST) Sites	**2**	Notice of Contamination Sites	**N/A**

Explanation:

Leaking Underground Storage (LUST) Sites: Two (2) LUST sites are located within the 0.5 mile search radius. The nearest site is described below.

Former Blue and White Service, 10345 South State Road 39, AI ID #43896 (also an Institutional Controls site) is located 0.47 north of the project area. An Environmental Restrictive Covenant (ERC) was placed on the property on August 21, 2013, as a result of a release of petroleum hydrocarbons that was originally reported in 1998. The site has since undergone corrective actions and as a result a modified ERC was placed on the property on September 12, 2018. The modified ERC terminated some of the restrictions of the original ERC, such as residential and agricultural use, soil disturbance and handling of soil, vapor intrusion contingency, and construction worker restriction areas. No impact is expected.

Institutional Controls: Three (3) Institutional Controls sites are located within the 0.5 mile search radius. The nearest site is described below.

Travel Center of America, 10346 South SR 39, AI ID #43127 (also a LUST site) is located 0.40 north of the project area. An Environmental Restrictive Covenant (ERC) was placed on the property on January 23, 2024, as a result of a release of petroleum hydrocarbons associated with a former Unocal 76 Truck Stop that operated at the site. The site has undergone corrective actions, and low concentrations of Contaminants of Concern (COCs) remain on site. No impact is expected.

NPDES Facilities: Eight (8) NPDES Facilities are located within the 0.5 mile search radius. The nearest NPDES Facility, CR 1100 South and McCracken Creek, Permit No. INRA00827, is located adjacent to the east of the project area. This permit expired on February 6, 2023. No impact is expected.

ECOLOGICAL INFORMATION SUMMARY

The Hendricks and Morgan Counties listing of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities is provided at https://www.in.gov/dnr/naturepreserve/files/np_hendricks.pdf and https://www.in.gov/dnr/naturepreserve/files/np_morgan.pdf. A preliminary review of the Indiana Natural Heritage Database by INDOT ESD did indicate the presence of ETR species within the 0.5 mile search radius. 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 be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

RECOMMENDATIONS SECTION

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

INFRASTRUCTURE: N/A

WATER RESOURCES:
A Waters of the US Report is recommended based on the presence of mapped features, and coordination with INDOT ESD Ecology and Waterway Permitting will occur for the following features:

- Five (5) river and stream segments of McCracken Creek are located adjacent to the project area.
- One (1) wetland polygon is located adjacent to the project area.
- One (1) lake polygon is located adjacent to the project area.

IDEM 303d Listed Streams and Lakes (Impaired): McCracken Creek is located adjacent to the project area. McCracken Creek is listed as impaired for E. coli. Workers who are working in or near water with E. coli should take care to wear appropriate PPE, observe proper hygiene procedures, including regular hand washing, and limit personal exposure.

MINING/MINERAL EXPLORATION:

Petroleum Wells: One (1) petroleum well is located within the project area. Coordination with IDNR Oil and Gas Division will occur.

HAZARDOUS MATERIAL CONCERNS: N/A

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

INDOT Environmental Services concurrence: Dariane Davis Digitally signed by Dariane Davis Date: 2024.07.12 13:08:47 -04'00' (Signature)

Prepared by:
Emma Bellefuil
NEPA Specialist
RQAW | DCCM

Graphics:

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

SITE LOCATION: YES

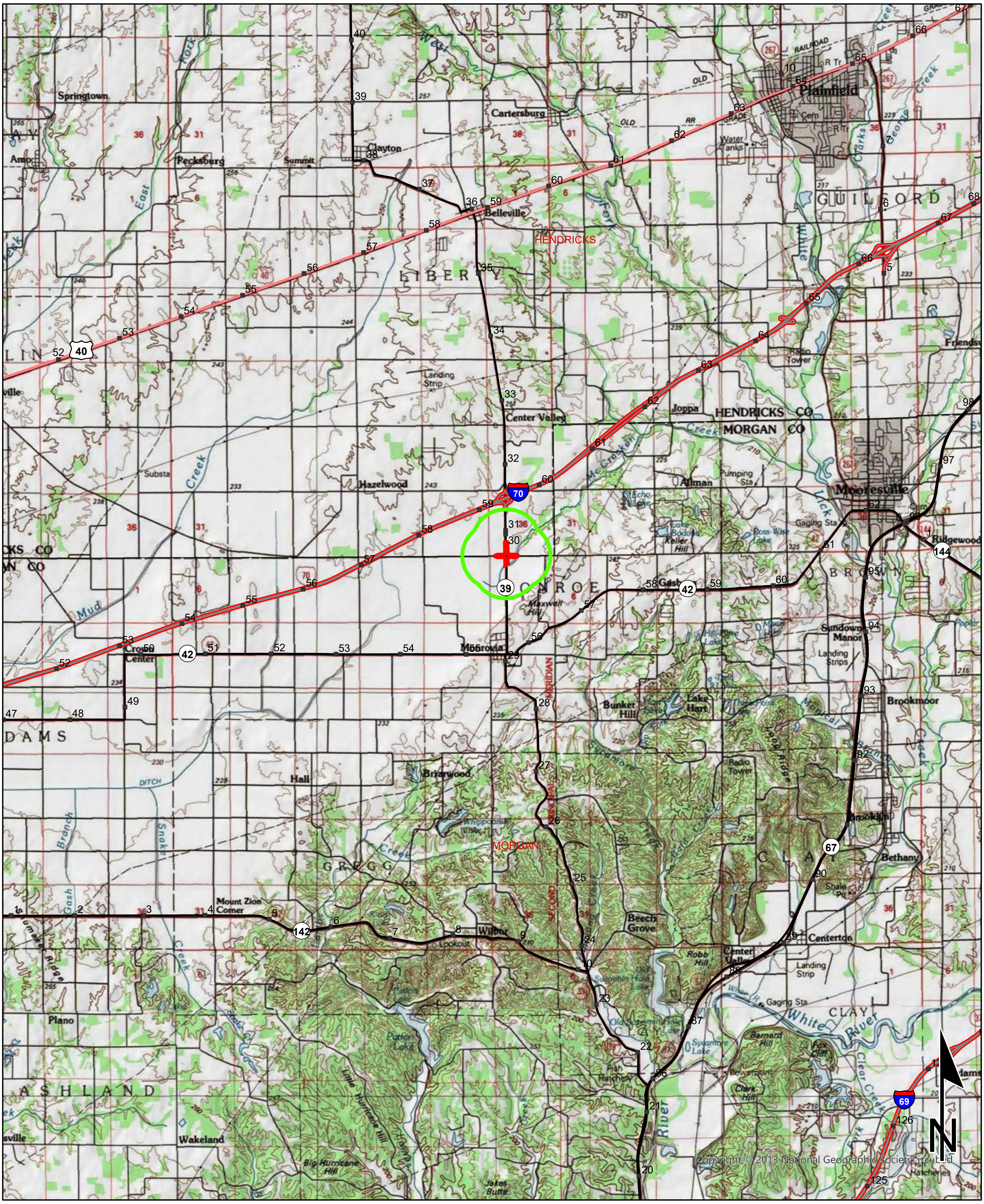
INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

Red Flag Investigation - Site Location
SR 39 at Keller Hill Rd., 0.89 Mile South of I-70
Des. No. 2200084, Intersection Improvement
Hendricks & Morgan Counties, Indiana



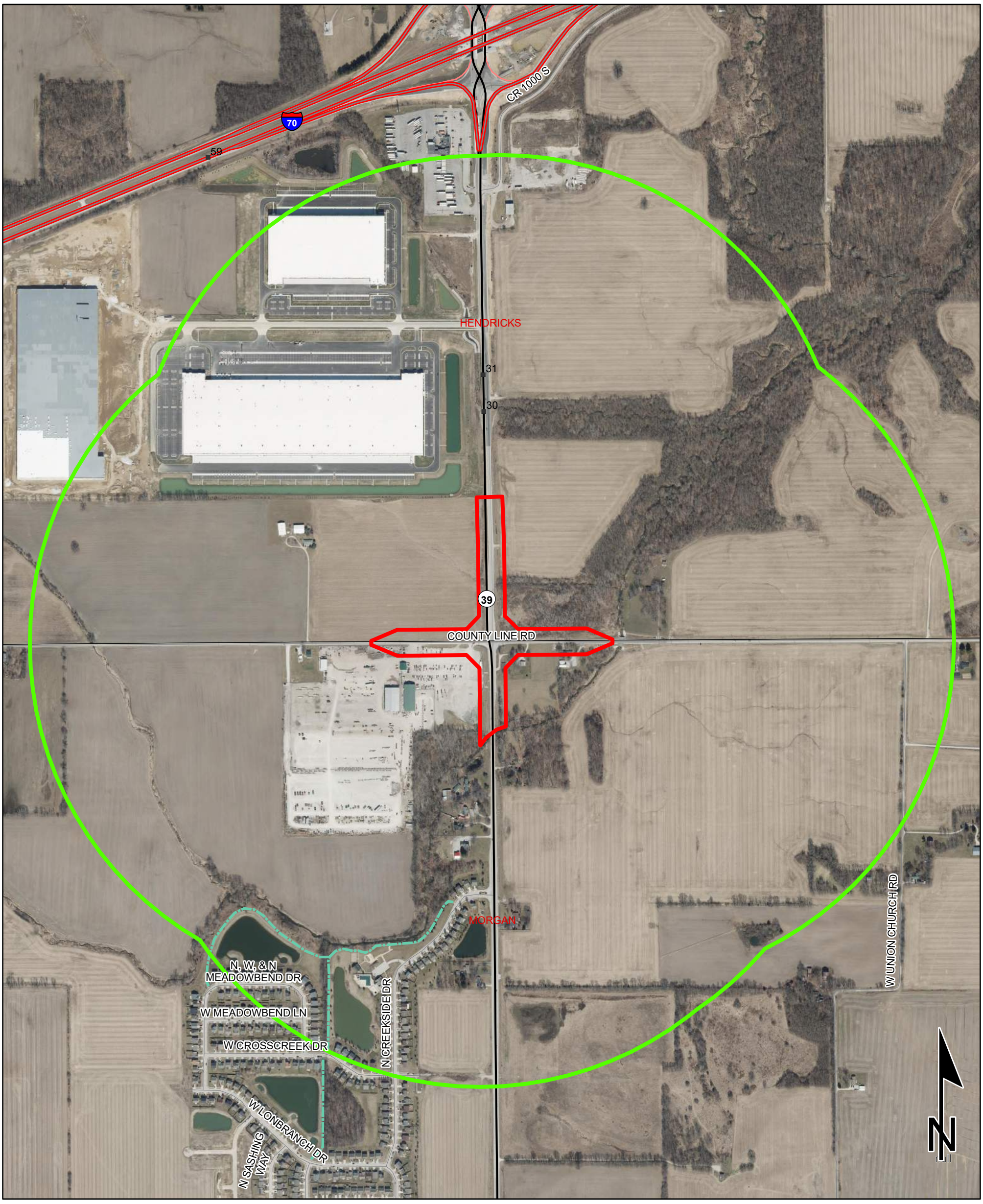
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

1.5 0.75 0 1.5 Miles

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

MOORESVILLE WEST
QUADRANGLE
INDIANA
7.5 MINUTE SERIES
(TOPOGRAPHIC)

Red Flag Investigation - Infrastructure
SR 39 at Keller Hill Rd., 0.89 Mile South of I-70
Des. No. 2200084, Intersection Improvement
Hendricks & Morgan Counties, Indiana



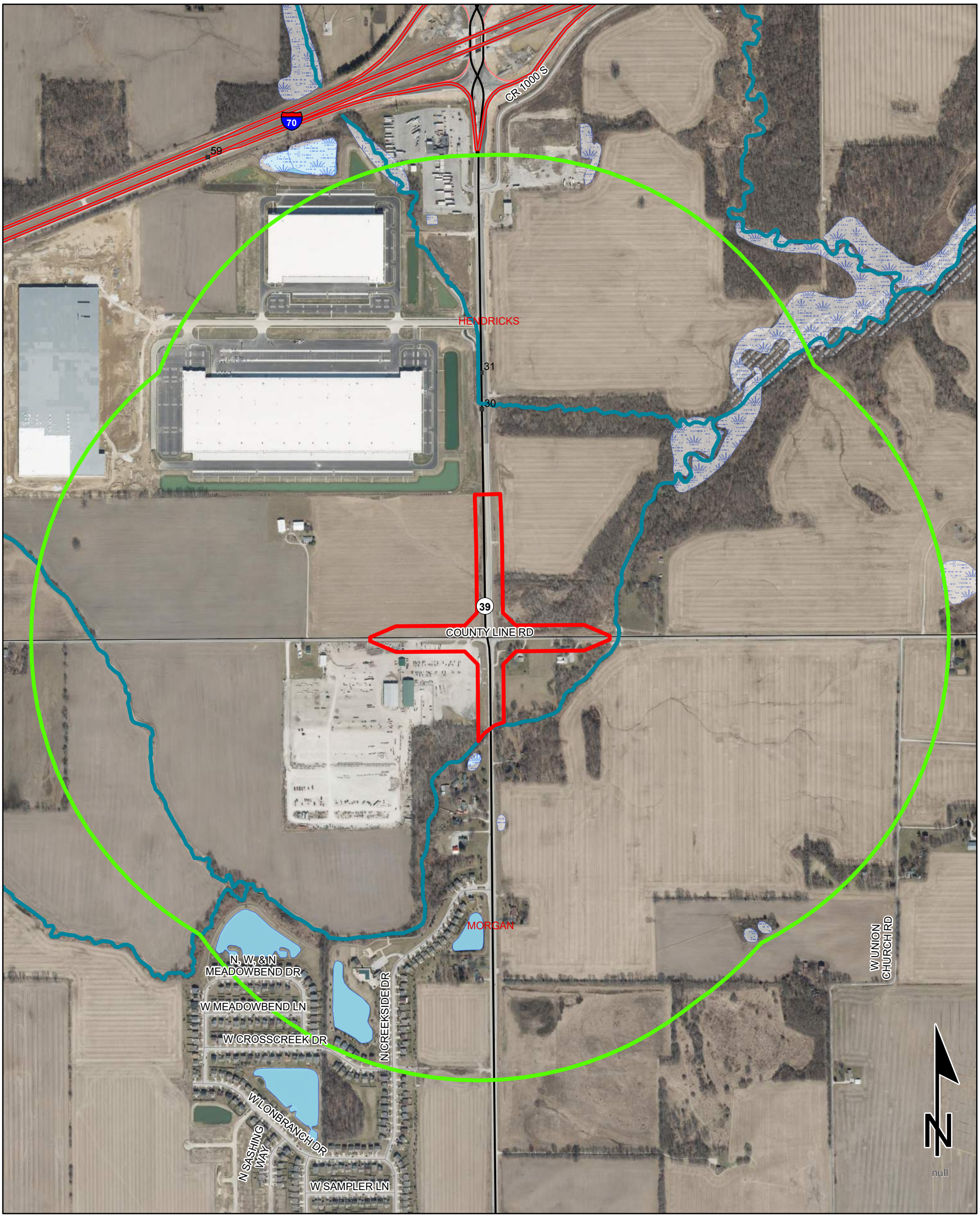
0.15 0.07 0 0.15 Miles

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

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

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

Red Flag Investigation - Water Resources
SR 39 at Keller Hill Rd., 0.89 Mile South of I-70
Des. No. 2200084, Intersection Improvement
Hendricks & Morgan Counties, Indiana



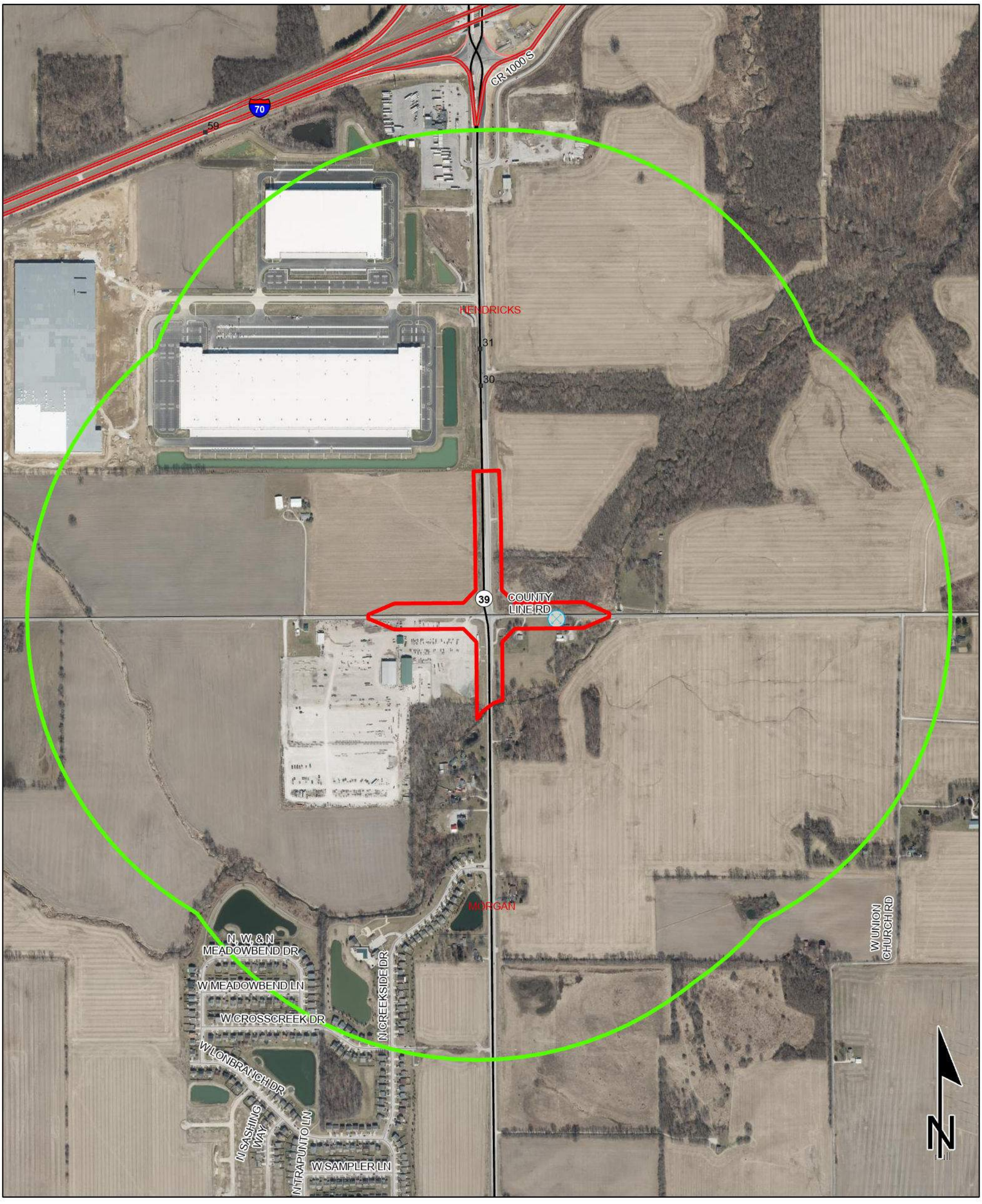
0.15 0.07 0 0.15 Miles

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

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

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

Red Flag Investigation - Mining / Mineral Exploration
SR 39 at Keller Hill Rd., 0.89 Mile South of I-70
Des. No. 2200084, Intersection Improvement
Hendricks & Morgan Counties, Indiana



0.15 0.07 0 0.15 Miles

Sources:

Non Orthophotography

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

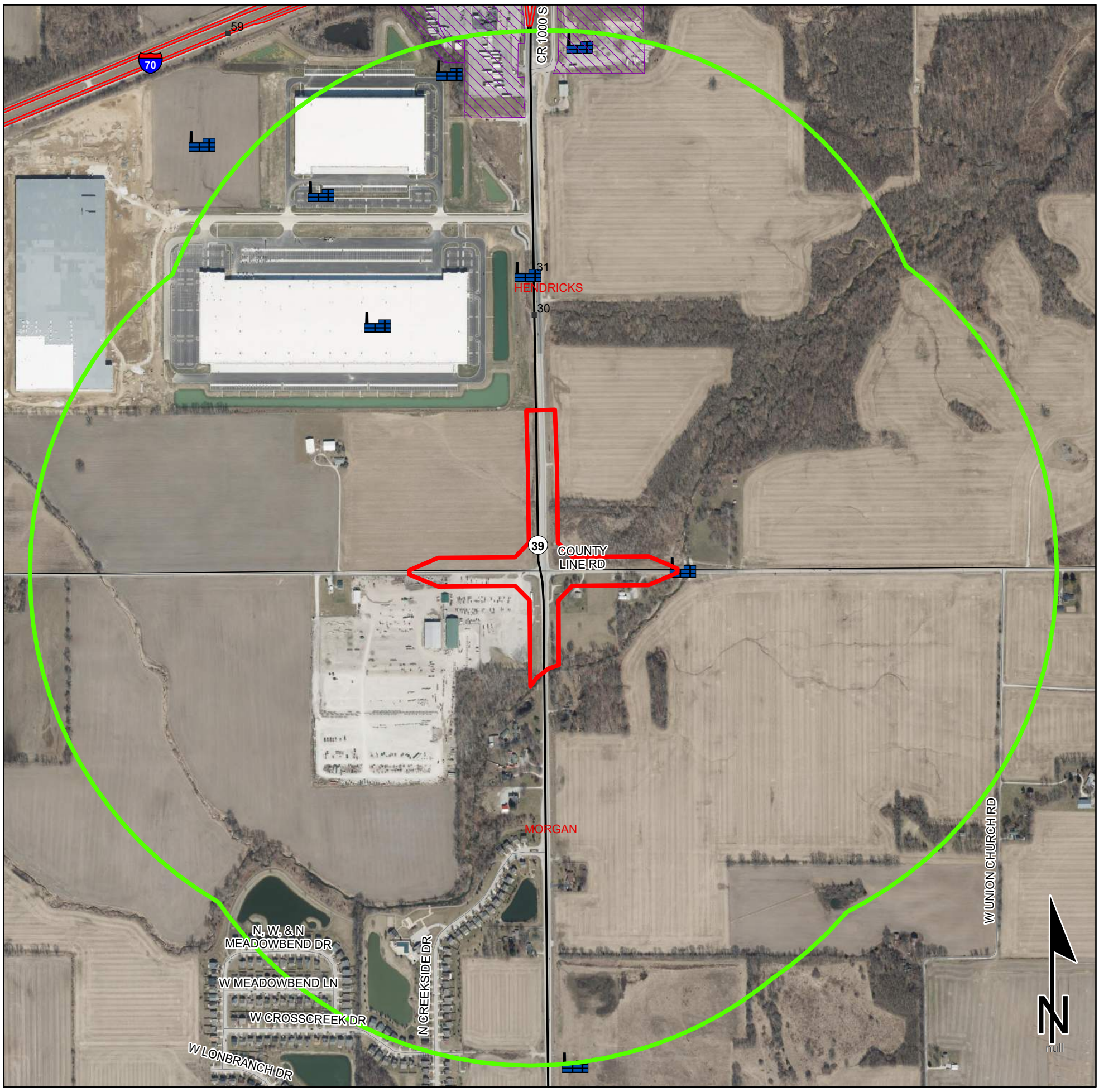
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

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 Material Concerns
SR 39 at Keller Hill Rd., 0.89 Mile South of I-70
Des. No. 2200084, Intersection Improvement
Hendricks & Morgan Counties, Indiana



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

0.15 0.07 0 0.15 Miles

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

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

From: INDOT esd.sam <esd.sam@indot.IN.gov>
Sent: Wednesday, July 30, 2025 9:35 AM
To: Emma Bellefuil
Subject: RE: Des. No. 2200084 Red Flag Investigation Re-Evaluation

Caution: This e-mail originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Emma,

No addendum necessary! You could mention the new institutional control site in the environmental document as just a brief note. Otherwise everything is good!

