Categorical Exclusion: Level 3

I-69 Interstate Expansion

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties

Designation Numbers: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, and 1006439

Prepared By:
PARSONS
101 West Ohio Street, Suite 2121
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I-69 Interstate Expansion

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/Campus Pkwy to 0.5 mi East of SR 13); Hamilton & Madison Counties

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FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./Counties:	I-69; Hamilton & Madison Counties
Designation Numbers:	1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439
Project Description/Termini:	I-69 Interstate Expansion; Project 1 (Added travel lanes, from 106th St to 0.5 mile N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mile N of Southeastern Parkway/Campus Parkway to 0.5 mile East of SR 13)

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

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

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

Approval _____ _____ _____ _____

ESM Signature Date ES Signature Date

_____ _____

FHWA Signature Date

Release for Public Involvement

_____ _____ PAC 12/18/2014

ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____

Office of Public Involvement Date

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

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

Name and Organization of CE/EA Preparer: Daniel J. Miller, Parsons Transportation Group, Inc.

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.

Remarks: Notice of Entry (NOE) letters were mailed out to potentially affected property owners on March 14, 2014 (see Appendix J, pages 1-3).

The Indiana Department of Transportation (INDOT) has determined, due to the scope of these projects, that it is in the public's interest to hold a public hearing. Therefore, in accordance with INDOT's Federal Highway Administration (FHWA)-approved public involvement guidelines, a public hearing will be held to offer the public an opportunity to comment on this environmental document, the Section 106 documentation (see Appendix E), the results of the Noise Analysis (see Appendix I), and the preliminary design plans. The availability of the CE document and the hearing will be advertised in the local media. Any comments received both during the public hearing and after, within the advertised 30 day comment period, will be summarized and included in this Categorical Exclusion (CE). Subsequent to the certification of the public involvement requirements and the successful completion of the Section 106 process, this CE document will be revised appropriately and re-submitted for INDOT approval.

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

Remarks: The proposed projects will address capacity issues within the project areas. Environmental impacts have been minimized and addressed through coordination with the U.S. Fish and Wildlife Service (USFWS), the Indiana Department of Natural Resources (IDNR), the U.S. Army Corps of Engineers (USACE), and other resource agencies (see Appendix D). The preferred alternative will stay within existing right-of-way and require no relocations. To date, these projects have not generated substantial public controversy concerning community or natural resource impacts.

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

Sponsor of the Project: Indiana Department of Transportation INDOT District: Greenfield
Local Name of the Facility: I-69

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

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

PURPOSE AND NEED:

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

The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound (SB) at SR 13 in the AM peak hours and northbound (NB) at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for these segments of I-69.

The purpose of these projects is to improve overall traffic operation by reducing congestion on these segments of I-69.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

Counties: Hamilton & Madison Municipality: Fishers

Limits of Proposed Work: I-69 from 106th Street to 0.5 mile east of SR 13

Total Work Length: 13.7 Mile(s) Total Work Area: 477.5 Acre(s)

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

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

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

INDOT is planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (SR 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This document has been prepared for Project 1 (Des. No. 1383332), from 106th Street to 0.5 mile N of Southeastern Parkway/Campus Parkway, and Project 3 (Des. No. 1383336), from 0.5 mile N of Southeastern Parkway/Campus Parkway to 0.5 mile East of SR 13. See Project Location Maps in Appendix B, pages 1-2.

Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mile E of SR 13 has 2 travel lanes in each direction. The northbound (NB) cross section of 3 lanes in each direction ends at Cumberland Rd. The southbound (SB) 5-lane section starts with the SB SR 37 entrance ramps. A pavement resurfacing project (Des. No. 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design and the ultimate decision on the level of pavement work required for the projects will depend on the condition of the pavement.

Project 1 is located along an urbanized section of I-69, with land use within vicinity of the project consisting primarily of residential and commercial properties. Project 3 is located along a more rural section of I-69, with land use within vicinity of the project consisting primarily of agricultural properties.

Apparent existing right-of-way (ROW) varies throughout the project areas. The typical apparent existing ROW along I-69 is approximately 260 feet in the areas without the bifurcated median. The maximum ROW at the widest point of the bifurcated median is approximately 400 feet. The typical apparent exiting ROW at the interchanges varies throughout the projects, with a maximum ROW (at the Southeastern Parkway/Campus Parkway interchange) of approximately 1,500 feet.

Proposed Projects:

Project 1: I-69 from 106th Street to 0.5 mile north of Southeastern Parkway/Campus Parkway, Hamilton County

The project will construct additional lanes within the existing median from Exit 205 (116th Street and SR 37 in Fishers) to 0.5 mile north of Exit 210 (Southeastern Parkway/Campus Parkway). An outside auxiliary lane will be added on SB I-69 from 106th Street to 116th Street. Existing pavement will be resurfaced. The cross section will have a 10-foot (8-foot paved and 2-foot aggregate) inside shoulder and a 10-foot paved outside shoulder. A concrete barrier or guardrail will be installed in the median. All mainline bridges will be widened in the median (including the Sand Creek NB bridge (Des. No. 1383486) and SB bridge (Des. No. 1383487)). Riprap will be installed, where necessary. The structure at Brooks School Road over I-69 will have the bridge deck replaced (Des. No. 1383488). The overhead structures at Cumberland Road and 126th Street will require no additional work. The interchange at Exit 210 will be modified as part of a separate project (Project 2, Des. No. 1383489). All small structures along this stretch of I-69 were evaluated by INDOT to determine if rehabilitation or replacement was necessary. Three structures will be rehabilitated as part of this project. SS-I69-29-06.05 (Structure 8) will be lined with a cured-in-place pipe (CIPP) liner. Class I riprap will be installed at the inlet and outlet of this structure. SS-I69-29-08.80 (Structure 15, Des. No. 1006439) will be lined with a 183-foot long, 27.7-inch by 38.7-inch high-density polyethylene (HDPE) liner. Class I riprap will be installed at the inlet and outlet of the structure. SS-I69-29-09.38 (Structure 17) will be lined with a 219-foot long CIPP liner. Class II riprap will be installed at the inlet and outlet of the structure. Stormwater detention, such as the placement of berms within the median and roadside ditches, will be added, where applicable, within the project limits to mitigate for impacts to all legal drains.

Project 3: I-69 from 0.5 mile north of Southeastern Parkway/Campus Parkway to 0.5 mile east of SR 13, Hamilton and Madison Counties

The project will construct additional lanes within the existing median from 0.5 mile north of Exit 210 to 0.5 mile east of SR 13. Existing pavement will be resurfaced. The cross section will have a 10-foot (8-foot paved and 2-foot aggregate) inside shoulder where guardrail is present, an 8-foot paved inside shoulder in areas without guardrail, and a 10-foot paved outside shoulder. Double-sided guardrail will be installed in most areas, though not in wide median areas. All

mainline bridges will be widened in the median (including the Mud Creek NB bridge (Des. No. 1383509) and SB bridge (Des. No. 1383510), the Thorpe Creek NB bridge (Des. No. 1383512) and SB bridge (Des. No. 1383513), and the SR 13 NB bridge (Des. No. 1383514) and SB bridge (Des. No. 1383515)). Riprap will be installed, where necessary. The overhead structures at Olio Road and Cyntheanne Road will require no additional work. The pavement on SR 13 under I-69 will be lowered to provide adequate bridge clearance. All small structures along this stretch of I-69 were evaluated to determine if rehabilitation or replacement was necessary. Four structures will be rehabilitated as part of this project. SS-I69-29-11.77 (Structure 21) will be lined with a 120-foot long, 39.5-inch by 59.5-inch HDPE liner. An additional 126-foot long, 36-inch RCP will be bored adjacent to the lined structure. Revetment riprap will be installed at the inlet and outlet of the existing pipe, and Class I riprap will be installed at the inlet and outlet of the new pipe structure. SS-I69-29-12.74 (Structure 22) will be lined with a 126-foot long, 39.5-inch by 59.5-inch HDPE liner. An additional 126-foot long, 36-inch RCP will be bored adjacent to the lined structure. Class II riprap will be installed at the inlet and outlet of both structures. SS-I69-29-12.74 (Structure 25) will be lined with a 191-foot long, 27.7-inch by 38.7-inch HDPE liner. Class I riprap will be installed at the inlet and outlet of the structure. SS-I-69-29-12.93 (Structure 26), also known as John Underwood Drain, will be lined with a 211-foot long, 102-inch by 66-inch HDPE line. Headwalls will be added to the structure, as well as Class II riprap at the inlet and outlet of the structure. Stormwater detention will be added, where applicable, within the project limits to mitigate for impacts to all legal drains.

Preliminary plans for both projects are located in Appendix E, pages 15-56.

Right-of-Way (ROW): No new permanent or temporary ROW will be required for either project.

Maintenance of Traffic (MOT): For Maintenance of traffic (MOT), the project has been broken into 5 phases. Two travel lanes will be open in both directions at all times, with the exception of short duration (20 to 30 minute) nighttime closures. Access to and from all ramps will be maintained at all times by the contractor. These are firm commitments. For a full description of the MOT, see pages 19-20.

Estimated Cost:

Project 1: Des. No. 1383332	
Construction:	$ 46,290,000
Right-of-way:	$ 0
Engineering:	$ 1,573,490
Total:	$ 47,863,490

**Costs include associated bridge and small structure work*

Project 3: Des. No. 1383336	
Construction:	$ 32,800,000
Right-of-way:	$ 0
Engineering:	$ 1,313,830
Total:	$ 34,113,830

**Costs include associated bridge and small structure work*

Environmental Concerns: The preferred alternative will impact seven wetlands (approximately 0.0375 acre total) and six streams (approximately 2,269 linear feet total). These impacts exceed the 300 linear feet threshold for stream impacts and will thus likely require stream mitigation. Three floodplains lie within the project areas. Permits must be received and the impacts mitigated for either concurrently with or before construction of this project.

These projects are Type I projects. Therefore, Noise Analyses have been conducted, per INDOT's Traffic Noise Analysis Procedure (2011), and the feasibility and cost effectiveness of noise barriers (NB) were evaluated at all locations in the project areas where noise impacts were identified under the future build alternative. Based on the studies completed to date, the State of Indiana has identified 825 impacted receptors (representing 1,098 dwelling units) and has determined that noise abatement is likely, but not guaranteed, at four locations. The viewpoints of the benefited residents and property owners will be sought at the hearing, and their comments will be considered in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects.

All other environmental impacts are minimal and have been addressed through coordination with USFWS, IDNR, and other resource agencies (see Appendix D). Environmental impacts are described in detail below in Part III of this

document.

The preferred alternative will meet the Purpose and Need of the projects by adding travel lanes from Exit 205 (116th Street and SR 37 in Fishers) to SR 13 and adding an outside auxiliary lane on SB I-69 from 106th Street to 116th Street to address the capacity issues within the project areas.

OTHER ALTERNATIVES CONSIDERED:

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

Alternative A: Do Nothing (No Build)
The "Do Nothing" alternative would have no project cost and no environmental impacts. However, this alternative would not address the congestion issues along theses sections of I-69, which will continue to worsen and is predicted to experience "forced flow" (LOS F) in 2033. Thus, the "Do Nothing" Alternative was rejected because it does not meet the Purpose and Need of the projects.

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

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

ROADWAY CHARACTER:

Note: The "current" year (2015) and "design" year (2035) listed below were updated since the 2011 Traffic Data Analysis (described in the Purpose and Need, which evaluated a 2013 "current" year and 2033 "design" year).

Project 1: I-69 from 106th Street to 116th Street

Functional Classification:	Principal Arterial			
Current ADT:	118,560 VPD (2015)	Design Year ADT:	163,300 VPD (2035)	
Design Hour Volume (DHV):	13,064	Truck Percentage (%)	8	
Designed Speed (mph):	70	Legal Speed (mph):	65	

		Existing	Proposed
Number of Lanes:		5 SB *	6 SB*
Type of Lanes:		Through	Through
Pavement Width:		60ft	72ft
Shoulder Width:	Inside	4ft	4ft
	Outside	10ft	10ft
Median Width:		12ft	12ft
Sidewalk Width:		N/A	N/A

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

**No work will occur on the NB lanes in this section. Therefore, the information only includes the SB lanes.*

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Project 1: 116th Street Southbound Ramp

Functional Classification: Principal Arterial
Current ADT: 12,350 VPD (2015) Design Year ADT: 15,670 VPD (2035)
Design Hour Volume (DHV): 1,411 Truck Percentage (%) 5
Designed Speed (mph): 35/60 Legal Speed (mph): 45

		Existing	Proposed
Number of Lanes:		1	1
Type of Lanes:		Ramp	Ramp
Pavement Width:		16ft	16ft
Shoulder Width:	Inside	4ft	4ft
	Outside	6ft	8ft
Median Width:		N/A	N/A
Sidewalk Width:		N/A	N/A

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

Project 1: I-69 from 116th Street to Southeastern Parkway/Campus Parkway

Functional Classification: Principal Arterial
Current ADT: 63,440 VPD (2015) Design Year ADT: 83,850 VPD (2035)
Design Hour Volume (DHV): 5,870 Truck Percentage (%) 20
Designed Speed (mph): 70 Legal Speed (mph): 70

		Existing	Proposed
Number of Lanes:		4 (2 NB, 2 SB)	6 (3 NB, 3 SB)
Type of Lanes:		Through	Through
Pavement Width:		48ft	72ft
Shoulder Width:	Inside	4ft	10ft
	Outside	10ft	10ft
Median Width:		60ft	36ft
Sidewalk Width:		N/A	N/A

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

Project 3: I-69 from Southeastern Parkway/Campus Parkway to SR 13

Functional Classification: Principal Arterial
Current ADT: 56,140 VPD (2015) Design Year ADT: 66,190 VPD (2035)
Design Hour Volume (DHV): 5,296 Truck Percentage (%) 10
Designed Speed (mph): 70 Legal Speed (mph): 70

		Existing	Proposed

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Number of Lanes:	4 (2 NB, 2 SB)	6 (3 NB, 3 SB)
Type of Lanes:	Through	Through
Pavement Width:	46ft	72ft
Shoulder Width: Inside	4ft	10ft
Outside	10ft	10ft
Median Width:	60ft	36ft
Sidewalk Width:	N/A	N/A

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

Project 3: SR 13

Functional Classification: State Collector
Current ADT: 12,472 VPD (2015) Design Year ADT: 18,213 VPD (2035)
Design Hour Volume (DHV): 1,989 Truck Percentage (%) 12
Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing	Proposed
Number of Lanes:	2	2
Type of Lanes:	Through	Through
Pavement Width:	24ft	24ft
Shoulder Width: Inside	6ft	6ft
Outside	10ft	10ft
Median Width:	N/A	N/A
Sidewalk Width:	N/A	N/A

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

DESIGN CRITERIA FOR BRIDGES:

Structures are arranged from the south end of Project 1 to the north end of Project 3.
The overhead structures at 106th Street, SR 37, 116th Street, Cumberland Road, 126th St, Olio Road, and Cyntheanne Road will require no additional work.
All small structures along this stretch of I-69 were evaluated to determine if rehabilitation or replacement was necessary.
The seven small structures that require rehabilitation are included in the list below.

Structure/NBI Number(s): Small Structure 8 (SS-I69-29-06.05) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	30in by 48in elliptical CMP	Line existing with a CIPP liner
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		N/A

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

Remarks: Small Structure 8 (SS-I69-29-06.05) is located under I-69, approximately 200 feet east of the Cumberland Road Overpass, in Hamilton County. The existing structure is a 156-foot long, 30-inch by 48-inch elliptical CMP.

The preferred alternative is to line Small Structure 8 with a CIPP liner. Class I riprap will be installed at the inlet and outlet of this structure. No channel work or tree clearing will be required.

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

Structure/NBI Number(s): I69-06-05313D SBL Sufficiency Rating: 95.4, per 2013 Bridge Report
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced Concrete Slab	Reinforced Concrete Slab
Number of Spans:	3 spans (27ft, 36ft, and 27ft)	3 spans (27ft, 36ft, and 27ft)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	39ft-10in	56ft
Outside to Outside Width:	42ft-6in	58ft-10in
Shoulder Width: Inside	5ft-11in	10ft
Outside	9ft-11in	10ft
Length of Channel Work:		85 lft

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

Remarks: Bridge No. I69-06-05313D SBL is located on SB I-69 over Sand Creek, approximately 1.53 miles east of SR 37, in Hamilton County. The bridge is a 90-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a 5-foot-11-inch inside shoulder, and a 9-foot-11-inch outside shoulder. The existing approaches consist of two 12-foot lanes, 4-foot inside shoulders, and 10-foot outside shoulders.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and 10-foot inside and outside shoulders. Riprap will be extended along the piers and banks to prevent erosion and local scour. Approaches will be widened to match the added travel lanes' roadway character. Approximately 85 linear feet of channel work will be required for bridge widening and scour protection. No tree clearing will be required.

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

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Structure/NBI Number(s): I69-06-05313D NBL Sufficiency Rating: 95.4, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced Concrete Slab	Reinforced Concrete Slab
Number of Spans:	3 spans (27ft, 36ft, and 27ft)	3 spans (27ft, 36ft, and 27ft)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	39ft-10in	56ft
Outside to Outside Width:	42ft-6in	58ft-10in
Shoulder Width: Inside	5ft-11in	10ft
Outside	9ft-11in	10ft
Length of Channel Work:		26 lft

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

Remarks: Bridge No. I69-06-05313D NBL is located on NB I-69 over Sand Creek, approximately 1.53 miles east of SR 37, in Hamilton County. The bridge is a 90-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a 5-foot-11-inch inside shoulder, and a 9-foot-11-inch outside shoulder. The existing approaches consist of two 12-foot lanes, 4-foot inside shoulders, and 10-foot outside shoulders.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and 10-foot inside and outside shoulders. Riprap will be extended along the banks to prevent erosion. Approaches will be widened to match the added travel lanes' roadway character. Approximately 26 linear feet of channel work will be required for bridge widening and scour protection. No tree clearing will be required.

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

Structure/NBI Number(s): Small Structure 15 (SS-I69-29-08.80) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	33in by 49in elliptical CMP	Line existing with a 27.7in by 38.7in HDPE lined pipe
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		N/A

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

Remarks: Small Structure 15 (SS-I69-29-08.80) is located under I-69, approximately 0.25 mile west of the Brooks School Road overpass, in Hamilton County. The existing structure is a 183-foot long, 33-inch by 49-inch elliptical CMP.

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

The preferred alternative is to line Small Structure 15 with a 183-foot long, 27.7-inch by 38.7-inch HDPE liner. Class I riprap will be installed at the inlet and outlet of the structure. No channel work or tree clearing will be required.

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

Structure/NBI Number(s): I69-08-05315B Sufficiency Rating: 85.3, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Continuous Composite Steel Beam	Continuous Composite Steel Beam
Number of Spans:	4 spans (44ft, 76ft-6in, 76ft-6in, and 44ft)	4 spans (44ft, 76ft-6in, 76ft-6in, and 44ft)
Weight Restrictions:	N/A	N/A
Height Restrictions:	16ft-1in	16ft
Curb to Curb Width:	27ft-6in	30ft
Outside to Outside Width:	31ft-6in	32ft
Shoulder Width:	2ft-9in	4ft
Length of Channel Work:		NA

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

Remarks: Bridge No. I69-08-05315B is the Brooks School Road overpass over I-69, approximately 3.56 miles east of SR 37, in Hamilton County. The bridge is a 241-foot long, four-span, continuous composite steel beam bridge, which was constructed in 1966. It accommodates two 11-foot lanes with 2-foot-9-inch shoulders. The existing approaches consist of two 11-foot lanes, 3-foot paved shoulders, and 5-foot earthen shoulders.

The preferred alternative will rehabilitate the bridge and replace the existing bridge deck. The proposed structure will accommodate two 11-foot lanes with 4-foot shoulders. Approach work will consist of replacing approach slabs, installing milled asphalt transitions, and installing riprap drainage turnouts. No channel work or tree clearing will be required.

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

Structure/NBI Number(s): Small Structure 17 (SS-I69-29-09.38) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	36in CMP	Line existing with CIPP liner
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		218 lft

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

Remarks: Small Structure 17 (SS-I69-29-09.38) is located under I-69 at Unnamed Tributary (UNT) 5 to Sand Creek, approximately 0.77 mile west of the Southeastern Parkway/Campus Parkway/I-69 Interchange, in Hamilton County. The existing structure is a 219-foot long, 36-inch CMP.

The preferred alternative is to line Small Structure 17 with a CIPP liner. Class II riprap will be installed at the inlet and outlet of the structure. Approximately 218 linear feet of channel work will be required for the slip-lining and scour protection. No tree clearing will be required.

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

Structure/NBI Number(s): I69-10-05318D SBL Sufficiency Rating: 95.4, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced Concrete Slab	Reinforced Concrete Slab
Number of Spans:	3 spans (31ft-3in, 41ft-6in, and 31ft-3in)	3 spans (31ft-3in, 41ft-6in, and 31ft-3in)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	39ft-10in	56ft
Outside to Outside Width:	42ft-6in	58ft-10in
Shoulder Width: Inside	5ft-11in	10ft
Outside	9ft-11in	10ft
Length of Channel Work:		21 lft

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

Remarks: Bridge No. I69-10-05318D SBL is located on SB I-69 over Mud Creek, approximately 1.17 miles east of the Southeastern Parkway/Campus Parkway/I-69 Interchange, in Hamilton County. The bridge is a 104-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a 5-foot-11-inch inside shoulder, and a 9-foot-11-inch outside shoulder. The existing approaches consist of two 12-foot lanes, a 4-foot inside shoulder, and a 10-foot outside shoulder.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and 10-foot inside and outside shoulders. Riprap will be extended along the banks to prevent erosion. Approaches will be widened to match the added travel lanes' roadway character. Approximately 21 linear feet of channel work will be required for bridge widening and scour protection. Minor tree clearing (5 trees/shrubs less than 10 inches diameter at breast height) in the median of I-69 will be required.

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

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Structure/NBI Number(s): I69-10-05318D NBL Sufficiency Rating: 95.4, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced Concrete Slab	Reinforced Concrete Slab
Number of Spans:	3 spans (31ft-3in, 41ft-6in, and 31ft-3in)	3 spans (31ft-3in, 41ft-6in, and 31ft-3in)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	39ft-10in	56ft
Outside to Outside Width:	42ft-6in	58ft-10in
Shoulder Width: Inside	5ft-11in	10ft
Outside	9ft-11in	10ft
Length of Channel Work:		21 lft

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

Remarks: Bridge No. I69-10-05318D NBL is located on NB I-69 over Mud Creek, approximately 1.17 miles east of the Southeastern Parkway/Campus Parkway/I-69 Interchange, in Hamilton County. The bridge is a 104-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a 5-foot-11-inch inside shoulder, and a 9-foot-11-inch outside shoulder. The existing approaches consist of two 12-foot lanes, a 4-foot inside shoulder, and a 10-foot outside shoulder.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and 10-foot inside and outside shoulders. Riprap will be extended along the piers to prevent erosion. Approaches will be widened to match the added travel lanes' roadway character. Approximately 21 linear feet of channel work will be required for bridge widening and scour protection. Minor tree clearing will be required (described above for SB I-69 over Mud Creek).

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

Structure/NBI Number(s): Small Structure 22 (SS-I69-29-12.74) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	4ft by 6ft squashed pipe	Line existing with a 39.5in by 59.5in HDPE liner and bore a new trenchless 36in RCP
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		N/A

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

Remarks: Small Structure 22 (SS-I69-29-12.74) is located under I-69 at George Burke Drain, approximately 0.65 mile west of the Cyntheanne Road overpass, in Hamilton County. The existing structure is a 126-foot long, 4-foot by 6-foot squashed pipe.

The preferred alternative is to line Small Structure 22 with a 126-foot long, 39.5-inch by 59.5-inch HDPE liner. An additional 126-foot long, 36-inch RCP will be bored adjacent to the lined structure. Class II riprap will be installed at the inlet and outlet of both structures. No channel work or tree clearing will be required.

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

Structure/NBI Number(s): Small Structure 21(SS-I69-29-11.77) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	4ft by 6ft squashed pipe	Line existing with a 39.5in by 59.5in HDPE liner and bore a new trenchless 36in RCP
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		N/A

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

Remarks: Small Structure 21 (SS-I69-29-11.77) is located on I-69 at George Burke Drain, approximately 0.62 mile west of the Cyntheanne Road overpass, in Hamilton County. The existing structure is a 120-foot long, 4-foot by 6-foot squashed pipe.

The preferred alternative is to line Small Structure 21 with a 120-foot long, 39.5-inch by 59.5-inch HDPE liner. An additional 120-foot long, 36-inch RCP will be bored adjacent to the lined structure. Revetment riprap will be installed at the inlet and outlet of the existing pipe, and Class I riprap will be installed at the inlet and outlet of the new pipe structure. No channel work or tree clearing will be required.

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

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Structure/NBI Number(s): Small Structure 25 (SS-I69-29-12.74) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	33in by 49in elliptical CMP	Line existing with a 27.7in by 38.7in HDPE liner
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		N/A

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

Remarks: Small Structure 25 (SS-I69-29-12.74) is located under I-69, approximately 0.3 mile east of the Cyntheanne Road overpass, in Hamilton County. The existing structure is a 191-foot long, 33-inch by 49-inch elliptical CMP.

The preferred alternative is to line Small Structure 21 with a 191-foot long, 27.7-inch by 38.7-inch HDPE liner. Class I riprap will be installed at the inlet and outlet of the structure. No channel work or tree clearing will be required.

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

Structure/NBI Number(s): Small Structure 26 (SS-I-69-29-12.93) Sufficiency Rating: N/A
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	6ft-9in by 9ft-3in steel plate structure	Line existing with a 102-inch by 66-inch HDPE liner
Number of Spans:	N/A	N/A
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	N/A	N/A
Outside to Outside Width:	N/A	N/A
Shoulder Width:	N/A	N/A
Length of Channel Work:		260 lft

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

Remarks: Small Structure 26 (SS-I-69-29-12.93) is located on I-69 at John Underwood Drain, approximately 1.5 miles west of the I-69/SR 13 Interchange, in Hamilton County. The existing structure is a 211-foot long, 6-foot-9-inch by 9-foot-3-inch steel plate structure.

The preferred alternative is to line Small Structure 26 with a 211-foot long, 102-inch by 66-inch HDPE liner. Headwalls will be added to the structure. Class II riprap will be installed at the inlet and outlet of the structure. Approximately 260 linear feet of channel work will be required for slip-lining and scour protection. No tree clearing will be required.

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

Structure/NBI Number(s): I-69-13-5320C SBL Sufficiency Rating: 93.3, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced concrete slab	Reinforced concrete slab
Number of Spans:	3 spans (21ft-9in, 27ft-6in, and 21ft-9in)	3 spans (21ft-9in, 27ft-6in, and 21ft-9in)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	Varies 49ft-11in to 51ft-5in	Varies 68 ft to 69ft-6in
Outside to Outside Width:	Varies 52ft-11in to 54ft-5in	Varies 71ft to 72ft-6in
Shoulder Width: Inside Outside	5ft-9in varies 8ft-2in to 9ft-8in	10ft varies 10ft to 11ft-6in
Length of Channel Work:		20 lft

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

Remarks: Bridge No. I69-13-5320C SBL is located on SB I-69 over Thorpe Creek, approximately 0.28 mile west of SR 13, in Madison County. The bridge is a 71-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. The existing bridge and approaches consists of two 12-foot lanes, a 5-foot-9-inch inside shoulder, a variable (8-foot-2-inch to 9-foot-8-inch) outside shoulder, and a 12-foot acceleration lane.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes, a 10-foot inside shoulder, a variable (10-foot to 11-foot-6-inch) outside shoulder, and a 12-foot acceleration lane. Riprap will be extended along the banks to prevent erosion. Approaches will be widened to match the added travel lanes' roadway character. Approximately 20 linear feet of channel work will be required for bridge widening and scour protection. Tree clearing will not be required.

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

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Structure/NBI Number(s): I69-13-5320JC NBL Sufficiency Rating: 94.4, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Reinforced concrete slab	Reinforced concrete slab
Number of Spans:	3 spans (21ft-9in, 27ft-6in, and 21ft-9in)	3 spans (21ft-9in, 27ft-6in, and 21ft-9in)
Weight Restrictions:	N/A	N/A
Height Restrictions:	N/A	N/A
Curb to Curb Width:	Varies 51ft-11in to 54ft-10in	Varies 68 ft to 69ft-6in
Outside to Outside Width:	Varies 54ft-11in to 57ft-10in	Varies 71ft to 72ft-6in
Shoulder Width: Inside Outside	5ft-9in; 10ft-8in	10ft 10ft
Length of Channel Work:		20 lft

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

Remarks: Bridge No. I69-13-5320JC NBL is located on NB I-69 over Thorpe Creek, approximately 0.28 mile west of SR 13, in Madison County. The bridge is a 71-foot long, three-span, reinforced concrete slab bridge, which was constructed in 1966. The existing bridge and approaches consist of two 12-foot lanes, a 5-foot-9-inch inside shoulder, a 10-foot-8-inch outside shoulder, and an 11-foot-6-inch to 14-foot-5-inch deceleration lane.

The preferred alternative will overlay and widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes, 10-foot inside and outside shoulders, and a variable (12-foot to 14-foot-4-inch) deceleration lane. Riprap will be extended along the banks to prevent erosion. Approaches will be widened to match the added travel lanes' roadway character. Approximately 20 linear feet of channel work will be required for bridge widening and scour protection. Tree clearing will not be required.

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

Structure/NBI Number(s): I69-13-05321C NBL Sufficiency Rating: 94.3, per 2013 Bridge Inspection
(Rating, Source of Information)

	Existing	Proposed
Bridge Type:	Composite Continuous Steel Beam	Composite Continuous Steel Beam
Number of Spans:	2 spans (both 73-foot)	2 spans (both 73-foot)
Weight Restrictions:	N/A	N/A
Height Restrictions:	14ft-4in	14ft-7in
Curb to Curb Width:	40ft-6in	57ft-7in
Outside to Outside Width:	43ft-6in	60ft-7in

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

Shoulder Width:	Inside	varies 5ft-9in to 6ft-8¼in;	varies 10ft to 11ft-7in
	Outside	varies 9ft-9¾in to 10ft-9in	varies 10ft to 11ft-7in
Length of Channel Work:			N/A

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

Remarks: Bridge No. I69-13-05321C NBL is located on NB I-69 over SR 13, approximately 4.3 miles east of the Southeastern Parkway/Campus Parkway/I-69 Interchange, in Madison County. The bridge is a 146-foot long, two-span, composite continuous steel beam bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a variable (5-foot-9-inch to 6-foot-8¼-inch) inside shoulder, and a variable (9-foot-9¾-inch to 10-foot-9-inch) outside shoulder. The existing approaches consist of two 12-foot lanes, a 4-foot inside shoulder, and a 10-foot outside shoulder.

The preferred alternative will widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and variable (10-foot to 11-foot-7-inch) inside and outside shoulders. Riprap side slopes will be extended to the centerline of the median. Approaches will be widened to match the added travel lanes' roadway character. There will be no channel work or tree clearing at this location.

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

Structure/NBI Number(s): I69-13-05321C SBL Sufficiency Rating: 94.3, per 2013 Bridge Inspection
(Rating, Source of Information)

		Existing	Proposed
Bridge Type:		Composite Continuous Steel Beam	Composite Continuous Steel Beam
Number of Spans:		2 spans (both 73-foot)	2 spans (both 73-foot)
Weight Restrictions:		N/A	N/A
Height Restrictions:		14ft-6in	15ft
Curb to Curb Width:		40ft-6in	57ft-7in
Outside to Outside Width:		43ft-6in	60ft-7in
Shoulder Width:	Inside	varies 5ft-9in to 6ft-8¼in;	varies 10ft to 11ft-7in
	Outside	varies 9ft-9¾in to 10ft-9in	varies 10ft to 11ft-7in
Length of Channel Work:			N/A

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

Remarks: Bridge No. I69-13-05321C SBL is located on SB I-69 over SR 13, approximately 4.3 miles east of the Southeastern Parkway/Campus Parkway/I-69 Interchange, in Madison County. The bridge is a 146-foot long, two-span, composite continuous steel beam bridge, which was constructed in 1966. It accommodates two 12-foot lanes, a variable (5-foot-9-inch to 6-foot-8¼-inch) inside shoulder, and a variable (9-foot-9¾-inch to 10-foot-9-inch) outside shoulder. The existing approaches consist of two 12-foot lanes, a 4-foot inside shoulder, and a 10-foot outside shoulder.

The preferred alternative will widen the existing bridge deck. The proposed structure will accommodate three 12-foot lanes and variable (10-foot to 11-foot-7-inch) inside and outside shoulders. Riprap side slopes will be extended to the centerline of the median. Approaches will be widened to match the added travel lanes' roadway character. There will be no channel work or tree clearing at this location.

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

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

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?		✓
Is a temporary roadway proposed?	✓	
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)		✓
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?		✓

Remarks:

The Maintenance of traffic (MOT) for the projects has been broken into the following 5 phases:

Phase 1:
Traffic will be shifted to the inside lanes, utilizing 11-foot lanes to build temporary full depth pavement where necessary for both NB and SB locations. Temporary lanes will be built along the east side of SR 13.

Phase 2:
Traffic will be shifted to the outside lanes, utilizing 11-foot lanes and temporary full depth pavement, where necessary. An additional lane and full depth shoulder will be built in the existing median for both NB and SB lanes, and guardrail will be installed. A median barrier will not be built at the southern end of the projects in this phase, as a cross over will be utilized in Phases 3 and 4 (see below). A portion of the SB 116th Street to SB I-69 ramp will be built, while maintaining ramp traffic at all times. SR 13 traffic will be shifted to the temporary lanes to the east.

Phase 3:
The NB 3 lanes will be merged to 2 lanes at the southern end of the projects. After the merge, the NB lanes will be shifted to the outside lanes, utilizing 11-foot lanes. SB traffic will utilize the inside shoulder and travel lanes to accommodate two 11-foot lanes. Just south of the Cumberland Road overpass, the SB lanes will split. One travel lane will use the newly constructed NB inside lane and shoulder, and the second SB lane will use the newly constructed lane and shoulder on the SB side. Proposed construction to the SB lanes will occur. A crossover will be required at the southern end of the projects. All SB ramps shall be maintained to traffic during construction. SR 13 traffic will be shifted to the newly constructed lanes and the temporary pavement will be removed.

Phase 4:
SB traffic will be shifted over to the newly constructed SB lanes, utilizing 11-foot travel lanes. NB traffic will be merged from 3 lanes to 2, as shown in Phase 3. The NB traffic will utilize the NB and SB inside lanes and shoulders constructed in Phase 2. Proposed construction to the NB lanes will occur. A crossover will be required at the southern end of the projects. All NB ramps will be maintained to traffic during construction.

Phase 5:
NB and SB traffic will be shifted back to the appropriate lanes. Two lanes in each direction will be maintained on the outside lanes. The inside lanes and shoulders constructed in Phase 2 will have the remaining 4 inches of pavement overlaid. The proposed concrete median barrier will be constructed.

These projects should not create any permanent disruptions to public services or facilities. Two travel lanes will be open in both directions at all times, with the exception of short duration (20 to 30 minute) nighttime closures. Access to and from all ramps will be maintained at all times by the contractor. During construction, the projects could cause delays to emergency services. Coordination will occur with emergency services prior to the implementation of each phase of the MOT. These are firm commitments.

ESTIMATED PROJECT COST AND SCHEDULE:

Project 1
Engineering: $ 1,573,490 (2014) Right-of-Way: $ 0 (2014) Construction: $ 46,290,000 (2015)

Project 3
Engineering: $ 1,313,830 (2014) Right-of-Way: $ 0 (2014) Construction: $ 32,800,000 (2015)

Anticipated Start Date of Construction: Fall 2015

Date projects incorporated into STIP October 2, 2014 (see Appendix H, pages 1-6)

	Yes	No
Is the project in an MPO Area?	✓	

If yes,

Name of MPOs Indianapolis Metropolitan Planning Organization (IMPO) and Madison County Council of Governments (MCCOG)

Location of Projects in TIP Page 24 of 2014-2017 TIP & 2014 First and Second Quarter Amendments (IMPO) and MCCOG Current 2012-2015 TIP (see Appendix H, pages 7-15)

Date of incorporation by reference into the STIP December 12, 2013, March 5 and May 28, 2014 (IMPO) March 6 and June 5, 2014 (MCCOG)

RIGHT-OF-WAY:

	Amount (acres)	
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other:	0	0
Other:	0	0
TOTAL	0	0

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

Remarks:

No new permanent or temporary right-of-way (ROW) will be required for either project.

Apparent existing ROW varies throughout the project areas. The typical apparent exiting ROW along I-69 is approximately 260 feet in the areas without the bifurcated median. The maximum ROW at the widest point of the bifurcated median is approximately 400 feet. The typical apparent exiting ROW at the interchanges varies throughout the projects, with a maximum ROW (at the Southeastern Parkway/Campus Parkway interchange) of approximately 1,500 feet.

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

SECTION A – ECOLOGICAL RESOURCES

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

Remarks:

Field investigations were conducted in May through August 2014 by Parsons to determine the presence of jurisdictional streams and wetlands within the project areas. A Waters of the US Determination Report was completed on October 16, 2014 by Parsons (see Appendix F), and was approved by INDOT Environmental Services on October 20, 2014 (see Appendix F, pages 241-243). Nineteen likely jurisdictional streams were identified within the projects limits.

Cheeney Creek is noted as an intermittent stream (dashed blue line) on the USGS 7.5 minute Fishers Quadrangle Topographic Map, and exhibited an ordinary high-water mark (OHWM) at the field check. Therefore, it is likely a jurisdictional Water of the US. Five Unnamed Tributaries (UNTs) to Cheeney Creek were documented within the projects limits. UNT1 to Cheeney Creek is located along the west side of I-69, from the SR 37 Interchange to Cheeney Creek. UNT2 to Cheeney Creek is located along the east side of I-69 within the roadside drainage. This stream discharges at the southeast quadrant of the Cheeney Creek crossing under I-69. Historic drainage was noted for this area during the desktop evaluation, indicating that a stream may have been captured during I-69's construction. UNT3 to Cheeney Creek is located along the east side of I-69 within the roadside drainage. This stream discharges at the northeast quadrant of the Cheeney Creek crossing under I-69. UNT4 to Cheeney Creek is located along the east side of I-69 in the roadside drainage between UNT3 to Cheeney Creek and USA Parkway. This stream discharges at the northeast quadrant of the Cheeney Creek crossing under I-69. This stream is channelized and lined with concrete. UNT5 to Cheeney Creek is located in the southwest quadrant of the 106th Street Overpass over I-69. None of the UNTs were noted as streams on USGS 7.5 minute topographic maps, but all exhibited an OHWM during field review. Each UNT has connectivity to a likely Water of the US (Cheeney Creek). Therefore, each UNT is likely a jurisdictional Water of the US.

Bridges I-69-6-5313D NBL & SBL are located on I-69 over Sand Creek. Sand Creek is noted as a perennial stream (solid blue line) on the USGS 7.5 minute McCordsville Quadrangle Topographic Map, and exhibited an OHWM at the field check. Therefore, it is likely a jurisdictional Water of the US. Five UNTs to Sand Creek were documented within the projects limits. UNT1 to Sand Creek is located on the south side of I-69 near the I-69 NB bridge over Sand Creek. UNT1 discharges into Sand Creek approximately 430 linear feet west of this bridge. UNT2 to Sand Creek is located in the northwest quadrant of the I-69 SB bridge over Sand Creek. UNT3 to Sand Creek is located in the southeast quadrant of the I-69 NB bridge over Sand Creek. UNT4 to Sand Creek is located approximately 1,000 feet north of the I-69 bridges over Sand Creek. UNT4 discharges into Sand Creek approximately 1,700 linear feet upstream (north) of the I-69 crossings. This stream is largely encapsulated within INDOT right-of-way. UNT5 to Sand Creek is located approximately 0.75 mile west of the Southeastern Parkway/Campus Parkway Interchange. UNT5 discharges into Sand Creek approximately 2 miles upstream (north) of the I-69 bridges over Sand Creek. This stream is

primarily encapsulated within INDOT right-of-way. None of the UNTs were noted as streams on USGS 7.5 minute topographic maps, but all exhibited an OHWM during field review. Each UNT has connectivity to a likely Water of the US (Sand Creek). Therefore, each UNT is likely a jurisdictional Water of the US.

Bridges I-69-10-5318D NBL & SBL are located on I-69 over Mud Creek. Mud Creek is noted as a perennial stream (solid blue line) on the USGS 7.5 minute McCordsville Quadrangle Topographic Map, and exhibited an OHWM at the field check. Therefore, it is likely a jurisdictional Water of the US. Three UNTs to Mud Creek were documented within the projects limits. UNT1 to Mud Creek is located on the south side of I-69 and discharges into Mud Creek at the southwest quadrant of the NB bridge. UNT2 to Mud Creek is located on the south side of I-69 and discharges into Mud Creek at the southeast quadrant of the NB bridge. UNT3 to Mud Creek is located on the north side of I-69 and discharges into Mud Creek at the northeast quadrant of the I-69 SB bridge. None of the UNTs were noted as streams on USGS 7.5 minute topographic maps, but all exhibited an OHWM during field review. Each UNT has connectivity to a likely Water of the US (Mud Creek). Therefore, each UNT is likely a jurisdictional Water of the US.

Bridges I-69-13-5320JC NBL and I-69-13-5320C SBL are located on I-69 over Thorpe Creek. Thorpe Creek is noted as a perennial stream (solid blue line) on the USGS 7.5 minute Ingalls Quadrangle Topographic Map, and exhibited an OHWM at the field check. Therefore, it is likely a jurisdictional Water of the US. Two UNTs to Thorpe Creek were documented within the projects limits. UNT1 to Thorpe Creek (John Underwood Drain) crosses under I-69 approximately 0.5 mile east of the Cyntheanne Road overpass. UNT2 to Thorpe Creek is located along the south side of I-69. UNT2 to Thorpe Creek discharges into UNT1 to Thorpe Creek at the southeast quadrant of this crossing. Neither of the UNTs were noted as streams on USGS 7.5 minute topographic maps, but both exhibited an OHWM during field review. Each UNT has connectivity to a likely Water of the US (Thorpe Creek). Therefore, each UNT is likely a jurisdictional Water of the US.

None of the above streams are listed as *Federal Wild and Scenic Rivers*, *State Natural, Scenic and Recreational Rivers*, or navigable waterways, nor are any on the Indiana Register's listing of *Outstanding Rivers and Streams* or the *National Rivers Inventory*. No other streams, rivers, watercourses or jurisdictional ditches are present within the project areas. For more details, including Headwater Habitat Evaluation Index (HHEI) or Qualitative Habitat Evaluation Index (QHEI) evaluations of the streams, see the Waters of the US Determination Report in Appendix F.

The preferred alternative will not impact Cheeney Creek and four of its UNTs (UNT2, UNT3, UNT4, and UNT5). UNT 1 to Cheeney Creek, however, will be impacted. The portion of UNT 1 to Cheeney Creek that will be impacted is concrete-lined. Originally, approximately 1,200 linear feet of UNT 1 to Cheeney Creek would have been impacted by the proposed projects. On August 13, 2014, a meeting was held between USACE, IDEM, INDOT, and Parsons to discuss what resources were identified in the field, some problematic areas, recent changes in guidance from the USACE on features that lie completely within roadside ditches, expected impacts, and other issues relating to the projects. A follow-up field review with these agencies was held on August 18, 2014. Combined minutes from these two meetings are provided in Appendix F.

The impacts to UNT 1 to Cheeney Creek were discussed at the meetings. Parsons noted that an additional 400 linear feet of concrete-lined ditch would not be impacted by the projects. The agencies agreed that removing the entire concrete-lined portion of the stream and making it a vegetated ditch would be seen as a "post construction improvement". Therefore, the entire concrete-lined portion of UNT 1 to Cheeney Creek, approximately 1,600 linear feet, will be removed and vegetated with an approved seed mix. The agencies agreed that these impacts to UNT 1 to Cheeney Creek will not be viewed as a traditional mitigation project requiring monitoring. No tree clearing will be associated with this impact.

The preferred alternative will impact approximately 109 linear feet of Sand Creek. This impact will be associated with pier widening and the placement of revetment riprap for scour protection. No tree clearing will be associated with this impact.

The preferred alternative will not impact UNT 1, UNT2, UNT3, or UNT4 to Sand Creek. It will, however, impact UNT5 to Sand Creek. The existing pipe carrying UNT5 to Sand Creek under I-69 will be lined. Class II riprap will be installed at the inlet and outlet of the structure. Approximately 218 linear feet of channel work will be required for the slip-lining and scour protection. No tree clearing will be associated with this impact.

The preferred alternative will impact approximately 42 linear feet of Mud Creek. This impact will be associated with pier widening and the placement of revetment riprap for scour protection. Minor tree clearing (5 trees/shrubs less than 10 inches diameter at breast height) in the median of I-69 will be associated with this impact. The preferred alternative will not impact UNT 1, UNT2, or UNT3 to Mud Creek.

The preferred alternative will impact approximately 40 linear feet of Thorpe Creek. This impact will be associated with pier widening and the placement of revetment riprap for scour protection. No tree clearing will be associated with this impact.

The preferred alternative will not impact UNT2 Thorpe Creek. It will, however, impact UNT1 to Thorpe Creek (John Underwood Drain). The existing pipe carrying UNT1 under I-69 will be lined, which will result in approximately 260 linear feet of impacts to UNT1. No tree clearing will be associated with this impact.

All work for these projects will occur within existing ROW. Shoulders and sideslopes have been reduced, where appropriate, throughout the projects to minimize impacts to streams. Reducing sideslopes eliminated all impacts to UNT1 to Mud Creek (previously 391 feet). Approximately 2,269 linear feet of stream (total) will be impacted by the proposed projects.

USFWS, IDNR, and USACE were coordinated with on September 4, 2014 (see Appendix D, pages 1-5). On September 18, 2014, USFWS determined that these projects qualified under the Programmatic Agreement (see Appendix D, pages 14-15), which includes a list of standard recommendations. On October 1, 2014, IDNR responded, stating "We were not able to adequately assess impacts to fish, wildlife, and botanical resources resulting from the project with the information provided… As project plans develop, we recommend submitting more information for further review" (see Appendix D, page 7). Additional information, including preliminary project plans, was e-mailed to IDNR on October 24, 2014 (see Appendix D, page 8). On October 28, 2014, IDNR responded with comments to help reduce potential impacts in the project areas (see Appendix D, pages 10-12). No response was received from USACE.

Project commitments are located below in "Section J: Environmental Commitments". Due to the impacts expected, a USACE 404 permit and an IDEM 401 WQC permit will be required for these projects. Because these projects impact over 300 linear feet of stream, mitigation may be required. USACE and IDEM have agreed that credits from the Central Indiana Mitigation Bank could be acquired if the projects require mitigation.

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

Remarks: Seventy-four lakes/detention basins lie within a half-mile radius of the projects limits with several located adjacent to the projects limits (see Water Resources Maps, Appendix B, pages 18-22). Field investigations conducted in May through August 2014 confirmed the location of these features. None of these lakes/detention basins will be impacted by the proposed projects. No other surface waters are located in or near the project areas.

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

Total wetland area: 5.6205 acre(s) Total wetland area impacted: 0.0357 acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
1	Palustrine Emergent	0.0438	N/A	This wetland will not be impacted by the projects.
2	Palustrine Emergent	0.0495	N/A	This wetland will not be impacted by the projects.
3	Palustrine Emergent	0.1479	N/A	This wetland will not be impacted by the projects.
4	Palustrine Emergent	0.0344	N/A	This wetland will not be impacted by the projects.
5	Palustrine Emergent	0.0290	N/A	This wetland will not be impacted by the projects.
6	Palustrine Emergent	0.4532	0.0002	Impact associated with road widening along I-69 curve.
7	Palustrine Emergent	0.2222	N/A	This wetland will not be impacted by the projects.
8	Palustrine Emergent	0.7879	N/A	This wetland extends outside of the projects limits. This wetland will not be impacted by the projects.
9	Palustrine Forested	0.0845	<0.0001	Impact associated with installation of Structure 8.
10	Palustrine Emergent	0.1198	0.0030	Impact associated with installation of Structure 8.
11	Palustrine Emergent	0.0556	N/A	This wetland will not be impacted by the projects.
12	Palustrine Emergent	0.0216	N/A	This wetland will not be impacted by the projects.
13	Palustrine Emergent	0.1800	N/A	This wetland will not be impacted by the projects.

14	Palustrine Emergent	0.0084	N/A	This wetland will not be impacted by the projects.
15	Palustrine Emergent	0.0037	N/A	This wetland will not be impacted by the projects.
16	Palustrine Emergent	0.1970	N/A	This wetland extends outside of the projects limits. This wetland will not be impacted.
17	Palustrine Emergent	0.0350	N/A	This wetland will not be impacted by the projects.
18	Palustrine Forested	0.0549	N/A	This wetland extends outside of the projects limits. This wetland will not be impacted.
19	Palustrine Emergent	0.2472	N/A	This wetland will not be impacted by the projects.
20	Palustrine Emergent	0.1946	N/A	This wetland will not be impacted by the projects.
21	Palustrine Emergent	0.0090	N/A	This wetland will not be impacted by the projects.
22	Palustrine Emergent	0.0659	N/A	This wetland extends outside of the projects limits. This wetland will not be impacted.
23	Palustrine Emergent	0.0225	N/A	This wetland will not be impacted by the projects.
24	Palustrine Shrub-Scrub and Palustrine Emergent	0.2720	0.0120	This wetland extends outside of the projects limits. Impact is associated with the installation of Structure 17.
25	Palustrine Emergent	0.0072	0.0044	Impact is associated with the installation of Structure 17.
26	Palustrine Emergent	0.1881	N/A	This wetland extends outside of the projects limits. This wetland will not be impacted.
27	Palustrine Emergent	0.0592	N/A	This wetland will not be impacted by the projects.
28	Palustrine Forested and Palustrine Emergent	0.8000	N/A	This wetland will not be impacted by the projects.
29	Palustrine Emergent	0.6763	N/A	This wetland will not be impacted by the projects.
30	Palustrine Emergent	0.0110	N/A	This wetland will not be impacted by the projects.
31	Palustrine Emergent	0.0709	N/A	This wetland will not be impacted by the projects.
32	Palustrine Forested	0.0947	N/A	This wetland will not be impacted by the projects.
33	Palustrine Emergent	0.0490	N/A	This wetland will not be impacted by the projects.
34	Palustrine Emergent	0.0708	0.0080	Impact is associated with the widening of the I-69 Bridges over Thorpe Creek.
35	Palustrine Emergent	0.0434	0.0080	Impact is associated with the widening of the I-69 Bridges over Thorpe Creek.
36	Palustrine Emergent	0.0061	N/A	This wetland will not be impacted by the projects.
37	Palustrine Emergent	0.0046	N/A	This wetland will not be impacted by the projects.
38	Palustrine Emergent	0.0214	N/A	This wetland will not be impacted by the projects.

39	Palustrine Emergent	0.0232	N/A	This wetland will not be impacted by the projects.
40	Palustrine Emergent	0.0321	N/A	This wetland will not be impacted by the projects.
41	Palustrine Emergent	0.0385	N/A	This wetland will not be impacted by the projects.
42	Palustrine Emergent	0.0843	N/A	This wetland will not be impacted by the projects.

Wetlands (*Mark all that apply*)	**Documentation**	**ES Approval Dates**
Wetland Determination	✓	October 20, 2014
Wetland Delineation	✓	October 20, 2014
USACE Isolated Waters Determination		
Mitigation Plan		

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

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

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

Remarks:

The National Wetlands Inventory (NWI) map identifies seven NWI-points, thirty-six NWI-wetland polygons, and eighteen NWI-line segments within a half-mile radius of the projects limits. All of the NWI-points lie well outside of the projects limits. Twelve NWI-wetland polygons lie adjacent to, but outside of the projects limits. Three NWI-line segments lie within the project areas (along Sand Creek, Mud Creek, and Thorpe Creek (see Appendix B, pages 18-22). According to the Soil Survey Geographic (SSURGO) Database for Hamilton and Madison Counties, Indiana, the project areas contain nationally listed hydric soils. In addition, several of the non-hydric soils that are prevalent within the projects limits contain hydric inclusions (see NRCS Soils Map, Appendix B, page 33).

A formal delineation and waters determination was conducted in May through August 2014 by Parsons to determine the presence of jurisdictional streams and wetlands within the project areas. A total of forty-two wetlands totaling 5.6205 acres were identified within the projects limits. Of these, the vast majority (thirty-seven) were emergent wetlands, with four forested wetlands and one shrub-scrub wetland observed. Twenty-two wetlands are likely jurisdictional because of their connection to a likely Water of the US. The remaining twenty wetlands are likely isolated due to the absence of a detectable connection to a Water of the U.S. Descriptions of these wetlands can be found in the above table. For more details, see the Waters of the US Report in Appendix F.

On August 13, 2014, a meeting was held between USACE, IDEM, INDOT, and Parsons to discuss what was identified, some problematic areas, recent changes in guidance from the USACE on features that lie completely within roadside ditches, expected impacts, and other issues relating to the projects. A follow-up field review with these agencies was held on August 18, 2014. Combined minutes from these two meetings are provided in Appendix F. On September 17, 2014, an additional conference call between Parsons and USACE provided further guidance (see Appendix F).

As a result of this coordination, multiple features delineated by Parsons will **not** be considered jurisdictional,

despite meeting all three wetland criteria. Based on agency coordination, features were considered non-jurisdictional if they were entirely contained within roadside drainage. If the feature extended beyond the existing ditch-line, the feature was considered a wetland. The mapped soil unit did not factor into this determination.

Based on regulatory agency feedback, ninety likely non-jurisdictional features that met the three wetland criteria, but fall under the USACE roadside ditch guidance, were delineated in the field. Table 5 (pages 40 to 43) in the Waters of the US Report (Appendix F) summarizes these features. Their boundaries are included on the resource maps (pages 70 to 118), and each is documented in the report with a single photograph (pages 120 to 218). IDEM is currently reviewing USACE's roadside ditch guidance, and some of the features USACE has determined to be non-jurisdictional may still qualify as Waters of the State. All Waters of the State will be identified, permitted, and mitigated for, if necessary, before the project is allowed to go to construction.

Seven wetlands (Wetlands 6, 9, 10, 24, 25, 34, and 35; approximately 0.0357 acre total) will be impacted by the proposed projects (see the above list for a description of the impacts). All work for these projects will occur within existing ROW. Shoulders and sideslopes have been reduced, where appropriate, throughout the projects, which originally would have impacted approximately 0.86 acre of wetlands. All of the wetlands impacted by the projects are low quality, palustrine emergent wetlands.

As stated above in Part II of this document, one alternative ("Do Nothing") was analyzed which would eliminate impacts to wetlands. The "Do Nothing" alternative would not address the congestion issues along theses sections of I-69, which will continue to worsen and is predicted to experience "forced flow" (LOS F) in 2033. Thus, the "Do Nothing" Alternative was rejected because it does not meet the Purpose and Need of the projects.

USFWS, IDNR, and USACE were coordinated with on September 4, 2014 (see Appendix D, pages 1-5). On September 18, 2014, USFWS determined that these projects qualified under the Programmatic Agreement (see Appendix D, pages 14-15), which includes a list of standard recommendations. On October 28, 2014, IDNR responded with comments to help reduce potential impacts in the project areas (see Appendix D, pages 10-12). No Early Coordination response was received from USACE.

Project commitments are located below in "Section J: Environmental Commitments". Due to the impacts expected, a USACE 404 permit and an IDEM 401 WQC permit will be required for these projects. Due to impacts to wetlands being reduced to under 0.1 acre, wetland mitigation is not expected to be required. However, USACE and IDEM have agreed that credits from the Central Indiana Mitigation Bank could be acquired if the projects ended up requiring mitigation.

	Presence	Impacts	
		Yes	No
Terrestrial Habitat	✓	✓	
Unique or High Quality Habitat			

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

Remarks: Field checks were conducted in May through August 2014 by Parsons to determine the land use within and adjacent to the project areas. Project 1 is located along an urbanized section of I-69, with land use within vicinity of the project consisting primarily of residential and commercial properties. Project 3 is located along a more rural section of I-69, with land use within vicinity of the project consisting primarily of agricultural properties.

The projects would impact approximately 56 acres of grassy, maintained median, approximately 19 acres of grassy, maintained shoulders and ditch-lines, and approximately 0.0357 acre of wetlands. The projects would also require minimal (approximately 0.07 acre) tree and scrub-shrub clearing. All impacts will occur within existing ROW within the interstate median and ditch-lines, which provide poor habitat for native species. Therefore, impacts to terrestrial habitat will be minimal.

As previously stated, USFWS and IDNR were coordinated with on September 4, 2014 (see Appendix D, pages 1-5). On September 18, 2014, USFWS determined that these projects qualified under the Programmatic Agreement (see Appendix D, pages 14-15), which includes a list of standard recommendations. On October 28, 2014, IDNR responded with comments to help reduce potential impacts in the project areas (see Appendix D, pages 10-12). Commitments from these agencies are located in "Section J: Environmental Commitments".

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

Karst

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

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

Remarks: These projects are located outside of the designated karst area of the state as identified in the October 13, 1993 Memorandum of Understanding (MOU) between INDOT, IDNR, IDEM, and USFWS. No karst features are mapped within the project limits (see Appendix B, pages 18-22). Therefore, this project is not anticipated to impact any karst features.

Threatened or Endangered Species

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

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

Remarks: These projects are within the range of the northern long-eared bat (*Myotis septentrionalis*), which is currently proposed for listing under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). USFWS and IDNR were coordinated with on September 4, 2014 (see Appendix D, pages 1-5). On October 24, 2014, IDNR responded "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" (see Appendix D, pages 10-12). On September 18, 2014, USFWS determined that these projects qualified under the Programmatic Agreement (see Appendix D, pages 14-15). If a project falls under the programmatic, then USFWS has determined that it is "Not Likely to Adversely Affect" any endangered, threatened, or rare (ETR) species. USFWS recommended the following commitment:
"Prior to the initiation of any construction activities on bridges, including the removal of any bridge structures, we recommend the underside of each bridge be carefully examined for the presence of bats,

especially between April 1 and September 30. If any bats are found roosting on the underside of the bridge, we request that you immediately contact our office."
To ensure that no impacts to the northern long-eared bat occur, this has been included as a firm commitment (see Section J: Environmental Commitments).

USFWS concluded, "Based on the project description and information, we do not anticipate any adverse impacts to the northern long-eared bat. This precludes the need for further consultation on this species for this project under Section 7 of the Endangered Species Act (as amended)."

Therefore, impacts to endangered, threatened, or rare species are not likely to occur. This satisfies the requirements for coordination as required by Section 7 of the Endangered Species Act.

SECTION B – OTHER RESOURCES

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

If a SSA is present, answer the following:

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

Remarks:

These projects are not located within the St. Joseph Aquifer System, the only legally designated SSA in Indiana.

The Indiana Department of Environmental Management's Wellhead Proximity Determinator website (http://idemmaps.idem.in.gov/whpa/) was reviewed by Parsons on September 5, 2014. Per the website, the projects are "not in a Wellhead Protection Area."

IDNR's Waterwells Layer (Geographic Information System (GIS)) was reviewed. Several water wells were identified adjacent to the project areas. Field investigations conducted in May through August 2014 by Parsons did not identify any residential wells in the project areas.

The Town of Fishers is supplied by two public water systems (Citizen's Energy Group and The American Water Company). As previously stated, all work will occur within existing ROW. Temporary erosion and sediment control methods will be implemented within areas of disturbed soil, and all disturbed soil areas will be vegetated following INDOT's standard specifications upon completion of the projects. Utility coordination is ongoing. Currently, no impacts are expected to occur to either public water system. Any impacts to utilities must be appropriately mitigated for.

No other drinking water resources are known to occur within the project areas.

Indiana Department of Transportation

Counties: Hamilton & Madison Route: I-69 Des. Nos.: 1383332, 1383336, 1383486, 1383487, 1383488, 1383509, 1383510, 1383512, 1383513, 1383514, 1383515, & 1006439

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

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

Remarks:

Portions of these projects lie within three regulatory floodplains: Sand Creek, Mud Creek, and Thorpe Creek (see Appendix B, pages 18-22). A fourth regulatory floodplain (Cheeney Creek) lies just outside of the projects limits and will not be impacted by the proposed projects.

Per the INDOT CE Manual, these projects will have Category 3 impacts. Category 3 impacts include projects involving modifications to existing drainage structures. The modifications to drainage structures included in these projects will result in an insubstantial change in their capacity to carry flood water. This change could cause a minimal increase in flood heights and flood limits. These minimal increases will not result in any substantial adverse impacts on the natural and beneficial floodplain values; they will not result in substantial change in flood risks or damage; and they do not have substantial potential for interruption or termination of emergency service or emergency routes; therefore, it has been determined that this encroachment is not substantial.

IDNR was coordinated with on September 4, 2014 (see Appendix D, pages 1-5). On October 28, 2014, IDNR responded, stating "Formal approval by the Department of Natural Resources under the regulatory programs administered by the Division of Water is not required for this project" (see Appendix D, pages 10-12).

However, work at three crossings will not meet any IDNR exemptions under the Flood Control Act. Therefore, Construction in a Floodway (CIF) permits will be required for the Sand Creek and Mud Creek crossings. Both are located within the incorporated boundary of Fishers, and are therefore excluded from the "Rural Bridge Exemption." All required permits will be applied for and obtained before the projects can go to construction.

Work proposed at the Thorpe Creek crossing meets the "Rural Bridge Exemption" as it is a state bridge project located in a rural area with an upstream drainage area of less than 50 square miles. Therefore, it will not require a CIF permit.

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

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

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

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

Remarks:

The Natural Resources Conservation Service (NRCS) was coordinated with for these projects on September 4, 2014 (see Appendix D, pages 1-5). On September 23, 2014, NRCS responded that these projects "will not cause a conversion of prime farmland" (see Appendix D, page 16). Therefore, the requirements of the Farmland Protection Policy Act (FPPA) do not apply to these projects. No other alternatives other than those already discussed in this document will be considered without a re-evaluation of the projects' potential impacts upon farmland. These projects will not have a significant impact to farmland.

SECTION C – CULTURAL RESOURCES

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

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

Project Effect

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

Documentation (mark all that apply)	Documentation Prepared	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report	✓	June 16, 2014	October 22, 2014
Archaeological Records Check/ Review	✓	September 10, 2014	October 3, 2014
Archaeological Phase Ia Survey Report			
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination	✓	October 30, 2014	Pending
800.11 Documentation	✓	October 30, 2014	Pending

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

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

Remarks:

Area of Potential Effect (APE): The Area of Potential Effect (APE) for these projects incorporates the project locations and includes properties that may be impacted by project activities, such as noise and visual intrusions. Weintraut & Associates (W&A) initially drew an APE for historic structures approximately 1,000 feet from the edge of the project locations to take into account any potential for noise impacts. The APE was expanded at intersections and overpasses and also to the east where topography did not shield views to I-69 or in areas where detours may occur. The APE for archaeological resources was defined as the projects footprints (see Appendix E, pages 15-92).

Coordination with Consulting Parties: Early Coordination was initiated on July 24, 2014 with a letter inviting organizations and individuals to become consulting parties (see Appendix E, pages 111-114). The

Indiana State Historic Preservation Officer (SHPO), FHWA, and INDOT Cultural Resources Office (CRO) are automatically consulting parties. On August 11, 2014, Indiana Landmarks Central Office accepted the invitation to become a consulting party and suggested that Indiana Landmarks Eastern Regional Office and Visit Hamilton County Indiana be invited to join in consultation (see Appendix E, page 117). Therefore, early coordination was sent out on August 12, 2014 to Indiana Landmarks Eastern Regional Office and Visit Hamilton County Indiana, inviting these additional organizations to become consulting parties (see Appendix E, pages 118-123). The following is a list of the organizations and individuals formally invited to become a consulting party (those who indicated they wished to be consulting parties are in bold) :

- **Indiana Landmarks—Central Regional Office**
- Hamilton County Historian
- Hamilton County Historical Society
- Hamilton County Genealogy Society
- Carmel-Clay Historical Society
- Fishers Historic Preservation Committee
- Noblesville Preservation Alliance
- City of Noblesville
- City of Fishers
- **Hamilton County Commissioners (Government)**
- Fishers Chamber of Commerce
- Noblesville Chamber of Commerce
- **Madison County Historian**
- Madison County Historical Society
- **Madison County Commissioners**
- Hancock County Historical Society
- **Hancock County Historian**
- Indianapolis Metropolitan Planning Organization
- **Indiana Landmarks—Eastern Regional Office**
- **Visit Hamilton County Indiana (Hamilton County Tourism Inc.)**

In their August 11, 2014 letter, Indiana Landmarks Central Office inquired about the decision "To separate the overall I-69 Expansion...into several, individual projects with separate environmental analysis," and asked, "will any of these projects occurring between Exit 205 and Exit 226 be completed concurrently?" (see Appendix E, page 117). On August 15, 2014, W&A replied that "it is my understanding that construction will likely occur on Projects 1 and 3 at the same time but that the interchange [may] occur at a later date. All of these projects are part of the 'Major Moves 2020' program; each of these corridors associated with this project has independent utility and logical termini so that if one project is delayed it will not affect the funding for other projects" (see Appendix E, page 124). SHPO responded multiple times, as described below. No other responses were received.

Archaeology: An Indiana Archaeological Short Report was prepared for these projects on September 3, 2014 (see Appendix E, pages 107-109). No archaeological sites were found within the project areas, and the report noted that the projects "will require no new ROW, and any prehistoric or historic archaeological resources within the existing ROW are assumed to be destroyed". Therefore, it was determined that "the project area does not have the potential to contain archaeological resources." The report was approved by INDOT CRO on September 10, 2014 and then forwarded to SHPO for concurrence. SHPO agreed with the conclusions of the report in a letter dated October 3, 2014, stating, in part, "we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area." SHPO stated this conclusion was "subject to project activities remaining within areas disturbed by previous construction of a recent and non-historical nature" (see Appendix E, page 153).

Additionally, SHPO stated that Indiana state law requires the Department of Natural Resources be notified within two business days in the event that "archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities." This is a firm commitment.

Historic Properties: A Historic Properties Report was completed for these projects in May 2014 (see Appendix E, pages 104-106). W&A Historians identified the Flanagan House (057-206-50019) as a property that SHPO had previously believed to be eligible and two other properties that they recommended eligible for listing in the NRHP: Hamilton County Bridge No. 177 (S2-3) and Center School (095-343-65015). The report was submitted to INDOT CRO on June 9, 2014, and the report was approved on June 16, 2014. The HPR and early coordination letters were forwarded to SHPO and the other consulting parties for review on July 24, 2014.

On August 22, 2014, the staff of the SHPO responded to the early coordination letter and the HPR (see Appendix E, page 125). The staff agreed that the Flanagan House, Hamilton County Bridge No. 177 and the Center School are "eligible for inclusion" in the NRHP. The staff, however, stated that the Fishers Methodist Episcopal Church and the mid-century House at 7883 South SR 13 "are potentially eligible for listing in the [NRHP], if the interiors are intact." SHPO added, "We understand that it may not be possible to determine the condition of the interiors of these structures; therefore, we will be willing to consider them eligible for listing for the purposes of this review".

On September 18, 2014, staff of the SHPO responded via email to a phone message left by staff of W&A regarding the identification and eligibility of the Fishers Methodist Episcopal Church and the House at 7883 South SR 13. SHPO stated the Fishers Methodist Episcopal church will be eligible under Criterion C (Architecture), though "[a] case may also be able to be made for Religion depending on what additional information is available in the future." The House at 7883 South SR 13 will be eligible under Criterion C (Architecture) (see Appendix E, page 129).

W&A replied to SHPO's comments on the HPR in an email dated September 23, 2014. W&A questioned the eligibility of the Fishers Methodist Episcopal Church given alterations observed in the field and based on previous consultation with SHPO on a similar structure. W&A also questioned the eligibility of the House at 7883 South SR 13 given previous consultation with SHPO (see Appendix E, pages 129-137).

SHPO staff responded to W&A questions in an email dated September 29, 2014, and stated that staff believe both the Fishers Methodist Episcopal Church and House at 7883 South SR 13 to be "potentially eligible pending additional information." Regarding the church, SHPO noted the "ongoing and dramatic loss of historic resources has focused attention on a limited pool of historic places that now stand out as representative to the history of the community." SHPO attached an essay regarding mid-twentieth century resources (see Appendix E, pages 138-152).

On October 9, 2014, INDOT CRO sent a letter to the SHPO and to the Survey & Registration leader of IDNR's Division of Historic Preservation and Archaeology (DHPA) advising that a private entity had moved the Flanagan House to a new location, approximately 0.25 mile north of its previous location on 106th Street and requesting an opinion of continued eligibility (see Appendix E, pages 154-160). In prior consultation (Des. No.1298035) INDOT's consultant had recommended the Flanagan House eligible, and SHPO had concurred with that recommendation. On October 9, 2014, INDOT CRO expressed the opinion that the Flanagan House (sometimes referred to as the Kincaid House) will still be eligible since its significance is derived from its architecture (Criterion C). INDOT stated: "Its new setting, very close in proximity and character to its previous setting, does not detract from the house's features that made it National Register eligible".

On October 22, 2014, the Assistant Director of Preservation Services for DHPA responded to the request for an opinion of eligibility on the Flanagan House: "[a]fter some debate, we have reached the conclusion that the house no longer meets the National Register criteria. In particular, the siting and orientation of the house render it incapable of conveying its architectural significance." He noted, "Examples of vernacular architecture like the Kincaid House [Flanagan House] convey their sense of time and place, in good measure, by their orientation" (see Appendix E, page 161). Thus, for the purposes of these projects, the Flanagan House is not considered eligible for listing in the NRHP.

Therefore, there are four historic properties (Hamilton County Bridge No. 177, the Center School, Fishers Methodist Episcopal Church, and the mid-century House at 7883 South SR 13) within the APE that have been found NRHP-eligible as a result of this consultation.

Documentation, Findings: An 800.5(c) document was completed on October 30, 2014 with INDOT, on behalf of FHWA, issuing a "No Adverse Effect" finding (see Appendix E). SHPO's concurrence is pending, and concurrence must be received before approval of this environmental document.

The determination of effect for each of the four NRHP-eligible properties is described below:

The Fishers Methodist Episcopal Church is located within the APE of Project 1 at 11425 Lantern Road, west of the undertaking. No ROW will be taken from the resource and all improvements will occur within the ROW of I-69. Houses and trees block views to the interstate, and the property is more than 800 feet from the undertaking. There will be no effect to the Fishers Methodist Episcopal Church as a result of this undertaking.

Hamilton County Bridge No. 177 is located within the APE of Project 3 on an abandoned section of Prairie Baptist Road. The road presently provides access for the Burk(e) Cemetery. Since the road is abandoned, traffic will not be added. The bridge is located in proximity to an existing interstate, and the setting of the bridge will not be impacted by the additional lanes within existing ROW. A noise analysis was not conducted at this location because previous consultation with the SHPO had concluded that noise or lack thereof is not an aspect of this type of property's setting that qualifies it for inclusion in the NRHP. The bridge will not be affected as a result of the undertaking.

Center School is located within the APE of Project 3, along SR 13 at the eastern edge of the APE, and has a direct view of the undertaking. Traffic and subsequent development may increase as a result as the undertaking, but since this property is near the location of an existing interstate and interchange, it is already subject to traffic and development. Therefore, the undertaking would not adversely impact the property. The Center School is more than 800 feet from the undertaking; therefore, noise impacts were not analyzed. The property will not be affected adversely as a result of this undertaking.

The House at 7883 South SR 13 is located along SR 13 and has a direct view to the undertaking, including the interchange modifications. The pavement on SR 13 will be lowered to provide bridge clearance. This will affect the view from the property, but not adversely. Traffic and subsequent development may increase as a result of the undertaking, but since this property is near the location of an existing interstate and interchange, it is already subject to traffic and development. The house is nearly 1,000 feet from the interchange; therefore the added traffic noise that comes with added travel lanes should not be an issue. The property will be affected, but not adversely, as a result of the undertaking.

Public Involvement: As previously stated, a public hearing will be held to offer the public an opportunity to comment on this environmental document, the Section 106 documentation, the results of the Noise Analysis, and the preliminary design plans. The availability of the CE document and the hearing will be advertised in

the local media. Any comments received both during the public hearing and after, within the advertised 30 day comment period, will be summarized and included in this CE. Subsequent to the certification of the public involvement requirements and the successful completion of the Section 106 process, this CE document will be revised appropriately and submitted for approval.

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

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

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

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

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

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

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

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

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

Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and

Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

One publicly owned park (Billerclay Park), one publicly owned recreational area (Cheeney Creek Natural Area), two schools (Fishers Elementary School and Fishers High School), and portions of five open trail segments (Billerclay Park Trail, Brooks School Road/Fall Creek Road to 136th Street, Lantern Road/106th Street to Cheeney Creek Park, Commercial Drive to Oak Drive North, and Marilyn Road/146th Street to I-69), lie directly adjacent to the project areas, but outside of the projects limits (see Appendix B, pages 13-17).

As previously stated, four NRHP-eligible historic properties (Hamilton County Bridge No. 177, the Center School, Fishers Methodist Episcopal Church, and the mid-century House at 7883 South SR 13) were noted within the APE of the project areas.

All work will occur within existing ROW, and the projects will not substantially impair the activities, features, and attributes of the resources that make them eligible for protection. Therefore, these projects will not result in a "Use" of these Section 4(f) resources.

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

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

Remarks:

Section 6(f) resources are lands that were purchased with or improved using funds from the Land and Water Conservation Fund (LWCF). The fund was created through the Land and Water Conservation Fund Act of 1965 to preserve, develop, and assure accessibility to outdoor recreation resources, and to strengthen the health and vitality of the public.

No Section 6(f) resources were identified during a check of the National Park Service's Land and Water Conservation Fund website (http://www.nps.gov/ncrc/programs/lwcf/history.html). As previously stated, all work will occur within existing INDOT ROW. Therefore, the projects will not involve any properties acquired by or improved with the Land and Water Conservation Fund.

SECTION E – Air Quality

Air Quality

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

Level of MSAT Analysis required?

Level 1a ☐ Level 1b ✓ Level 2 ☐ Level 3 ☐ Level 4 ☐ Level 5 ☐

Remarks:

These projects are located in Hamilton and Madison Counties. Hamilton and Madison Counties were previously maintenance areas for Ozone. The 1997 Ozone standard has since been revoked, and a maintenance plan is no longer required for either county. Hamilton County is currently a maintenance area for $PM_{2.5}$. Madison County is currently in attainment for all criteria pollutants. The projects' design concept and scope are accurately reflected in the Indianapolis Metropolitan Planning Organization's (IMPO's) and Madison County Council of Governments' (MCCOG's) Transportation Plan (TP) and Transportation Improvement Program (TIP) (see Appendix H, pages 7-22). Both conform to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.

Michael Baker International, LLC conducted air quality analyses for all of the INDOT 20/20 projects, including the I-69 projects, to determine if a $PM_{2.5}$ hot spot analysis was required (see Appendix H, pages 23-36). On September 18, 2014, INDOT and FHWA hosted an Interagency Consultation Group Meeting to discuss whether any of the projects would qualify as "projects of air quality concern" for $PM_{2.5}$ pollutants (see Appendix H, pages 37-38). It was determined that "**none** of the listed projects were to be considered with that distinction" and that "quantitative analyses were not required for each of the projects". Therefore, a hotspot analysis for $PM_{2.5}$ is not required.

The purpose of these projects is to improve overall traffic operation by reducing congestion on these segments of I-69 by constructing added travel lanes from Exit 205 (116th Street and SR 37 in Fishers) to SR 13 and adding an outside auxiliary lane on SB I-69 from 106th Street to 116th Street to address the capacity issues within the project areas. These projects have been determined to generate minimal air quality impacts for CAAA criteria pollutants and have not been linked with any special MSAT concerns. As such, these projects will not result in changes in traffic volumes, vehicle mix, basic project locations, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from these projects.

SECTION F - NOISE

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

	No	**Yes/ Date**
ES Review of Noise Analysis		✓/October 27, 2014

Remarks:

These projects are Type I projects. Therefore, Noise Analyses have been conducted, per INDOT's Traffic Noise Analysis Procedure (2011), and the feasibility and cost effectiveness of noise barriers (NB) were evaluated at all locations in the project areas where noise impacts were identified under the future build alternative (see Appendix I). Based on the studies completed to date, the State of Indiana has identified 825 impacted receptors (representing 1,098 dwelling units) and has determined that noise abatement is likely, but not guaranteed, at four locations. Noise abatement at these locations is based upon preliminary design costs and design criteria. Noise abatement in these locations at this time has

been estimated to cost $4,685,100 and will reduce noise level by a minimum of 7 dB(A) at a majority of the identified impacted receptors. A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is not feasible and reasonable, the abatement measures might not be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the projects' final design and the public involvement process.

The viewpoints of the benefited residents and property owners will be sought at the hearing, and their comments will be considered in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects. INDOT will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program.

SECTION G – 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 remarks box)	✓	

Remarks: No significant economic or community impacts are expected to develop as a result of these projects. These projects are necessary to address the congestion issues along theses sections of I-69. Therefore, these projects will positively impact motorists using this facility. The projects should have minimal impacts to community cohesion, the local tax base, or property values. As previously stated, two travel lanes will be open in both directions at all times, with the exception of short duration (20 to 30 minute) nighttime closures, and access to and from all ramps will be maintained at all times by the contractor. Therefore, impacts from the MOT will be minimal and should not significantly affect community events.

Hamilton County, Madison County, and the Town of Fishers all have approved ADA transition plans. No sidewalks or trails will be impacted by the proposed projects. Therefore, there are no facilities in the project areas that require ADA compliance.

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

Remarks: There will be no substantial indirect or cumulative impacts as a result of these projects. Although these projects will add capacity to an existing interstate to address the congestion issues along theses sections of I-69, the projects occur in a rapidly expanding area that has new commercial and residential developments underway and several future developments planned, regardless of these projects. Therefore, these projects will not substantially increase impacts to land use or development patterns in the area.

Public Facilities & Services

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

Remarks: Two travel lanes will be open in both directions at all times, with the exception of short duration (20 to 30 minute) nighttime closures, and access to and from all ramps will be maintained at all times by the contractor. Therefore, impacts from the MOT will be minimal and should not significantly affect community events. The preferred alternative will have positive impacts on public services by addressing the congestion issues along theses sections of I-69. Schools and local emergency facilities, such as the police and fire departments, will be coordinated with prior to each phase of construction.

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 or disproportionate impacts to EJ populations?		

Remarks: These projects will not relocate residences or businesses, will not require additional permanent right-of-way, and will not change access to properties or access within the community. The projects will therefore not have a significant negative impact on low-income populations or minority populations that are of concern for environmental justice consideration.

Relocation of People, Businesses or Farms

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

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

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

Remarks: No relocations of people, businesses, or farms will take place as a result of these projects.

Utility coordination has been initiated by Parsons and is ongoing. No underground utilities will be impacted by these projects. One utility (near the SR 13 bridge) may be relocated as part of the projects.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

	No	**Yes/ Date**
ES Review of Investigations		✓/September 2, 2014

Include a summary of findings for each investigation.