Dariane Davis
Site Assessment & Management (SAM) Environmental Manager
100 North Senate Avenue N758-ES
Indianapolis, Indiana 46204
Email: ddavis3@indot.in.gov
Office Hours: 8 to 4 PM

From: Emma Bellefuil <ebellefuil@dccm.com>
Sent: Wednesday, July 30, 2025 8:29 AM
To: INDOT esd.sam <esd.sam@indot.IN.gov>
Cc: Harlan Ford <hford@dccm.com>
Subject: Des. No. 2200084 Red Flag Investigation Re-Evaluation

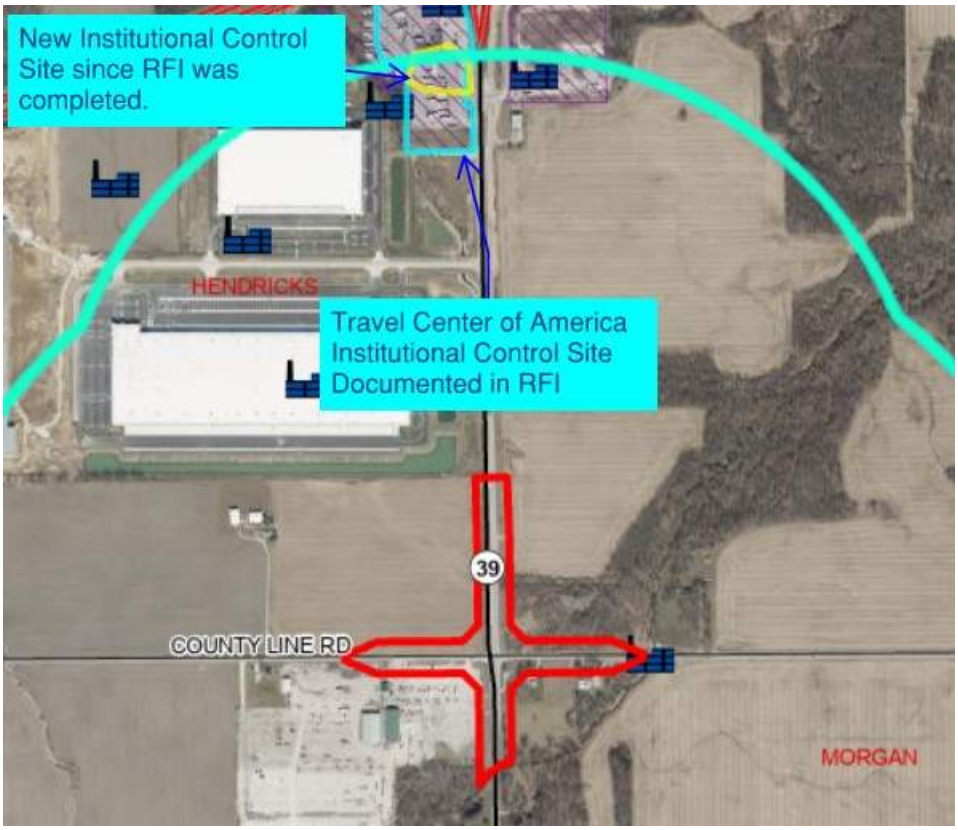
EXTERNAL EMAIL: This email was sent from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Hello INDOT SAM,

I wanted to reach out to get your thoughts on a project we are working on where the red flag investigation (RFI) document was completed just over a year ago. The RFI was completed and concurred with on July 12, 2024. The project is located on SR 39 at Keller Hill Road in

Hendricks and Morgan Counties. We are requesting concurrence on whether or not an RFI Addendum is needed due to the original RFI being older than one year.

I've conducted a review of the RFI layers and there is one additional Institutional Control site found approximately 0.46 mile north of the project area. The Travel Center of America is still the nearest Institutional Control site and no impacts are expected. The additional Institutional Control site is confined in the boundaries of the Travel Center of America site and all information in GIS is "null" for the site. Please see the below snippet that shows the additional Institutional Control site. No other additional RFI layer resources were found during the review.



It is our assessment that an RFI Addendum is not warranted, but please let us know how you would like us to proceed.

Thank you for your coordination!

Emma Bellefuil
NEPA Specialist

RQAW | DCCM

A 8770 North Street, Suite 110, Fishers, IN 46038

Categorical Exclusion

Appendix F

Water Resources

Lily Alexander

11/14/24

Waters of the U.S. Determination
State Road (SR) 39 Intersection Improvement Project
Hendricks and Morgan Counties, Indiana
Des. No. 2200084
Prepared by: Samantha Kooy, RQAW | DCCM
Preparer Email: skooy@dccm.com
Completed Date: October 30, 2024

Project Information

Dates of Waters Field Investigation:
A field investigation was conducted on August 19, 2024, by RQAW | DCCM to evaluate the presence of *Waters of the United States* for the proposed State Road (SR) 39 Intersection Improvement Project in Hendricks and Morgan Counties, Indiana.

Location:
Section: 01 and 36, Township:13-N and 14-N, Range: 1-W
Mooresville West US Geological Survey (USGS) Quadrangle
Hendricks and Morgan Counties, Indiana

12 Digit HUC and Drainage Area:
051202011310 – McCracken Creek

Center coordinates

Latitude:	39.60079
Longitude:	-86.47949

Project Description:
The Indiana Department of Transportation (INDOT) Crawfordsville District proposes to proceed with an intersection improvement project through the Town of Monrovia in Hendricks and Morgan Counties, Indiana. The proposed project would involve constructing a roundabout at the intersection of SR 39 and Keller Hill Road. The existing right turn lanes would be removed, and grading would be required to match the existing pavement elevation. New guardrail would likely be needed in the southbound direction of SR 39 as the turn lane pavement would be removed. Due to the curb and gutter required for the roundabout, a storm sewer would likely be installed to carry water away from the intersection. The "investigation area" defined in this report encompasses the area potentially affected by the proposed nature and design of the intersection improvement. Should any work occur outside the designated investigation area, an amendment to this report would be required.

National Wetlands Inventory (NWI) Wetlands:
According to the U.S. Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) data available through IndianaMap (http://www.indianamap.org/), one NWI polygon is located within the investigation area. The polygon is located within the confines of McCracken Creek and is classified as R2UBH (Riverine, Lower Perennial, unknown subclass, Unconsolidated Bottom, Permanently Flooded). The NWI polygon was verified as not present within the investigation area during a field investigation on August 19, 2024. A map showing the NWI layer turned on is provided with the attachments (Page A4).

National Geological Survey (USGS) National Hydrography Dataset (NHD):
According to the United States National Geological Survey (USGS) National Hydrography Dataset (NHD), there are three (3) NHD lines within the investigation area. One line, located in the southern and western sections of the investigation area, is classified as a Canal Ditch and was verified as not present within the investigation area during the August 19, 2024, field investigation. Two lines are classified as a Stream/River. One Stream/River line, located in the northern section of the investigation area, was verified as an unnamed tributary (UNT) 1 to McCracken Creek during a field investigation on August 19, 2024. One Stream/River line, located in the western section of the investigation area, was verified as not present within the investigation area during the field investigation. Further information about UNT 1 to McCracken Creek can be found in the streams section of this report. A map showing the NHD flowline layer turned on is provided in the attachments (Page A4).

Soils:
According to the Soil Survey Geographic (SSURGO) Database for Hendricks and Morgan Counties, Indiana the investigation area contains one (1) nationally listed hydric soil. Please see Soil Map on Page A3.

Table 1. NRCS SSURGO Mapped Soil Units

Soil Unit Name	Symbol	NRCS Hydric Soil Category	SSURGO Hydric Rating
Martinsville loam, 2 to 6 percent slopes	MeB	Non-hydric	0%
Martinsville loam, 2 to 6 percent slopes, eroded	MeB2	Non-hydric	0%
Rensselaer clay loam, till substratum, 0 to 2 percent slopes	RegA	Predominately hydric	98%
Shoals silt loam, 0 to 2 percent slopes, frequently flood, brief duration	Sh	Predominately non-hydric	4%

Field Investigation Summary:
During the field investigation conducted on August 19, 2024, by RQAW | DCCM two (2) intermittent (INT) streams (UNT 1 to McCracken Creek and UNT 2 to McCracken Creek) and three (3) wetlands (Wetland A, Wetland B, and Wetland C) were identified within the investigation area. Wetland A is palustrine emergent (PEM), and Wetland B and Wetland C are palustrine scrub shrub (PSS).

Streams:
According to the hydrology data available through IndianaMap (http://www.indianamap.org/) Mooresville West USGS topographic map (1:24,000 scale) (Page A2), one (1) USGS perennial blueline stream is located within the investigation area. There is one solid blue line, indicating the presence of a perennial stream within the investigation area. The blueline stream, UNT 1 to McCracken Creek, was verified during the field investigation on August 19, 2024. All streams were observed to be of average quality due to their low to moderate volume, consistent duration of flow, limited presence or absence of invasive flora, the absence of fauna, the lack of an established riffle and pool complex, and/or the presence of a buffer from nearby roads.

UNT 1 to McCracken Creek (INT)
This stream flows from west to east through the investigation area. This stream was determined to have an intermittent flow and a defined bed and bank. This stream exhibited an upstream Ordinary High Water Mark (OHWM) of 3.5 feet wide and 1.0 foot deep, and a downstream OHWM of 4.0 feet wide and 1.5 feet deep. Approximately 250 linear feet (0.023 acre) of UNT 1 to McCracken Creek is located within the investigation area. UNT 1 to McCracken Creek drains to McCracken Creek, which drains to White Lick Creek, which drains to the White River, a Traditional Navigable Waterway (TNW). Based on hydrological connection to a TNW, UNT 1 to McCracken Creek is likely to be considered a *Water of the United States*. Please see Table 3 below for full details and StreamStats Report on Page A5.

UNT 2 to McCracken Creek (INT)
This stream flows southward into UNT 1 to McCracken Creek. This stream was determined to have an intermittent flow and a defined bed and bank. This stream exhibited an OHWM of 3.0 feet wide and 0.5 feet deep. Approximately 341 linear feet (0.024 acre) of UNT 2 to McCracken Creek is located within the investigation area. UNT 2 to McCracken Creek drains to UNT 1 to McCracken Creek which as described above eventually drains to the White River, a TNW. Based on hydrological connection to a TNW, UNT 2 to McCracken Creek is likely to be considered a *Water of the United States*. Please see Table 3 below for full details and StreamStats Report on Page A6.

Table 3: Stream Summary Table													
Stream Name	**Flow**	**Area (ac)**	**Length (lft)**	**Quality**	**Photo No (s).**	**Associated Structure ID**	**Likely WOTUS?**	**OHWM (ft)**	**Lat (°N) / Long (°W)**	**Upstream Drainage (sqmi)**	**Riffle/ Pools?**	**Substrate**	**Notes**
UNT 1 to McCracken Creek	INT	0.023	250	Average	17, 39, 40	CV 039-032-30.68	Yes	W: 4.0 D: 1.5	39.60219, -86.47980	0.153	No	Silt, Sand, Gravel	UNT 1 to McCracken Creek flows from west to east in the investigation area and is a blueline stream on the USGS Quadrangle Map
UNT 2 to McCracken Creek	INT	0.024	341	Average	25, 26	N/A	Yes	W: 3.0 D: 0.5	39.60203, -86.47937	0.001	No	Silt, Sand	UNT 2 to McCracken Creek flows southward into UNT 1 to McCracken Creek and is not a blueline stream on the USGS Quadrangle Map

Wetlands:
A total of seven (7) data points were taken to confirm the presence or absence of potentially jurisdictional wetlands within the investigation area. Three (3) wetlands were identified and delineated within the investigation area in accordance with the *Corps of Engineers Wetland Determination Manual* (U.S. Army Corps of Engineers [USACE], 1987) *and Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region 2.0* (USACE, 2010). The wetlands are classified according to the Cowardin et al. (1979) classification scheme.

Wetland A (PEM)
Wetland A is considered of poor quality and is in a depression at the northwest corner of the intersection of SR 39 and Keller Hill Road. Wetland A is 0.013 acre and located entirely within the investigation area. Wetland A drains north via roadside ditch (RSD) 1 to UNT 1 to McCracken Creek, which as described above eventually drains to the White River, a TNW. Based on hydrological connection to a TNW, Wetland A is likely to be considered a *Water of the United States*. Please see Table 4 below for details.

Wetland B (PSS)
Wetland B is considered of average quality and is in a depression just north of UNT 1 to McCracken Creek. Wetlands B and C are bisected by UNT 1 to McCracken Creek. Wetland B is 0.083 acre and extends east beyond the investigation area. Wetland B abuts UNT 1 to McCracken Creek which as described above eventually drains to the White River, a TNW. Based on hydrological connection to a TNW, Wetland B is likely to be considered a *Water of the United States*. Please see Table 4 below for details.

Wetland C (PSS)
Wetland C is considered of average quality and is in a depression just south of UNT 1 to McCracken Creek. Wetlands B and C are bisected by UNT 1 to McCracken Creek. Wetland C is 0.076 acre and extends east beyond the investigation area. Wetland C abuts UNT 1 to McCracken Creek which as described above eventually drains to the White River, a TNW. Based on hydrological connection to a TNW, Wetland C is likely to be considered a *Water of the United States*. Please see Table 4 below for details.

Table 4: Wetland/ Data Point Summary Table

Wetland ID	Type	Acreage (ac)	Quality	Photo No (s).	Likely WOTUS?	Data Point ID	Lat (°N) / Long (°W)	Dominant Vegetation	Hydric Soil Indicator(s)	Hydrology Indicator(s)	Within Wetland?	Notes
Wetland A	PEM	0.013	Poor	6-10	Yes	A1	39.60090, -86.47973	*Poa pratensis, Cyperus esculentus*	A11, F3	A1, A3, D2, D5	Yes	Wetland A is located entirely within the investigation area and is hydrologically connected to UNT 1 to McCracken Creek to the north.
						A2	39.60113, -86.47975	*Festuca rubra, Paspalum laeve*	F3	None	No	This data point did not exhibit all three criteria to be considered within a wetland.
Wetland B	PSS	0.083	Average	34-40	Yes	B1	39.60211, -86.47937	*Salix interior, Leersia oryzoides*	0.001	D2, D5	Yes	Wetland B extends east outside of the investigation area and is hydrologically connected to UNT 1 to McCracken Creek to the south.
						B2	39.60218, -86.47935	*Festuca rubra*	S5	None	No	This data point did not exhibit all three criteria to be considered within a wetland.
Wetland C	PSS	0.076	Average	39-45	Yes	C1	39.60201, -86.47939	*Salix interior, Leersia oryzoides, Schedonorus arundinaceous, Convolvulus arvensis, Sicyos angulatus*	S5	A2, A3, D2, D5	Yes	Wetland C extends east outside of the investigation area and is hydrologically connected to UNT 1 to McCracken Creek to the north.
						C2	39.60187, -86.47935	*Pyrus calleryana, Juniperus virginiana, Lonicera mackii, Salix interior, Solidago altissima*	None	None	No	This data point did not exhibit all three criteria to be considered within a wetland. This point was taken south of Wetland C due to the presence of riprap and the slope of the ditch west of Wetland C.
N/A	N/A	N/A	N/A	18, 20-24	N/A	UP1	39.60203, -86.47978	*Salix interior, Cyperus esculentus, Leersia oryzoides, Melilotus officinalis*	None	D5	No	This data point did not exhibit all three criteria to be considered within a wetland.

Roadside Ditches:
Four non-jurisdictional RSDs were identified within the investigation area. These features lacked an OHWM or defined bed and bank and did not display all three criteria to be considered within a wetland. Features represent the full length of a continuous ditch that maintains both substrate type and flow direction. Soil substrate refers to an unconsolidated bottom that includes both vegetated and unvegetated RSD features. Mapping for all RSD features can be found in the attachments (Pages A13-A18).

Table 2: Roadside Ditch Summary

RSD No.	Location	Length (ft)	Flow Direction	Lat (°N) / Long (°W) (Center Point)
RSD 1	West of SR 39/North of Keller Hill Road	406	North	39.60153, -86.47976
RSD 2	East of SR 39/North of Keller Hill Road	278	South	39.60246, -86.47936
RSD 3	East of SR 39/South of Keller Hill Road	157	South	39.60044, -86.47939
RSD 4	East of SR 39/South of Keller Hill Road	542	South	39.59953, -86.47939

Wildlife Crossings:
One structure present within the investigation area (CV 039-032-30.68) would potentially to be used by both aquatic and terrestrial wildlife for crossings and habitat. No wildlife was seen during the field investigation.

Bats and Birds:
No Federal or State listed endangered or threatened bats were observed utilizing CV 039-032-30.68 within the investigation area during the field investigation. No migratory bird nests, including Barn and Cliff Swallows, were observed utilizing the structure within the investigated area.

Open Water:
No open water features were observed in or adjacent to the investigation area.

Conclusions:
A field investigation was conducted on August 19, 2024, by RQAW | DCCM to evaluate the presence of *Waters of the United States* for the SR 39 Intersection Improvement Project in Hendricks and Morgan Counties, Indiana.

Field observations identified two Unnamed Tributaries (UNT 1 and 2 to McCracken Creek), and three wetlands (Wetlands A, B, and C) within the investigation area. Based on their hydrological connection to the White River, a TNW, UNT 1 and 2 to McCracken Creek and Wetlands A, B, and C are likely to be considered *Water of the United States*.

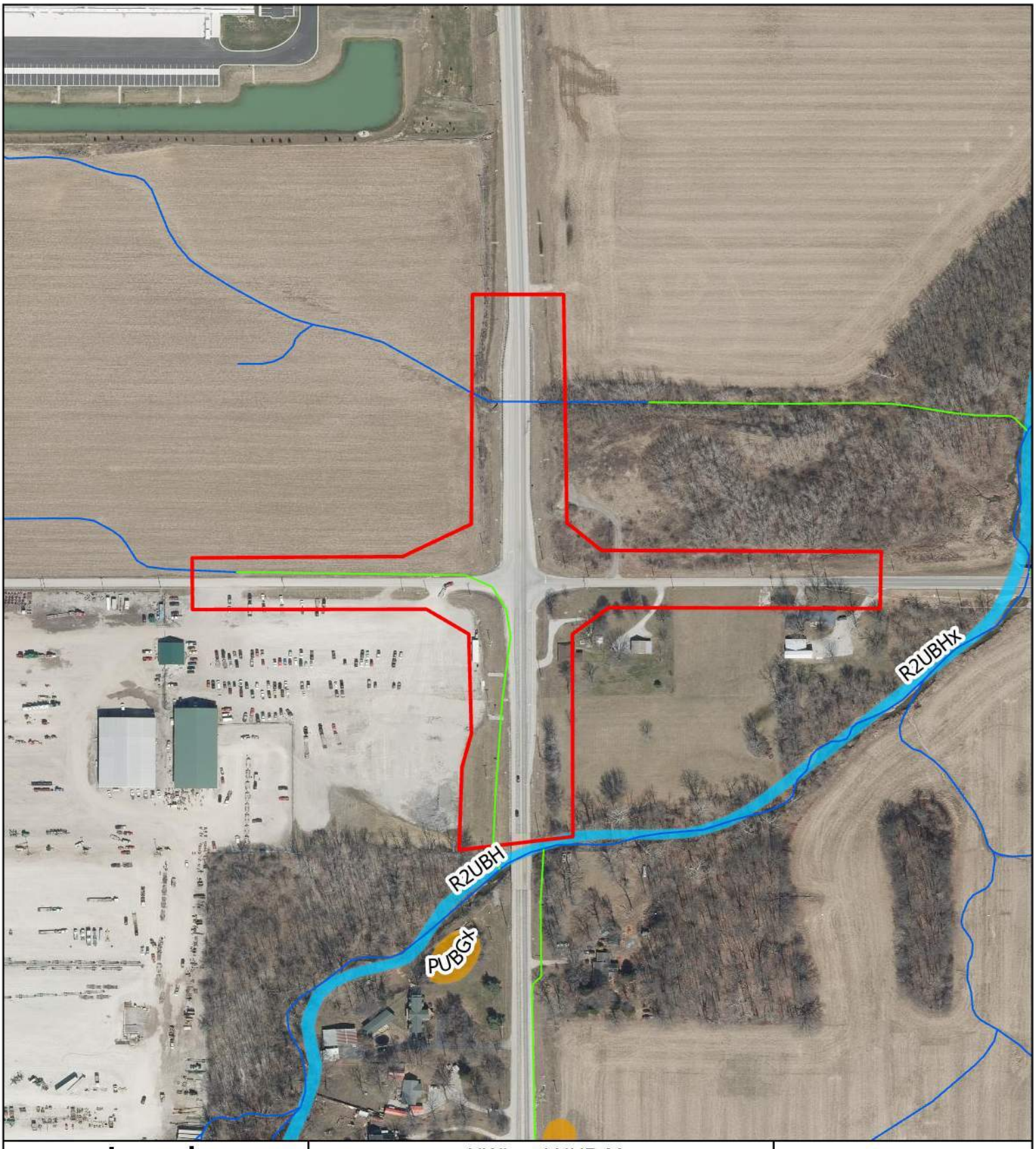
Every effort should be taken to avoid and minimize impacts to these waterways. If impacts are necessary, then mitigation may be required. The INDOT District Ecology, Waterway Permitting, & Stormwater Office (EWPSO) should be contacted immediately if impacts will occur. The final determination of jurisdictional waters is ultimately made by the U.S. Army Corps of Engineers. This report is our best judgement based on the guidelines set forth by the Corps.

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

Prepared by:



October 30, 2024
Samantha Kooy
Environmental Scientist
RQAW | Environmental Department
skooy@dccm.com



Legend

- Investigation Area

Flowline

- Canal Ditch
- Stream/River

NWI Wetlands

- Palustrine
- Riverine

NWI and NHD Map

Location: State Road (SR) 39 at Keller Hill Rd., 0.89 Miles South of I-70
County: Hendricks and Morgan
Township(s): Liberty and Monroe
Des. No.: 2200084
Date: 08-20-2024

Coordinate System: GCS WGS 1984

RQAW | DCCM

Indiana Geographic Information Office (IGIO) Orthoimagery

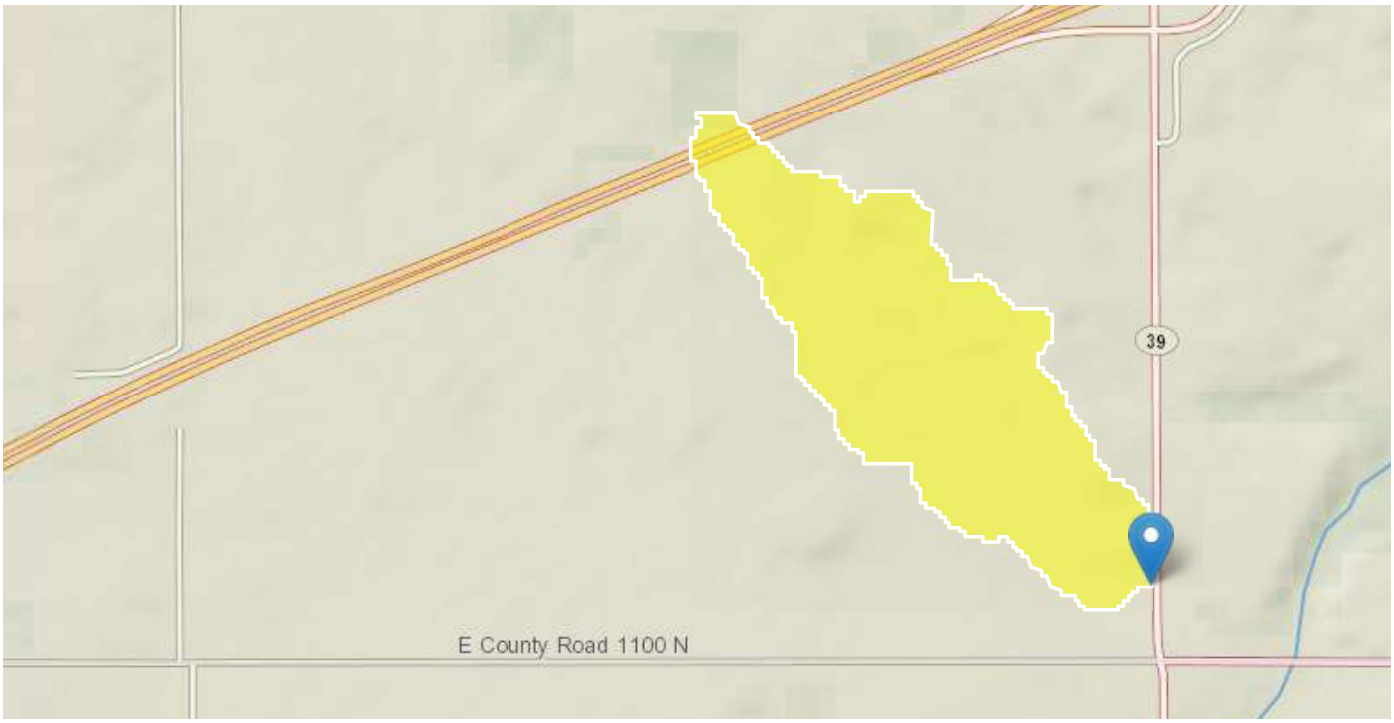
N

0 0.04 0.08 Mi

0 215 430 US Feet

StreamStats Report - UNT 1 to McCracken Creek

Region ID: IN
Workspace ID: IN20240823193358434000
Clicked Point (Latitude, Longitude): 39.60220, -86.47990
Time: 2024-08-23 15:34:24 -0400



Collapse All

Basin Characteristics

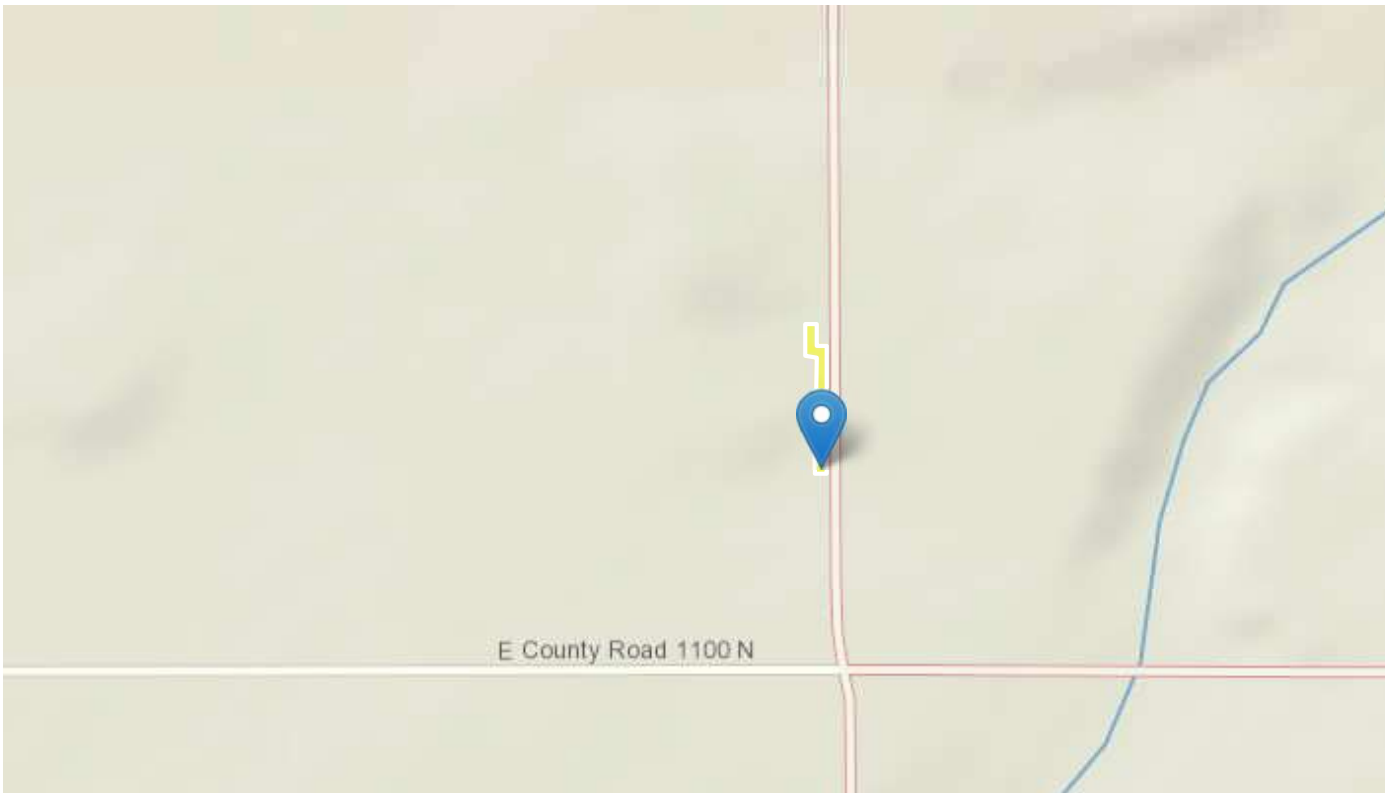
Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.153	square miles

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

StreamStats Report-UNT 2 to McCracken Creek

Region ID: IN
Workspace ID: IN20240829174426340000
Clicked Point (Latitude, Longitude): 39.60243, -86.47985
Time: 2024-08-29 13:44:53 -0400



Collapse All

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.001	square miles

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

Floodplain Analysis & Regulatory Assessment (FARA)

Indiana Department of Natural Resources



Point of Interest

Base Flood Elevation Point

POI

VERSION

1.0

DNR Approximate Floodway

DNR Approximate Fringe

Not Mapped

Long: **-86.47956882584181**

Lat: **39.60098093022462**

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

County: **Hendricks**

Stream Name:
Mccracken Creek

Approximate Ground Elevation: **763.3 feet (NAVD88)**

Base Flood Elevation: **753.2 Feet (NAVD88)**

Drainage Area: **Not Available**

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

National Flood Hazard Zone: **Not Mapped**

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

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

Floodplain Administrator: **Tonya Cottrell, Inspection Coordinator**

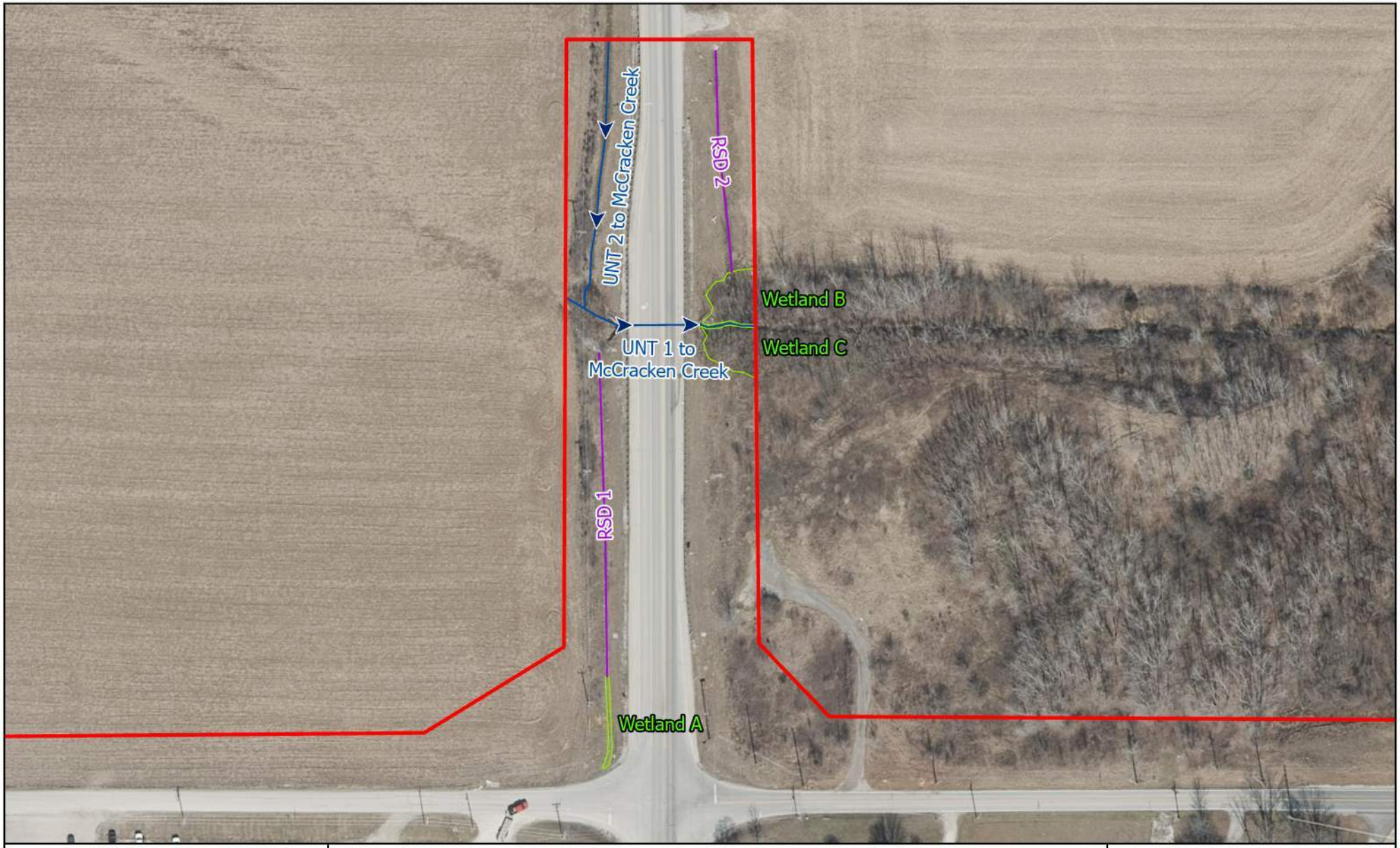
Community Jurisdiction: **Hendricks County, No Community Available**

Phone: **(317) 745-9445**

Email: **tcottrell@co.hendricks.in.us**

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

Date Generated: 8/27/2024



Legend

- Investigation Area
- Wetland Polygon
- Stream
- RSD

Water Resources Overview Map

Location: State Road (SR) 39 at Keller Hill Rd.,
0.89 Miles South of I-70
County: Hendricks and Morgan
Township(s): Liberty and Monroe
Des. No.: 2200084
Date: 08-20-2024

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

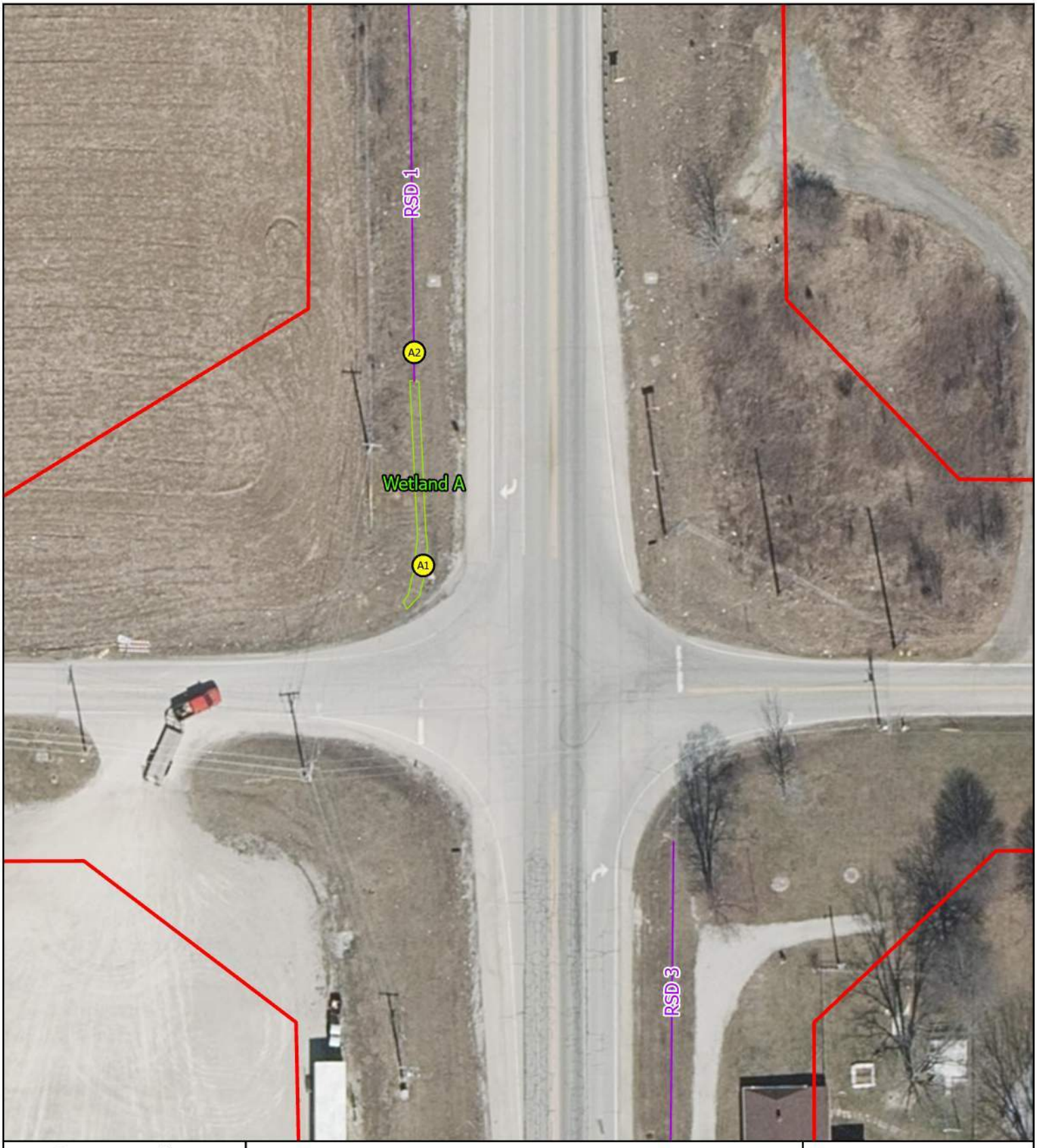
RQAW | DCCM

Indiana Geographic Information Office (IGIO) Orthoimagery

N

0 0.02 0.04 Mi

0 120 240 US Feet



Legend

- Investigation Area
- Wetland Polygon
- Stream
- RSD
- Data Point
- OWHM Location

Water Resources Map 1 of 2

Location: State Road (SR) 39 at Keller Hill Rd., 0.89 Miles South of I-70
County: Hendricks and Morgan
Township(s): Liberty and Monroe
Des. No.: 2200084
Date: 08-20-2024