Remarks: A Red Flag Investigation (RFI) was completed on August 13, 2014 by Parsons (see Appendix G). One Confined Feeding Operation, two state clean-up sites, three industrial waste sites, nine leaking underground storage tanks, five underground storage tanks, and one inactive NPDES Facility were located within a half-mile radius of the projects, but outside of the project areas. Therefore, these HAZMAT items of concern will not be impacted by the proposed projects. Four NPDES Pipe Locations are located within a half-mile radius of the project areas. Three of the pipes (IH Sewer Corporation, Pilot Travel Center, and Carefree Homes Mobile Homes Park) are located directly adjacent to the project areas. These pipe locations are outside of the project areas, and will not be impacted by the proposed projects. Site investigations from May through August, 2014 did not identify any items of concern within the projects limits. INDOT Environmental Services approved the RFI on September 2, 2014. Further investigation for hazardous materials is not required at this time.

SECTION I – PERMITS CHECKLIST

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

Remarks:

Permits will be required for these projects. A USACE Regional General Permit (RGP) and an IDEM Section 401 WQC will be required due to impacts to likely jurisdictional Waters of the US. Mitigation may be required. USACE and IDEM have agreed that credits from the Central Indiana Mitigation Bank could be acquired for mitigation if the projects require mitigation.

An IDEM Rule 5 permit will be required as more than one acre of land will be disturbed.

Construction in a Floodway (CIF) permits will be required for the Sand Creek and Mud Creek crossings. Both are located within the incorporated boundary of Fishers and are therefore excluded from the "Rural Bridge Exemption." Work proposed at the Thorpe Creek crossing meets the "Rural Bridge Exemption" as it is a state bridge project located in a rural area with an upstream drainage area of less than 50 square miles. Therefore, it will not require a CIF permit.

I-69 crosses over eight county regulated drains in Hamilton County and one county regulated drain in Madison County. Coordination is ongoing with both counties' drainage boards. Detention has been added within the projects limits to mitigate for impacts caused by the projects. A Hamilton County regulated drain permit will be required. Madison County's drainage board will be coordinated with after final design, although a permit will not be required.

It will be the responsibility of the designer to obtain the USACE Section 404 permit, the IDEM Section 401 permit, and the IDNR CIF permits. It will be the responsibility of the design-build contractor to obtain the Rule 5 permit and any modifications required for the Section 404, Section 401, or CIF permits. The design-build contractor must submit their design and obtain a Hamilton County regulated drain permit, using the Hamilton County Surveyor's Office as a contact. The design-build contractor must also submit their design to Madison County's drainage board for a drainage review, although no permit will be required.

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks:

Firm:	
1.	If permanent and/or temporary right-of-way increases beyond what is covered in this environmental document, INDOT Environmental Services must be contacted immediately. (INDOT; Firm)
2.	If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In the event, please call 317-232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations. (SHPO; Firm)
3.	If any potential hazardous materials are discovered during construction, the IDEM Spill Line should be notified with details of the discovery within 24 hours. IDEM Spill Line: 1-888-233-7745. (INDOT; Firm)
4.	Any work in a wetland area within INDOT's right-of-way or borrow/waste areas is prohibited unless specifically allowed in the USACE or IDEM permit. (INDOT; Firm)
5.	A USACE RGP and an IDEM Section 401 WQC will be required due to impacts to likely jurisdictional Waters of the US. Mitigation may be required. USACE and IDEM have agreed that credits from the Central Indiana Mitigation Bank could be acquired for mitigation if the projects require mitigation. Mitigation must take place concurrently with or before construction begins. (INDOT; Firm)

6.	An IDEM Rule 5 permit will be required as more than one acre of land will be disturbed. (INDOT; Firm)
7.	CIF permits will be required for the Sand Creek and Mud Creek crossings. (INDOT; Firm)
8.	It will be the responsibility of the designer to obtain the USACE Section 404 permit, the IDEM Section 401 permit, and the IDNR CIF permits. (INDOT; Firm)
9.	It will be the responsibility of the design-build contractor to obtain the Rule 5 permit and any modifications required for the Section 404, Section 401, or CIF permits. The design-build contractor must submit their design and obtain a Hamilton County regulated drain permit, using the Hamilton County Surveyor's Office as a contact. The design-build contractor must also submit their design to Madison County's drainage board for a drainage review, although no permit will be required. (INDOT; Firm)
10.	Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure. (USFWS & IDNR; Firm)
11.	Prior to the initiation of any construction activities on bridges, including the removal of any bridge structures, the underside of each bridge must be carefully examined for the presence of bats, especially between April 1 and September 30. If any bats are found roosting on the underside of the bridge, you must immediately contact the USFWS office (call Robin McWilliams Munson at 812-334-4261). (USFWS; Firm)
12.	Implement temporary erosion and sediment control methods within areas of disturbed soil. All disturbed soil areas upon project completion must be vegetated following INDOT's standard specifications. (USFWS & IDNR; Firm)
13.	Revegetate all bare and disturbed areas in the floodway with a mixture of native grasses, sedges, wildflowers, and also native hardwood trees and shrubs as soon as possible upon completion. Do not use any varieties of Tall Fescue or other non-native plants (e.g. crown-vetch). (USFWS & IDNR; Firm)
14.	Minimize and contain within the projects limits inchannel disturbance and the clearing of trees and brush. (IDNR; Firm)
15.	Do not work in the waterway from April 1 through June 30 without the prior written approval from IDNR's Division of Fish and Wildlife. (IDNR; Firm)
16.	Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure. (IDNR; Firm)
17.	Do not construct any temporary runarounds or causeways. (IDNR; Firm)
18.	Operate equipment from the existing roadway or from the top of the bank to the greatest extent possible. (IDNR; Firm)
19.	Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids. (IDNR; Firm)
20.	Do not use broken concrete as riprap. (IDNR; Firm)
21.	Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap. (IDNR; Firm)
22.	Minimize the movement of resuspended bottom sediment from the immediate project area. (IDNR; Firm)
23.	Do not deposit or allow demolition materials or debris to fall or otherwise enter the waterway. (IDNR; Firm)
24.	Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized. (IDNR; Firm)
25.	Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas. (IDNR; Firm)

26.	The Indianapolis Metropolitan Airport is located 9,400 feet North of the projects. If any permanent structures or equipment utilized for the projects penetrates the 100:1 slope from the airport, FAA Form 7460 (Notice of Proposed construction or alteration) must be filed. For assistance contact Marcus Dial, INDOT Office of Aviation, 317-232-1494. (INDOT Aviation; Firm)
27.	Appropriate structures and techniques must be utilized both during the construction phase, and after completion of the projects, to minimize the impacts associated with storm water runoff. (IDEM; Firm)
28.	Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. For example, wetting the area with water, constructing wind barriers, or treating dusty areas with chemical stabilizers (such as calcium chloride or several other commercial products). Dirt tracked onto paved roads from unpaved areas must be minimized. (IDEM; Firm)
29.	The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months April through October. See 326 IAC 8-5-2 , Asphalt Paving Rule (http://www.ai.org/legislative/iac/T03260/A00080.PDF). (IDEM; Firm)
30.	Two travel lanes must be open in both directions at all times, with the exception of short duration (20 to 30 minute) nighttime closures. Access to and from all ramps must be maintained at all times by the contractor. (INDOT; Firm)
31	Coordination must occur with emergency services prior to the implementation of each phase of the MOT. (INDOT; Firm)
32.	A Final Approval submittal to the Madison County Drainage Board and review is required for the completed plans and specifications from the Design-Build contractor. The submitted plans, computations and hydraulic models should be submitted to Banning Engineering (attn. Jeff Healy, PE) with a carbon copy of the transmittal to the Madison County Drainage Board. (Madison County Drainage Board; Firm)
33.	The erosion and sediment control for the construction site (Rule 5) must be coordinated through the Madison County Soil and Water Conservation District. The Post-construction stormwater quality measures, practices and operation and maintenance methods and plans should be submitted to Banning Engineering (attn. Jeff Healy, PE) with a carbon copy of the transmittal to the Madison County Drainage Board. (Madison County Drainage Board; Firm)
For Further Consideration:	
1.	Do not clear trees or understory vegetation outside the construction zone boundaries. (USFWS; For Consideration)
2.	Restrict below low-water work in streams to placement of culverts, piers, pilings and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. Culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottomed culvert or arch is used in a stream, which has a good natural bottom substrate, such as gravel, cobbles and boulders, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS; For Consideration)
3.	Restrict channel work and vegetation clearing to the minimum necessary for installation of the stream crossing structure. (USFWS; For Consideration)
4.	Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques whenever possible. If rip rap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat. (USFWS; For Consideration)
5.	Avoid all work within the inundated part of the stream channel during the fish spawning season (April 1 through June 30); except for work within sealed structures such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below Ordinary High Water Mark during this time unless the machinery is within the caissons or on the cofferdams. (USFWS; For Consideration)

6.	Evaluate wildlife crossings under bridge/culverts projects in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USWFS; For Consideration)
7.	Lining the existing pipes should result in fewer impacts compared to a complete replacement. However, upon completion of the projects, the liner could produce more negative in-stream impacts compared to culvert replacement. Installing a culvert liner generally reduces the size of the culvert, which can increase flow velocity, thereby causing negative impacts on fish and wildlife passage, as well as increased turbidity and potential scour in the surrounding area. Liners can also create a perched culvert in which the inlet or outlet are placed above the streambed elevation, causing a barrier to fish and wildlife species using the culvert. Installing a liner is a practical option when there is very little habitat surrounding the culvert and use by fish and wildlife is expected to be minimal. Installing a new culvert (preferably 3-sided) can provide better passage for fish and wildlife even though initial impacts to the stream bed, banks, and riparian habitat could occur. These disturbances are expected to be temporary. The culvert alternative will likely help reduce debris blockage, provide better fish and wildlife passage, maintain stream substrate continuity, and reduce or maintain flow velocities. The culvert, either with a liner or a replacement, should be allowed to accumulate some amount of natural bed substrate in order to maintain or improve the biological integrity of the stream. (IDNR; For Consideration)
8.	The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead of riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material. (IDNR; For Consideration)
9.	Minimize the use of riprap and use alternative erosion protection materials whenever possible. Where riprap must be used, we recommend placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank up to the ordinary high water mark (OHWM). From the OHWM to the top of the bank, we recommend using bioengineered bank stabilization methods instead of riprap. This can provide equal or better erosion control protection than riprap. This will allow a natural, vegetated stream bank to develop and will allow wildlife passage along the creek's banks and riparian corridor. Information about bioengineering techniques can be found at: http://www.in.gov/legislative/iac/20120404-1R-312120154NRA.xml.pdf Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba. (IDNR; For Consideration)
10.	IDNR recommends a mitigation plan be developed if habitat impacts will occur. IDNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found on line at: http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf. Impacts to non-wetland forest *over* one (1) acre should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is *removed* in a rural setting, replacement should be at a 1: 1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting *five* trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is *removed* that is 10 inches dbh or greater (5:1 mitigation based on the number of large trees). (IDNR; For Consideration)
11.	Do not cut any trees suitable for Indiana bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark) from April 1 through September 30. (IDNR; For Consideration)

12.	The Madison County Drainage Ordinance (DRAFT-An Ordinance Pertaining to Erosion and Sediment Control; Storm Water Quality and Drainage; Regulated Drain Crossings; and Pond Construction, current revision 2-7-2014) and the Madison County Stormwater Technical Standards Manual (DRAFT) should be followed in so much as they are applicable. In other words, stormwater detention and treatment will be expected for the newly developed/expanded areas. (Madison County Drainage Board; For Consideration)
13.	The Madison County Drainage Board is interested in establishing written expectations and understandings for and from the perspectives of both INDOT and the Drainage Board. This pertains primarily to operation and maintenance of the regulated drain once the projects are completed. (Madison County Drainage Board; For Consideration)

SECTION K- EARLY COORDINATION

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

Remarks: Early coordination was initiated on September 4 and 5, 2014 with applicable federal, state, and local agencies (see Appendix D, pages 1-5). Additional coordination was sent to USFWS September 5, 2014 (see Appendix D, page 13) and to IDNR on October 24, 2014 (see Appendix D, page 8). Review comments from those agencies that returned a reply have been incorporated into this study, as appropriate. The resource agencies and dates of their responses are listed below.

Agency	**Response**	**Appendix D Page #s**
Indiana Department of Natural Resources; Division of Fish and Wildlife	September 28, 2014 (E-mail) October 1, 2014 (Response Letter) October 27, 2014 (E-mail) October 28, 2014 (Response Letter)	6 7 9 10-12
U.S. Fish and Wildlife Service	September 4, 2014 (E-mail) September 18, 2014 (Response Letter)	13 14-15
Natural Resources Conservation Service	September 23, 2014 (Response Letter) NRCS-CPA-106 Form	16 17
Indiana Geological Survey	October 20, 2014 (Questionnaire)	18
Indiana Department of Environmental Management Roadway Construction Letter	September 5, 2014 (Automated)	19-29
Indiana Department of Transportation Office of Aviation Office of Public Involvement	September 10, 2014 No Response	30
U.S. Dept. of Housing and Urban Development	No Response	
U.S. Army Corps of Engineers	No Response	
National Park Service	No Response	
Hamilton County Commissioners	No Response	
Hamilton County Council Members	No Response	
Hamilton County Drainage Board	No Response	
Hamilton County Engineer	No Response	
Hamilton County Surveyor	No Response	

	Indianapolis MPO	No Response		
	Madison County Commissioners	No Response		
	Madison County Drainage Board	September 10, 2014 (Letter from Banning Engineering)	31-33	
	Madison County Surveyor	No Response		
	Fishers Town Council	No Response		
	Fishers Elementary School	No Response		
	Indianapolis Metropolitan Airport	No Response		

Appendix A: Categorical Exclusion Level Thresholds

Categorical Exclusion Level Thresholds

	Level 1	Level 2	Level 3	Level 4
Relocations	None	≤ 2	> 2	> 10
Right-of-Way[1]	< 0.5 acre	< 10 acres	≥ 10 acres	≥ 10 acres
Length of Added Through Lane	None	None	Any	Any
Permanent Traffic Pattern Alteration	None	None	Yes	Yes
New Alignment	None	None	< 1 mile	≥ 1 mile[2]
Wetlands	< 0.1 acre	< 1 acre	< 1 acre	≥ 1 acre
Stream Impacts*	≤ 300 linear feet of stream impacts, no work beyond 75 feet from pavement	> 300 linear feet impacts, or work beyond 75 feet from pavement	N/A	N/A
Section 4(f)	None	None	None	Any impacts
Section 6(f)	None	None	Any impacts	Any impacts
Section 106*	"No Historic Properties Affected" or falls within guidelines of Minor Projects PA	"No Adverse Effect" or "Adverse Effect"	N/A	If ACHP involved Or Historic Bridge Involvement[7]
Noise Analysis Required	No	No	Yes[3]	Yes[3]
Threatened/Endangered Species	"Not likely to Adversely Affect", or Falls within Guidelines of USFWS 9/8/93 Programmatic Response	N/A	N/A	"Likely to Adversely Affect"[4]
Sole Source Aquifer Groundwater Assessment	Detailed Assessment Not Required	Detailed Assessment Not Required	Detailed Assessment Not Required	Detailed Assessment Required
Approval Level • **ESM**[5] • **ES**[6] • **FHWA**	Yes	Yes	Yes Yes	Yes Yes Yes

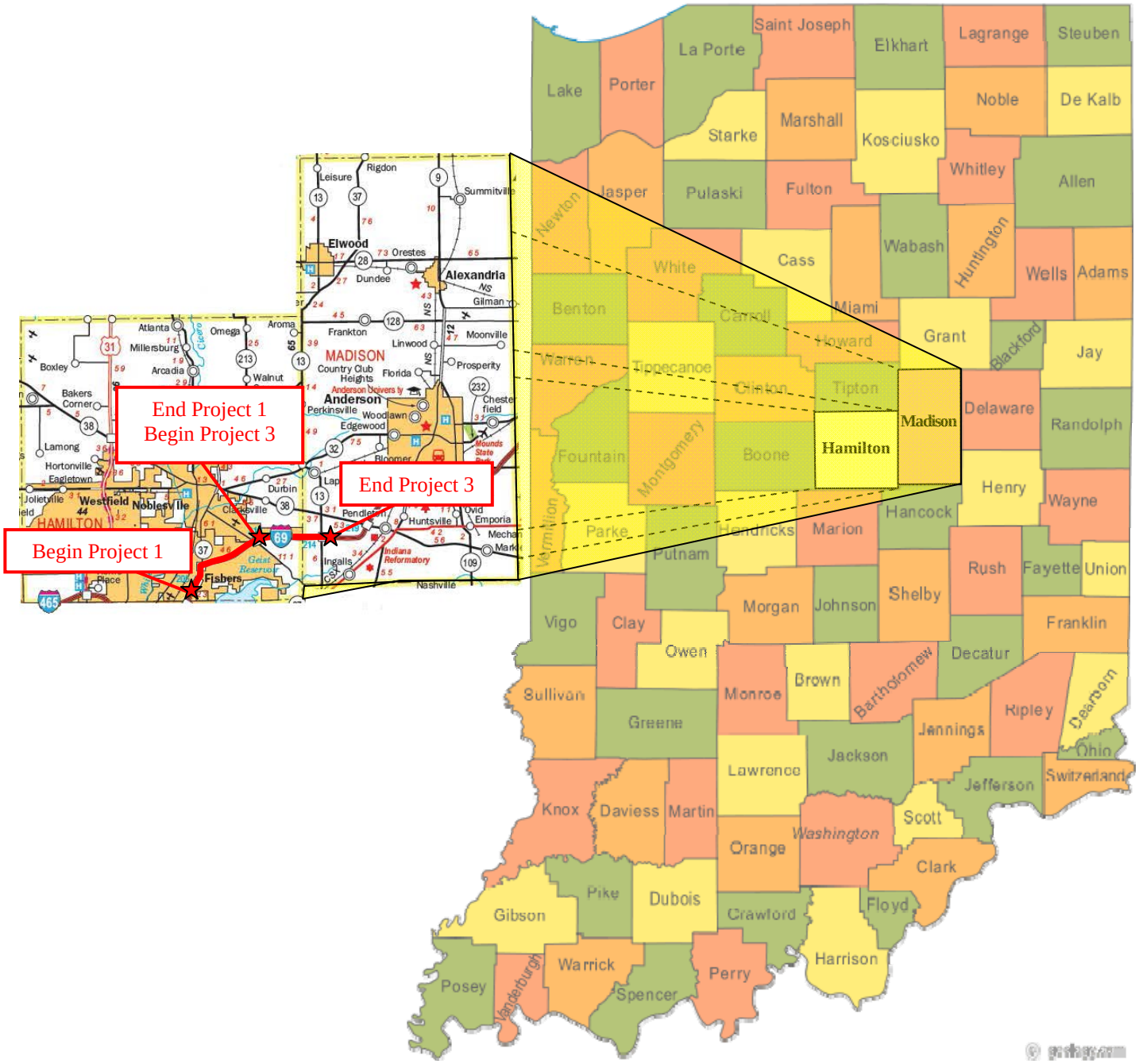
*These thresholds have changed from the March 2011 Manual.
[1]Permanent and/or temporary right-of-way.
[2]If the length of the new alignment is equal to or greater than one mile, contact the FHWA's Air Quality/Environmental Specialist.
[3]In accordance with INDOT's Noise Policy.
[4] If the project is considered Likely to Adversely Affect Threatened and/or Endangered Species, INDOT and the FHWA should be consulted to determine whether a higher class of document is warranted.
[5]Environmental Scoping Manager
[6]Environmental Services Division
[7] Any involvement with a bridge processed under the Historic Bridge Programmatic Agreement

Appendix B: Graphics

	Page(s)
Project Location……	1-2
Aerial Maps……..	3-7
Topography……...	8-12
Infrastructure…….	13-17
Water Resources……	18-22
Mining/Mineral Exploration……..	23-27
Hazardous Materials……..	28-32
Soils……..	33

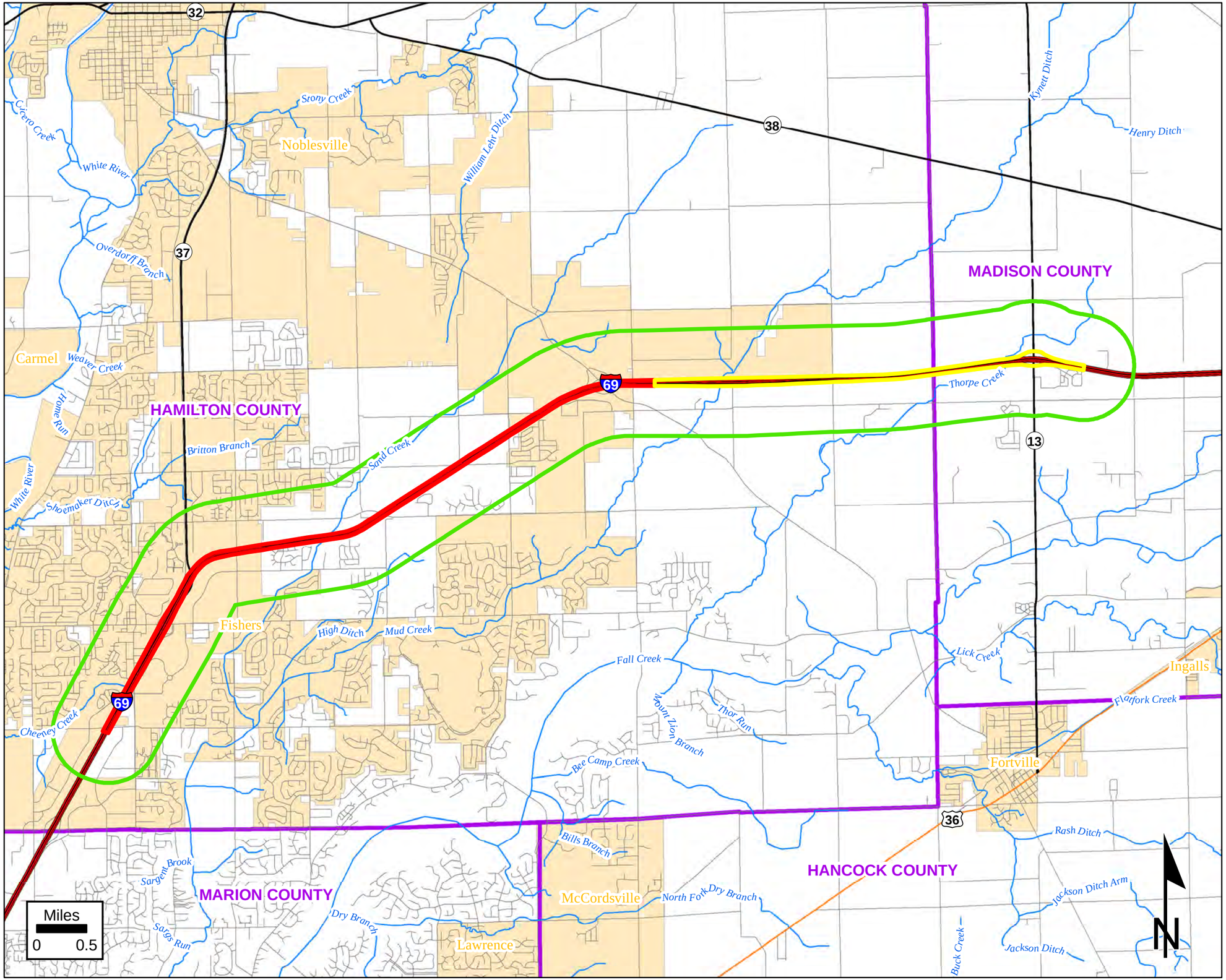
I-69 Interstate Expansion

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/Campus Pkwy to 0.5 mi East of SR 13); Hamilton & Madison Counties
Project Location Map #1



Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



Project Location Map #2

- Project Area 1
- Project Area 3
- Half Mile Radius
- Streams (IDNR*)
- Incorporated Areas
- County Boundary
- Interstate
- State
- US
- Local

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

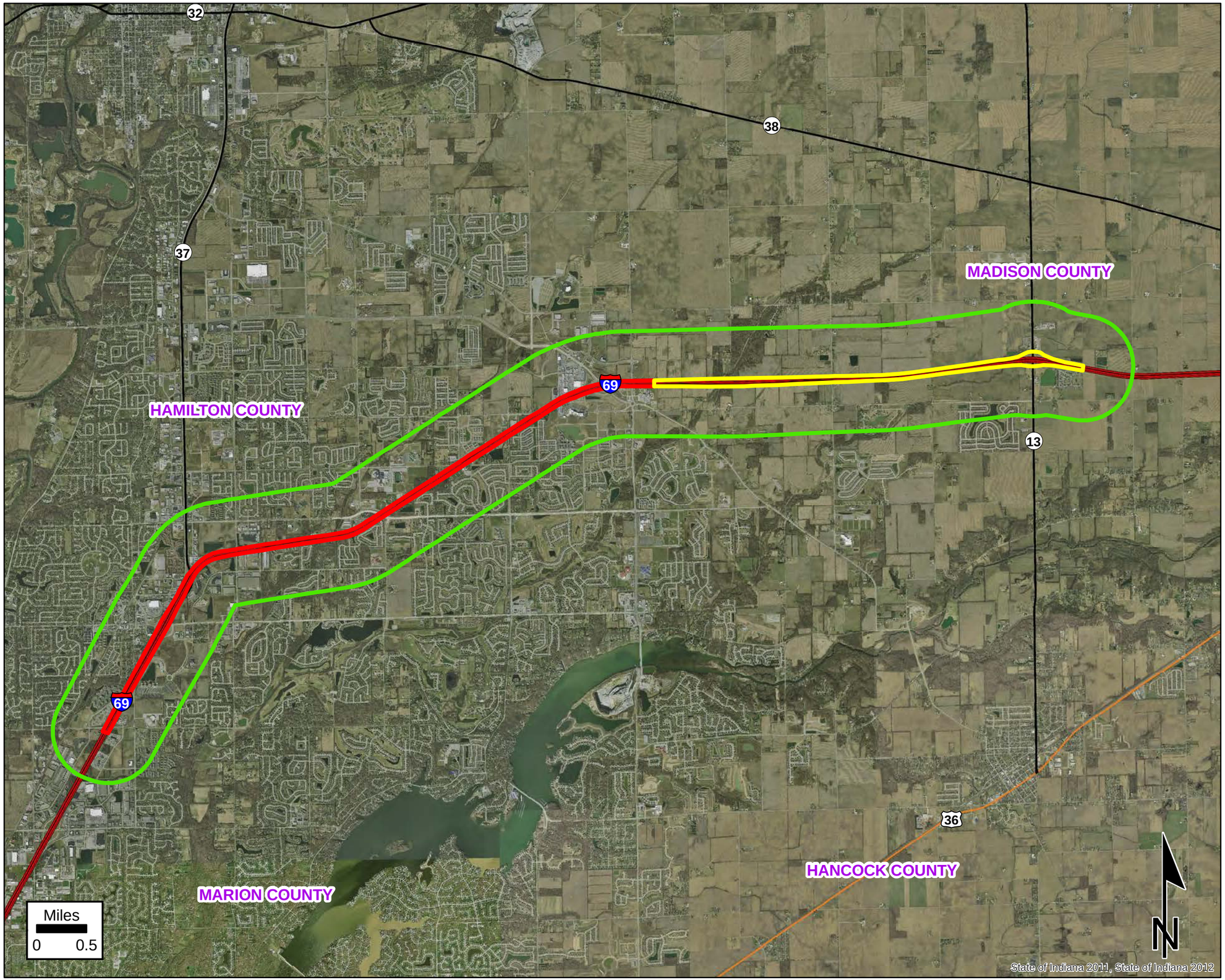
Sources:

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



Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties

2012 Orthos Aerial Photography
Map 1: Full Project

- Project Area
- Project Area 3
- Half Mile Radius
- Interstate
- State
- US
- Local

Orthos - 1 meter - 2012

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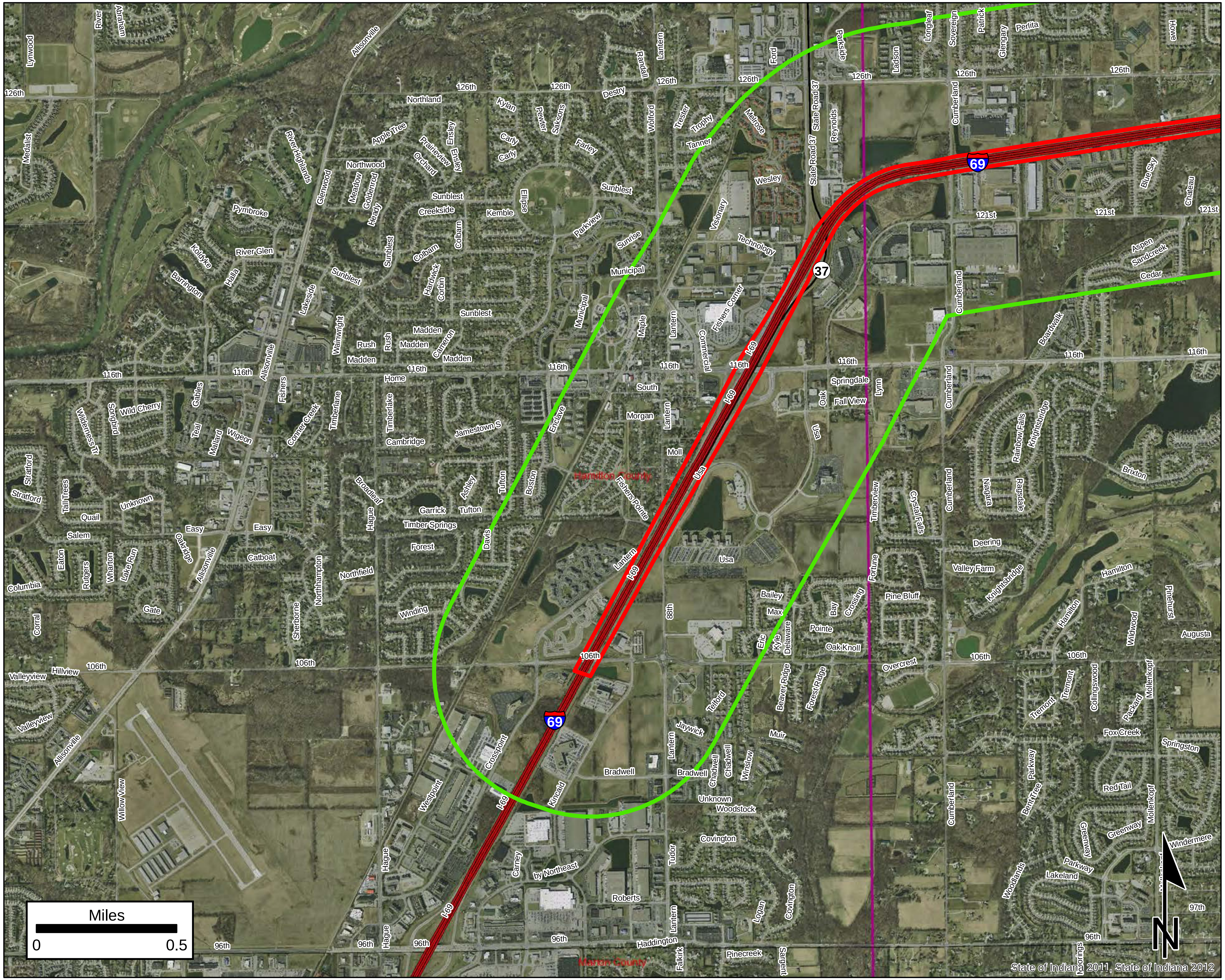
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N
Map Datum: NAD83



Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties

2012 Orthos Aerial Photography
Map 2: Beginning Project to SR 37

- Project Area
- Half Mile Radius
- Interstate
- State
- US
- Local

Orthos - 1 meter - 2012

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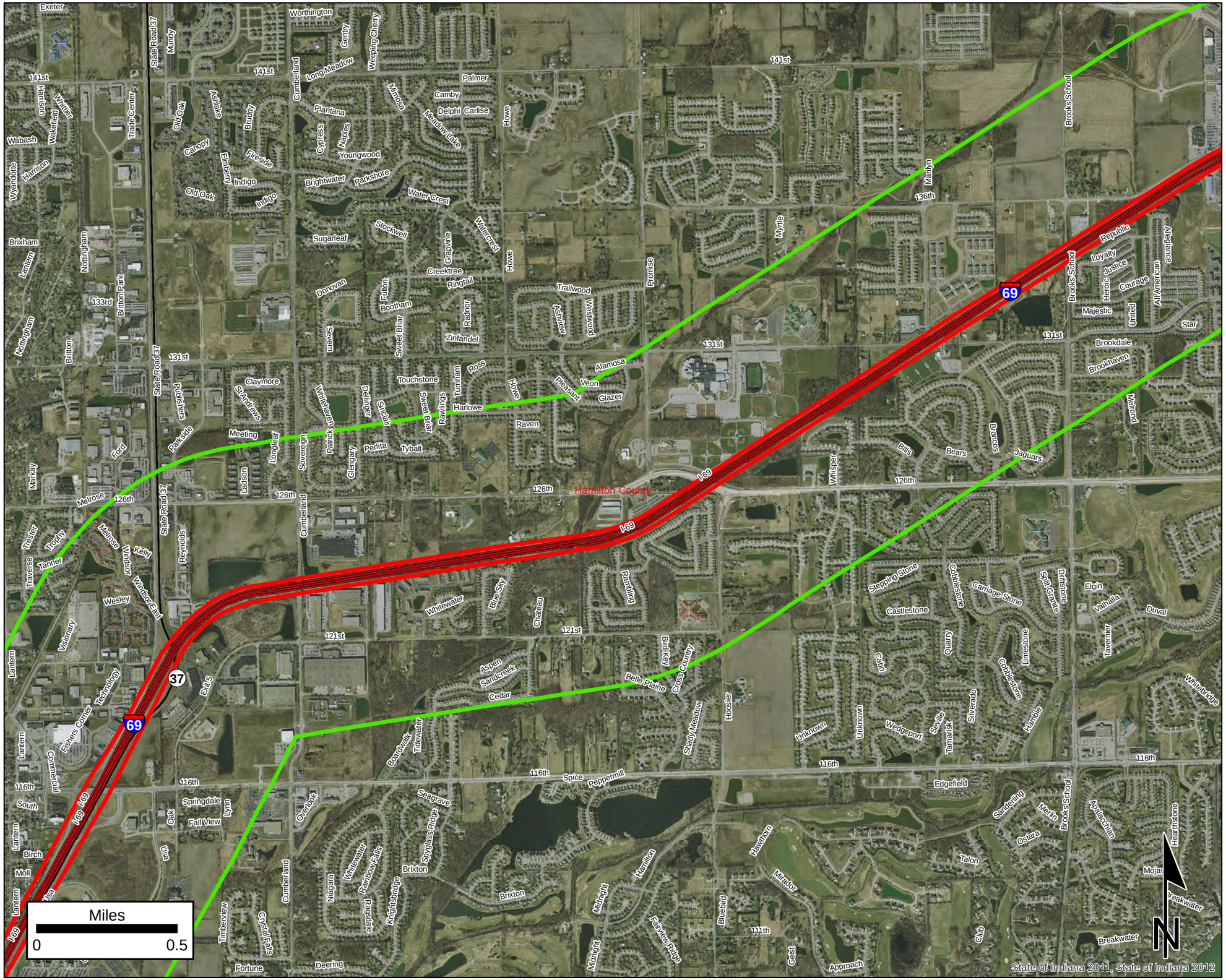
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N
Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



2012 Orthos Aerial Photography Map 3: SR 37 to Brooks School Rd

- Project Area
- Half Mile Radius
- Interstate
- State
- US
- Local

Orthos - 1 meter - 2012

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Sources:

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

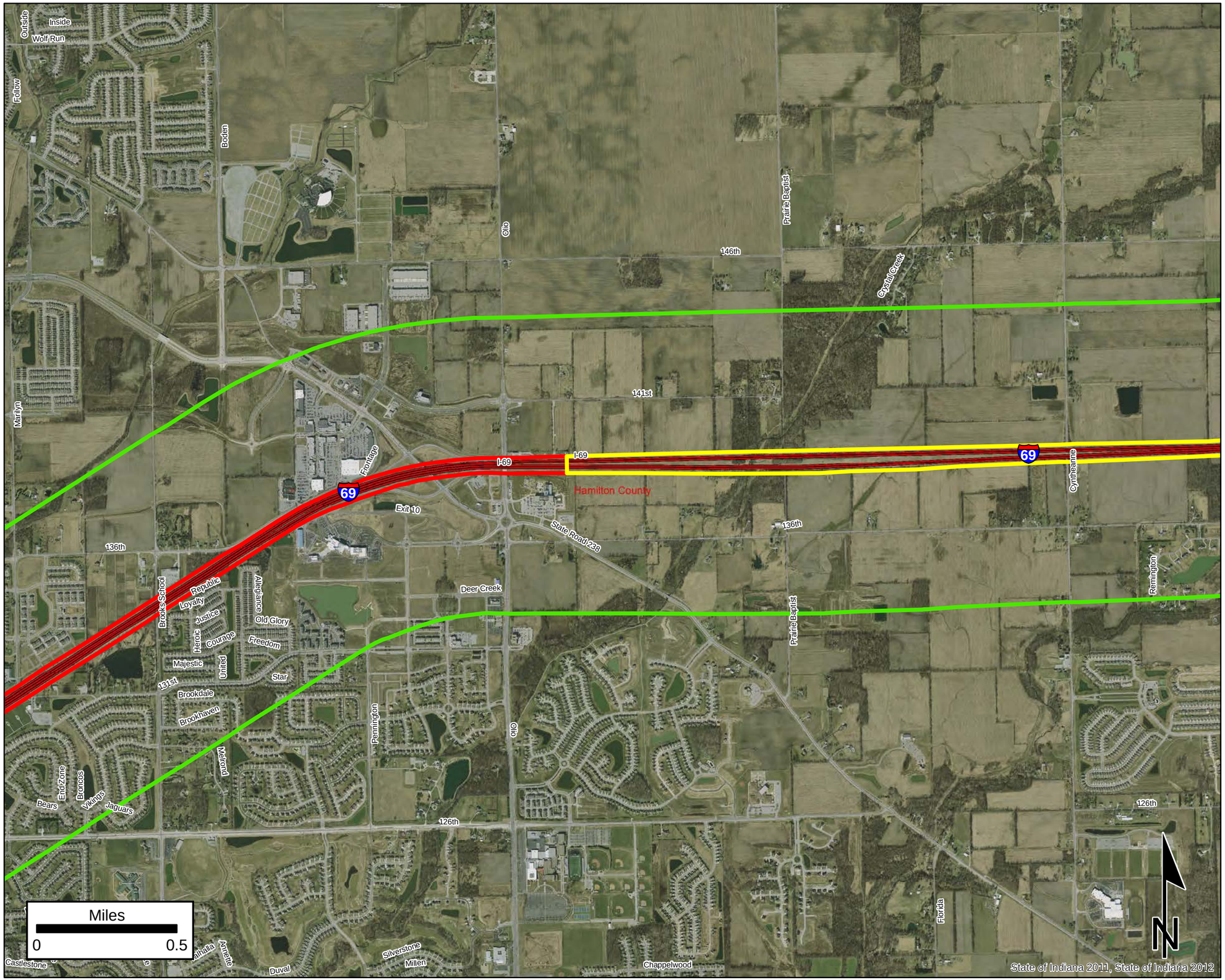
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



2012 Orthos Aerial Photography

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Interstate
- State
- US
- Local

Orthos - 1 meter - 2012

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

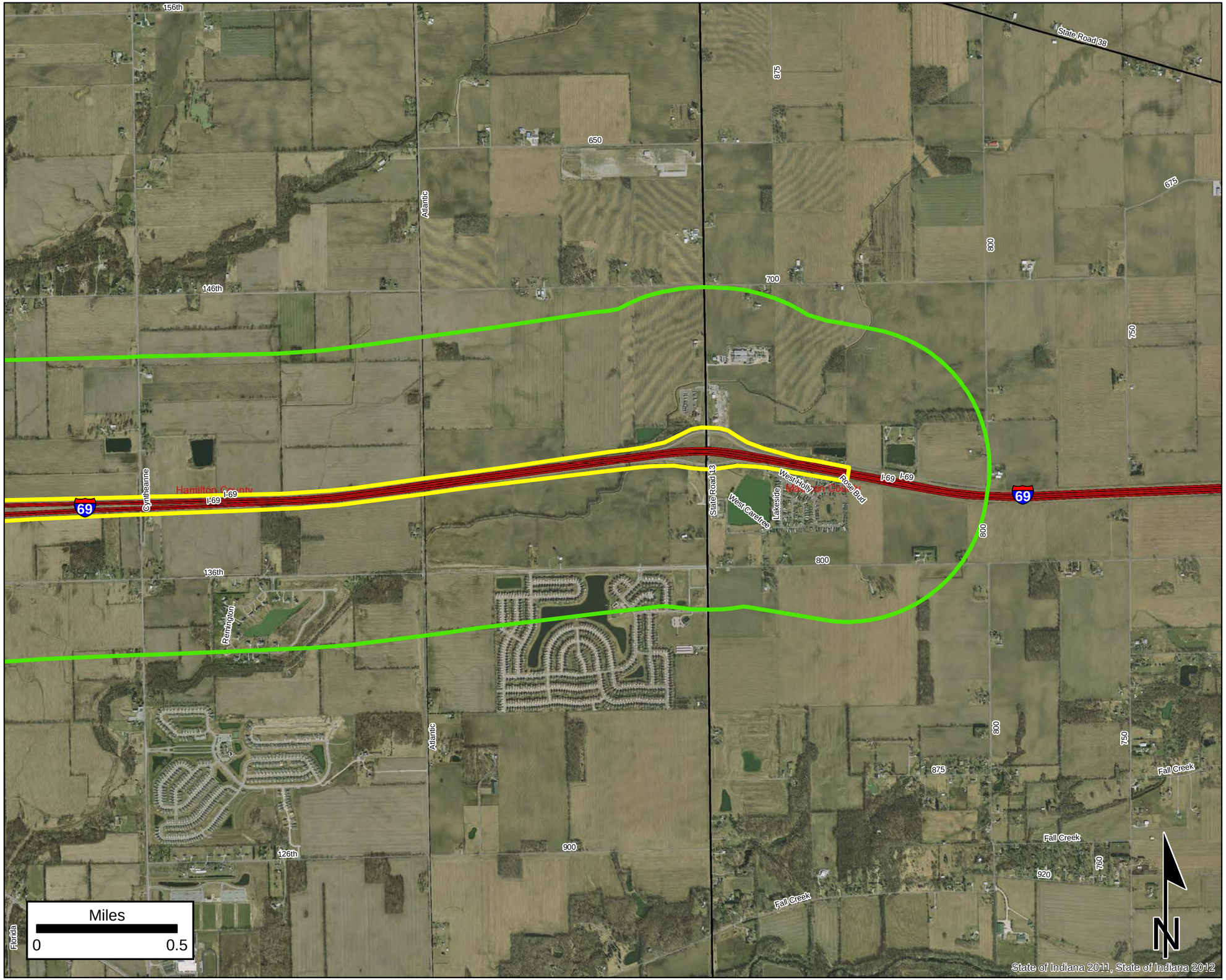
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



2012 Orthos Aerial Photography

Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Interstate
- State
- US
- Local

Orthos - 1 meter - 2012

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Sources:

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

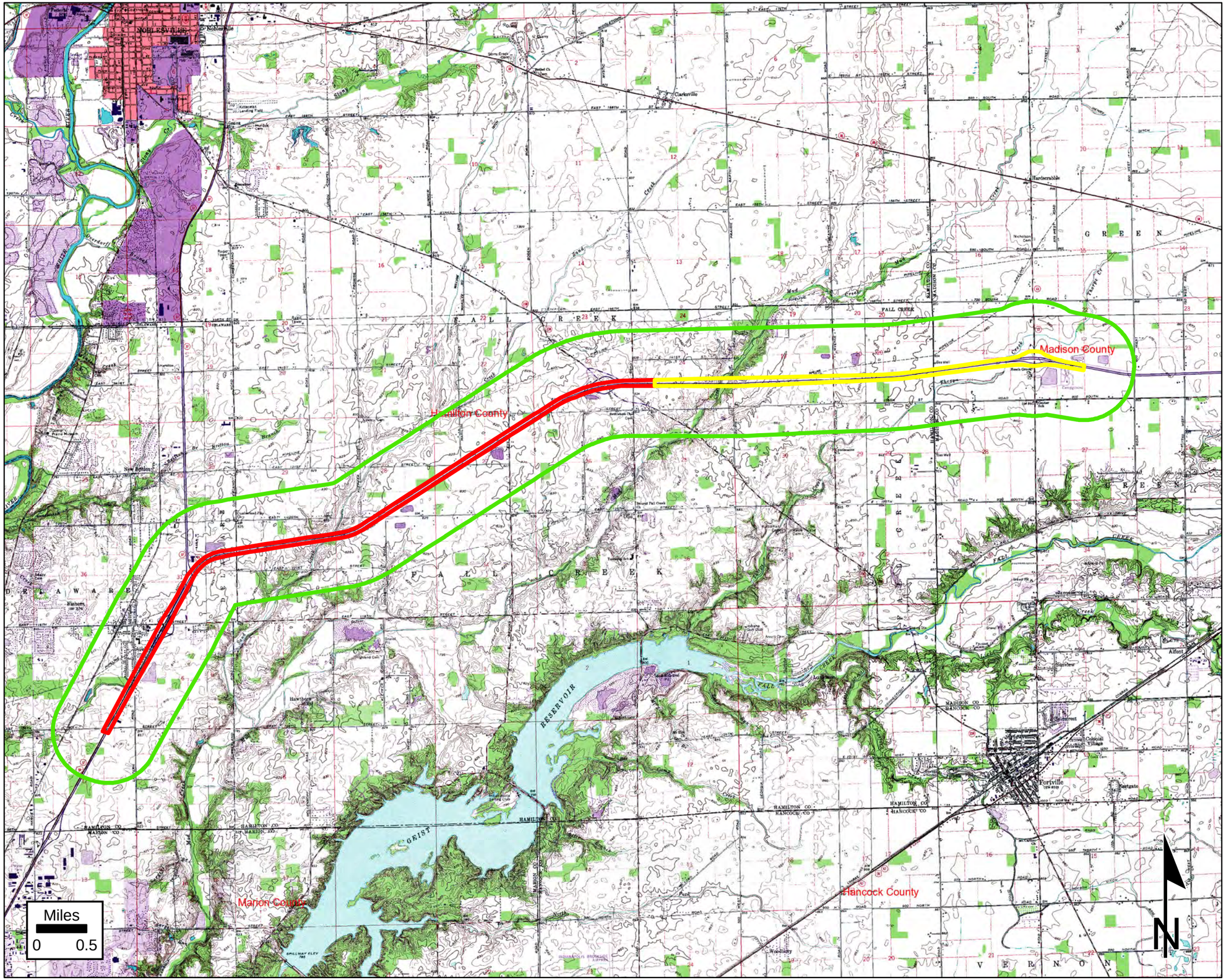
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



USGS 7.5" Topographic Map
Map 1: Full Project

- Project Area 1
- Project Area 3
- Half Mile Radius

USGS Topography Map

- Red: Band_1
- Green: Band_2
- Blue: Band_3

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Sources:

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

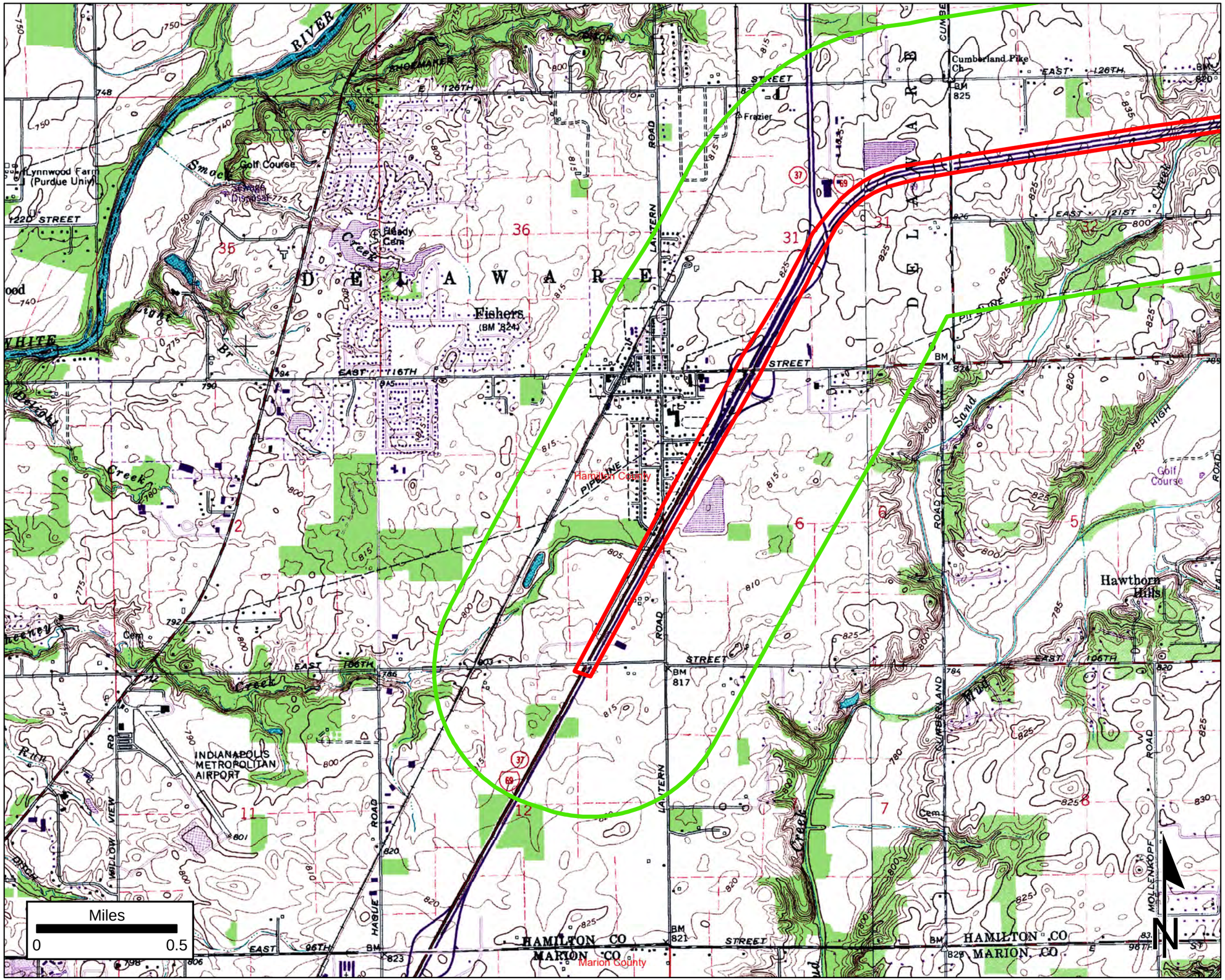
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



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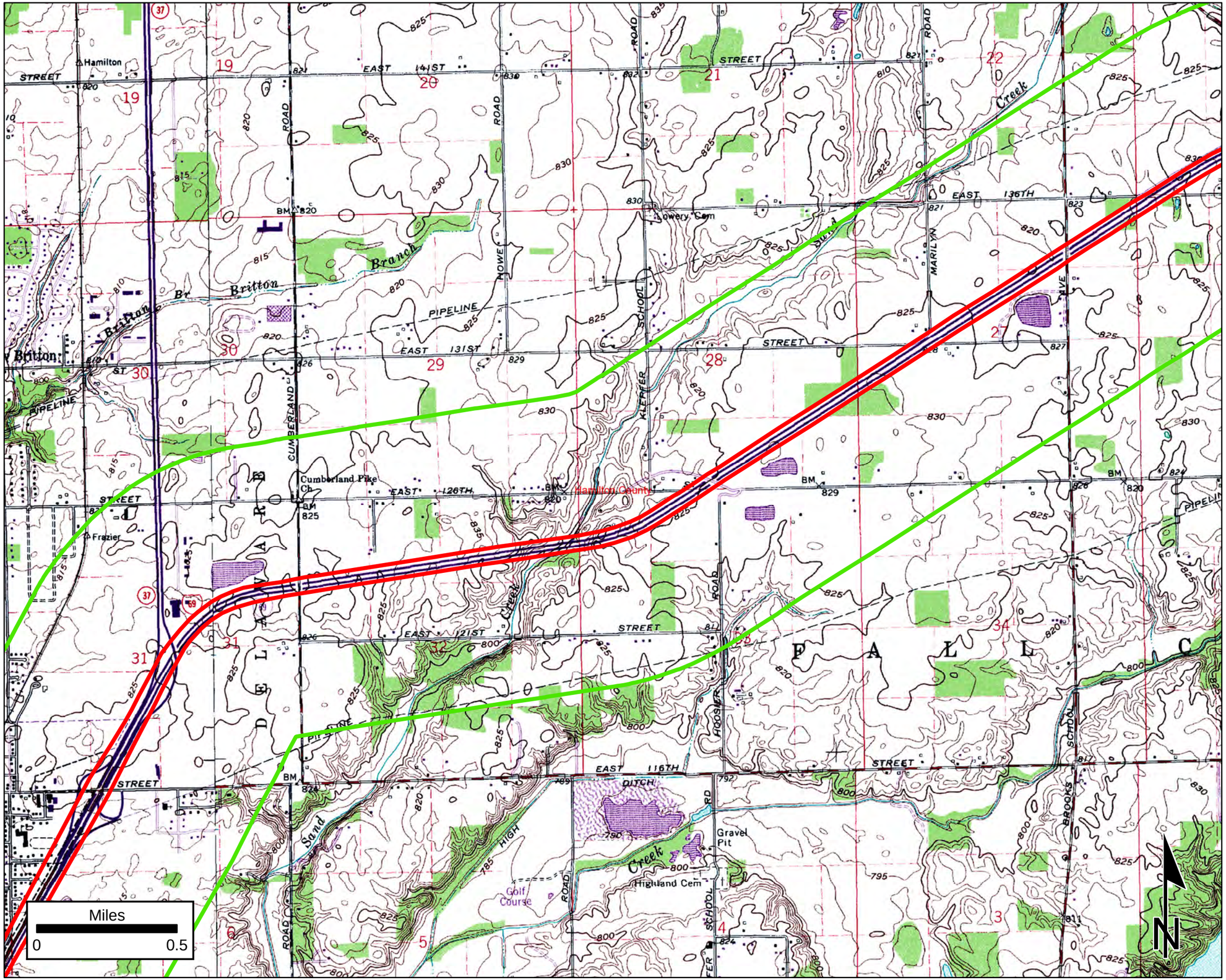
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



USGS 7.5" Topographic Map
Map 3: SR 37 to Brooks School Rd

- Project Area 1
- Project Area 3
- Half Mile Radius

USGS Topography Map

- Red: Band_1
- Green: Band_2
- Blue: Band_3

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Sources:

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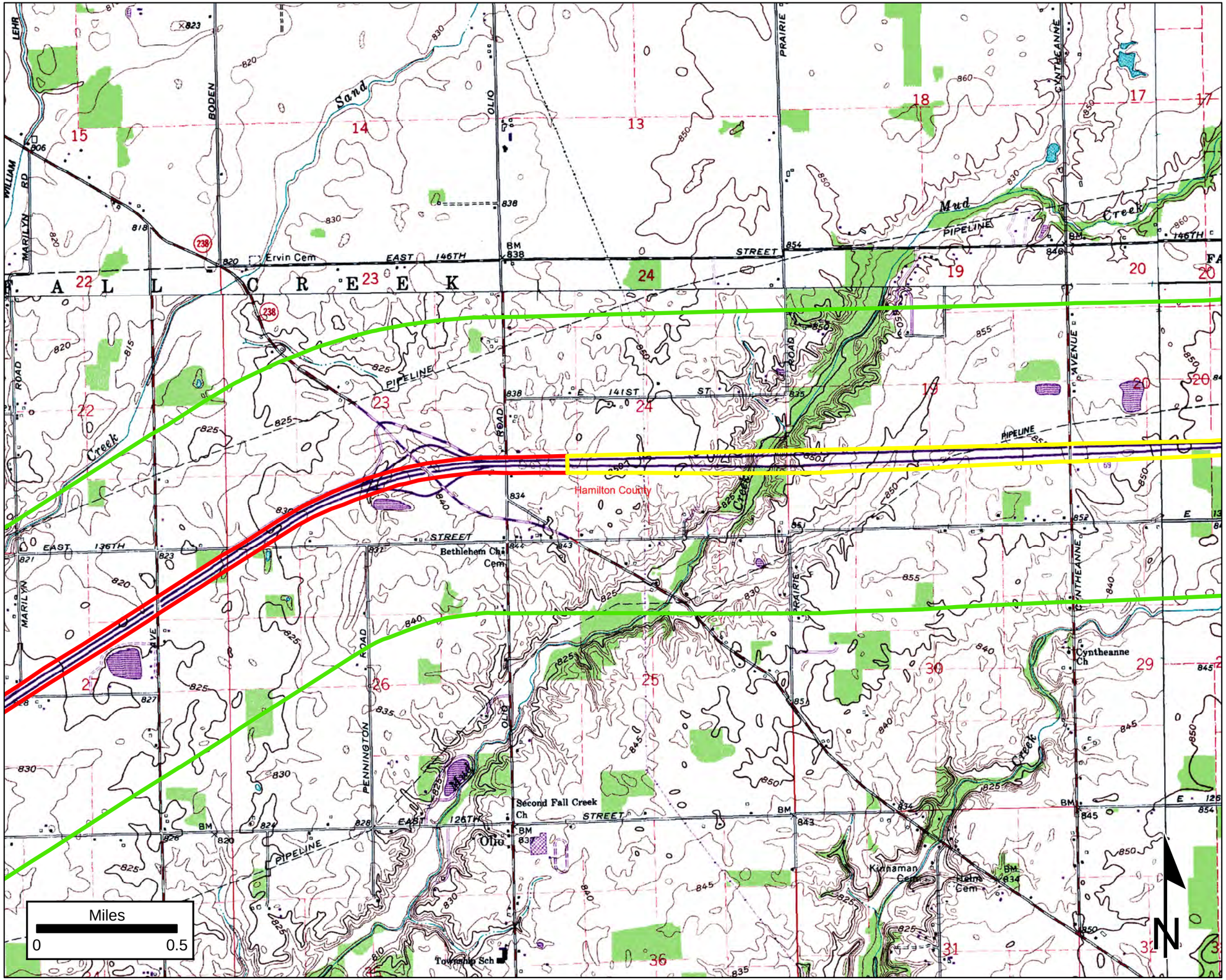
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



USGS 7.5" Topographic Map

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius

USGS Topography Map

- Red: Band_1
- Green: Band_2
- Blue: Band_3

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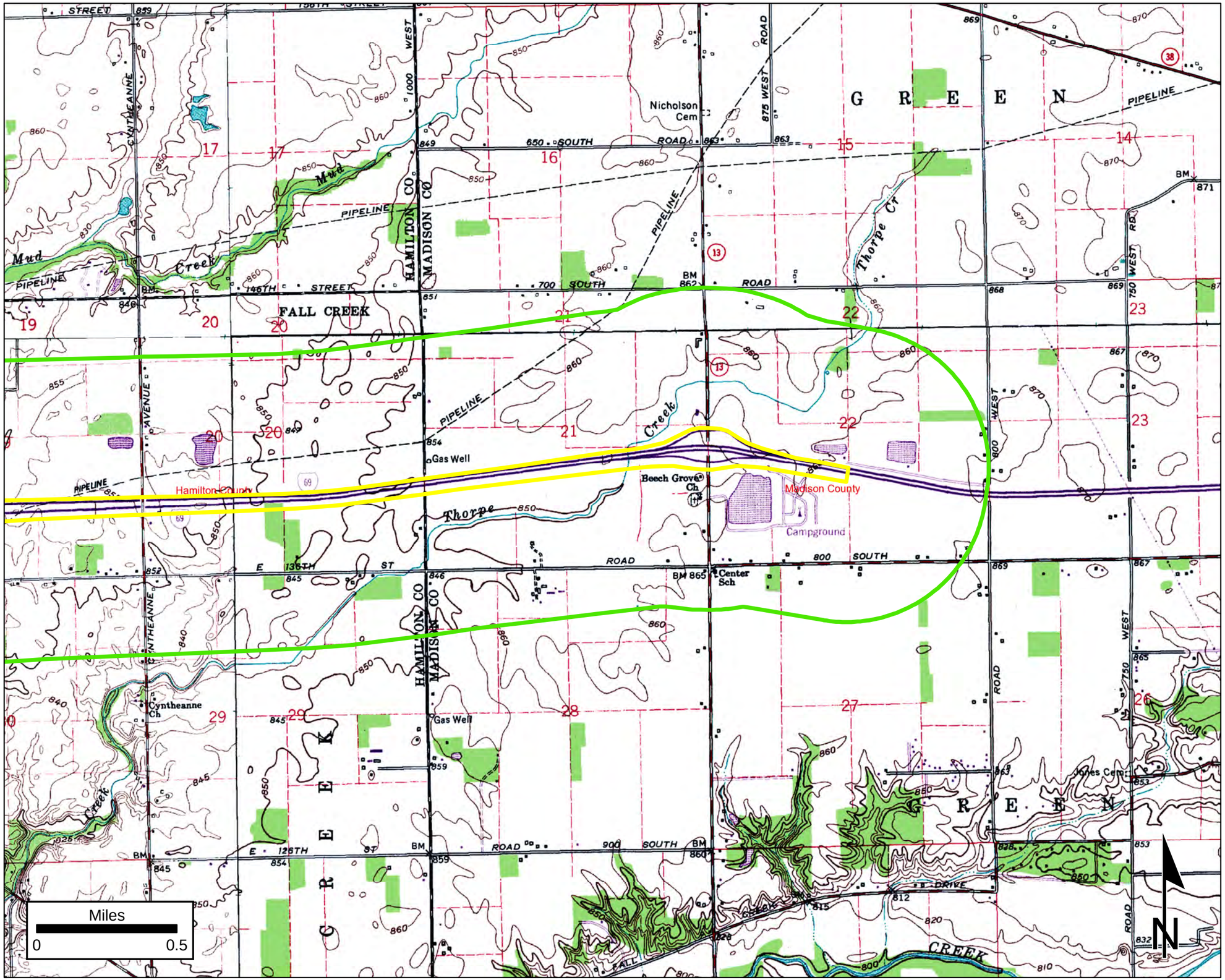
Map Projection: UTM Zone 16 N

Map Datum: NAD83



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USGS 7.5" Topographic Map
Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius

USGS Topography Map

- Red: Band_1
- Green: Band_2
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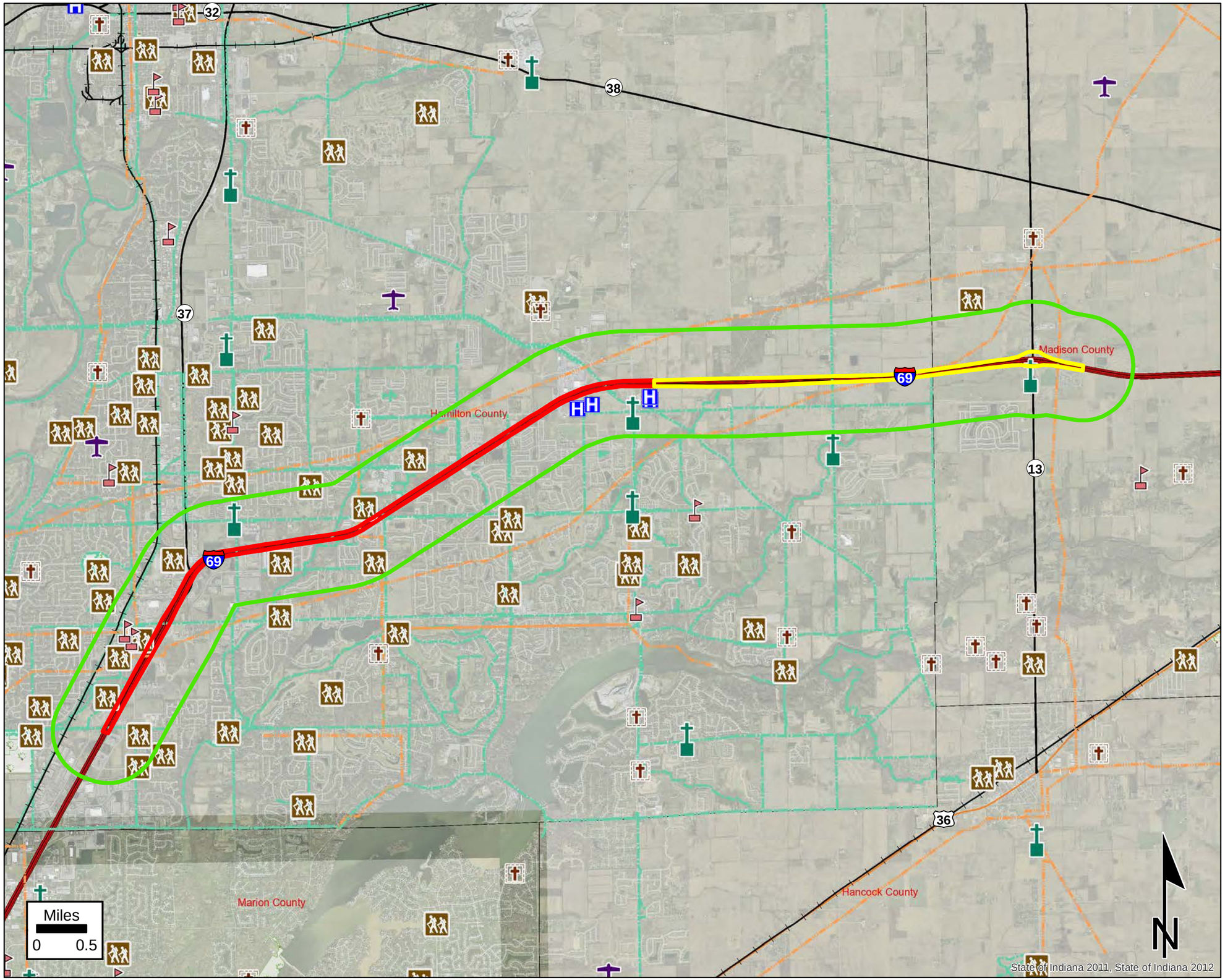

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Infrastructure

Map 1: Full Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Airport
- Cemetaries
- Hospital
- Railroad
- Recreation Facility
- Religious Facility
- Religious Facility Indiana Map
- School
- Trails
- Pipeline
- Managed Lands
- County Boundary
- Interstate
- State
- US
- Local

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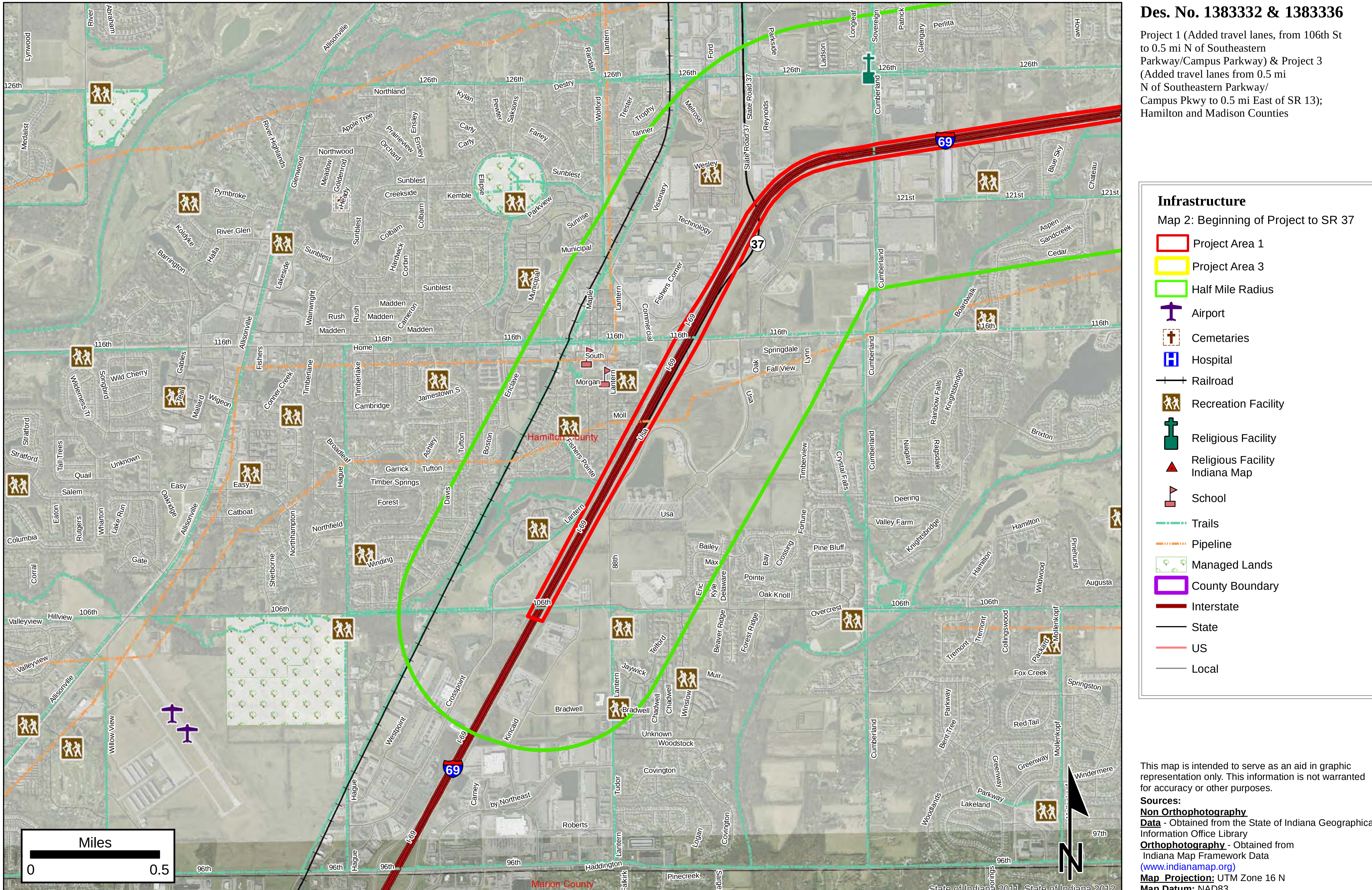

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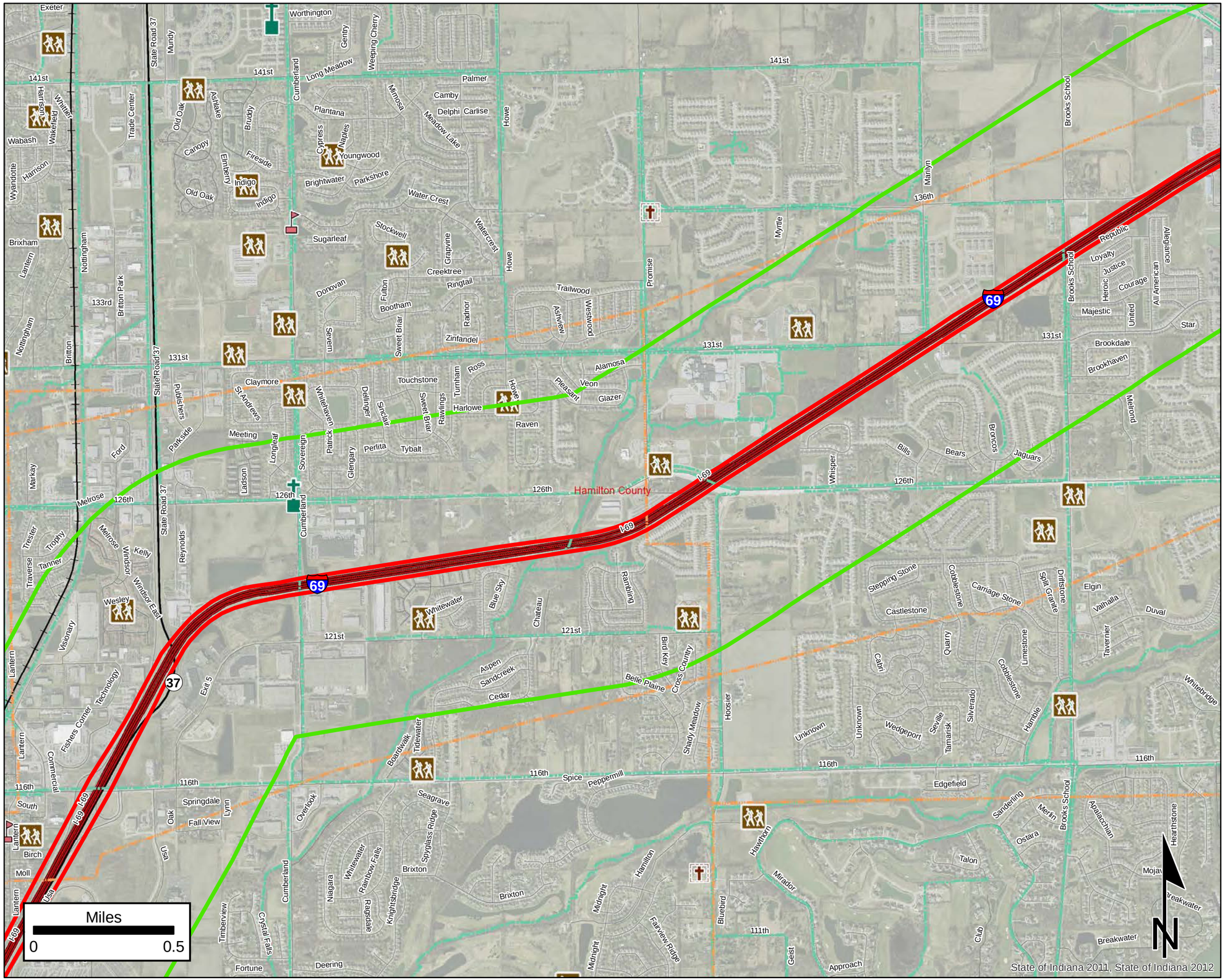

Infrastructure

Map 3: SR 37 to Brooks School Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Airport
- Cemetaries
- Hospital
- Railroad
- Recreation Facility
- Religious Facility
- Religious Facility Indiana Map
- School
- Trails
- Pipeline
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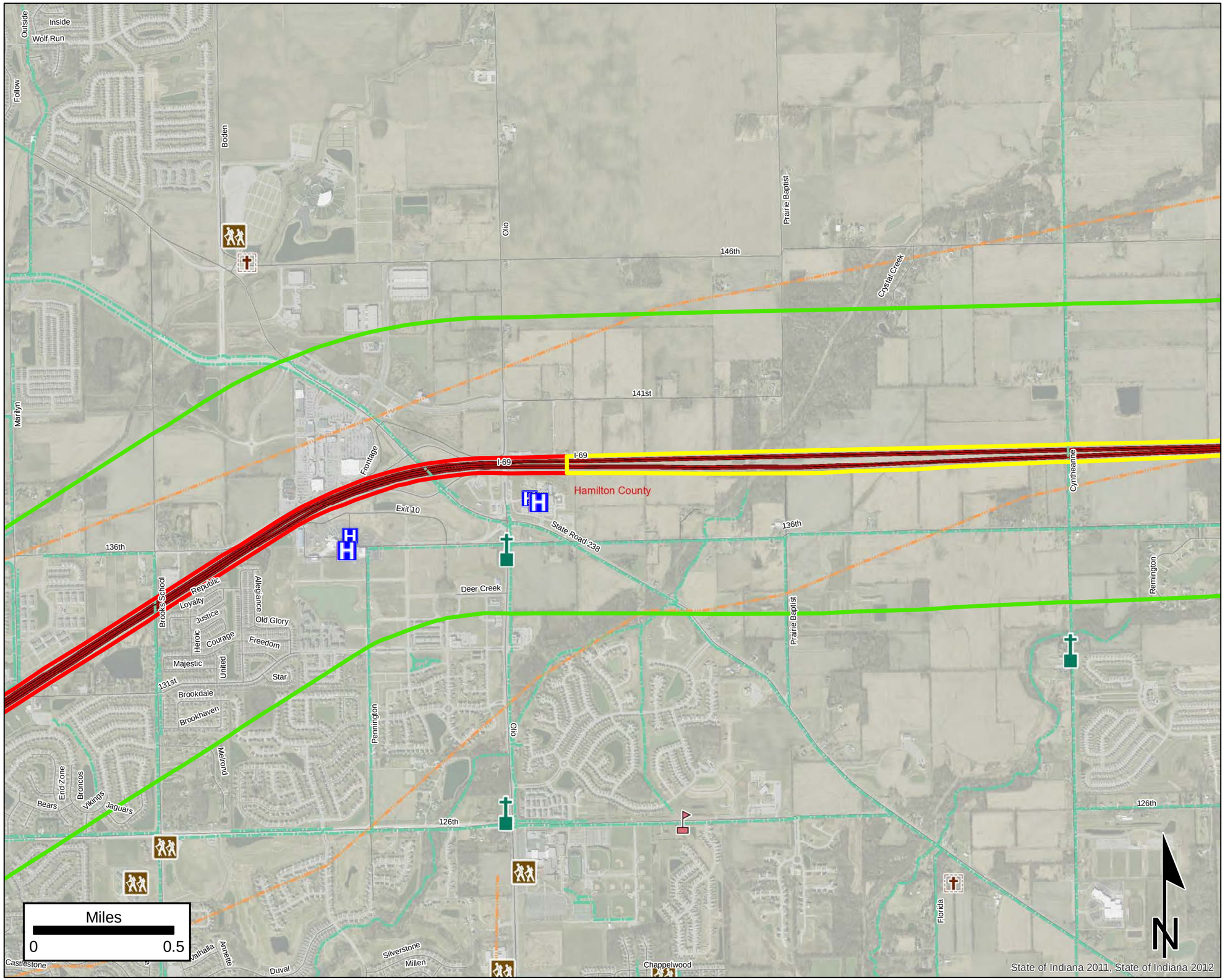