Indiana Geographic Information Office (IGIO) Orthoimagery

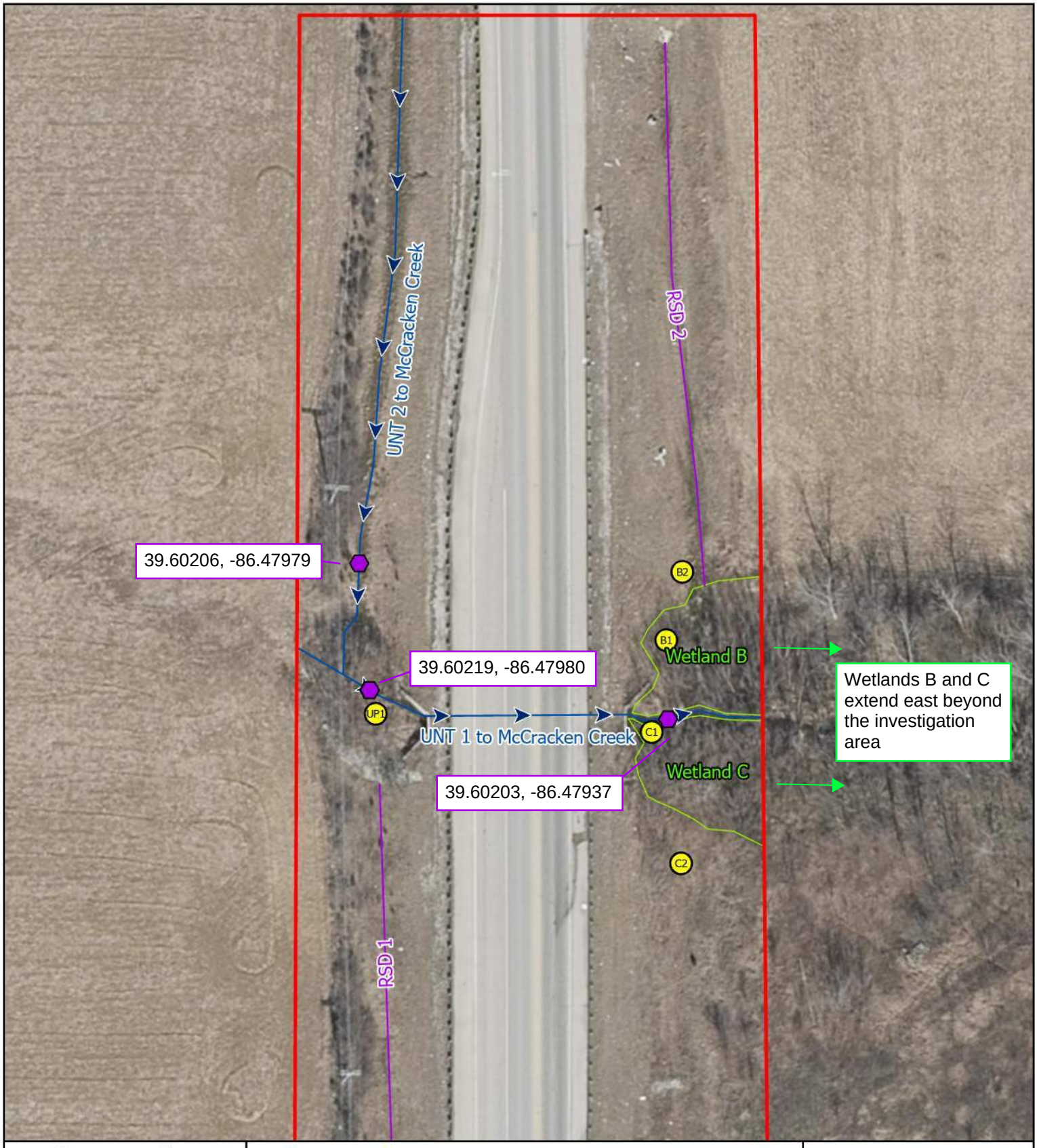
RQAW | DCCM

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.01 0.01 Mi

0 35 70 US Feet



Legend

- Investigation Area
- Wetland Polygon
- RSD
- Stream
- Data Point
- OWHM Location

Water Resources Map 2 of 2

Location: State Road (SR) 39 at Keller Hill Rd., 0.89 Miles South of I-70
County: Hendricks and Morgan
Township(s): Liberty and Monroe
Des. No.: 2200084
Date: 08-20-2024

Indiana Geographic Information Office (IGIO) Orthoimagery

RQAW | DCCM

Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere

N

0 0.01 0.01 Mi

0 35 70 US Feet

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

Site number	Latitude (decimal degrees)	Longitude (decimal degrees)	Estimated amount of aquatic resource in review area (acreage and linear feet, if applicable)	Type of aquatic resource (i.e., wetland vs. non-wetland waters)	Geographic authority to which the aquatic resource "may be" subject (i.e., Section 404 or Section 10/404)
Wetland A	39.60090	-86.47973	0.013 acre	Wetland	Non Section 10/Section404
Wetland B	39.60211	-86.47937	0.083 acre	Wetland	Non Section 10/Section404
Wetland C	39.60201	86.47939	0.076 acre	Wetland	Non Section 10/Section404
UNT 1 to McCracken Creek	39.60219	-86.47980	0.023 acre 250 linear feet	Non-Wetland	Non Section 10/Section404
UNT 2 to McCracken Creek	39.60203	-86.47937	0.024 acre 341 linear feet	Non-Wetland	Non Section 10/Section404

1) The Corps of Engineers believes that there may be jurisdictional aquatic resources in the review area, and the requestor of this PJD is hereby advised of his or her option to request and obtain an approved JD (AJD) for that review area based on an informed decision after having discussed the various types of JDs and their characteristics and circumstances when they may be appropriate.

2) In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre- construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an AJD for the activity, the permit applicant is hereby made aware that: (1) the permit applicant has elected to seek a permit authorization based on a PJD, which does not make an official determination of jurisdictional aquatic resources; (2) the applicant has the option to request an AJD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an AJD could possibly result in less compensatory mitigation being required or different special conditions; (3) the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) undertaking any activity in reliance upon the subject permit authorization without requesting an AJD constitutes the applicant's acceptance of the use of the PJD; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a PJD constitutes agreement that all aquatic resources in the review area affected in any way by that activity will be treated as jurisdictional, and waives any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an AJD or a PJD, the JD will be processed as soon as practicable. Further, an AJD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331. If, during an administrative appeal, it becomes appropriate to make an official determination whether geographic jurisdiction exists over aquatic resources in the review area, or to provide an official delineation of jurisdictional aquatic resources in the review area, the Corps will provide an AJD to accomplish that result, as soon as is practicable. This PJD finds that there *"may be"* waters of the U.S. and/or that there *"may be"* navigable waters of the U.S. on the subject review area, and identifies all aquatic features in the review area that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for PJD (check all that apply)

Checked items should be included in subject file. Appropriately reference sources below where indicated for all checked items:

- [x] Maps, plans, plots or plat submitted by or on behalf of the PJD requestor:
  Maps: Indiana GIO Library, IndianaMap, USGS, NWI
- [x] Data sheets prepared/submitted by or on behalf of the PJD requestor.
  - [ ] Office concurs with data sheets/delineation report.
  - [ ] Office does not concur with data sheets/delineation report. Rationale: _____.
- [ ] Data sheets prepared by the Corps: _____.
- [ ] Corps navigable waters' study: _____.
- [x] U.S. Geological Survey Hydrologic Atlas: USGS TNM-NHD: Data Refreshed October, 2020.
  - [x] USGS NHD data.
  - [ ] USGS 8 and 12 digit HUC maps.
- [x] U.S. Geological Survey map(s). Cite scale & quad name: Mooresville West / 1:24,000.
- [x] Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey: Hendricks and Morgan Counties.
- [x] National wetlands inventory map(s). Cite name: USFWS NWI data: Hendricks and Morgan Counties.
- [ ] State/local wetland inventory map(s): _____.
- [x] FEMA/FIRM maps: FEMA/FIRM Hendricks and Morgan Counties, Indiana.
- [ ] 100-year Floodplain Elevation is: _____.(National Geodetic Vertical Datum of 1929)
- [x] Photographs: [x] Aerial (Name & Date): Hendricks and Morgan Counties / NAIP Imagery 2016.
  or [x] Other (Name & Date): Photos taken: August 19, 2024.
- [ ] 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.

Samantha Kroog **10/30/2024**

Signature and date of Regulatory staff member completing PJD	Signature and date of person requesting PJD (REQUIRED, unless obtaining

[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.

Categorical Exclusion

Appendix G

Public Involvement

RQAW
DCCM

Corporate Headquarters
8770 North St., Ste. 110
Fishers, IN 46038
317.588.1798

Notice of Entry Letter

May 30, 2024

INDOT Designation Number: 2200084
SR 39 and Keller Hill Road: Intersection Improvement Project
Located 0.89 mile South of I-70
Hendricks and Morgan Counties

Dear Property Owner,

Our information indicates that you own property near the above referenced transportation project. RQAW Corporation has been selected by the Indiana Department of Transportation (INDOT) Crawfordsville District to complete the environmental document for this proposed project. RQAW will be performing a survey of environmental resources within the project area in the near future. It may be necessary for representatives from RQAW or sub-consultants for RQAW to enter your property to complete this work. This is permitted by law per Indiana Code (IC) 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself, if you are available, before they enter your property. If you no longer own this property, or if it is currently occupied by someone else, please let us know the name of the new owner or occupant so we can contact them about the survey.

Please read the attached notice to inform you what the "Notice of Entry for Survey or Investigation" means. **The survey work may include the identification and mapping of wetlands and historic resources, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites) and various other environmental studies.** The information we obtain from these studies is necessary for the proper planning and design of the transportation project.

At this stage, we generally do not know what effect, if any, the project may eventually have on your property. If we later determine your property is involved, you will be contacted with additional information.

RQAW and its sub-consultants will be conducting the field surveys for this project in the near future. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey.

If any problems occur, please contact Harlan Ford at RQAW at 317.588.1716 or at hford@rqaw.com.

Sincerely,

Harlan Ford
Environmental Department
RQAW Corporation

Attachment: *INDOT's Notice of Entry for Survey or Investigation*

INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

Eric J. Holcomb, Governor
Michael Smith, Commissioner

Indiana Department of Transportation
Notice of Entry for Survey or Investigation
Indiana Department of Transportation

If you have received a "Notice of Entry for Survey or Investigation" from INDOT or an INDOT representative, you may be wondering what it means. In the early stages of a project's development, INDOT must collect as much information as possible to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, INDOT is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department's authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey or Investigation does not necessarily mean that INDOT will be buying property from you. It doesn't even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey or Investigation is sent out in the very early stages and since we want to collect data within AND surrounding the project's limits more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limits but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey or Investigation, very few specifics have been worked out and actual construction of the project may be several years in the future.

Before INDOT begins a project that requires them to purchase property from landowners, they must first offer the opportunity for a public hearing. If you were on the list of people who received a Notice of Entry for Survey or Investigation, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, INDOT will publicize the date, location, and time. INDOT will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback INDOT receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a "Notice of Entry for Survey or Investigation", remember:

1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
2. The project is still in its very early planning stages.
3. You will be notified of your opportunity to comment on the project at a later date.

Categorical Exclusion

Appendix H

Air Quality

Project Overview | Funding History | Amendment History

<<Go Back

SR 39 & Keller Hill Rd Roundabout (2200084)

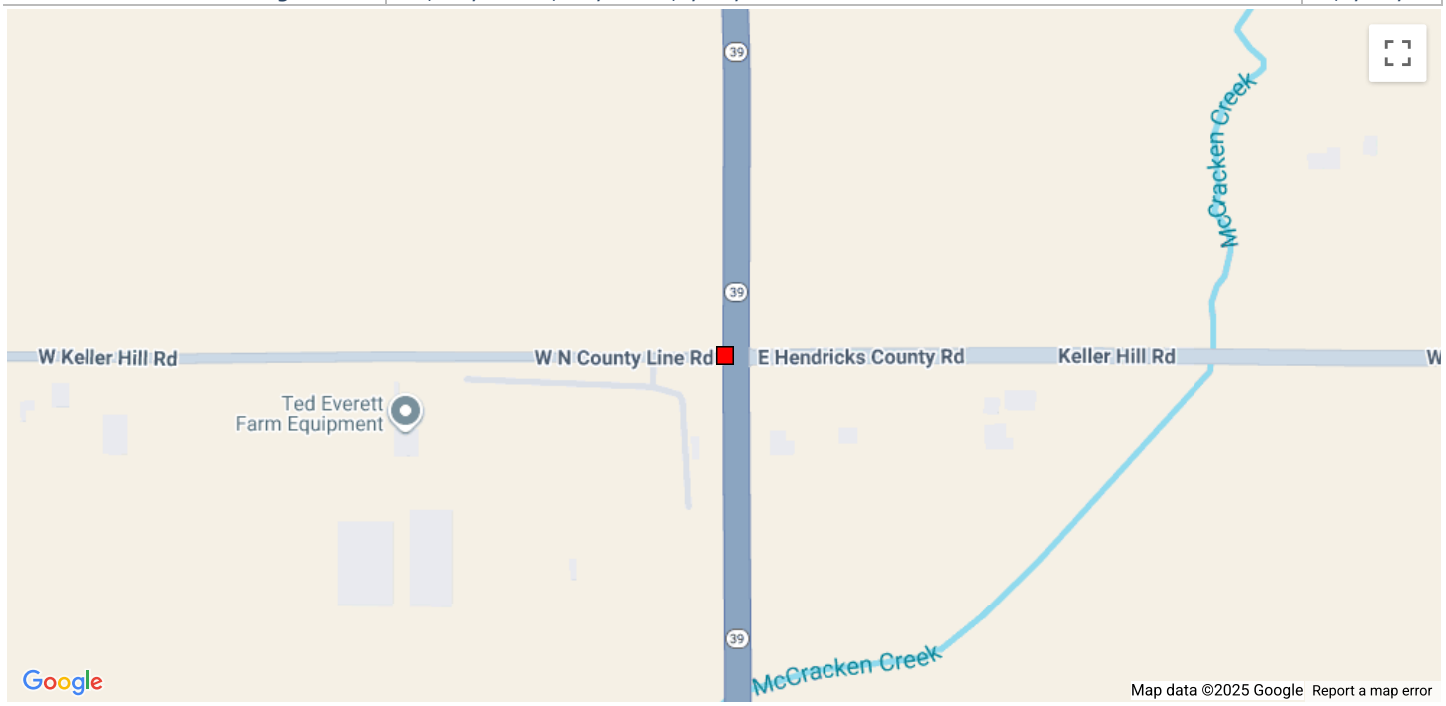
Des Number	2200084	*Amendment*	26-00 TIP	*Exempt Category*	Exempt	*Est Total Project Cost*	$5,029,582
Lead Agency	INDOT	*Contact (ERC)*		*INDOT District*	Crawfordsville	*County*	Hendricks
Project Type	Intersection Improvement, Roundabout	*Letting Date*		*Functional Classification*	Major Collector	*Bike/Ped Component(s)*	No
Seconday Des Number							

Title SR 39 & Keller Hill Rd Roundabout

Limits Nearest Crossstreet: Keller Hill Road

Description SR 39 at Keller Hill Road, 1.51 miles N of SR 42, Intersection Improvement, Roundabout, Hendricks County

Phase	Fund Source	Prior SFY	SFY2026	SFY2027	SFY2028	SFY2029	SFY2030	Future SFY	Total
PE	FEDERAL - State STBG	$725,982	-	-	-	-	-	-	$725,982
PE	STATE - Other	$7,600	-	-	-	-	-	-	$7,600
	Total Preliminary Engineering	$733,582	-	-	-	-	-	-	$733,582
RW	FEDERAL - State STBG	-	$90,000	-	-	-	-	-	$90,000
RW	STATE - Other	-	$10,000	-	-	-	-	-	$10,000
	Total Right of Way	-	$100,000	-	-	-	-	-	$100,000
CN	FEDERAL - State STBG	-	$270,000	$3,506,400	-	-	-	-	$3,776,400
CN	STATE - Other	-	$30,000	$389,600	-	-	-	-	$419,600
	Total Construction	-	$300,000	$3,896,000	-	-	-	-	$4,196,000
	Total Programmed	**$733,582**	**$400,000**	**$3,896,000**	**-**	**-**	**-**	**-**	**$5,029,582**



Federal Transit Administration
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253

U.S. Department of Transportation

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

August 28, 2025

Ms. Lyndsay Quist
Commissioner
Indiana Department of Transportation
100 N Senate Ave. N955
Indianapolis, IN 46204

SUBJECT: Indiana FY2026-2030 STIP Approval and Associated Federal Planning Finding

Dear Ms. Quist:

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have completed our review of the FY2026-2030 Indiana Statewide Transportation Improvement Program (INSTIP), which was submitted by the Indiana Department of Transportation (INDOT) request letter dated June 6, 2025.

Based on our review of the information provided, certifications of the Statewide and Metropolitan transportation planning processes for and within the state of Indiana, and our participation in those transportation planning processes (including planning certification reviews conducted in Transportation Management Areas), FHWA and FTA are jointly approving the FY2026-2030 STIP, including the Metropolitan Planning Organization (MPO) Transportation Improvement Programs (TIPs) incorporated into the STIP by reference, subject to the corrective action identified in the attached Federal Planning Finding (FPF) report. FHWA and FTA consider the projects in the 5th year for informational purposes only, and our approval does not exceed four years per 23 CFR 450.220(c).

FHWA and FTA are required under 23 CFR 450.220(b) to document and issue an FPF in conjunction with the approval of the FY2026-2030 STIP. At a minimum, the FPF verifies that the development of the STIP is consistent with the provisions of both the Statewide and Metropolitan transportation planning requirements. FHWA and FTA find that the Indiana FY2026-2030 STIP substantially meets the transportation planning requirements and are approving the STIP subject to the corrective action outlined in the FPF. This approval is effective August 22, 2025, and is given with the understanding that an eligibility determination of individual projects for funding must be met, and INDOT must ensure the satisfaction of all administrative and statutory requirements, as well as address the corrective actions outlined in the attached report.

If you have questions or need additional information concerning our approval and the FPF, please contact Ms. Erica Tait of the FHWA Indiana Division at (317) 226-7481, or by email at erica.tait@dot.gov, or Mr. Anthony Greep of the FTA Region 5 Office at (312) 353-2866, or by email at anthony.greep@dot.gov.

Sincerely,

KELLEY BROOKINS

Digitally signed by KELLEY BROOKINS
Date: 2025.08.27 08:09:52 -05'00'

Kelley Brookins
Regional Administrator
FTA Region V

Sincerely,



Digitally signed by CHRISTOPHER J HALL
Date: 2025.08.28 10:04:48 -05'00'

Christopher J. Hall
Interim Division Administrator
FHWA Indiana Division

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N758-Executive Office
Indianapolis, Indiana 46204

PHONE: (855) 463-6848

Mike Braun, Governor
Lyndsay Quist, Commissioner

June 6, 2025

Mr. Christopher J Hall, Interim Division Administrator
FHWA Indiana Division
575 North Pennsylvania St., Room 254
Indianapolis, IN 46204

Ms. Kelley Brookins, Regional Administrator
FTA Region 5
200 West Adams St.
Suite 320
Chicago, IL 60606-5253

Dear Mr. Hall /Ms. Brookins:

The Indiana Department of Transportation is pleased to submit its Draft FY 2026-2029 Statewide Transportation Improvement Program (STIP) for review and comment by your offices.

Included in the final submitted document is a listing of the state's expansion/preservation and local small urban and rural and rural transit projects. The following Metropolitan Planning Organization TIP's will be included in the FY 2024-2028 STIP by reference.

Area Plan Commission of Tippecanoe County (APCTC) FY 2026-2030
- APCTC TIP FY2026-2030

Bloomington-Monroe County Metropolitan Planning Organization (BMCMPO) FY 2026-2030
- BMCMPO TIP FY2026-2030

Columbus Area Metropolitan Planning Organization (CAMPO) FY 2026-2030
- CAMPO TIP FY2026-2030

Delaware-Muncie Metropolitan Plan Commission (DMMPC) FY 2026-2030
- DMMPC TIP FY2026-2030

Evansville Metropolitan Planning Organization (EMPO) FY 2026-2030
- EMPO TIP FY2026-2030

Indianapolis Metropolitan Planning Organization (IMPO) FY 2026-2029
- IMPO TIP FY2026-2029
- IMPO Project Listing FY2026-2029

Kokomo-Howard County Governmental Coordinating Council (KHCGCC) FY 2026-2030
- KHCGCC TIP FY2026-2030

Kentuckiana Regional Planning and Development Agency (KIPDA) FY 2025-2028
- KIPDA TIP FY2025-2028

Michiana Area Council of Governments (MACOG) FY 2026-2030
- MACOG TIP FY2026-2030

Madison County Council of Governments (MCCOG) FY 2026-2030
- MCCOG TIP FY2026-2030

Northeastern Indiana Regional Coordinating Council (NIRCC) FY 2026-2030
- NIRCC TIP FY2026-2030

Northwestern Indiana Regional Planning Commission (NIRPC) FY 2026-2030
- NIRPC TIP FY2026-2030

Ohio-Kentucky-Indiana Regional Council of Governments (OKI) FY 2026-2029
- OKI TIP FY2026-2029

Terre Haute Area Metropolitan Planning Organization (THAMPO) TIP FY 2026-2030
- THAMPO TIP FY2026-2029

We greatly appreciate FHWA/FTA support in the development of the STIP 2026-2029 and look forward to working together to achieve our mutual goals. Should you have any questions pertaining to this amendment, please contact April Leckie, STIP Administration at 317-232-5466 or at aleckie@indot.in.gov.

Sincerely,



Lyndsay Quist, Commissioner
Indiana Department of Transportation

cc: (w/enclosure): Angelica Salgado, FTA
Cecilia Crenshaw, FTA
Anthony Greep, FTA
Bill Wheeler, FTA
Kelley Brookins, FTA
Matt Kane, FTA
Susan Weber, FTA
Erica Tait, FHWA
Paige Story, FHWA
Lyndsay Quist, INDOT
Blake Martain, INDOT
Kathy Eaton-McKalip, INDOT
Louis Feagans, INDOT
April Leckie, INDOT
Roy Nunnally, INDOT
Larry Buckel, INDOT
Jay Mitchell, INDOT
Jason Casteel, INDOT
Ryan Pennington, INDOT
Michael McNeil, INDOT

Categorical Exclusion

Appendix I

Additional Studies

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

ProjectNumber	SubProjectCode	County	Property
1800110	1800110	Morgan	Pioneer Park
1800327	1800327G	Morgan	Morgan-Monroe State Forest
1800463	1800463	Hendricks	Avon Community Park
1800491	1800491	Morgan	Pioneer Park
1800521	1800521	Hendricks	McCloud Nature Park
1800540	1800540	Hendricks	Williams Park
1800576	1800576	Morgan	White River Greenway

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Abbreviated Engineering Assessment

SR 39 and Keller Hill Road Intersection

Crawfordville District

Indiana Department of Transportation



Prepared for INDOT Crawfordville District

January 2022

Parsons • 101 West Ohio Street, Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000

Table of Contents

LIST OF FIGURES III

LIST OF TABLES III

LIST OF ABBREVIATIONS III

SECTION 1: PROJECT OVERVIEW 1

1.1 PROJECT LOCATION 1

1.2 PURPOSE AND NEED STATEMENT 1

SECTION 2: EXISTING CONDITIONS 3

2.1 HISTORY AND GEOMETRY 3

2.2 EXISTING UTILITIES 3

2.3 EXISTING DRAINAGE 3

SECTION 3: TRAFFIC CRASH DATA 3

3.1 TRAFFIC DATA 3

3.2 CRASH DATA 3

SECTION 4: ALTERNATIVE ANALYSIS 4

4.1 NO BUILD ALTERNATIVE 4

4.2 LOW-COST ALTERNAIVE 4

4.3 RECONSTRUCTION ALTERNATIVE 4

4.4 MAINTENANCE OF TRAFFIC 5

4.5 ENVIRONMENTAL 6

4.6 UTILITY COORDINATION 6

4.8 RIGHT OF WAY 6

SECTION 5: COST ESTIMATE 8

5.1 CONSTRUCTION COST 8

SECTION 6: CONCLUSION 8

6.1 ANALYSIS 8

6.2 RECOMMENDED ALTERNATIVE 8

APPENDIX 1 – ROADHAT REPORT .....

APPENDIX 2 – COST ESTIMATE .....

APPENDIX 3 – DRAFT MINI-SCOPES .....

APPENDIX 4 – RED FLAG INVESTIGATION .....

APPENDIX 5 – UTILITY TICKET .....

APPENDIX 6 – SIGNAL WARRANT .....

APPENDIX 7 – CULVERT REPORT
APPENDIX 8 – DESIGN DETAILS

LIST OF FIGURES

Figure 1: Project Area 2
Figure 2: Single-Lane Roundabout 5
Figure 3: Local Detour Route 6
Figure 4: Right-of-Way Acquisition 7

LIST OF TABLES

Table 1: Primary cause of accidents 4
Table 2: Construction Cost 8

LIST OF ABBREVIATIONS

- AADT – Average Annual Daily Traffic
- ADA – Americans with Disabilities Act
- CE – Categorical Exclusion
- EA – Environmental Assessment
- EB – Eastbound
- HCS – Highway Capacity Software
- HSM – Highway Safety Manual
- ICC – Index of Crash Cost
- ICF – Index Crash Frequency
- IDEM – Indiana Department of Environmental Management
- IDM – Indiana Design Manual
- IDNR – Indiana Department of Natural Resources
- INDOT – Indiana Department of Transportation
- HMA – Hot Mix Asphalt
- LOS – Level of Service
- MPH – Miles Per Hour
- MPPA – Minor Projects Programmatic Agreement
- MOT – Maintenance of Traffic
- MUTCD – Manual of Uniform Traffic Control Devices
- NCHRP - National Cooperative Highway Research Program
- NEPA – National Environmental Policy Act
- NB – Northbound
- RFI – Red Flag Investigation
- RoadHAT – Road Hazard Analysis Tool
- SB - Southbound
- SR – State Road
- SUE – Subsurface Utility Exploration
- USACE – United States Army Corps of Engineers
- WB – Westbound
- WQC – Water Quality Certification

SECTION 1: PROJECT OVERVIEW

1.1 PROJECT LOCATION

The SR 39 and Keller Hill Road Intersection Project is located approximately 0.89 miles south of I-70 and 1.5 miles north of SR 42 in township 13 N and 14N, Range 1 W and Section 1 and 36 in Liberty and Monroe Townships in Hendricks County and Morgan County, Indiana, respectively. The approximate location of the project has a latitude of 39°36' 02" and a longitude of 86°28' 46" within the subdistrict of Cloverdale of the INDOT Crawfordville District. The Project Limits are shown in Figure 1 below. The town of Monrovia, Indiana is located approximately 1.5 miles south.

1.2 PURPOSE AND NEED STATEMENT

Within the project limits, the SR 39 and Keller Hill Road Intersection is experiencing an above normal number of crashes and crash severity for an Unsignalized Rural State Intersection.

The purpose of this project is to increase public safety by reducing the number of crashes at this intersection.

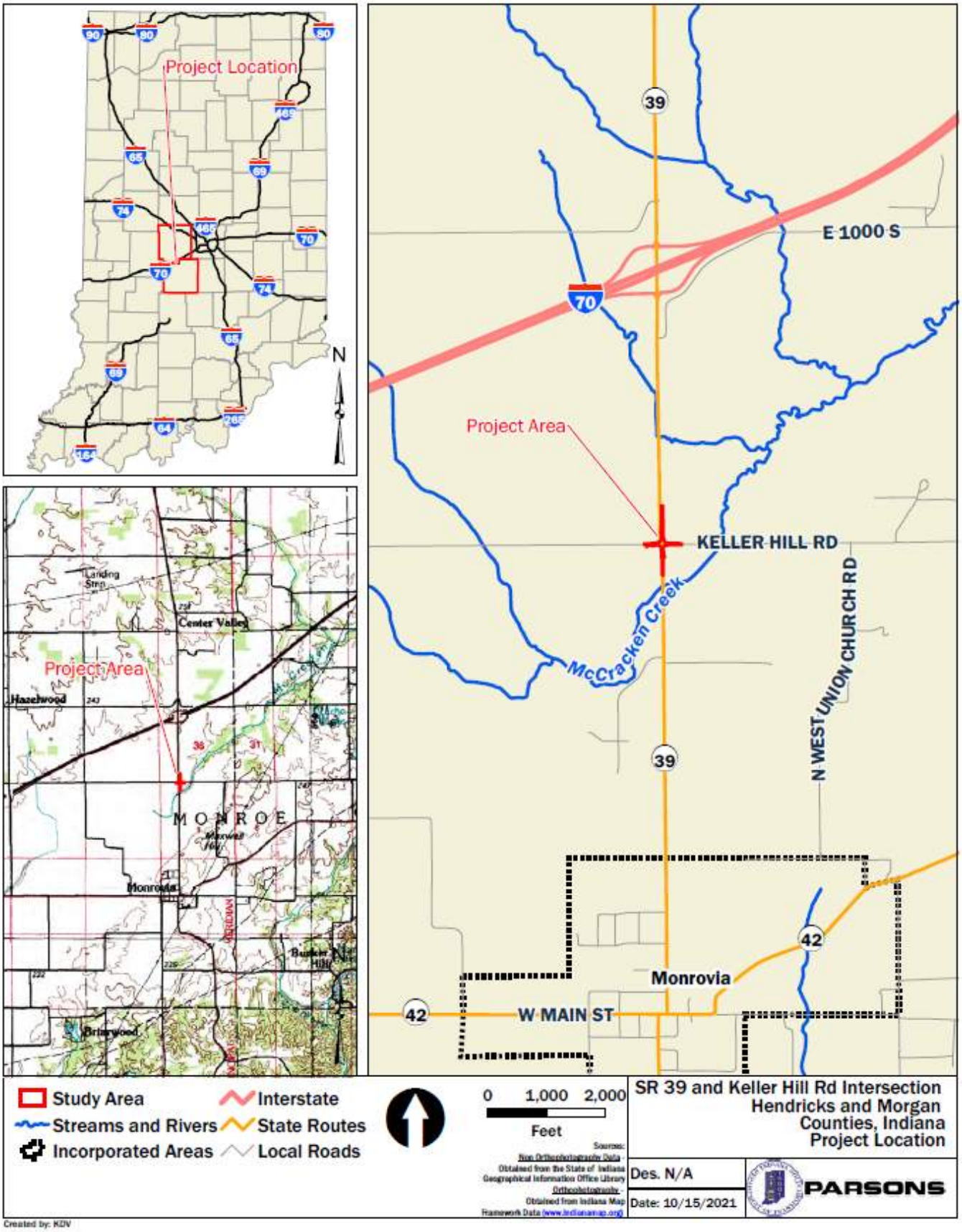


Figure 1: Project Area

SECTION 2: EXISTING CONDITIONS

2.1 HISTORY AND GEOMETRY

SR 39 is a major collector and Keller Hill Road is a rural local road. The SR 39 and Keller Hill Road intersection is classified as an Unsignalized Rural State Intersection. Keller Hill Road is a two-lane un-divided local road and is constructed with 9-foot travel lanes with 1-foot outside shoulders in each direction. SR 39 is a two-lane undivided highway and is constructed with two 12-foot lanes with 8-foot shoulders within the project limits. The posted speed along SR 39 is 55 mph and 50 mph along Keller Hill Road. Both directions of SR 39 have right turning lanes. Driveways exist on northbound SR 39, south of Keller Hill Road, on Keller Hill Road eastbound on both sides of the intersection, and on Keller Hill Road westbound on the east side of the intersection. The profile of SR 39 through the intersection is 2.2%.

2.2 EXISTING UTILITIES

Aerial electric and communication lines are present in the project area on the east and west side of US 39 and south and north side of Keller Hill Road. Underground utilities such as fiber optic, water, and gas are present in the project limits. A call ticket was created and is attached in Appendix 5.

2.3 EXISTING DRAINAGE

There are roadside ditches along the east and west sides of SR 39 and the north and south sides of Keller Hill Road. In addition to the roadside ditches, a culvert exists underneath the driveway of the parcel on northbound SR 39 south of the intersection. This ditch and culvert flow to the south, away from the project location. Underdrains are present under the shoulders on SR 39. A box culvert is present in the project area under SR 39, north of the intersection. The culvert is protected by guardrail on both sides of the road. The existing structure under SR 39 is an 8’ x 6’ segmental box built in 2010. The overall rating is a 7. There is light settlement through the structure and one segment has a hair line crack with efflorescence in the ceiling. See Appendix 7 for the culvert report from 2020.

SECTION 3: TRAFFIC CRASH DATA

3.1 TRAFFIC DATA

The AADT per INDOT’s Traffic Count Database System (TCDS) from 2021 is 8,879 vehicles per day on SR 39 and 1,883 vehicles per day on Keller Hill Road. The truck percentages are 8% for SR 39 and 11% for Keller Hill Road. The designer will need the latest traffic numbers and will need to redo the traffic analysis.

3.2 CRASH DATA

There were 19 crashes at this intersection between 2018 and 2020 including one fatal crash. From the available information in the narratives of the crashes, eight accidents involved incapacitating injuries (when either the driver or the passenger was transported to the hospital), and ten accidents involved property damages only.

The roadway performance was analyzed using RoadHAT. This Segment has an Index of Crash Frequency (ICF) of 1.47 and an Index of Crash Costs (ICC) of 2.16. The RoadHAT report and crash data are attached in Appendix 1.

The primary crash factors for all the recorded incidents are listed in Table 1 which shows that the majority of crashes are more likely attributable to driver failure to yield right of way than road features.

Table 1: Primary cause of accidents

PRIMARY FACTOR	% OF ACCIDENTS CAUSED
Read End	16%
Right Angle	74%
Same Direction Sideswipe	5%
Ran Off Road	5%

.

SECTION 4: ALTERNATIVE ANALYSIS

4.1 NO BUILD ALTERNATIVE

No-Build Alternative: Match the Existing conditions with No Improvements

The no-build alternative would include no changes to either the existing geometry or the roadside features. This alternative will not reduce the number of crashes and will not meet the Project Purpose and Need and is therefore discarded from further consideration.

4.2 LOW-COST ALTERNAIVE

Low-Cost Alternative: Install a Traffic Signal

Traffic signal warrants have been checked by District Traffic personnel who found a signal is not warranted for this location. Installing an unwarranted signal will cause excessive delay, higher crash rates and may result in disobedience of the traffic signal in this rural area. This alternative will not meet the Project Purpose and Need and therefore is discarded from consideration. The signal warrant can be found in Appendix 6.

4.3 RECONSTRUCTION ALTERNATIVE

Reconstruction Alternative: Single-Lane Roundabout

This alternative will consist of a single-lane roundabout that follows the design standards per NCHRP 672 and the IDM. Single lane roundabouts have one single lane entry at all legs and one circulatory lane. The geometric design will include raised spitter islands, truck apron, non-traversable central island, and appropriate entry path deflection. Since SR 39 and Keller Hill Road are high speed roadways, a series of curves will be designed leading up to the roundabout to reduce the speed of vehicles. As part of the construction, the right turn lanes will be removed. The area will not be regraded except to bring the grading up to the existing pavement elevation. The driveways on both roadways will need to be reconstructed to tie into the new width roadway. For the driveway on the southeast corner, the island will need to be either split into 2 or shortened to allow left turns.

The culvert at the north end of the project limits will not be disturbed. However, new guardrail will be needed in the southbound direction as the turn lane pavement over it will be removed. The northbound guardrail should not be impacted. The guardrail at the south end of the project should not be impacted. The main travel lanes outside of the roundabout and the islands can be milled/overlayed.

Due to the curb and gutter required for the roundabout, storm sewer will be installed to carry the water from the intersection. See Figure 2 for a layout of the roundabout.

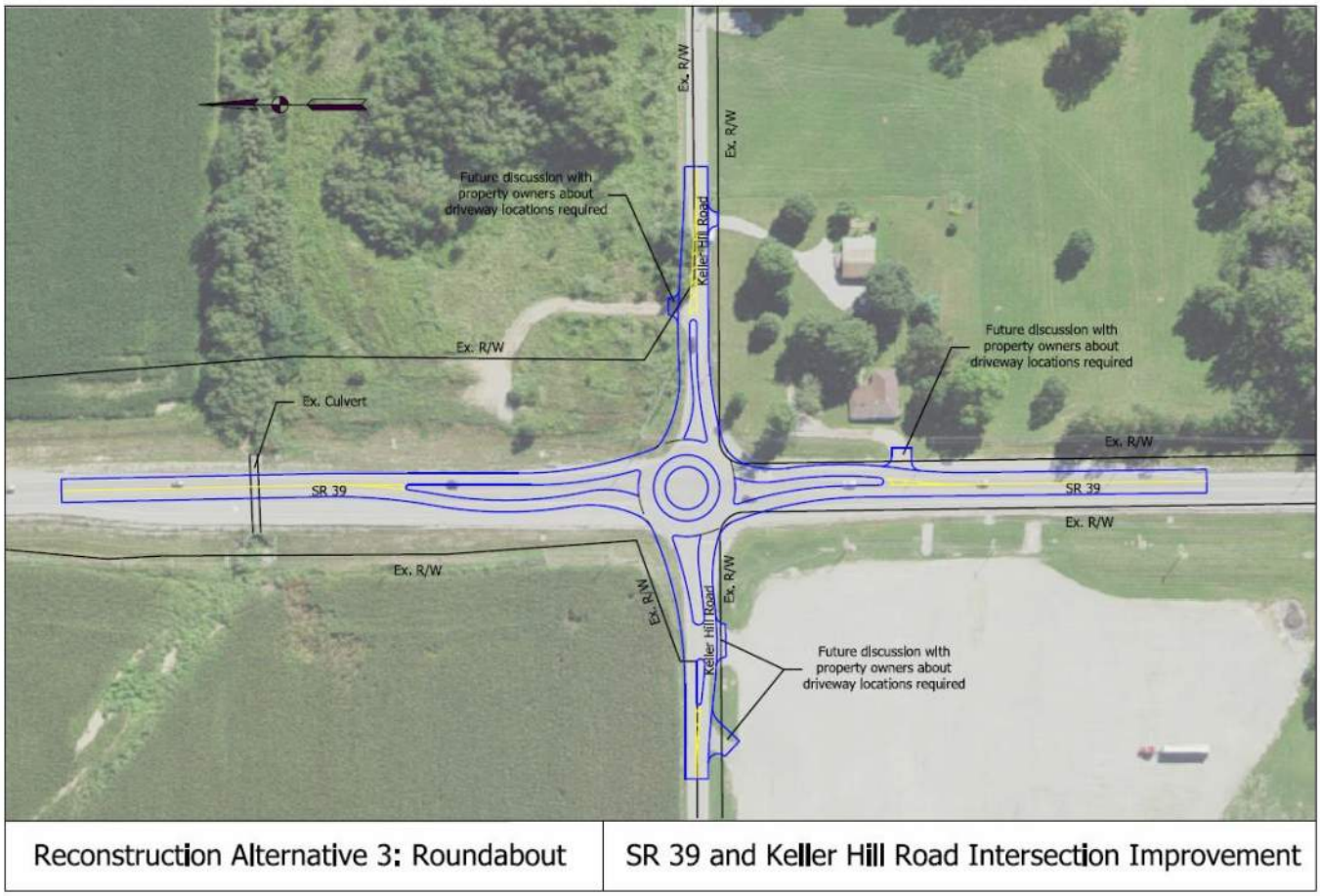


Figure 2: Single-Lane Roundabout

4.4 MAINTENANCE OF TRAFFIC

The maintenance of traffic (MOT) for the reconstruction alternative is to close Keller Hill Road for a short duration during construction while phasing the construction on SR 39. Construction would require 2 phases. Traffic would be shifted onto one side on SR 39 and half of the roundabout would be built then switched to the other side to build the other half. A temporary traffic signal will be needed for one way operation since there is not enough room for two way traffic. The local Detour route for Keller Hill Road is approximately 6 miles long and shown in Figure 3.