Infrastructure

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Airport
- Cemetaries
- Hospital
- Railroad
- Recreation Facility
- Religious Facility
- Religious Facility Indiana Map
- School
- Trails
- Pipeline
- Managed Lands
- County Boundary
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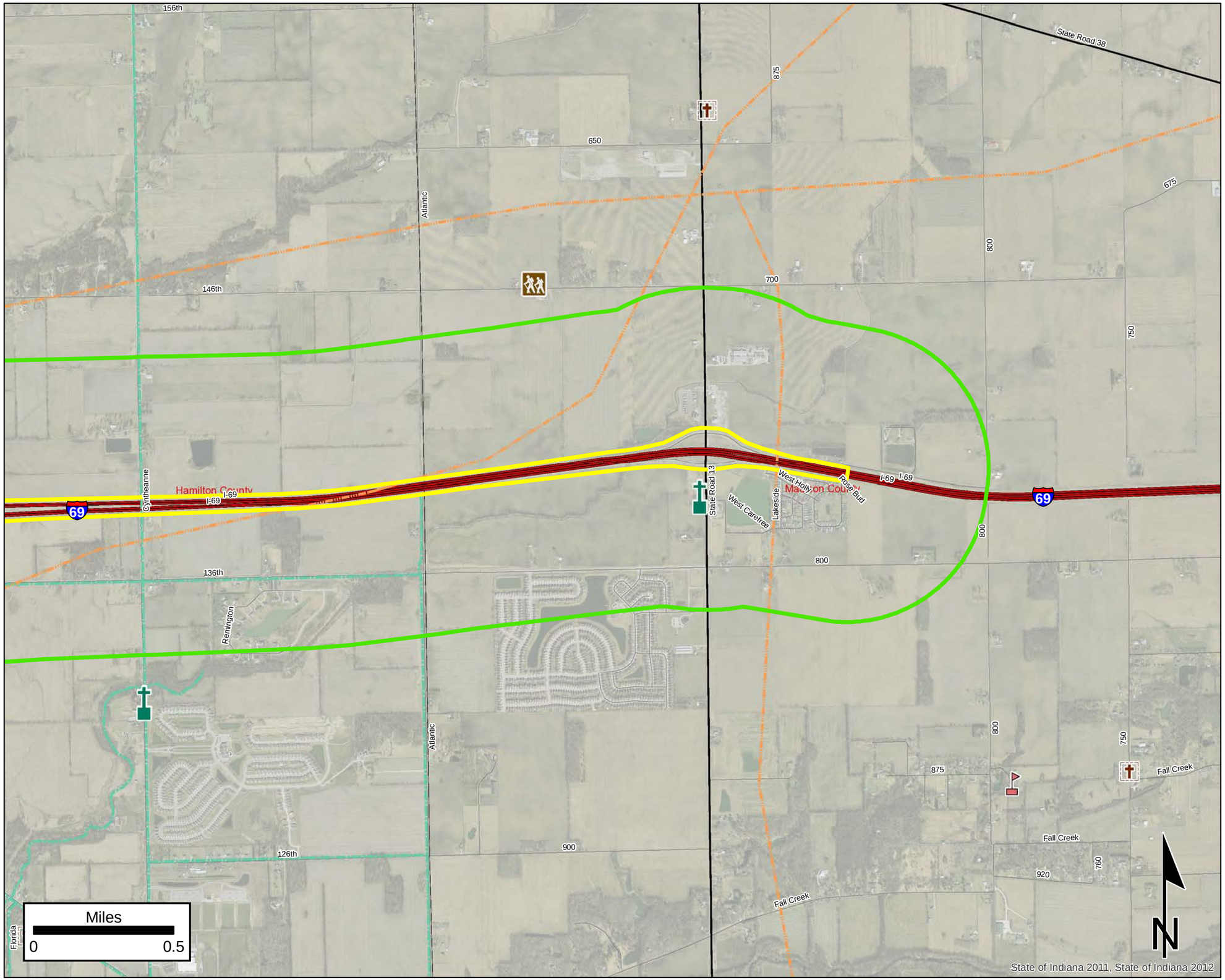

Infrastructure

Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Airport
- Cemetaries
- Hospital
- Railroad
- Recreation Facility
- Religious Facility
- Religious Facility Indiana Map
- School
- Trails
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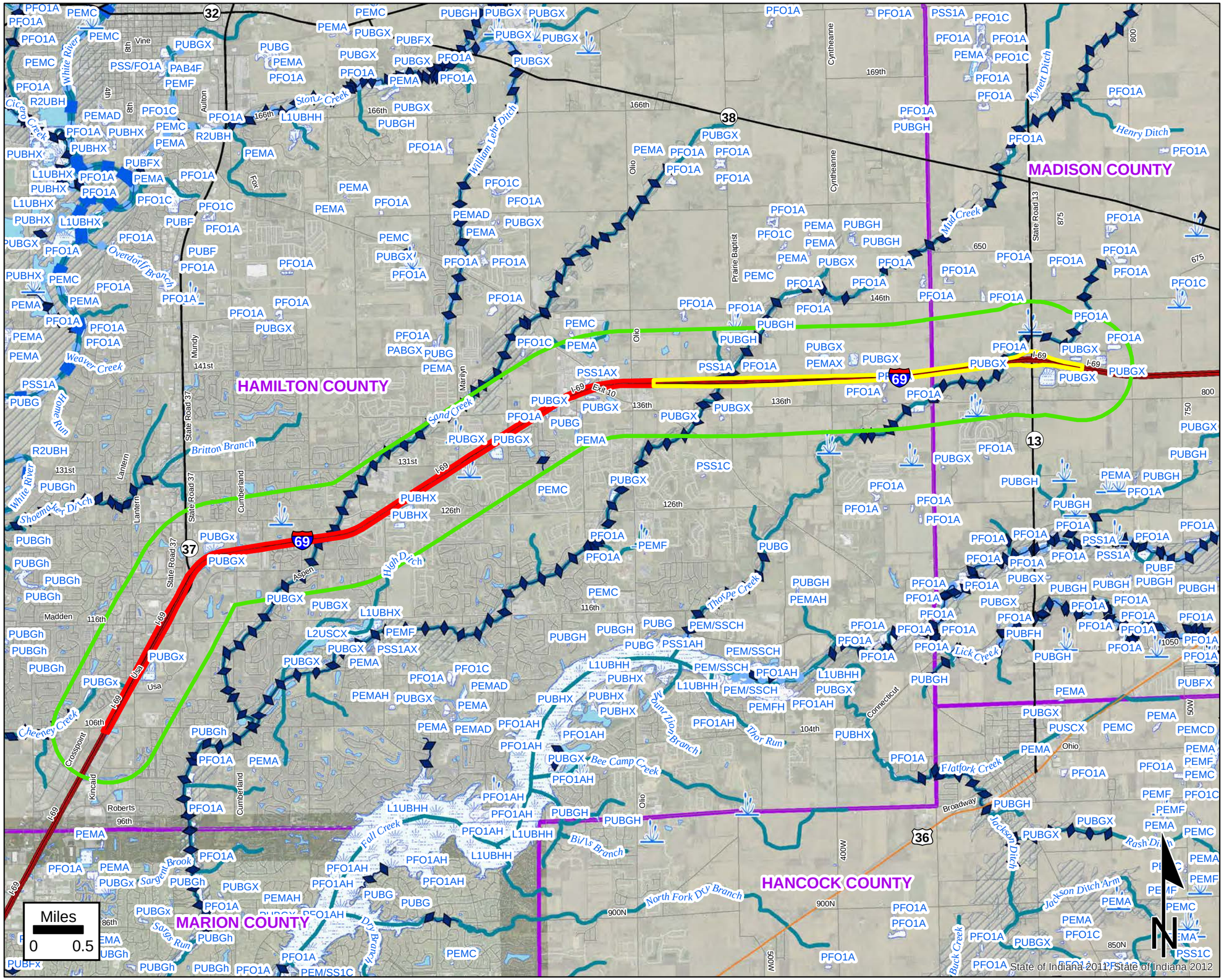

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Water Resources

Map 1: Full Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Canal Route - Historic
- Canal Structure - Historic
- NWI Wetland Lines
- NWI Wetland Point
- NWI Wetland Polygons
- Floodplain - DFIRM
- IDEM 303d Listed Rivers and Streams
- Rivers and Streams
- NPS NRI listed
- IDEM 303d Listed Lakes
- Lake
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- Karst Spring
- County Boundary
- Interstate
- State
- US
- Local

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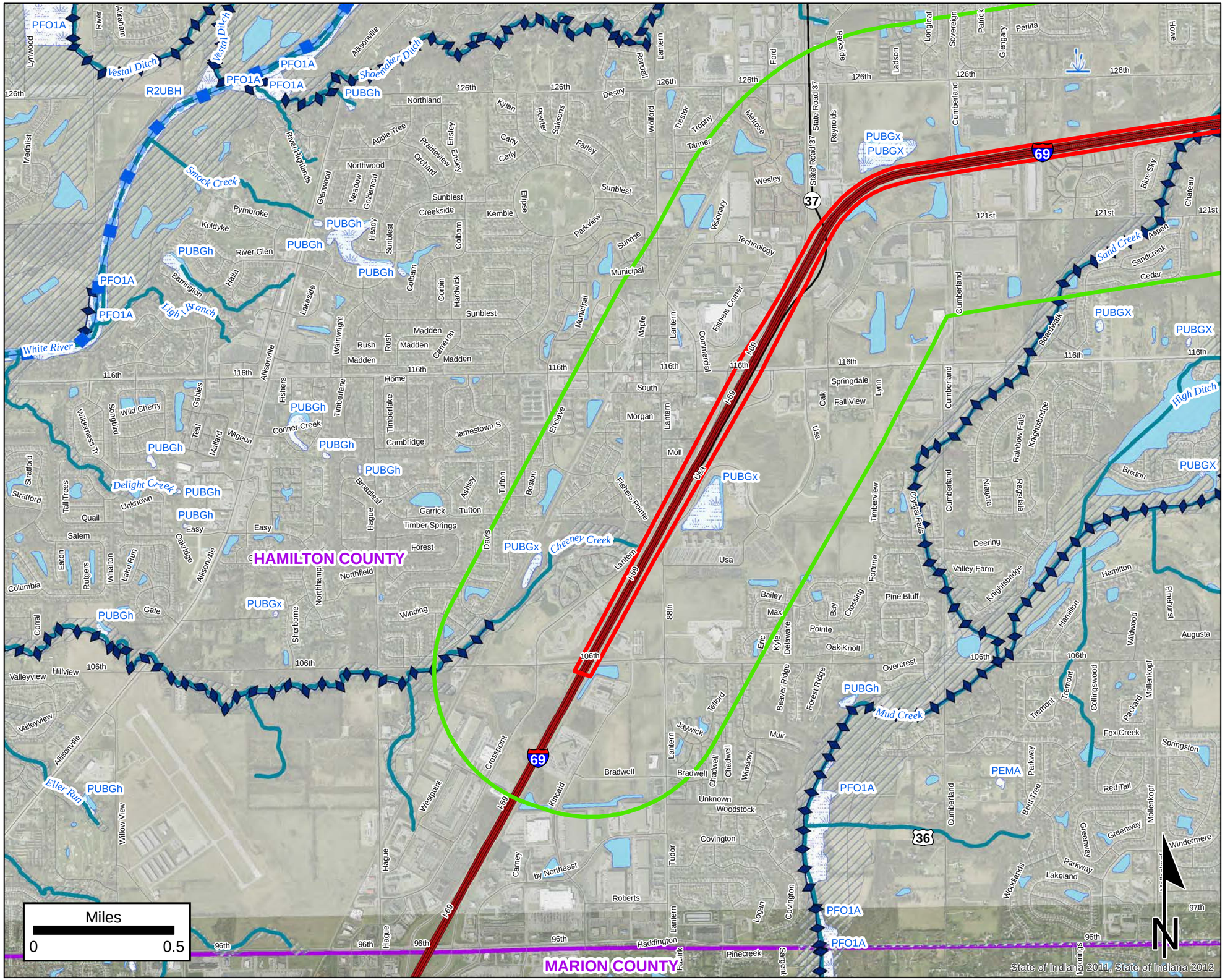

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Water Resources

Map 2: Beginning of Project to SR 37

- Project Area 1
- Project Area 3
- Half Mile Radius
- Canal Route - Historic
- Canal Structure - Historic
- NWI Wetland Lines
- NWI Wetland Point
- NWI Wetland Polygons
- Floodplain - DFIRM
- IDEM 303d Listed Rivers and Streams
- Rivers and Streams
- NPS NRI listed
- IDEM 303d Listed Lakes
- Lake
- Cave Entrance Density
- Sinkhole Area
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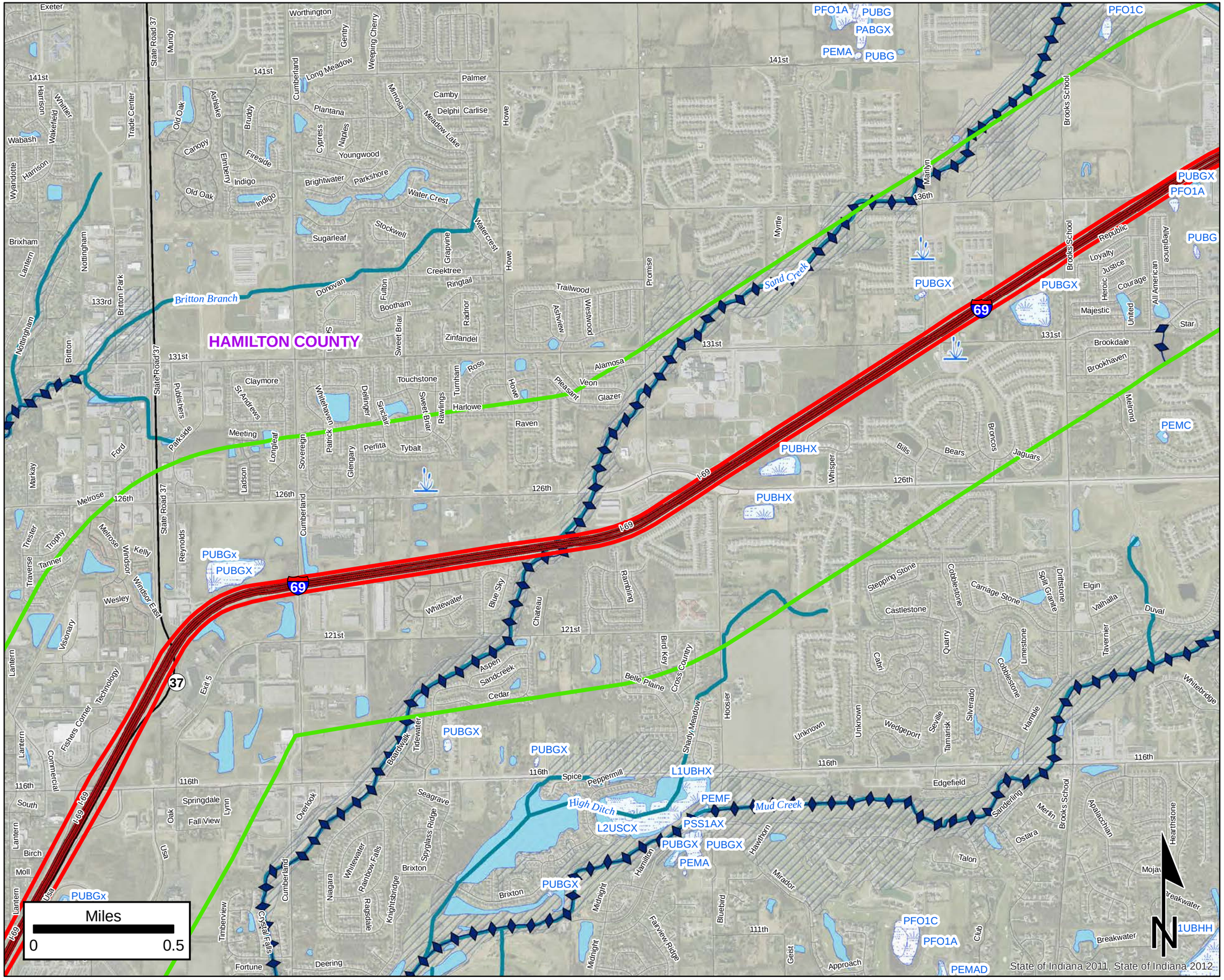

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Water Resources

Map 3: SR 37 to Brooks School Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Canal Route - Historic
- Canal Structure - Historic
- NWI Wetland Lines
- NWI Wetland Point
- NWI Wetland Polygons
- Floodplain - DFIRM
- IDEM 303d Listed Rivers and Streams
- Rivers and Streams
- NPS NRI listed
- IDEM 303d Listed Lakes
- Lake
- Cave Entrance Density
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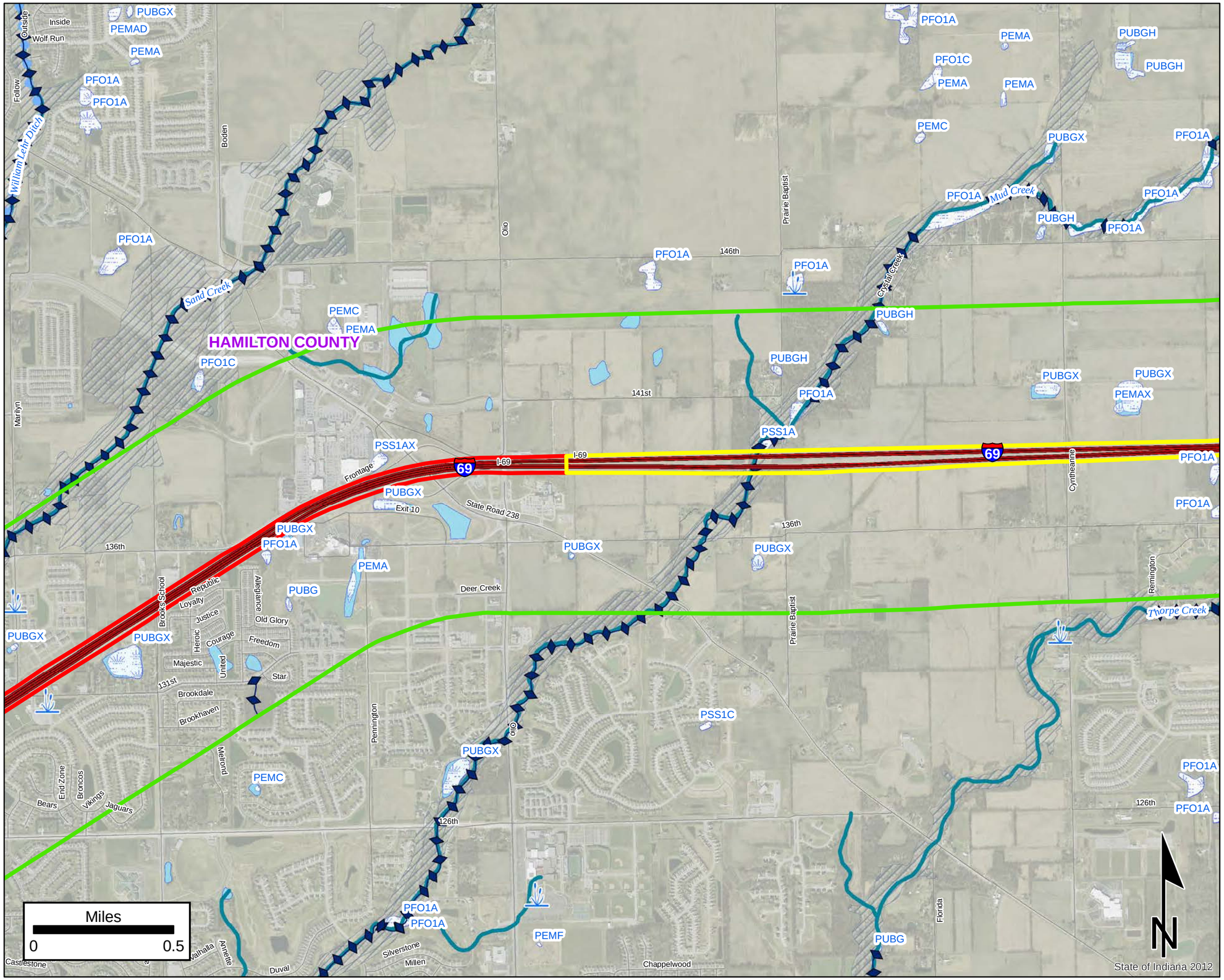

Water Resources

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Canal Route - Historic
- Canal Structure - Historic
- NWI Wetland Lines
- NWI Wetland Point
- NWI Wetland Polygons
- Floodplain - DFIRM
- IDEM 303d Listed Rivers and Streams
- Rivers and Streams
- NPS NRI listed
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- Lake
- Cave Entrance Density
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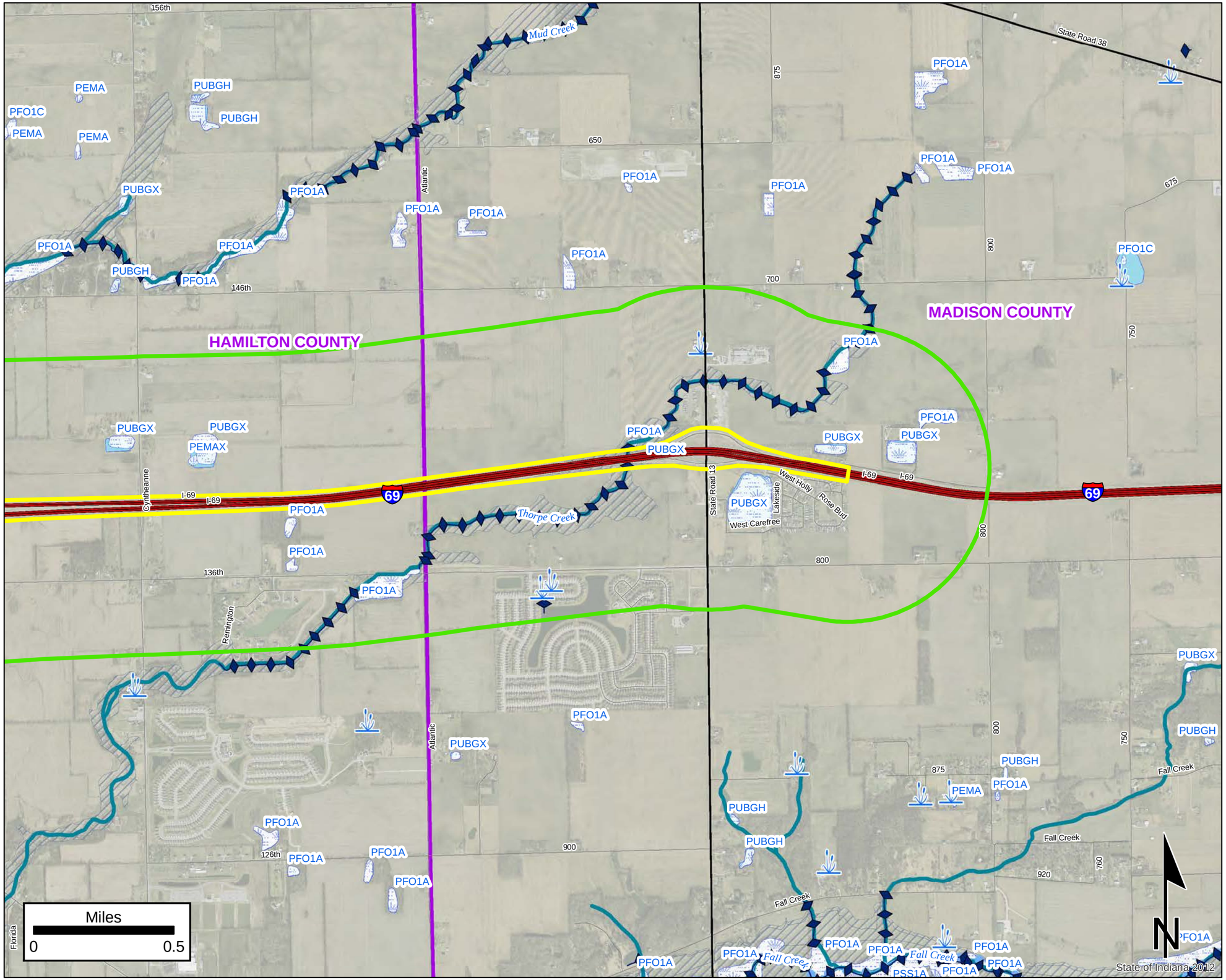

Water Resources

Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Canal Route - Historic
- Canal Structure - Historic
- NWI Wetland Lines
- NWI Wetland Point
- NWI Wetland Polygons
- Floodplain - DFIRM
- IDEM 303d Listed Rivers and Streams
- Rivers and Streams
- NPS NRI listed
- IDEM 303d Listed Lakes
- Lake
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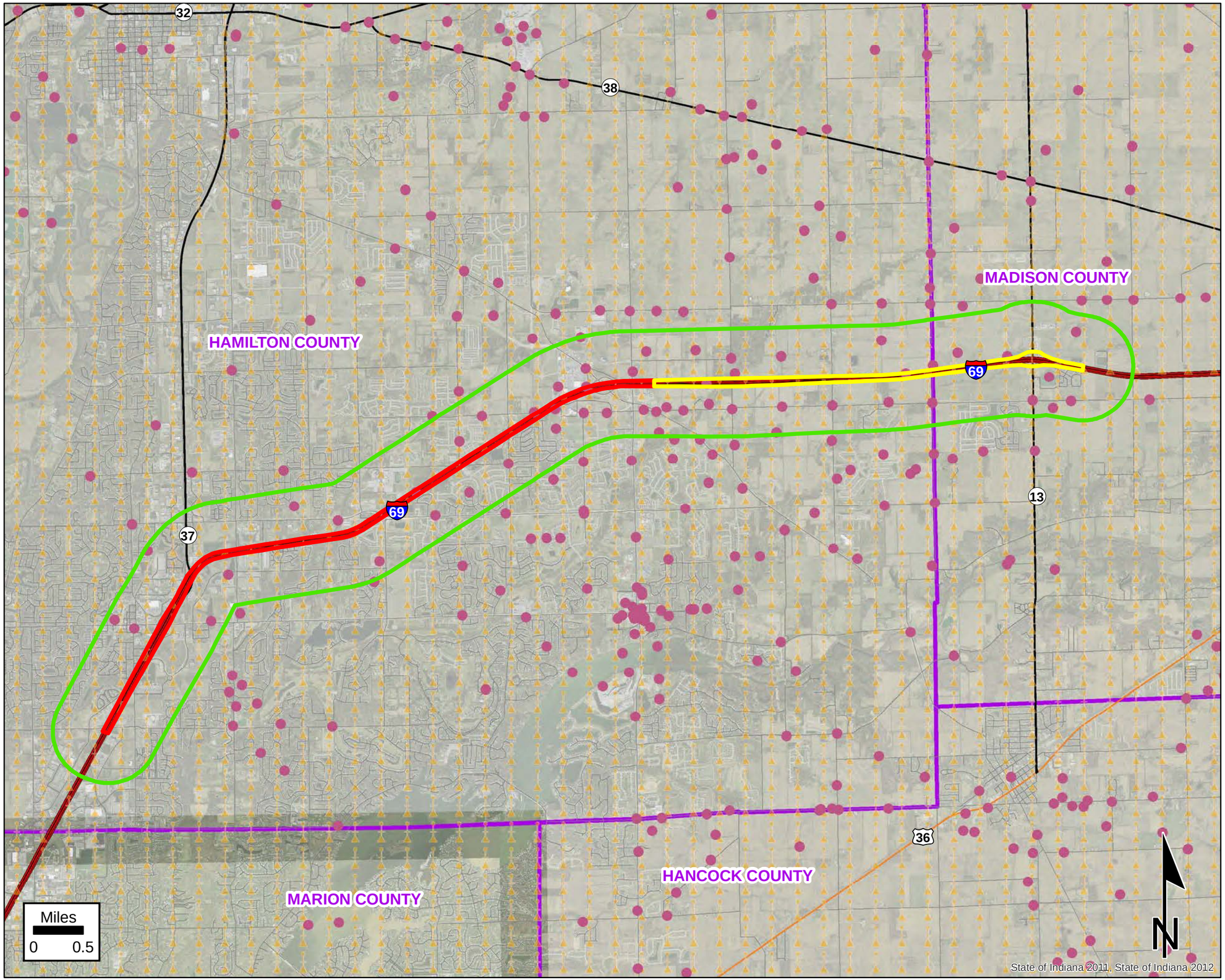

Mining/Mineral Exploration

Map 1: Full Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Petroleum Wells
- Petroleum Field
- Mine - Surface
- Mine - Underground
- County Boundary
- Interstate
- State
- US
- Local

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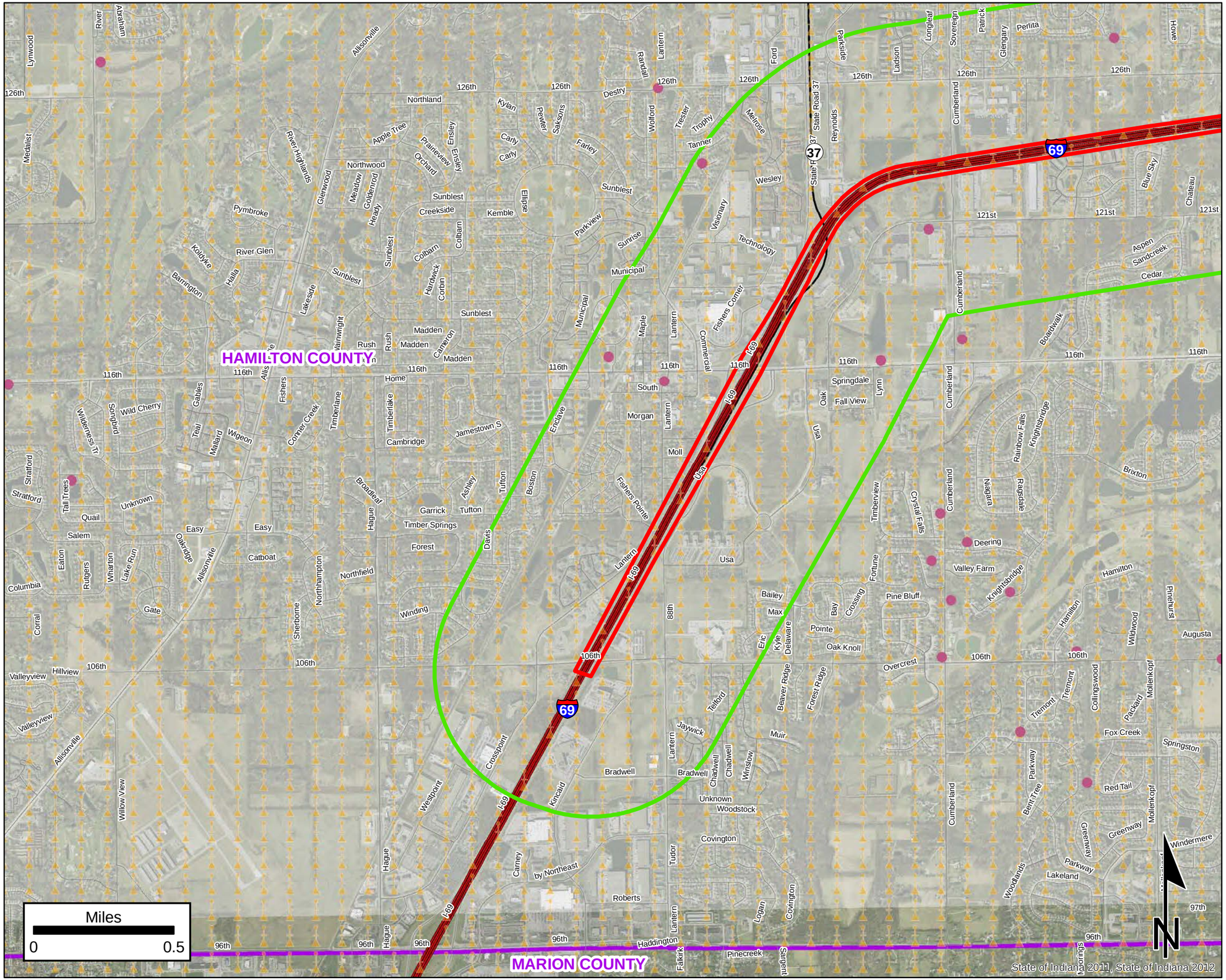

Mining/Mineral Exploration

Map 2: Beginning of Project to SR 37

- Project Area 1
- Project Area 3
- Half Mile Radius
- Petroleum Wells
- Petroleum Field
- Mine - Surface
- Mine - Underground
- County Boundary
- Interstate
- State
- US
- Local

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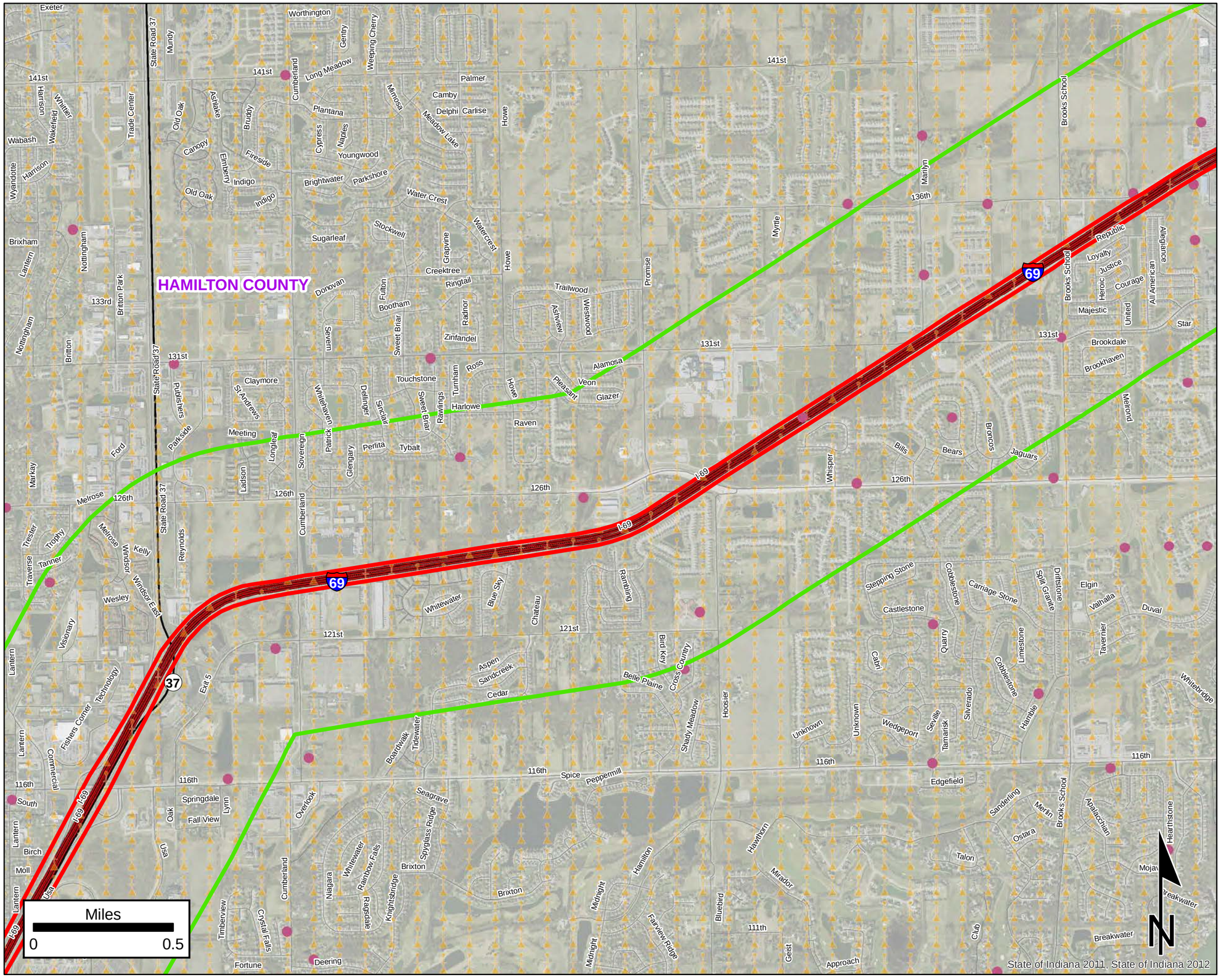

Mining/Mineral Exploration

Map 3: SR 37 to Brooks School Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Petroleum Wells
- Petroleum Field
- Mine - Surface
- Mine - Underground
- County Boundary
- Interstate
- State
- US
- Local

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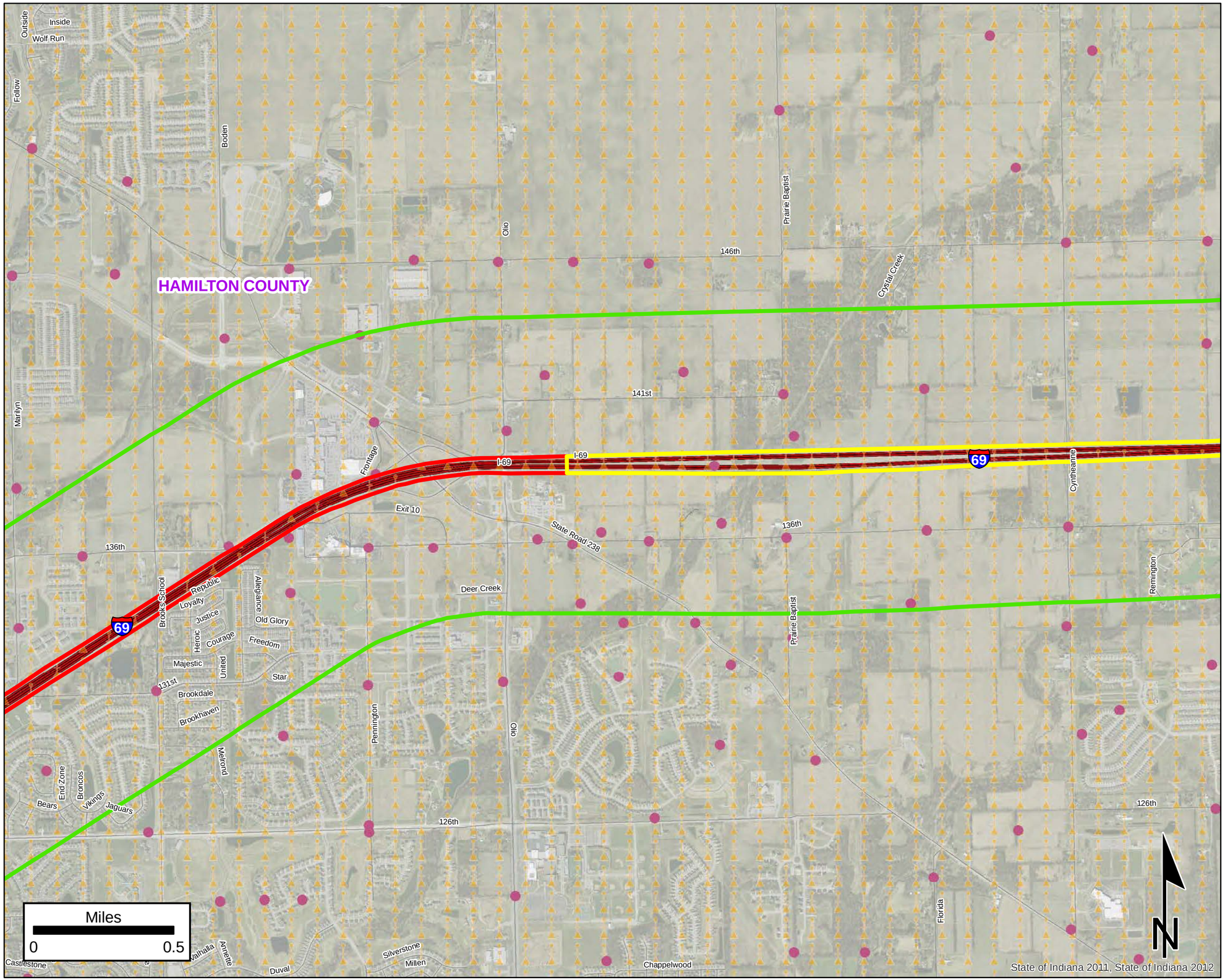

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Mining/Mineral Exploration

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Petroleum Wells
- Petroleum Field
- Mine - Surface
- Mine - Underground
- County Boundary
- Interstate
- State
- US
- Local

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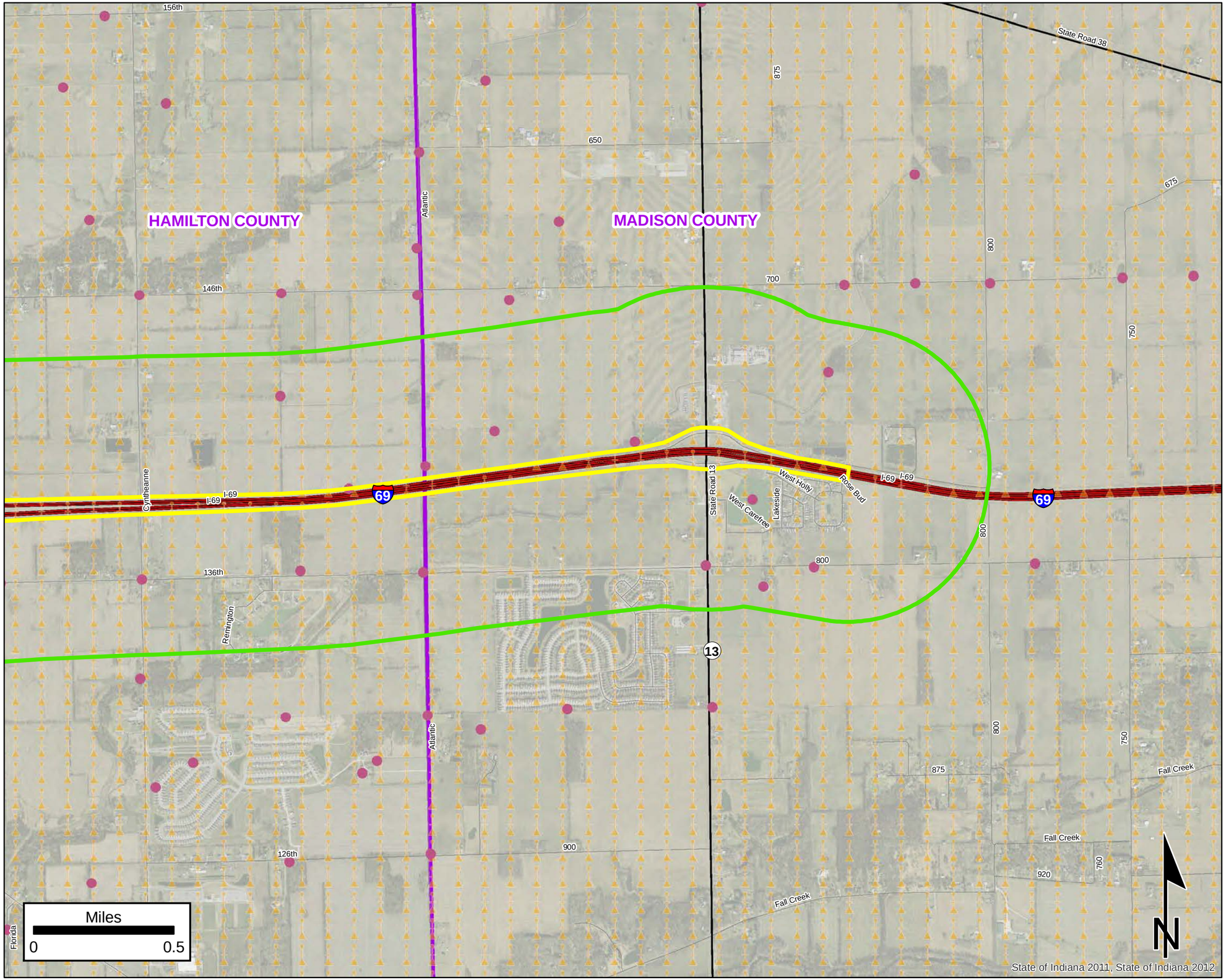

Mining/Mineral Exploration

Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Petroleum Wells
- Petroleum Field
- Mine - Surface
- Mine - Underground
- County Boundary
- Interstate
- State
- US
- Local

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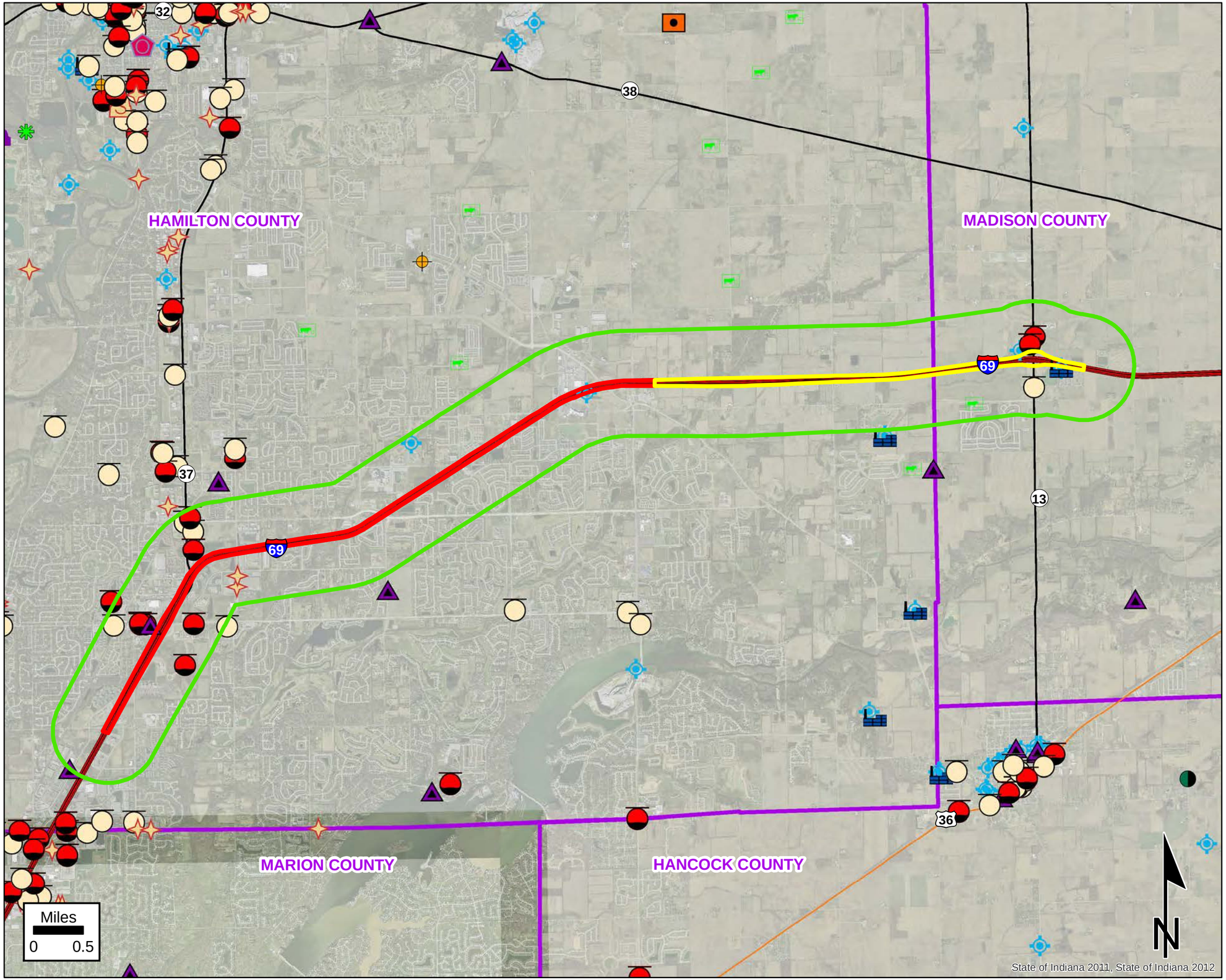

Hazardous Materials

Map 1: Full Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Institutional Controls
- Industrial Waste Site
- Brownfield
- Corrective Action Site (RCRA)
- State Cleanup Site
- Superfund Site
- Voluntary Remediation Program
- Manufactured Gas Plant Site
- Underground Storage Tank
- Leaking Underground Storage Tank
- Confined Feeding Operation
- Septage Waste Site
- Construction/Demolition Waste
- Infectious/Medical Waste Sites
- Lagoon/Surface Impoundment
- Open Dump Site
- Restricted Waste Site
- Solid Waste Landfill
- Tire Waste Site
- Waste Transfer Station
- Waste Treatment, Storage, and Disposal
- NPDES Facilites
- NPDES Pipe Locations
- County Boundary
- Interstate
- State
- US
- Local

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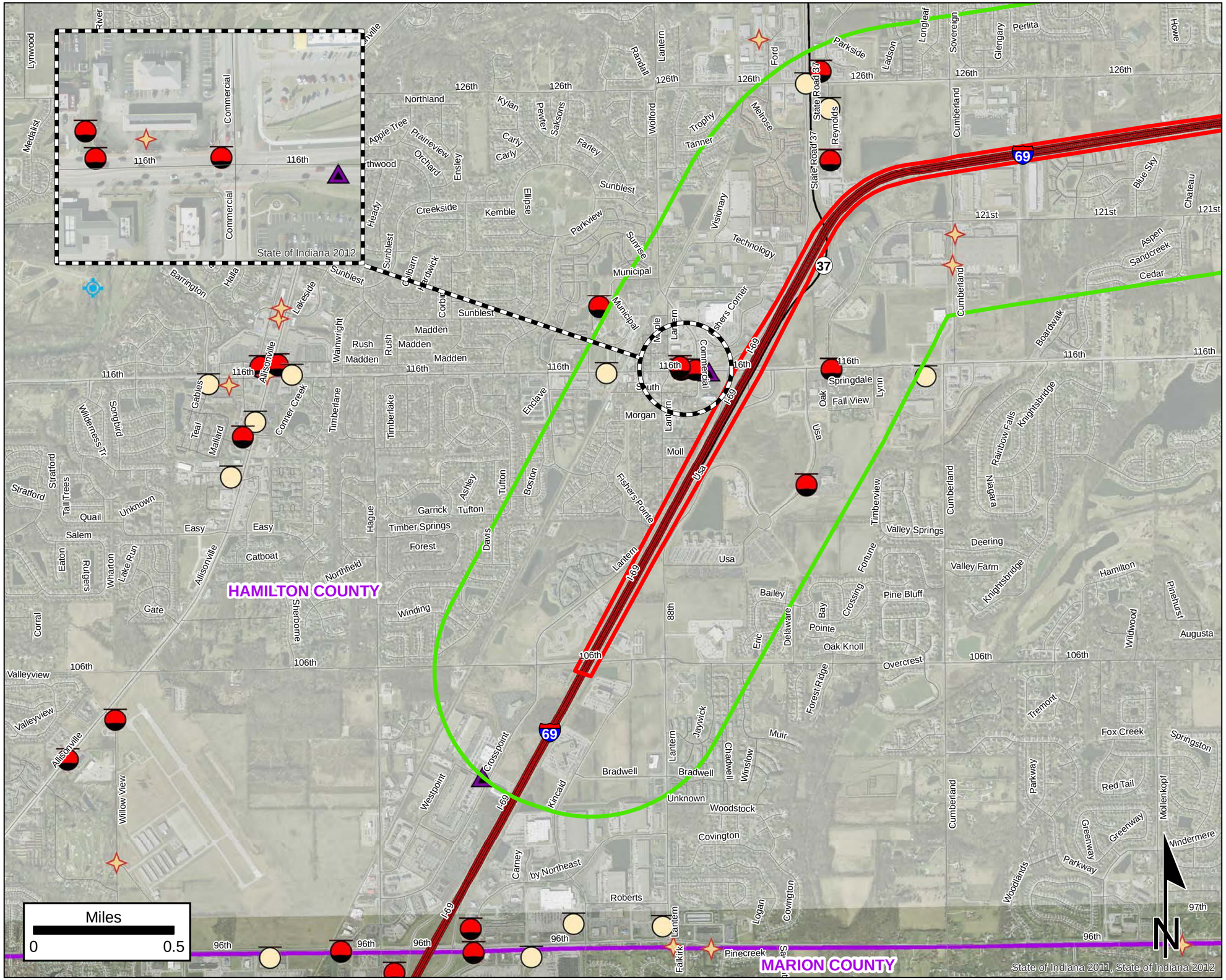

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Hazardous Materials

Map 2: Beginning of Project to SR 37

- Project Area 1
- Project Area 3
- Half Mile Radius
- Institutional Controls
- Industrial Waste Site
- Brownfield
- Corrective Action Site (RCRA)
- State Cleanup Site
- Superfund Site
- Voluntary Remediation Program
- Manufactured Gas Plant Site
- Underground Storage Tank
- Leaking Underground Storage Tank
- Confined Feeding Operation
- Septage Waste Site
- Construction/Demolition Waste
- Infectious/Medical Waste Sites
- Lagoon/Surface Impoundment
- Open Dump Site
- Restricted Waste Site
- Solid Waste Landfill
- Tire Waste Site
- Waste Transfer Station
- Waste Treatment, Storage, and Disposal
- NPDES Facilites
- NPDES Pipe Locations
- County Boundary
- Interstate
- State
- US
- Local

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

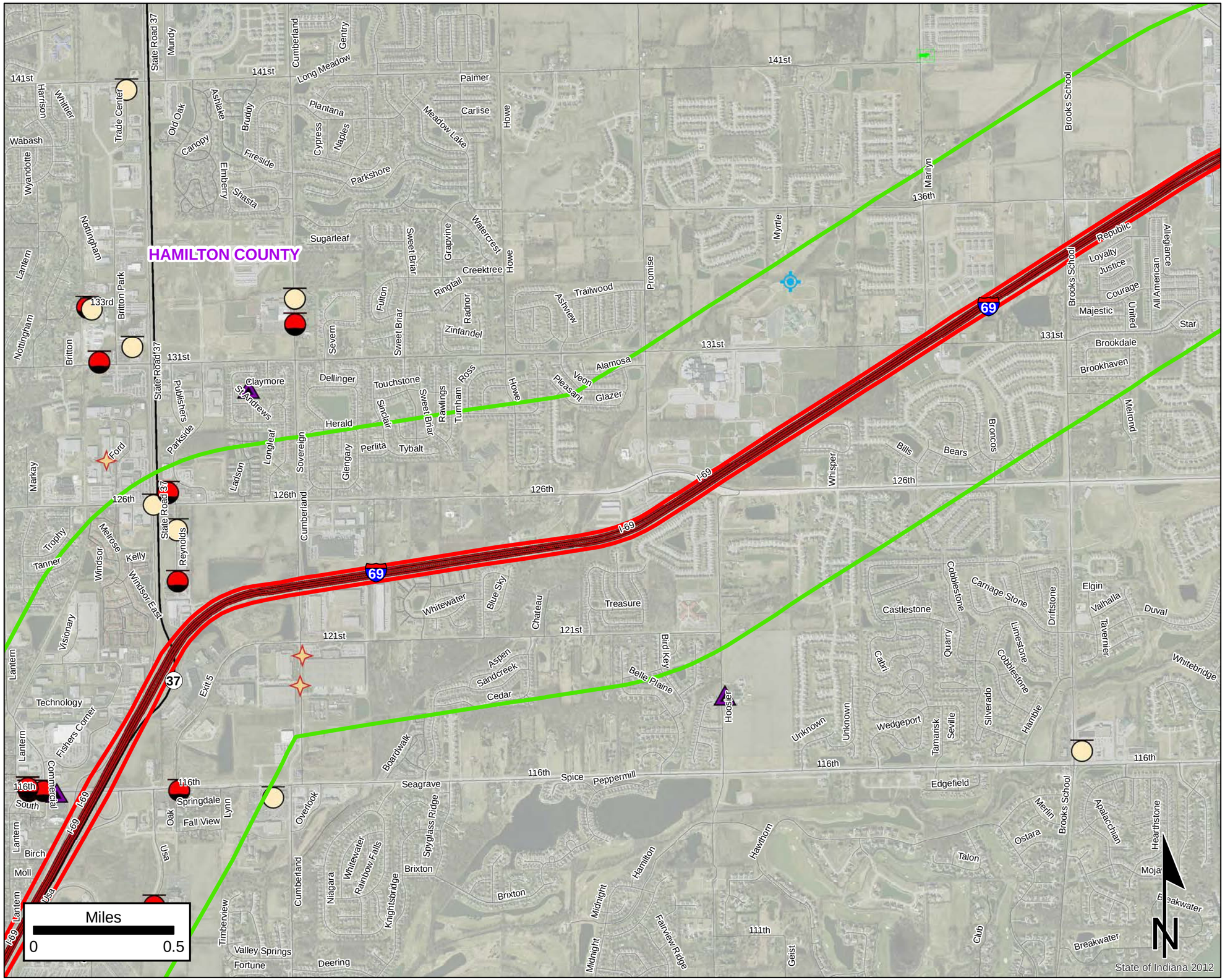
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



Hazardous Materials

Map 3: SR 37 to Brooks School Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Institutional Controls
- Industrial Waste Site
- Brownfield
- Corrective Action Site (RCRA)
- State Cleanup Site
- Superfund Site
- Voluntary Remediation Program
- Manufactured Gas Plant Site
- Underground Storage Tank
- Leaking Underground Storage Tank
- Confined Feeding Operation
- Septage Waste Site
- Construction/Demolition Waste
- Infectious/Medical Waste Sites
- Lagoon/Surface Impoundment
- Open Dump Site
- Restricted Waste Site
- Solid Waste Landfill
- Tire Waste Site
- Waste Transfer Station
- Waste Treatment, Storage, and Disposal
- NPDES Facilites
- NPDES Pipe Locations
- County Boundary
- Interstate
- State
- US
- Local

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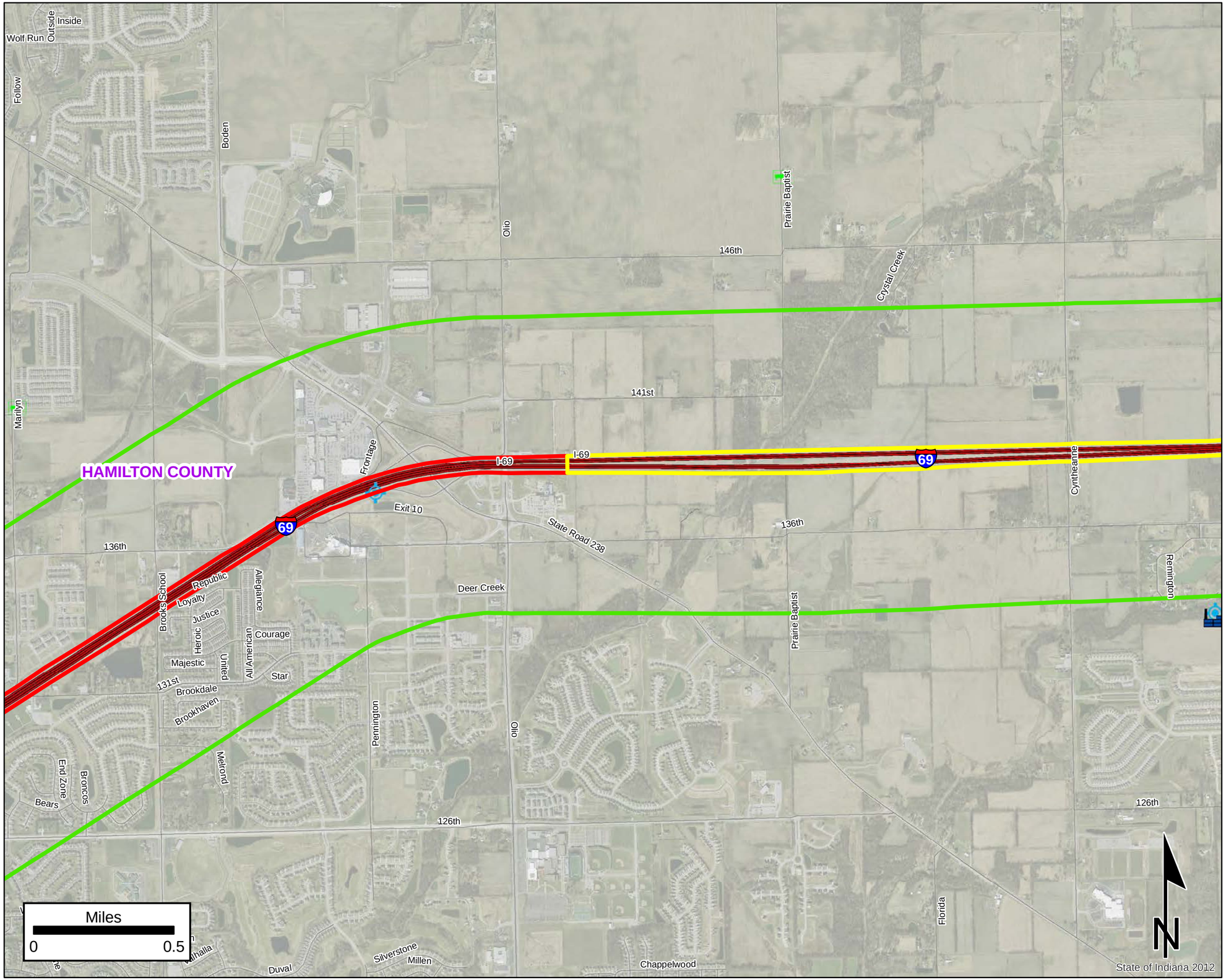
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



Hazardous Materials

Map 4: Brooks School Rd to Cyntheanne Rd

- Project Area 1
- Project Area 3
- Half Mile Radius
- Institutional Controls
- Industrial Waste Site
- Brownfield
- Corrective Action Site (RCRA)
- State Cleanup Site
- Superfund Site
- Voluntary Remediation Program
- Manufactured Gas Plant Site
- Underground Storage Tank
- Leaking Underground Storage Tank
- Confined Feeding Operation
- Septage Waste Site
- Construction/Demolition Waste
- Infectious/Medical Waste Sites
- Lagoon/Surface Impoundment
- Open Dump Site
- Restricted Waste Site
- Solid Waste Landfill
- Tire Waste Site
- Waste Transfer Station
- Waste Treatment, Storage, and Disposal
- NPDES Facilites
- NPDES Pipe Locations
- County Boundary
- Interstate
- State
- US
- Local

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

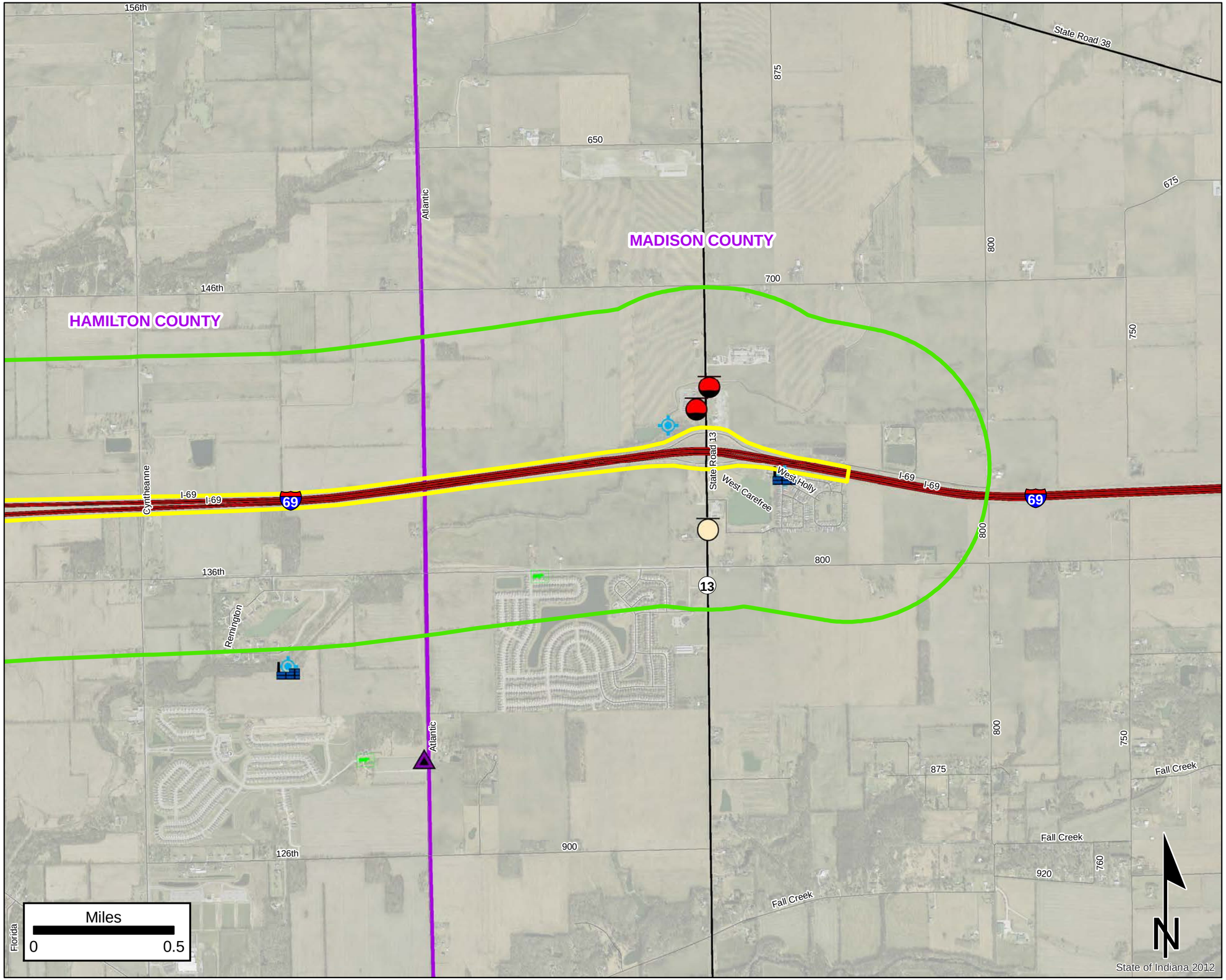
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Map Projection: UTM Zone 16 N

Map Datum: NAD83

Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties



Hazardous Materials

Map 5: Cyntheanne Rd to End of Project

- Project Area 1
- Project Area 3
- Half Mile Radius
- Institutional Controls
- Industrial Waste Site
- Brownfield
- Corrective Action Site (RCRA)
- State Cleanup Site
- Superfund Site
- Voluntary Remediation Program
- Manufactured Gas Plant Site
- Underground Storage Tank
- Leaking Underground Storage Tank
- Confined Feeding Operation
- Septage Waste Site
- Construction/Demolition Waste
- Infectious/Medical Waste Sites
- Lagoon/Surface Impoundment
- Open Dump Site
- Restricted Waste Site
- Solid Waste Landfill
- Tire Waste Site
- Waste Transfer Station
- Waste Treatment, Storage, and Disposal
- NPDES Facilites
- NPDES Pipe Locations
- County Boundary
- Interstate
- State
- US
- Local

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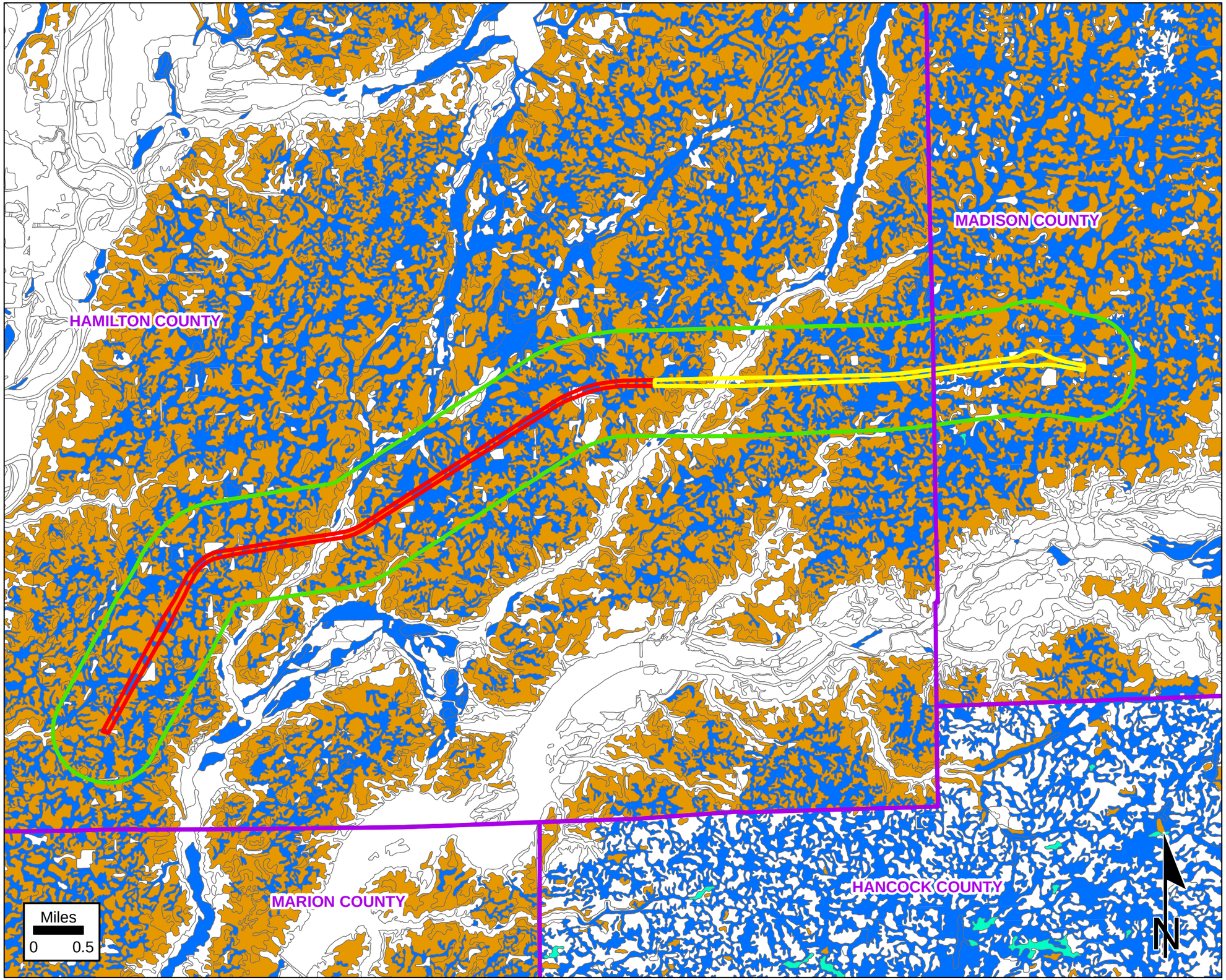
Sources:

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

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

Map Projection: UTM Zone 16 N

Map Datum: NAD83



Des. No. 1383332 & 1383336

Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Southeastern Parkway/Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Southeastern Parkway/ Campus Pkwy to 0.5 mi East of SR 13); Hamilton and Madison Counties

NRCS Soils

- Project Area 1
- Project Area 3
- Half Mile Radius
- County Boundary

SSURGO Soil Unit

Hydric Classifications

- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)
- Interstates
- State Routes
- US Routes

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

Appendix C: Project Area Photographs

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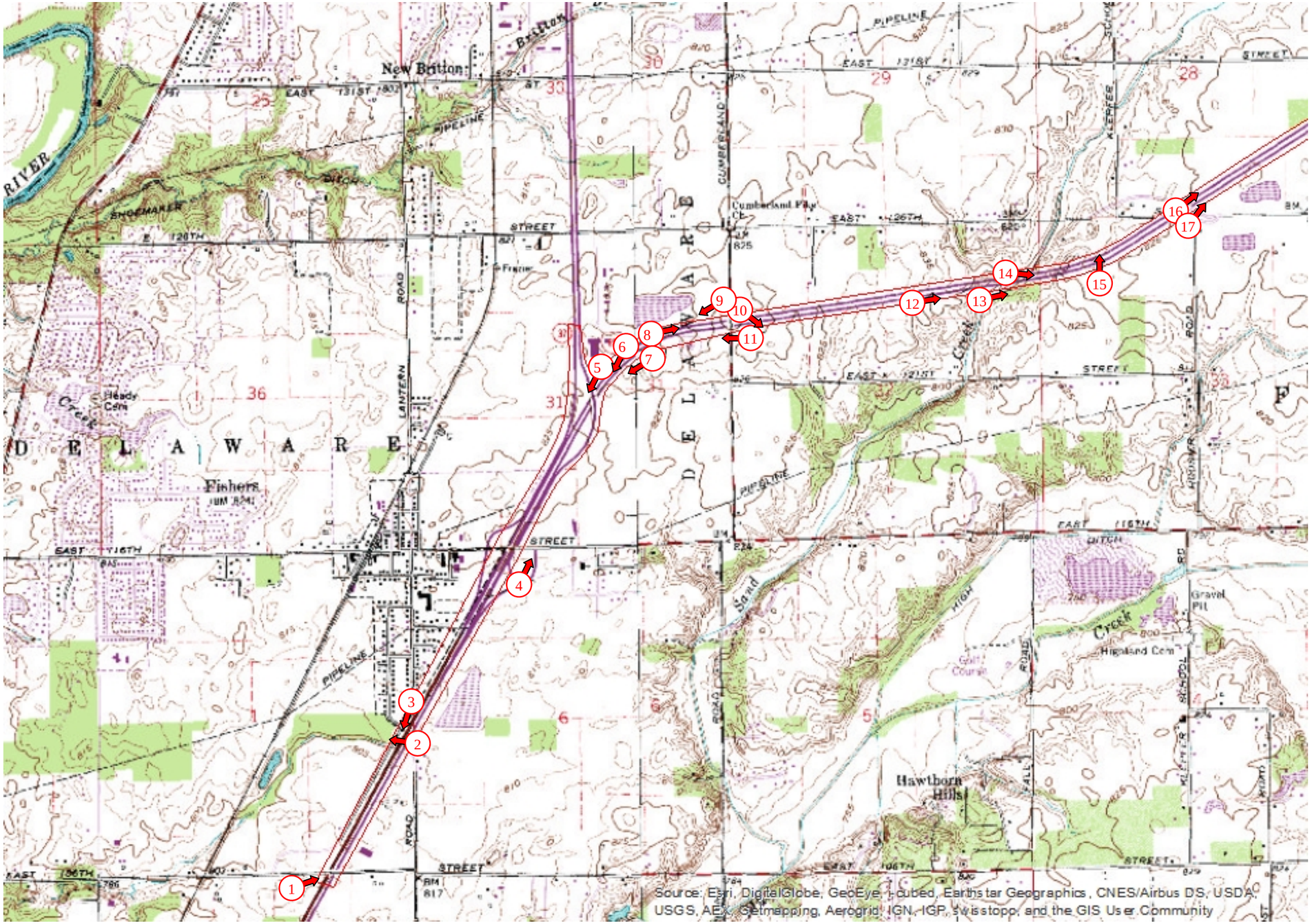
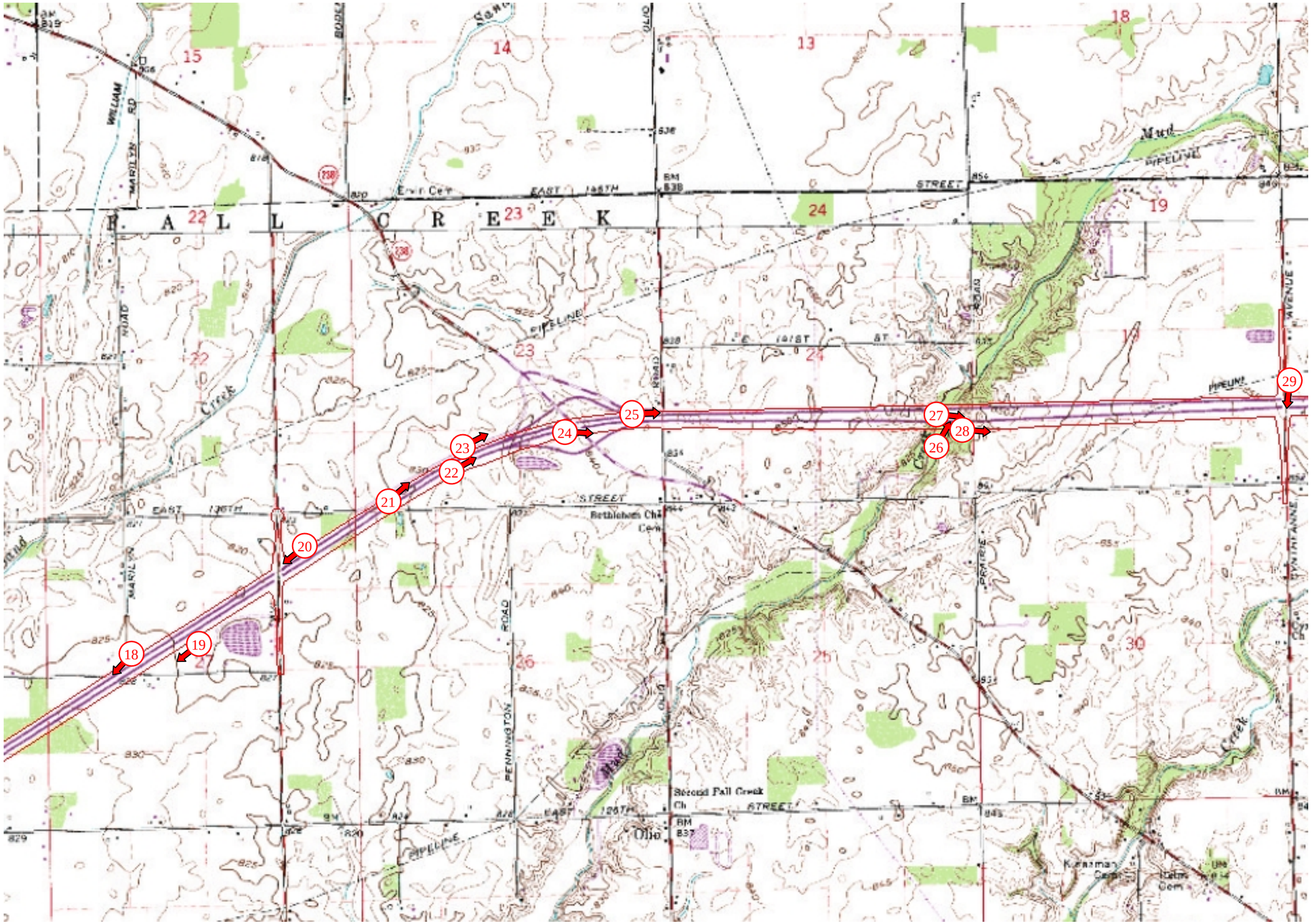
Photograph Location Map (1 of 3)



N


F A L L C R E E K
EAST 146TH STREET
EAST 136TH STREET
PENNINGTON ROAD
PIPELINE
Second Fall Creek Ch
Olio
Mud
Creek
N

FALL CREEK
HAMILTON CO
MADISON CO
PIPELINE
Thorpe Cr
Thorpe
Creek
Campground
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

N

Photo 1: 106th Street Bridge over I-69, as viewed on May 8, 2014 (facing northeast). Note the stream in the foreground. This is typical of several stream crossings within the I-69 corridor.

Photo 2: Culvert carrying Cheeney Creek under I-69, as viewed on May 8, 2014 (facing west). Cheeney Creek is a Hamilton County regulated drain.

Photo 3: Concrete-lined stream contained within roadside drainage along I-69, as viewed near Cheeney Creek on May 7, 2017 (facing south).

Photo 4: 116th Street Bridge over I-69, as viewed on May 8, 2014 (facing northeast). Note the wetland located within the roadside drainage at this location.

Photo 5: SR 37 Bridge over I-69, as viewed on July 10, 2014 (facing southwest).

Photo 6: View of I-69 and it median near the SR 37 Bridge over I-69, as viewed on July 10, 2014 (facing southwest). Note the wetland contained within the median roadside drainage at this location.

Photo 7: Wetland located outside of roadside drainage along I-69, near the S.R. 37 Bridge over I-69, as viewed on May 8, 2014 (facing southwest).

Photo 8: View of I-69 and its median west of the Cumberland Road Bridge over I-69, as viewed on July 10, 2014 (facing east).

Photo 9: Wetland located outside of roadside drainage along I-69, as viewed near the Cumberland Road Bridge over I-69 on May 12, 2014 (facing southwest).

Photo 10: Typical wetland observed within the median drainage, near the Cumberland Road Bridge over I-69, as viewed on June 10, 2014 (facing southwest).

Photo 11: Cumberland Road Bridge, as viewed on March 14, 2014 (facing west along eastbound I-69).

Photo 12: Typical stream contained within roadside drainage along I-69 near Sand Creek, as viewed on May 12, 2014 (facing east).

Photo 13: Eastbound Bridge over Sand Creek, as viewed on March 14, 2014 (facing northeast). Sand Creek is a Hamilton County regulated drain.

Photo 14: Westbound Bridge over Sand Creek, as viewed on March 14, 2014 (facing east).

Photo 15: Stream crossing under I-69 located north of Sand Creek, as viewed on June 16, 2014 (facing northeast).

Photo 16: 126th Street Bridge, as viewed on July 10, 2014 (facing northeast). Note the wetland contained within the median roadside drainage at this location.

Photo 17: Typical wetland located within roadside drainage, near the 126th Street Bridge over I-69, as viewed on June 16, 2014 (facing northeast).

Photo 18: Wetland not located within roadside drainage along I-69, approximately 0.5 mile south of Brooks School Road, as viewed on June 18, 2014 (facing southwest).

Photo 19: Typical wetland located within roadside drainage, approximately 0.5 mile south of Brooks School Road, as viewed on June 17, 2014 (facing southwest).

Photo 20: Brooks School Road Bridge, as viewed on March 14, 2014 (facing southwest along westbound I-69).

Photo 21: Wetland located outside of roadside drainage along I-69, as viewed near the Campus Parkway Interchange on June 18, 2014 (facing northeast).

Photo 22: View of I-69 and its median between Campus Parkway and Brooks School Road, as viewed on June 27, 2014 (facing northeast).

Photo 23: Typical wetland located within roadside drainage near the Campus Parkway Interchange, as viewed on June 18, 2014 (facing northeast).

Photo 24: Campus Parkway Bridge over I-69, as viewed on July 10, 2014 (facing east). This photo also shows I-69 and its median at this location.

Photo 25: Olio Road Bridge, as viewed on July 10, 2014 (facing east). This photo also shows I-69 and its median at this location.

Photo 26: Eastbound Bridge over Mud Creek, as viewed on April 16, 2014 (facing northeast). Mud Creek is a Hamilton County regulated drain.

Photo 27: Westbound Bridge over Mud Creek, as viewed on April 16, 2014 (facing east).

Photo 28: Unnamed tributary contained within roadside drainage along I-69 near Mud Creek, as viewed on June 25, 2014 (facing east).

Photo 29: Cyntheanne Road Bridge, as viewed on April 16, 2014 (facing south across I-69).

Photo 30: View of I-69 and its median from the Cyntheanne Road Bridge over I-69, as viewed on March 14, 2014 (facing west).

Photo 31: View of I-69 and its median near the Cyntheanne Road Bridge over I-69, as viewed on June 27, 2014 (facing east). Note the wetland contained within the median roadside drainage at this location.

Photo 32: John Underwood Drain crossing under I-69 (Hamilton County regulated drain), as viewed on June 25, 2014 (facing north).

Photo 33: Typical stream contained within roadside drainage along I-69 near John Underwood Drain, as viewed on June 26, 2014 (facing east).

Photo 34: Typical wetland observed within median drainage, approximately 0.25 mile west of Thorpe Creek, as viewed on June 27, 2014 (facing south).

Photo 35: View of Eastbound Bridge over Thorpe Creek, as viewed on March 14, 2014 (facing northwest). Thorpe Creek is a Madison County regulated drain.

Photo 36: View of the Westbound Bridge over Thorpe Creek, as viewed on March 14, 2014 (facing northwest).

Photo 37: View of the Eastbound/Westbound Bridges over S.R. 13, as viewed on April 16, 2014 (facing east).

Photo 38: View of the Westbound Bridge over S.R. 13, as viewed on April 16, 2014 (facing south).

Photo 39: Hillslope wetland within the S.R. 13 Interchange, as viewed on June 27, 2014 (facing southeast).

Photo 40: Hillslope wetland within the S.R. 13 Interchange, as viewed on June 27, 2014 (facing northwest).

Photo 41: Typical wetland located within roadside drainage near the S.R. 13 Interchange, as viewed on June 27, 2014 (facing east).

Photo 42: View of I-69 and its median near the project terminus, approximately 0.5 mile east of the S.R. 13 Interchange, as viewed on June 27, 2014 (facing east).

Appendix D: Early Coordination

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PARSONS

101 W. Ohio St., Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000 • FAX (317) 616-1033 • www.parsons.com

September 4, 2014

«Name»
«Position»
«Agency»
«Address_1»
«Address_3»
«City», «State» «Zip»

Re: Des. Nos.: 1383332 & 1383336
Description: I-69 Interstate Expansion
Project 1 (Added travel lanes, from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (Added travel lanes from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13); Hamilton & Madison Counties, Indiana

Dear «Prefix»,
The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (SR 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. Environmental analysis is being conducted for Project 1 (Des. No. 1383332), from 106th Street to 0.5 mi N of Campus Parkway, and Project 3 (Des. No. 1383336), from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13. 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 these projects. Please use the above designation numbers and descriptions in your reply. We will incorporate your comments into a study of the projects' environmental impacts.

Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69.

The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mi E of SR 13 has 2 travel lanes in each direction. The northbound cross section of 3 lanes in each direction ends at Cumberland Rd. The southbound 3-lane section starts with the southbound SR 37 entrance ramps. A pavement resurfacing project (Des. No. 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design and the ultimate decision on the level of pavement work required for the project will depend on the condition of the pavement.

Proposed Projects:

Project 1: I-69 from 106th Street to 0.5 mile north of Campus Parkway, Hamilton County

The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on southbound I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on the overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th St would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way.

Project 3: I-69 from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13, Hamilton and Madison Counties

The project would construct additional lanes from Exit 210 to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on SR 13 under I-69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way.

Right-of-Way (ROW): No new ROW would be required for either project.

Environmental Concerns: Four U.S. Geological Survey (USGS) blue-lined streams (Cheeney Creek, Sand Creek, Mud Creek, and Thorpe Creek) lie within or adjacent to the project areas. Information from the National Wetland Inventory (NWI) map shows seven NWI points and thirty-six NWI-wetland polygons within a half-mile radius of the project areas; however, all are located outside of the projects limits. Three NWI line segments lie within the project area (along Sand Creek, Mud Creek, and Thorpe Creek). Several lakes lie adjacent to the projects limits. However, no lakes are expected to be impacted by the proposed projects. Four floodplains (Cheeney Creek, Sand Creek, Mud Creek, and Thorpe Creek) lie within a half-mile radius of the project areas. The Cheeney Creek Floodplain lies outside of the project areas and will not be impacted by the proposed projects. The other 3 floodplains lie within the project areas. See the attached Water Resources Map, Attachment A-5, for the NWI and FEMA layers. According to the Soil Survey Geographic (SSURGO) Database for Hamilton and Madison Counties, Indiana, majority of the project areas lie within nationally listed hydric soils (see Soils Map, Attachment A-8).

Project 1 is located along an urbanized section of I-69, with land use within vicinity of the project consisting primarily of residential and commercial properties. Project 3 is located along a more rural section of I-69, with land use within vicinity of the project consisting primarily of agricultural properties. Four religious facilities, thirteen recreational facilities, two hospitals, and seven schools lie within a half-mile radius of the projects, but outside of the projects limits.

Waters investigations, including wetland delineations, were conducted from May through July, 2014 by Parsons environmental staff to evaluate possible environmental impacts within the project areas. Coordination is ongoing with the U.S. Army Corps of Engineers and the Indiana Department of Environmental Management (IDEM). A waters report will be completed, and all applicable permits will

be applied for and acquired before construction can begin. See Attachment B for Project Area Photographs.

These projects are Type I projects, and therefore Noise Analyses are currently being conducted to determine traffic noise levels, potential noise impacts, and the feasibility of traffic noise mitigation. If any facilities are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts. An Air Quality Analysis is currently being conducted as well. The results of this analysis will be included in the environmental document prepared for these projects.

Parsons will continue to work in coordination with the INDOT Ecology and Waterway Permitting Office to determine the presence and impacts to ecological resources. The projects are currently being investigated for archaeological and historic resources for compliance with Section 106 regulations. The results of these investigations will be forwarded to the State Historic Preservation Officer for review and concurrence.

Please respond with your comments on any environmental impacts associated with these projects. **Should we not receive your response within thirty (30) calendar days from the date of this letter, it will be assumed that your agency feels that there will be no adverse effects incurred as a result of the proposed project.** However, should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. If you have any questions regarding this matter, please contact me at (317) 616-4663 or via e-mail at Daniel.J.Miller@Parsons.com. Thank you in advance for your input.

Sincerely,

Daniel J. Miller
Senior Environmental Planner

Attachments: Attachment A: Graphics
Attachment B: Project Area Photographs

The following agencies received Early Coordination Letters:

Indiana Department of Transportation
Office of Aviation
Room N955, IGC North
100 North Senate Avenue
Indianapolis, IN 46204

Indiana Department of Transportation
Manager, Public Involvement
Room N642, IGC North
100 North Senate Avenue
Indianapolis, IN 46204

U.S. Army Corps of Engineers
Indianapolis Regulatory Office
8902 Otis Avenue, Suite S106B
Indianapolis, IN 46216

Field Environmental Officer
Chicago Regional Office
US Department of Housing and Urban Development
Metcalf Federal Building
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Regional Environmental Coordinator
Midwest Regional Office
National Park Service
601 Riverfront Drive
Omaha, NE 68102

State Conservationist
Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46278

Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
Room W264, IGC South
402 West Washington Street
Indianapolis, IN 46204-2641

Indiana Geological Survey
611 North Walnut Grove
Bloomington, IN 47405
(Electronic Coordination)

Fishers Town Council
1 Municipal Drive
Fishers, IN 46038

Field Supervisor
U.S. Fish & Wildlife Service
Bloomington Field Office
620 South Walker St.
Bloomington, IN 47403

Federal Highway Administration
Room 254, Federal Office Building
575 North Pennsylvania Street
Indianapolis, IN 46204

Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, IN 46204
(Electronic Coordination)

Hamilton County Commissioners
1 Hamilton County Sq.
Suite 157
Noblesville, IN 46060

Hamilton County Council Members
1 Hamilton County Sq.
Suite 157
Noblesville, IN 46060

Hamilton County Drainage Board
1 Hamilton County Sq.
Suite 188
Noblesville, IN 46060

Hamilton County Engineer
1700 S 10th St
Noblesville, IN 46060

Hamilton County Surveyor
1 Hamilton County Sq.
Suite 188
Noblesville, IN 46060

Indianapolis MPO
200 East Washington Street
Suite 1922
Indianapolis, IN 46204

Madison County Commissioners
16 East Ninth Street #204
Anderson, IN 46016

Madison County Drainage Board
16 East Ninth Street #204
Anderson, IN 46016

Madison County Surveyor
16 East Ninth Street #204
Anderson, IN 46016

Fishers Elementary School
11442 Lantern Road
Fishers, IN 46038

Indianapolis Metropolitan Airport
9913 Willow View Road
Fishers, IN 46038

Miller, Daniel J

From: Hippensteel, Beth [BHippensteel@dnr.IN.gov]
Sent: Monday, September 08, 2014 1:41 PM
To: Miller, Daniel J
Subject: ER-17818, Hamilton and Madison Counties

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Miller:

This is a standard informational email in response to your request for an Environmental Review, which was received on September 4, 2014 for the following project:

I-69 Interstate Expansion:
1) Project 1 (Added travel lanes, from 106th Street to 0.5 miles north of Campus Parkway); Des. #1383332;
2) Project 3 (Added travel lanes from 0.5 miles north of Campus Parkway to 0.5 miles east of SR 13); Des. #1383336

We would like you to know that the review is in process and a formal response will be forthcoming. Please refer to the ER number in the subject line on all future correspondence regarding this project.

Please note that you can submit future requests electronically to the following email address: environmentalreview@dnr.in.gov.

If you have any questions or comments, please contact Christie Stanifer, Environmental Coordinator, at 317-232-8163 or cstanifer@dnr.in.gov, or to check on the status of a review, please contact Beth Hippensteel at: bhippensteel@dnr.in.gov, or at 317-234-1092.

Christie Stanifer
Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington St, Room W273
Indianapolis, IN 46204-2781
(317) 232-8163
Fax: (317) 232-8150

THIS IS NOT A PERMIT

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

DNR #: ER-17827 **Request Received:** September 9, 2014

Requestor: Parsons
Daniel J Miller
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204

Project: I-69 Interstate Expansion: Project 2 - Interchange Modification at Exit 210 (Campus Parkway); Des. #1383489

County/Site info: Hamilton - Madison

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

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

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

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

Fish & Wildlife Comments: We were not able to adequately assess impacts to fish, wildlife, and botanical resources resulting from the project with the information provided. It appears that the majority of impacts will occur in existing median areas and at existing bridge and crossing structures. No site specific impacts were detailed in the information submitted for review. Impacts of concern to the Division of Fish and Wildlife include impacts to forested areas, wetlands, streams, and rivers. The information provided indicated that these resources were still being assessed. As project plans develop, we recommend submitting more information for further review.

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

Christie L Stanifer **Date:** October 1, 2014

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

Miller, Daniel J

From: Miller, Daniel J
Sent: Friday, October 24, 2014 2:05 PM
To: 'Hippensteel, Beth'; 'Stanifer, Christie'
Subject: RE: Response letter for ER-17827, Hamilton and Madison Counties
Attachments: ENV Plans 10-23-14 (reduced).pdf

Importance: High

Christie,
In the response letter from October 1, 2014, you requested more information be provided as plans developed.

Attached are the most current set of plans. These have been reduced in size so that I could e-mail them. If you would like a copy of the original set, please let me know and I can drop it on our FTP site for you. Please note that these plans are preliminary.

These projects are "design-build", and therefore, the process is a bit different than typical projects. You were correct in your response that most of the impacts will occur within existing median areas and at existing bridges/small structures. As stated in the Early Coordination Letter, waters investigations have been conducted, and the USACE and IDEM were coordinated with to evaluate resources identified in the field.

Forty-two wetlands and nineteen streams were identified adjacent to, or within the project limits. After identifying all of the features, the project plans were revised to reduce impacts to these resources to the greatest extent possible by reducing the shoulder width, revising sideslopes, etc. Wetland impacts have been reduced, and currently 7 wetlands (0.0357 acre total) will be impacted by the proposed project.

Seven streams will be impacted by the proposed project. Majority of these impacts will occur from widening existing structures and slip-lining small structures. Two low-quality UNTs that occur within the roadside ditch (UNT 1 to Cheeney Creek which is concrete lined, and UNT 1 to Mud Cr which is riprap lined) will be impacted from shoulder widening.

All of the features are noted on the plans. As previously stated, all work will occur within existing ROW.

As these projects are part of INDOT's 2020 Trust Fund Projects, and due to the very tight timeline for NEPA approval, would you please expedite your response as quickly as possible? Please let me know if you need any additional information.

Thank you for your help!
Daniel J. Miller
Principal Environmental Planner
PARSONS
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204
Phone: (317)616-4663
E-mail: Daniel.J.Miller@Parsons.com
Web: www.parsons.com

Please consider the environment before printing this email

From: Hippensteel, Beth [mailto:BHippensteel@dnr.IN.gov]
Sent: Wednesday, October 01, 2014 7:45 AM
To: Miller, Daniel J
Subject: Response letter for ER-17827, Hamilton and Madison Counties

Miller, Daniel J

From: Hippensteel, Beth [BHippensteel@dnr.IN.gov]
Sent: Monday, October 27, 2014 8:59 AM
To: Miller, Daniel J
Subject: ER-17827-1, Hamilton and Madison Co.

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr. Miller:

This is a standard informational email in response to your request for an Environmental Review, which was received on October 24, 2014 for the following project:

I-69 Interstate Expansion: Project 2 - Interchange Modification at Exit 210 (Campus Parkway); Des. #1383489; additional and revised project plans

We would like you to know that the review is in process and a formal response will be forthcoming. Please refer to the ER number in the subject line on all future correspondence regarding this project.

Please note that you can submit future requests electronically to the following email address: environmentalreview@dnr.in.gov.

If you have any questions or comments, please contact Christie Stanifer, Environmental Coordinator, at 317-232-8163 or cstanifer@dnr.in.gov, or to check on the status of a review, please contact Beth Hippensteel at: bhippensteel@dnr.in.gov, or at 317-234-1092.

Christie Stanifer
Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
402 West Washington St, Room W273
Indianapolis, IN 46204-2781
(317) 232-8163
Fax: (317) 232-8150

THIS IS NOT A PERMIT

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

DNR #: ER-17827-1 **Request Received:** October 24, 2014

Requestor: Parsons
Daniel J Miller
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204

Project: I-69 Interstate Expansion: Project 2 - Interchange Modification at Exit 210 (Campus Parkway); Des. #1383489; additional and revised project plans

County/Site info: Hamilton - Madison

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

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

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

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

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

1) Pipe lining:
Lining the existing pipes should result in fewer impacts compared to a complete replacement. However, upon completion of the project, the liner could produce more negative in-stream impacts compared to culvert replacement. Installing a culvert liner generally reduces the size of the culvert, which can increase flow velocity, thereby causing negative impacts on fish and wildlife passage, as well as increased turbidity and potential scour in the surrounding area. Liners can also create a perched culvert in which the inlet or outlet are placed above the streambed elevation, causing a barrier to fish and wildlife species using the culvert. Installing a liner is a practical option when there is very little habitat surrounding the culvert and use by fish and wildlife is expected to be minimal.

Installing a new culvert (preferably 3-sided) can provide better passage for fish and wildlife even though initial impacts to the stream bed, banks, and riparian habitat could occur. These disturbances are expected to be temporary. The culvert alternative will likely help reduce debris blockage, provide better fish and wildlife passage, maintain stream substrate continuity, and reduce or maintain flow velocities.

The culvert, either with a liner or a replacement, should be allowed to accumulate some amount of natural bed substrate in order to maintain or improve the biological integrity of the stream.

2) Bank Stabilization and Wildlife Passage:
The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead or riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

Minimize the use of riprap and use alternative erosion protection materials whenever possible. Where riprap must be used, we recommend placing only enough riprap to provide stream bank toe protection, such as from the toe of the bank up to the ordinary high water mark (ohwm). From the ohwm to the top of the bank, we recommend using bioengineered bank stabilization methods instead of riprap. This can provide equal or better erosion control protection than riprap. This will allow a natural, vegetated stream bank to develop and will allow wildlife passage along the creek's banks and riparian corridor. Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba.

3) Riparian Habitat:
We recommend a mitigation plan be developed if habitat impacts will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf.

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

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

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.
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 roosting (greater than 3 inches dbh, living or dead, with loose hanging bark) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.

6. Do not construct any temporary runarounds or causeways.
7. Operate equipment from the existing roadway or from the top of the bank to the greatest extent possible.
8. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
9. Do not use broken concrete as riprap.
10. Underlay the riprap with a bedding layer of well graded aggregate or a geotextile to prevent piping of soil underneath the riprap.
11. Minimize the movement of resuspended bottom sediment from the immediate project area.
12. Do not deposit or allow demolition materials or debris to fall or otherwise enter the waterway.
13. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
14. Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

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

Date: October 28, 2014

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

Miller, Daniel J

From: Miller, Daniel J
Sent: Friday, September 05, 2014 8:12 AM
To: 'McWilliams, Robin'
Subject: RE: INDOT Des. Nos. 1383332 & 1383336; I-69 Interstate Expansion; Projects 1 & 3; Hamilton & Madison Counties; Early Coordination Letter

Hi Robin,
An auxiliary lane is being constructed from 106th St. to 116th St. Other than that, the vast majority of work will occur within the median. There is a curve just beyond SR 37 where they may adjust the curve a bit for site distance and get into the foreslope some on the south side. This would impact the roadside ditch some, but would not require any clearing.

Please let me know if this answered your question or if you need anything else.

Thanks,
Dan

Daniel J. Miller
Senior Environmental Planner
PARSONS
101 West Ohio Street, Suite 2121
Indianapolis, IN 46204
Phone: (317)616-4663
E-mail: Daniel.J.Miller@parsons.com
Web: www.parsons.com

Please consider the environment before printing this email

From: McWilliams, Robin [mailto:robin_mcwilliams@fws.gov]
Sent: Thursday, September 04, 2014 2:52 PM
To: Miller, Daniel J
Subject: Re: INDOT Des. Nos. 1383332 & 1383336; I-69 Interstate Expansion; Projects 1 & 3; Hamilton & Madison Counties; Early Coordination Letter

Hi Daniel,

So, is all the construction occurring within the median? If not, how far from edge of pavement do you anticipate clearing and/or constructing?

Thanks,
Robin

Robin McWilliams Munson

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

Miller, Daniel J

From: McWilliams, Robin [robin_mcwilliams@fws.gov]
Sent: Thursday, September 18, 2014 11:39 AM
To: Miller, Daniel J
Subject: Re: INDOT Des. Nos. 1383332 & 1383336; I-69 Interstate Expansion; Projects 1 & 3; Hamilton & Madison Counties; Early Coordination Letter

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Dan,

We have reviewed the above-mentioned project and believe it falls within our programmatic policy for transportation projects. Below is a list of standard recommendations (where applicable) for such projects. Please feel free to call or email if you have any questions or concerns. In the event that project plans change or new information becomes available, please re-coordinate with our office. This precludes the need for further consultation on this project under Section 7 of the Endangered Species Act (as amended).

Standard Recommendations:

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

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

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

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

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

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

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

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

The northern long-eared bat (*Myotis septentrionalis*) (NLEB) is currently proposed for listing under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). The final listing decision for the NLEB is expected in October 2014. At this time, no critical habitat has been proposed for the NLEB. The state of Indiana is within the known range of the NLEB. During the summer, NLEBs typically roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically ≥3 inches dbh). Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on presence of cavities or crevices or presence of peeling bark. It has also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). They forage for insects in upland and lowland woodlots and tree lined corridors. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. Additional habitat types may be identified as new information is obtained.

Pursuant to Section 7(a)(4) of the ESA, federal action agencies are required to confer with the Service if their proposed action is likely to **jeopardize** the continued existence of the NLEB (50 CFR

402.10(a)). Action agencies may also voluntarily confer with the Service if the proposed action may affect a proposed species. Species proposed for listing are not afforded protection under the ESA; however as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and "take" applies **regardless of an action's stage of completion**. If the agency retains any discretionary involvement or control over on-the-ground actions that may affect the species after listing, section 7 applies.

Prior to the initiation of any construction activities on bridges, including the removal of any bridge structures, we recommend the underside of each bridge be carefully examined for the presence of bats, especially between April 1 and September 30. If any bats are found roosting on the underside of the bridge, we request that you immediately contact our office

Based on the project description and information, we do not anticipate any adverse impacts to the northern long-eared bat. This precludes the need for further consultation on this species for this project under Section 7 of the Endangered Species Act (as amended).

Sincerely,
Robin

Robin McWilliams Munson

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

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

On Wed, Sep 17, 2014 at 3:34 PM, Miller, Daniel J <Daniel.J.Miller@parsons.com> wrote:

Good afternoon Robin,

I'm just following up to see if there's any additional information you need from me on this.

Thanks!

Dan

From: Miller, Daniel J
Sent: Friday, September 05, 2014 8:12 AM
To: 'McWilliams, Robin'

USDA
United States Department of Agriculture

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

September 23, 2014

Daniel J. Miller
Sr. Environmental Planner
Parsons
101 W. Ohio St.
Suite 2121
Indianapolis, Indiana 46204

Dear Mr. Miller:

The proposed project to add travel lanes on I-69 in Hamilton and Madison County, Indiana, as referred to in your letter received September 4, 2014, will not cause a conversion of prime farmland.

If you need additional information, please contact Rick Neilson at 317-295-5875.

Sincerely,

Jane E. Hardisty

JANE E. HARDISTY
State Conservationist

Enclosure

Helping People Help the Land

An Equal Opportunity Provider and Employer

Helping People Help the Land.

USDA is an equal opportunity provider and employer.

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(REV.3-02)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date Of Land Evaluation Request: **09/01/2014**	4. Sheet 1 of _____
1. Name of Project: **INDOT Des #s 1383332 & 1383336**	5. Federal Agency Involved: **INDOT for FHWA**	
2. Proposed Land Use: **I-69 Interstate Expansion**	6. County and State: **Hamilton & Madison Counties, IN**	
PART II *(To be completed by NRCS)*	1. Date Request Received By NRCS 9-4-14	2. Person Completing Form: Lisa Bolton
3. Does the corridor contain prime, unique, statewide or local important farmland? YES ☐ NO ☒ *(If no, the FPPA does not apply - do not complete additional parts of this form)*	4. Acres Irrigated	Average Farm Size
5. Major Crop(s)	6. Farmable Land In Government Jurisdiction Acres: %	7. Amount of Farmland As Defined in FPPA Acres: %
8. Name of Land Evaluation System Used	9. Name of State or Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 9-23-14

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

PART VI *(To be completed by Federal Agency)* Corridor Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b & c. For Non-Corridor project use form AD-1006)*	**Maximum Points**	Corridor A	Corridor B	Corridor C	Corridor D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Corridor Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Size Of Present Farm Unit Compared To Average	(10)				
6. Creation Of Non-farmable Farmland	(25)				
7. Availability Of Farm Support Services	(5)				
8. On-Farm Investments	(20)				
9. Effects Of Conversion On Farm Support Services	(25)				
10. Compatibility With Existing Agricultural Use	(10)				
TOTAL CORRIDOR ASSESSMENT POINTS	160	**0**	**0**		
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	**0**	**0**		
Total Corridor Assessment *(From Part VI above or local site assessment)*	160	**0**	**0**		
TOTAL POINTS ***(Total of above 2 lines)***	260	**0**	**0**		

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Name of Federal agency representative completing this form:	Date:

NOTE: Complete one form for each segment with more than one Alternate Corridor

(See Instructions on reverse side)

Form NRCS-CPA-106 (03-02)

INDIANA GEOLOGICAL SURVEY

Project No._____ DES No. 1383332 & 1383336

Project Description I-69 Expansion: Project 1 (106th St) and Project 3 (Campus PW to SR 13)

Hamilton and Madison County

Name of Organization requesting early coordination:

Parsons

QUESTIONNAIRE FOR THE INDIANA GEOLOGICAL SURVEY

1) Do unusual and/or problem ( ) geographic, ( ) geological, ( ) geophysical, or ( ) topographic features exist within the project limits? Describe:

NO

2) Have existing or potential mineral resources been identified in this area? Describe:

NO

3) Are there any active or abandoned mineral resources extraction sites located nearby?
Describe: NO

This information was furnished by:

Marni D. Karaffa , Research Geologist
611 N Walnut Grove, Bloomington, IN 47405
(812) 855-7428 / (812) 855-2862
karaffam@indiana.edu

Monday, October 20, 2014

Indiana Department of Environmental Management

We make Indiana a cleaner, healthier place to live.

Mike Pence
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis , Indiana 46206

(317) 232-8603
800) 451-6027
www.IN.gov/idem

Indiana Department of Transportation
Tony Jones
100 North Senate Ave, Rm 601
Indianapolis , IN 46204

Parsons
Daniel J. Miller
101 West Ohio Street, Suite 2121
Indianapolis , IN 46204

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (SR 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. Environmental analysis is being conducted for Project 1 (Des. No. 1383332), from 106th Street to 0.5 mi N of Campus Parkway, and Project 3 (Des. No. 1383336), from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13. 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 these projects. Please use the above designation numbers and descriptions in your reply. We will incorporate your comments into a study of the projects' environmental impacts. Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 1 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 21 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exi

210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69. The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69. Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mi E of SR 13 has 2 travel lanes in each direction. The northbound cross section of 3 lanes in each direction ends at Cumberland Rd. The southbound 3-lane section starts with the southbound SR 37 entrance ramps. A pavement resurfacing project (Des. No. 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design and the ultimate decision on the level of pavement work required for the project will depend on the condition of the pavement. Proposed Projects: Project 1: I-69 from 106th Street to 0.5 mile north of Campus Parkway, Hamilton County The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on southbound I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th St would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way. Project 3: I-69 from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13, Hamilton and Madison Counties The project would construct additional lanes from Exit 210 to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on SR 13 under I-69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way. Right-of-Way (ROW): No new ROW would be required for either project. Environmental Concerns: Four U.S. Geological Survey (USGS) blue-lined streams (Cheeney Creek, Sand Creek, Mud Creek, and Thorpe Creek) lie within or adjacent to the project areas. Information from the National Wetland Inventory (NWI) map shows seven NWI points and thirty-six NWI-wetland polygons within a half-mile radius of the project areas; however, all are located outside of the projects limits. Three NWI line segments lie within the project area (along Sand Creek, Mud Creek, and Thorpe Creek). Several lakes lie adjacent to the projects limits. However, no lakes are expected to be impacted by the proposed projects. Four floodplains (Cheeney Creek, Sand Creek, Mud Creek, and Thorpe Creek) lie within a half-mile radius of the project areas The Cheeney Creek Floodplain lies outside of the project areas and will not be impacted by the proposed projects. The other 3 floodplains lie within the project areas. See the attached Water Resources Map, Attachment A-5, for the NWI and FEMA layers. According to the Soil Survey Geographic (SSURGO) Database for Hamilton and Madison Counties, Indiana, majority of the project areas lie within nationally listed hydric soils (see Soils Map, Attachment A-8). Project 1 is located along an urbanized section of I-69, with land use within vicinity of the project consisting primarily of residential and commercial properties. Project 3 is located along a more rural section of I-69, with land use within vicinity of the project consisting primarily of agricultural properties. Four religious facilities, thirteen recreational facilities, two hospitals, and seven schools lie within a half-

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

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

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

WATER AND BIOTIC QUALITY

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

   USACE recommends that you have a consultant check to determine whether your project will abut, or lie within, a wetland area. To view a list of consultants that have requested to be included on a list posted by the USACE on their Web site, see USACE Permits and Public Notices

(http://www.lrl.usace.army.mil/orf /default.asp) and then click on "Information" from the menu oı the right-hand side of that page. Their "Consultant List" is the fourth entry down on the "Information" page. Please note that the USACE posts all consultants that request to appear on th list, and that inclusion of any particular consultant on the list does not represent an endorsement o that consultant by the USACE, or by IDEM.

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

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

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

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

4. If your project will involve over a 0.5 acre of wetland impact, stream relocation, or other large-scale alterations to water bodies such as the creation of a dam or a water diversion, you should seek additional input from the OWQ Wetlands Program staff. Consult the Web at: http://www.in.gov/idem/4384.htm for the appropriate staff contact to further discuss your project.

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

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

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

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

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

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

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

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

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

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

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

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

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

AIR QUALITY

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

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

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

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

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

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

   The U.S. EPA further recommends that all homes (and apartments within three stories of ground level) be tested for radon. If in-home radon levels are determined to be 4 pCi/L, or higher, EPA recommends a follow-up test. If the second test confirms that radon levels are 4 pCi/L, or higher,

EPA recommends the installation of radon-reduction measures. (For a list of qualified radon testers and radon mitigation (or reduction) specialists visit: http://www.in.gov/isdh/regsvcs/radhealth/pdfs/radon_testers_mitigators_list.pdf.) It also is recommended that radon reduction measures be built into all new homes, particularly in areas like Indiana that have moderate to high predicted radon levels.

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

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

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

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

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

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

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

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

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

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

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

LAND QUALITY

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

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

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

3. If any contaminated soils are discovered during this project, they may be subject to disposal as hazardous waste. Please contact the OLQ at 317-308-3103 to obtain information on proper disposal procedures.

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

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

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

FINAL REMARKS

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

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

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

Sincerely,

Thomas W. Easterly
Commissioner

Signature(s) of the Applicant

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

Project Description

The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (SR 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. Environmental analysis is being conducted for Project 1 (Des. No. 1383332), from 106th Street to 0.5 mi N of Campus Parkway, and Project 3 (Des. No. 1383336), from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13. 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 these projects. Please use the above designation numbers and descriptions in your reply. We will incorporate your comments into a study of the projects' environmental impacts. Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69. The purpose of these projects is to improve overall traffic operation by reducing congestion on this

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

Date: SEPT. 5, 2014

Signature of the INDOT
Project Engineer or Other Responsible Agent Tony Jones

Tony Jones

Date: September 5, 2014

Signature of the
For Hire Consultant Daniel J. Miller

Daniel J. Miller

Questionnaire for the Indiana Department of Transportation,
Office of Aviation

Des/Bridge No: 1383332 & 1383336

Project Description:

I 69 Interstate Expansion Project 1 Added travel lanes from 106th Street Hamilton, Madison County, Indiana

Requested By:

Parsons

Are there any existing or proposed airports within or near the project limits? YES

If yes, describe any potential conflicts with air traffic during or after the construction of the project.

The Indianapolis Metropolitan Airport is located 9,400' North of the project. If any permanent structures or equipment utilized for the project penetrates the 100:1 slope from the airport FAA Form 7460 (Notice of Proposed contstruction or alteration) must be filed. For assistance contact Marcus Dial, INDOT Office of Aviation, 317-232-1494.

This information was furnished by:

Name: James W. Kinder

Title: Chief Airport Inspector – INDOT Office of Aviation

Date: September 10, 2014

BANNING ENGINEERING

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September 10, 2014

Mr. Daniel J. Miller
Senior Environmental Planner
Parsons
101 West Ohio Street, Suite 2121
Indianapolis, Indiana 46204

RE: Environmental Analysis
Design Nos.: 1383332 and 1383336
I-69 Interstate Expansion
Projects 1 and 3, Hamilton and Madison Counties, Indiana

Dear Mr. Miller:

This correspondence is in response to your request for comment on environmental impacts associated with the Design Nos. 1383332 and 1383336 in Hamilton and Madison Counties, Indiana. We represent the Madison County Drainage Board in dealing with the projects and their impacts to the regulated drains in Madison County. We met with Parsons, in regard to these projects, on April 3, 2014 and followed up with a letter, dated April 22, 2014, to Ms. Tina Murphy, PE, copy attached.

It should be noted that the Martha A. Ford Regulated Drain will be impacted by the proposed project and that nothing has changed in regard to our comments and opinions documented in the referenced letter. Please consider this correspondence, with the attachment, as the response to your comment request letter.

Please advise if you have questions relating to this correspondence or the attachment.

Regards,

Jeff Healy, PE
Vice president

cc: Madison County Drainage Board
Patrick Manship, Madison County Surveyor
Kent Ward, Hamilton County Surveyor
Madison County Soil and Water Conservation District

Banning Engineering, P.C. • 853 Columbia Road, Suite 101 • Plainfield, IN 46168
Phone: (317) 707-3700 • Fax: (317) 707-3800 • E-mail: banning@BanningEngineering.com

April 22, 2014

Ms. Tina Murphy, PE
Parsons
101 West Ohio Street, Suite 2121
Indianapolis, Indiana 46204

RE: I-69 Expansion Design-Build Projects
Madison County, Indiana

Dear Ms. Murphy:

We are writing to follow up on several items that we discussed during out meeting of April 3, 2014 and that I subsequently discussed with the Madison County Drainage Board on April 9, 2014. We have also discussed coordination of this project with the Hamilton County Surveyor's office and staff that are leading this effort for Hamilton County.

1. The Madison County Drainage Board is willing to work with your schedule and contract format regarding project review and approval. They are willing to provide a Preliminary Approval on your Hydraulics, Hydrology and Thirty Percent Plans so that you have some assurance on the acceptability of the design prior to the bidding process. A Final Approval submittal and review would be expected for the completed plans and specifications from the Design-Build contractor.

2. The submitted plans, computations and hydraulic models should be submitted to Banning Engineering (attn. Jeff Healy, PE) with a carbon copy of the transmittal to the Madison County Drainage Board.

3. The erosion and sediment control for the construction site (Rule 5) will be coordinated through the Madison County Soil and Water Conservation District. The Post-construction stormwater quality measures, practices and operation and maintenance methods and plans should be submitted to Banning Engineering (attn. Jeff Healy, PE) with a carbon copy of the transmittal to the Madison County Drainage Board.

4. The Madison County Drainage Ordinance (DRAFT – An Ordinance Pertaining to Erosion and Sediment Control; Storm Water Quality and Drainage; Regulated Drain Crossings; and Pond Construction, current revision 2-7-2014) and the Madison County Stormwater Technical Standards Manual (DRAFT) will be followed in so much as they are applicable. In other words, stormwater detention and treatment will be expected for the newly developed / expanded areas. Thorp Creek drains immediately into Hamilton County. The Madison County Surveyor has expressed concern that no additional peak discharge be directed into that conveyance.

5. There are no known flooding problems at this interchange although there is development proposed for the southwest quadrant of the interchange. This entire area is very flat and poorly drained. Great care should be taken to evaluate and accommodate right-of-way drainage as well as outlets from adjoining areas on all quadrants of the interchange.

6. It should be noted that the Martha A. Ford regulated drain was maintained by excavation from I-69 to the Madison County line during the Fall 2013. A concern was expressed by the Madison County Surveyor

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that the flow conveyance area through the existing right-of-way appears to be partly obstructed and in need of maintenance. This should be factored into the overall project expectations.

7. The Madison County Drainage Board is interested in establishing written expectations and understandings for and from the perspectives of both INDOT and the Drainage Board. This pertains primarily to operation and maintenance of the regulated drain once the project is completed.

Thank you for your early coordination efforts on this project. We will make every effort to be thorough, responsive and timely in our efforts to represent the interests and expecatations of the Madison County Drainage Board.

Regards,

Jeff Healy, PE
Vice president

cc: Madison County Drainage Board c/o Anjie Cox
Patrick Manship, Madison County Surveyor
Kent Ward, Hamilton County Surveyor

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FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (FOR HISTORIC PROPERTIES) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECTS
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
I-69 ADDED TRAVEL LANES FROM 106TH STREET TO STATE ROAD 13
DELAWARE, FALL CREEK, AND WAYNE TOWNSHIPS, HAMILTON COUNTY
& GREEN TOWNSHIP, MADISON COUNTY, INDIANA
Des. Nos.: 1383332 & 1383336

AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR § 800.4(a)(1))
The Area of Potential Effects (APE) for this undertaking incorporates the project location and includes properties that may be impacted by project activities, such as noise and visual intrusions. Weintraut & Associates (W&A) initially drew an APE approximately 1,000 feet from the edge of the project location to take into account any potential for noise impacts. The APE was expanded at intersections and overpasses and also to the east where topography did not shield views to I-69 or in areas where detour may occur.

The APE for archaeological resources was defined as the project footprint. (See Appendix A: Plans and Appendix B: Maps.)

ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR § 800.4(c)(2)). Four properties have been found to be eligible for the National Register of Historic Places (NRHP) as a result of this consultation.

Hamilton County Bridge No. 177 (S2-3)
Hamilton County Bridge No. 177 is a reinforced concrete girder bridge identified as a T-beam sub-type. The bridge was constructed circa 1912 and carries an abandoned portion of Prairie Baptist Road over Mud Creek. Hamilton County Bridge No. 177 is eligible for listing in the NRHP under Criterion C as an example of a concrete girder bridge that displays important, unusual, or highly important special features, and the period of significance is the date of construction.

Center School (095-343-65015)
The Center School, constructed in 1929, retains a high level of integrity and conveys the history of public education in Green Township and the state of Indiana. The Center School conveys its original use and meets the eligibility requirements established by the Indiana Public Common & High Schools Multiple Property Listing for the NRHP under Criteria A and C. The period of significance is 1929 to 1967.

Fishers Methodist Episcopal Church (057-206-51006)
Built around 1905, this frame church building sits on a concrete foundation. The steep cross-gable roof of this simple Gothic Revival-style edifice features a tower at its northeast corner and multiple additions to the rear. A large handicapped ramp marks the façade. This property is eligible under Criterion C, and its period of significance is circa 1905.

House at 7883 South State Road (SR) 13 (S2-8)
Built in the mid-twentieth century, this Contemporary-style dwelling sits on a concrete slab and is topped by a very low-pitched, gable-front roof with wide overhanging boxed eaves. This property is eligible under Criterion C, and its period of significance is circa 1950.

EFFECT FINDING
Hamilton County Bridge No. 177 – No Effect
Center School – No Adverse Effect
Fishers Methodist Episcopal Church – No Effect
House at 7883 SR 13 – No Adverse Effect

The Indiana Department of Transportation (INDOT), acting on behalf of the Federal Highway Administration (FHWA), has determined a finding of "No Adverse Effect" is appropriate for this undertaking. INDOT, acting on FHWA's behalf, respectfully requests the Indiana State Historic Preservation Officer provide written concurrence with the Section 106 determination of effect for each property and the project's overall effect finding of "Historic Properties Affected: No Adverse Effect."

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)
Hamilton County Bridge No. 177 (S2-3) – This undertaking will not convert property from the Hamilton County Bridge No. 177, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Effect;" therefore, no Section 4(f) evaluation is required for the Hamilton County Bridge No. 177.

Center School (095-343-65015) – This undertaking will not convert property from Center School, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect;" therefore, no Section 4(f) evaluation is required for Center School.

Fishers Methodist Episcopal Church (057-206-51006) – This undertaking will not convert property from the Fishers Methodist Episcopal Church, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Effect;" therefore, no Section 4(f) evaluation is required for the Fishers Methodist Episcopal Church.

House at 7883 South SR 13 (S2-8) – This undertaking will not convert property from the House at 7883 South SR 13, a Section 4(f) historic property, to a transportation use; INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is "No Adverse Effect;" therefore, no Section 4(f) evaluation is required for the House at 7883 South SR 13.

Patrick Carpenter

Patrick Carpenter for FHWA
Manager, INDOT Cultural Resources

10/30/2014

Approved Date

FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO ADVERSE EFFECT
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR 800.5(c)
I-69 ADDED TRAVEL LANES FROM 106th STREET TO STATE ROAD 13
DELAWARE, FALL CREEK, AND WAYNE TOWNSHIPS, HAMILTON COUNTY & GREEN TOWNSHIP, MADISON COUNTY, INDIANA
DES NOS.: 1383332 and 1383336

1. DESCRIPTION OF THE UNDERTAKING

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 [State Roads (SR) 9 & 109 in Anderson], in Hamilton and Madison counties. This expansion has been broken into multiple projects with independent utility and logical termini. This documentation of Section 106 finding of "No Adverse Effect" has been prepared for Project 1 (Des. No.: 1383332), from 106th Street to 0.5 mile (mi) north of Campus Parkway, and Project 3 (Des. No.: 1383336), from 0.5 mi north of Campus Parkway to 0.5 mi east of SR 13. The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

The existing cross section of I-69 from Exit 205 to 0.5 mi east of SR 13 has two travel lanes in each direction. The northbound cross section of three lanes in each direction ends at Cumberland Road. The southbound three-lane section starts with the southbound SR 37 ramps. A pavement resurfacing project (Des. No.: 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design, and the ultimate decision on the future form of the roadway will depend on the condition of the pavement.

Project 1: I-69 from 106th Street to 0.5 mi North of Campus Parkway, Hamilton County
Project 1 is a federally funded undertaking designed to improve overall traffic operation by reducing congestion in the project area. The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on Southbound (SB) I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 10-foot (ft) paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on the overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way (ROW).

Project 3: I-69 from 0.5 mi North of Campus Parkway to 0.5 mi East of SR 13, Hamilton and Madison Counties.
Project 3 is a federally funded undertaking designed to improve overall traffic operation by reducing congestion in the project area. The project would construct additional lanes from Exit 210 (Campus Parkway) to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 10-ft paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on SR 13 under I-

69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing ROW.

No new ROW would be required for Project 1 and Project 3.

36 CFR § 800.16(d) defines the Area of Potential Effects (APE) as the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking."

The APE for this undertaking incorporates the project location and includes properties that may be impacted by project activities, such as noise and visual intrusions. (See Appendix A: Maps.) Weintraut & Associates (W&A) initially drew an APE approximately 1,000 feet from the edge of the project location to take into account any potential for noise impacts. The APE was expanded at intersections and overpasses and also to the east where topography did not shield views to I-69. The APE for archaeological resources was defined as the project footprint. (See Appendix A: Plans and Appendix B: Maps.)

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

Pursuant to 36 CFR § 800.4(b), W&A identified and evaluated historic properties. W&A initiated aboveground efforts by reviewing properties listed in the National Register of Historic Places (NRHP), National Historic Landmarks (NHL) Program, Indiana Register of Historic Sites and Structures (State Register), the State Historical Architectural and Archaeological Research Database (SHAARD), the Indiana Historic Sites and Structures Inventory (IHSSI) survey cards at the Indiana Department of Natural Resources (IDNR), Division of Historic Preservation and Archaeology (DHPA), the *Hamilton County Interim Report,* the *Madison County Interim Report,* and the *Indiana Historic Bridge Inventory* for previously identified properties.

In addition, W&A reviewed topographic quadrangle maps for Fishers, Ingalls, Lapel, Riverwood, and McCordsville (1952 through 1969); aerial photographs of the APE from 1961 and 1962; and plat maps from the late nineteenth and early twentieth centuries in order to establish baseline construction dates for modern resources. Historians examined other primary and secondary resources. Documentary research for the project included county and city histories and online resources. Historians consulted staff from the Anderson Public Library and Fortville-Vernon Township Public Library and bridge engineers from Hamilton County and the City of Noblesville for information on resources within the APE. W&A consulted with INDOT-Cultural Resources Office (INDOT-CRO) and requested copies of I-69 Engineering drawings and survey from the 1960s and recent Section 106 investigations that had been conducted within the APE.

Finally, historians reviewed prior Section 106 consultation for Des. No. 1298035, which overlapped with the project area, and they consulted previous investigations conducted by W&A for information relating to the history of the area and its properties. (See Appendix G: Section 106 Documentation and Additional Information Relating to the Flanagan House.)

W&A initiated archaeological identification and evaluation by conducting a records check on SHAARD and then reviewed files at the DHPA on March 6, 2014.

Historians for W&A conducted a field survey of aboveground resources on March 18, 2014; on April 1, 2014, W&A conducted site surveys of those properties that could not be seen from the public ROW and of those properties that needed additional scrutiny. Historians photographed and recorded survey notes for all properties greater than fifty years of age within the APE. Representative views and photographs of individual properties were taken, and historians scrutinized individual properties that possessed historic and/or architectural significance carefully. In addition, they carefully considered architectural and thematic continuity of properties while in the field. (See Appendix D: Photographs for representative photographs of the APE.)

For mid-century resources, W&A applied the evaluation standards established through conversations with the staff of the DHPA (in particular, those conversations related to I-69 Evansville to Indianapolis Tier 2 Studies: Additional Information survey of recent past properties). Recent past properties must have a "high level of integrity" to be recommended Contributing and must be "almost perfect" to be recommended eligible for listing in the NRHP. This methodology aided with the evaluation of the substantial number of recent past properties within this APE.

In May 2014, W&A completed its HPR, which included a historic context by which the historians evaluated resources for eligibility. Historians identified the Flanagan House (057-206-50019) as a property that SHPO had previously believed to be eligible (Des. No.1298035) and two other properties that they recommended eligible for listing in the NRHP: Hamilton County Bridge No. 177 (S2-3) and Center School (095-343-65015). (See Appendix E: Report Summaries.) The report was submitted to INDOT-Cultural Resources Office (CRO) on June 9, 2014, and the report was approved on June 16, 2014.

On July 24, 2014, W&A sent an early coordination letter, the HPR, and an invitation to join in consultation to the following potential consulting parties: Indiana Landmarks—Central Regional Office, Hamilton County Historian, Hamilton County Historical Society, Hamilton County Genealogy Society, Carmel-Clay Historical Society, Fishers Historic Preservation Committee, Noblesville Preservation Alliance, City of Noblesville, City of Fishers, Hamilton County Commissioners, Fishers Chamber of Commerce, Noblesville Chamber of Commerce, Madison County Historian, Madison County Historical Society, Madison County Commissioners, Hancock County Historical Society, Hancock County Historian, and the Indianapolis Metropolitan Planning Organization. The State Historic Preservation Officer (SHPO), who is always a consulting party, was provided the early coordination letter and HPR and was invited to comment on the list of invited consulting parties in a letter of the same date. INDOT and FHWA were copied on the correspondence. (See Appendix C: Consulting parties and Appendix F: Correspondence.)

On August 11, 2014, Indiana Landmarks Central Office accepted the invitation to become a consulting party and suggested that Indiana Landmarks Eastern Regional Office and Visit Hamilton County Indiana be invited to join in consultation. On August 12, 2014, W&A sent an early coordination letter, HPR, and an invitation to join in consultation to Indiana Landmarks Eastern Regional Office and Visit Hamilton County Indiana. (See Appendix F: Correspondence.)

In addition to Indiana Landmarks Central Office, the following also responded affirmatively to the invitation to join consultation: Madison County Historian, Hancock County Historian, Hamilton County Government, Indiana Landmarks Eastern Regional Office, Madison County Commissioners, and Hamilton County Tourism Inc. (Visit Hamilton County Indiana). The Hamilton County Historical Society, and the Carmel-Clay Historical Society declined the invitation. (See Appendix C: Consulting Parties, for consulting party post card responses.)

On August 22, 2014, the staff of the SHPO responded to the early coordination letter and the HPR. The staff agreed that the Flanagan House, Hamilton County Bridge No. 177 and the Center

School are “eligible for inclusion” in the NRHP. The staff, however, stated that the Fishers Methodist Episcopal Church and the mid-century House at 7883 South SR 13 “are potentially eligible for listing in the [NRHP], if the interiors are intact.” SHPO added, “We understand that it may not be possible to determine the condition of the interiors of these structures; therefore, we would be willing to consider them eligible for listing for the purposes of this review.” (See Appendix F: Correspondence.)

W&A completed the Archaeology Short Report on September 3, 2014, and transmitted it to INDOT-CRO for review on September 5, 2014. The archaeological records check “determined the project area did not have the potential to contain archaeological resources” and recommended no further work and project clearance. The report was approved and sent to SHPO on September 10, 2014. (See Appendix E: Report Summaries).

On September 18, 2014, staff of the SHPO responded via email to a phone message left by staff of W&A regarding the identification and eligibility of the Fishers Methodist Episcopal Church and the House at 7883 South SR 13. SHPO stated the Fishers Methodist Episcopal church would be eligible under Criterion C (Architecture), though “[a] case may also be able to be made for Religion depending on what additional information is available in the future.” The House at 7883 South SR 13 would be eligible under Criterion C (Architecture). (See Appendix F: Correspondence.)

W&A replied to SHPO’s comments on the HPR in an email dated September 23, 2014. W&A questioned the eligibility of the Fishers Methodist Episcopal Church given alterations observed in the field and based on previous consultation with SHPO on a similar structure. W&A also questioned the eligibility of the House at 7883 South SR 13 given previous consultation with SHPO. (See Appendix F: Correspondence.)

SHPO staff responded to W&A questions in an email dated September 29, 2014, and stated that staff believe both the Fishers Methodist Episcopal Church and House at 7883 South SR 13 to be “potentially eligible pending additional information.” Regarding the church, SHPO noted the “ongoing and dramatic loss of historic resources has focused attention on a limited pool of historic places that now stand out as representative to the history of the community.” SHPO attached an essay regarding mid-twentieth century resources. (See Appendix F: Correspondence.)

SHPO replied to the Archaeology Short Report in a letter dated October 3, 2014. SHPO stated that based on the submitted report and information available to the SHPO staff, “we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area.” SHPO stated this conclusion was “subject to project activities remaining within areas disturbed by previous construction of a recent and non-historical nature.” SHPO also stated that any archaeological deposits encountered from the post-contact period would be subject to evaluation “regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered.” Additionally, SHPO stated that Indiana state law requires the Department of Natural Resources be notified within two business days in the event that “archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities.” (See Appendix F: Correspondence.)

On October 9, 2014, INDOT-CRO sent a letter to the SHPO and to the Survey & Registration leader of the DHPA advising that a private entity had moved the Flanagan House to a new location, approximately 0.25 mi north of its previous location on 106th Street, and requesting an opinion of continued eligibility. [In prior consultation (Des. No.1298035) INDOT’s consultant had recommended the Flanagan House eligible, and SHPO had concurred with that

recommendation.] In the letter of October 9, 2014, INDOT-CRO expressed the opinion that the Flanagan House (sometimes referred to as the Kincaid House) would still be eligible since its significance is derived from its architecture (Criterion C). INDOT stated: "Its new setting, very close in proximity and character to its previous setting, does not detract from the house's features that made it National Register eligible." (See Appendix F: Correspondence and Appendix G: Section 106 Documentation and Additional Information Relating to the Flanagan House for newspaper articles relating to the house's relocation.)

On October 22, 2014, the Assistant Director of Preservation Services for DHPA, Paul Diebold, responded to the request for an opinion of eligibility on the Flanagan House: "[a]fter some debate, we have reached the conclusion that the house no longer meets the National Register criteria. In particular, the siting and orientation of the house render it incapable of conveying its architectural significance." Diebold noted, "Examples of vernacular architecture like the Kincaid House [Flanagan House] convey their sense of time and place, in good measure, by their orientation." (See Appendix F: Correspondence.) Therefore, for the purposes of this project, the Flanagan House is not considered eligible for listing in the NRHP.

No further efforts, including consultation, to identify historic archaeological and aboveground resources took place.

3. DESCRIBE AFFECTED HISTORIC PROPERTIES

There are four historic properties within the APE that have been found NRHP-eligible as a result of this consultation.

Hamilton County Bridge No. 177 (S2-3)
Hamilton County Bridge No. 177 is a reinforced concrete girder bridge identified as a T-beam sub-type. The bridge was constructed circa 1912 and carries an abandoned portion of Prairie Baptist Road over Mud Creek. Hamilton County Bridge No. 177 is eligible for listing in the NRHP under Criterion C as an example of a concrete girder bridge that displays important, unusual, or highly important special features, and the period of significance is the date of construction.

Center School (095-343-65015)
The Center School, constructed in 1929, retains a high level of integrity and conveys the history of public education in Green Township and the state of Indiana. The Center School conveys its original use, and meets the eligibility requirements established by the Indiana Public Common & High Schools Multiple Property Listing for the NRHP under Criteria A and C. The period of significance is 1929 to 1967.

Fishers Methodist Episcopal Church (057-206-51006)
Built around 1905, this frame church building sits on a concrete foundation. The steep cross-gable roof of this simple Gothic Revival-style edifice features a tower at its northeast corner; it has suffered multiple additions and the installation of a rather large handicap accessible ramp. Staff of the SHPO believe this church should be considered "potentially eligible" for the purposes of Section 106, if "the interiors are intact." Therefore, based on this consultation with the SHPO, the Fishers Methodist Episcopal Church is considered eligible for listing in the NRHP for this project.

House at 7883 South SR 13 (S2-8)
Built in the mid-twentieth century, this Contemporary-style dwelling sits on a concrete slab and is topped by a very low-pitched, gable-front roof with wide overhanging boxed eaves. While consultation with the Indiana SHPO has led the historians to believe that mid-century buildings must have an extremely high level of integrity to be considered eligible for Criterion C, staff of the

SHPO believe this church should be considered “potentially eligible” for the purposes of Section 106, if “the interiors are intact.” Therefore, based on this consultation with the SHPO, the House at 7883 South SR 13 is considered eligible for listing in the NRHP for this project.

4. DESCRIBE THE UNDERTAKING'S EFFECTS ON HISTORIC PROPERTIES

Project 1: I-69 from 106th Street to 0.5 mi North of Campus Parkway, Hamilton County
Project 1 is a federally funded undertaking designed to improve overall traffic operation by reducing congestion in the project area. The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on Southbound (SB) I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 12-ft paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on the overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing ROW.

No new ROW would be required for Project 1.

The **Fishers Methodist Episcopal Church** is located within the APE of Project 1 at 11425 Lantern Road west of the undertaking. No ROW will be taken from the resource and all improvements will occur within the ROW of I-69. Houses and trees block views to the interstate and the property is more than 800 feet from the undertaking. There will be no effect to the Fishers Methodist Episcopal Church as a result of this undertaking.

Project 3: I-69 from 0.5 mi North of Campus Parkway to 0.5 mi East of SR 13, Hamilton and Madison Counties.
Project 3 is a federally funded undertaking designed to improve overall traffic operation by reducing congestion in the project area. The project would construct additional lanes from Exit 210 (Campus Parkway) to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 12-ft paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structure at Olio Road would require no additional work. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on SR 13 under I-69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing ROW.

No new ROW would be required for Project 3.

Hamilton County Bridge No. 177 is located within the APE of Project 3 on an abandoned section of Prairie Baptist Road. The road presently provides access for the Burk(e) Cemetery. Since the road is abandoned, traffic will not be added. The bridge is located in proximity to an existing interstate and the setting of the bridge will not be impacted by the additional lanes within existing ROW. A noise analysis was not conducted at this location because previous consultation with the SHPO had concluded that noise or lack thereof is not an aspect of this type of property’s

setting that qualifies it for inclusion in the NRHP. The bridge will not be affected as a result of the undertaking.

Center School is located within the APE of Project 3 along SR 13 at the eastern edge of the APE and has a direct view of the undertaking. Traffic and subsequent development may increase as a result as the undertaking, but since this property is near the location of an existing interstate and interchange, it is already subject to traffic and development. Therefore, the undertaking would not adversely impact the property. The Center School is more than 800 feet from the undertaking; therefore, noise impacts were not analyzed. The property will not be affected adversely as a result of this undertaking.

The **House at 7883 South SR 13** is located along SR 13 and has a direct view to the undertaking, including the interchange modifications. The pavement on SR 13 will be lowered to provide bridge clearance. This will affect the view from the property but not adversely. Traffic and subsequent development may increase as a result as the undertaking, but since this property is near the location of an existing interstate and interchange, it is already subject to traffic and development. The house is nearly 1,000 feet from the interchange; therefore the added traffic noise that comes with added travel lanes should not be an issue. The property will be affected but not adversely as a result of the undertaking.

5. EXPLAIN APPLICATION OF CRITERIA OF ADVERSE EFFECT -- INCLUDE CONDITIONS OR FUTURE ACTIONS TO AVOID, MINIMIZE OR MITIGATE ADVERSE EFFECTS

As discussed above, the APE was established to take into account potential visual and audible impacts. Noise effects upon historic properties under Section 106 of the NHPA are assessed in the following manner: Noise effects are not considered adverse simply because the undertaking would result in a change in noise; predicted noise increases are not considered effects unless there is an increase of 15 A-weighted Decibels (dBA) and the predicted noise exceeds 67 dBA using the Traffic Noise Model (TNM). FHWA has not validated the TNM for accurate results beyond 800 feet, per FHWA's "Addendum to Validation of FHWA's Traffic Noise Model® TNM: Phase 1." According to the policy, therefore, noise receptor locations that would be located more than 800 feet from the project roadway are not evaluated for highway traffic noise effects. For purposes of this project, the 800-foot distance was used as a conservative measure to capture potential impacts, unless the setting was not a key component of the property's eligibility.

Noise effects were not applicable to this project once the historic properties were identified and evaluated for one of two reasons: the distance of the historic resource from the undertaking was greater than 800 feet, or due to the fact that, in previous consultation with the SHPO, noise, or lack therefore, was not an aspect of a property's setting that qualified it for inclusion in the NRHP

36 CFR § 800.5(a)(1) states: "An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."

Fishers Methodist Episcopal Church -The criteria of adverse effect do not apply. The Fishers Methodist Episcopal Church will not be affected by the undertaking.

The criteria of adverse effect, as defined and described in 36 CFR 800.5(a)(1) and in 36 CFR 800.5(a)(2)(i) through (v), do not apply to the Fishers Methodist Episcopal Church.

Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no “physical destruction of or damage to all or part of the property.” No ROW will be taken from the resource. Construction at this location will be limited to the current INDOT ROW and will not affect the Fishers Methodist Episcopal Church.

Per 36 CFR 800.5(a)(2)(ii), there will be no “restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.”

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change “of the character of the property’s use or of physical features within the property’s setting.” Project improvements will take place within the current roadway profile, which is located within the median of I-69. Intervening trees and buildings obstruct the view to the interstate and the setting of property will not be impacted.

Per 36 CFR 800.5(a)(2)(v), there will not be an “introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.”

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

Hamilton County Bridge No. 177 - The criteria of adverse effect do not apply. Hamilton County Bridge No. 177 will not be affected by the undertaking.

The criteria of adverse effect, as defined and described in 36 CFR 800.5(a)(1) and in 36 CFR 800.5(a)(2)(i) through (v), do not apply to Hamilton County Bridge No. 177.

Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no “physical destruction of or damage to all or part of the property.” Construction at this location will be limited to the current roadway profile and will not affect Hamilton County Bridge No. 177.

Per 36 CFR 800.5(a)(2)(ii), there will be no “restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.”

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change “of the character of the property’s use or of physical features within the property’s setting.” Project improvements will take place within the current roadway profile.

Per 36 CFR 800.5(a)(2)(v), there will not be an “introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.” Consultation with SHPO had concluded that noise or lack thereof is not an aspect of this type of property’s setting that qualifies it for inclusion in the NRHP; therefore, noise impacts were not assessed. The undertaking will occur within the existing ROW, and the visual change will not be apparent from the resource.

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

Center School - The criteria of adverse effect do not apply. The Center School will be affected by the undertaking, but the effects of the undertaking will not be adverse.

The criteria of adverse effect, as defined and described in 36 CFR 800.5(a)(1) and in 36 CFR 800.5(a)(2)(i) through (v), do not apply to the Center School.

Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no “physical destruction of or damage to all or part of the property.” Construction at this location will be limited to the current INDOT ROW and will not affect the Center School.

Per 36 CFR 800.5(a)(2)(ii), there will be no “restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.”

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change “of the character of the property’s use or of physical features within the property’s setting.” Project improvements will take place within the current roadway profile.

Per 36 CFR 800.5(a)(2)(v), there will not be an “introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.” The undertaking will occur within the current roadway profile of the mainline, and while the view to the undertaking will change, it will not be an adverse effect. SR 13 will be lowered at its intersection with I-69 and additional lanes will be added within the current interstate ROW, but this visual change will likely not be apparent from the Center School. Therefore, there will be visual changes, but these changes will not diminish the architectural quality or further diminish the educational context of the Center School.

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

House at 7883 South SR 13 - The criteria of adverse effect do not apply. The House at 7883 South SR 13 will be affected by the undertaking, but the effects of the undertaking will not be adverse.

The criteria of adverse effect, as defined and described in 36 CFR 800.5(a)(1) and in 36 CFR 800.5(a)(2)(i) through (v), do not apply to the House at 7883 South SR 13.

Per 36 CFR 800.5(a)(2)(i), the undertaking will cause no “physical destruction of or damage to all or part of the property.” Construction at this location will be limited to the current INDOT ROW and will not affect the House at 7883 South SR 13.

Per 36 CFR 800.5(a)(2)(ii), there will be no “restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary’s Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines.”

Per 36 CFR 800.5(a)(2)(iii), the property will not be removed from its historic location.

Per 36 CFR 800.5(a)(2)(iv), there will not be a change “of the character of the property’s use or of physical features within the property’s setting.” Project improvements will take place within the current roadway profile.

Per 36 CFR 800.5(a)(2)(v), there will not be an “introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features.” The undertaking will occur within the current roadway profile of the mainline and while the view to the undertaking will change, it will not be an adverse effect. SR 13 will be lowered at its intersection with I-69 and additional lanes will be added within the current interstate ROW, but this visual change will likely not be apparent from the House at 7883 South SR 13. Therefore, there will be visual changes, but these changes will not diminish the architectural quality of the House at 7883 South SR 13.

Per 36 CFR 800.5(a)(2)(vi), there will be no neglect or deterioration of the property.

Per 36 CFR 800.5(a)(2)(vii), there will be no “transfer, lease, or sale of the property out of Federal ownership or control.”

EFFORTS TO AVOID, MINIMIZE, AND MITIGATE
INDOT and its project engineers have minimized effects on historic properties by making all improvements within INDOT ROW.

6. SUMMARY OF CONSULTING PARTIES AND PUBLIC VIEWS

The following organizations responded affirmatively to the invitation to join consultation, sent by W&A on July 24, 2014 and August 12, 2014: Indiana Landmarks Central Office, Madison County Historian, Hancock County Historian, Hamilton County Government, Indiana Landmarks Eastern Regional Office, Madison County Commissioners, and Hamilton County Tourism Inc. (Visit Hamilton County Indiana). The Hamilton County Historical Society and the Carmel Clay Historical Society declined the invitation. (See Appendix C: Consulting Parties, for consulting party post card responses.) The SHPO is always considered a consulting party; INDOT and FHWA were participating agencies.

On August 11, 2014, Indiana Landmarks Central Office accepted the invitation to become a consulting party and suggested that Indiana Landmarks Eastern Regional Office and Visit Hamilton County Indiana be invited to join in consultation. (Staff of W&A invited both organizations to participate in the consultation under a letter dated August 12, 2014). The Indiana Landmarks Central Office inquired about the decision “To separate the overall I-69 Expansion. . .into several, individual projects with separate environmental analysis,” and asked, “will any of these projects occurring between Exit 205 and Exit 226 be completed concurrently?” (See Appendix F: Correspondence.) On August 15, 2014, W&A replied that “it is my understanding that construction will likely occur on Projects 1 and 3 at the same time but that the interchange may be occur at a later date. All of these projects are part of the ‘Major Moves 2020’ program; each of these corridors associated with this project has independent utility and logical termini so that if one project is delayed it will not affect the funding for other projects.” (Appendix F: Correspondence.)

On August 22, 2014, the staff of the SHPO responded to the early coordination letter and the HPR. The staff agreed that the Flanagan House, Hamilton County Bridge No. 177 and the Center School are “eligible for inclusion” in the NRHP. The staff, however, stated that the Fishers Methodist Episcopal Church and the mid-century House at 7883 South SR 13 “are potentially eligible for listing in the [NRHP], if the interiors are intact.” SHPO added, “We understand that it may not be possible to determine the condition of the interiors of these structures; therefore, we would be willing to consider them eligible for listing for the purposes of this review.” (See Appendix F: Correspondence.)

On September 18, 2014, staff of the SHPO responded via email to a phone message left by staff of W&A regarding the identification and eligibility of the Fishers Methodist Episcopal Church and the House at 7883 South SR 13. SHPO stated the Fishers Methodist Episcopal church would be eligible under Criterion C (Architecture), though “[a] case may also be able to be made for Religion depending on what additional information is available in the future.” The House at 7883 South SR 13 would be eligible under Criterion C (Architecture). (See Appendix F: Correspondence.)

In an email dated September 29, 2014, SHPO staff responded to additional questions asked by W&A on September 23, 2014. SHPO stated that staff believe both the Fishers Methodist Episcopal Church and House at 7883 South SR 13 are “potentially eligible pending additional information.” Regarding the church, SHPO noted the “ongoing and dramatic loss of historic resources has focused attention on a limited pool of historic places that now stand out as representative to the history of the community.” SHPO also provided draft guidelines regarding the eligibility of mid-twentieth century resources. (See Appendix F: Correspondence.)

SHPO replied to the Archaeology Short Report in a letter dated October 3, 2014. SHPO stated that based on the submitted report and information available to the SHPO staff, “we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area.” SHPO stated this conclusion was “subject to project activities remaining within areas disturbed by previous construction of a recent and non-historical nature.” SHPO also stated that any archaeological deposits encountered from the post-contact period would be subject to evaluation “regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered.” Additionally, SHPO stated that Indiana state law requires the Department of Natural Resources be notified within two business days in the event that “archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities.” (See Appendix F: Correspondence.)

On October 22, 2014, the Assistant Director of Preservation Services for DHPA, Paul Diebold, responded to a request for an opinion of eligibility made by INDOT-CRO in regard to the Flanagan House. “After some debate, we have reached the conclusion that the house no longer meets the National Register criteria. In particular, the siting and orientation of the house render it incapable of conveying its architectural significance.” Diebold noted, “Examples of vernacular architecture like the Kincaid House convey their sense of time and place, in good measure, by their orientation.” (See Appendix F: Correspondence.)

No other comments were received.

A public notice of No Adverse Effect will be posted in a local newspaper(s) and the public will be afforded thirty (30) days to respond. In addition, the public will have the opportunity to comment on section 106 at a hearing held for the larger environmental document. If appropriate, this document will be revised after the public has had the opportunity to comment.

APPENDIX

Appendix A: Plans

Appendix B: Maps

Appendix C: Consulting Parties

Appendix D: Photographs

Appendix E: Report Summaries

Appendix F: Correspondence

Appendix G: Section 106 Documentation and Additional Information Relating to the Flanagan House

APPENDIX A. Plans

PROJECT	DESIGNATION
1383332, 1383336	1383332, 1383336
CONTRACT	
R-37053	

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

ROUTE: I-69 FROM: RP 205+40 TO: RP 214+95

PROJECT NO. 1383332, 1383336 P.E.

R/W

1383332, 1383336 CONST.

The project begins approximately 0.30 miles north of 106th Street and follows the existing Interstate 69 up to 0.46 miles east of SR-13. The project is in Section 1 in T-17-N, R-4-E, Section 6 in T-17-N, R-5-E, Sections 23, 24, 26, 27, 28, 31, 32, and 33 in T-18-N, R-5-E, and Sections 19, 20, 21, and 22 in T-18-N, R-6-E, in Delaware, Fall Creek, and Green Townships in Hamilton and Madison Counties, Indiana.

WARNING:

THESE PLANS ARE CERTIFIED ONLY FOR COMPLIANCE WITH INDOT LEVEL ONE DESIGN CRITERIA EXCEPT AS NOTED IN THE "SCOPE OF SERVICES" SECTION OF THE CONTRACT DOCUMENTS AND THEY ARE NOT COMPLETE AND ARE NOT ADEQUATE FOR THE PREPARATION OF DESIGN/BUILD BIDS OR CONSTRUCTION OF THE PROJECT. THEY ARE INTENDED ONLY FOR THE LIMITED PURPOSE OF PROVIDING INFORMATION TO ASSIST PROSPECTIVE BIDDERS IN DEVELOPING THEIR BIDS FOR THE PROPOSED DESIGN/BUILD PROJECT IN ACCORDANCE WITH INDOT REQUIREMENTS AND APPLICABLE RULES, REGULATIONS, STANDARDS, PRACTICES, POLICIES, GUIDELINES AND SPECIFICATIONS. DESIGN/BUILDERS SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THEIR DESIGNS AND THE BIDS THAT THEY SUBMIT AND IF PROJECT INFORMATION IN ADDITION TO THESE PLANS IS DEEMED NECESSARY BY A DESIGN/BUILDER, OR IF AN ERROR OR INACCURACY OCCURS IN THESE PLANS, IT SHALL BE THE SOLE RESPONSIBILITY OF THE DESIGN/BUILDER TO ACQUIRE ALL SUCH INFORMATION AND TO DETECT AND CORRECT ANY SUCH ERROR OR INACCURACY.