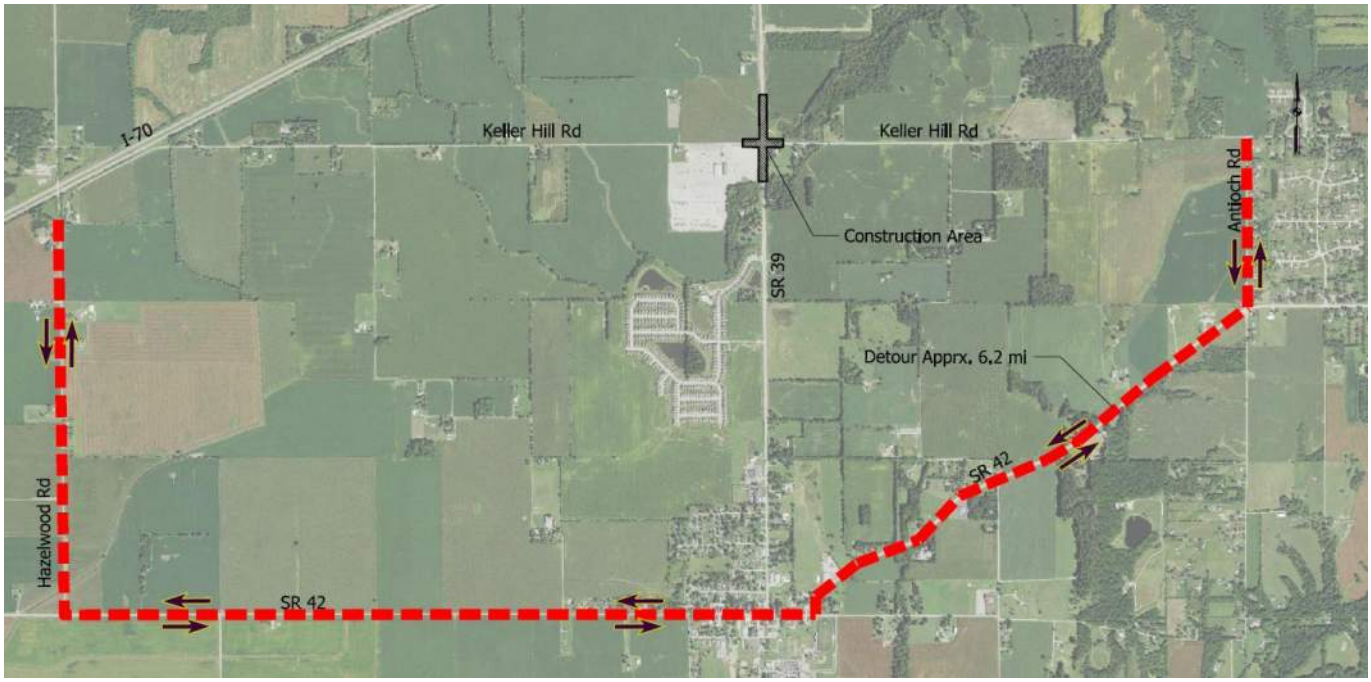


Figure 3: Local Detour Route

4.5 ENVIRONMENTAL

Impacts

A preliminary Red Flag Investigation (RFI) was performed for the project area. No historic resources were noted adjacent to the project area. Per the current scope of work, this project will likely fall under the Minor Projects Programmatic Agreement (MPPA).

One stream, McCracken Creek, is adjacent to the project area. Any areas that will be disturbed outside of pavement work and drainage improvements will need to be investigated for potential water resources. No other resources are anticipated to be impacted by the proposed project.

The CE level will be dependent on right-of-way amounts.

Permits Required

It is anticipated that there will be >1 acre of disturbance. Therefore, a Rule 5 permit is anticipated. If water resources are identified within any of the disturbed areas outside of pavement, a USACE Section 404 permit and IDEM section 401 WQC will be required. Per the current scope of work, an IDNR Construction in a Floodway Permit is not anticipated to be required.

4.6 UTILITY COORDINATION

Utility impacts are expected for the existing utilities within the project limits. Utility poles will need to be relocated due to wider footprints.

4.8 RIGHT OF WAY

Additional right-of-way will be required for this project. The recommended alternative will widen the existing footprint resulting in right-of-way acquisition. Right-of-way acquisition is shown in Figure 4.

There are multiple driveways that are close to the roundabout in the project limits that needs to be closed or moved away for better access control and traffic movement. There are two entrances to Ted Everett Farm Equipment. The designer shall coordinate with the business owners to see if they can close both entrances or at least move them further west away from the roundabout. There is also a driveway on the northeastern corner that is on INDOT's right of way. The designer shall either seek to eliminate or move the driveway further east away from the roundabout. A private driveway is located south of the roundabout on SR 39 and is very close the roundabout that needs to be either eliminated or moved further south. This property has another access point on Keller Hill Road. The designer shall coordinate with the homeowner to either eliminate or move the driveway south. Right of Way Engineering and Title Research is required for any affected parcels.



Figure 4: Right-of-Way Acquisition

SECTION 5: COST ESTIMATE

5.1 CONSTRUCTION COST

The estimated total project costs for the roundabout alternative including preliminary engineering, survey, utility coordination, construction and construction services are shown in Table 2.

Table 2: Construction Cost

TASK #	TASK	COST
1	Preliminary Engineering	$116,977
2	Survey	$87,733
3	Right of Way	$29,244
4	Utility Coordination	$146,222
5	Construction (20% Contingency)	$1,462,215
6	Construction Support Services	$116,977
	TOTAL	**$1,959,368**

The quantities and assumptions for each pay item is included with Appendix 2.

SECTION 6: CONCLUSION

6.1 ANALYSIS

Per INDOT's mini scope, INDOT has put in some low cost measures, but due to anticipated growth in this area, INDOT is expecting capacity issues to develop unless more significant improvements are undertaken. INDOT district traffic personnel checked signal warrants and determined that it does not meet the criteria for a signal. INDOT personnel analyzed the intersection Decision Guide and determined that the preferred alternative is a single-lane roundabout given their excellent track record of reducing high severity right angle crashes as well as the potential for future development of additional roundabouts along the corridor as development increases. Based on preliminary analysis, a single lane roundabout provides a LOS of A, A, B, A for EB, WB, NB and SB movements respectively in the AM peak in year 2047 with a 1% annual growth rate. PM LOS is A, A, A, B respectively. Due to the potential for rapid development in this area, the designer shall verify the capacity analysis using growth rates from INDOT's Office and Corridor Development and District Traffic.

6.2 RECOMMENDED ALTERNATIVE

After considering the alternatives, it has been determined the Single-Lane Roundabout is the recommended alternative for how effectively it meets the Project Purpose and Need.

PARSONS

This document was prepared by:

Carl Chaifetz [1/4/2022]
Carl Chaifetz
Project Engineer

Timothy M Watson 1/12/2022 [Date]
Tim Watson
District Traffic Engineer, Crawfordsville
Recommend: APPROVAL / DISAPPROVAL

Reviewed by:
District Scope Manager Review

Michael Eubank [Date] 1/5/2022
Mike Eubank
Scope Manager, Crawfordsville
Recommend: APPROVAL / DISAPPROVAL

Reviewed by:
SAM Review

Scott J. Chandler [Date] 1-5-2022
Scott Chandler
Systems Asset Manager, Crawfordsville
APPROVE / DISAPPROVE

Appendix 1 – RoadHat Report

~~## Appendix 2 – Cost Estimate~~

~~## Appendix 3 – Draft Mini Scopes~~

~~## Appendix 4 – Red Flag Investigation~~

~~## Appendix 5 – Utility Ticket~~

~~## Appendix 6 – Signal Warrant~~

~~## Appendix 7 – Culvert Report~~

~~## Appendix 8 – Design Details~~

PARSONS

Appendix 1: RoadHat Report

Abbreviated Engineering Assessment

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	SR 39 at Kelller Hill Road	
GIS		
Post		
Analyst	Allmani	
Date	1/4/2022	

INPUT	
Road Facility Type	Unsignalized Rural State Intersection
Busiest Road AADT (veh/day)	8879
Crossing Road AADT (veh/day)	1883
T Intersection Indicator (1 if present, 0 otherwise)	0
First Year with Crash Data (yyyy)	2018
Last Year with Crash Data (yyyy)	2020
Number of Crashes (crash/period)	
Fatal and Incapacitating Injury Crashes	9
Non-Incapacitating and Possible Injury Crashes	
Property Damage Only Crashes	10
Route or Road Type	Unsignalized Rural State Intersection
Average Crash Costs ($)	
Fatal and Incapacitating Injury Crashes	2335800
Non-Incapacitating and Possible Injury Crashes	389500
Property Damage Only Crashes	32200
Crash Cost Year (yyyy)	2017
OUTPUT	
Expected Crash Frequency (crash/year)	
Fatal and Incapacitating Injury Crashes	0.444
Non-Incapacitating and Possible Injury Crashes	0.24
Property Damage Only Crashes	2.00
All Crashes	2.68
Index of Crash Frequency	**1.47**
Index of Crash Cost	**2.16**

RoadHAT 4D

Index of Crash Frequency and Cost - Form F1

Settings: Indiana state settings	Version: Version 4.1	
Location	SR 39 at Kelller Hill Road	
GIS		
Post		
Analyst	Allmani	
Date	1/4/2022	

Comments:

MASTER RECORD	COLLISION DATE	COLLISION DAY	COLLISION TIME	LIGHTINING	SURACE	WEATHER	UPDATED NARRATIVE	MANNER OF COLLISION	PRIMARY FACTOR	V1	V2	INCAPICITATING	NON-INCAPACITATING	PROPERTY DAMAGE ONLY	TOTAL INJURED	FATALITY
903101171	02/14/2018	WEDNESDAY	11:54	Daylight	Wet	Rain	V1 was traveling eastbound on Keller Hill Rd and failed to yield right of way. V2 traveling south on SR 39 and was unable to stop before hitting V1	Right Angle	FAILURE TO YIELD RIGHT OF WAY	East	South			1		
903163790	06/07/2018	THURSDAY	01:37	Daylight	Dry	Clear	V1 was traveling south on SR 39 as it approached the intersection, it did not brake on time and struck V2 in the rear	Rear End	FOLLOWING TOO CLOSELY	South	South			1		
903190156	07/24/2018	TUESDAY	08:41	Daylight	Dry	Clear	V1 rear ended V2	Rear End	FOLLOWING TOO CLOSELY	South	South			1		
903213014	08/30/2018	THURSDAY	12:27	Daylight	Dry	Clear	V2 rear ended V1	Rear End	FOLLOWING TOO CLOSELY	West	West			1		
903252548	11/02/2018	FRIDAY	02:11	Daylight	Dry	Clear	V1 facing east at the intersection waiting to turn left on SR 39. V2 traveling south on SR 39. V1 hit V2.	Same Direction Sideswipe	FAILURE TO YIELD RIGHT OF WAY	East	South			1		
903425393	08/10/2019	SATURDAY	08:53	Daylight	Dry	Clear	V1 was traveling westbound approaching the intersection and failed to stop at the stop sign and entered the intersection striking v2.	Right Angle	DISREGARD SIGNAL/REG SIGN	West	South	1			7	
903426466	08/13/2019	TUESDAY	09:33	Daylight	Dry	Cloudy	V1 traveling west on Keller Rd when did not stop at the stop sign and entered the intersection and was struck by V2	Right Angle	DISREGARD SIGNAL/REG SIGN	West	North			1		
903449960	09/22/2019	SUNDAY	09:27	Daylight	Dry	Clear	V1 failed to stop at the stop sign and entered the intersection and was struck by V2	Right Angle	DISREGARD SIGNAL/REG SIGN	West	South	1			2	
903478391	11/02/2019	SATURDAY	03:26	Daylight	Dry	Clear	V1 traveling west on Keller Hill Rd and failed to stop at the stop sign striking V2.	Right Angle	DISREGARD SIGNAL/REG SIGN	West	North			1		
903484579	11/07/2019	THURSDAY	07:35	Dark (Not Lighted)	Dry	Clear	V1 stated he slowed at stop sign and continued across 39 and didn't see a car then struck V2	Right Angle	FAILURE TO YIELD RIGHT OF WAY	East	South	1			3	
903596282	06/14/2020	SUNDAY	01:15	Daylight	Dry	Clear	V1 stated that he was exceeding the speed limit and ran the stop sign and went off the roadway after striking V2	Right Angle	DISREGARD SIGNAL/REG SIGN	East	South			1		
903600025	06/21/2020	SUNDAY	07:21	Daylight	Dry	Clear	V2 stated that he was traveling southbound on SR 39 when V1 traveling westbound on Keller Hill Rd disregarded the stop sign and collided	Right Angle	DISREGARD SIGNAL/REG SIGN	West	South			1		
903614612	07/09/2020	THURSDAY	05:40	Daylight	Dry	Clear	V2 was traveling north on SR 39 when V1 was traveling east on Keller Hill and failed to stop at the stop sign and collided with V2.	Right Angle	DISREGARD SIGNAL/REG SIGN	East	North	1			1	
903624841	07/23/2020	THURSDAY	03:17	Daylight	Dry	Clear	V1 traveling west on Keller Hill Rd and failed to stop at the stop sign striking V2.	Right Angle	DISREGARD SIGNAL/REG SIGN	West	North	1			1	
903627471	07/29/2020	WEDNESDAY	11:05	Dark (Not Lighted)	Dry	Clear	V1 was traveling fast and did not brake when making the turn and ran off the road.	Ran off Road	RAN OFF ROAD	South				1		
903647686	08/30/2020	SUNDAY	05:55	Dark (Not Lighted)	Dry	Clear	V1 was traveling north on SR 39 then collided with V2 who ran a stop sign.	Right Angle	DISREGARD SIGNAL/REG SIGN	North	West	1			2	
903663220	10/01/2020	THURSDAY	09:09	Daylight	Dry	Clear	V2 was traveling south on SR 39 when V1 was traveling west on Keller Hill and failed to stop at the stop sign and collided with V2.	Right Angle	FAILURE TO YIELD RIGHT OF WAY	West	South	1			1	
903688633	11/12/2020	THURSDAY	06:08	Dark (Not Lighted)	Dry	Clear	V1 traveling east on Keller Hill Rd and failed to stop at the stop sign striking V2.	Right Angle	DISREGARD SIGNAL/REG SIGN	East	North	1			1	
903692272	11/13/2020	FRIDAY	12:43	Daylight	Dry	Cloudy	V1 traveling west on Keller Hill Rd and failed to stop at the stop sign striking V2.	Right Angle	DISREGARD SIGNAL/REG SIGN	West	South					1

Kimley»Horn

Addendum No. 1

To Engineer's Assessment

Project Number:	Des. 2200084
Route / Feature Crossed:	SR 39
Project Location:	at Keller Hill Road, 1.51 miles north of SR 42
Date:	October 21, 2024

ADDENDUM JUSTIFICATION:

Per the recommendation in the Engineer's Assessment dated January 2022, an updated traffic analysis was performed with the latest traffic volumes. In discussions with the District Traffic and the Corridor Development Office, a revised traffic growth rate was established. The revised growth rate is a 1.5% compound annual growth rate for the first 5 years with a 1.0% compound annual growth rate for subsequent years. The variable growth rates attempt to capture the greater increase in the traffic volumes due to developments planned or conceptualized in the immediate area. However, several major developments have approached INDOT and Hendricks County in recent years which, if constructed, could greatly increase volumes beyond projections. The updated volumes and future traffic projections are provided in **Attachment 1**.

Two alternatives were considered: A single-lane roundabout (as recommended by the original Engineer's Assessment) and a hybrid (2x1 configuration) roundabout. A traffic analysis with the updated traffic volumes was conducted for each alternative. An additional stress test, which was run with an additional 20% volume (to attempt to account for major developments), was also performed for each alternative. The results of these analyses, along with a high-level schematic of the roundabouts, are provided in **Attachment 2** and **Attachment 3**.

Without considering the stress test, both alternatives are projected to operate at LOS A in 2047 with the single-lane roundabout operating at a volume-to-capacity ratio (v/c) of 0.77 and the hybrid 2-by-1 roundabout operating at a v/c ratio of 0.67. The 20% stress test, however, shows that in the PM peak hour, the north leg of the single lane roundabout will fail, operating at an LOS F and a v/c ratio greater than 1.00. After discussing with INDOT, it was determined that the preferred alternative is the hybrid roundabout due to its ability to provide additional capacity should traffic grow at a rate faster than anticipated and to provide the framework for future expansion of SR 39 if it becomes necessary.

REVISION TO ORIGINAL SCOPE DOCUMENT:

The Abbreviated Engineer's Assessment is being revised as follows:

3.1 Traffic Data

The 2024 AADT per the turning movement volumes provided by INDOT is 10,578 vehicles per day on SR 39 and 1,295 vehicles per day on Keller Hill Road. The truck percentages are 6% for SR 39 and 6% for Keller Hill Road. See **Attachment 1** through **Attachment 3** for additional information regarding traffic forecasting and analysis.

4.3 Reconstruction Alternative

The revised alternative consists of a hybrid (2x1 configuration) roundabout that follows that design standards per NCHRP Research Report 1042 *Guide for Roundabouts* and the current version of the Indiana Design Manual (IDM). The SR 39 approaches will have two lanes for each direction. In the southbound direction, the second travel lane will be dropped after the intersection (and before the existing bridge carrying SR 39 over McCracken Creek). In the northbound direction, the second travel lane will tie into a proposed turn lane improvement project as part of a private development project. The Keller Hill Road approaches will have a single lane in each direction.

The proposed design also includes a dual-lanes circulatory road, high-speed approach geometry, raised splitter islands (250 ft min.), truck apron, non-traversable central island, and appropriate entry angle deflection. As part of the reconstruction, the right turn lanes will be removed. The driveways on both roads will be reconstructed to tie in with the road. Additional coordination with property owners regarding access will take place during the design process and Traffic Management Plan (TMP) meetings.

The culvert (CV 039-032-30.68) at the north end of the project is not part of this project. The guardrail north and south of the intersection will be impacted and will be replaced within the project limits.

Curb turnouts will be installed for portions of the roundabout where curb and gutter are proposed (50-75' on each approach and throughout the entire circulatory roadway) to convey water into roadside ditches. The remainder of the roundabout's approaches will have paved shoulders that will connect and match in width to the existing shoulders. See **Attachment 4** for the roundabout geometric layout.

6.2 Reconstruction Alternative

After consideration of the alternatives and after meeting with INDOT, it has been determined the hybrid (2x1 configuration) roundabout alternative will be constructed in lieu of the single lane roundabout as it also meets the Project Purpose and Need.

Does the revision change the project's Purpose & Need statement? ☐ Yes ☒ No

Does the revision change the project's recommended treatment? ☒ Yes ☐ No

The revised recommended treatment consists in the construction of a hybrid (2x1 configuration) roundabout instead of a single lane roundabout. See above for description of the revised recommended alternative.

Does the revision change the project's cost estimate? ☒ Yes ☐ No

The project's costs will increase due to the additional pavement required for the hybrid roundabout as compared to the single lane roundabout. See **Attachment 6** for a detailed cost estimate.

Estimated Total Project Costs	**Revised Amount**	**Original Amount**
Right of Way Purchase	TBD	N/A
Right of Way Services	$28,970	$29,244
Preliminary Engineering	$508,872	$116,977
Railroad PE	$0	$0
Utilities PE	$25,500	$146,222
Construction Total:		
Construction	$3,701,253	$1,462,215
ADA	N/A	N/A
Sidewalks	N/A	N/A
Small Culvert / Drainage	N/A	N/A
Construction Support Services (8%)	$299,100	$116,977
TOTAL:	$4,563,695	$1,959,368

Does the revision change the project's environmental impacts? ☐ Yes ☒ No

The hybrid roundabout alternative is not expected to change the project's environmental impacts as outlined in the table below:

	Description	*Notes*
☐	Additional coordination with resource agencies	
☐	Red Flag/HAZMAT revisions	
☐	Section 106/4F/6F/Archaeology	
☐	Waters Report Update	

Considering the anticipated permanent right-of-way acquisition will be 1.5 acres, the project will require a CE-2 NEPA document and trigger the need for Public Involvement and Environmental Justice Analysis, which was not identified in the original Engineering Assessment.