Gross Length: 10.364 miles

Net Length: 10.243 miles

Maximum Grade: 1.85%

Str. No. I69-6-05320JC
SB I-69 over Thorpe Creek

Str. No. I69-10-05318
I-69 over Mud Creek

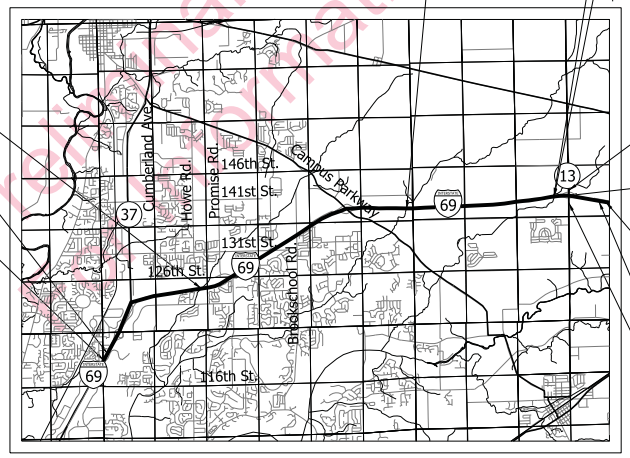
Str. No. I69-6-05320C
NB I-69 over Thorpe Creek

Scale 1" = 6000'

Str. No. I69-6-05313
I-69 over Sand Creek

Begin Project
Sta. A 263+40.00 "A"

Begin Incidental Construction
Sta. 239+00.00 "A"



End Construction
Sta. 57+00.00 "SR13"

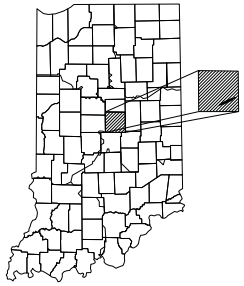
Str. No. I69-13-05321
I-69 over SR-13

End Incidental Construction
Sta. A 813+00.00 "A"

End Project
Sta. A 810+60.00 "A"

Begin Construction
Sta. 53+00.00 "SR13"

LOCATION MAP
HAMILTON & MADISON COUNTY



PROJECT LOCATION SHOWN BY

LATITUDE: 39°59'27" LONGITUDE: 85°55'27"

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2014
TO BE USED WITH THESE PLANS

Preliminary Information Only

PARSONS
101 W. Ohio St., Suite 2121
Indianapolis, IN 46204
Bus (317) 616-1000
Fax (317) 616-1033

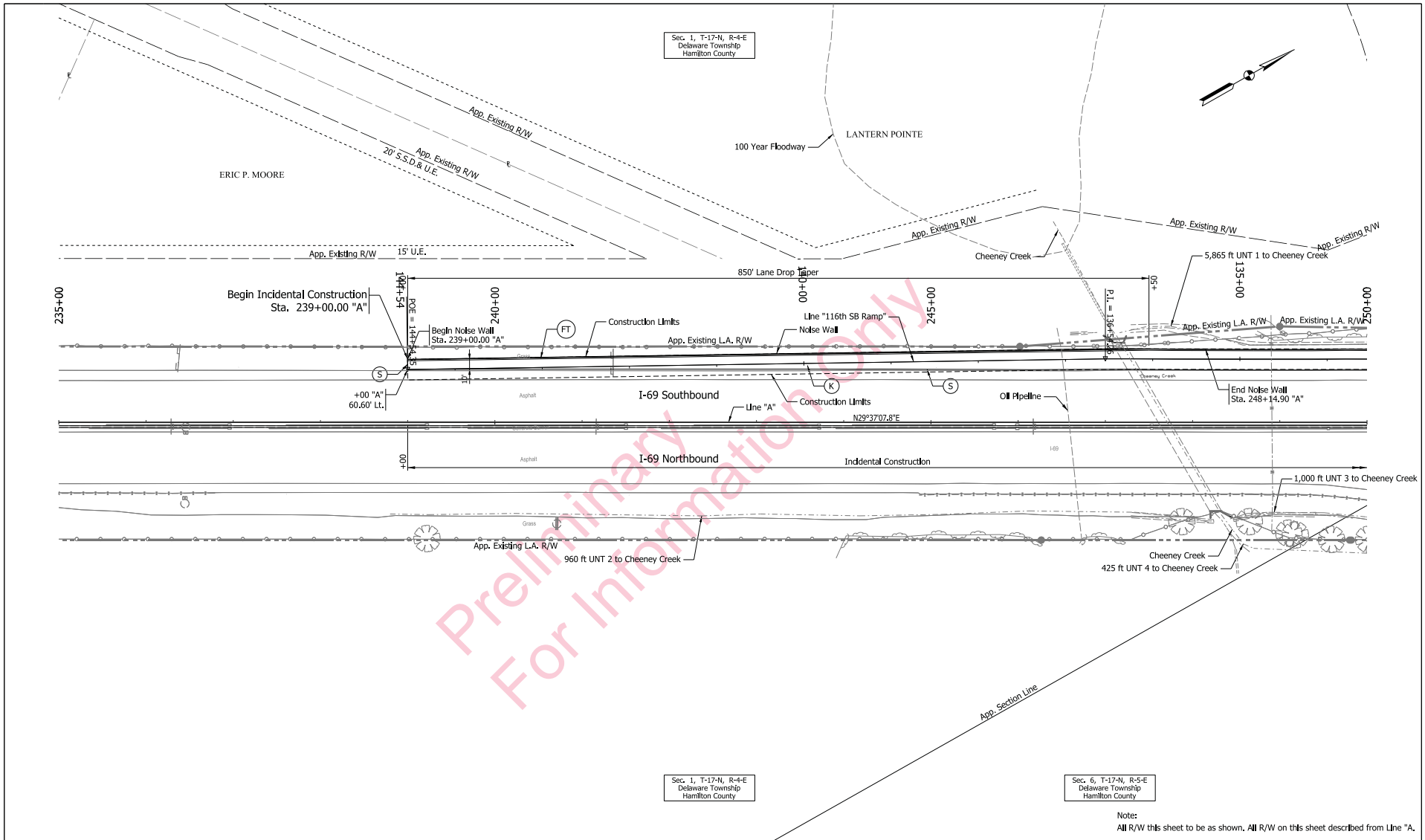
23-SEP-2014

PLANS PREPARED BY: _____ PHONE NUMBER

CERTIFIED BY: _____ DATE

APPROVED FOR LETTING: _____ INDIANA DEPARTMENT OF TRANSPORTATION DATE

	DESIGNATION
	1383332, 1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332, 1383336



Preliminary
For Information Only

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(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 235+00.00 TO STA. 250+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1	CONTRACT / PROJECT R-37053 / 1383332

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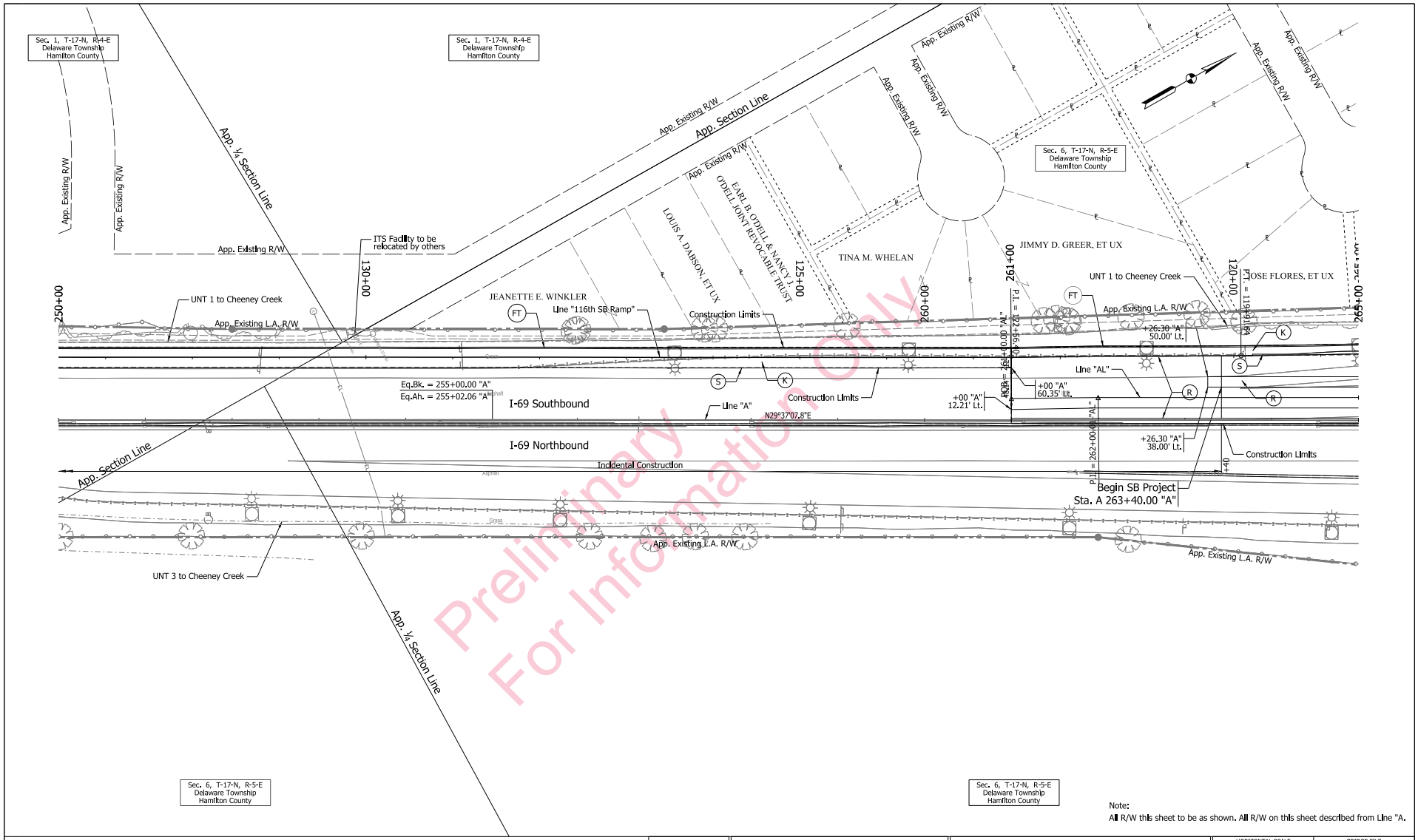
23-OCT-2014



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(2A) - Modified Concrete Barrier
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- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

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INDIANA
DEPARTMENT OF TRANSPORTATION

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VERTICAL SCALE	DESIGNATION
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CONTRACT	PROJECT
R-37053	1383332

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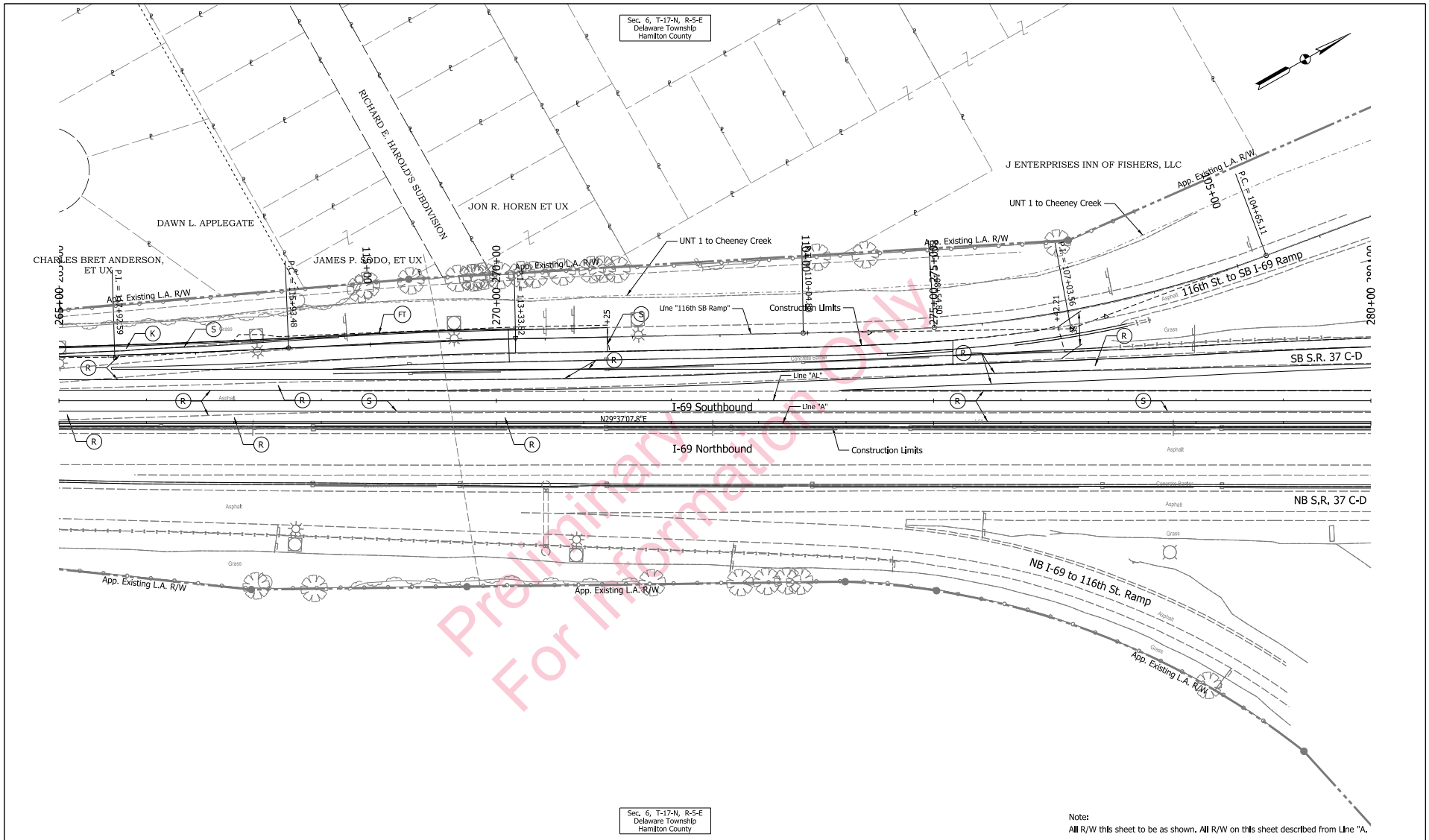

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(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall

- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

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INDIANA
DEPARTMENT OF TRANSPORTATION

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VERTICAL SCALE	DESIGNATION
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R-37053	1383332

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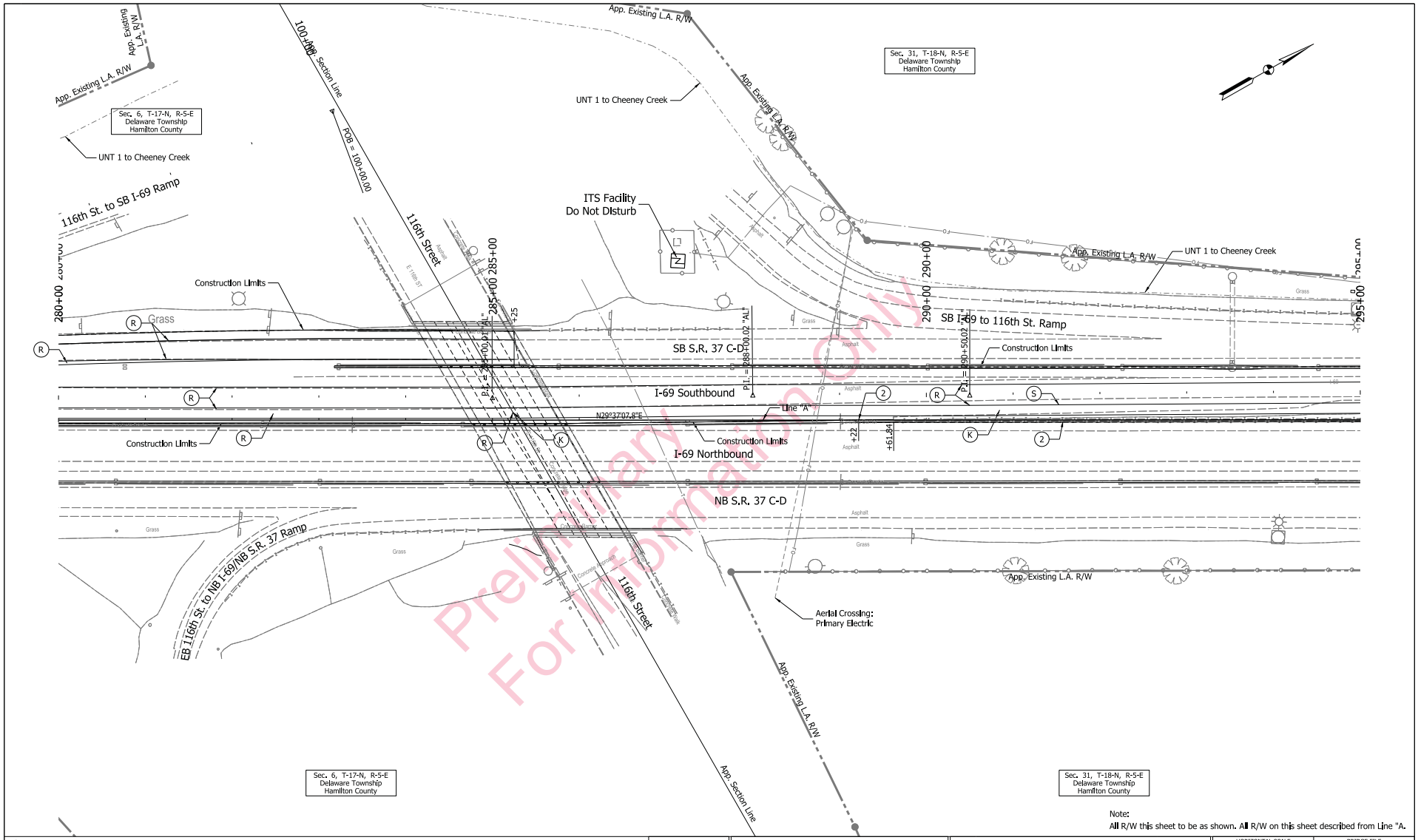

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(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall
		- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

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CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

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R-37053	1383332

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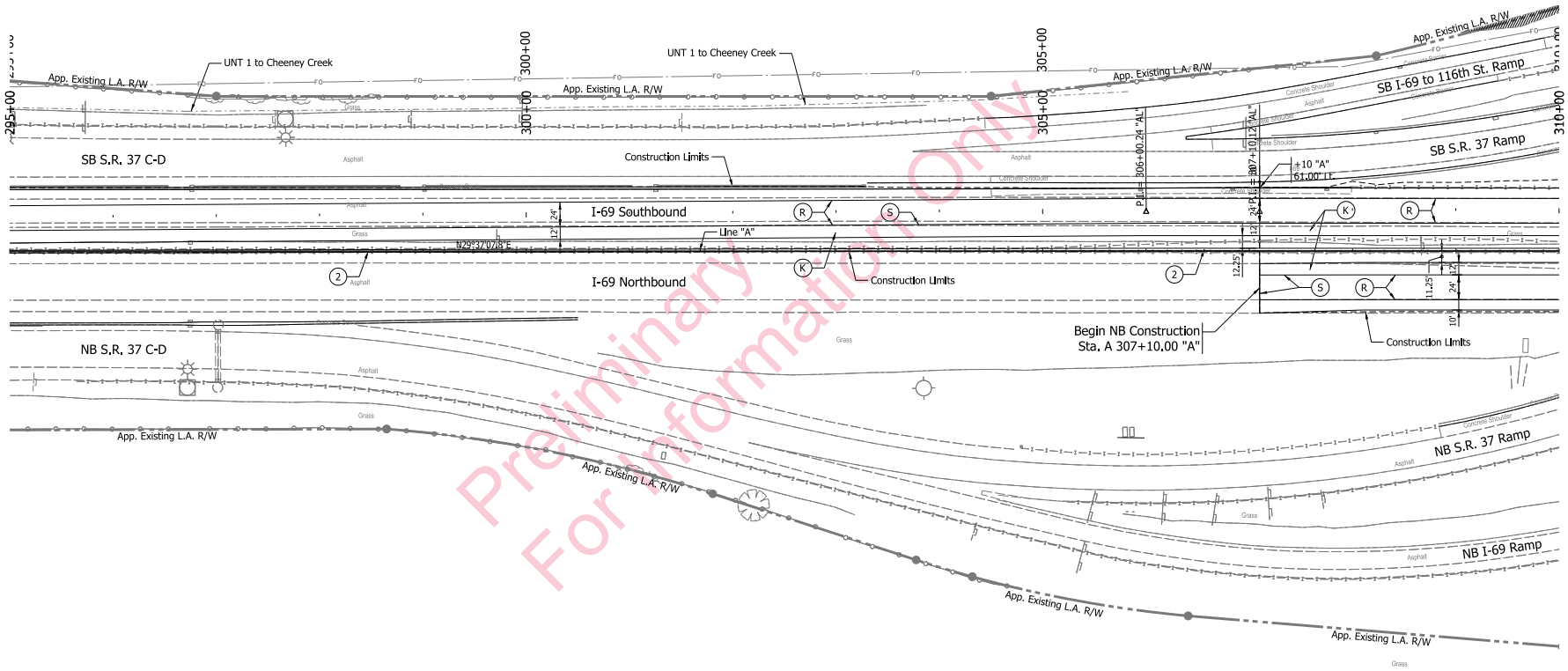
Sec. 31, T-18-N, R-5-E
Delaware Township
Hamilton County



Preliminary
For Information Only

Sec. 31, T-18-N, R-5-E
Delaware Township
Hamilton County

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(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall
		- · - · - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

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CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

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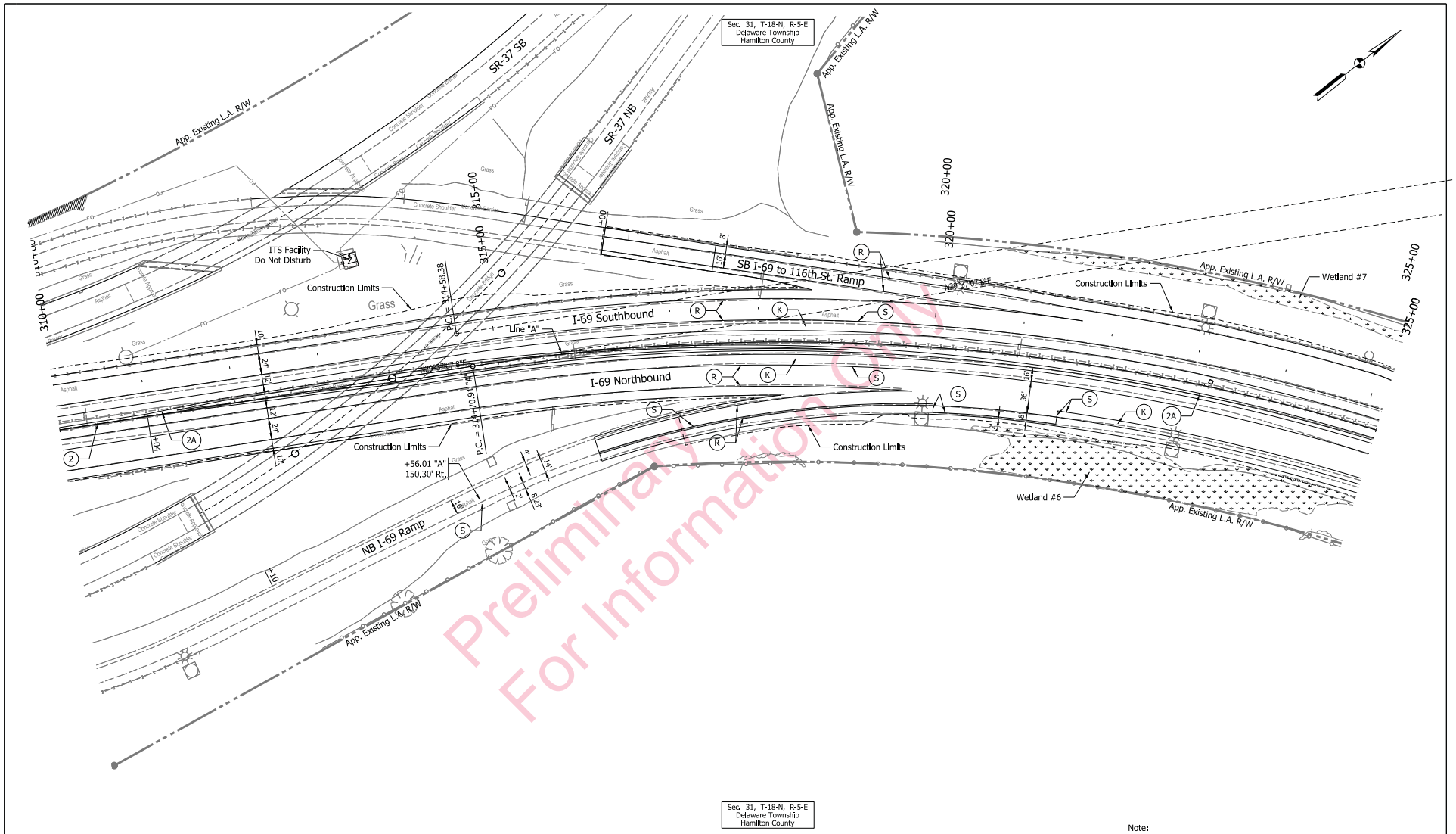

Sec. 31, T-18-N, R-5-E
Delaware Township
Hamilton County

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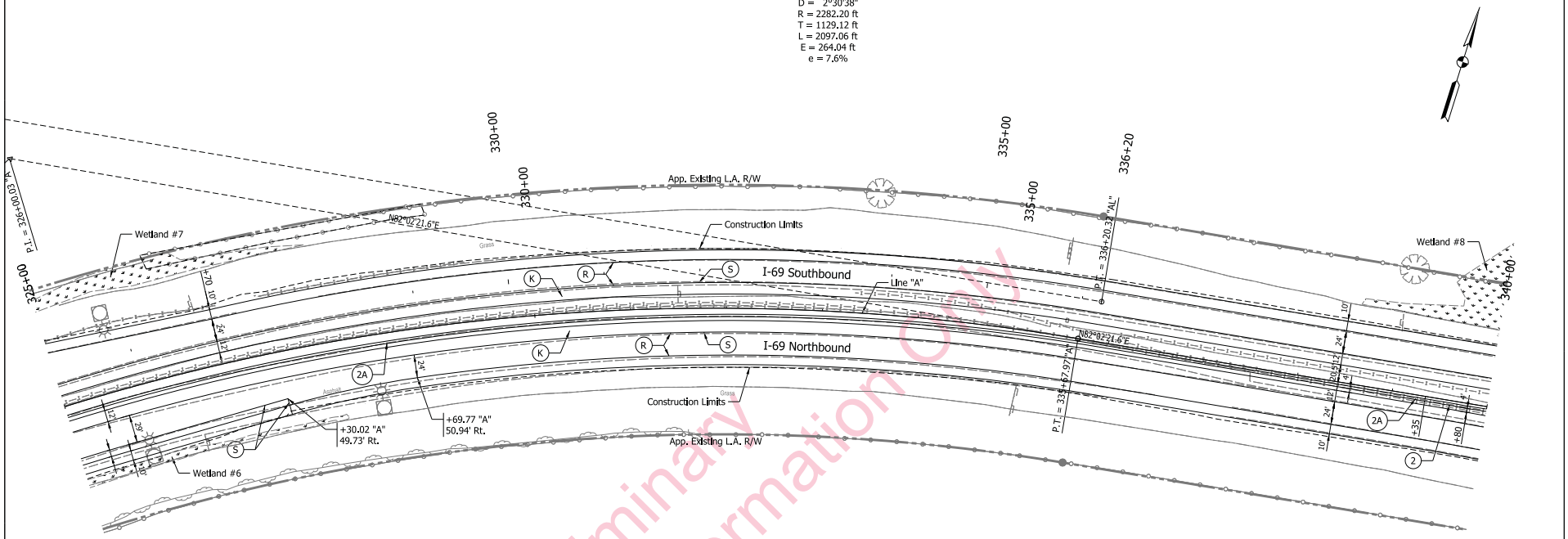
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 310+00.00 TO STA. 325+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPdms04740\Sht_Plan_50_07.dgn
23-OCT-2014

Sec. 31, T-18-N, R-5-E
Delaware Township
Hamilton County

CURVE DATA 1
PI = 326+00.03
Delta = 52°38'51" Rt.
D = 2°30'38"
R = 2282.20 ft
T = 1129.12 ft
L = 2097.06 ft
E = 264.04 ft
e = 7.6%



Preliminary
For Information Only

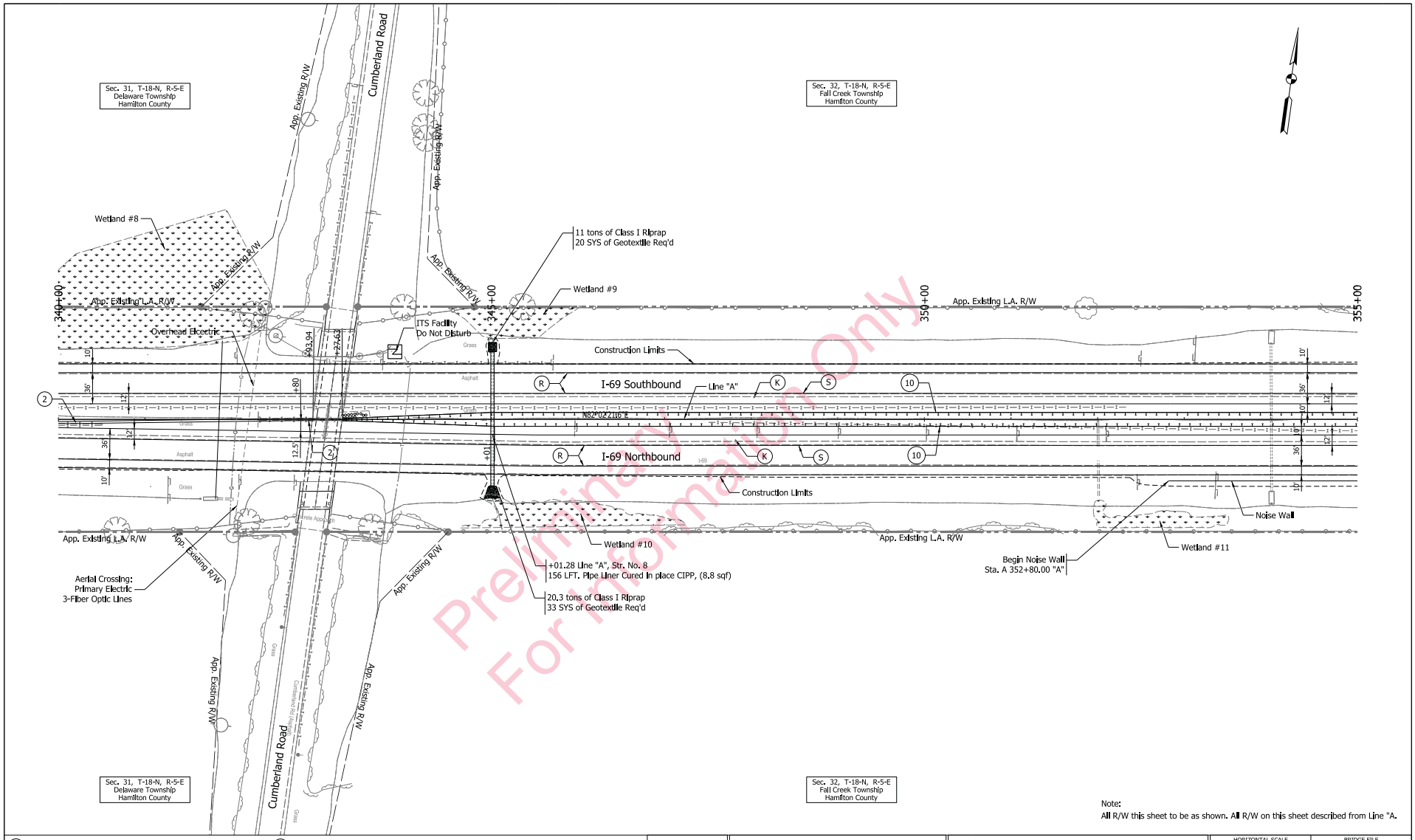
Sec. 31, T-18-N, R-5-E
Delaware Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
(FT) - FT Rail on MSE Wall
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 325+00.00 TO STA. 340+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_08.dgn
23-OCT-2014



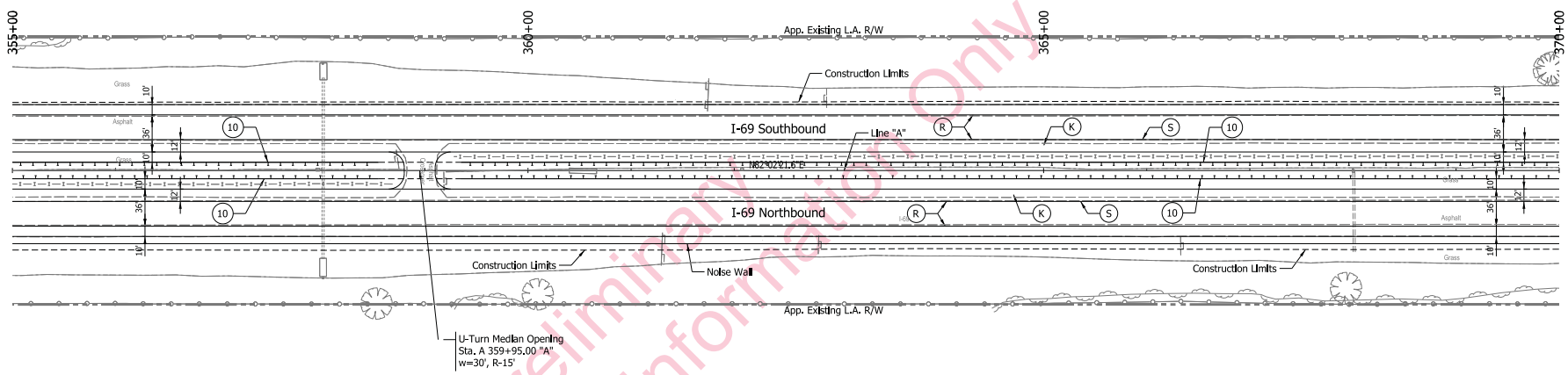
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 340+00.00 TO STA. 355+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_09.dgn
23-OCT-2014

Sec. 32, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

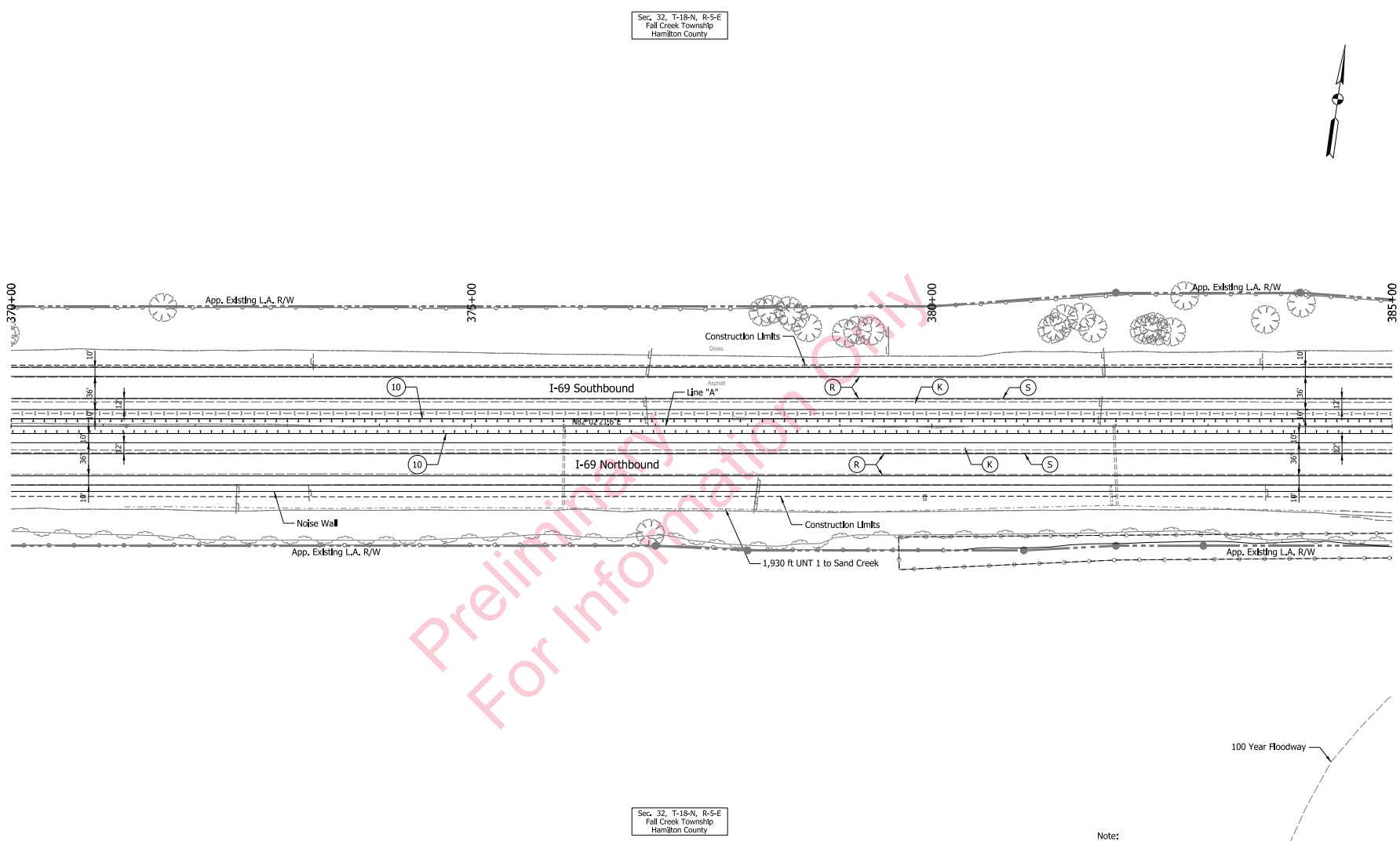
Sec. 32, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 355+00.00 TO STA. 370+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPIdms04740\Sht_Plan_50_10.dgn
23-OCT-2014



Preliminary
For Information Only

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

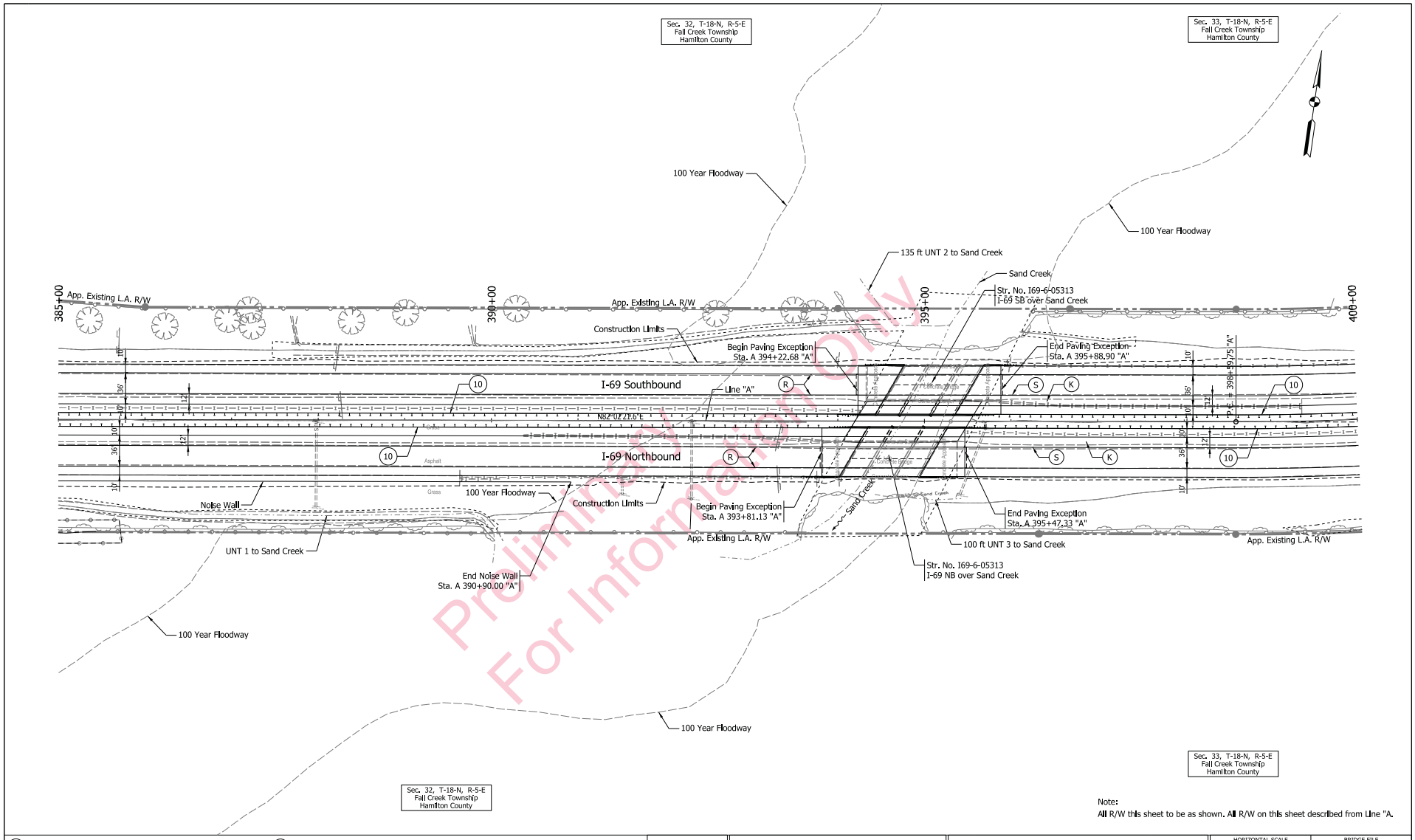
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 370+00.00 TO STA. 385+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPfdms04740\Sht_Plan_50_11.dgn
23-OCT-2014



Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

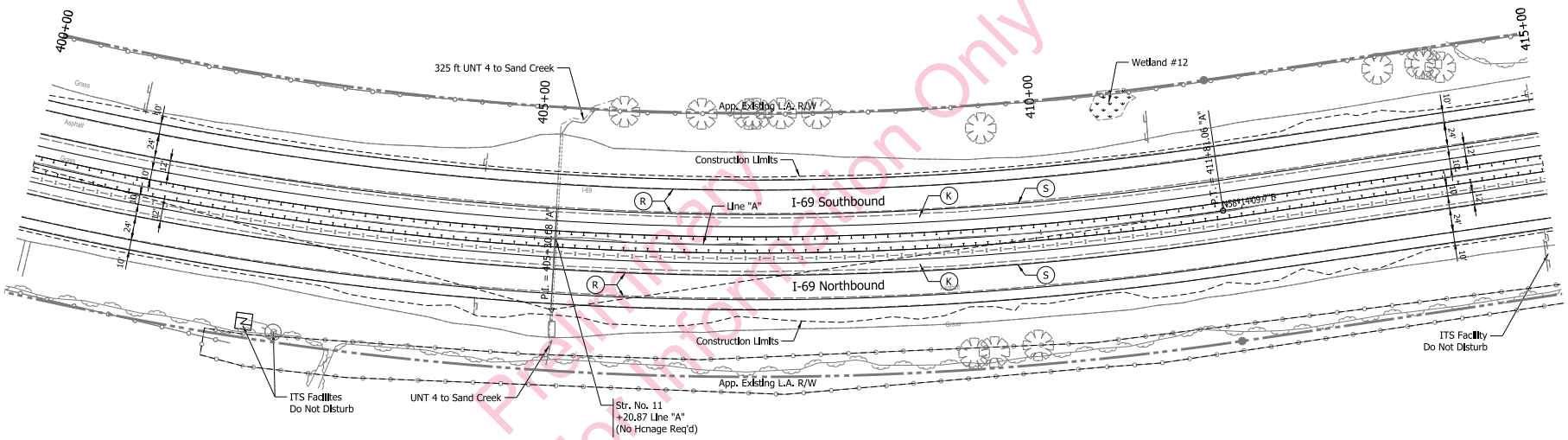
PLAN SHEET
STA. 385+00.00 TO STA. 400+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPfdms04740\Sht_Plan_50_12.dgn
23-OCT-2014

CURVE 2 DATA
PI = 405+30.08
Delta = 23°48'45" Lt.
D = 1°48'08"
R = 3179.21 ft
T = 670.33 ft
L = 1321.31 ft
E = 69.90 ft

Sec. 33, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

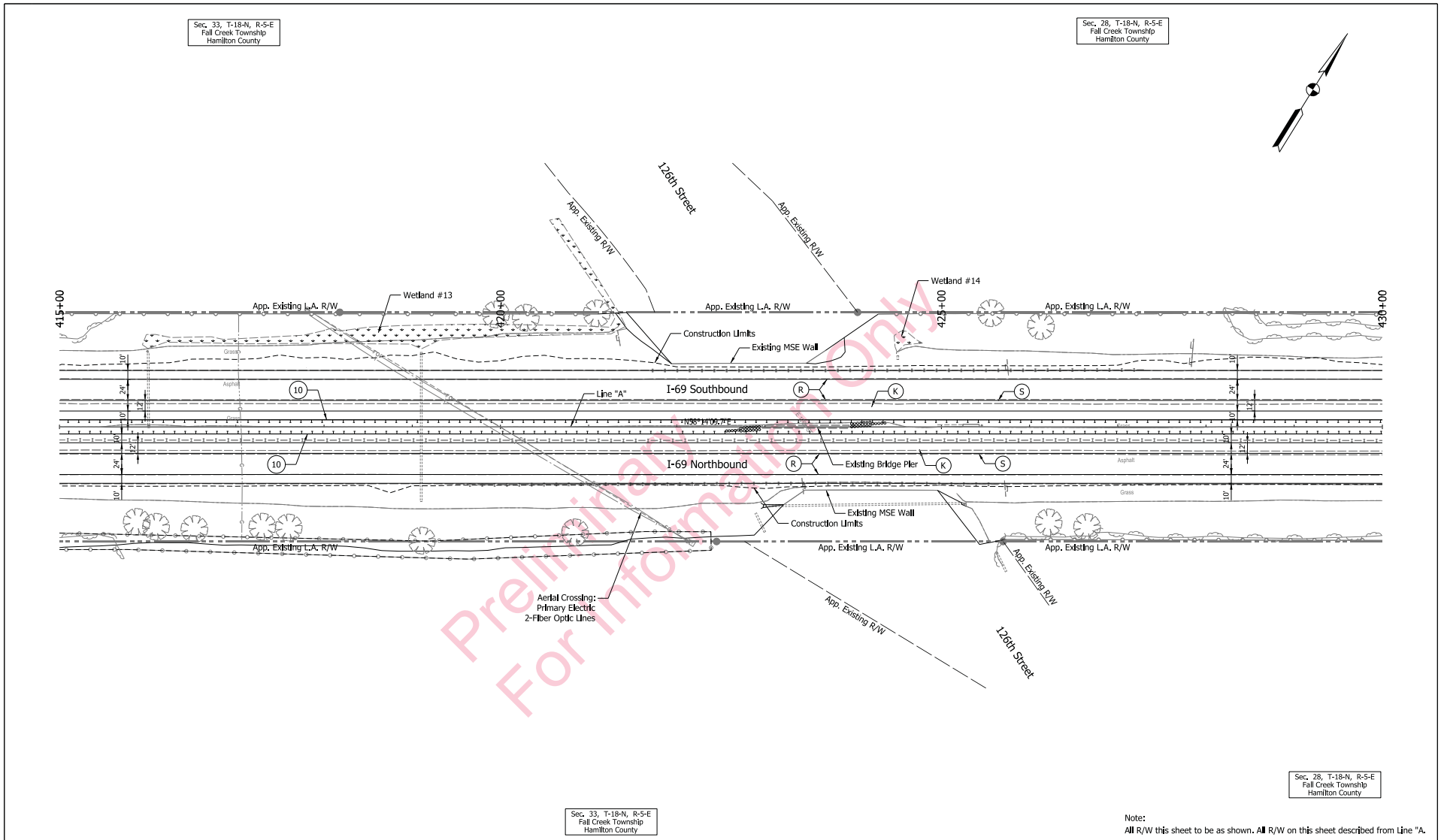
Sec. 33, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC CHECKED: DCK CHECKED: WJW	PLAN SHEET STA. 400+00.00 TO STA. 415+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1	
		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_13.dgn
23-OCT-2014



Sec. 33, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Sec. 28, T-18-N, R-5-E
Fall Creek Township
Hamilton County

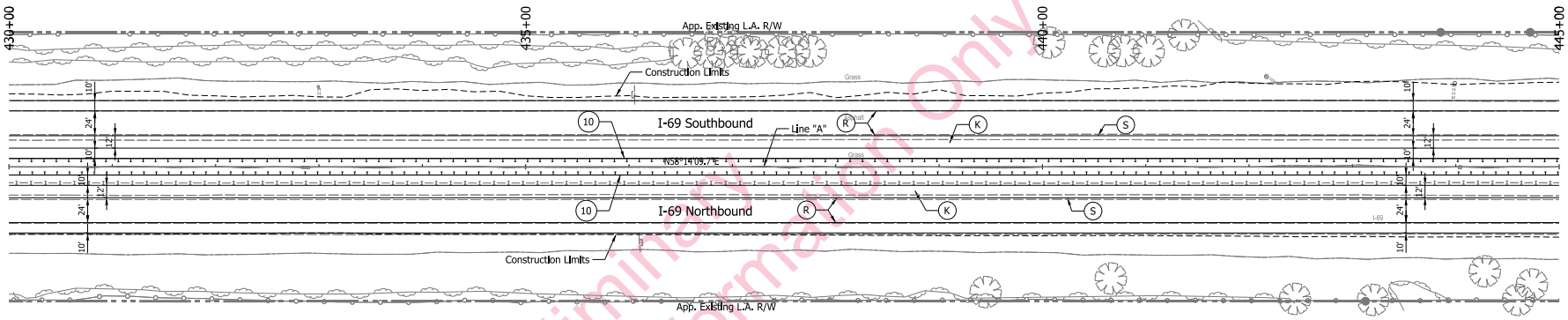
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 415+00.00 TO STA. 430+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1	
		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_14.dgn
23-OCT-2014

Sec. 28, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 28, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall

- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

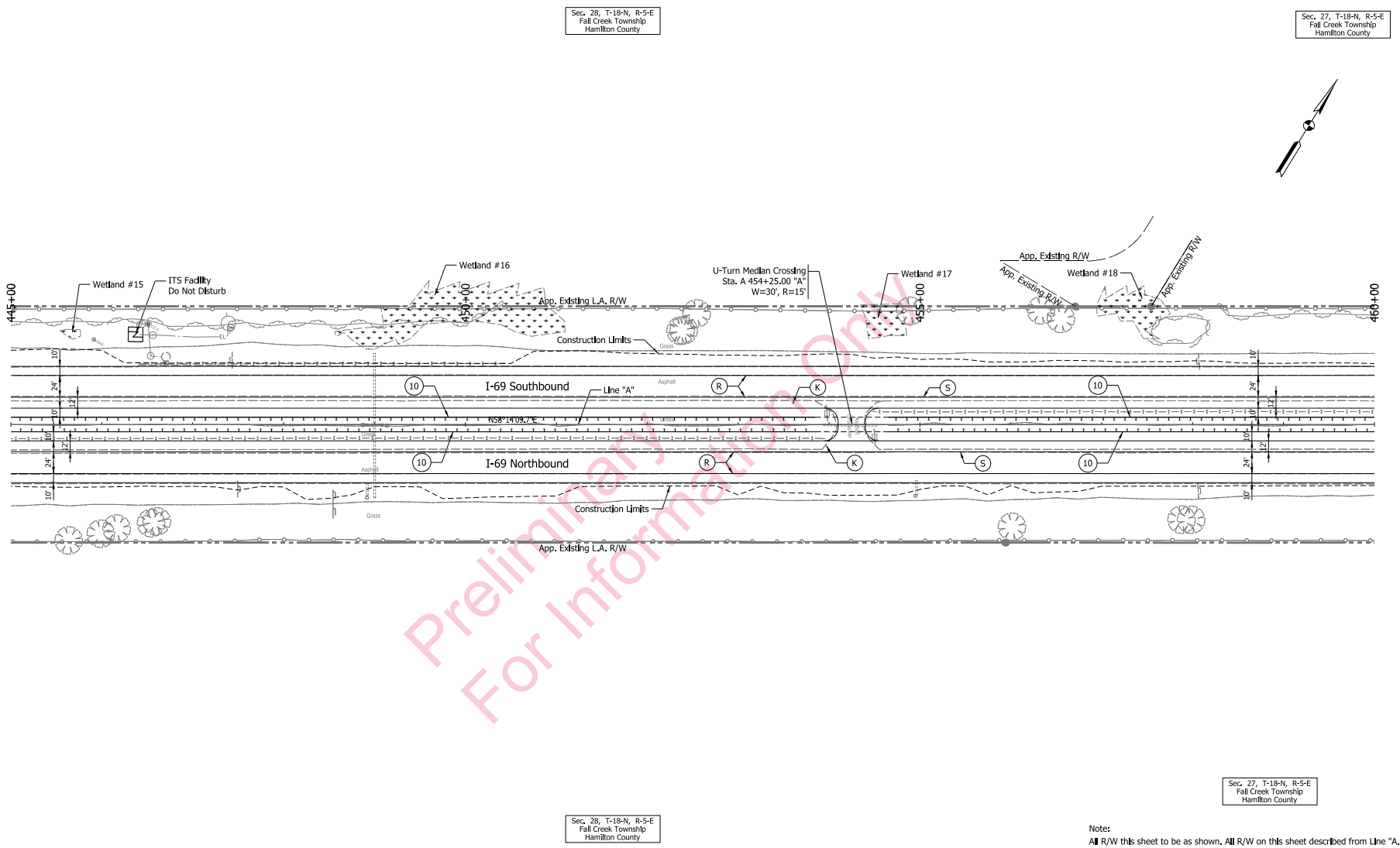
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 430+00.00 TO STA. 445+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPfdms04740\Sht_Plan_50_15.dgn
23-OCT-2014



Preliminary
For Information Only

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)	- - - - Streams
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)	
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall	

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

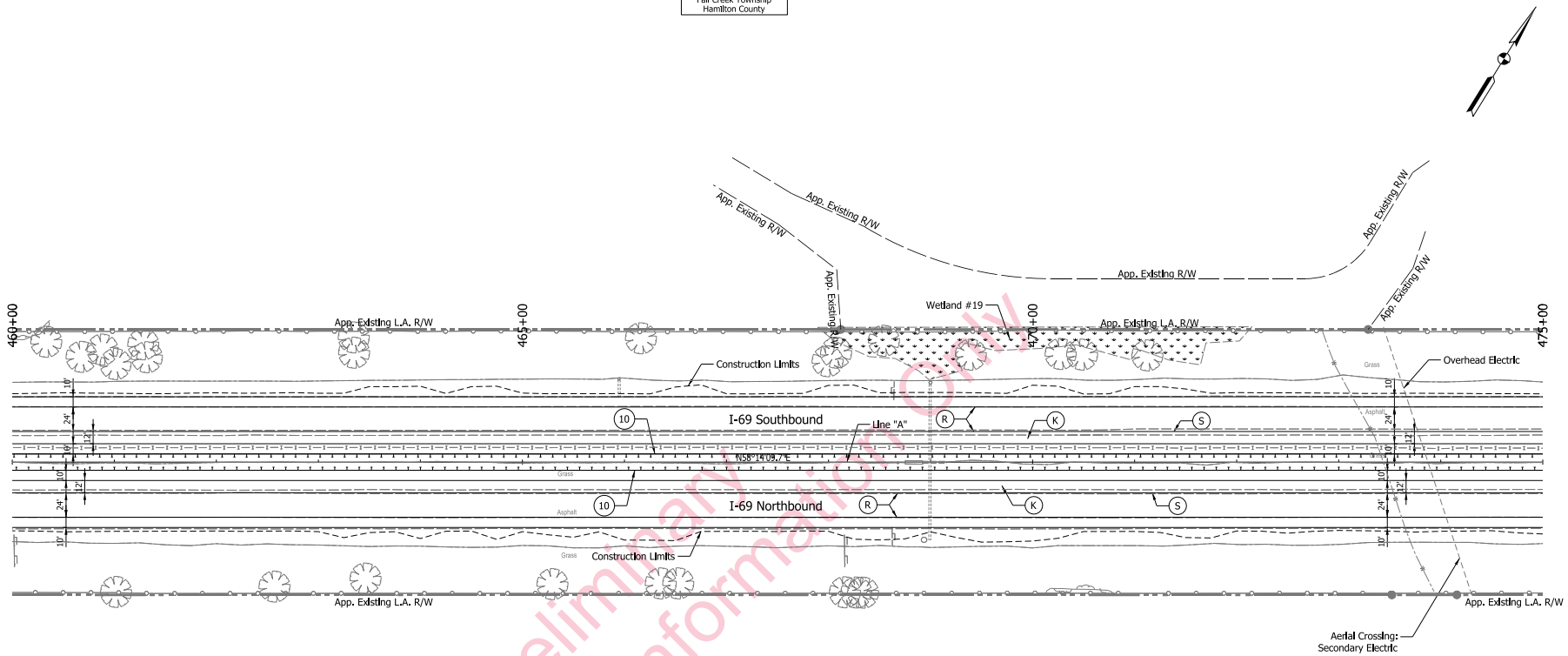
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 445+00.00 TO STA. 460+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	of
CONTRACT	PROJECT
R-37053	1383332

IP_PWP:dms04740\Sht_Plan_50_16.dgn
23-OCT-2014

Sec. 27, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 27, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

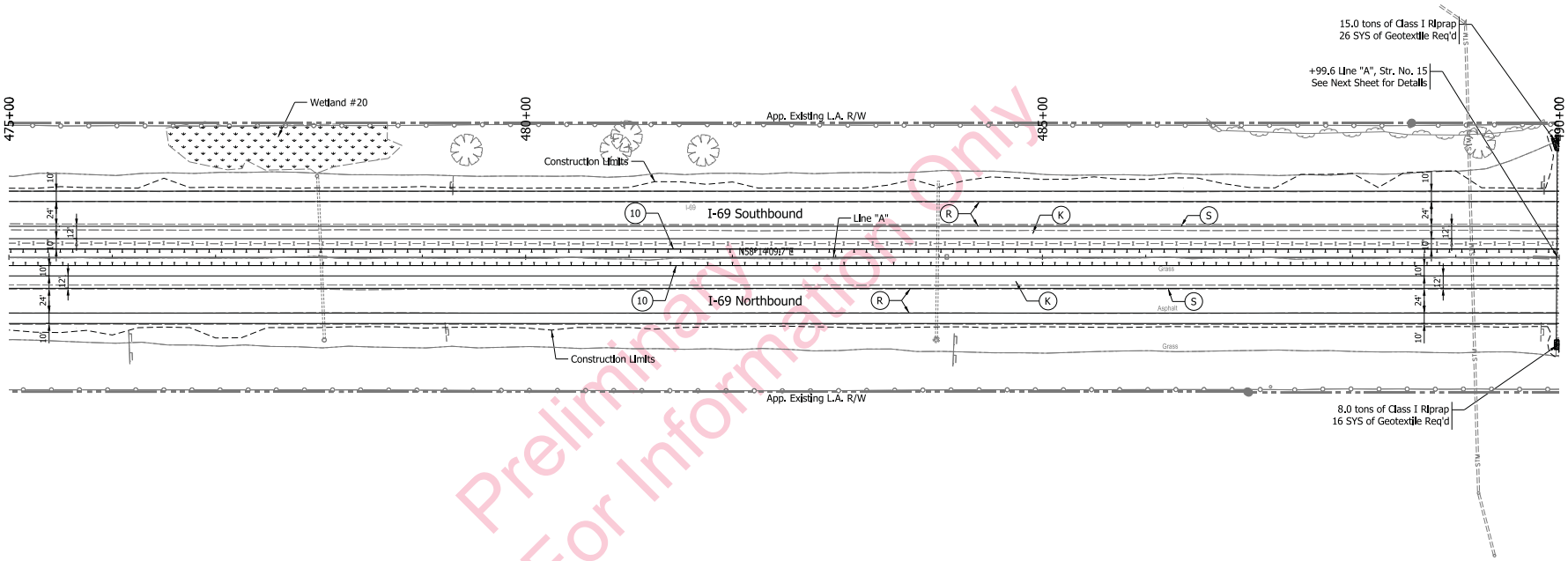
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 460+00.00 TO STA. 475+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPfdms04740\Sht_Plan_50_17.dgn
23-OCT-2014

Sec. 27, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Sec. 27, T-18-N, R-5-E
Fall Creek Township
Hamilton County

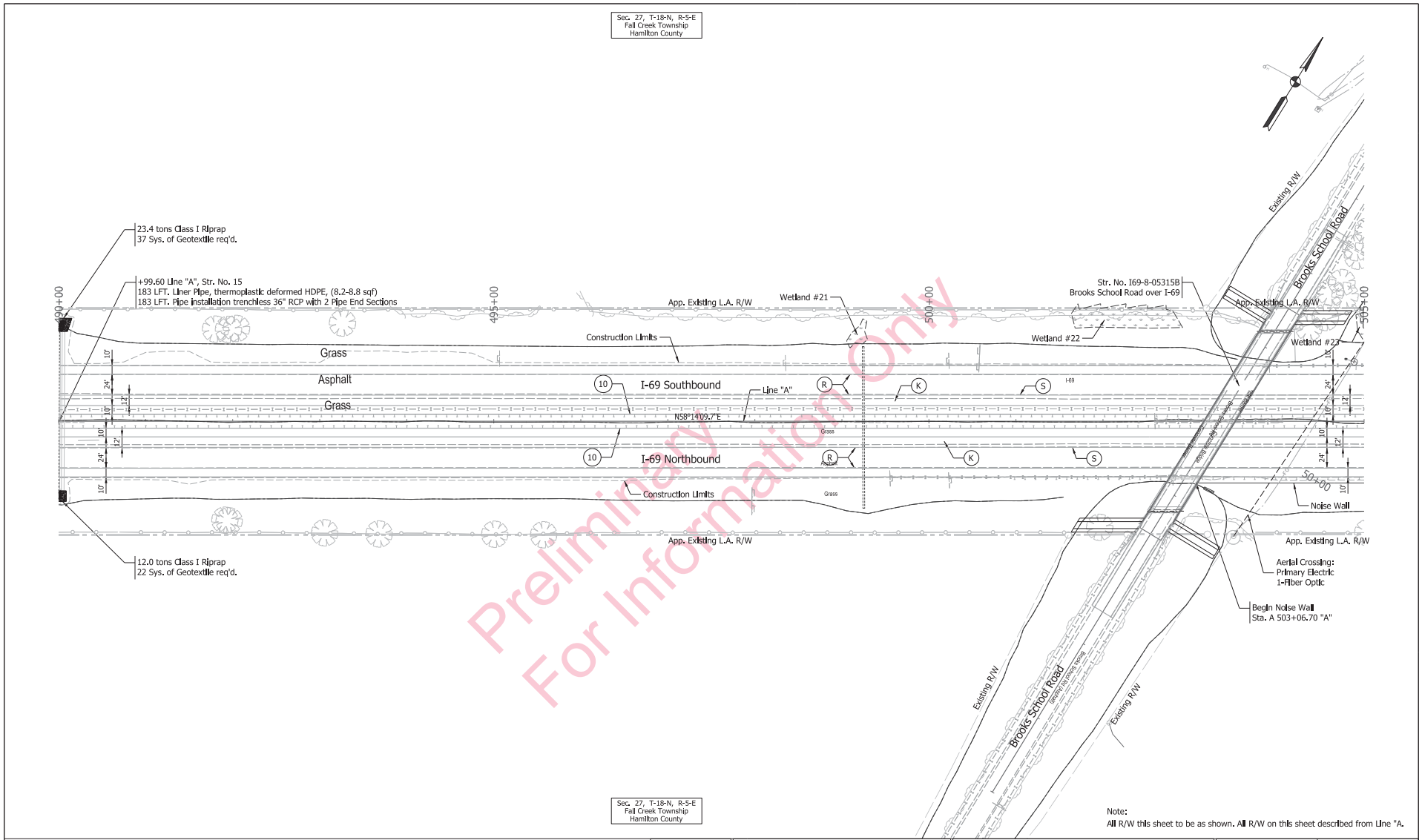
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

Preliminary
For Information Only

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 475+00.00 TO STA. 490+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1 / CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_18.dgn
23-OCT-2014

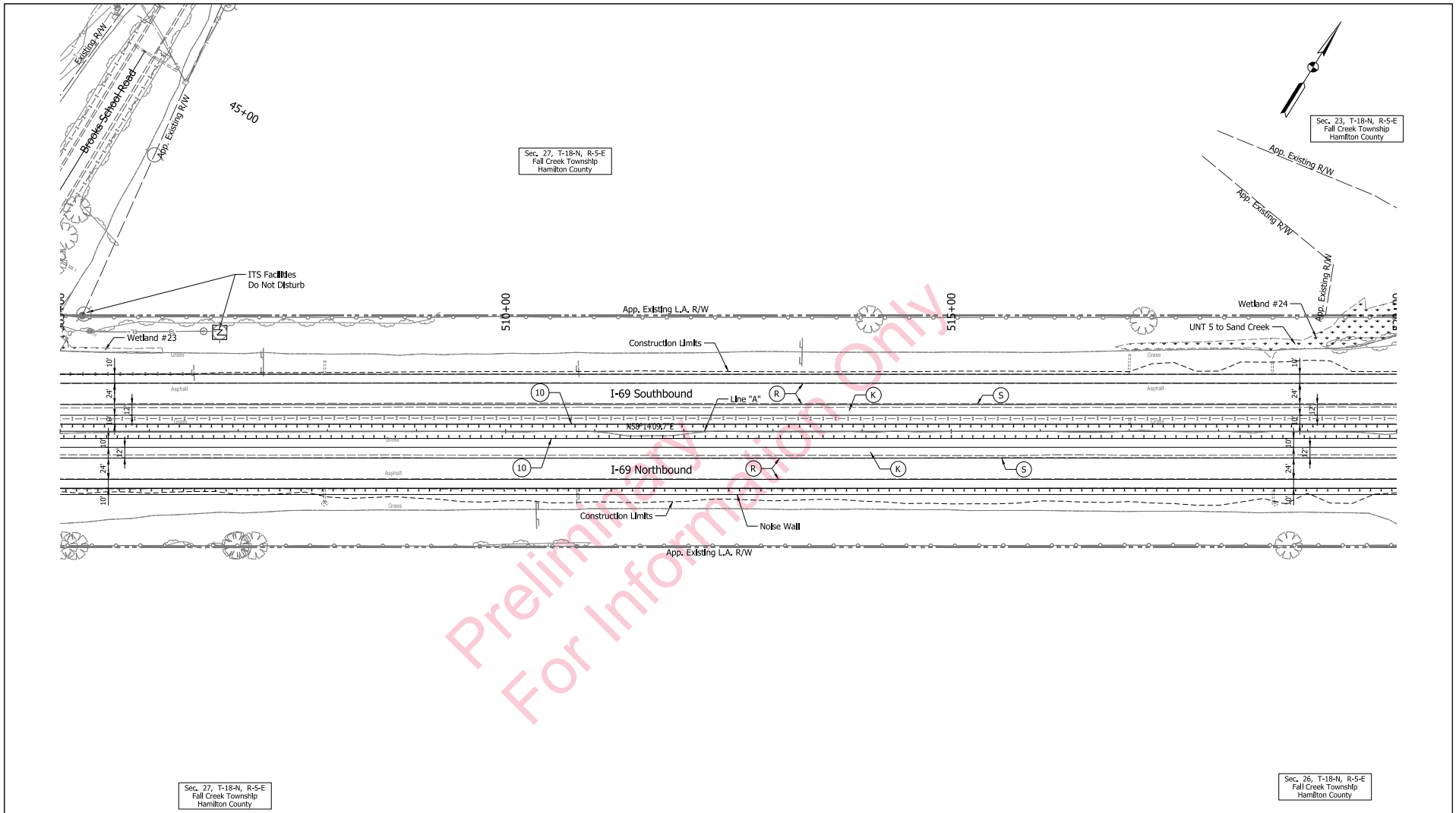


Preliminary
For Information Only

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332
DESIGNED: WJW / DRAWN: SJC	PLAN SHEET STA. 490+00.00 TO STA. 505+00.00 LINE "A"	SURVEY BOOK	SHEETS _ of _
CHECKED: DCK / CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332



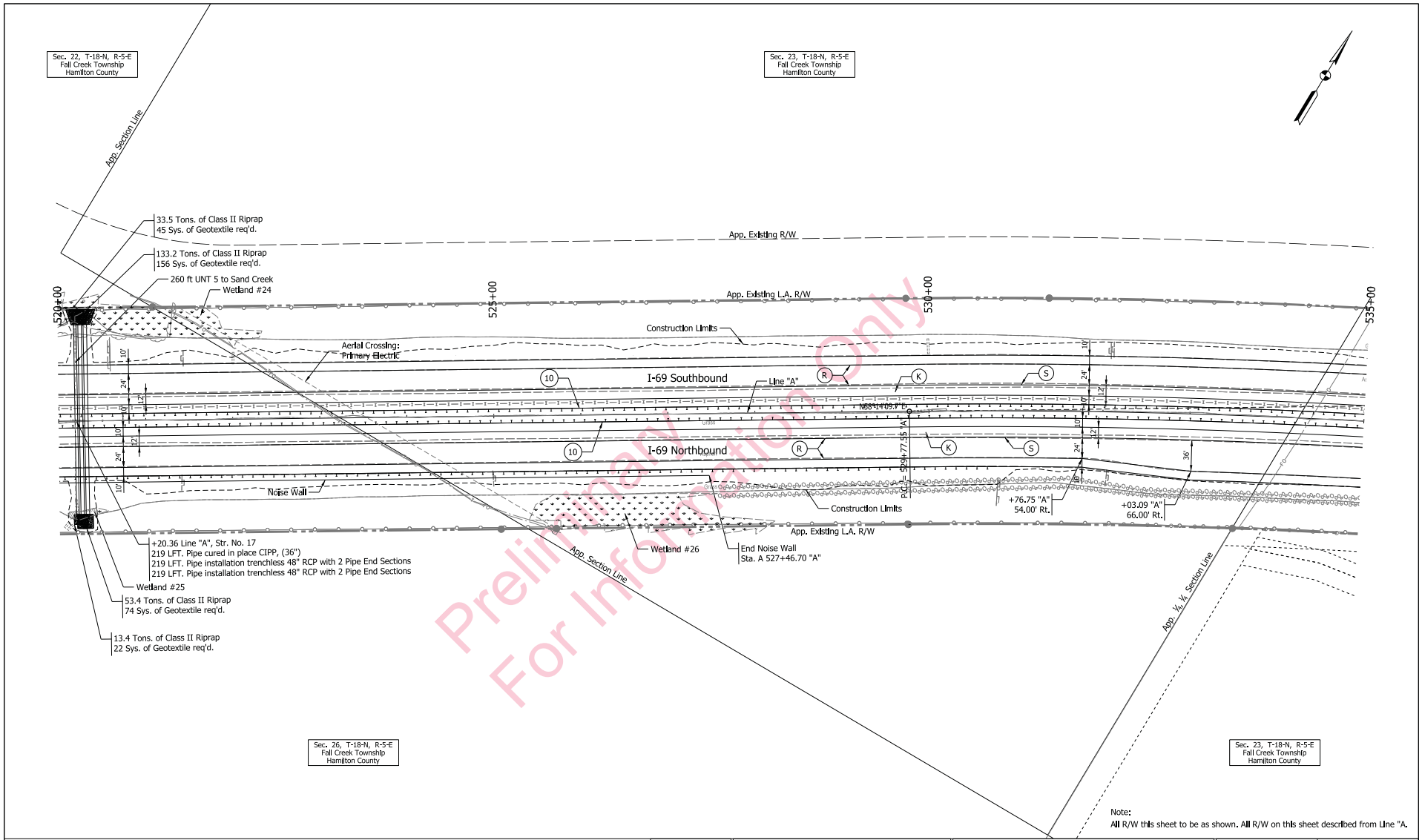
Preliminary
For Information Only

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 505+00.00 TO STA. 520+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_20.dgn
23-OCT-2014



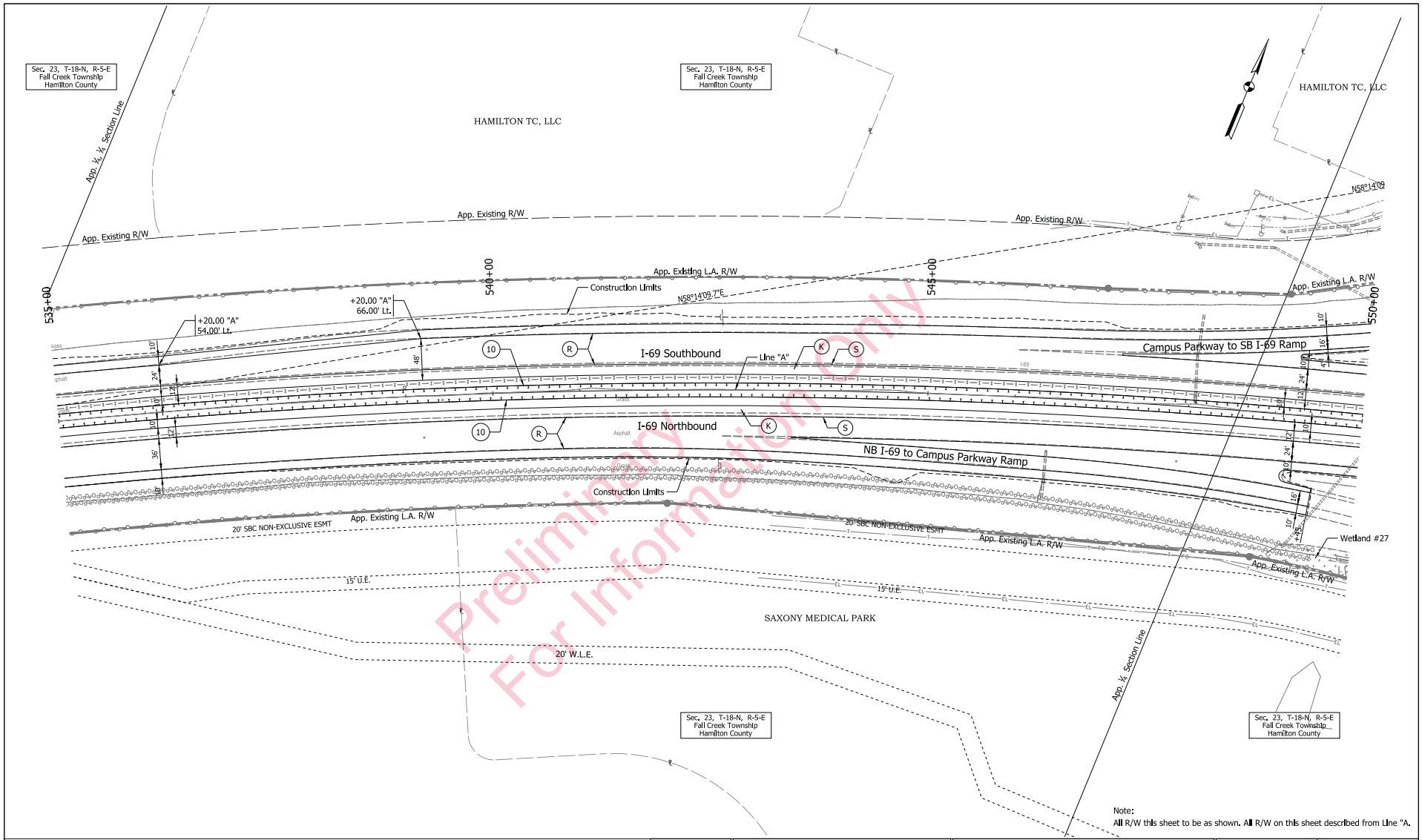
Preliminary
For Information Only

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 520+00.00 TO STA. 535+00.00 LINE "A"	SURVEY BOOK	SHEETS 1 of 1
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_21.dgn
23-OCT-2014



Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall
		- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

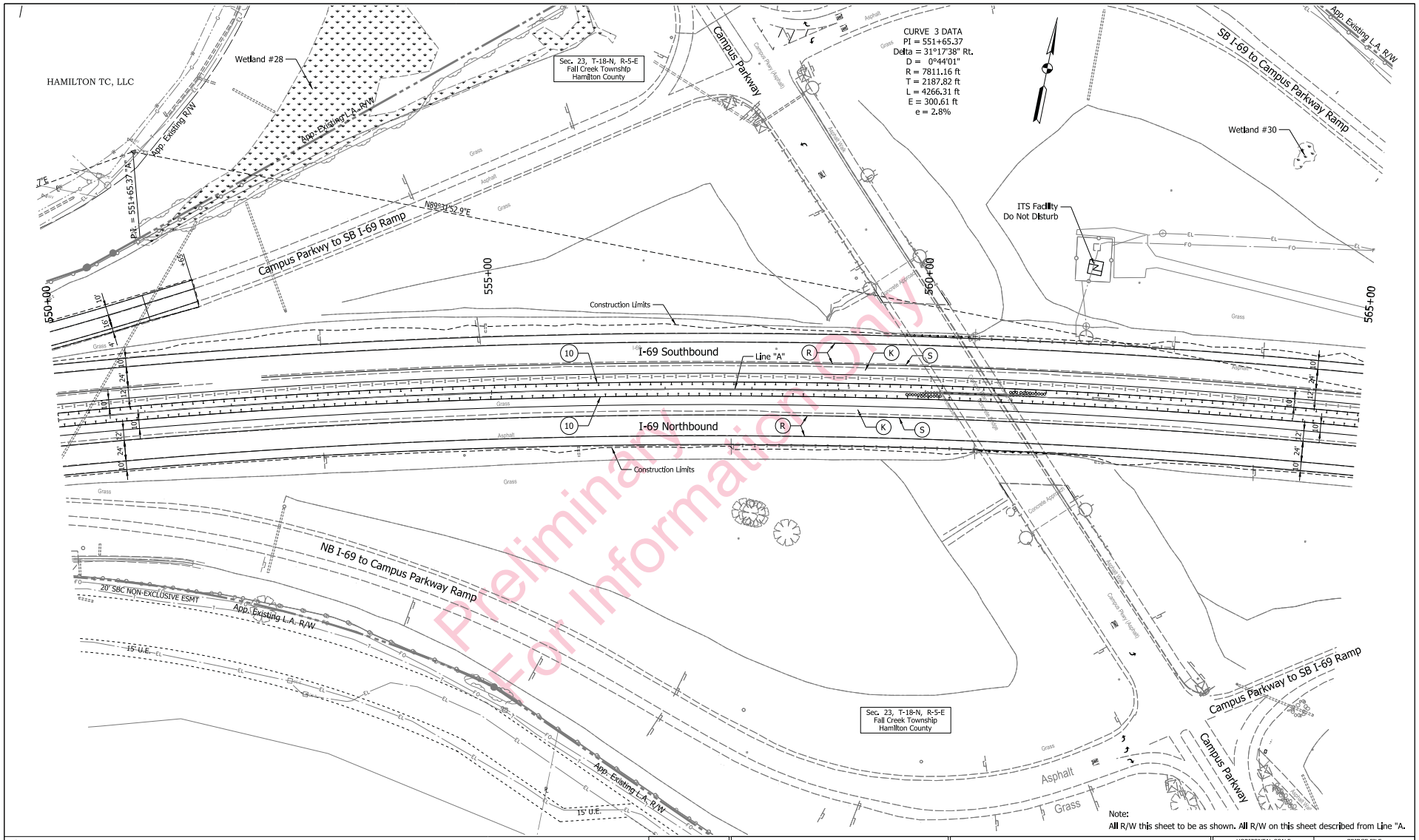
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 535+00.00 TO STA. 550+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPXdms04740\Sht_Plan_50_22.dgn
23-OCT-2014



Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)	- - - - Streams
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)	
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall	

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

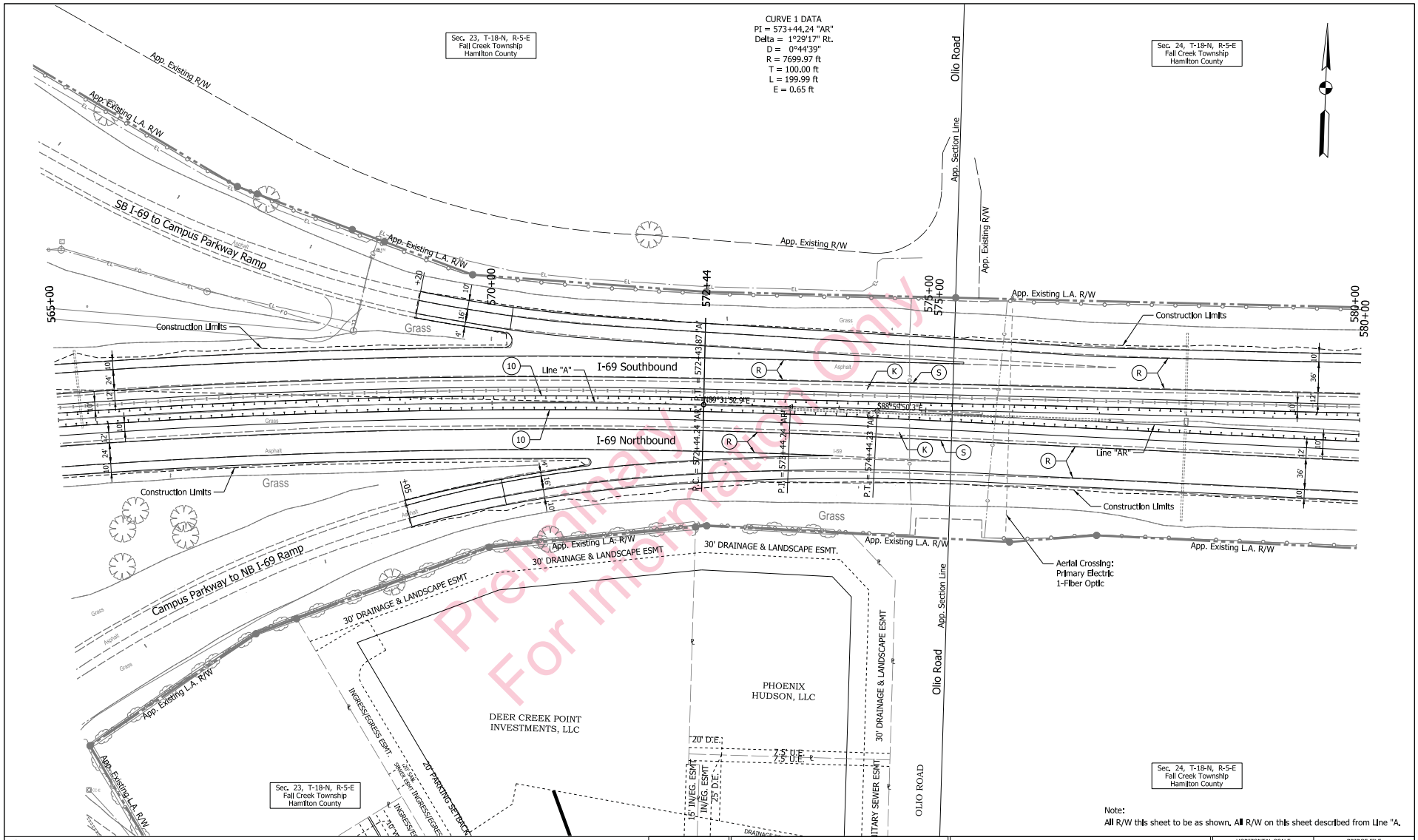
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 550+00.00 TO STA. 565+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383332
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383332

IP_PWPIdms04740\Sht_Plan_50_23.dgn
23-OCT-2014

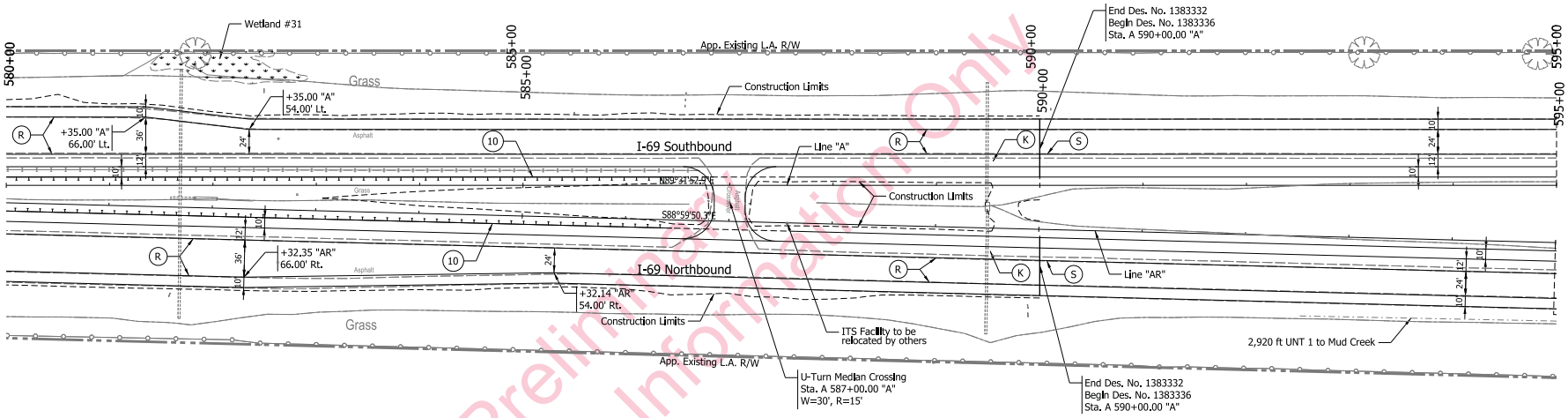


(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383332
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 565+00.00 TO STA. 580+00.00 LINE "A"	SURVEY BOOK	SHEETS
CHECKED: DCK CHECKED: WJW			1 of 1
		CONTRACT R-37053	PROJECT 1383332

IP_PWPfdms04740\Sht_Plan_50_24.dgn
23-OCT-2014

Sec. 24, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 24, T-18-N, R-5-E
Fall Creek Township
Hamilton County

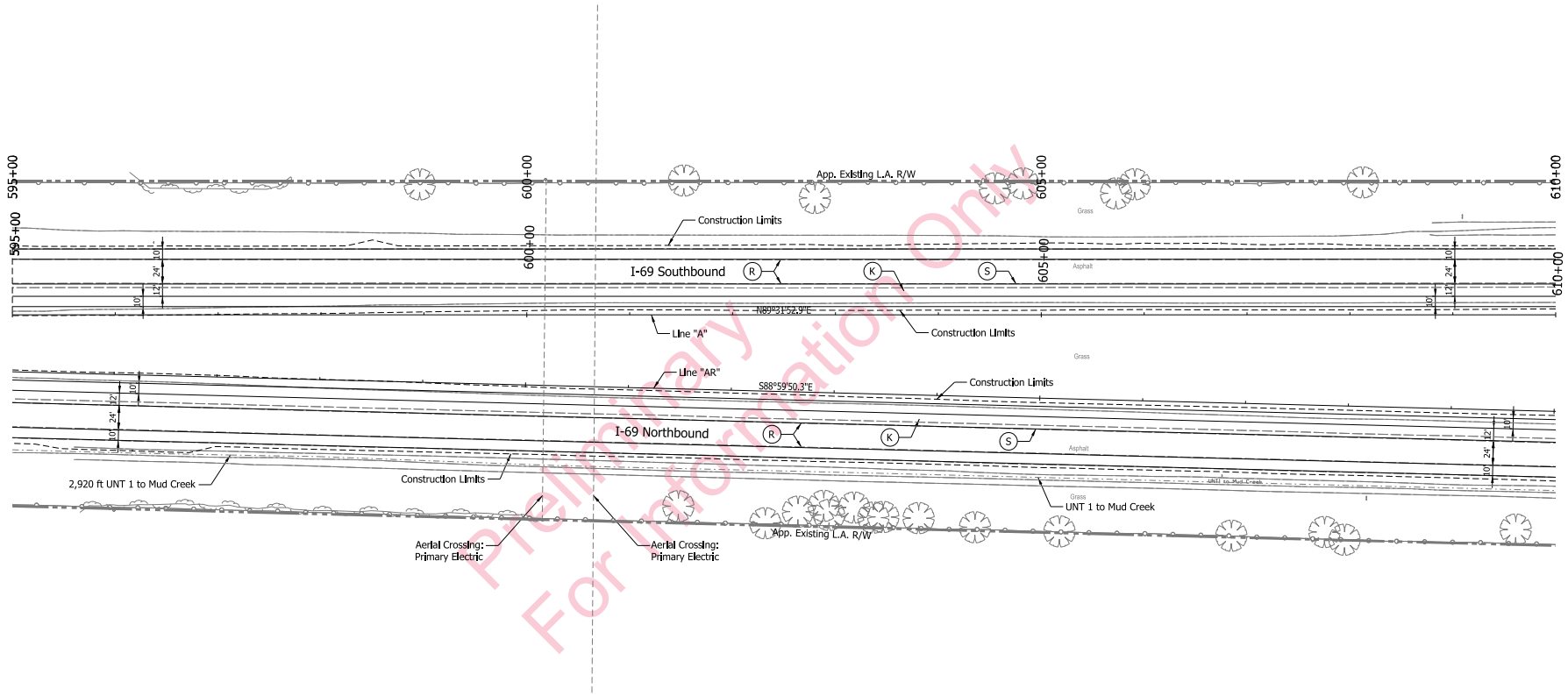
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383332, 1383336
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 580+00.00 TO STA. 595+00.00 LINE "A"	SURVEY BOOK / SHEETS	CONTRACT R-37053 / PROJECT 1383332, 1383336

IP_PWPfdms04740\Sht_Plan_50_25.dgn
23-OCT-2014

Sec. 24, T-18-N, R-5-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 24, T-18-N, R-5-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall

- - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 595+00.00 TO STA. 610+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

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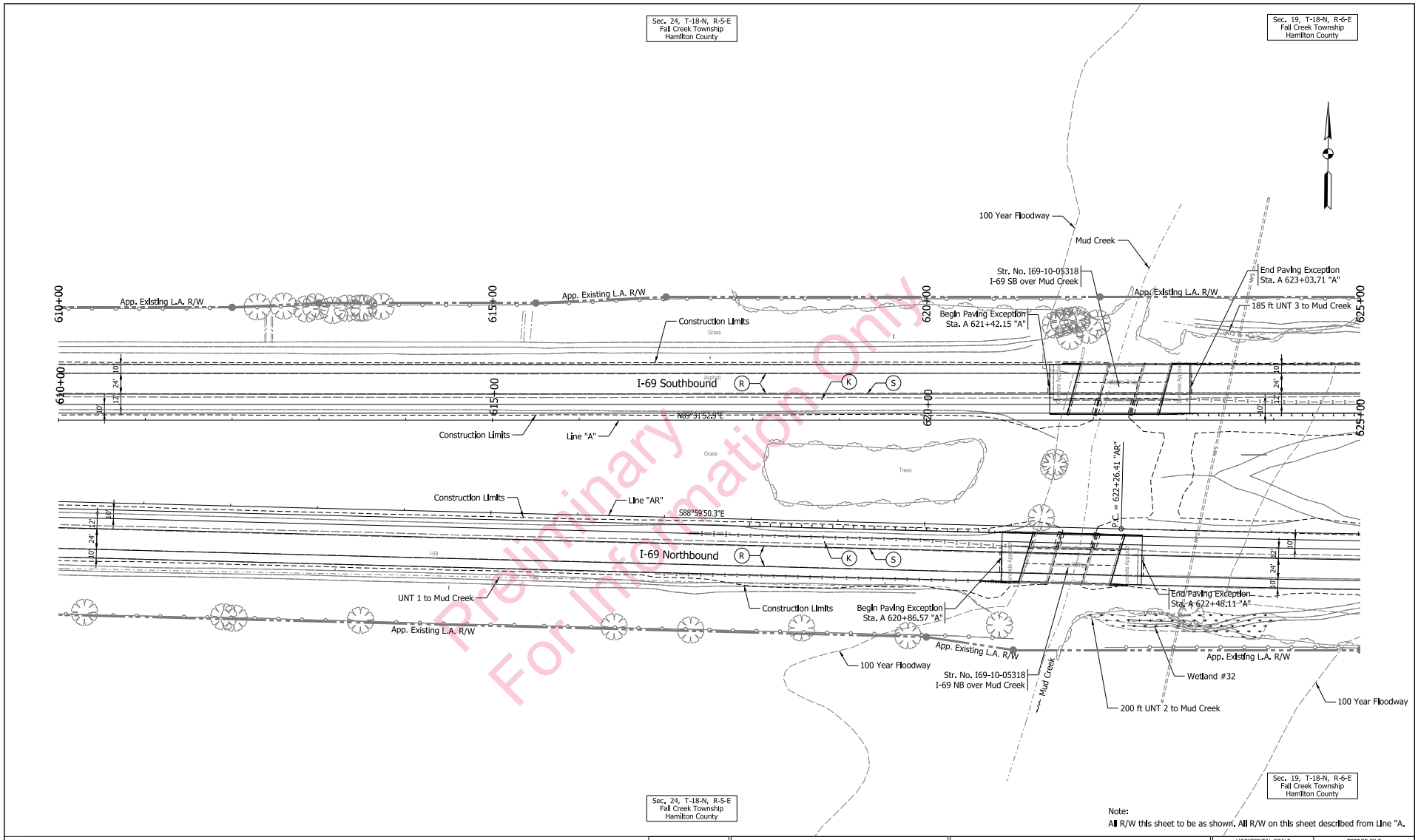
23-OCT-2014



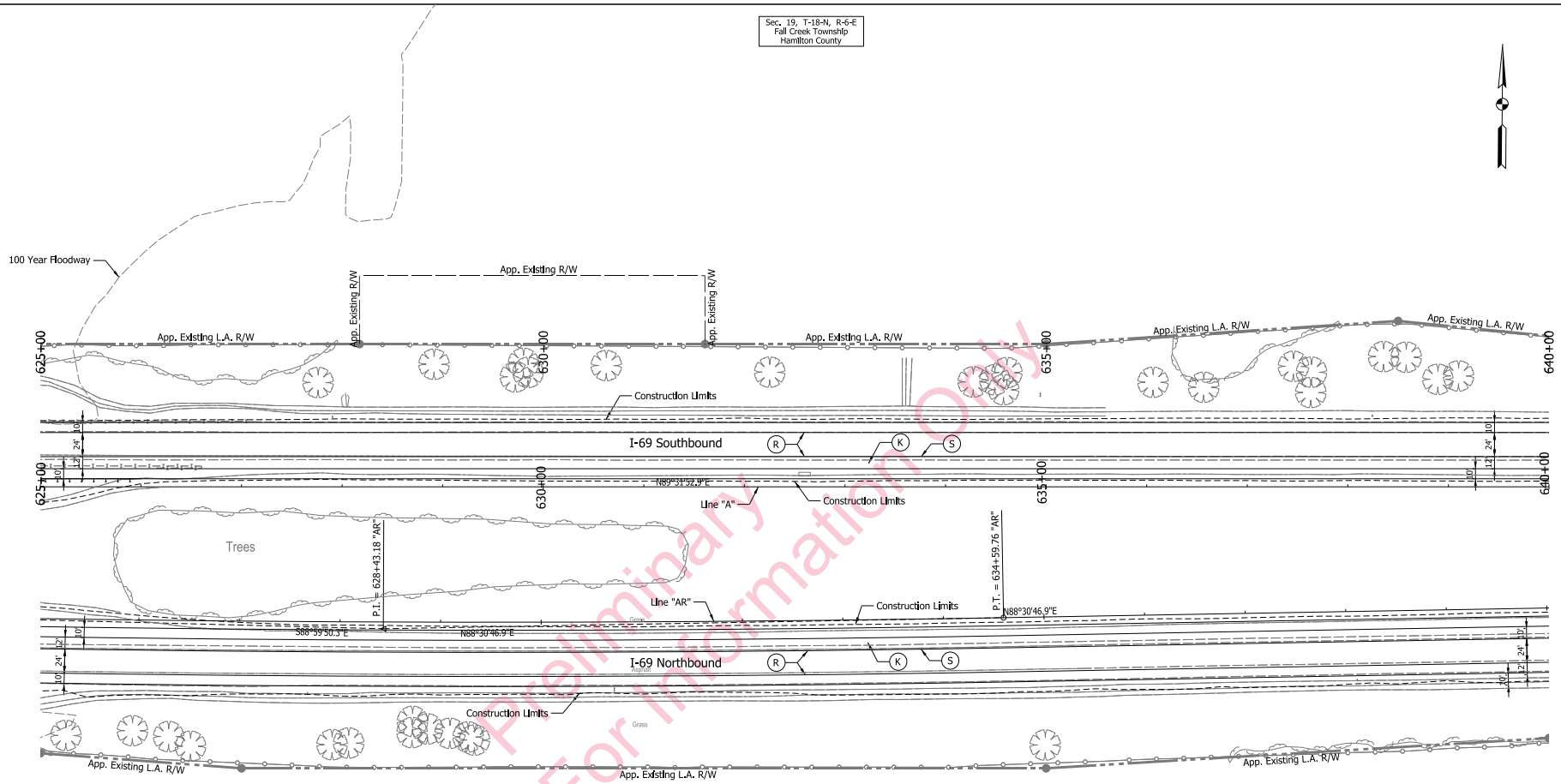
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
(FT) - FT Rail on MSE Wall
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 610+00.00 TO STA. 625+00.00 LINE "A"	SURVEY BOOK	SHEETS
CHECKED: DCK CHECKED: WJW		CONTRACT R-37053	PROJECT 1383336

IP_PWPfdms04647\Sht_Plan_50_27.dgn
23-OCT-2014

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

CURVE 2 DATA
PI = 628+43.18 "AR"
Delta = 2°29'34" Lt.
D = 0°12'08"
R = 28348.19 ft
T = 616.77 ft
L = 1233.35 ft
E = 6.71 ft

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County

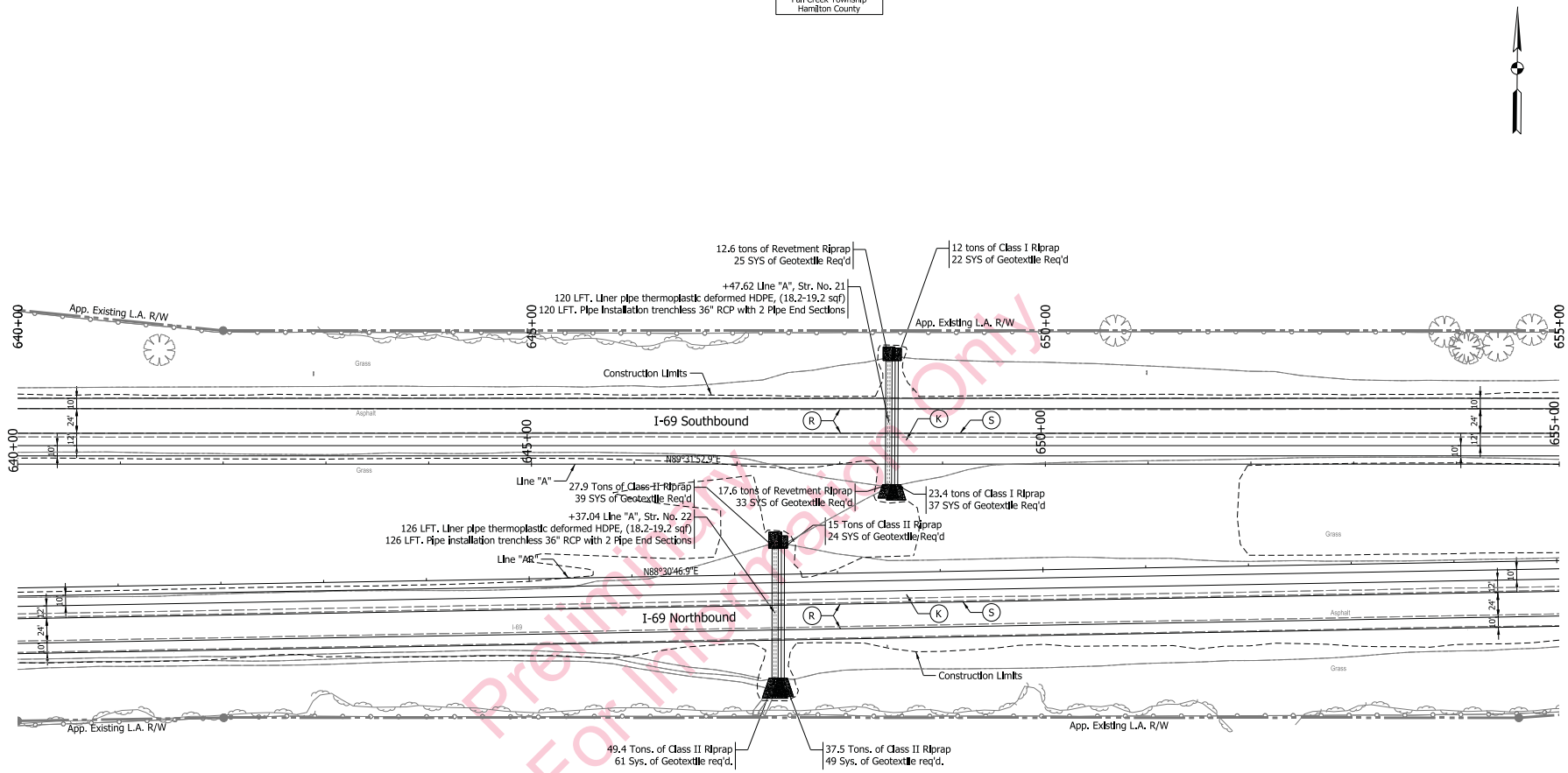
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 625+00.00 TO STA. 640+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1	
		CONTRACT R-37053	PROJECT 1383336

IP_PWPtdms04647\Sht_Plan_50_28.dgn

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 640+00.00 TO STA. 655+00.00 LINE "A"	SURVEY BOOK / SHEETS	1 of 1
		CONTRACT R-37053	PROJECT 1383336

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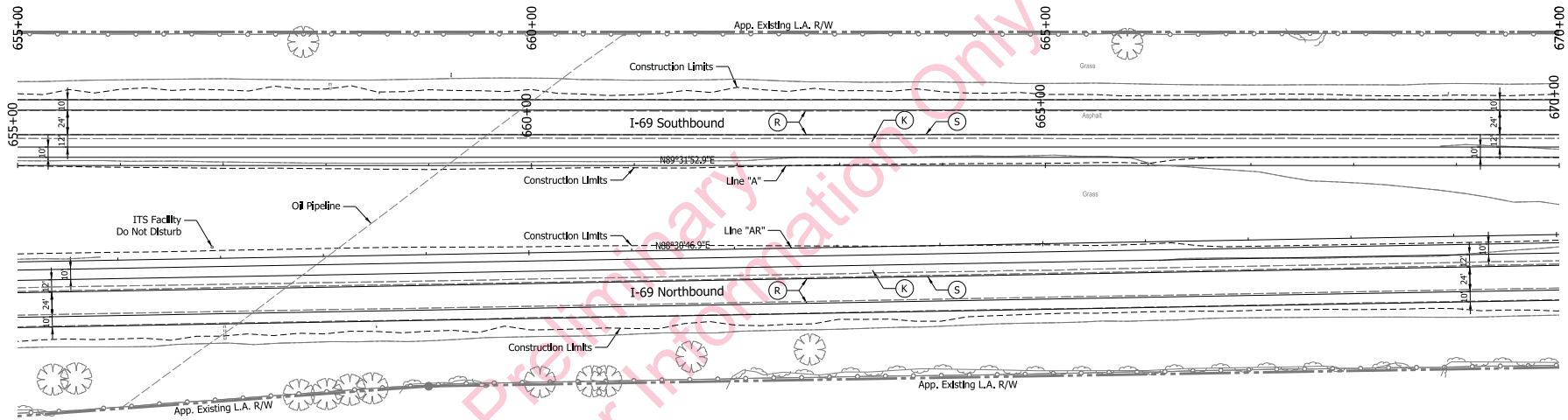
23-OCT-2014

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 19, T-18-N, R-6-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall

- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE / BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW	DRAWN: SJC	PLAN SHEET STA. 655+00.00 TO STA. 670+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1
CHECKED: DCK	CHECKED: WJW		CONTRACT R-37053 / PROJECT 1383336

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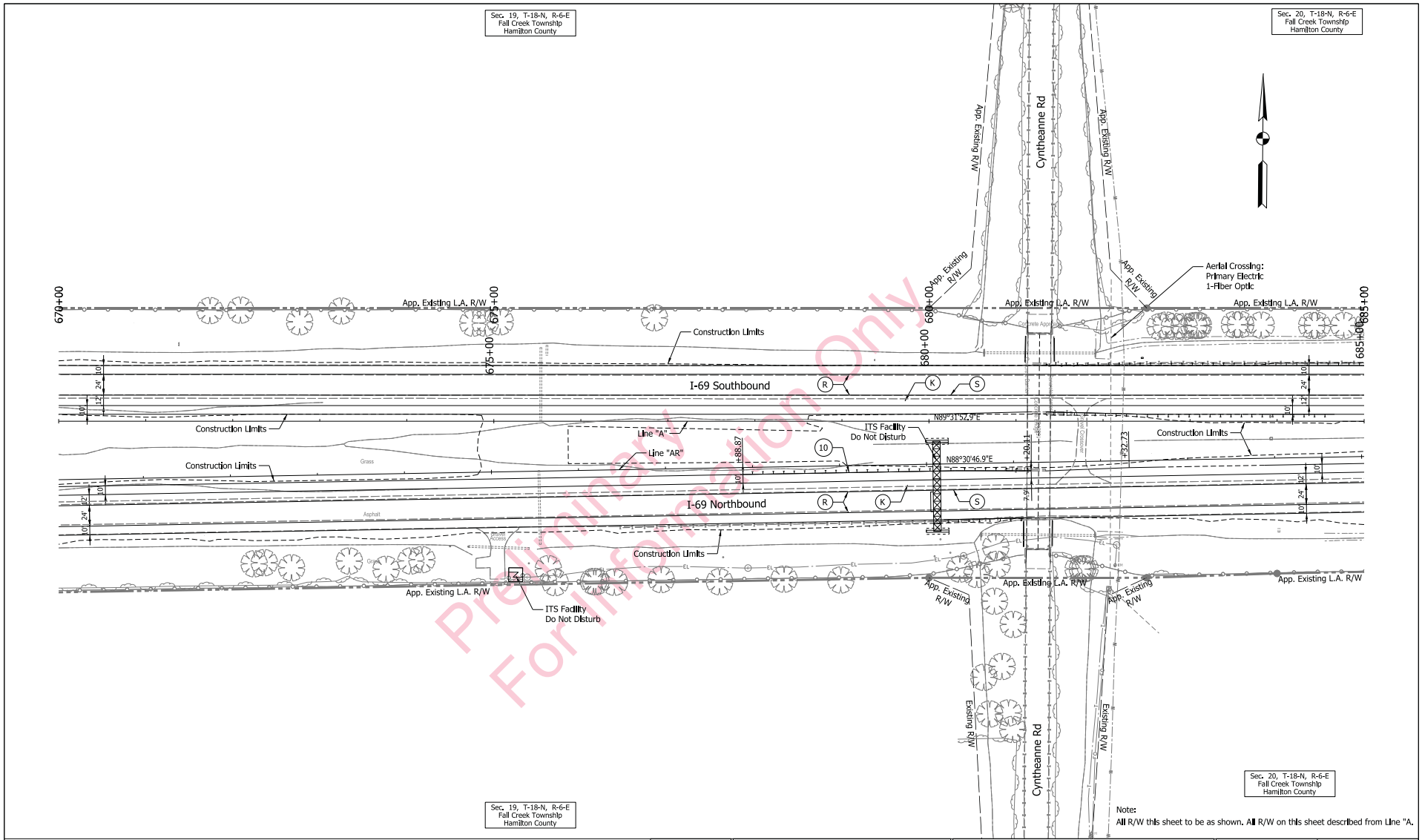
23-OCT-2014



Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall
		- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

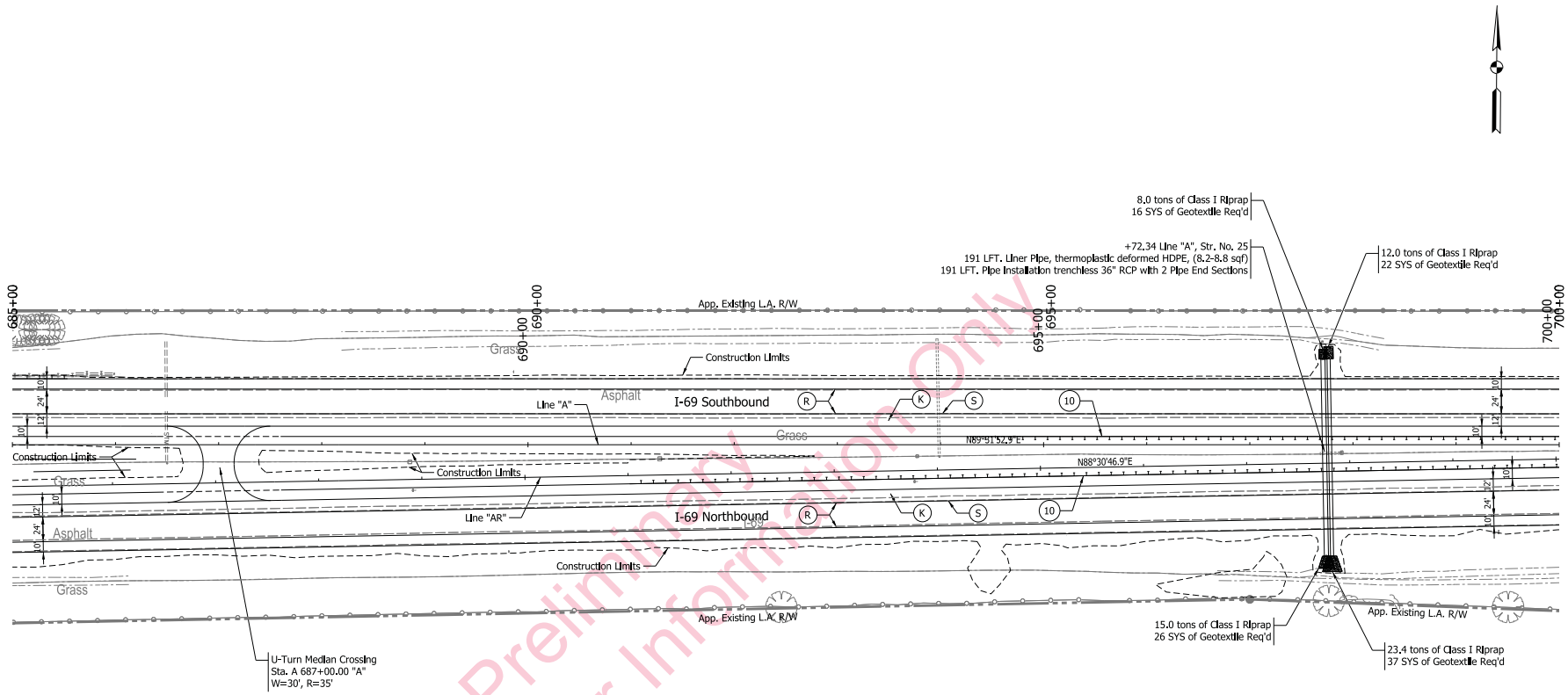
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 670+00.00 TO STA. 685+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPfdms04647\Sht_Plan_50_31.dgn
23-OCT-2014

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall

- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

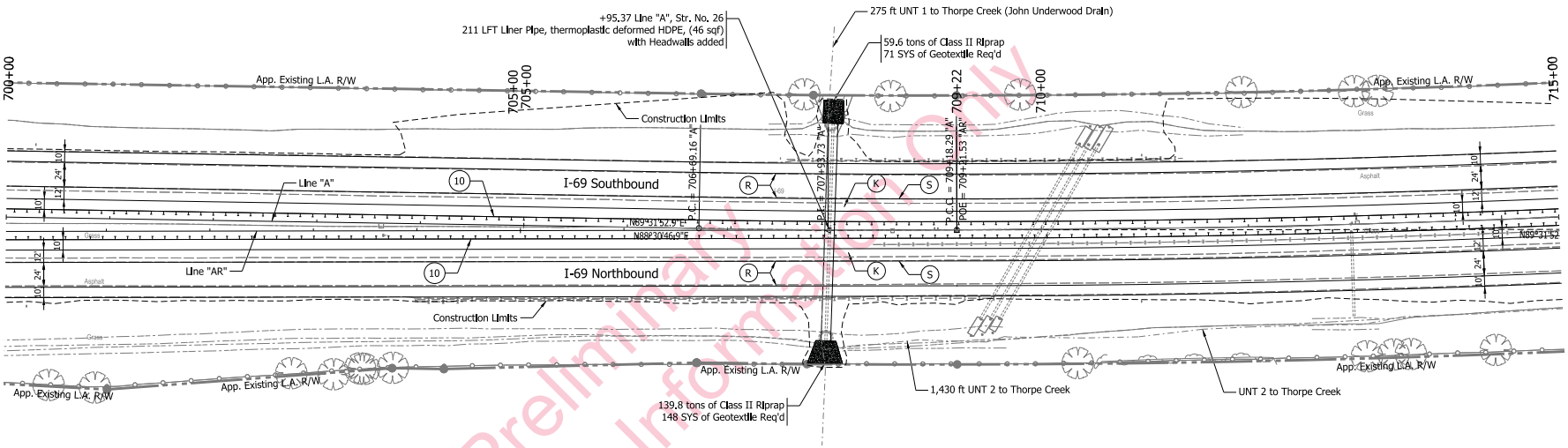
PLAN SHEET
STA. 685+00.00 TO STA. 700+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPfdms04647\Sht_Plan_50_32.dgn
23-OCT-2014

CURVE 4 DATA
PI = 707+93.73
Delta = 1°13'16" Lt.
D = 0°29'25"
R = 11688.54 ft
T = 124.57 ft
L = 249.13 ft
E = 0.66 ft
e = 2.0%

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

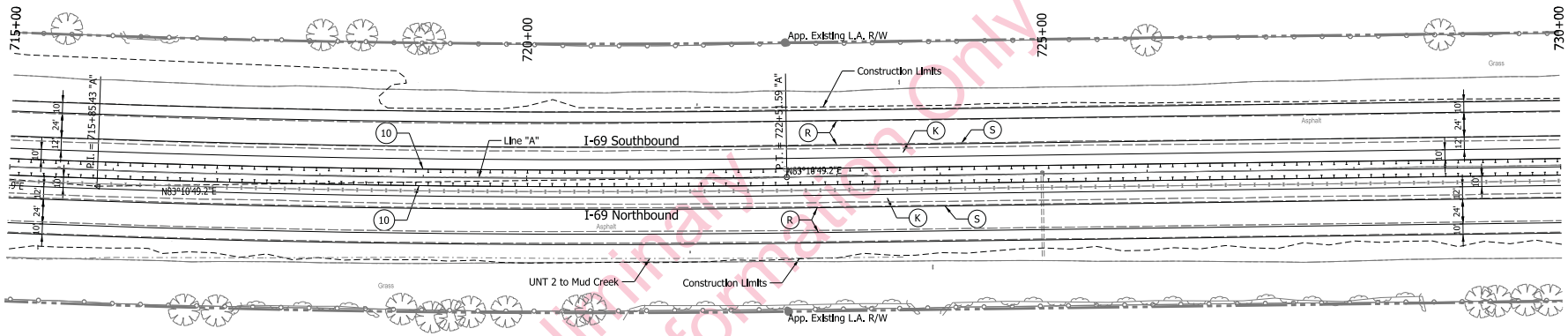
(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW DRAWN: SJC / CHECKED: DCK CHECKED: WJW	PLAN SHEET STA. 700+00.00 TO STA. 715+00.00 LINE "A"	SURVEY BOOK / CONTRACT R-37053	SHEETS 1 of 1 / PROJECT 1383336

IP_PWPrdms04647\Sht_Plan_50_33.dgn
23-OCT-2014

CURVE 5 DATA
PI = 715+85.43 "A"
Delta = 5°23'04" Lt.
D = 0°24'14"
R = 14187.59 ft
T = 667.14 ft
L = 1333.29 ft
E = 15.68 ft

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 20, T-18-N, R-6-E
Fall Creek Township
Hamilton County

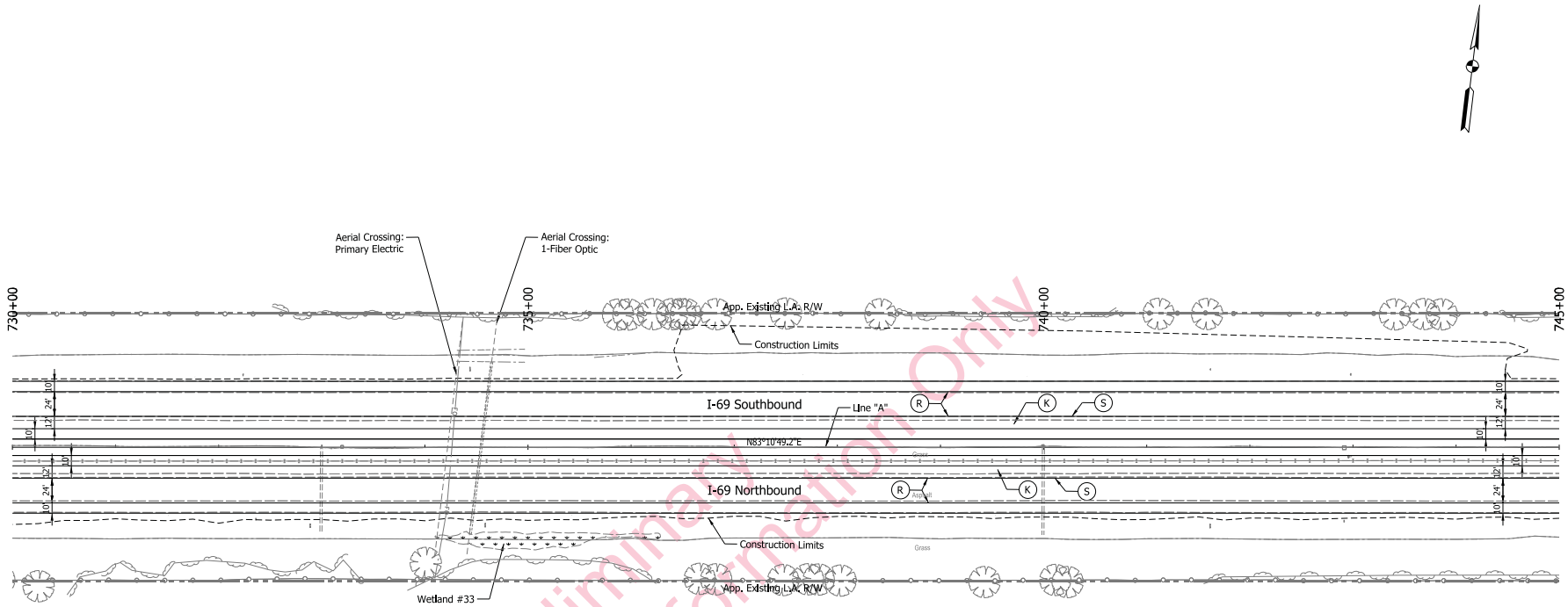
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

K - Full Depth, HMA Pavement on Subgrade Treatment, Type _
R - Scarification/Profile and Resurfacing
S - Saw Cut
2 - 45 In. Concrete Barrier
2A - Modified Concrete Barrier
10 - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
FT - FT Rail on MSE Wall
- Streams

IP_PWPdms04647\Sht_Plan_50_34.dgn
23-OCT-2014

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50' / VERTICAL SCALE	BRIDGE FILE / DESIGNATION 1383336
DESIGNED: WJW / DRAWN: SJC / CHECKED: DCK / CHECKED: WJW	PLAN SHEET STA. 715+00.00 TO STA. 730+00.00 LINE "A"	SURVEY BOOK / SHEETS 1 of 1	
		CONTRACT R-37053	PROJECT 1383336

Sec. 21, T-18-N, R-6-E
Fall Creek Township
Hamilton County



Preliminary
For Information Only

Sec. 21, T-18-N, R-6-E
Fall Creek Township
Hamilton County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall
		- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 730+00.00 TO STA. 745+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

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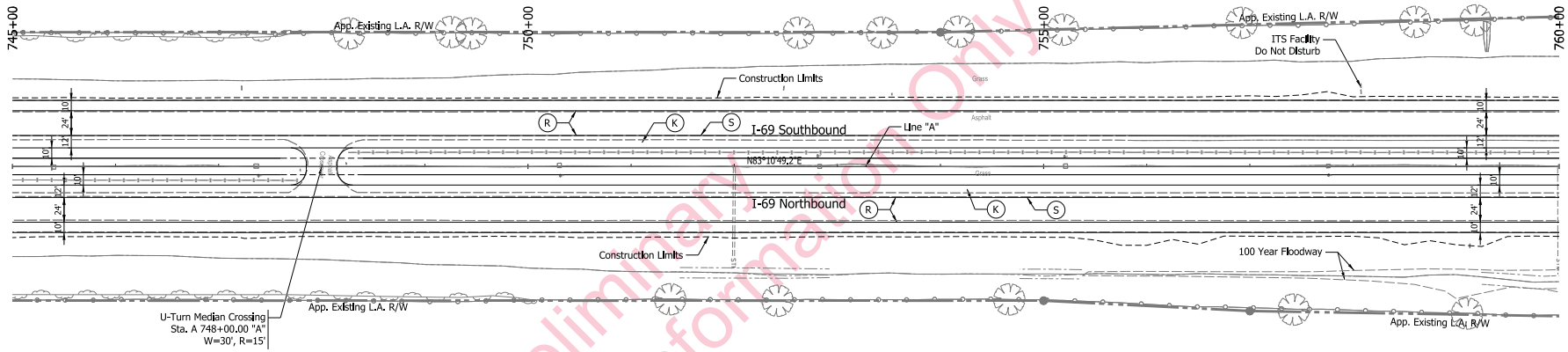
23-OCT-2014

Sec. 21, T-18-N, R-6-E
Green Township
Madison County



Preliminary
For Information Only

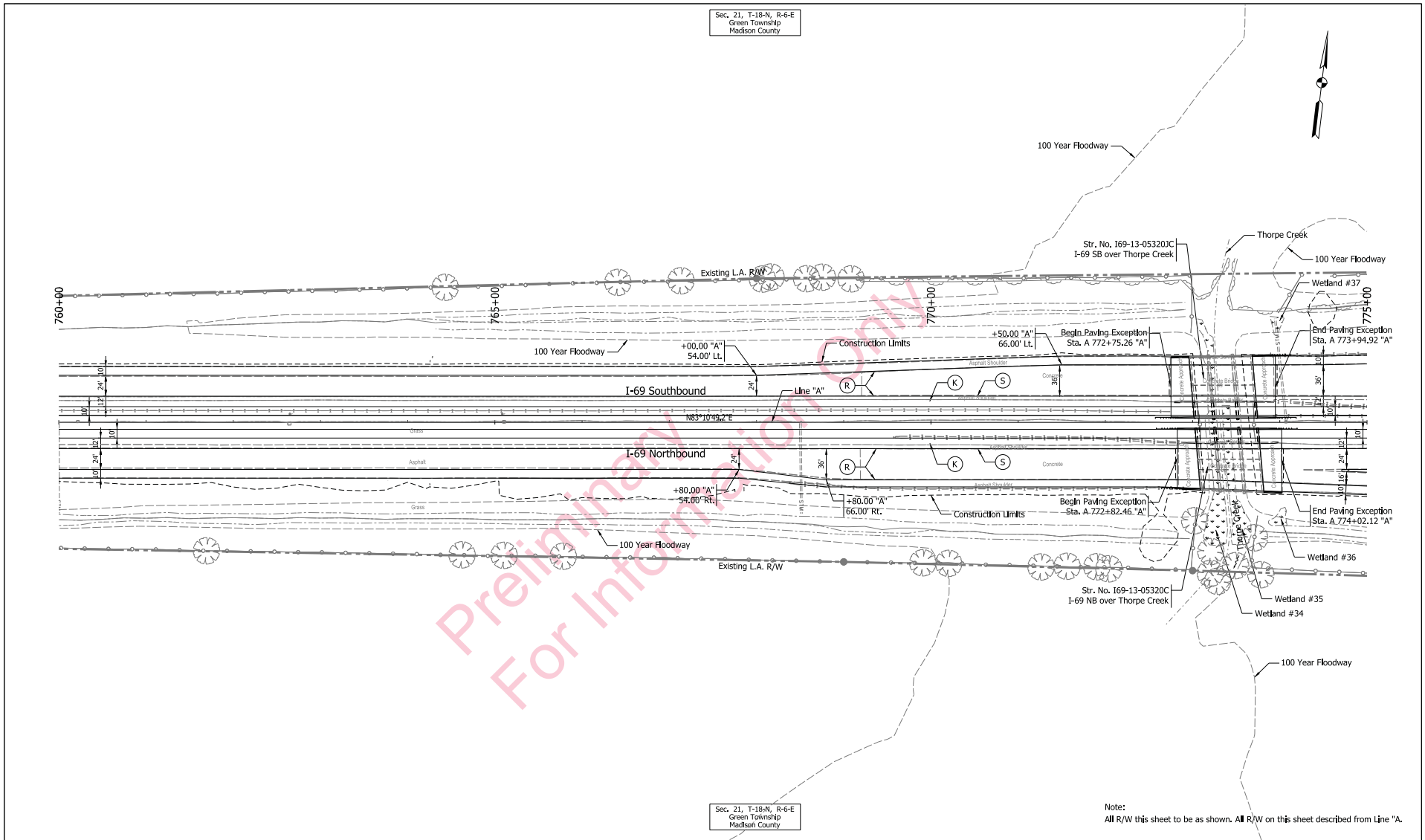
Sec. 21, T-18-N, R-6-E
Green Township
Madison County

Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- - - - Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383336
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 745+00.00 TO STA. 760+00.00 LINE "A"	SURVEY BOOK	SHEETS
CHECKED: DCK CHECKED: WJW			of
		CONTRACT R-37053	PROJECT 1383336

IP_PWPfdms04647\Sht_Plan_50_36.dgn
23-OCT-2014



Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A".

Preliminary
For Information Only

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

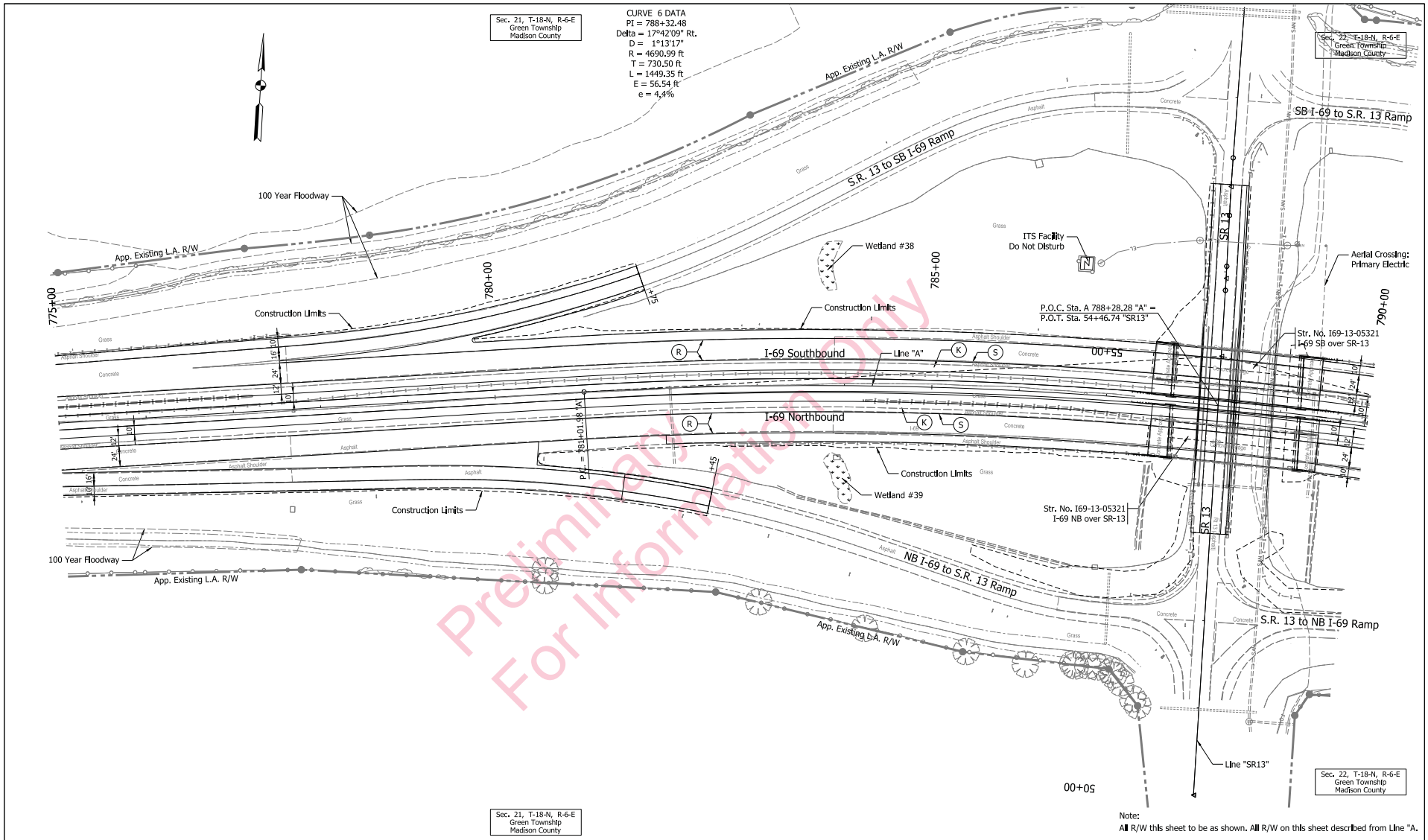
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 760+00.00 TO STA. 775+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPfdms04647\Sht_Plan_50_37.dgn
23-OCT-2014



Preliminary
For Information Only

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

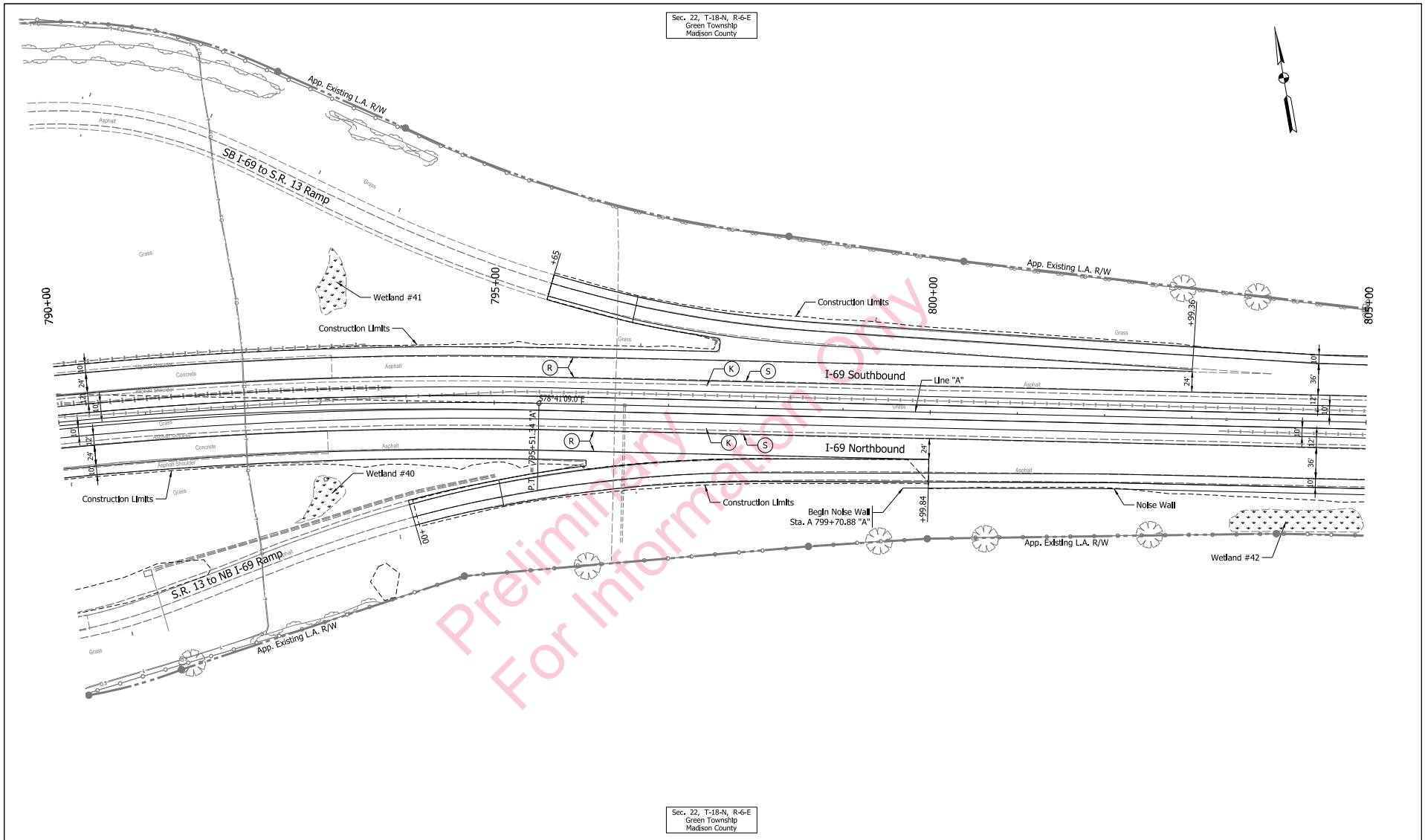
DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 775+00.00 TO STA. 790+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPfdms04647\Sht_Plan_50_38.dgn
23-OCT-2014



Sec. 22, T-18-N, R-6-E
Green Township
Madison County

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _	(2) - 45 In. Concrete Barrier	- Wetlands (Impacted)	- - - - Streams
(R) - Scarification/Profile and Resurfacing	(2A) - Modified Concrete Barrier	- Wetlands (Do Not Disturb)	
(S) - Saw Cut	(10) - Guardrail, W-Beam	(FT) - FT Rail on MSE Wall	

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

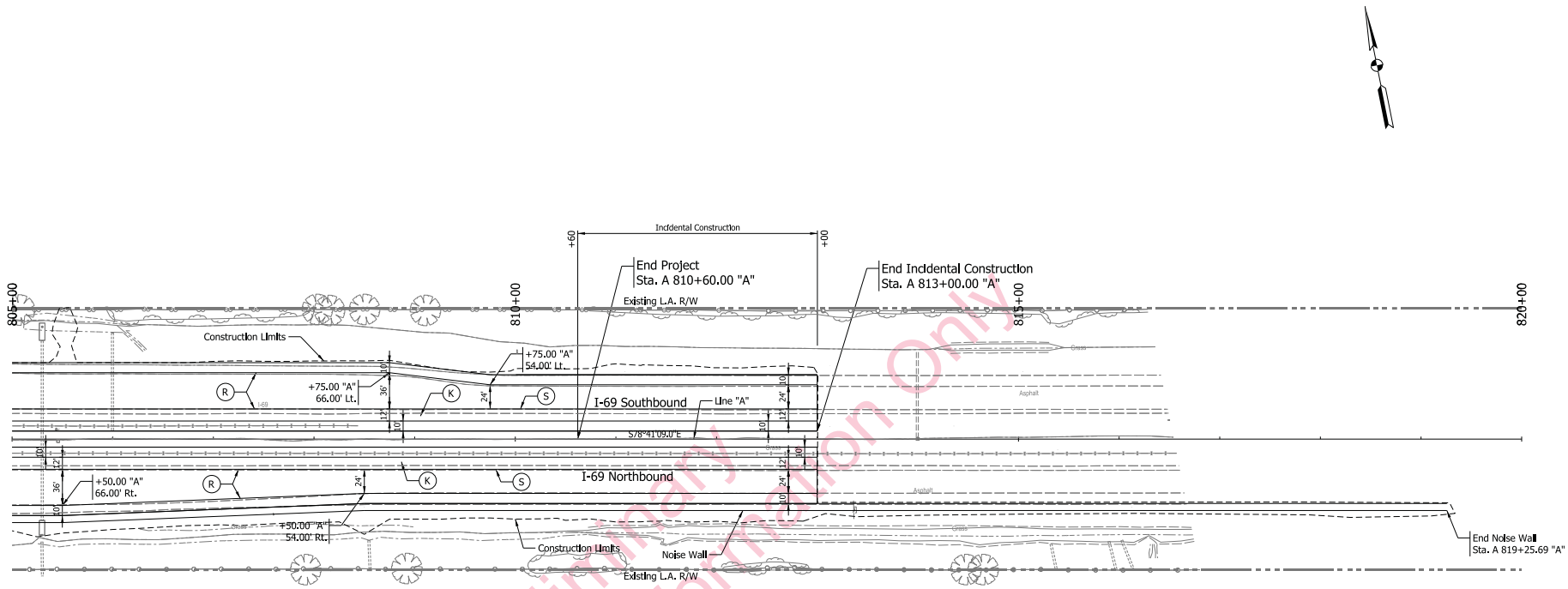
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 790+00.00 TO STA. 805+00.00
LINE "A"

HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPIdms04647\Sht_Plan_50_39.dgn
23-OCT-2014

Sec. 22, T-18-N, R-6-E
Green Township
Madison County



Preliminary
For Information Only

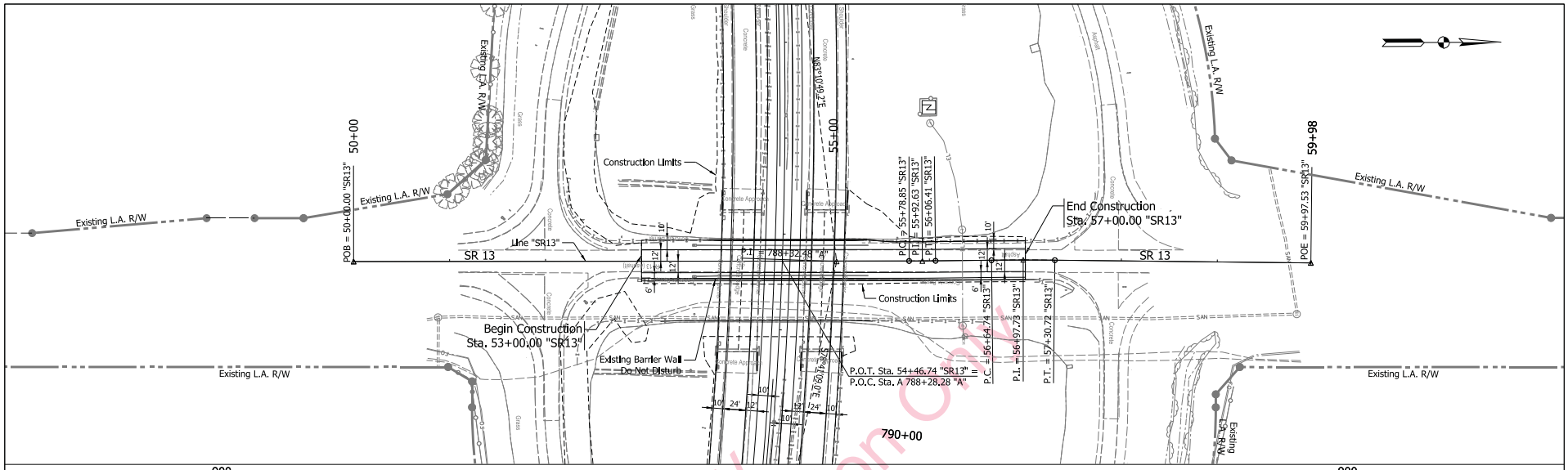
Sec. 22, T-18-N, R-6-E
Green Township
Madison County

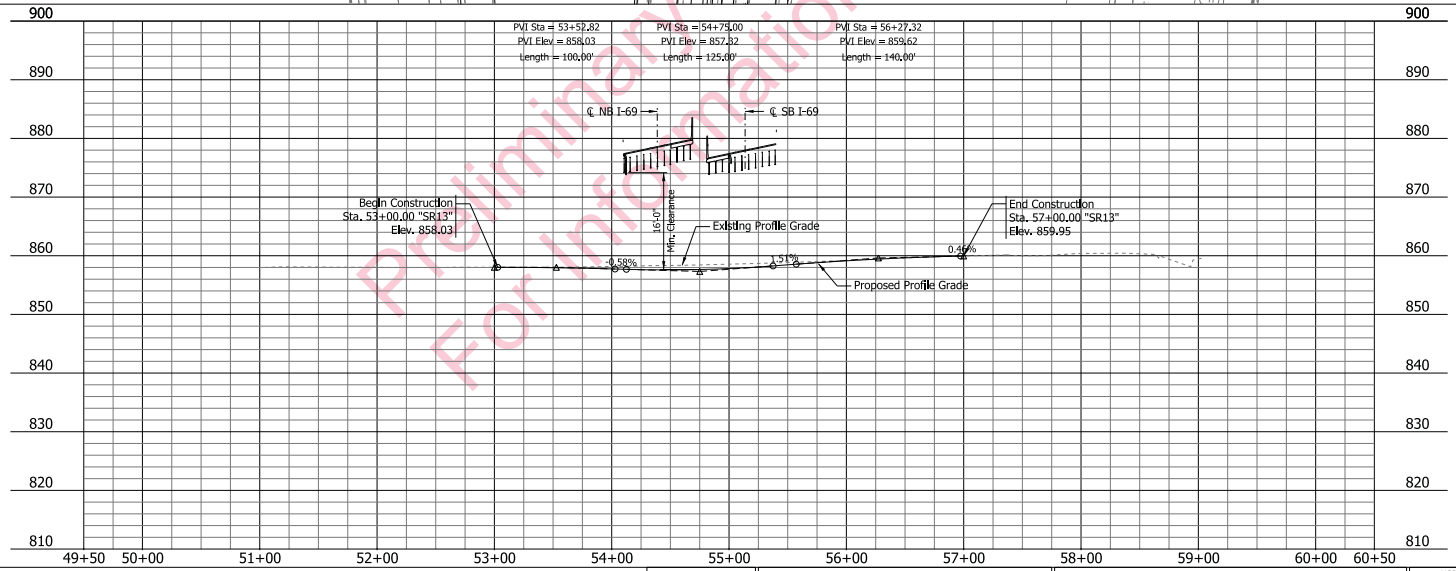
Note:
All R/W this sheet to be as shown. All R/W on this sheet described from Line "A.

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1"=50'	BRIDGE FILE
		VERTICAL SCALE	DESIGNATION 1383336
DESIGNED: WJW DRAWN: SJC	PLAN SHEET STA. 805+00.00 TO STA. 813+00.00 LINE "A"	SURVEY BOOK	SHEETS
CHECKED: DCK CHECKED: WJW			1 of 1
		CONTRACT R-37053	PROJECT 1383336

IP_PWPfdms04647\Sht_Plan_50_40.dgn
23-OCT-2014





Preliminary
For Information Only

(K) - Full Depth, HMA Pavement on Subgrade Treatment, Type _
(R) - Scarification/Profile and Resurfacing
(S) - Saw Cut
(2) - 45 In. Concrete Barrier
(2A) - Modified Concrete Barrier
(10) - Guardrail, W-Beam
- Wetlands (Impacted)
- Wetlands (Do Not Disturb)
(FT) - FT Rail on MSE Wall
- Streams

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: WJW DRAWN: SJC
CHECKED: DCK CHECKED: WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE SHEET
STA. 53+00.00 TO STA. 57+00.00
LINE "SR13"

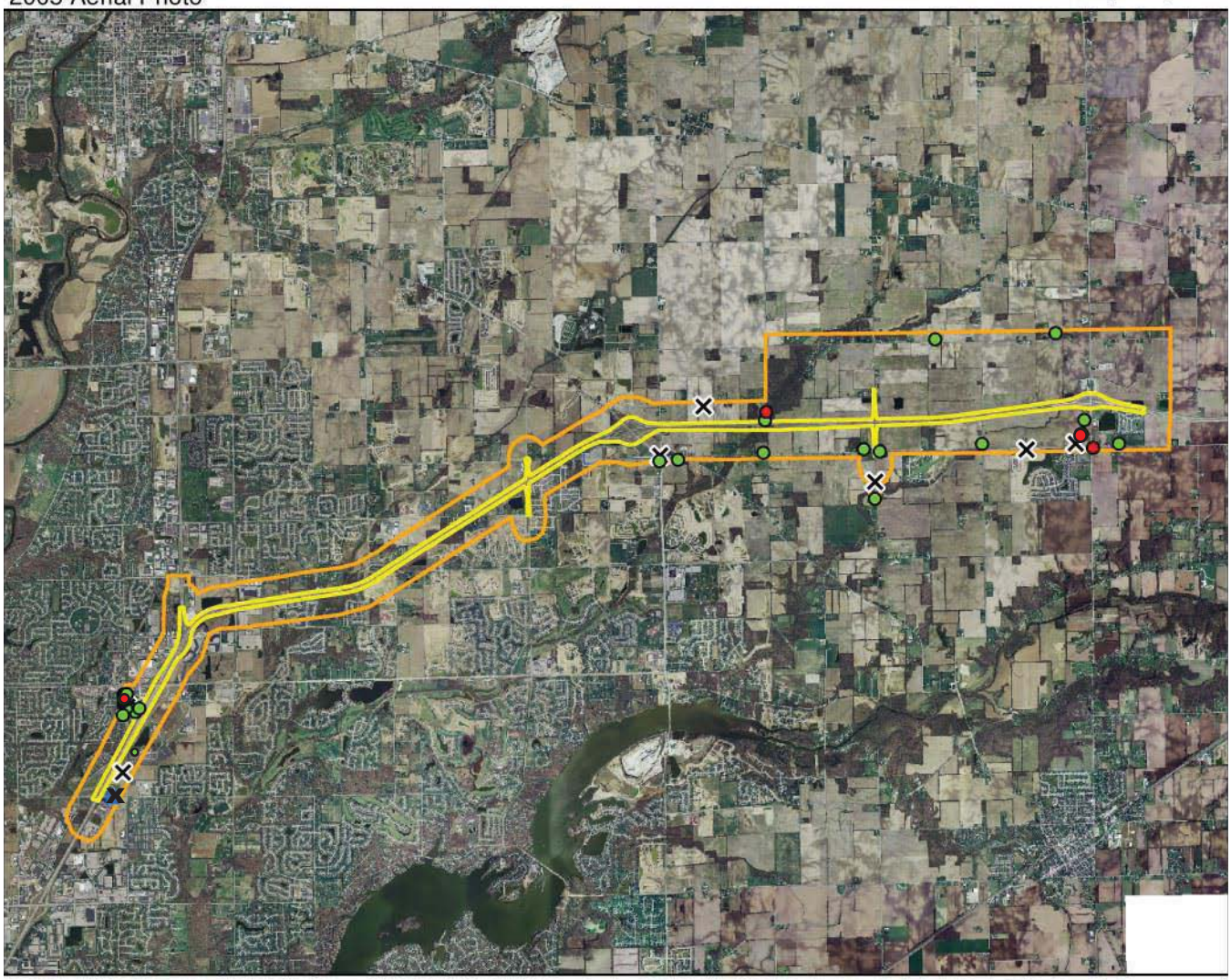
HORIZONTAL SCALE	BRIDGE FILE
1"=50'	
VERTICAL SCALE	DESIGNATION
1"=10'	1383336
SURVEY BOOK	SHEETS
	1 of 1
CONTRACT	PROJECT
R-37053	1383336

IP_PWPIdms04647\Sht_Plan_50_41.dgn
23-OCT-2014

APPENDIX B. Maps

I-69 Added Travel Lanes from 106th Street to State Road 13
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 15, 2014



0 2,500 5,000 10,000 Feet

0 1,000 2,000 4,000 Meters

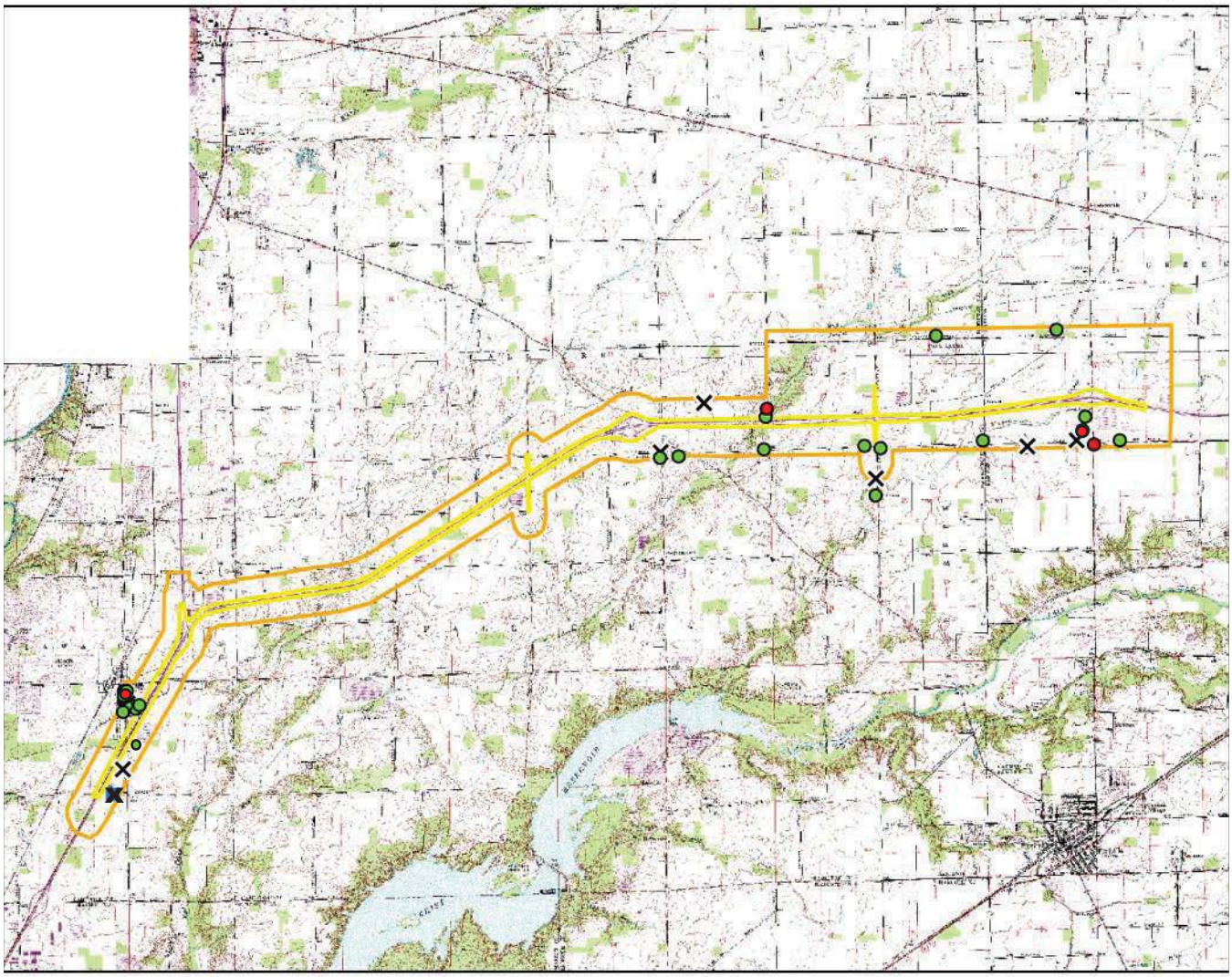
Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

Note: Information shown on this map is not warranted for accuracy or merchantability. GIS data used to create this map are from the best known sources existing at this time. However, experience shows that many national datasets are not all inclusive. Use of this map should be limited to planning, and should not replace field review or background checks with other sources. It is intended to serve as an aid in graphic representation only. This map does not represent a legal document.

I-69 Added Travel Lanes from 106th Street to State Road 13
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville, Riverwood,Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 15, 2014



0 2,500 5,000 10,000 Feet

0 1,000 2,000 4,000 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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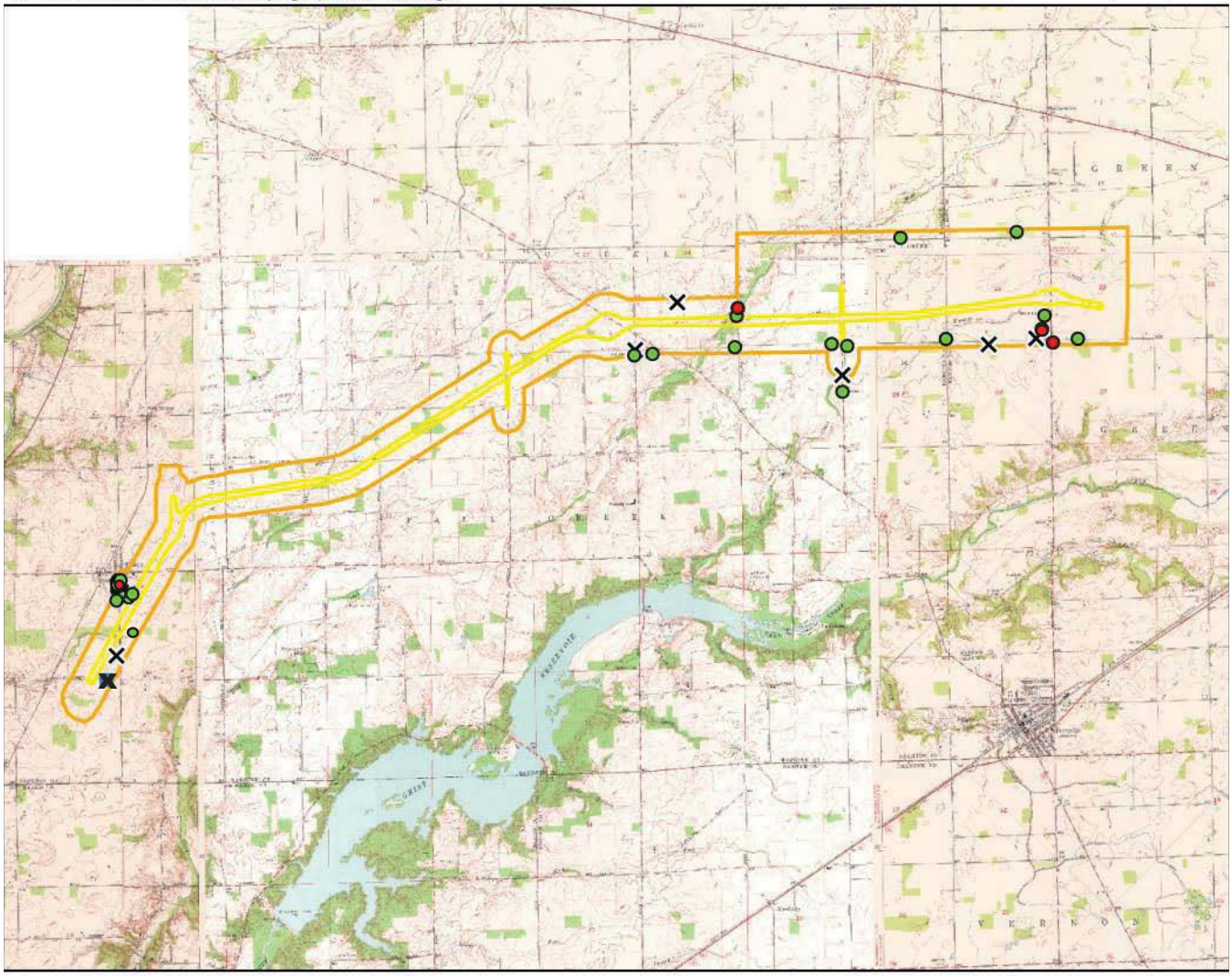
I-69 Added Travel Lanes from 106th Street to State Road 13
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 15, 2014



0 2,500 5,000 10,000 Feet

0 1,000 2,000 4,000 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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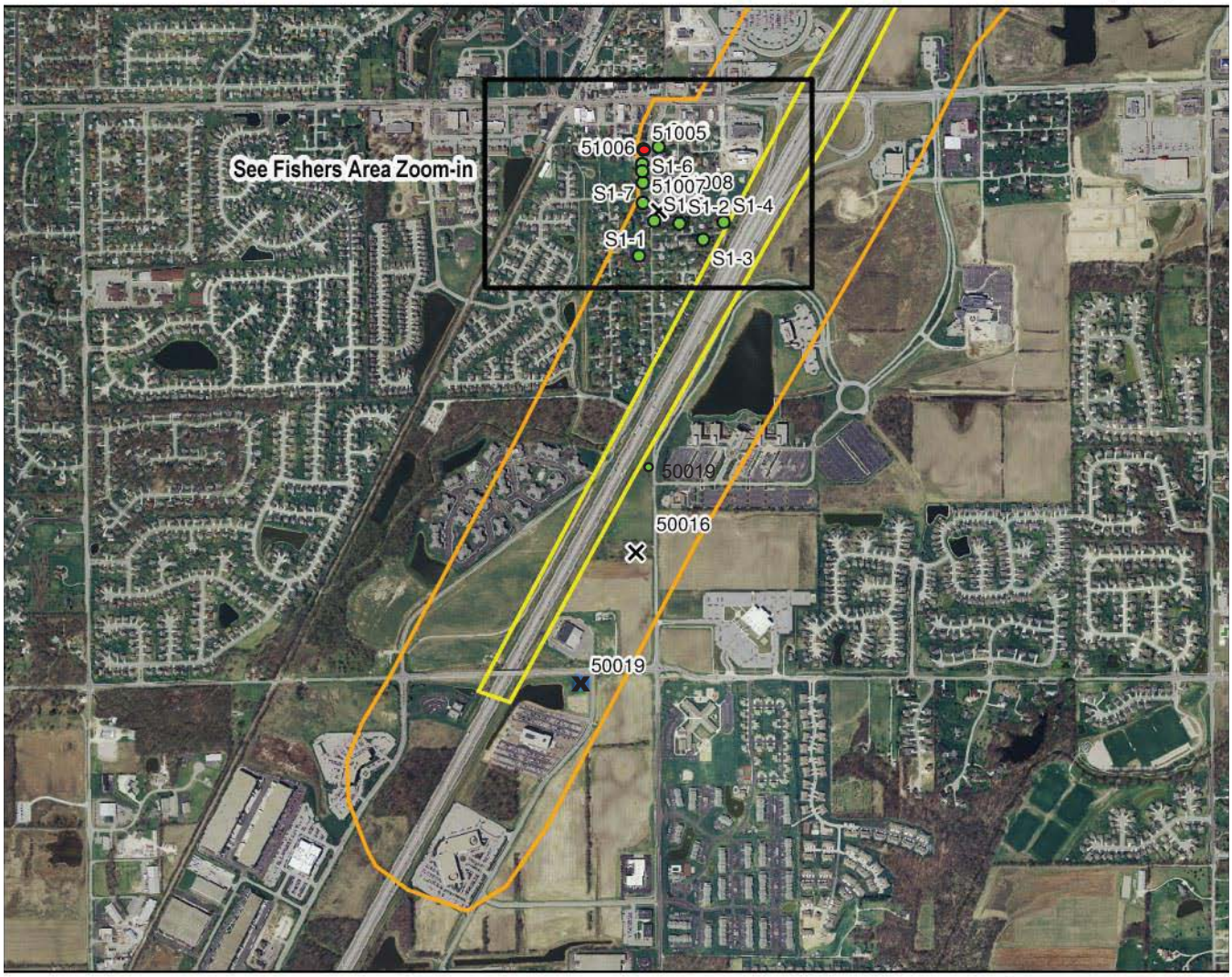
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 1
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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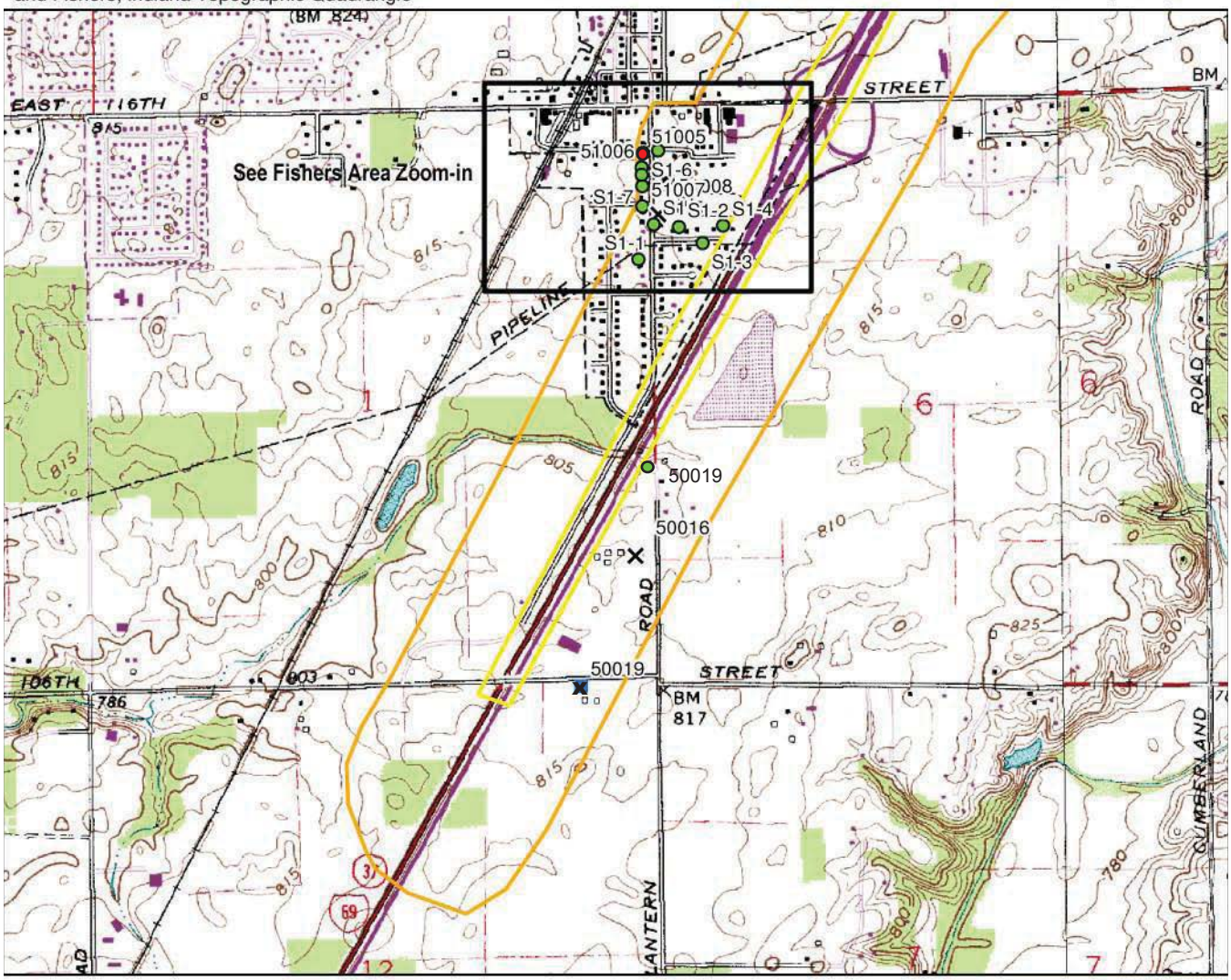
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 1
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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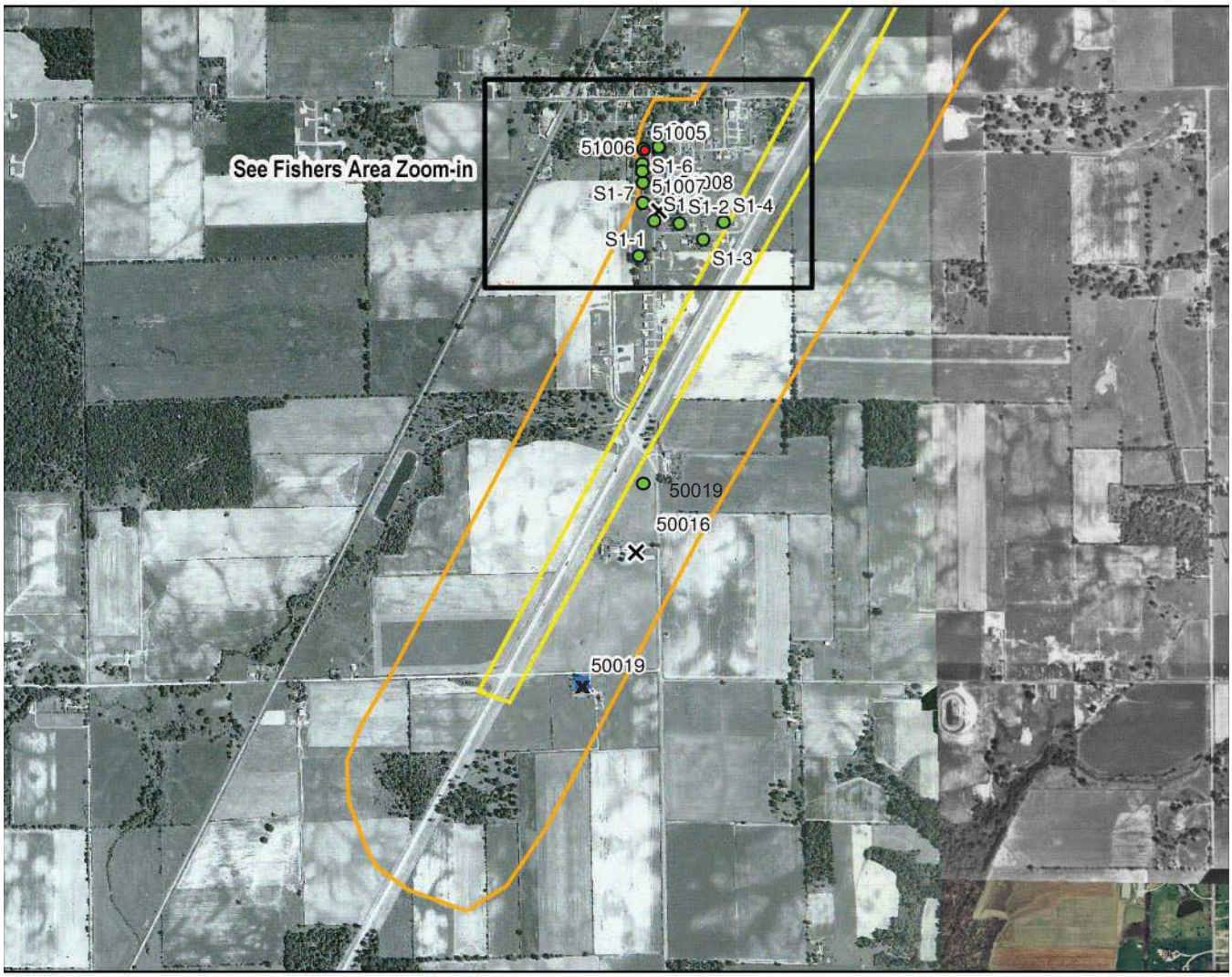
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 1
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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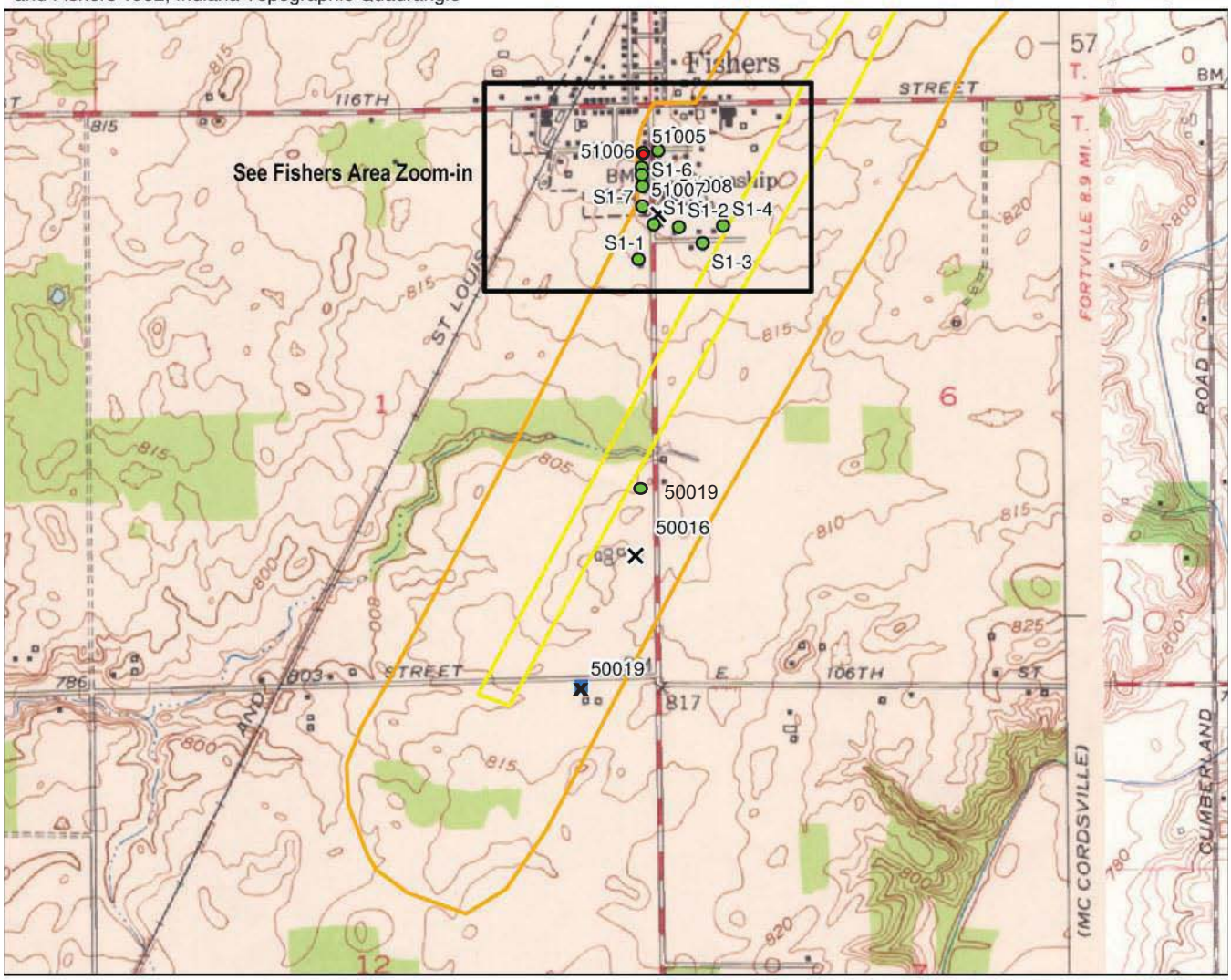
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 1
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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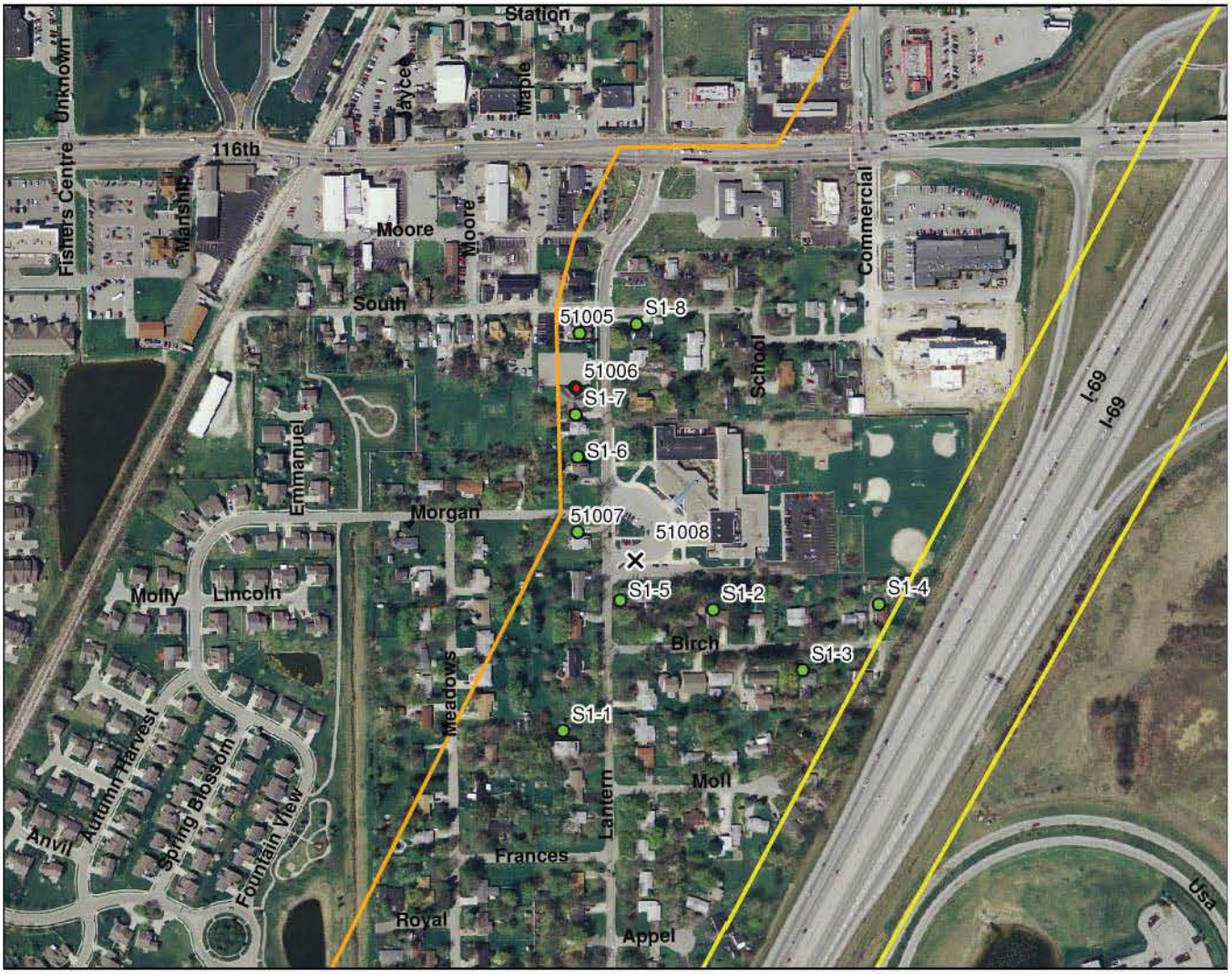
I-69 Added Travel Lanes from 106th Street to State Road 13: Fishers Area Zoom-in
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 175 350 700 Feet

0 50 100 200 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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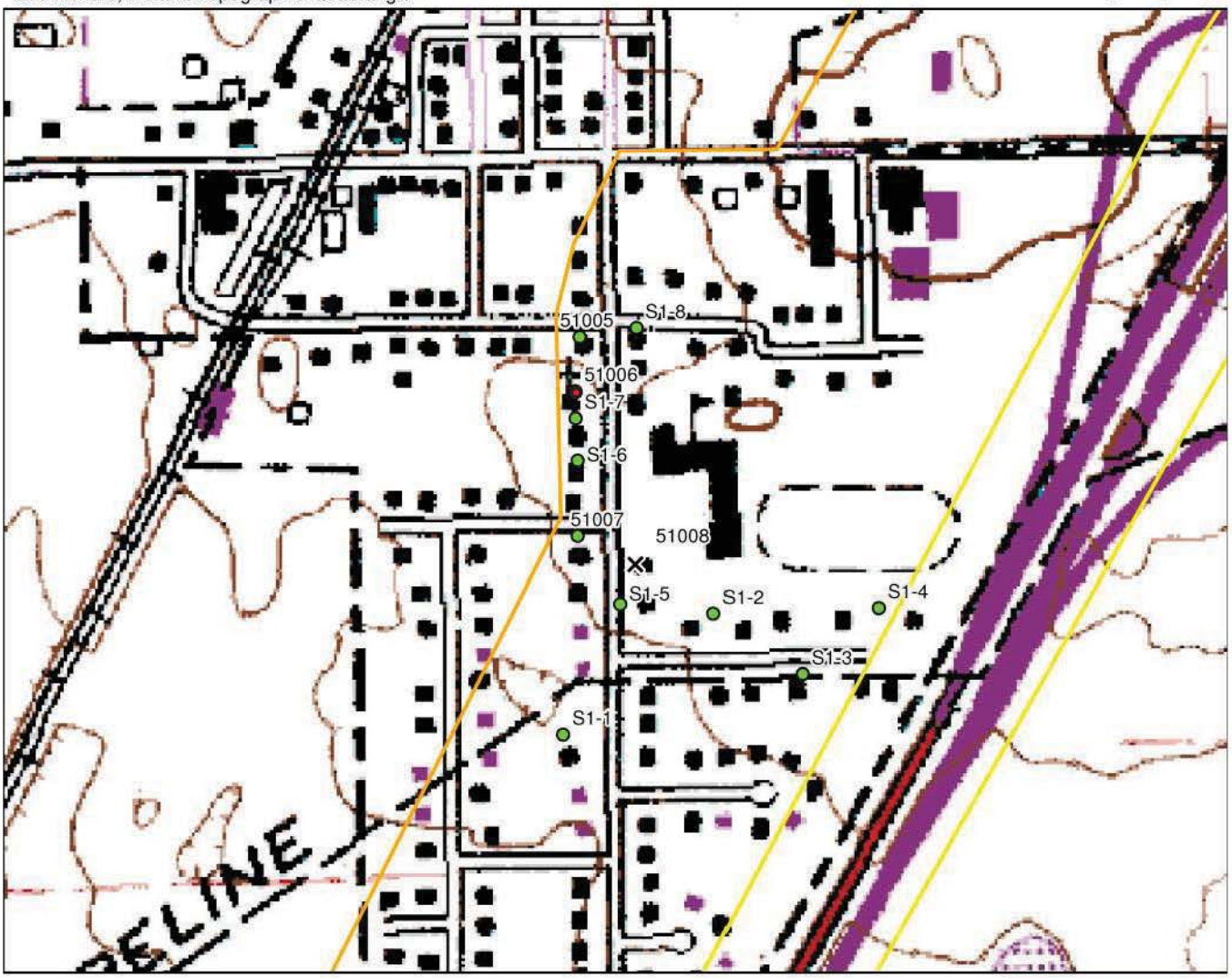
I-69 Added Travel Lanes from 106th Street to State Road 13: Fishers Area Zoom-in
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



WEINTRAUT & ASSOCIATES, INC.