Does the revision require additional Right-of-Way? ☒ Yes ☐ No

Additional Right-of-Way will be required as compared comparison to single-lane roundabout configuration. An anticipated 1.5 acres of Right-of-Way will be required. Right-of-way acquisition is shown in **Attachment 5.**

Does the revision change the project's schedule (design or construction)? ☐ Yes ☒ No

Does the revision require additional coordination with utility companies? ☒ Yes ☐ No

The larger footprint of the hybrid roundabout is likely to have a more impact on existing utilities as compared to the single-lane configuration. Some potential impacts include:

- Impacts to the transmission lines (AES) along SR 39 and Keller Hill Road
- Extensive involvement with communications infrastructure (Endeavor) in the northwest, southwest, and southeast quadrants
- Potential conflicts with the sanitary force main along SR 39

LIST OF ATTACHMENTS:

Attachment 1: Turning Movement Traffic Projections

Attachment 2: Single-Lane Roundabout Schematic and Analysis

Attachment 3: Hybrid 2-by-1 Roundabout Schematic and Analysis

Attachment 4: 2-by-1 Roundabout Exhibit

Attachment 5: Right-of-Way Acquisition

Attachment 6: Cost Estimate

Attachment 7: Correspondence

ADDENDUM CONCURRENCE

This document was prepared by:



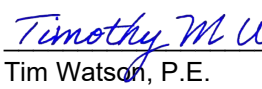
8/31/2024
Tom Heustis, P.E.
Project Manager, Kimley-Horn

Reviewed by:
Scope Manager Review



11/4/2024
Joseph Mallory, P.E.
Scoping Manager, Crawfordsville District

Reviewed by:
Asset Engineer Review



11/27/2024
Tim Watson, P.E.
Traffic Engineer, Crawfordsville District

Approved by:
System Asset Manager Review



[Date] 11/25/2024
Michael Eubank, P.E.
Systems Asset Manager, Crawfordsville District

ATTACHMENT 1

TURNING MOVEMENT TRAFFIC PROJECTIONS

Turning Movement Traffic Projections

Approach Direction	Growth Rate (1st 5 Years)	Growth Rate (After)	Movement	Interval	Total Vehicles	Commerical % AADT	Count Year AADT	Construction Year AADT	Intermediate Year 1 AADT	5 Years Post 2024	Intermediate Year 2 AADT	Design Year AADT	Design Year AADT with 20% Stress Test
	1.5%	1.0%					2024	2027	2028	2029	2037	2047	2047
East	1.5%	1.0%	Left	6:30 AM	12	0.08%	12	13	13	13	14	15	19
East	1.5%	1.0%	Thru	6:30 AM	2	0.00%	2	2	2	2	2	3	3
East	1.5%	1.0%	Right	6:30 AM	101	0.07%	97	101	103	104	113	125	150
East	1.5%	1.0%	U-Turn	6:30 AM	0	0.00%	0	0	0	0	0	0	0
North	1.5%	1.0%	Left	6:30 AM	47	0.06%	45	47	48	48	52	58	70
North	1.5%	1.0%	Thru	6:30 AM	194	0.16%	187	196	198	201	218	241	289
North	1.5%	1.0%	Right	6:30 AM	4	0.50%	4	4	4	4	5	5	6
North	1.5%	1.0%	U-Turn	6:30 AM	0	0.00%	0	0	0	0	0	0	0
South	1.5%	1.0%	Left	6:30 AM	6	0.17%	6	6	6	6	7	8	9
South	1.5%	1.0%	Thru	6:30 AM	635	0.03%	612	640	650	659	714	789	946
South	1.5%	1.0%	Right	6:30 AM	18	0.06%	17	18	18	18	20	22	26
South	1.5%	1.0%	U-Turn	6:30 AM	0	0.00%	0	0	0	0	0	0	0
West	1.5%	1.0%	Left	6:30 AM	2	0.50%	2	2	2	2	2	3	3
West	1.5%	1.0%	Thru	6:30 AM	0	0.00%	0	0	0	0	0	0	0
West	1.5%	1.0%	Right	6:30 AM	3	0.67%	3	3	3	3	3	4	5
West	1.5%	1.0%	U-Turn	6:30 AM	0	0.00%	0	0	0	0	0	0	0
East	1.5%	1.0%	Left	4:30 PM	25	0.00%	24	25	25	26	28	31	37
East	1.5%	1.0%	Thru	4:30 PM	1	0.00%	1	1	1	1	1	1	2
East	1.5%	1.0%	Right	4:30 PM	82	0.00%	79	83	84	85	92	102	122
East	1.5%	1.0%	U-Turn	4:30 PM	0	0.00%	0	0	0	0	0	0	0
North	1.5%	1.0%	Left	4:30 PM	85	0.01%	82	86	87	88	96	106	127
North	1.5%	1.0%	Thru	4:30 PM	671	0.03%	647	677	687	697	755	834	1000
North	1.5%	1.0%	Right	4:30 PM	7	0.00%	7	7	7	8	8	9	11
North	1.5%	1.0%	U-Turn	4:30 PM	2	0.00%	2	2	2	2	2	3	3
South	1.5%	1.0%	Left	4:30 PM	3	0.33%	3	3	3	3	3	4	5
South	1.5%	1.0%	Thru	4:30 PM	327	0.04%	315	329	334	339	367	406	487
South	1.5%	1.0%	Right	4:30 PM	31	0.03%	30	31	32	32	35	39	46
South	1.5%	1.0%	U-Turn	4:30 PM	0	0.00%	0	0	0	0	0	0	0
West	1.5%	1.0%	Left	4:30 PM	9	0.44%	9	9	10	10	10	12	14
West	1.5%	1.0%	Thru	4:30 PM	1	0.00%	1	1	1	1	1	1	2
West	1.5%	1.0%	Right	4:30 PM	8	0.00%	8	8	8	9	9	10	12
West	1.5%	1.0%	U-Turn	4:30 PM	0	0.00%	0	0	0	0	0	0	0

Note: No known, planned, or conceptualized future developments have been incorporated into the volumes used in this analysis. The higher (1.5%) growth rate in the first 5 years, combined with the 20% sensitivity analysis, is used as an attempt to capture the likelihood of traffic volume growth due to development.

ATTACHMENT 2

SINGLE-LANE ROUNDABOUT SCHEMATIC AND ANALYIS

Attachement 2: Single-Lane Roundabout

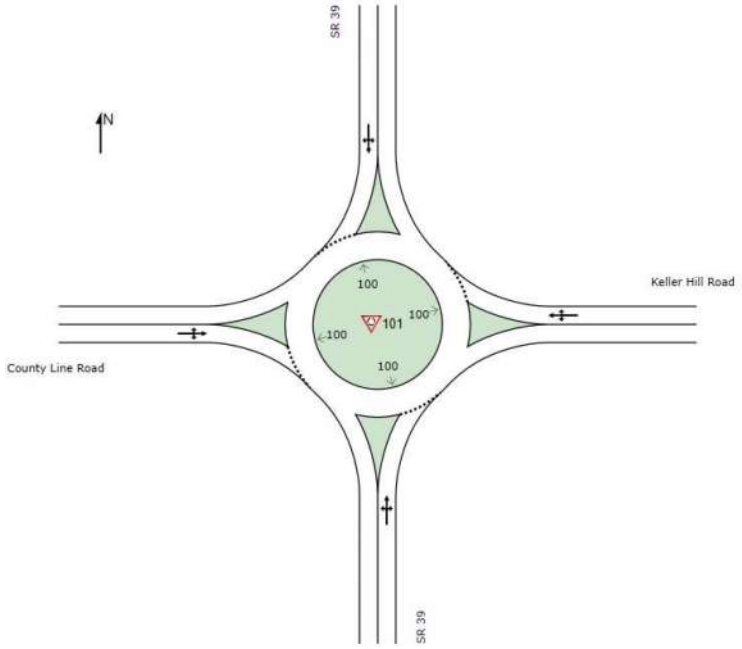


Figure 1: Schematic of a 1 Lane Roundabout at SR 39 and Keller Hill

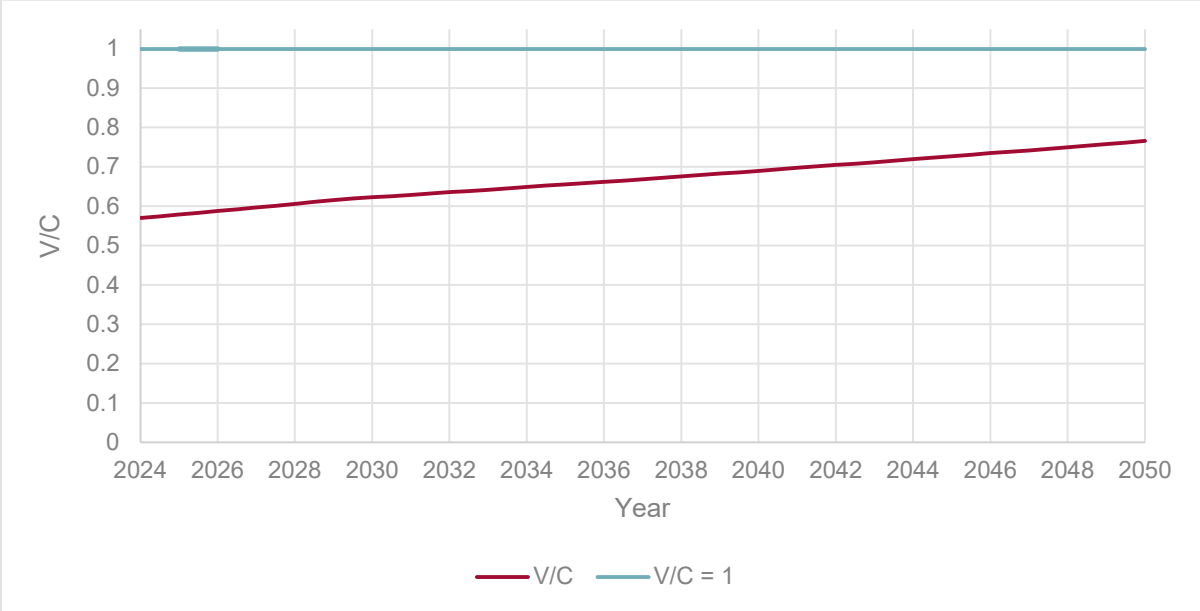


Figure 2: V/C for a 1 Lane Roundabout between 2024 and 2050 for the PM peak hour

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - 1 Lane 2047 AM (Site Folder: A) Existing)]

1 Lane AM
Site Category: Future Traffic Volumes Year 2029
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	8	0.0	9	0.0	0.652	11.4	LOS B	7.0	177.1	0.44	0.41	0.44	38.4
8	T1	789	2.0	858	2.0	0.652	5.4	LOS A	7.0	177.1	0.44	0.41	0.44	37.8
18	R2	22	0.0	24	0.0	0.652	5.2	LOS A	7.0	177.1	0.44	0.41	0.44	38.9
Approach		819	2.0	890	2.0	0.652	5.4	LOS A	7.0	177.1	0.44	0.41	0.44	37.9
East: Keller Hill Road														
1	L2	15	0.0	16	0.0	0.198	13.9	LOS B	0.8	20.6	0.64	0.78	0.64	37.9
6	T1	3	0.0	3	0.0	0.198	7.9	LOS A	0.8	20.6	0.64	0.78	0.64	40.2
16	R2	125	1.6	136	1.6	0.198	7.8	LOS A	0.8	20.6	0.64	0.78	0.64	38.2
Approach		143	1.4	155	1.4	0.198	8.4	LOS A	0.8	20.6	0.64	0.78	0.64	38.2
North: SR 39														
7	L2	58	1.7	63	1.7	0.235	10.9	LOS B	1.4	36.4	0.15	0.47	0.15	38.6
4	T1	241	2.1	262	2.1	0.235	4.9	LOS A	1.4	36.4	0.15	0.47	0.15	38.4
14	R2	5	0.0	5	0.0	0.235	4.7	LOS A	1.4	36.4	0.15	0.47	0.15	39.5
Approach		304	2.0	330	2.0	0.235	6.0	LOS A	1.4	36.4	0.15	0.47	0.15	38.4
West: County Line Road														
5	L2	3	0.0	3	0.0	0.008	12.6	LOS B	0.0	0.7	0.38	0.60	0.38	37.7
2	T1	1	0.0	1	0.0	0.008	6.5	LOS A	0.0	0.7	0.38	0.60	0.38	39.9
12	R2	4	0.0	4	0.0	0.008	6.2	LOS A	0.0	0.7	0.38	0.60	0.38	38.3
Approach		8	0.0	9	0.0	0.008	8.6	LOS A	0.0	0.7	0.38	0.60	0.38	38.2
All Vehicles		1274	1.9	1385	1.9	0.652	5.9	LOS A	7.0	177.1	0.39	0.47	0.39	38.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Monday, August 26, 2024 12:27:19 PM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - 1 Lane 2047 PM (Site Folder: A) Existing)]

1 Lane PM
Site Category: Future Traffic Volumes Year 2029
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	4	0.0	4	0.0	0.379	11.4	LOS B	2.5	63.2	0.39	0.50	0.39	40.7
8	T1	406	1.9	441	1.9	0.379	5.4	LOS A	2.5	63.2	0.39	0.50	0.39	39.4
18	R2	39	2.5	42	2.5	0.379	5.3	LOS A	2.5	63.2	0.39	0.50	0.39	39.2
Approach		449	1.9	488	1.9	0.379	5.5	LOS A	2.5	63.2	0.39	0.50	0.39	39.4
East: Keller Hill Road														
1	L2	31	3.1	34	3.1	0.142	13.2	LOS B	0.6	15.6	0.50	0.71	0.50	39.6
6	T1	1	0.0	1	0.0	0.142	7.0	LOS A	0.6	15.6	0.50	0.71	0.50	41.5
16	R2	102	1.9	111	1.9	0.142	6.8	LOS A	0.6	15.6	0.50	0.71	0.50	38.7
Approach		134	2.2	146	2.2	0.142	8.3	LOS A	0.6	15.6	0.50	0.71	0.50	38.9
North: SR 39														
7	L2	106	1.8	115	1.8	0.742	11.3	LOS B	11.9	303.3	0.49	0.44	0.49	39.6
4	T1	834	2.0	907	2.0	0.742	5.3	LOS A	11.9	303.3	0.49	0.44	0.49	38.7
14	R2	9	0.0	10	0.0	0.742	5.1	LOS A	11.9	303.3	0.49	0.44	0.49	39.0
Approach		949	1.9	1032	1.9	0.742	5.9	LOS A	11.9	303.3	0.49	0.44	0.49	38.8
West: County Line Road														
5	L2	12	0.0	13	0.0	0.034	13.9	LOS B	0.1	3.3	0.63	0.81	0.63	38.8
2	T1	1	0.0	1	0.0	0.034	7.9	LOS A	0.1	3.3	0.63	0.81	0.63	39.9
12	R2	10	0.0	11	0.0	0.034	7.6	LOS A	0.1	3.3	0.63	0.81	0.63	37.6
Approach		23	0.0	25	0.0	0.034	10.9	LOS B	0.1	3.3	0.63	0.81	0.63	38.3
All Vehicles		1555	1.9	1690	1.9	0.742	6.1	LOS A	11.9	303.3	0.46	0.48	0.46	39.0

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Wednesday, October 16, 2024 7:40:42 AM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - 1 Lane 2047 Stress Test AM (Site Folder: A) Existing)]

1 Lane AM
Site Category: Future Traffic Volumes Year 2029
Roundabout
Design Life Analysis (Final Year): Results for 1 years

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	9	0.0	10	0.0	0.815	11.9	LOS B	13.7	348.0	0.78	0.51	0.78	39.0
8	T1	946	2.0	1059	2.0	0.815	6.0	LOS A	13.7	348.0	0.78	0.51	0.78	37.8
18	R2	26	0.0	29	0.0	0.815	5.8	LOS A	13.7	348.0	0.78	0.51	0.78	38.0
Approach		981	2.0	1098	2.0	0.815	6.0	LOS A	13.7	348.0	0.78	0.51	0.78	37.8
East: Keller Hill Road														
1	L2	19	0.0	22	0.0	0.334	14.9	LOS B	1.6	40.6	0.78	0.91	0.82	39.8
6	T1	3	0.0	3	0.0	0.334	8.9	LOS A	1.6	40.6	0.78	0.91	0.82	41.0
16	R2	150	1.6	173	1.6	0.334	8.7	LOS A	1.6	40.6	0.78	0.91	0.82	38.3
Approach		172	1.4	198	1.4	0.334	9.4	LOS A	1.6	40.6	0.78	0.91	0.82	38.5
North: SR 39														
7	L2	70	1.7	78	1.7	0.293	11.0	LOS B	2.0	50.2	0.19	0.47	0.19	40.6
4	T1	289	2.1	324	2.1	0.293	4.9	LOS A	2.0	50.2	0.19	0.47	0.19	39.6
14	R2	6	0.0	7	0.0	0.293	4.8	LOS A	2.0	50.2	0.19	0.47	0.19	39.8
Approach		365	2.0	409	2.0	0.293	6.1	LOS A	2.0	50.2	0.19	0.47	0.19	39.8
West: County Line Road														
5	L2	3	0.0	3	0.0	0.009	12.8	LOS B	0.0	0.9	0.42	0.61	0.42	40.1
2	T1	1	0.0	1	0.0	0.009	6.7	LOS A	0.0	0.9	0.42	0.61	0.42	41.3
12	R2	5	0.0	6	0.0	0.009	6.4	LOS A	0.0	0.9	0.42	0.61	0.42	38.8
Approach		9	0.0	10	0.0	0.009	8.6	LOS A	0.0	0.9	0.42	0.61	0.42	39.5
All Vehicles		1527	1.9	1715	1.9	0.815	6.4	LOS A	13.7	348.0	0.64	0.55	0.64	38.3

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Tuesday, October 15, 2024 1:24:23 PM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - 1 Lane 2047 Stress Test PM (Site Folder: A) Existing)]

1 Lane PM
Site Category: Future Traffic Volumes Year 2029
Roundabout
Design Life Analysis (Final Year): Results for 1 years

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	5	0.0	7	0.0	0.578	11.9	LOS B	5.2	133.0	0.64	0.54	0.64	39.6
8	T1	487	1.9	635	1.9	0.578	5.9	LOS A	5.2	133.0	0.64	0.54	0.64	38.4
18	R2	46	2.5	60	2.5	0.578	5.8	LOS A	5.2	133.0	0.64	0.54	0.64	38.2
Approach		538	1.9	702	1.9	0.578	6.0	LOS A	5.2	133.0	0.64	0.54	0.64	38.4
East: Keller Hill Road														
1	L2	37	3.1	48	3.1	0.246	13.8	LOS B	1.1	29.2	0.64	0.79	0.64	39.2
6	T1	2	0.0	3	0.0	0.246	7.6	LOS A	1.1	29.2	0.64	0.79	0.64	41.1
16	R2	122	1.9	159	1.9	0.246	7.4	LOS A	1.1	29.2	0.64	0.79	0.64	38.3
Approach		161	2.2	210	2.2	0.246	8.9	LOS A	1.1	29.2	0.64	0.79	0.64	38.5
North: SR 39														
7	L2	130	1.8	170	1.8	1.091	57.9	LOS F[11]	128.1	3251.5	1.00	0.84	1.62	22.3
4	T1	1000	2.0	1304	2.0	1.091	51.8	LOS F[11]	128.1	3251.5	1.00	0.84	1.62	22.0
14	R2	11	0.0	14	0.0	1.091	51.6	LOS F[11]	128.1	3251.5	1.00	0.84	1.62	22.1
Approach		1141	1.9	1488	1.9	1.091	52.5	LOS D	128.1	3251.5	1.00	0.84	1.62	22.1
West: County Line Road														
5	L2	14	0.0	18	0.0	0.085	16.3	LOS B	0.4	9.1	0.79	0.92	0.79	37.5
2	T1	2	0.0	3	0.0	0.085	10.2	LOS B	0.4	9.1	0.79	0.92	0.79	38.6
12	R2	12	0.0	16	0.0	0.085	9.9	LOS A	0.4	9.1	0.79	0.92	0.79	36.5
Approach		28	0.0	37	0.0	0.085	13.1	LOS B	0.4	9.1	0.79	0.92	0.79	37.1
All Vehicles		1868	1.9	2437	1.9	1.091	34.8	LOS C	128.1	3251.5	0.86	0.75	1.24	26.4

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

11 Level of Service is worse than the Level of Service Target specified in the Parameter Settings dialog.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Wednesday, October 16, 2024 7:40:42 AM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