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I-69 Added Travel Lanes from 106th Street to State Road 13: Fishers Area Zoom-in
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

N

April 18, 2014

0 175 350 700 Feet

0 50 100 200 Meters

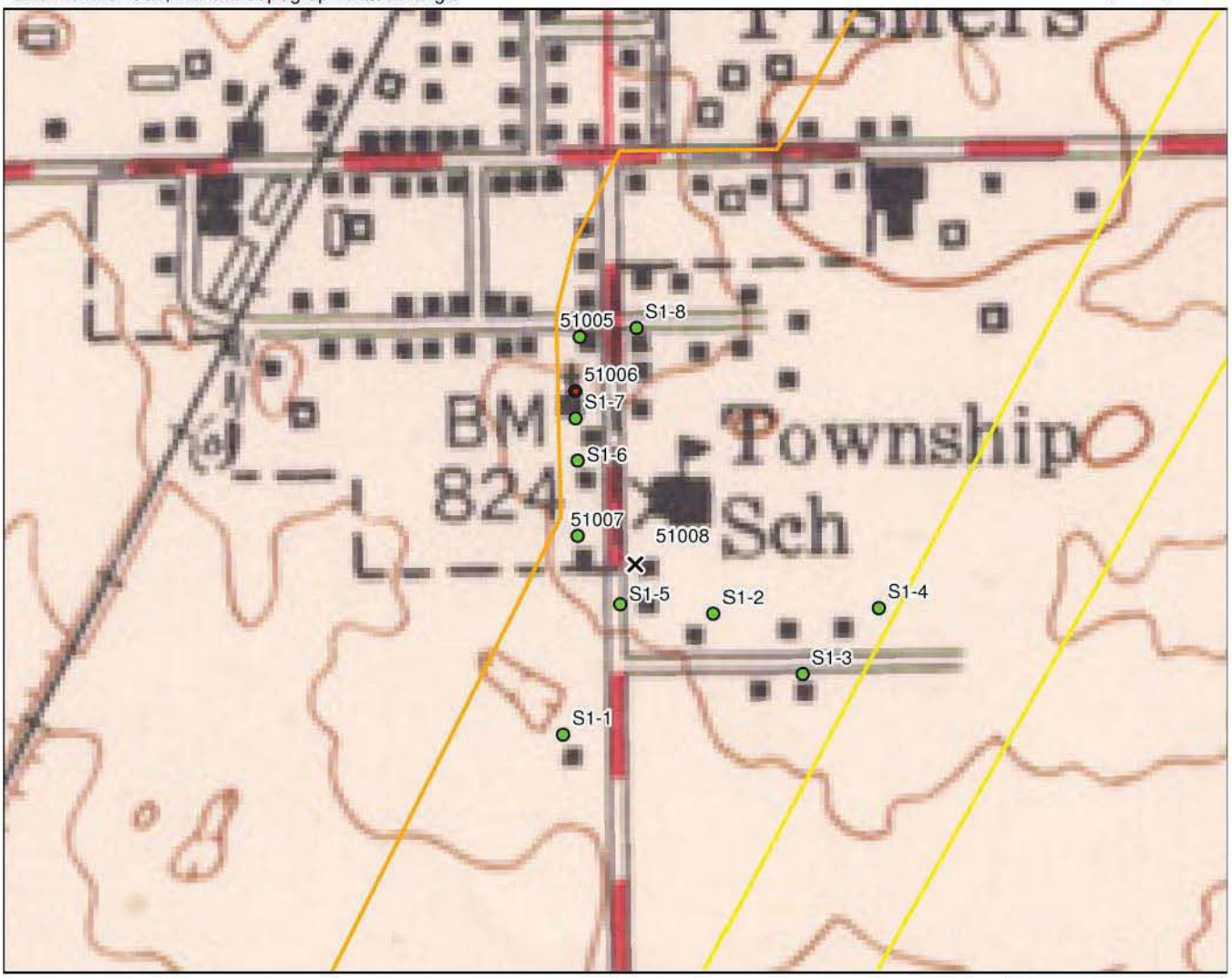
Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

Note: Information shown on this map is not warranted for accuracy or merchantability. GIS data used to create this map are from the best known sources existing at this time. However, experience shows that many national datasets are not all inclusive. Use of this map should be limited to planning, and should not replace field review or background checks with other sources. It is intended to serve as an aid in graphic representation only. This map does not represent a legal document.

I-69 Added Travel Lanes from 106th Street to State Road 13: Fishers Area Zoom-in
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 175 350 700 Feet

0 50 100 200 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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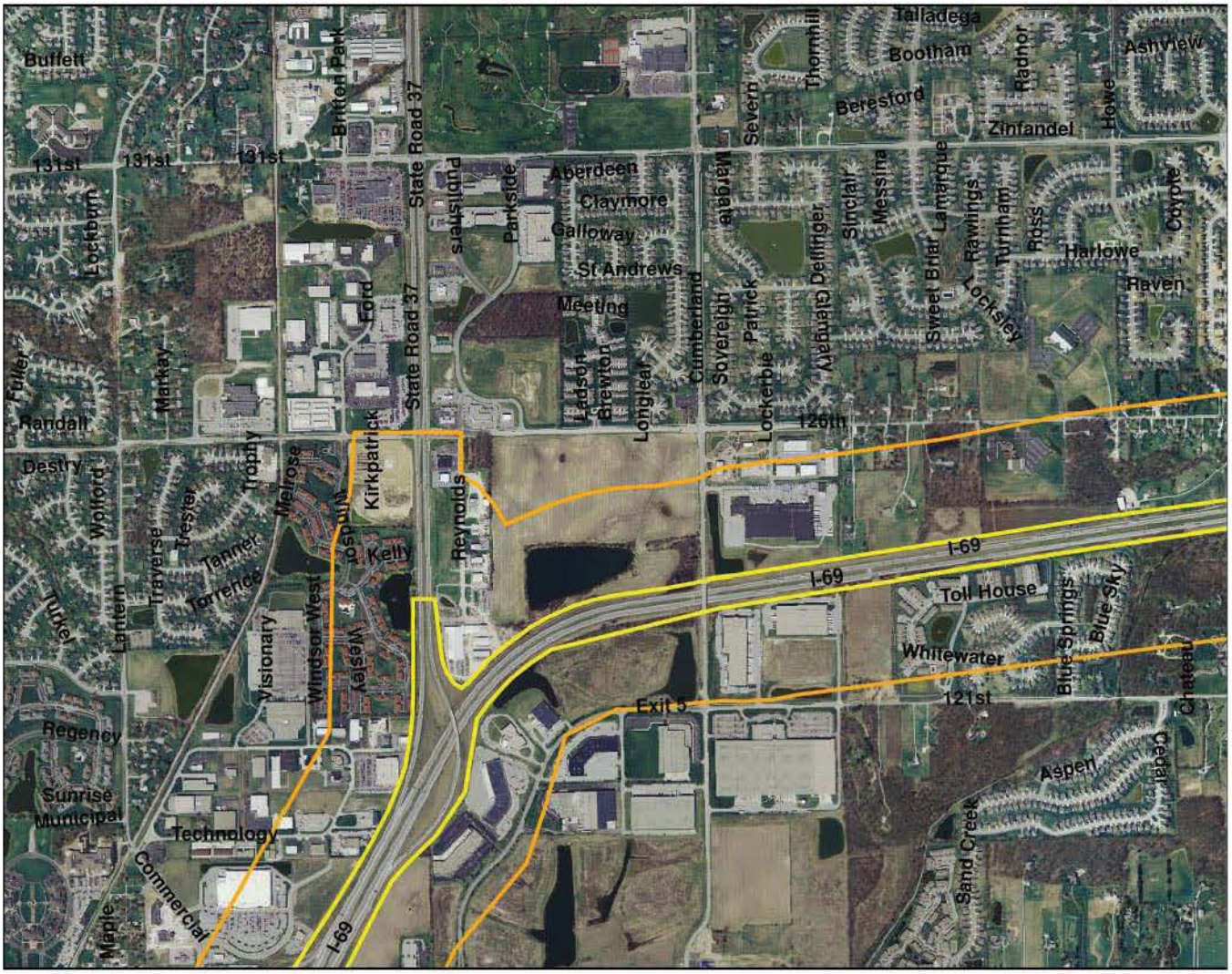
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 2
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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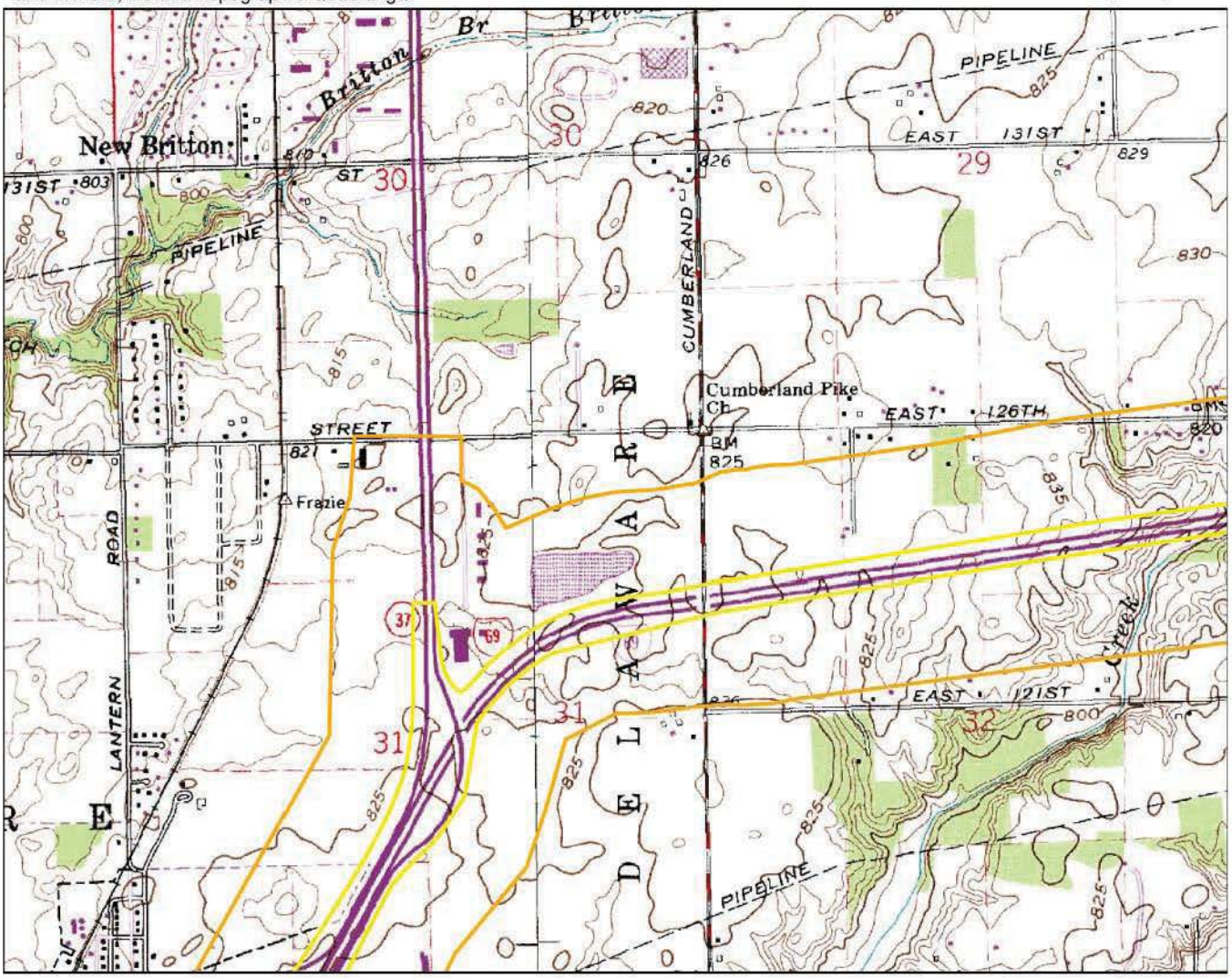
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 2
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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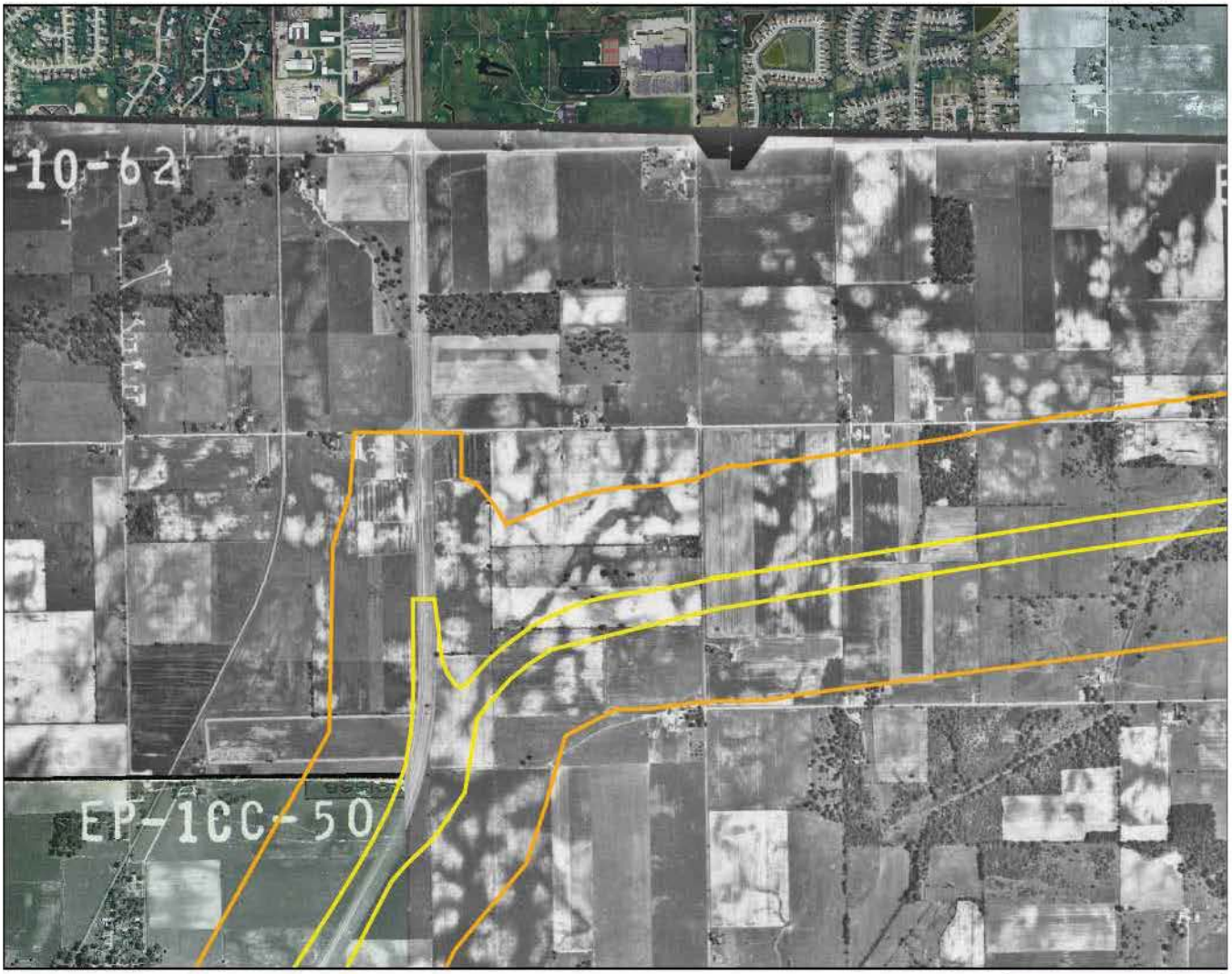
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 2
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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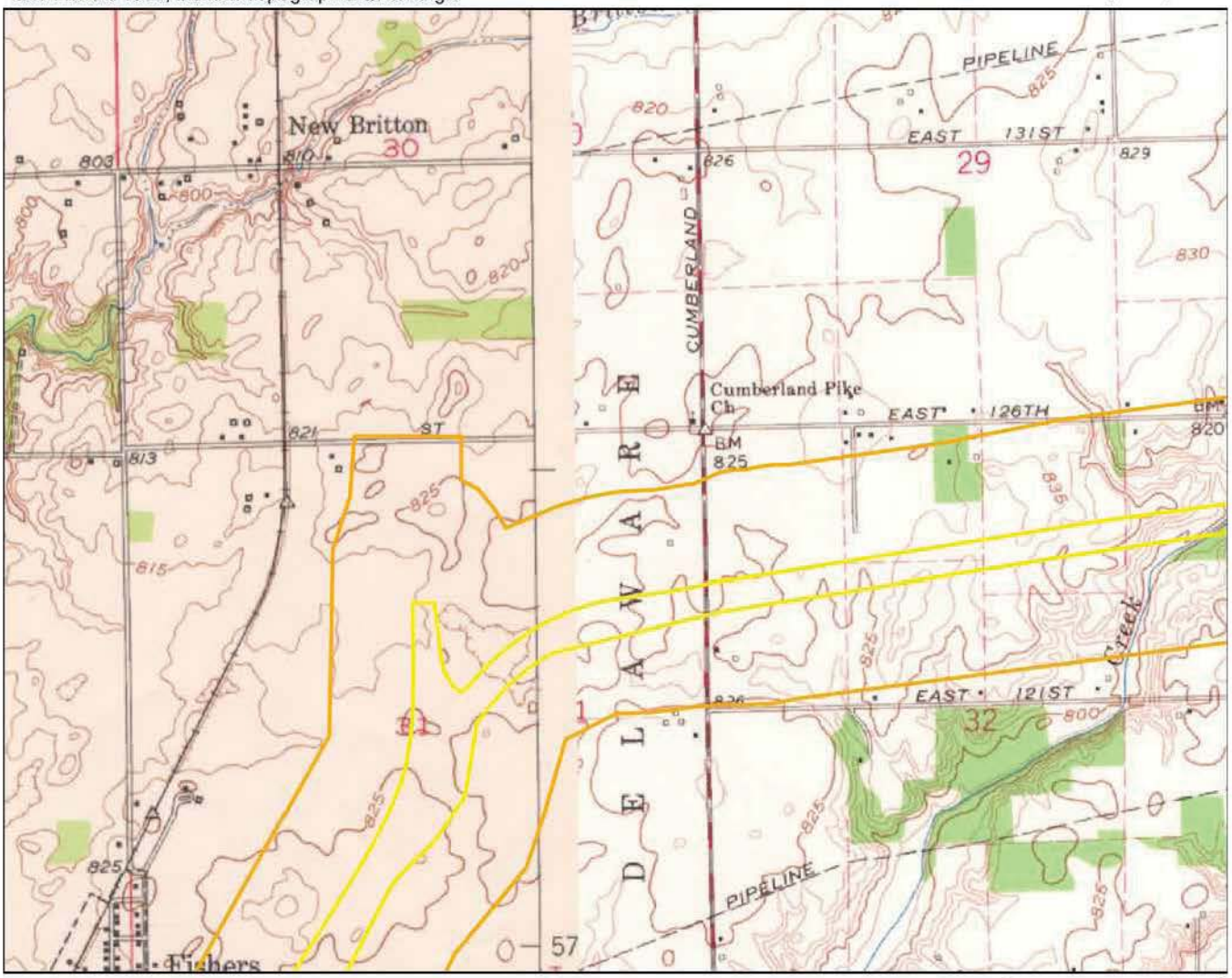
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 2
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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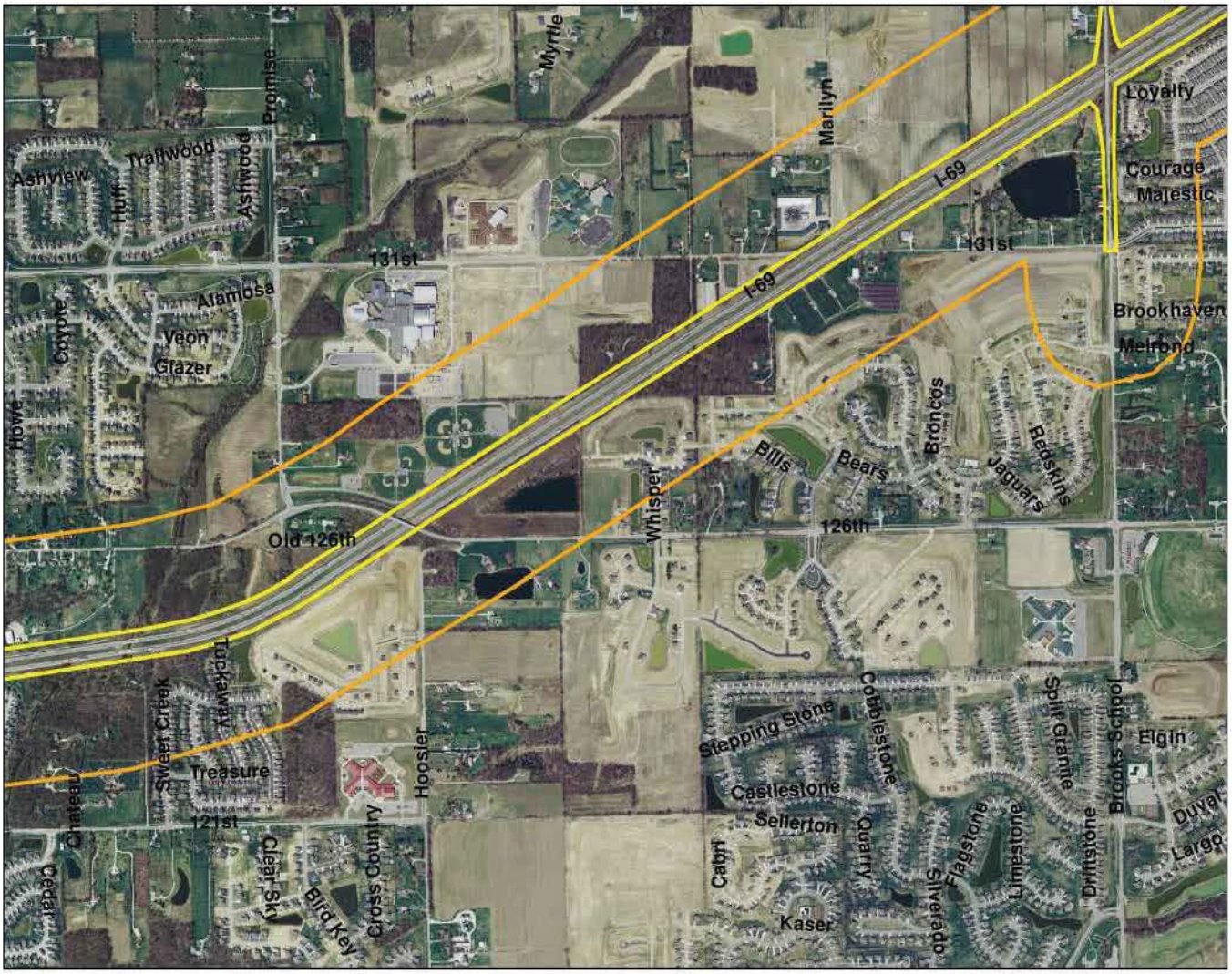
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 3
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

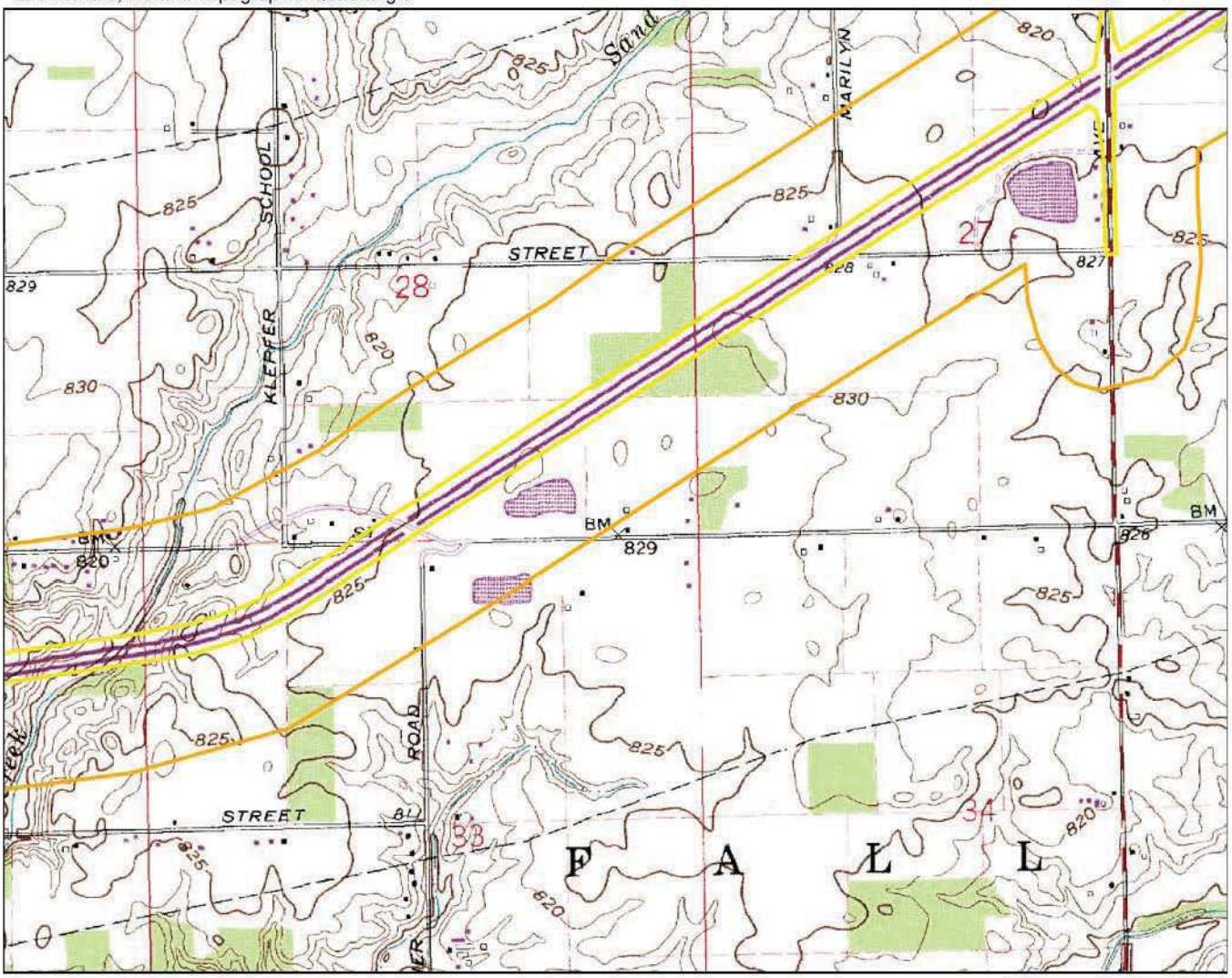
Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

Note: Information shown on this map is not warranted for accuracy or merchantability. GIS data used to create this map are from the best known sources existing at this time. However, experience shows that many national datasets are not all inclusive. Use of this map should be limited to planning, and should not replace field review or background checks with other sources. It is intended to serve as an aid in graphic representation only. This map does not represent a legal document.

I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 3
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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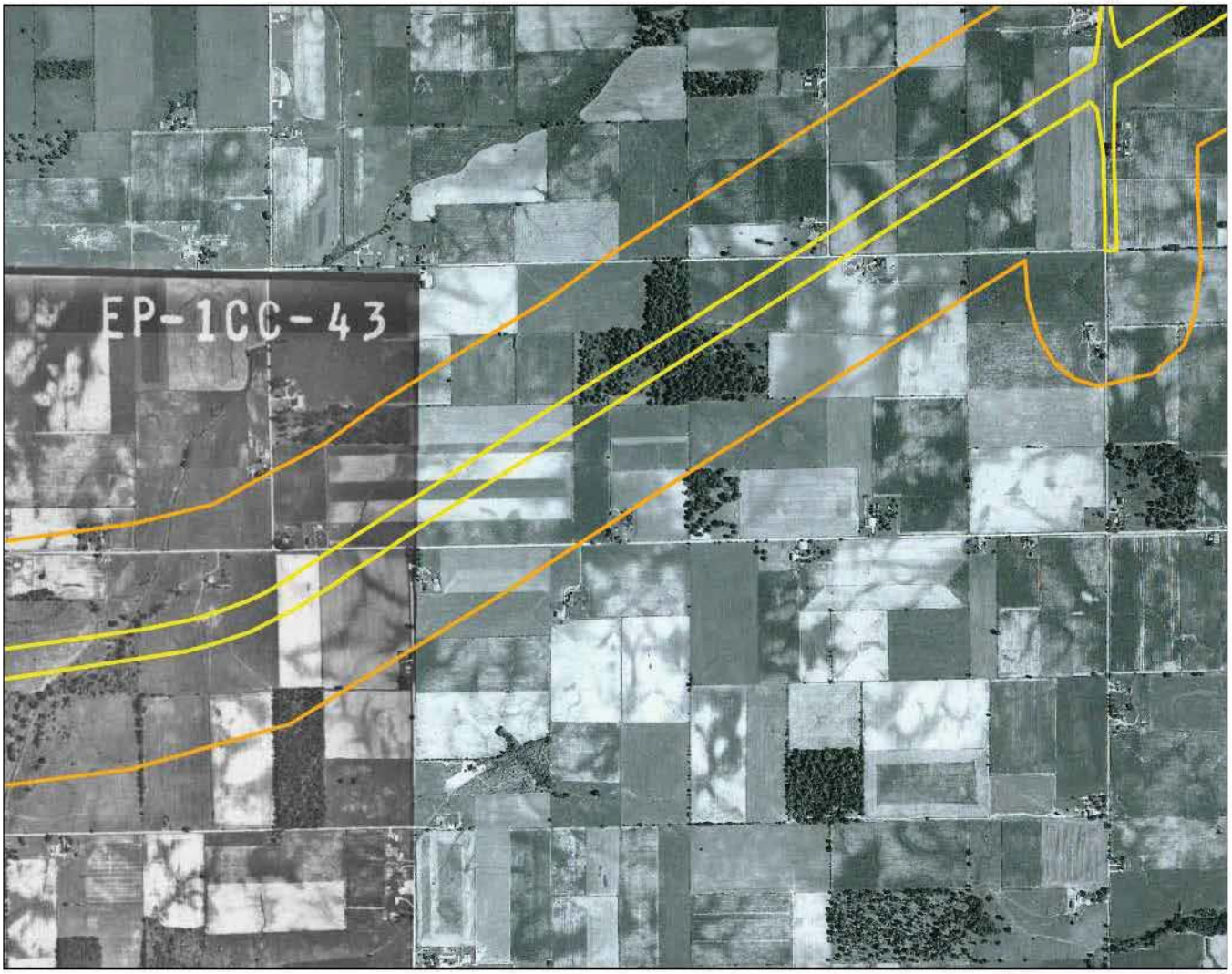
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 3
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

N

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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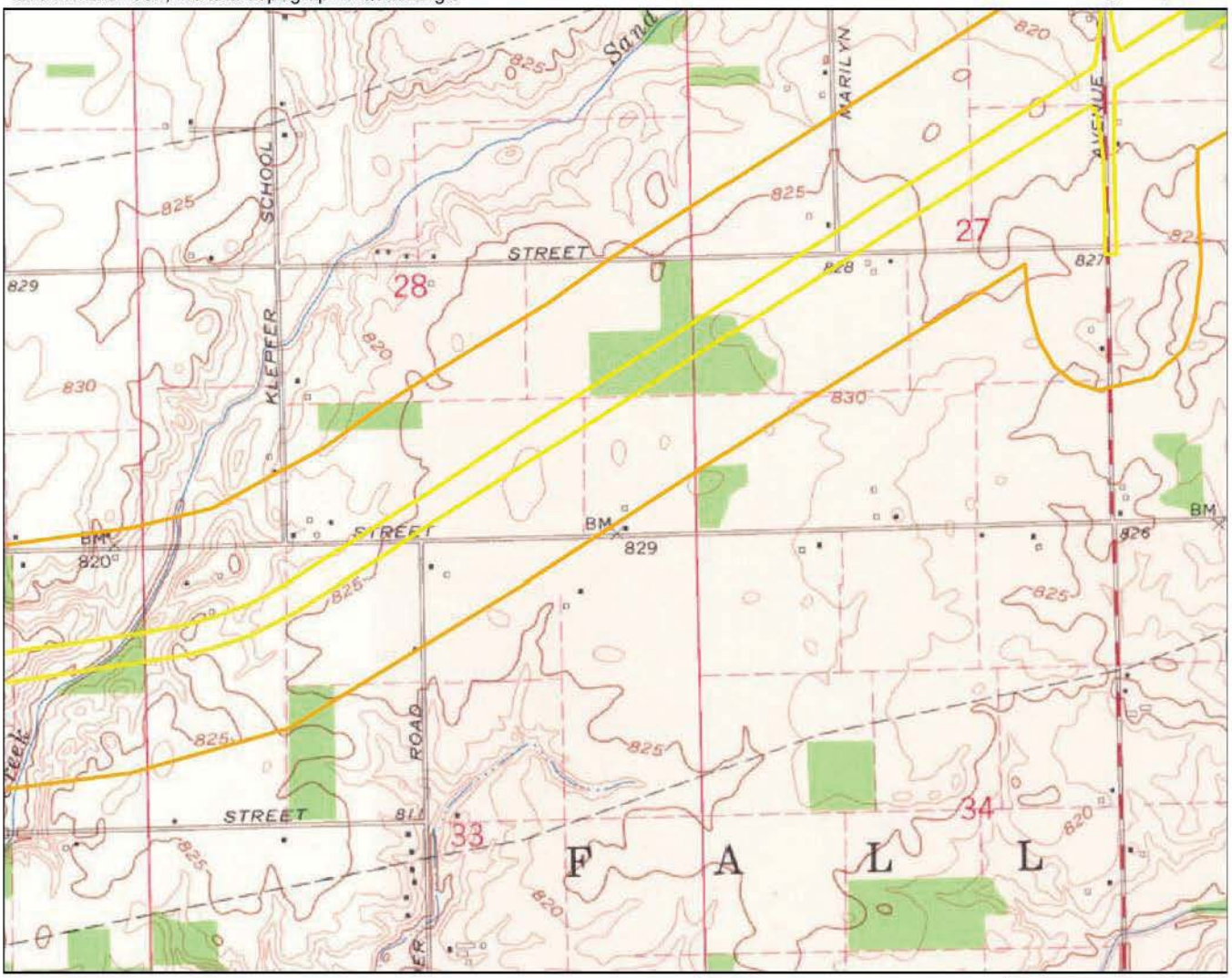
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 3
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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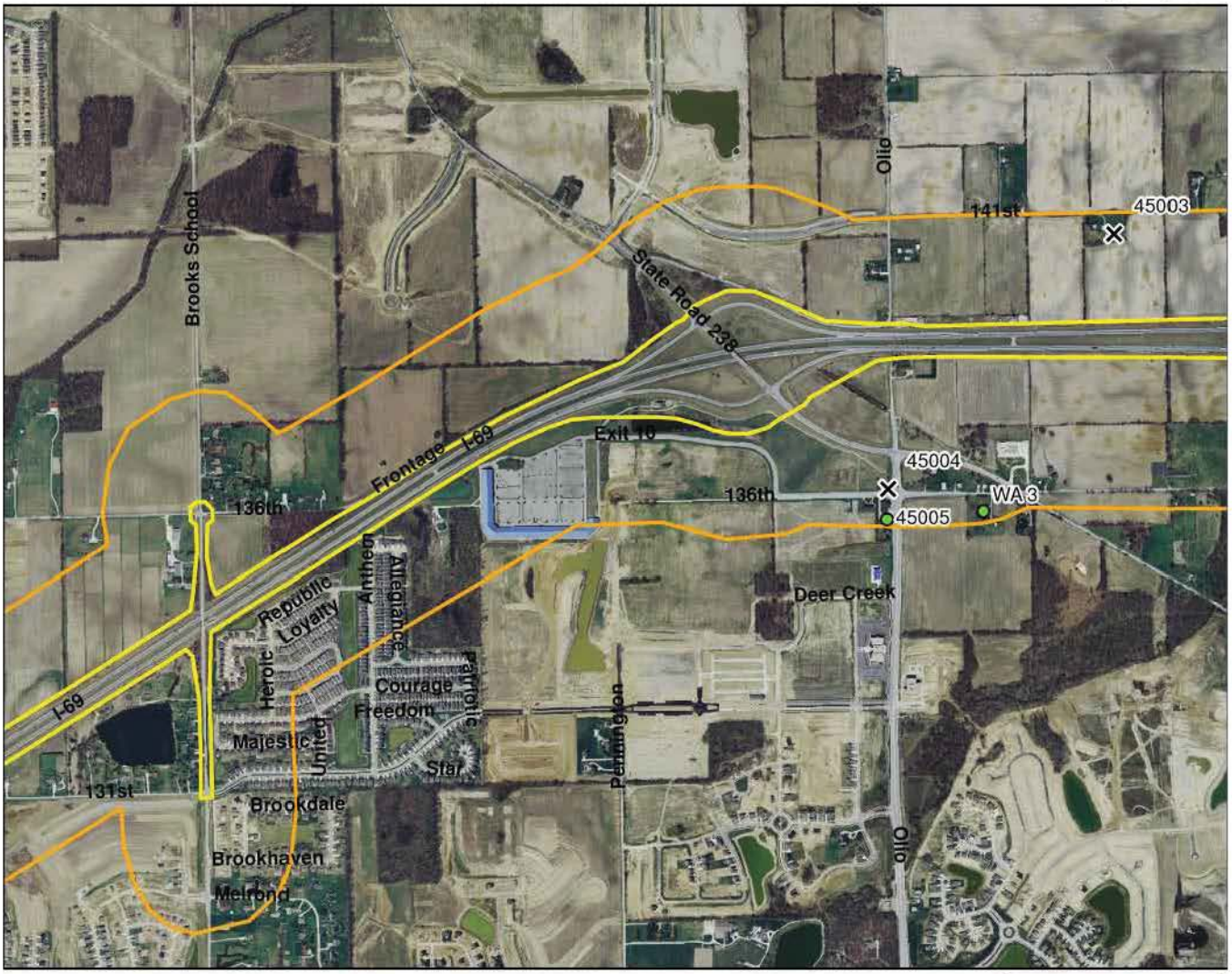
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 4
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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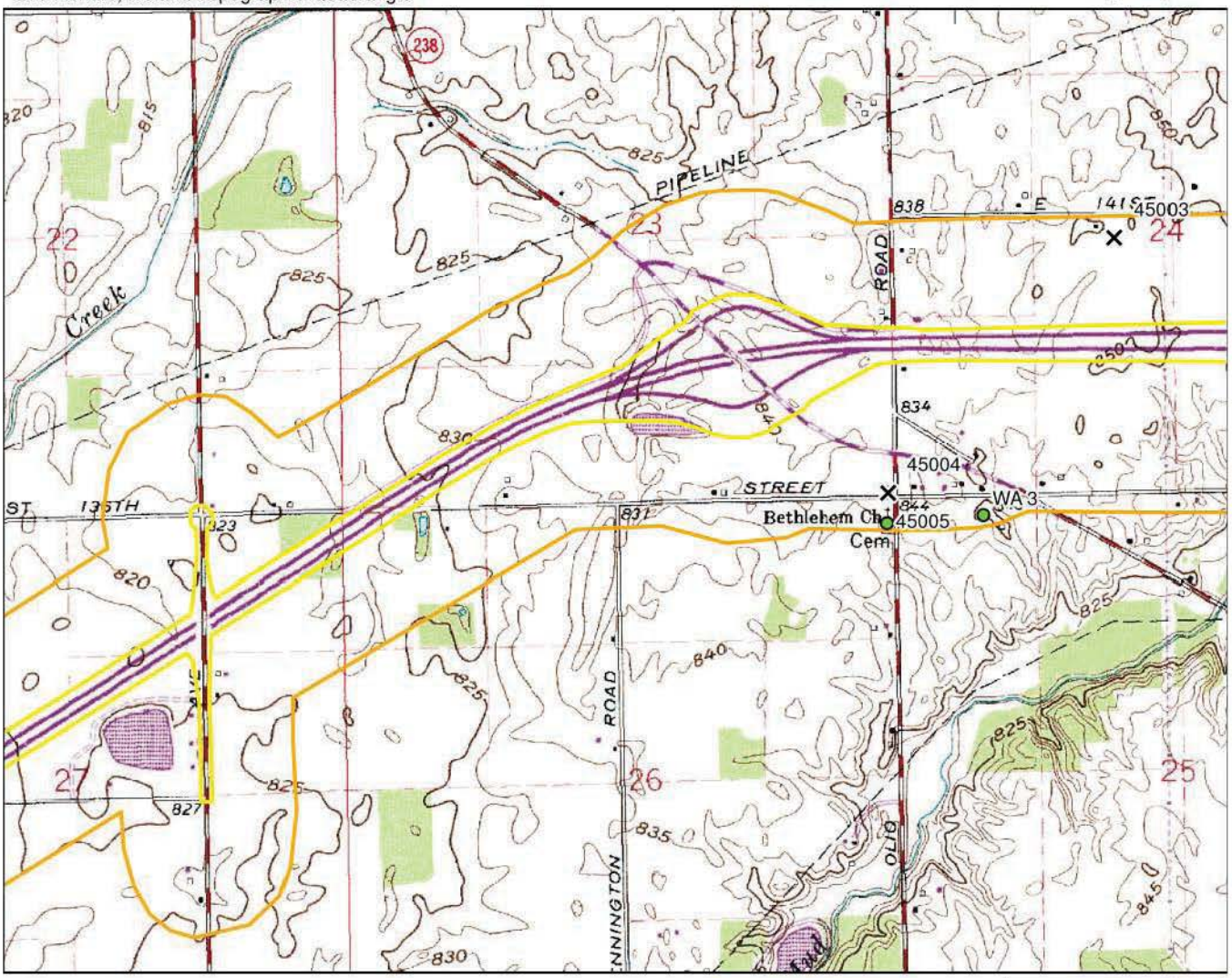
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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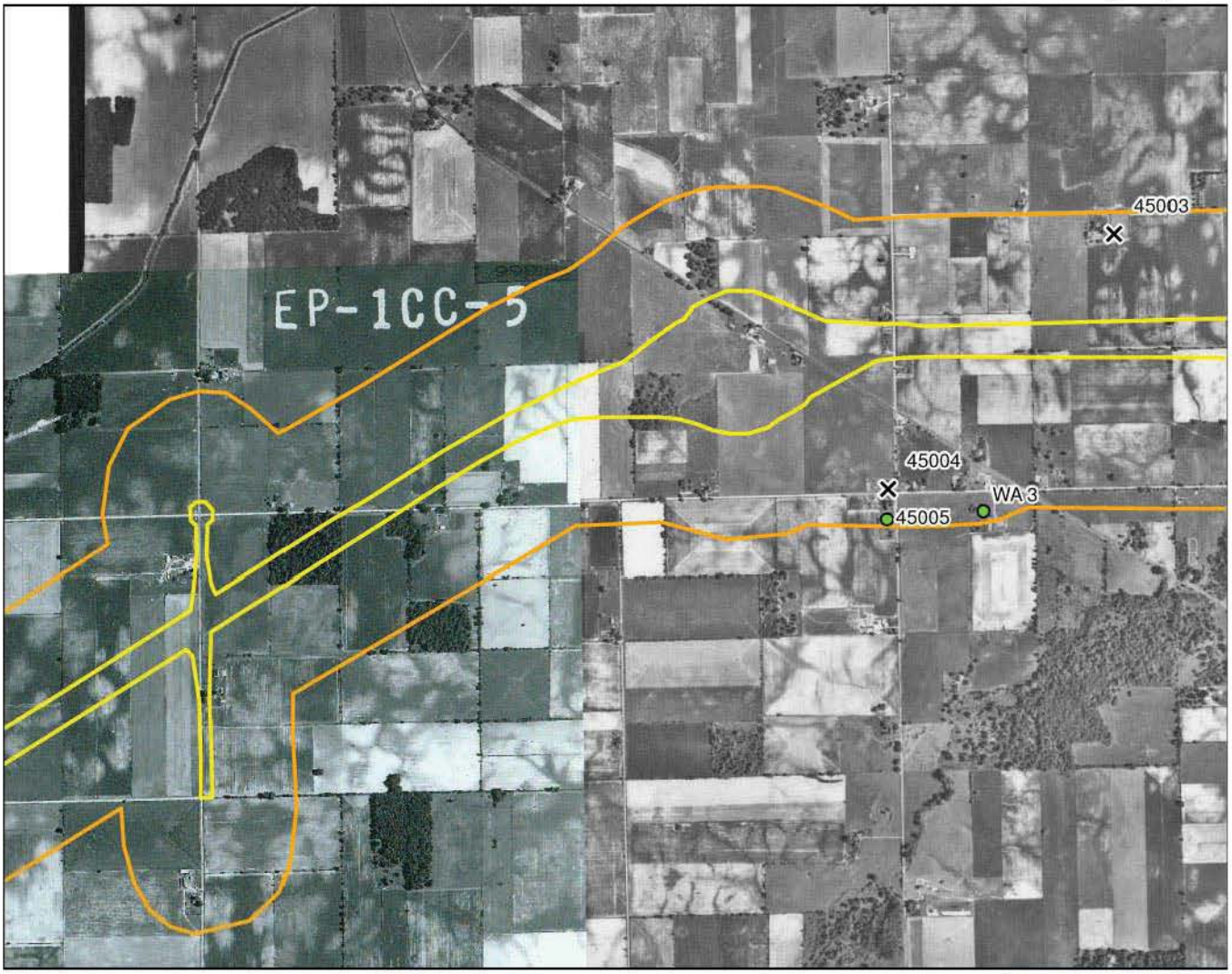
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 4
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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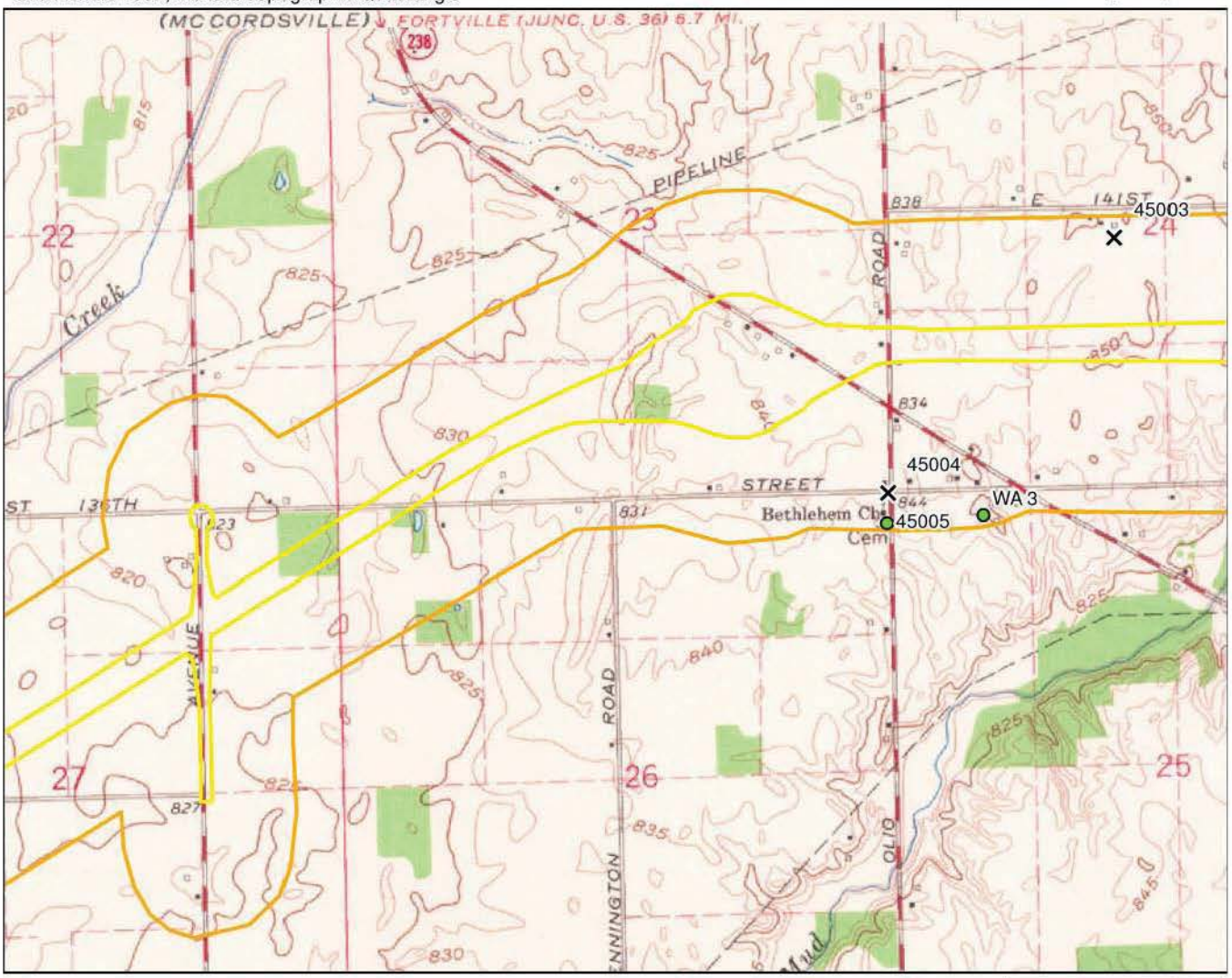
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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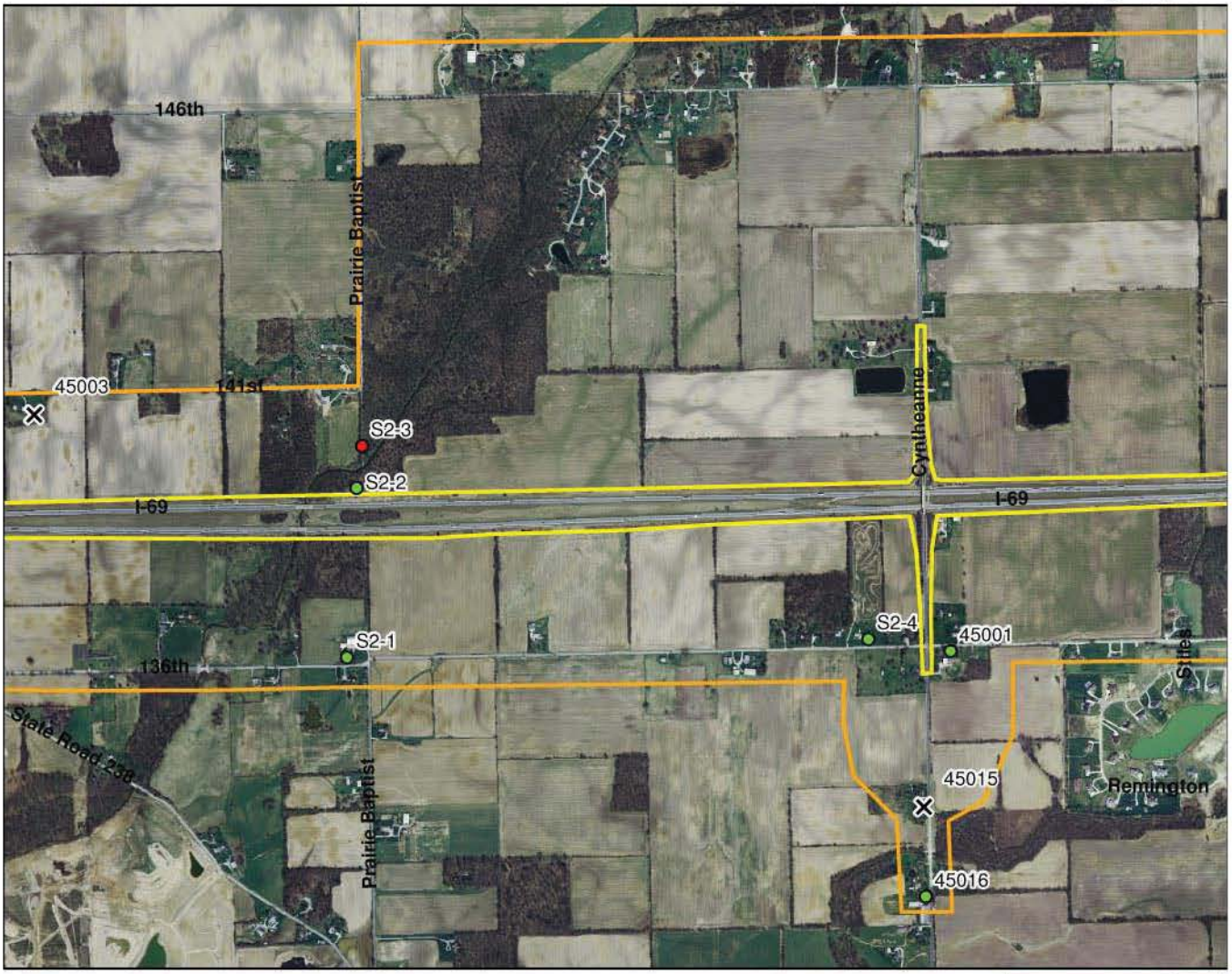
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 5
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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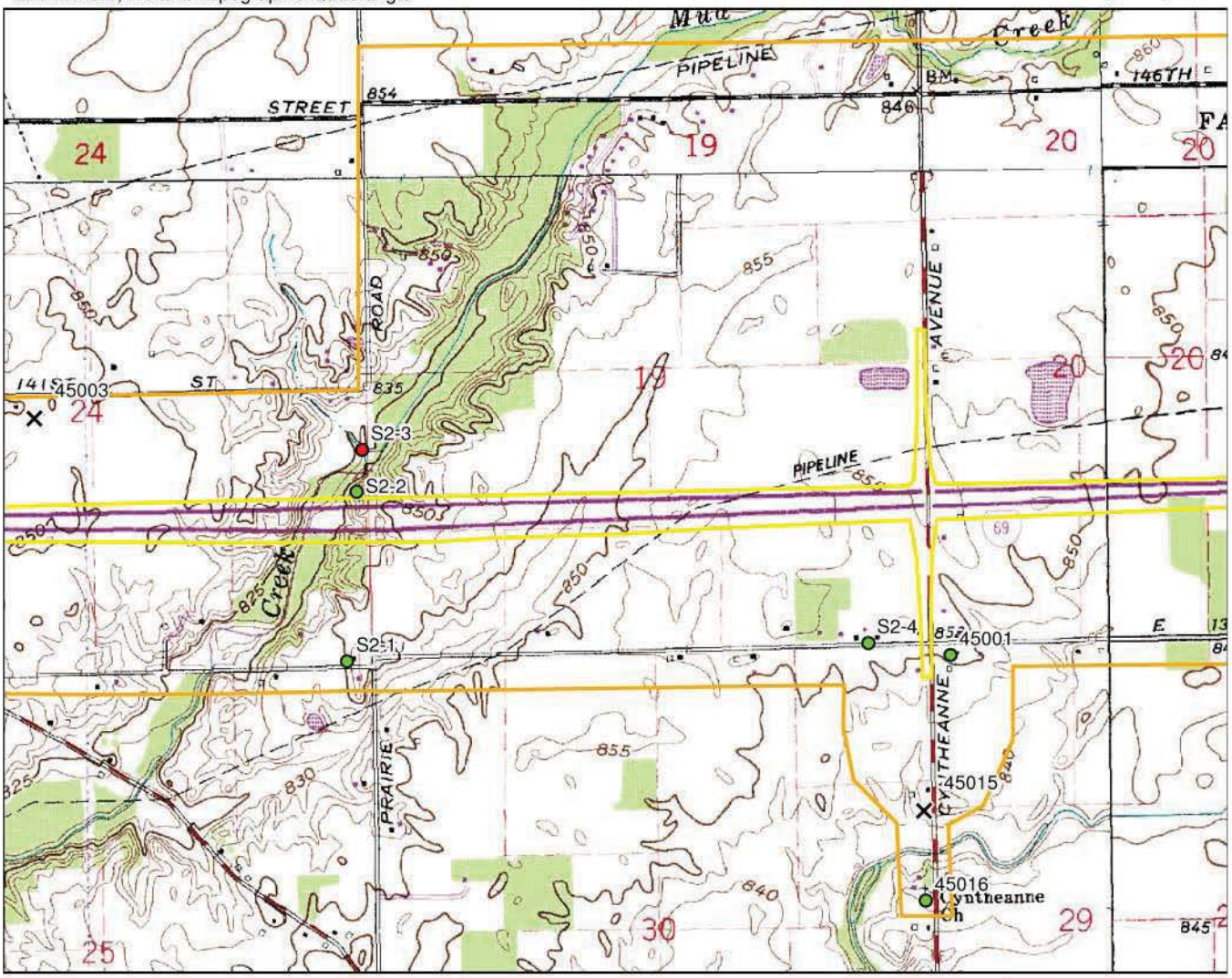
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 5
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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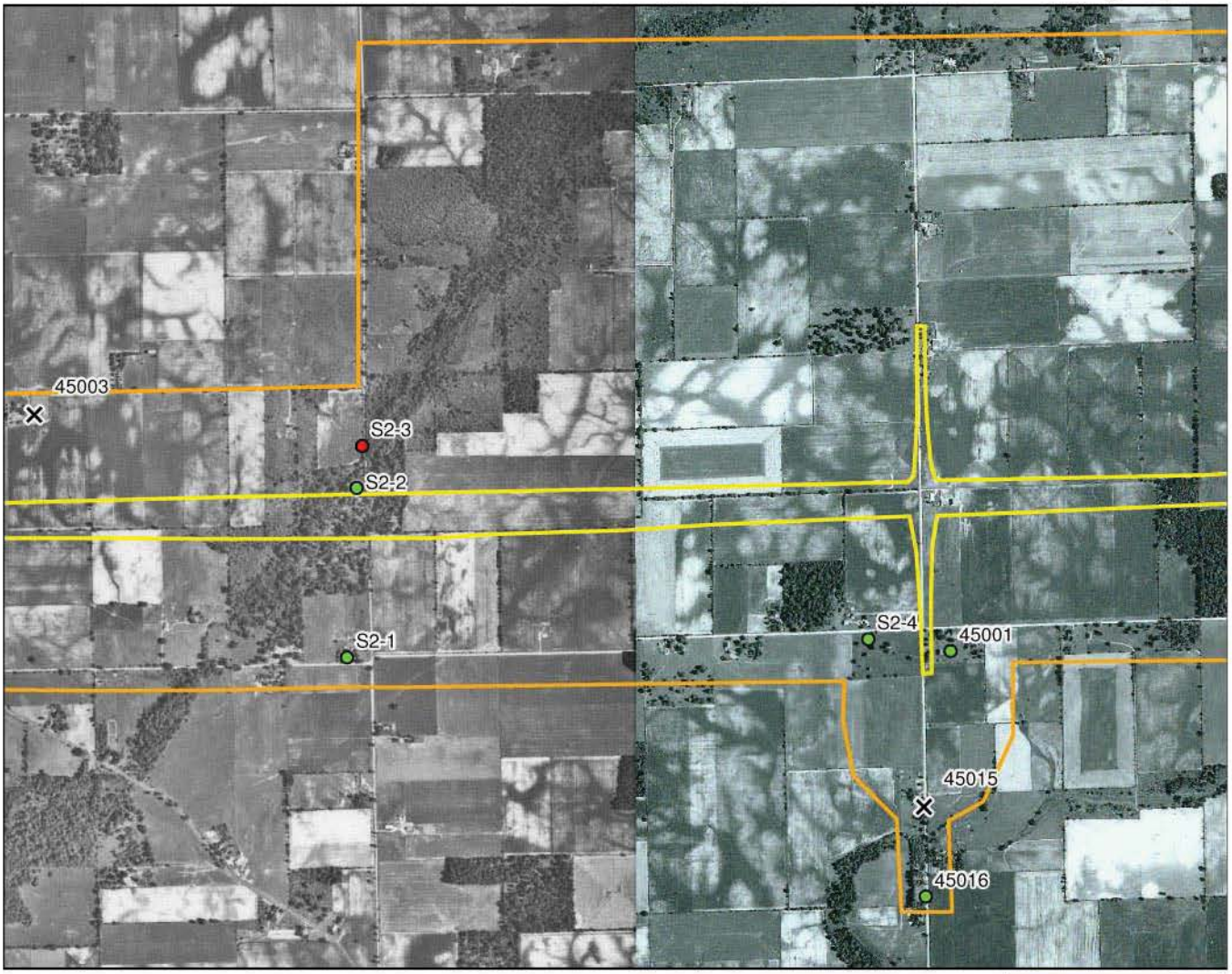
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 5
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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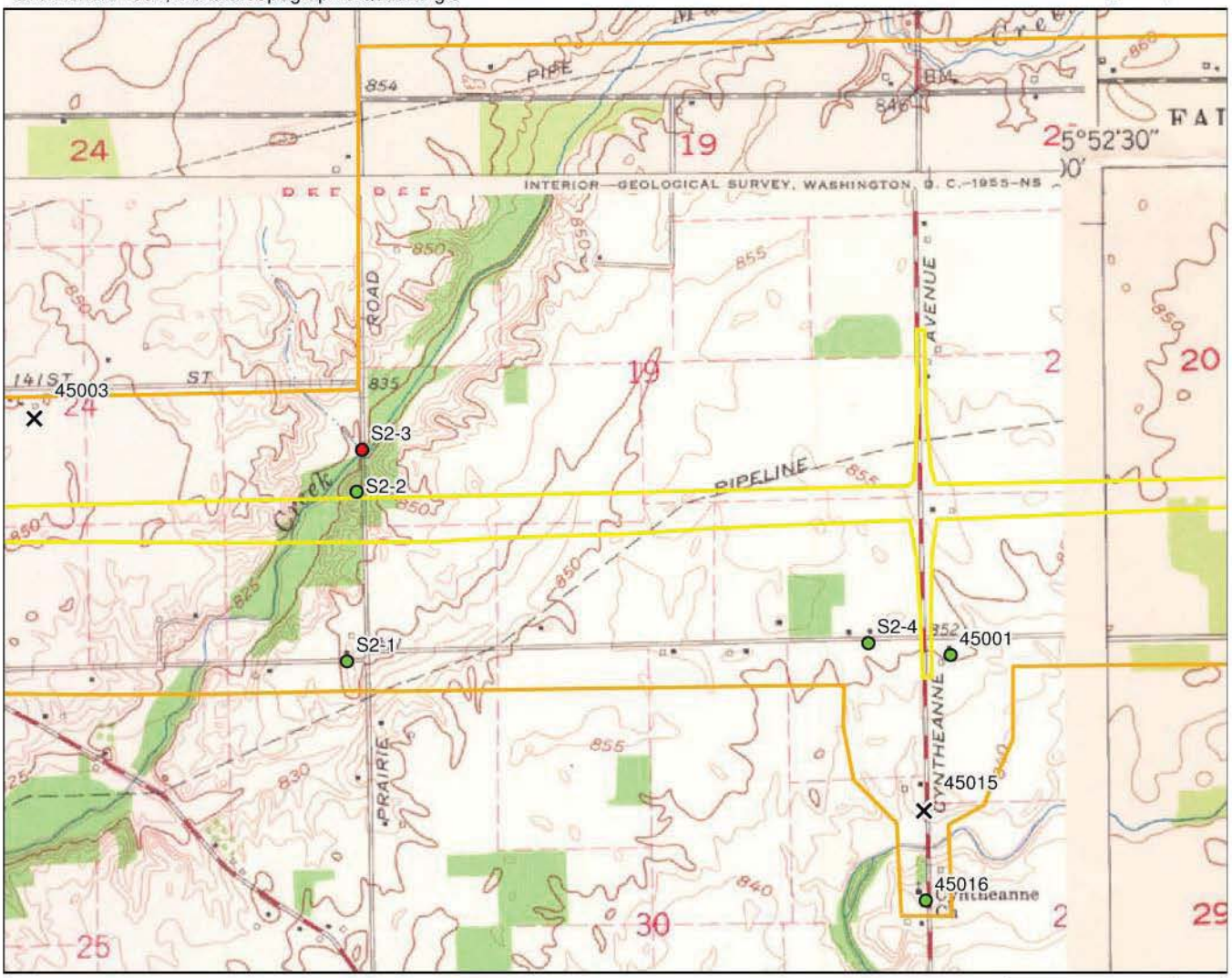
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 18, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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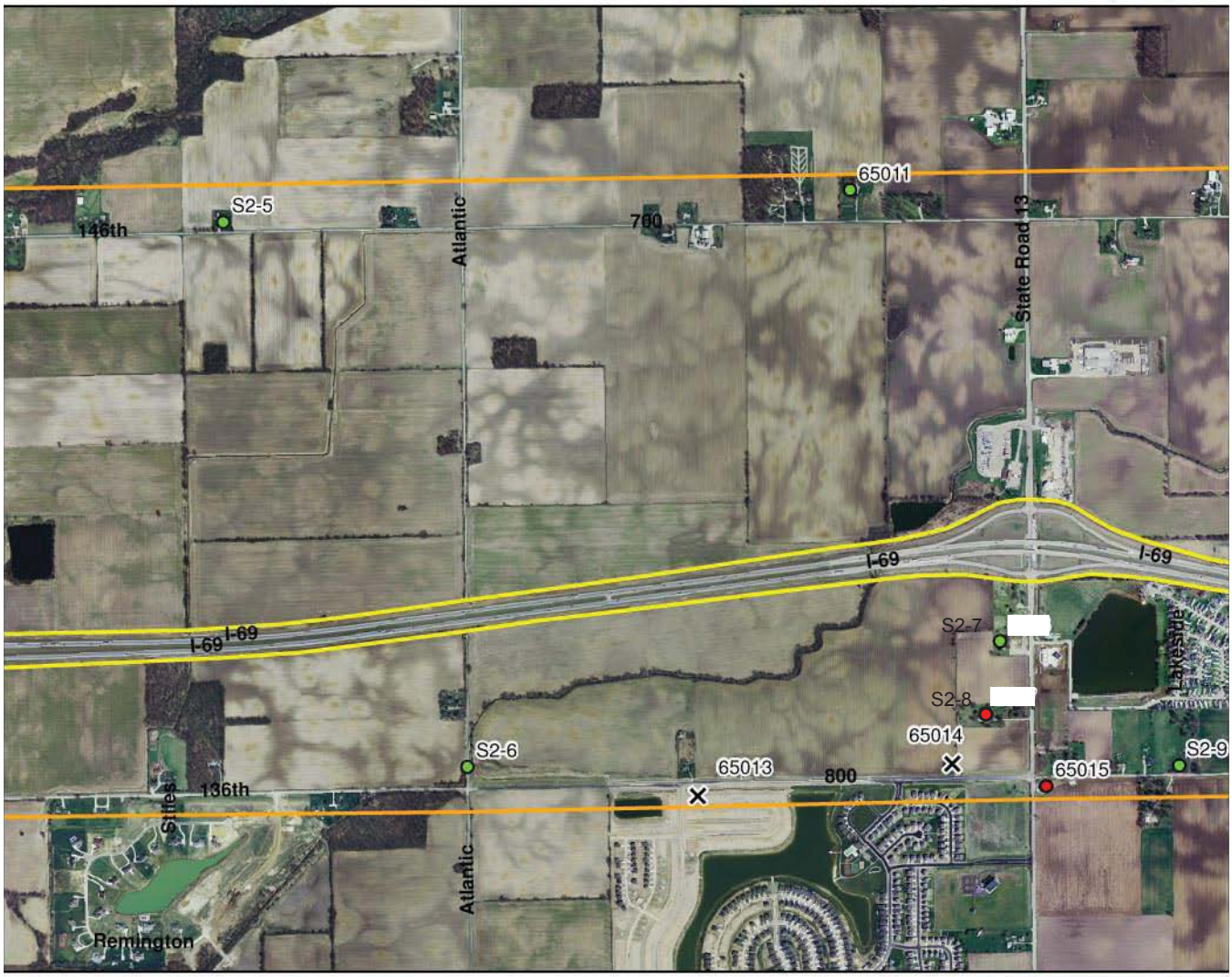
I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 6
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo

April 21, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

WEINTRAUT & ASSOCIATES, INC.