ATTACHMENT 3

2-BY-1 ROUNDABOUT SCHEMATIC AND ANALYIS

Attachment 3: Hybrid 2-by-1 Roundabout

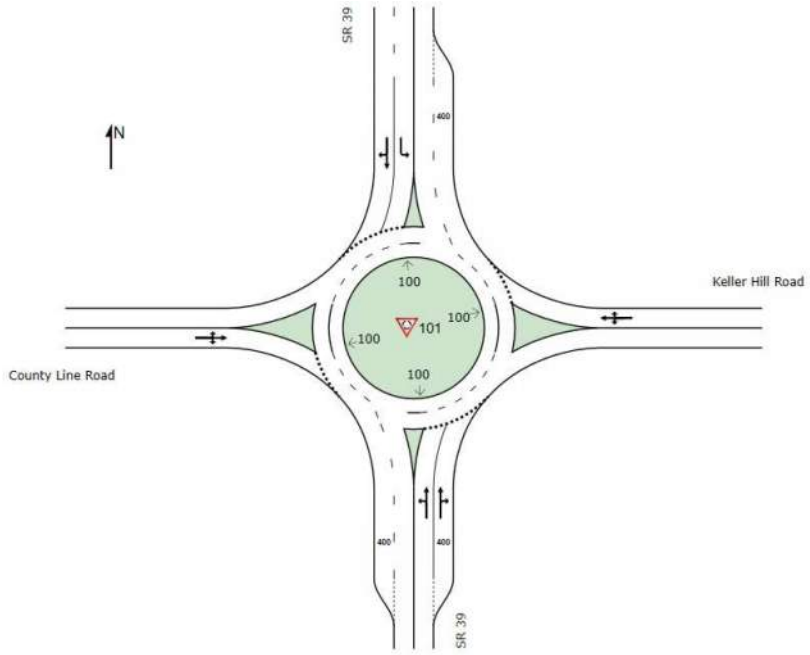


Figure 3: Schematic of a Hybrid Roundabout at SR 39 and Keller Hill

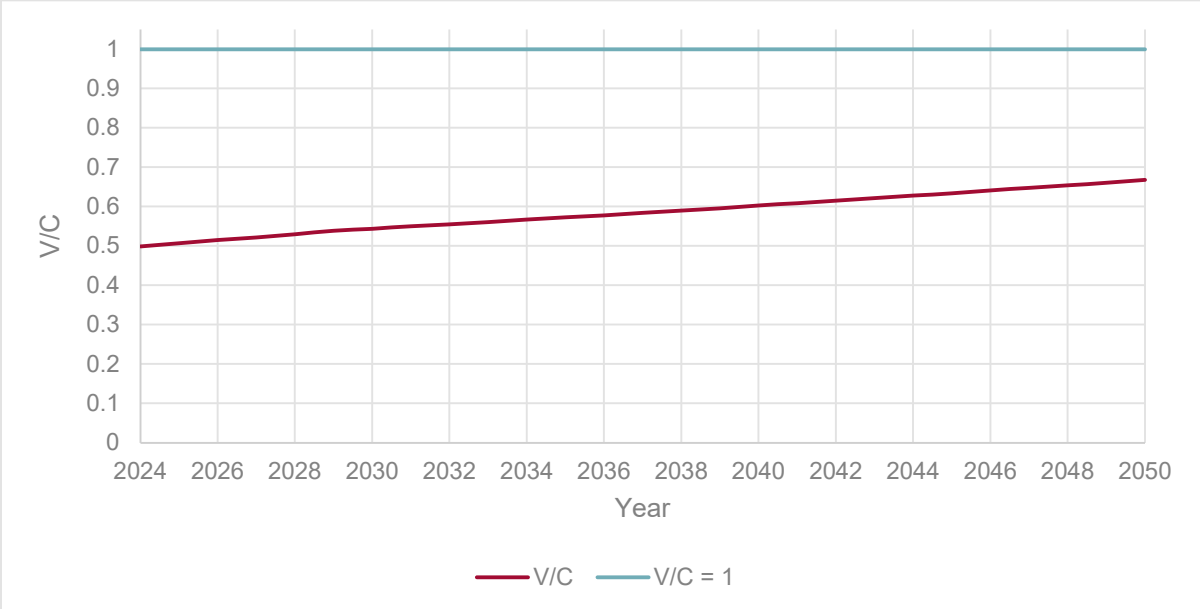


Figure 4: V/C for a Hybrid Roundabout between 2024 and 2050 for the PM peak hour

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - Hybrid 2047 AM (Site Folder: B)
SR 39 & Keller Hill - Hybrid 1)]

2 Lane AM
Site Category: Future Traffic Volumes Year 2047
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	8	0.0	9	0.0	0.372	11.0	LOS B	1.9	48.5	0.21	0.42	0.21	39.3
8	T1	789	2.0	858	2.0	0.372	5.6	LOS A	1.9	48.5	0.21	0.42	0.21	38.8
18	R2	22	0.0	24	0.0	0.294	5.1	LOS A	1.4	34.3	0.20	0.43	0.20	39.9
Approach		819	2.0	890	2.0	0.372	5.6	LOS A	1.9	48.5	0.21	0.42	0.21	38.8
East: Keller Hill Road														
1	L2	15	0.0	16	0.0	0.192	13.7	LOS B	0.6	15.0	0.52	0.76	0.52	38.2
6	T1	3	0.0	3	0.0	0.192	7.7	LOS A	0.6	15.0	0.52	0.76	0.52	40.6
16	R2	125	1.6	136	1.6	0.192	8.9	LOS A	0.6	15.0	0.52	0.76	0.52	38.5
Approach		143	1.4	155	1.4	0.192	9.4	LOS A	0.6	15.0	0.52	0.76	0.52	38.5
North: SR 39														
7	L2	58	1.7	63	1.7	0.066	10.9	LOS B	0.3	6.5	0.12	0.64	0.12	36.0
4	T1	241	2.1	262	2.1	0.188	4.9	LOS A	0.9	21.9	0.11	0.41	0.11	39.2
14	R2	5	0.0	5	0.0	0.188	4.9	LOS A	0.9	21.9	0.11	0.41	0.11	40.3
Approach		304	2.0	330	2.0	0.188	6.0	LOS A	0.9	21.9	0.11	0.46	0.11	38.5
West: County Line Road														
5	L2	3	0.0	3	0.0	0.008	12.5	LOS B	0.0	0.6	0.33	0.61	0.33	37.9
2	T1	1	0.0	1	0.0	0.008	6.5	LOS A	0.0	0.6	0.33	0.61	0.33	40.1
12	R2	4	0.0	4	0.0	0.008	6.2	LOS A	0.0	0.6	0.33	0.61	0.33	38.4
Approach		8	0.0	9	0.0	0.008	8.6	LOS A	0.0	0.6	0.33	0.61	0.33	38.4
All Vehicles		1274	1.9	1385	1.9	0.372	6.2	LOS A	1.9	48.5	0.22	0.47	0.22	38.7

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Monday, August 26, 2024 12:30:09 PM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - Hybrid 2047 PM (Site Folder: B)
SR 39 & Keller Hill - Hybrid 1)]

2 Lane PM
Site Category: Future Traffic Volumes Year 2047
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	4	0.0	4	0.0	0.212	11.1	LOS B	0.9	21.9	0.24	0.46	0.24	41.4
8	T1	406	1.9	441	1.9	0.212	5.3	LOS A	0.9	21.9	0.24	0.47	0.24	40.0
18	R2	39	2.5	42	2.5	0.168	5.3	LOS A	0.6	16.4	0.24	0.48	0.24	39.8
Approach		449	1.9	488	1.9	0.212	5.4	LOS A	0.9	21.9	0.24	0.47	0.24	40.0
East: Keller Hill Road														
1	L2	32	3.1	35	3.1	0.155	13.1	LOS B	0.5	13.3	0.42	0.72	0.42	39.8
6	T1	1	0.0	1	0.0	0.155	6.9	LOS A	0.5	13.3	0.42	0.72	0.42	41.8
16	R2	102	1.9	111	1.9	0.155	7.2	LOS A	0.5	13.3	0.42	0.72	0.42	38.9
Approach		135	2.2	147	2.2	0.155	8.6	LOS A	0.5	13.3	0.42	0.72	0.42	39.1
North: SR 39														
7	L2	106	1.8	115	1.8	0.124	11.0	LOS B	0.5	12.7	0.16	0.64	0.16	37.7
4	T1	834	2.0	907	2.0	0.648	5.1	LOS A	6.5	165.2	0.31	0.42	0.31	39.7
14	R2	9	0.0	10	0.0	0.648	5.1	LOS A	6.5	165.2	0.31	0.42	0.31	39.9
Approach		949	1.9	1032	1.9	0.648	5.8	LOS A	6.5	165.2	0.29	0.44	0.29	39.5
West: County Line Road														
5	L2	12	0.0	13	0.0	0.032	13.6	LOS B	0.1	2.3	0.50	0.80	0.50	39.1
2	T1	1	0.0	1	0.0	0.032	7.6	LOS A	0.1	2.3	0.50	0.80	0.50	40.3
12	R2	10	0.0	11	0.0	0.032	7.4	LOS A	0.1	2.3	0.50	0.80	0.50	37.9
Approach		23	0.0	25	0.0	0.032	10.7	LOS B	0.1	2.3	0.50	0.80	0.50	38.6
All Vehicles		1556	1.9	1691	1.9	0.648	6.0	LOS A	6.5	165.2	0.29	0.48	0.29	39.6

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Wednesday, October 16, 2024 7:40:41 AM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - Hybrid 2047 Stress Test AM (Site Folder: B) SR 39 & Keller Hill - Hybrid 1)]

2 Lane AM
Site Category: Future Traffic Volumes Year 2047
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	9	0.0	10	0.0	0.449	11.1	LOS B	2.6	65.8	0.26	0.45	0.26	41.3
8	T1	946	2.0	1028	2.0	0.449	5.9	LOS A	2.6	65.8	0.25	0.45	0.25	39.9
18	R2	26	0.0	28	0.0	0.355	5.1	LOS A	1.8	44.8	0.24	0.45	0.24	40.2
Approach		981	2.0	1066	2.0	0.449	5.9	LOS A	2.6	65.8	0.25	0.45	0.25	40.0
East: Keller Hill Road														
1	L2	19	0.0	21	0.0	0.243	14.0	LOS B	0.8	19.5	0.56	0.81	0.56	40.5
6	T1	3	0.0	3	0.0	0.243	8.0	LOS A	0.8	19.5	0.56	0.81	0.56	41.8
16	R2	150	1.6	163	1.6	0.243	9.8	LOS A	0.8	19.5	0.56	0.81	0.56	38.9
Approach		172	1.4	187	1.4	0.243	10.2	LOS B	0.8	19.5	0.56	0.81	0.56	39.1
North: SR 39														
7	L2	70	1.7	76	1.7	0.081	11.0	LOS B	0.3	8.0	0.13	0.64	0.13	37.7
4	T1	289	2.1	314	2.1	0.226	4.9	LOS A	1.1	28.0	0.13	0.42	0.13	40.5
14	R2	6	0.0	7	0.0	0.226	4.9	LOS A	1.1	28.0	0.13	0.42	0.13	40.7
Approach		365	2.0	397	2.0	0.226	6.1	LOS A	1.1	28.0	0.13	0.46	0.13	39.9
West: County Line Road														
5	L2	3	0.0	3	0.0	0.010	12.6	LOS B	0.0	0.7	0.35	0.62	0.35	40.3
2	T1	1	0.0	1	0.0	0.010	6.6	LOS A	0.0	0.7	0.35	0.62	0.35	41.5
12	R2	5	0.0	5	0.0	0.010	6.3	LOS A	0.0	0.7	0.35	0.62	0.35	39.0
Approach		9	0.0	10	0.0	0.010	8.5	LOS A	0.0	0.7	0.35	0.62	0.35	39.7
All Vehicles		1527	1.9	1660	1.9	0.449	6.5	LOS A	2.6	65.8	0.26	0.49	0.26	39.9

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Tuesday, October 15, 2024 1:48:05 PM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

MOVEMENT SUMMARY

Site: 101 [SR 39 & Keller Hill - Hybrid 2047 Stress Test PM (Site Folder: B) SR 39 & Keller Hill - Hybrid 1)]

2 Lane PM
Site Category: Future Traffic Volumes Year 2047
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] ft	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed mph
South: SR 39														
3	L2	5	0.0	5	0.0	0.259	11.2	LOS B	1.1	27.9	0.28	0.48	0.28	41.2
8	T1	487	1.9	529	1.9	0.259	5.5	LOS A	1.1	27.9	0.28	0.48	0.28	39.8
18	R2	46	2.5	50	2.5	0.205	5.4	LOS A	0.8	20.6	0.28	0.49	0.28	39.6
Approach		538	1.9	585	1.9	0.259	5.5	LOS A	1.1	27.9	0.28	0.48	0.28	39.8
East: Keller Hill Road														
1	L2	37	3.1	40	3.1	0.194	13.3	LOS B	0.7	16.8	0.47	0.74	0.47	39.7
6	T1	2	0.0	2	0.0	0.194	7.1	LOS A	0.7	16.8	0.47	0.74	0.47	41.6
16	R2	122	1.9	133	1.9	0.194	7.6	LOS A	0.7	16.8	0.47	0.74	0.47	38.8
Approach		161	2.2	175	2.2	0.194	8.9	LOS A	0.7	16.8	0.47	0.74	0.47	39.0
North: SR 39														
7	L2	130	1.8	141	1.8	0.153	11.1	LOS B	0.6	16.3	0.18	0.64	0.18	37.6
4	T1	1000	2.0	1087	2.0	0.782	5.4	LOS A	11.8	300.3	0.51	0.43	0.51	38.9
14	R2	11	0.0	12	0.0	0.782	5.3	LOS A	11.8	300.3	0.51	0.43	0.51	39.0
Approach		1141	1.9	1240	1.9	0.782	6.1	LOS A	11.8	300.3	0.47	0.45	0.47	38.7
West: County Line Road														
5	L2	14	0.0	15	0.0	0.045	13.9	LOS B	0.1	3.4	0.58	0.83	0.58	38.9
2	T1	2	0.0	2	0.0	0.045	7.8	LOS A	0.1	3.4	0.58	0.83	0.58	40.1
12	R2	12	0.0	13	0.0	0.045	7.7	LOS A	0.1	3.4	0.58	0.83	0.58	37.8
Approach		28	0.0	30	0.0	0.045	10.8	LOS B	0.1	3.4	0.58	0.83	0.58	38.5
All Vehicles		1868	1.9	2030	1.9	0.782	6.2	LOS A	11.8	300.3	0.42	0.49	0.42	39.1

Site Level of Service (LOS) Method: Delay & Degree of Saturation (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Signalised Intersections.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
Intersection and Approach LOS values are based on average delay for all movements (v/c not used).
Roundabout Capacity Model: SIDRA Standard.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com
Organisation: KIMLEY-HORN & ASSOCIATES INC | Licence: NETWORK / Enterprise | Processed: Wednesday, October 16, 2024 7:40:40 AM
Project: K:\IND_RDWY\170268040_SR 39 and Keller Hill Road Roundabout (2200084)\5 Support Design\Traffic\Analysis\Synchro\2_Models\SR 39 & Keller Hill_FinalGeo.sip9

Lanes, Volumes, Timings
3: SR 39 & Keller Hill Rd

10/06/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	0	3	12	2	101	6	635	18	47	194	4
Future Volume (vph)	2	0	3	12	2	101	6	635	18	47	194	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		360	0		400
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.919			0.881				0.850			0.850
Flt Protected		0.980			0.995			0.999			0.990	
Satd. Flow (prot)	0	1678	0	0	1633	0	0	1861	1583	0	1844	1583
Flt Permitted		0.980			0.995			0.999			0.990	
Satd. Flow (perm)	0	1678	0	0	1633	0	0	1861	1583	0	1844	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1430			1768			1634			1646	
Travel Time (s)		32.5			40.2			37.1			37.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	2	0	3	13	2	110	7	690	20	51	211	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	5	0	0	125	0	0	697	20	0	262	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	3	12	2	101	6	635	18	47	194	4
Future Vol, veh/h	2	0	3	12	2	101	6	635	18	47	194	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	360	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	3	13	2	110	7	690	20	51	211	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1017	1036	211	1016	1021	690	215	0	0	710	0	0
Stage 1	313	313	-	703	703	-	-	-	-	-	-	-
Stage 2	704	723	-	313	317	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	216	232	829	216	236	445	1355	-	-	889	-	-
Stage 1	698	657	-	428	440	-	-	-	-	-	-	-
Stage 2	427	431	-	698	654	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	149	215	829	200	219	445	1355	-	-	889	-	-
Mov Cap-2 Maneuver	149	215	-	200	219	-	-	-	-	-	-	-
Stage 1	652	614	-	425	436	-	-	-	-	-	-	-
Stage 2	318	428	-	650	611	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	17.47	18.61	0.07	1.78
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	17	-	-	294	388	351	-	-
HCM Lane V/C Ratio	0.005	-	-	0.018	0.322	0.057	-	-
HCM Control Delay (s/veh)	7.7	0	-	17.5	18.6	9.3	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.4	0.2	-	-

Lanes, Volumes, Timings
3: SR 39 & Keller Hill Rd

10/06/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	8	25	1	82	3	327	31	85	671	9
Future Volume (vph)	9	1	8	25	1	82	3	327	31	85	671	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		360	0		400
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.939			0.897				0.850			0.850
Flt Protected		0.976			0.989						0.994	
Satd. Flow (prot)	0	1707	0	0	1653	0	0	1863	1583	0	1852	1583
Flt Permitted		0.976			0.989						0.994	
Satd. Flow (perm)	0	1707	0	0	1653	0	0	1863	1583	0	1852	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1430			1768			1634			1646	
Travel Time (s)		32.5			40.2			37.1			37.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	1	9	27	1	89	3	355	34	92	729	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	117	0	0	358	34	0	821	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 74.2%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	1	8	25	1	82	3	327	31	85	671	9
Future Vol, veh/h	9	1	8	25	1	82	3	327	31	85	671	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	360	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	1	9	27	1	89	3	355	34	92	729	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1277	1310	729	1277	1286	355	739	0	0	389	0	0
Stage 1	914	914	-	362	362	-	-	-	-	-	-	-
Stage 2	363	396	-	915	924	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	143	159	423	143	164	689	867	-	-	1169	-	-
Stage 1	327	352	-	657	625	-	-	-	-	-	-	-
Stage 2	656	604	-	327	348	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	107	137	423	120	142	689	867	-	-	1169	-	-
Mov Cap-2 Maneuver	107	137	-	120	142	-	-	-	-	-	-	-
Stage 1	283	305	-	653	622	-	-	-	-	-	-	-
Stage 2	567	601	-	276	301	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	30.09	22.36	0.08	0.93
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	16	-	-	163	323	202	-	-
HCM Lane V/C Ratio	0.004	-	-	0.12	0.363	0.079	-	-
HCM Control Delay (s/veh)	9.2	0	-	30.1	22.4	8.3	0	-
HCM Lane LOS	A	A	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	1.6	0.3	-	-

Lanes, Volumes, Timings
3: SR 39 & Keller Hill Rd

10/13/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	0	4	15	3	125	8	789	22	58	241	5
Future Volume (vph)	3	0	4	15	3	125	8	789	22	58	241	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		360	0		400
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.923			0.882				0.850			0.850
Flt Protected		0.979			0.995			0.999			0.990	
Satd. Flow (prot)	0	1683	0	0	1635	0	0	1861	1583	0	1844	1583
Flt Permitted		0.979			0.995			0.999			0.990	
Satd. Flow (perm)	0	1683	0	0	1635	0	0	1861	1583	0	1844	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1430			1768			1634			1646	
Travel Time (s)		32.5			40.2			37.1			37.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	3	0	4	16	3	136	9	858	24	63	262	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	7	0	0	155	0	0	867	24	0	325	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	0	4	15	3	125	8	789	22	58	241	5
Future Vol, veh/h	3	0	4	15	3	125	8	789	22	58	241	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	360	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	0	4	16	3	136	9	858	24	63	262	5

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1265	1287	262	1263	1268	858	267	0	0	882	0	0
Stage 1	388	388	-	875	875	-	-	-	-	-	-	-
Stage 2	877	899	-	388	393	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	146	164	777	147	168	357	1296	-	-	767	-	-
Stage 1	636	609	-	344	367	-	-	-	-	-	-	-
Stage 2	343	358	-	636	606	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	79	146	777	130	150	357	1296	-	-	767	-	-
Mov Cap-2 Maneuver	79	146	-	130	150	-	-	-	-	-	-	-
Stage 1	574	550	-	339	362	-	-	-	-	-	-	-
Stage 2	208	353	-	571	547	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	28.24	30.14	0.08	1.93
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	162	294	349	-	-
HCM Lane V/C Ratio	0.007	-	-	0.047	0.528	0.082	-	-
HCM Control Delay (s/veh)	7.8	0	-	28.2	30.1	10.1	0	-
HCM Lane LOS	A	A	-	D	D	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.9	0.3	-	-

Lanes, Volumes, Timings
3: SR 39 & Keller Hill Rd

10/13/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1	10	31	1	102	4	406	39	109	834	9
Future Volume (vph)	12	1	10	31	1	102	4	406	39	109	834	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		360	0		400
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.941			0.897				0.850			0.850
Flt Protected		0.975			0.988						0.994	
Satd. Flow (prot)	0	1709	0	0	1651	0	0	1863	1583	0	1852	1583
Flt Permitted		0.975			0.988						0.994	
Satd. Flow (perm)	0	1709	0	0	1651	0	0	1863	1583	0	1852	1583
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1430			1768			1634			1646	
Travel Time (s)		32.5			40.2			37.1			37.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	13	1	11	34	1	111	4	441	42	118	907	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	25	0	0	146	0	0	445	42	0	1025	10
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 89.9%		ICU Level of Service E	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	6.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1	10	31	1	102	4	406	39	109	834	9
Future Vol, veh/h	12	1	10	31	1	102	4	406	39	109	834	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	360	-	-	400
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	1	11	34	1	111	4	441	42	118	907	10

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1594	1636	907	1594	1603	441	916	0	0	484	0	0
Stage 1	1143	1143	-	450	450	-	-	-	-	-	-	-
Stage 2	451	492	-	1144	1153	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	86	101	334	86	106	616	744	-	-	1079	-	-
Stage 1	243	275	-	589	572	-	-	-	-	-	-	-
Stage 2	588	547	-	243	272	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	54	78	334	64	81	616	744	-	-	1079	-	-
Mov Cap-2 Maneuver	54	78	-	64	81	-	-	-	-	-	-	-
Stage 1	189	213	-	584	567	-	-	-	-	-	-	-
Stage 2	477	543	-	182	211	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	62.59	59.11	0.09	1
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	18	-	-	87	201	208	-	-
HCM Lane V/C Ratio	0.006	-	-	0.289	0.723	0.11	-	-
HCM Control Delay (s/veh)	9.9	0	-	62.6	59.1	8.7	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0	-	-	1.1	4.7	0.4	-	-