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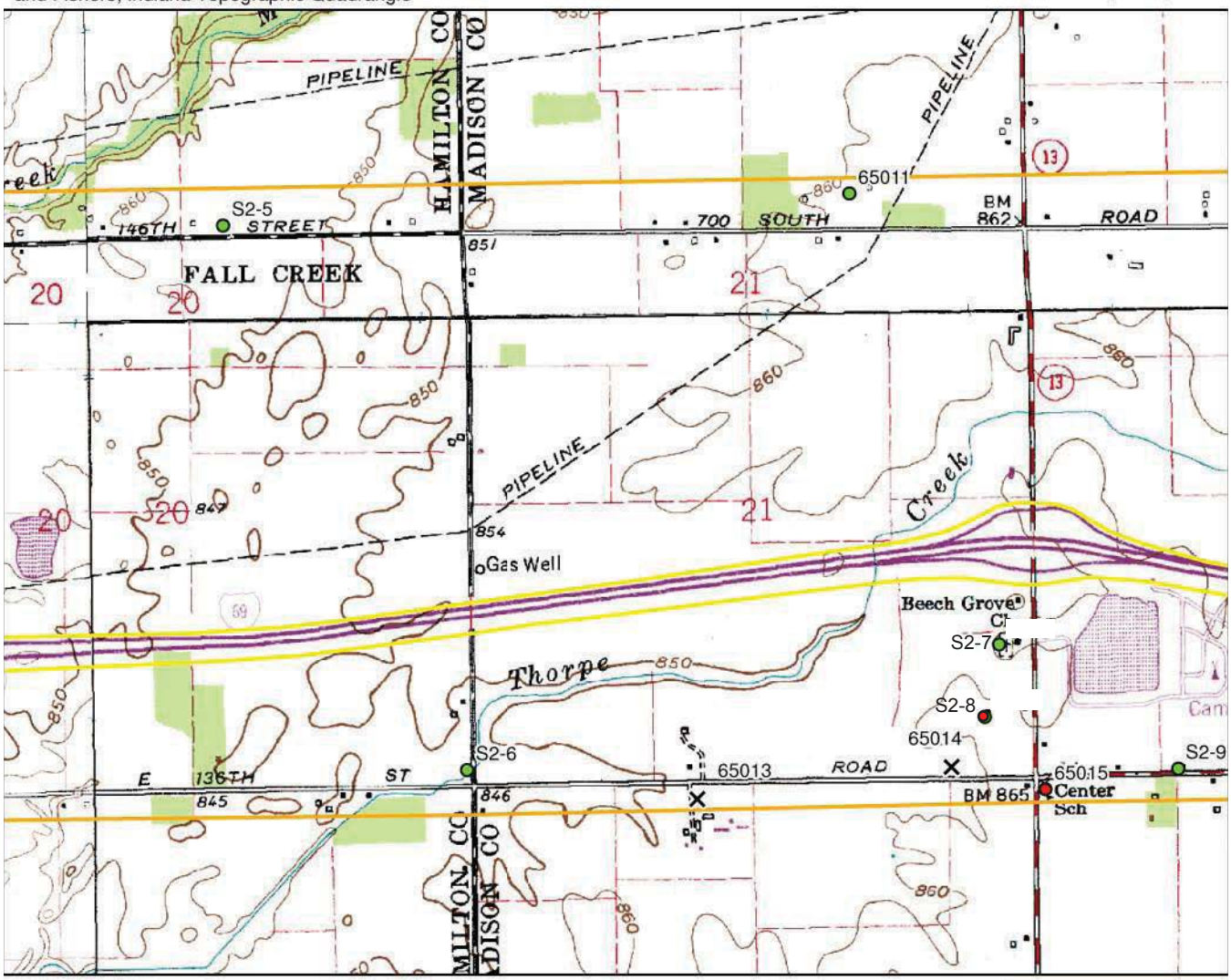
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 21, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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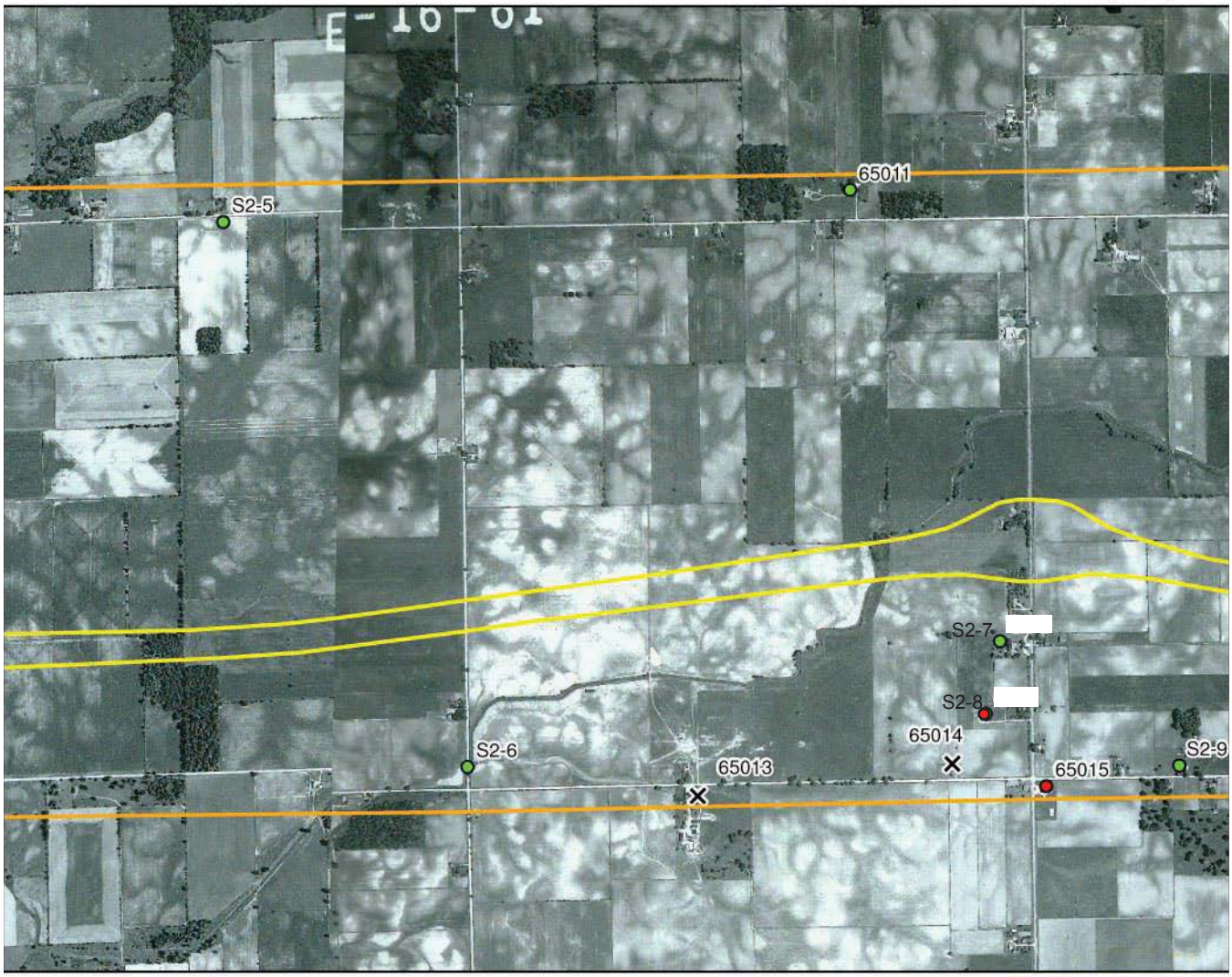
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

N

April 21, 2014



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0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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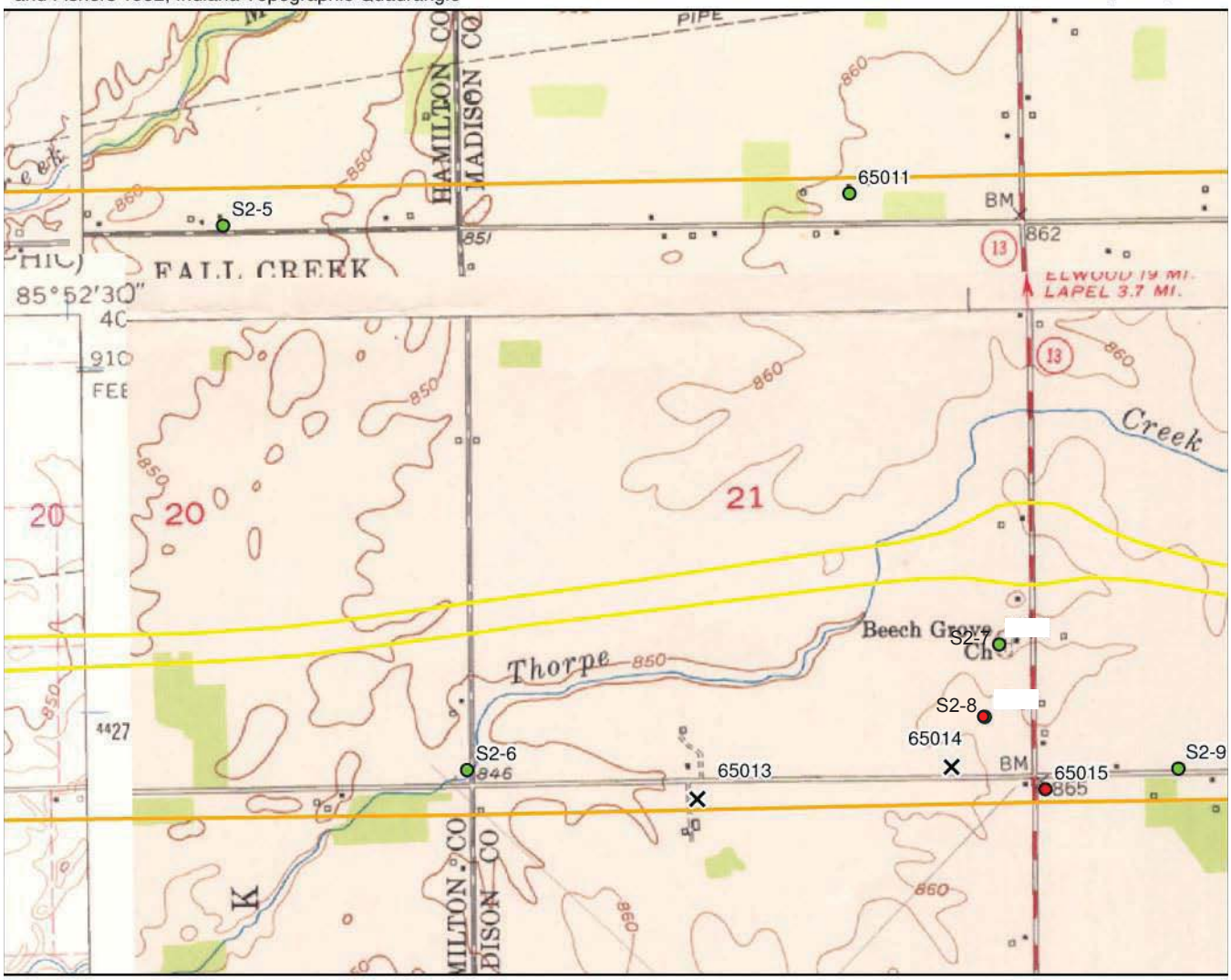
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

April 21, 2014



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0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
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I-69 Added Travel Lanes from 106th Street to State Road 13: Zoom-in Map 7
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
2005 Aerial Photo1

April 21, 2014

0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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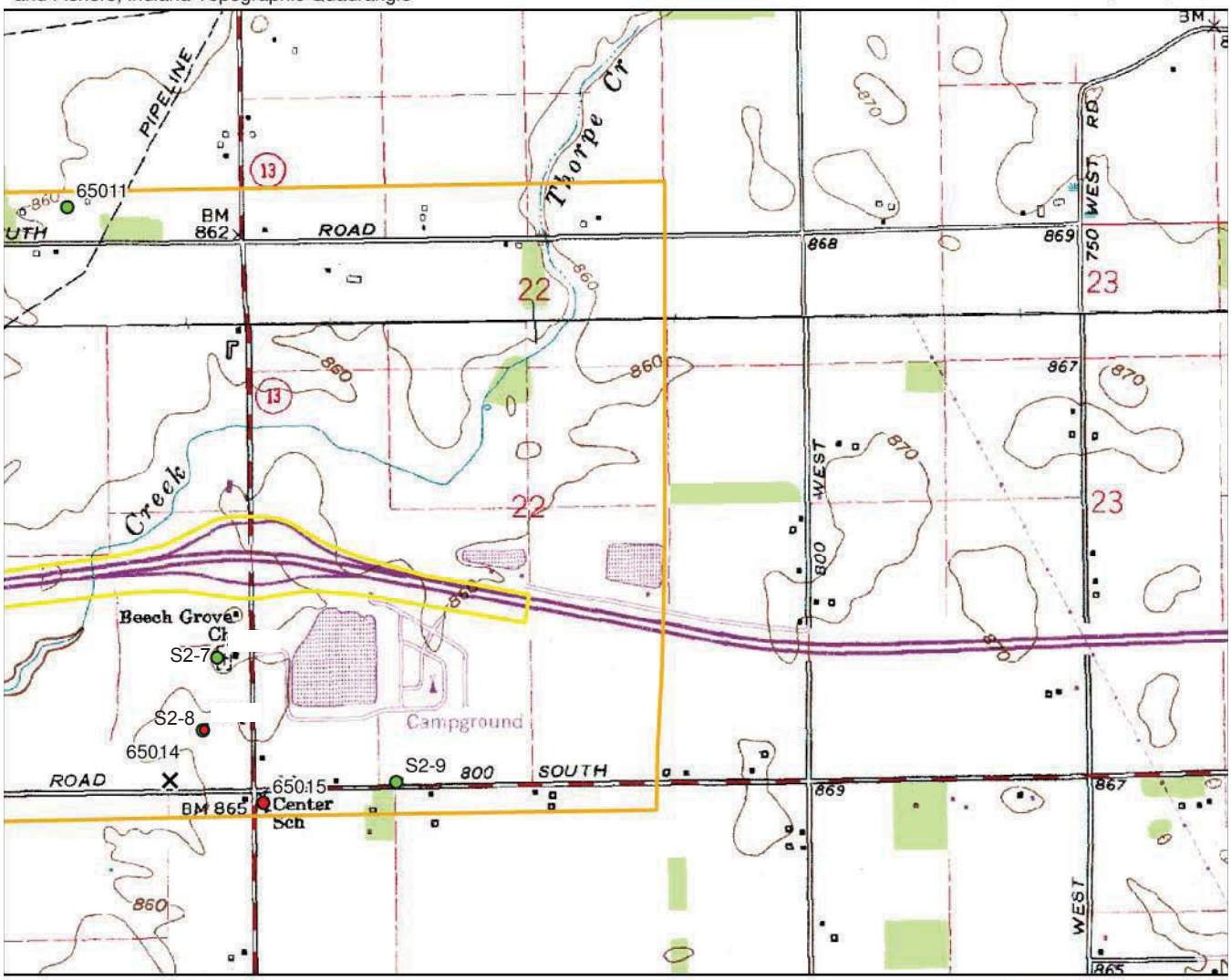
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville , Riverwood, Ingalls, Lapel, and Fishers, Indiana Topographic Quadrangle

April 21, 2014



0 500 1,000 2,000 Feet

0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
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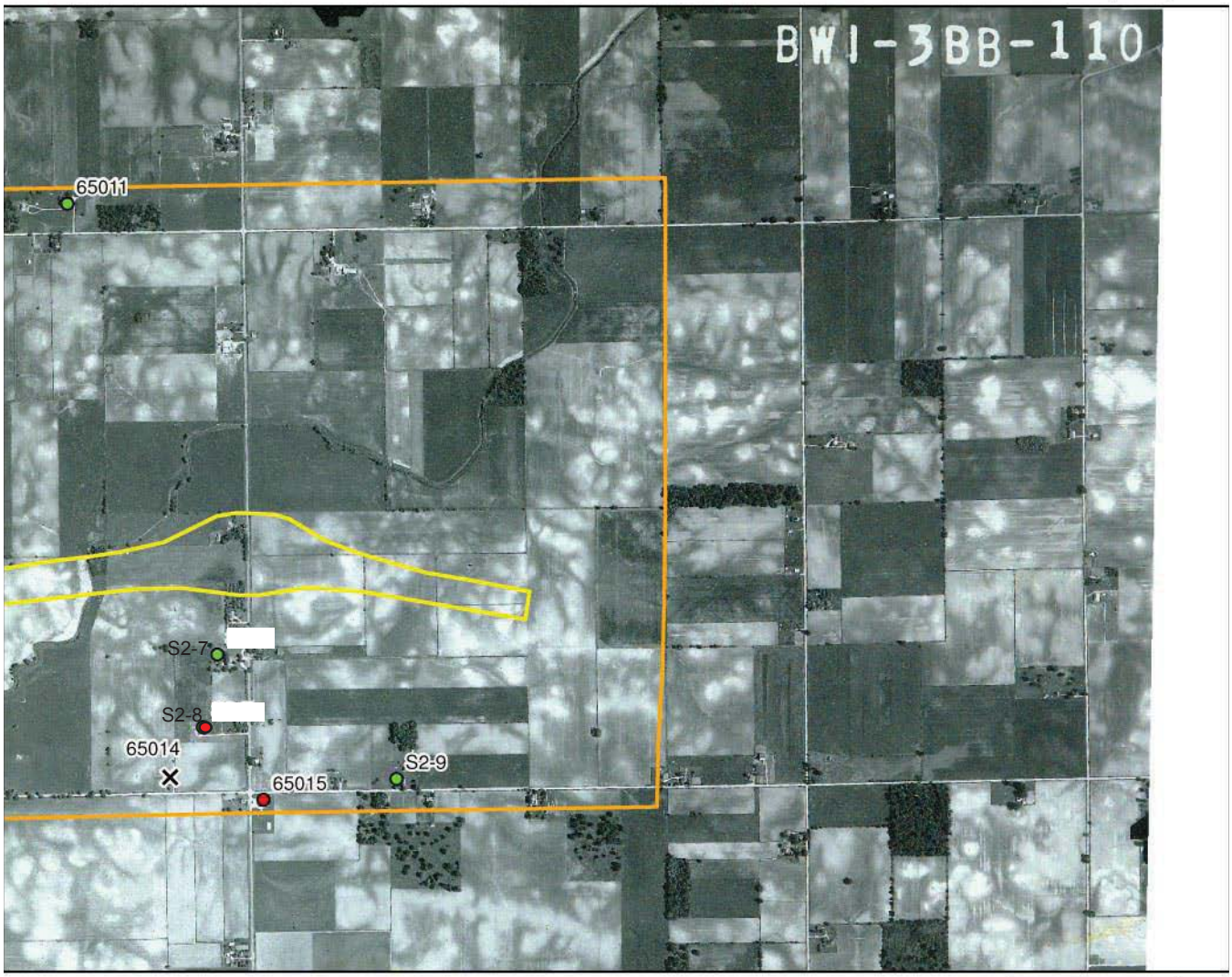
Delaware, Fall Creek, & Wayne Townships, Hamilton County, Indiana
Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
1961-1962 Aerial Photos

April 21, 2014



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0 200 400 800 Meters

Project Location
APE
Previously Determined NRHP-Eligible
NRHP-Eligible
Contributing Property
No Longer Extant

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Green Township, Madison County, Indiana
Des. Nos.: 1383332 & 1383336
Portion of the USGS 7.5' series McCordsville 1962, Riverwood 1953, Ingalls1952, Lapel 1953, and Fishers 1952, Indiana Topographic Quadrangle

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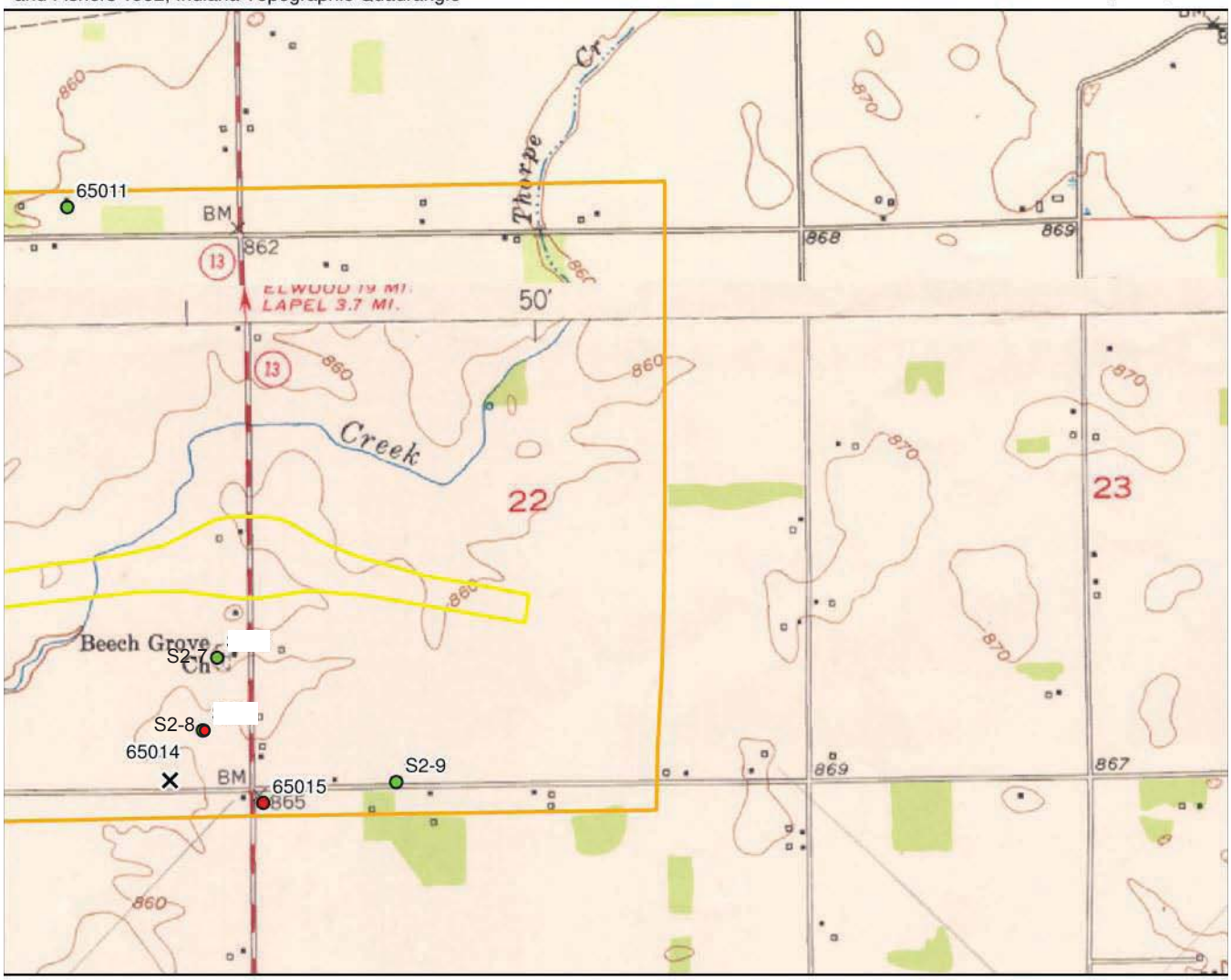

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APPENDIX C. Consulting Party List

Parties Invited to Join Section 106 Consultation

Indiana State Historic Preservation Officer
Indiana Landmarks—Central Regional Office
Hamilton County Historian
Hamilton County Historical Society
Hamilton County Genealogy Society
Carmel-Clay Historical Society
Fishers Historic Preservation Committee
Noblesville Preservation Alliance
City of Noblesville
City of Fishers
Hamilton County Commissioners (Government)
Fishers Chamber of Commerce
Noblesville Chamber of Commerce
Madison County Historian
Madison County Historical Society
Madison County Commissioners
Hancock County Historical Society
Hancock County Historian
Indianapolis Metropolitan Planning Organization
Indiana Landmarks—Eastern Regional Office
Visit Hamilton County Indiana (Hamilton County Tourism Inc.)

Participating in Section 106 Consultation

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We "do" wish to be a consulting party for:

RECEIVED JUL 28 2014

☒ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name STEPHEN T. JACKSON
Organization MADISON COUNTY HISTORIAN
Address 2417 SAGAMORE DRIVE
ANDERSON, INDIANA 46011-9739
Telephone Number _____ Fax _____
E-mail Address _____

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We "**do**" wish to be a consulting party for.

RECEIVED AUG 01 2014

☒ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name Joseph L. Skvarenina
Organization HANCOCK County Historian
Address 523 N. Spooner St
Greenfield IN 46140
Telephone Number 317-518-1467 Fax _____
E-mail Address skvarenina@hotmail.com

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We "**do**" wish to be a consulting party for:

RECEIVED AUG 21 2014

☒ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name RAINA REGAN
Organization INDIANA LANDMARKS
Address 1201 CENTRAL AVE
INDIANAPOLIS, IN 46202
Telephone Number 317 639 4534 Fax
E-mail Address rregan@indianalandmarks.org

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We "**do**" wish to be a consulting party for:

RECEIVED AUG 1 1

☒ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name Jim Neal
Organization Hamilton County
Address 1700 S. 10th St, Noblesville, IN 46060

Telephone Number 317-773-7770 Fax 317-776-9814
E-mail Address james.neal@hamiltoncounty.in.gov

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.

We "**do**" wish to be a consulting party for:

RECEIVED AUG 22

☒ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name J.P. Hall
Organization Indiana Landmarks
Address PO Box 284
Cambridge City, IN
Telephone Number _____ Fax _____
E-mail Address jphall@indianalandmarks.org

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.

RECEIVED AUG 26

We "**do**" wish to be a consulting party for:

☑ I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

Name Commissioner Steffanie L. Owens
Organization Madison County Commissioner
Address Madison County Court house
Anderson In.
Telephone Number 765-610-9470 Fax 765-641-9578
E-mail Address SOwens@madisoncounty.in.gov

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We "**do**" wish to be a consulting party for:

X I-69 Added Travel Lanes from 106th Street to State Road 13

☐ We "**do not**" wish to be a consulting party

RECEIVED AUG 2 9

Name Brenda Myers
Organization Hamilton County Tourism Inc.
Address 37 E Main St
Carmel, IN 46032
Telephone Number 317-848-3181, x312 Fax 317-848-3191
E-mail Address bmyers@hamiltoncountytourism.com

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We **"do"** wish to be a consulting party for:

☐ I-69 Added Travel Lanes from 106th Street to State Road 13

☑ We **"do not"** wish to be a consulting party

RECEIVED AUG 2 0 2014

Name Diane Nevitt
Organization NAM. Co. Historical Soc
Address P.O. Box 397
Noblesville IN 46061
Telephone Number 317-770-0775 Fax SAME
E-mail Address hamiltonco museum @ ATT.Net

Consulting Party Response: I-69 Added Travel Lanes from 106th Street to State Road 13

You are hereby invited to be a consulting party. As a consulting party you will participate in consultation to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "do" or "do not" wish to be a consulting party for the following project. Thank you.
We **"do"** wish to be a consulting party for:

RECEIVED AUG 0 1 2014

☐ I-69 Added Travel Lanes from 106th Street to State Road 13

☑ We **"do not"** wish to be a consulting party

Name Katherine Dill
Organization Carmel Clay Hist Soc
Address 211 1st Street SW
Carmel
Telephone Number Fax
E-mail Address

APPENDIX D. Photos

treet East of USA Parkway lo

Street at Exit 5 Parkway looki

reet at Cumberland Road_Loc

treet at Cumberland Road_Lo

reet at Cumberland Road_Loc

reet at Cumberland Road_Loo

6th Street at SR 37_Looking N

6th Street at SR 37_Looking S

eet and Cumberland Road_Lo

eet and Brooks School Road_I

Street at Norell Road Lookin

Street at Norell Road Looking

1_15839 136th Street_N elev

thlehem Brethren Church and

13151 Cyntheanne Road_E e

51 Cyntheanne Road_S and

_106th Street_House north ele

_106th Street_House south ele

0019_106th Street_N elevatio

479 Lantern Road_E and N e

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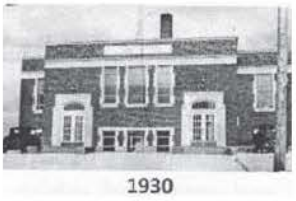

65015_Center School 1930

015_Center School_1961 Aer

Center School_E elevation lool

_Center School_W elevation

oking NE across SR 13 to Cen

School Road looking S to 136t

ive at South Street looking N

int Boulevard looking N to 106

Looking SE to I-69 from 11655

oad at Clay Prairie Parkway lo

d at Fishers Pointe Boulevard

d at Fishers Pointe Boulevard

n Road at Morgan Drive looki

ern Road at South Street looki

ive at Fishers Point Boulevard

ive at Fishers Point Boulevard

th Street at Promise Road Lo

Reynolds Drive looking N

oad_11325 Lantern Road_S a

h Road_8882 Birch Road_S e

h Road_8885 Birch Road_S e

ch Road_8936 Birch Road_S

n Road_11374 Lantern Road

Road_11374 Lantern Road W

n Road_11401 Lantern Road_

n Road_11413 Lantern Road_

Road_11478 Lantern Road N e

Street_14790 E. 136th Stree

2_Burk(Burke) Cemetery_Stor

etery_Stone 2 and old road w

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k(Burke) Cemetery_Stone 2_I

77_east elevation south abutm

ridge 177_east elevation_look

177_underside of deck N span

h Street_15678 136th Street_S

Street_16392 E 146th Street

reet_16392 E 146th Street (W

d_Bridge Deck at Thorpe Cree

3 S SR 13_front elevation_loc

3 S SR 13_south elevation_lo

Grove Cemetery_looking NE fr

Grove Cemetery_looking SW fr

8_SR 13_Beech Grove Ceme

13_Beech Grove Cemetery_Lo

_800 S_8722 W 800 S_S elev

Technology Drive looking W

way_Looking NE to 11100 US

g S from 11100 USA Parkway

ay_Looking SW from 11100 U

Street_13951 E. 136th Stree

r Drive at Melrose Circle looki

APPENDIX E. Report Summaries

Historic Property Report

I-69 Added Travel Lanes from 106th Street to State Road 13
Delaware, Fall Creek, and Wayne Townships, Hamilton County and Green Township, Madison County, Indiana
DES Nos.: 1383332 & 1383336

Prepared for

Indiana Department of Transportation/
Federal Highway Administration

Prepared by

WEINTRAUT & ASSOCIATES, INC.

Principal Investigator: Dr. Linda Weintraut

Authors: Bethany Natali, M.A., and Kelly Lally Molloy, M.A.

P.O. Box 5034

Zionsville, Indiana 46077

317.733.9770

Linda@weintrautinc.com

May 2014

I-69 Added Travel Lanes from 106th to State Road 13 | Delaware, Fall Creek, and Wayne Townships, Hamilton County and Green Township, Madison County, Indiana | Des Nos.: 1383332 & 1383336 | Executive Summary:

The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion Project from 106th Street in Fishers to Exit 226 [State Roads (SR) 9 & 109 in Anderson], in Hamilton and Madison counties. The project has been broken into segments with independent utility and logical termini. The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69. This report identifies and evaluates historic properties for the following segments: Project 1 (Des. No. 1383332) from 106th Street to 0.5 miles north of Campus Parkway and Project 3 (Des. No. 1383336) from 0.5 miles north of Campus Parkway to 0.5 mi east of SR 13.

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, if any such properties exist." [36 CFR § 800.16(d)] The APE was drawn to include properties that may be impacted by project activities. (See Appendix 1: Maps.)

Project personnel for Weintraut & Associates, Inc. (W&A), who meet the Secretary of the Interior's Professional Standards and who are historians listed as Qualified Professionals by the Indiana Department of Natural Resources (IDNR), Indiana Division of Historic Preservation & Archaeology (DHPA), identified and evaluated resources for this project.

As a result of Section 106 identification and evaluation efforts, historians identified one property that the staff of the State Historic Preservation Officer has previously agreed is eligible for listing in the National Register of Historic Places: Flanagan House (057-206-50019). (See Appendix 5: Additional Information.)

Historians for W&A identified two additional properties that they are recommending as eligible for inclusion in the National Register of Historic Places: Hamilton County Bridge No. 177 (S2-3) and Center School (095-343-65015).

Indiana Archaeological Short Report

I-69 Added Travel Lanes in Hamilton and Madison Counties, Indiana

Des. Nos.: 1383332 & 1383336

Prepared for

Indiana Department of Transportation / Federal Highway Administration

Prepared by

WEINTRAUT & ASSOCIATES, INC.

Principal Investigator: Jason Goldbach, M.A., R.P.A.
P.O. Box 5034
Zionsville, Indiana
(317) 733-9770
(Jason@weintrautinc.com)

September 3, 2014

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

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.

Author: Jason Goldbach

Date *(month, day, year):* September 3, 2014

Project Title: I-69 Added Travel Lanes in Hamilton and Madison Counties, Indiana

PROJECT OVERVIEW

Project Description:

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (State Roads [SR] 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report is being conducted for Project 1 (Des. No.: 1383332), from 106th Street to 0.5 mile (mi) north of Campus Parkway, and Project 3 (Des. No.: 1383336), from 0.5 mi north of Campus Parkway to 0.5 mi east of SR 13. The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

The existing cross section of I-69 from Exit 205 to 0.5 mi east of SR 13 has two travel lanes in each direction. The northbound cross section of three lanes in each direction ends at Cumberland Road. The southbound three-lane section starts with the southbound SR 37 ramps. A pavement resurfacing project (Des. No.: 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design, and the ultimate decision on the future form of the roadway will depend on the condition of the pavement.

Project 1: I-69 from 106th Street to 0.5 mi North of Campus Parkway, Hamilton County
The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on Southbound (SB) I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 12-foot (ft) paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. The overhead structure at Cumberland Road would receive minor joint improvements, while the structure at Brooks School Road may be replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way.

Project 3: I-69 from 0.5 mi North of Campus Parkway to 0.5 mi East of SR 13, Hamilton and Madison Counties. The project would construct additional lanes from Exit 210 (Campus Parkway) to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 12-ft paved inside shoulder and a 10-ft paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structure at Olio Road would require no additional work. The overhead structure at Cyntheanne Road may be replaced due to horizontal clearance. The SR 13 interchange will be evaluated to determine if additional auxiliary lanes (within existing right-of-way) would be necessary. All small structures will be evaluated to determine if rehabilitation or

FIELD INVESTIGATION: *(check all that apply)*

Field Investigation Date(s) *(month, day, year):*

Field Supervisor:

Field Crew:

Surface Visibility:

Factors Affecting Visibility:

Visual Walkover ☐ Pedestrian Survey ☐ Shovel Test ☐ Screened ☐ Mesh Size

Interval 5 m ☐ 10 m ☐ 15 m ☐ Other *(describe below)* ☐

Number of Shovel Test Units Excavated:

Describe Methods**:**

Attach photographs documenting disturbances below

Describe Disturbances:

Comments:

RESULTS

☒ Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.

☐ Archaeological records check has determined that the project area has the potential to contain archaeological resources.

☐ Phase Ia reconnaissance has located no archaeological resources in the project area.

☐ Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: acres:

Comments: The I-69 Expansion for for Project 1 and Project 3 will require no new ROW, and any prehistoric or historic archaeological resources within the existing ROW are assumed to be destroyed.

RECOMMENDATION

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

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

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

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

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

APPENDIX F. Correspondence

WEINTRAUT & ASSOCIATES, INC.

July 24, 2014

State Historic Preservation Officer
Attn: Mitch Zoll
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, W274
Indianapolis, IN 46204-2739

Re: INDOT Designation Nos: 1383332 & 1383336
Location: Delaware, Fall Creek, and Wayne Townships in Hamilton County, Indiana & Green Township in Madison County, Indiana
Description: I-69 Interstate Expansion; Project 1 (from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13

Dear Mitch Zoll,

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are planning an I-69 Interstate Expansion from 106th St in Fishers to Exit 226 (State Roads [SR] 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report is being conducted for Project 1 (Des. No.: 1383332) from 106th Street to 0.5 mile north of Campus Parkway and Project 3 (Des. No.: 1383336) from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply. We will incorporate your comments into a study of the projects' environmental impacts.**

Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69.

The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mi east of SR 13 has two travel lanes in each direction. The northbound cross section of three lanes in each direction ends at

Cumberland Road. The southbound three-lane section starts with the southbound SR 37 ramps. A pavement resurfacing project (Des. No.: 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design, and the ultimate decision on the future form of the roadway will depend on the condition of the pavement.

Proposed Projects:

Project 1: I-69 from 106th Street to 0.5 mi N of Campus Parkway, Hamilton County

The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on Southbound (SB) I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. The overhead structure at Cumberland Rd would receive minor joint improvements, while the structure at Brooks School Road may be replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way.

Project 3: I-69 from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13, Hamilton and Madison Counties

The project would construct additional lanes from Exit 210 to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structure at Olio Road would require no additional work. The overhead structure at Cyntheanne Road may be replaced due to horizontal clearance. The SR 13 interchange will be evaluated to determine if additional auxiliary lanes (within existing right-of-way) would be necessary. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way.

Right-of-Way (ROW): No new ROW would be required for Project 1 and Project 3.

Section 106: Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertaking on historic properties (both archaeological and structures). Pursuant to 36 CFR 800.2(c), you are hereby invited to be a consulting party to participate in efforts to identify historic properties that may be affected by the undertaking, assess the effects of the undertaking on historic properties, and seek ways to avoid, minimize, or mitigate adverse effects on historic properties. Historic Properties are properties that are listed or eligible for listing in the NRHP. The intent of this letter is to provide you an opportunity to become a consulting party by responding to the invitation via the enclosed post card.

The following individuals, agencies and organizations have been invited to be consulting parties:

- Indiana State Historic Preservation Officer
- Indiana Landmarks – Central Regional Office
- Hamilton County Historian

- Hamilton County Historical Society
- Hamilton County Genealogy Society
- Carmel-Clay Historical Society
- Fishers Historic Preservation Committee
- Noblesville Preservation Alliance
- City of Noblesville
- City of Fishers
- Hamilton County Commissioners
- Fishers Chamber of Commerce
- Noblesville Chamber of Commerce
- Madison County Historian
- Madison County Historical Society
- Madison County Commissioners
- Hancock County Historical Society
- Hancock County Historian
- Indianapolis MPO

Per 36 CFR 800.3(f), the State Historic Preservation Officer (SHPO) is requested to notify this office if the SHPO is aware of any other individuals, agencies, or organizations which may be "entitled to become consulting parties."

Enclosed with this letter is one copy of the Historic Property Report (HPR) prepared by Weintraut & Associates, Inc. for your review. The report was approved by the INDOT-Cultural Resources Office (CRO) on June 16, 2014. The staff of the SHPO has previously agreed that the Flanagan House (057-206-50019) on East 106th Street is eligible for listing in the National Register of Historic Places (NRHP). In addition, Weintraut & Associates is recommending two properties as eligible for listing in the NRHP: Center School (095-343-65015), at SR 13 & CR 800 S, and Hamilton County Bridge 177 (S2-3), which carries an abandoned portion of Prairie Baptist Road over Mud Creek. The results of the archaeological investigation will be forwarded to the SHPO for review and comment.

To facilitate the development of this project, please respond with your comments on the HPR **within thirty (30) days** from the date of receipt of this letter. Should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. Please direct comments to Linda Weintraut at the address below or via email at Linda@weintrautinc.com.

Sincerely,

Linda Weintraut

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.

PO Box 5034
Zionsville, Indiana 46077
Phone: 317-733-9770

Enclosures

Emc: Richard J. Marquis, FHWA
Mary E. Kennedy, INDOT-CRO
Daniel J. Miller, Parsons

REVIEW REQUEST SUBMITTAL

State Form 55031 (7-12)
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology, Indiana State Historic Preservation Office (SHPO)

HISTORIC PRESERVATION AND ARCHAEOLOGY

Please complete this form and attach it to front of all submittals, along with any reports or supplemental materials you are providing to the Indiana DHPA for review.

Date: July 24, 2014

Is this a new submission? ☑ Yes ☐ No

Reference for previous submittals: DHPA # _____ Des. No. 1383332 & 1383336

THIS REVIEW REQUEST SUBMITTED BY:

Name: Linda Weintraut

Company/Organization: Weintraut & Associates, Inc.

Address: P.O. Box 5034, Zionsville, Indiana 46077

Telephone number: 317-733-9770 Email address: linda@weintrautinc.com

PROJECT NAME & LOCATION *[Please attach a map with location(s) marked]*

Project Name/Reference: I-69 Expansion; Project 1 and Project 3 Project/ Des # 1383332 & 1383336

Project Address/Location: 106th St to .5 mi N of Campus Parkway; .5 mi N of Campus Parkway to .5 mi E of SR 13

City: _____ Township(s): Delaware, Fall Creek, Wayne // Green

County/Counties: Hamilton, Madison

STATE OR FEDERAL AGENCY INVOLVEMENT

Agency: Federal Highway Adminstration Program: _____

Type of funds, license, or permit to be obtained *(if applicable)*: _____

Name(s) of Agency Contact: Larry Heil

Address: 575 North Pennsylvania Street, Room 254, Indianapolis, IN 46204

Telephone number: 317-226-7475 Email address: Larry.Heil@dot.gov

APPLICANT *(if different than Federal Agency)* *If available, please attach copy of authorization letter from federal agency*

Applicant: Indiana Department of Transportatioin

Name of Contact: Patrick Carpenter

Address: 100 North Senate Avenue, IGCN 642, Indianapolis, IN 46204

Telephone number: 317-233-2061 Email address: pacarpenter@indot.in.gov

CONSULTANT FOR THE APPLICANT OR AGENCY *(IF APPLICABLE)*

Consultant: Parsons

Name of Contact: Daniel J. Miller

Address: 101 West Ohio Street, Suite 2121, Indianapolis, IN 46204

Telephone number: 317-616-4663 Email address: Daniel.J.Miller@parsons.com

Contact for DHPA questions regarding this review request: Linda Weintraut

Comments:
Submission includes:
- One invitation to join Section 106 consultation (including a list of invited parties)
- One copy of the invitation to join Section 106 consultation sent to invited consulting parties
- One copy of the Historic Property Report

Please note that incomplete submissions may result in delays. To ensure an expeditious review, please be sure that the following has been provided:

☑ Full contact information for person/entity submitting form, including phone number and email *(if available)*

☑ Map of project location with project area(s) clearly marked *(provided in current or previous submission)*

☑ Clear photographs of project area and surroundings

☑ Project description

☐ Description of any proposed ground disturbance

☑ Name of Federal agency/agencies and program providing funds, license, or permit

☐ Letter of authorization from Federal agency/agencies *(if applicable)*

Return this Form and Attachments to:

Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, Room W274
Indianapolis, Indiana 46204

http://www.in.gov/dnr/historic

INDIANA LANDMARKS

Central Regional Office
1201 Central Avenue, Indianapolis, IN 46202
317 639 4534 / 800 450 4534 / *www.indianalandmarks.org*

August 11, 2014

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
P.O. Box 5034
Zionsville, IN 46077

RE: Des. Nos. 1383332 & 1383336 I-69 Interstate Expansion, Project 1 (from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (from 0.5 N of Campus Parkway to 0.5 mi East of SR 13)

Dear Dr. Weintraut,

Thank you for allowing Indiana Landmarks the opportunity to comment on the above mentioned projects. We studied the documentation provided in the Historic Property Report dated May 2014 and we agree with the National Register of Historic Places eligibility determinations of those properties identified within the Area of Potential Effects.

We would like to inquire as to the decision by the Indiana Department of Transportation (INDOT) to separate the overall I-69 Expansion from Exit 205 (106th Street in Fishers) to Exit 226 (State Roads [SR] 9 & 109 in Anderson) into several, individual projects with separate environmental analysis. Will any of the projects occurring between Exit 205 and Exit 226 be completed concurrently?

We appreciate the opportunity to participate as a consulting party for this project and we will look forward to receiving further information as the project progresses. We recommend you invite the following additional consulting parties to review this and any further documentation related to this project:

Indiana Landmarks Eastern Regional Office
J.P. Hall, Director
PO Box 284
Cambridge City, IN 47327

Visit Hamilton County Indiana
Brenda Myers, Executive Director
37 East Main Street
Carmel, IN 46032

Sincerely,

Raina Regan
Community Preservation Specialist, Central Regional Office

CC: John Carr, Division of Historic Preservation and Archaeology

WEINTRAUT & ASSOCIATES, INC.

August 12, 2014

Visit Hamilton County Indiana
Brenda Myers, Executive Director
37 East Main Street
Carmel, Indiana 46032

Re: INDOT Designation Nos: 1383332 & 1383336
Location: Delaware, Fall Creek, and Wayne Townships in Hamilton County, Indiana & Green Township in Madison County, Indiana
Description: I-69 Interstate Expansion; Project 1 (from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13

Dear Brenda Myers,

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are planning an I-69 Interstate Expansion from 106th St in Fishers to Exit 226 (State Roads [SR] 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report is being conducted for Project 1 (Des. No.: 1383332) from 106th Street to 0.5 mile north of Campus Parkway and Project 3 (Des. No.: 1383336) from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply. We will incorporate your comments into a study of the projects' environmental impacts.**

Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69.

The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mi east of SR 13 has two travel lanes in each direction. The northbound cross section of three lanes in each direction ends at Cumberland Road. The southbound three-lane section starts with the southbound SR 37 ramps. A pavement resurfacing project (Des. No.: 0900053) has recently been completed for this segment of I-69.

The pavement condition in this area will be determined by INDOT Pavement Design, and the ultimate decision on the future form of the roadway will depend on the condition of the pavement.

Proposed Projects:

Project 1: I-69 from 106th Street to 0.5 mi N of Campus Parkway, Hamilton County

The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on Southbound (SB) I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. The overhead structure at Cumberland Rd would receive minor joint improvements, while the structure at Brooks School Road may be replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way.

Project 3: I-69 from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13, Hamilton and Madison Counties

The project would construct additional lanes from Exit 210 to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structure at Olio Road would require no additional work. The overhead structure at Cyntheanne Road may be replaced due to horizontal clearance. The SR 13 interchange will be evaluated to determine if additional auxiliary lanes (within existing right-of-way) would be necessary. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way.

Right-of-Way (ROW): No new ROW would be required for Project 1 and Project 3.

Section 106: Section 106 of the National Historic Preservation Act requires federal agencies to take into account the effects of their undertaking on historic properties (both archaeological and structures). Pursuant to 36 CFR 800.2(c), you are hereby invited to be a consulting party to participate in efforts to identify historic properties that may be affected by the undertaking, assess the effects of the undertaking on historic properties, and seek ways to avoid, minimize, or mitigate adverse effects on historic properties. Historic Properties are properties that are listed or eligible for listing in the NRHP. The intent of this letter is to provide you an opportunity to become a consulting party by responding to the invitation via the enclosed post card.

Enclosed with this letter is one copy of the Historic Property Report (HPR) prepared by Weintraut & Associates, Inc. for your review, should you choose to participate in consultation on this project. The report was approved by the INDOT-Cultural Resources Office (CRO) on June 16, 2014. The staff of the SHPO has previously agreed that the Flanagan House (057-206-50019) on East 106th Street is eligible for listing in the National Register of Historic Places (NRHP). In addition, Weintraut & Associates is recommending two properties as eligible for listing in the NRHP: Center School (095-343-65015), at SR

13 & CR 800 S, and Hamilton County Bridge 177 (S2-3), which carries an abandoned portion of Prairie Baptist Road over Mud Creek. The results of the archaeological investigation will be forwarded to the SHPO for review and comment.

To facilitate the development of this project, please respond with your comments on the HPR **within thirty (30) days** from the date of receipt of this letter. Should you find that an extension to the response time is necessary, a reasonable amount may be granted upon request. Please direct comments to Linda Weintraut at the address below or via email at Linda@weintrautinc.com.

Sincerely,

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, Indiana 46077
Phone: 317-733-9770

Enclosures

Cc: Indiana State Historic Preservation Officer
Indiana Landmarks – Central Regional Office
Hamilton County Historian
Hamilton County Historical Society
Hamilton County Genealogy Society
Carmel-Clay Historical Society
Fishers Historic Preservation Committee
Noblesville Preservation Alliance
City of Noblesville
City of Fishers
Hamilton County Commissioners
Fishers Chamber of Commerce
Noblesville Chamber of Commerce
Madison County Historian
Madison County Historical Society
Madison County Commissioners
Hancock County Historical Society
Hancock County Historian
Indianapolis MPO

Emc: Richard J. Marquis, FHWA
Mary E. Kennedy, INDOT-CRO
Daniel J. Miller, Parsons

WEINTRAUT & ASSOCIATES, INC.

August 12, 2014

Indiana Landmarks Eastern Regional Office
J.P. Hall, Director
P.O. Box 284
Cambridge City, IN 47327

Re: INDOT Designation Nos: 1383332 & 1383336
Location: Delaware, Fall Creek, and Wayne Townships in Hamilton County, Indiana & Green Township in Madison County, Indiana
Description: I-69 Interstate Expansion; Project 1 (from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13

Dear J.P. Hall,

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are planning an I-69 Interstate Expansion from 106th St in Fishers to Exit 226 (State Roads [SR] 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report is being conducted for Project 1 (Des. No.: 1383332) from 106th Street to 0.5 mile north of Campus Parkway and Project 3 (Des. No.: 1383336) from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. **Please use the above designation numbers and description in your reply. We will incorporate your comments into a study of the projects' environmental impacts.**

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Sincerely,

Linda Weintraut

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, Indiana 46077
Phone: 317-733-9770

Enclosures

Cc: Indiana State Historic Preservation Officer
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Hamilton County Historian
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Hamilton County Commissioners
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Madison County Commissioners
Hancock County Historical Society
Hancock County Historian
Indianapolis MPO

Emc: Richard J. Marquis, FHWA
Mary E. Kennedy, INDOT-CRO
Daniel J. Miller, Parsons

Linda Weintraut <linda@weintrautinc.com>

I-69 Hamilton & Madison Counties, Projects 1 and 3

1 message

Linda Weintraut <linda@weintrautinc.com> Fri, Aug 15, 2014 at 9:59 AM
To: rregan@indianalandmarks.org
Cc: Daniel Miller <Daniel.J.Miller@parsons.com>, "Carpenter, Patrick A" <PACarpenter@indot.in.gov>, Bethany Natali <bethany@weintrautinc.com>

Raina,

Thank you for your recent response to the early coordination letter and to the historic property report for this project.

We have invited the potential consulting parties that you suggested and we have sent them copies of the documentation that other invited consulting parties have received.

Regarding your question about the timing of construction for the I-69 projects, it is my understanding that construction will likely occur on Projects 1 and 3 at the same time but that the interchange may be occur at a later date. All of these projects are part of the "Major Moves 2020" program; each of these corridors associated with this project has independent utility and logical termini so that if one project is delayed it will not affect the funding for other projects.

Regards,
Linda

--
Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
4649 Northwestern Drive
Zionsville, Indiana 46077
317.733.9770 ext. 310

www.weintrautinc.com

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

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

HISTORIC PRESERVATION AND ARCHAEOLOGY

August 22, 2014

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, IN 46077

Federal Agency: Federal Highway Administration

Re: Historic property report (Weintraut, 5/2014) for added travel lanes on I-69 from 106th Street to State Road 13 (Designation #1383332 & 1383336; DHPA #16485)

Dear Dr. Weintraut:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f), 36 C.F.R. Part 800, and the "Programmatic Agreement among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation, 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 has conducted an analysis of the materials dated July 24, 2014 and received on July 25, 2014, for the above indicated project in Delaware, Fall Creek and Wayne Townships, Hamilton County and Green Township, Madison County, Indiana.

In regard to buildings and structures, we concur with Weintraut & Associates' assessment that Fall Creek Township District No. 1 School (site # 057-393-45001), Cyntheanne Christian Church (site # 057-393-45016), the house at 11479 Lantern Road (site # 057-206-51005), the house at 11393 Lantern Road (site # 057-206-51007), and Beech Grove Cemetery are not eligible for inclusion in the National Register of Historic Places.

Additionally, we concur with Weintraut & Associates' assessment that the Flanagan House (site # 057-206-50019), Hamilton County Bridge No. 177, and Center School (site # 095-298-65015) are eligible for inclusion in the National Register of Historic Places.

Furthermore, we do not concur with Weintraut & Associates' assessment that the Fishers Methodist Episcopal Church (site # 057-206-51006) and the mid-century house at 7883 South State Road 13 are not eligible for inclusion in the National Register of Historic Places; we believe that the structures are potentially eligible for listing on the National Register of Historic Places if the interiors are intact. We understand that it may not be possible to determine the condition of the interiors of these structures; therefore, we would be willing to consider them eligible for listing for the purpose of this review.

In regard to archaeological resources, it is our understanding that archaeological investigations of the proposed project area have been conducted, and that a copy of the report detailing these investigations will be submitted to the DHPA for review and comments. Once a copy of this document has been received, the Indiana SHPO will resume identification and evaluation procedures for this project.

A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004 may be found on the Internet at www.achp.gov for your reference. If you have questions about archaeological issues please contact Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. If you have questions about buildings or structures please contact Ashley Thomas at (317) 234-7034 or asthomas@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #16485.

Very truly yours,

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:ADT:adt

emc: Patrick Carpenter, INDOT
Mary Kennedy, INDOT
Shaun Miller, INDOT
Shirley Clark, INDOT

WEINTRAUT & ASSOCIATES, INC.

Transmittal Letter

DATE: September 10, 2014

TO: DHPA Attn. Mitch Zoll

FROM: Weintraut and Associates, Inc.

PROJECT: I-69 Added Travel Lanes

# OF COPIES	TITLE	COMMENTS
	Review Request Submittal	
1	Archaeological Short Report	

ADDITIONAL NOTES:

P.O. Box 5034, Zionsville, IN 46077 Tel: (317) 733-9770 Fax: (317) 733-9773 www.weintrautinc.com

REVIEW REQUEST SUBMITTAL

State Form 55031 (7-12)
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology, Indiana State Historic Preservation Office (SHPO)

HISTORIC PRESERVATION AND ARCHAEOLOGY

Please complete this form and attach it to front of all submittals, along with any reports or supplemental materials you are providing to the Indiana DHPA for review.

Date: September 10, 2014

Is this a new submission? ☑ Yes ☐ No

Reference for previous submittals: DHPA # 16485 Des. No. 1383332 &1383336

THIS REVIEW REQUEST SUBMITTED BY:

Name: Linda Weintraut

Company/Organization: Weintraut & Associates, Inc.

Address: 4649 Northwestern Drive in Zionsville, Indiana 46077

Telephone number: (317) 733-9770 Email address: linda@weintrautinc.com

PROJECT NAME & LOCATION *[Please attach a map with location(s) marked]*

Project Name/Reference: I-69 Added Travel Lanes Project/ Des # 1383332 & 1383336

Project Address/Location: Fishers, McCordsville, and Ingalls Topographic Quadrangles

City: Indianapolis, Indiana Township(s): Delaware, Fall Creek, and Green

County/Counties: Hamilton and Madison Counties

STATE OR FEDERAL AGENCY INVOLVEMENT

Agency: Federal Highway Administration Program:

Type of funds, license, or permit to be obtained *(if applicable)*:

Name(s) of Agency Contact: Larry Heil

Address: 575 N Pennsylvania Street, Suite 254, Indianapolis, Indiana 46204

Telephone number: (317) 226-7480 Email address: Larry.Heil@dot.gov

APPLICANT *(if different than Federal Agency)* *If available, please attach copy of authorization letter from federal agency*

Applicant: Indiana Department of Transportation

Name of Contact: Patrick Carpenter

Address: 100 N. Senate Ave. IGCN 642, Indianapolis, Indiana 46204

Telephone number: 317-233-2061 Email address: pacarpenter@indot.in.gov

CONSULTANT FOR THE APPLICANT OR AGENCY *(IF APPLICABLE)*

Consultant: Parsons

Name of Contact: Daniel J. Miller

Address: 101 West Ohio Street, Suite 2121

Telephone number: (317) 616-4663 Email address: Daniel.J.Miller@parsons.com

Contact for DHPA questions regarding this review request: _____

Comments:

Please note that incomplete submissions may result in delays. To ensure an expeditious review, please be sure that the following has been provided:

- ☑ Full contact information for person/entity submitting form, including phone number and email *(if available)*
- ☑ Map of project location with project area(s) clearly marked *(provided in current or previous submission)*
- ☐ Clear photographs of project area and surroundings
- ☑ Project description
- ☑ Description of any proposed ground disturbance
- ☐ Name of Federal agency/agencies and program providing funds, license, or permit
- ☐ Letter of authorization from Federal agency/agencies *(if applicable)*

Return this Form and Attachments to:

Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, Room W274
Indianapolis, Indiana 46204

http://www.in.gov/dnr/historic

Gmail by Google

Bethany Natali <bethany@weintrautinc.com>

Fwd: Added Travel Lanes on I-69 (DHPA 16485)

1 message

Linda Weintraut <linda@weintrautinc.com> Tue, Oct 7, 2014 at 3:06 PM
To: Bethany Natali <bethany@weintrautinc.com>

---------- Forwarded message ----------
From: **Linda Weintraut** <linda@weintrautinc.com>
Date: Tue, Sep 23, 2014 at 2:18 PM
Subject: Re: Added Travel Lanes on I-69 (DHPA 16485)
To: "Thomas, Ashley" <AsThomas@dnr.in.gov>

Ashley,

Thank you for your email.

I am having difficulty reconciling this church as eligible under criterion C. It has suffered multiple additions and has that huge ramp that detracts from its facade. We did not give consideration in the field especially after having received concurrence that a similar church with good interior integrity was not eligible (see attached). Since, the Fisher's church has compromised integrity, it was also my understanding from seminars and from reading NR bulletins that it would be difficult to make a case for a church unless it is part and parcel of a larger trend (A) that is not connected to religion (no ethnic community, etc.). From field experience, it is an altered example of a common type.

Regarding the mid-century modern, it was our understanding that a property must have very high integrity. Initially from public right of way, we thought this house might be eligible as well. Sadly, upon further inspection, we discovered that this house has some replacement windows and replacement garage doors. I have attached consultation on I-69 that established parameters for evaluations for mid-century properties that we have been using as a baseline. If this thinking/direction is no longer valid, please advise and send a copy of the present directive.

I ask these questions because the findings for one project sets precedent for future surveys and recommendations that will affect not only our reports but others, just like case law.

Thanks, Linda

On Thu, Sep 18, 2014 at 1:17 PM, Thomas, Ashley <AsThomas@dnr.in.gov> wrote:

> Linda,
>
> I received your voicemail this morning and I thought I would just e-mail you back so you could have our response in writing.
>
> Regarding the Fishers Methodist Episcopal Church, it would be eligible under Criteria C for Architecture. A case may also be able to be made for Religion depending on what additional information is available in the future.
>
> Regarding the Mid-Century house at 7883 S. SR 13, it would be eligible under Criteria C for Architecture.
>
> As we stated in our letter dated August 22, 2014, both of these properties are potentially eligible depending on the condition of the interiors, but we would be willing to consider them eligible for the purpose of this review.
>
> Please let me know if you have any additional questions. Thanks!
>
> **Ashley D. Thomas**
> Historic Structures Reviewer
> Division of Historic Preservation and Archaeology
> Indiana Department of Natural Resources
> 402 W. Washington St., Rm W274
> Indianapolis, IN 46204
> Phone: 317-234-7034
> Fax: 317-232-0693
> asthomas@dnr.IN.gov

The Indiana Division of Historic Preservation and Archaeology is now on Facebook! Please like our page and check back frequently for information on upcoming events, trivia, and helpful hints. If you have suggestions for topics or questions for future discussion let us know at dhpaconnect@dnr.in.gov.

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Linda Weintraut, Ph.D.
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2 attachments

CasCoCR400S_Des1297540_HPR_2013-09-18.pdf
112K

2009.0325 SHPO Meeting_Minutes.pdf
88K

Clymers Methodist Church (017-124-45012)
4003 West County Road 400 South
***Interim Report* Rating: Contributing**

CLYMERS METHODIST CHURCH, 4003 WEST COUNTY ROAD 400 SOUTH, NORTH ELEVATION

Description: A T-shaped, frame edifice on a rough-faced, concrete block foundation, the Clymers Methodist Church dates to around 1890. The simple, Gothic Revival-style church is embellished with wood cut-out crosses in the front gable and bell tower. The primary windows on the front and side elevations are glazed with clear glass panes of different shapes that form large, straight-sided, pointed arches. Alterations to this building include the addition of vinyl siding, the replacement of the front entry door, and the construction of a wooden ramp on the front of the building. With the exception of a drop ceiling and carpeting, the interior retains good integrity.

Context/Significance: This resource was rated Contributing in the IHSSI survey of Cass County, Indiana in the area of Architecture. The Clymers Methodist Congregation can trace it roots to the mid-1830s, when a Methodist congregation began meeting at the Fitzer property—west of the current building—in the 1830s in a log building that also functioned as a school house.[78] The congregation built a dedicated church building on Fitzer's property between 1844 and 1847.[79] The Clymers Cemetery (WA 2)

78 Powell, *History of Cass County*, 544.
79 Powell, *History of Cass County*, 544.

Meeting Minutes

Tier 2 Meeting Section 106 Aboveground Issues

Meeting Location, IGCN 955, Indianapolis, IN
Wednesday, March 25, 2009, 10:00 a.m. EDT

Attendees:	
Janice Osadczuk – Federal Highway Administration, Indiana Division	Jason DuPont – Bernardin, Lochmueller & Assoc./ Project Management Consultant (PMC)
John Carr – IDNR/State Historic Preservation Officer (SHPO), Division of Historic Preservation & Archaeology (DHPA)	Linda Weintraut – Weintraut & Associates/PMC
Frank Hurdis – IDNR/SHPO/DHPA	Michelle Gammon Purvis – Weintraut & Associates/PMC
Mary Kennedy – Indiana Dept. of Transportation	

The purpose of this meeting was to discuss public/consulting party comments regarding 800.11(e) for Section 2 and 3, the Memorandum of Agreement for Sections 2 and 3 (including mitigation ideas), and the methodology for the proposed Age of Data Survey for Section 4.

Linda Weintraut began the meeting by mentioning that the comment period on the 800.11(e) has been extended to May 8, 2009. Consulting parties had requested additional time to review the documents. There was a general discussion about the various consulting party comments that have been received. Several comments have been received; all of these were briefly reviewed.

Discussion then focused on a letter/email submitted by William Boyd that contained comments and objections to the overall Section 3 Historic Property Report (HPR) as well as 73 points of objection to various aspects of the Eligibility Report for the Dowden Farm. Weintraut & Associates explained that most of the points in this March 8, 2009 letter had been submitted during earlier comment period and that the comments are not likely to have any effect on the determination for the Dowden Farm (determined ineligible by the Keeper of the National Register).

Janice Osadczuk requested that a copy of Boyd's recent correspondence be sent to SHPO, along with the appropriate sections of the Eligibility Report highlighted, so SHPO can comment on whether or not the submitted information could have an effect on eligibility. Osadczuk requested that special attention be paid to any new information contained in Boyd's letter. Weintraut & Associates will send a package of information to SHPO that will contain previous correspondence from Jan Boyd, the eligibility report with appropriate sections highlighted, and this new communication from William Boyd.

Other discussion about Sections 3's consulting party comments continued. Osadczuk asked whether any local historians had been involved in the process. DuPont and

Weintraut answered that there has not been much input from local historians, although one had attended a consulting party meeting.

There was a brief discussion about the FHWA noise policy because Citizens for Appropriate Rural Roads (CARR) had expressed concern over the effects created by I-69 noise. Osadczuk explained that the FHWA noise policy, which is set in decibels, is a guideline and that each State has the option of setting its own noise policy. INDOT revised its policy last year. The policy does not require the absence of road noise; however, the noise policy, based on FHWA guidelines, sets thresholds to identify what level of roadway noise intensity constitutes an *adverse* effect. DuPont said that noise thresholds have been reviewed for the NR-eligible properties and that the properties in Scotland do not come close to meeting the decibel levels deemed to be an adverse effect by the noise policy.

The group then discussed whether changes should be made to the Historic Property Reports based on comments that there are inaccuracies. Osadczuk said that changes should be made for errors (such as typos, etc.) pointed out by consulting parties. An errata sheet will be distributed shortly after the May 8, 2009 deadline.

The meeting topic then moved to an update on Section 2. Some consulting parties had stated that the comment period was too short, but Osadczuk reminded the group that the law requires 30 days for review; nevertheless, the comment period on the 800.11(e) has been extended to May 8, 2009.

There was a detailed discussion about mitigation for Section 2, in particular the concept of providing funding to Pike County Commissioners for repairs to bridges in the Patoka Bridges Historic District. While this may be a good idea, details need to be worked out to determine feasibility and practicality. These include the following: Has a cost estimate been made for bridge repairs? Does the County have any plans? What is the County's interest? These need to be known before including it in the MOA. DuPont said he would inquire regarding Pike County's information on the bridges and their interest in rehabilitation.

DuPont also mentioned that there has been discussion about converting these to pedestrian-only travel, if the road were to be closed by I-69 and pending property acquisition by the Patoka River National Wildlife Refuge. However, the road is currently planned to be kept open as identified in the DEIS. The bridges currently do not appear to be in great condition. Osadczuk reminded the group that any change in use would need to be evaluated to see if it would result in an adverse effect. John Carr mentioned that the Advisory Council on Historic Preservation used to have a "Manual of Mitigation Measures" that discussed various common mitigation approaches. This document indicated that bypasses are always treated as an adverse effect, even if the MOA requires that a bridge be converted to pedestrian use to repair and protect it.

Finally, there was discussion about the concern expressed that the NR-listed Patoka Bridges not be used by construction traffic. FHWA and INDOT have consistently expressed that this is an important commitment and it can be made part of the construction contract. DuPont mentioned that it would be easy to keep construction machinery/traffic off the bridges, but that regulating traffic to and from the site might be more difficult. However, this condition will be written into the construction contract documents and will be monitored by the construction engineer to maintain compliance during construction.

Osadczuk reminded the group that if bridge rehabilitation would be included in the MOA, it should also have its own CE.

The final aspect of the discussion regarded borrow pits; William Boyd had commented that Section 106 must be done on borrow pits. The group agreed that borrow pits will be handled appropriately during construction, per the INDOT Standard Specifications, which require clearance of borrow pits. In crafting the document that details consideration of consulting party comments, Mary Kennedy said that Weintraut & Associates could obtain official wording from Shaun Miller regarding this issue.

At this point in the meeting, Carr requested that the group discuss the Age of Data Survey for Section 4 so that Frank Hurdis could provide his expertise and input, and be excused from the meeting. Weintraut referred to the Methodology hand-out and explained that the goal is to update the Section 4 survey to make it current through 2015, specifically by reviewing properties constructed between 1954 and 1965.

There was some discussion about a Task Force assembled by the DHPA to consider the survey program and the future challenges, especially as more post-war buildings meet the age criteria for consideration of National Register eligibility. Weintraut and Hurdis explained that given the number of properties constructed during this time, the Task Force decided that Phase II of the IHSSI will survey post-war properties with a high level of integrity and that only properties with an excellent level of integrity would be considered eligible. Weintraut agreed to add a statement to the methodology indicating that post-war properties possess high integrity in order to be inventoried for the I-69 survey.

Hurdis asked why this Age of Data Survey is focused on Section 4; Weintraut answered that since the Section 4's 800.11(e) is not anticipated to be released until late 2009 with completion of this section not until 2010, so the team would like to be proactive. Sections 2 and 3 have been released, and are anticipated to be completed before the end of 2009. ,. Construction is happening now for Section 1, and Sections 2 and 3 are moving into final design and construction. DuPont explained that plans for Sections 5 and 6 are not definitive enough, which is the reason the re-survey for those sections is not happening now, but an update like this is anticipated to occur in the future.

Hurdis asked how this survey interfaces with the mitigation surveys; Weintraut explained that this survey is simply a method to update data for those remaining sections that have not yet completed the 800.11(e) documentation process. Carr mentioned that SHPO is interested in knowing when the Tier 1 mitigation surveys can start for Sections 2 and 3: DuPont and Osadczuk said that the plan is for the RODs for Sections 2 and 3 to be signed by the end of the year.

Weintraut asked for confirmation that the methodology for the Age of Data Survey is appropriate. Osadczuk requested that a consulting parties meeting be held after this Additional Information (AI) Report is completed.

Weintraut pointed out that the survey update will also include a *reconnaissance review* of properties surveyed by CCRG to verify status. The group agreed that "changed" could mean either having a reduction in status due to improper alterations, or improved in status due to repairs that follow the Secretary of Interior's guidelines, or if a property should be contributing due to the age requirement.

The discussion returned to the post-war properties. Non-traditional, post-war sites (such as industrial sites, trailer parks) will be reviewed.

Mary Kennedy suggested that Weintraut & Associates review USGS maps in addition to aerial photographs.

DuPont summarized the discussion, saying that the survey would verify general information on the previously surveyed contributing properties and it would add additional information about contributing properties constructed between 1954 and 1965. These newly-surveyed properties will be assessed for NR eligibility; if any are eligible, effects will be assessed. Changes to the methodology for the additional information survey will be made based on this meeting discussion. Weintraut & Associates will begin the survey update immediately.

The final topic of the meeting was a review of proposed mitigation ideas for Sections 2 and 3. The MOA will follow the template established by Section 1.

There was a discussion about a proposal for Section 2 mitigation to have a "Low impact, non-intrusive bridge design." After discussing the fact that the statement must be reviewed by INDOT bridge design staff, the group amended this statement to say "visually non-intrusive, context sensitive bridge design."

The MOA will include a stipulation that says, "Bridge design will be coordinated with SHPO." There was some discussion about the review process for the bridge design; the group decided that it was appropriate for SHPO to review the design once prior to, and at 30 percent bridge design so that the design could be modified, if necessary to assure conformity to this commitment. DuPont agreed to find out what the current stage of completion is, and confirm the language in the RFP for the design of Sections 2 and 3.

Weintraut passed out information about the proposed Audio Tour as mitigation. This item has been included as a public education mitigation tool that will assist heritage tourism. It will bring travelers into the communities to learn about cultural and natural history of the area and could also help with economic development. There was some discussion about how the tour would be disseminated. Some ideas included having kiosks at rest stops and working with the state tourist offices, county CVBs, and local schools to distribute the information. The audio media is planned to be produced in electronic format so that it can be easily distributed, including as an internet download. The mitigation plan includes researching, writing, and production supervision of the audio tour. The marketing plan and marketing of the tour and distribution of the media will need to be developed.

The final meeting topic was the mitigation for the McCall Family Farmstead in Section 3. Tree planting for screening was one idea, and there was some discussion about the best location for these trees. Osadczuk said it is important that if trees are planted, they should be planted in right-of-way rather than on private property so that the state does not spend money on mitigation that could be removed immediately. While it is possible to plant trees on private property, the owner must agree to an easement restriction that says the trees will remain. White Cedar trees have been proposed because they have dense foliage that reaches from the ground to 20 to30 feet in height. DuPont agreed to find out if White Cedar trees are prone to any diseases since they are not native to Indiana.

The concept of doing a National Register nomination for McCall farm and Archaeology on the site also was discussed. The property owner would need to agree to either of these. Archaeology was removed from the list because it is not anticipated to produce significant additional information and would not have as broad of an impact as other mitigation ideas.

Finally, there was additional discussion on the Audio Tour and other public interpretation measures such as exhibits and brochures as mitigation for the McCall Farmstead. Osadczuk suggested incorporating Lincoln information into the items if I-69 crosses paths Lincoln used to travel from Indiana to Illinois.

ACTION ITEMS:

1. Weintraut & Associates will send a package of information to SHPO that will contain previous correspondence, the eligibility report with appropriate sections highlighted, and this new communication from Bill Boyd.
2. DuPont will find out if Pike County already has estimates for the repair or rehabilitation of the Patoka Bridges.
3. DuPont agreed to look at the bridge inspection report for details as to the condition of Patoka Bridges.

4. Weintraut & Associates will obtain official wording regarding borrow pits from Shaun Miller.
5. Errata sheets will be prepared for the HPRs and for the Dowden Report on Eligibility. These will be distributed shortly after the May 8, 2009 deadline.
6. Weintraut & Associates will update the Age of Data methodology to reflect discussion at this meeting.
7. DuPont will find out if White Cedar trees are prone to any diseases since they are not native to Indiana.
8. DuPont agreed to find out what the current stage of completion is, and confirm the language in the RFP for the design of Sections 2 and 3.
9. Weintraut & Associates will begin background work on the MOAs.
10. Weintraut & Associates will begin survey update immediately.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting. This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

Linda Weintraut <linda@weintrautinc.com>

RE: Added Travel Lanes on I-69 (DHPA 16485)

1 message

Thomas, Ashley <AsThomas@dnr.in.gov> Mon, Sep 29, 2014 at 3:33 PM
To: Linda Weintraut <linda@weintrautinc.com>
Cc: "Diebold, Paul" <PDiebold@dnr.in.gov>, "Tate, Holly" <HTate@dnr.in.gov>

Linda,

I have talked to Holly and Paul in the National Register section and we have come up with the following information regarding the two properties you had e-mailed us about. Please note that Holly and Paul still believe that both of these properties are potentially eligible pending additional information.

Fishers Methodist Episcopal Church –

- We have noted that the example you sent of a similar church that had been determined not eligible specifies a dropped ceiling. That would be a significant alteration for a church like that; we would have expected a “cathedral” ceiling with a fairly dramatic increase in volume to the interior space.
- Within the context of Fishers and its surrounding township, ongoing and dramatic loss of historic resources has focused attention on a limited pool of historic places that now stand out as representative to the history of the community.
- We have precedent for listing a sided church building, or other sided building, when it retains its characteristic volume, details, plan, and other elements.
- The church retains its tower and “Akron Plan” type massing (though we don’t know about the interior, and that is an important factor).
- The National Register section does not recall making a statement that there must be a link to Criterion A for small town/rural churches. If we made such a binding statement, it was an error on our part. Paul does recall saying that when you can make a Criterion A argument, you ought to do so. A small church like this can be eligible on its own as an example of a type (as it appears to be in this case) and style (as it is in this case) under Criterion C alone.

Mid-Century house at 7883 S. SR 13 –

- We have attached some guidelines and research that we’re still tweaking. If it is of service to you and your staff in making evaluations, please feel free to utilize it. Paul has also shared it with INDOT.

Please let us know if you have additional questions.

Ashley D. Thomas
Historic Structures Reviewer
Division of Historic Preservation and Archaeology
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From: Linda Weintraut [mailto:linda@weintrautinc.com]
Sent: Tuesday, September 23, 2014 2:37 PM
To: Thomas, Ashley
Subject: Re: Added Travel Lanes on I-69 (DHPA 16485)

Ok, thanks!

On Tue, Sep 23, 2014 at 2:26 PM, Thomas, Ashley <AsThomas@dnr.in.gov> wrote:

Let me talk to the National Register section and I will get back to you. Paul is out all week, so it may be early next week before I get back to you.

Ashley D. Thomas
Historic Structures Reviewer
Division of Historic Preservation and Archaeology
Indiana Department of Natural Resources
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check back frequently for information on upcoming events, trivia, and helpful hints. If you have suggestions for topics or questions for future discussion let us know at dhpaconnect@dnr.in.gov.

From: Linda Weintraut [mailto:linda@weintrautinc.com]
Sent: Tuesday, September 23, 2014 2:18 PM
To: Thomas, Ashley
Subject: Re: Added Travel Lanes on I-69 (DHPA 16485)

Ashley,

Thank you for your email.

I am having difficulty reconciling this church as eligible under criterion C. It has suffered multiple additions and has that huge ramp that detracts from its facade. We did not give consideration in the field especially after having received concurrence that a similar church with good interior integrity was not eligible (see attached). Since, the Fisher's church has compromised integrity, it was also my understanding from seminars and from reading NR bulletins that it would be difficult to make a case for a church unless it is part and parcel of a larger trend (A) that is not connected to religion (no ethnic community, etc.). From field experience, it is an altered example of a common type.

Regarding the mid-century modern, it was our understanding that a property must have very high integrity. Initially from public right of way, we thought this house might be eligible as well. Sadly, upon further inspection, we discovered that this house has some replacement windows and replacement garage doors. I have attached consultation on I-69 that established parameters for evaluations for mid-century properties that we have been using as a baseline. If this thinking/direction is no longer valid, please advise and send a copy of the present directive.

I ask these questions because the findings for one project sets precedent for future surveys and recommendations that will affect not only our reports but others, just like case law.

Thanks, Linda

On Thu, Sep 18, 2014 at 1:17 PM, Thomas, Ashley <AsThomas@dnr.in.gov> wrote:

Linda,

I received your voicemail this morning and I thought I would just e-mail you back so you could have our response in writing.

Regarding the Fishers Methodist Episcopal Church, it would be eligible under Criteria C for Architecture. A case may also be able to be made for Religion depending on what additional information is available in the future.

Regarding the Mid-Century house at 7883 S. SR 13, it would be eligible under Criteria C for Architecture.

As we stated in our letter dated August 22, 2014, both of these properties are potentially eligible depending on the condition of the interiors, but we would be willing to consider them eligible for the purpose of this review.

Please let me know if you have any additional questions. Thanks!

Ashley D. Thomas
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Ranch Housing and Guidelines for Evaluating Post War Housing in Indiana.....docx
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Ranch Housing and Guidelines for Evaluating Post War Housing in Indiana

The Ranch House in Indianapolis
Researched by Michael Flowers with assistance from Paul C. Diebold

This essay is intended to serve as a starting point in the evaluation of post-war housing in Indiana. It is intended to provide a beginning framework for understanding the development of the Ranch type in Central Indiana.

The period of 1940 – 1970 in Indianapolis was one of unprecedented growth. The population was increasing, but mainly in the newly developing suburbs, and not within the old city limits. The numbers of housing starts were remarkable as well. It was the age of the Ranch house and the Ranch neighborhood in Indianapolis. In 1940, the population of Marion County was 460,926. Of these, only 73,954 lived outside of the city limits. By 1970, the population of Marion County was 792,299, a 58% increase over the 1940 population. Since the much of this population increase was taking place in the suburbs, the resulting impact on the built environment came in the form of thousands of Ranch houses, and Ranch house neighborhoods.

What is a Ranch House?

Like its architectural predecessor, the bungalow, the Ranch house is many things to many people. The bungalow was loosely defined as a one story, informally-planned house, with a porch and broad roofline. Its historic roots extended to the Indian subcontinent, where native peoples termed their low-slung cottages "bangla." The Ranch house could be defined by its studied informality and zoned living uses as much as by its simple exterior, often featuring a low-pitched roof, deep eaves, and a private, open patio instead of a covered porch. The Ranch house's historic origins sprang from the American Southwest and California, where architects were inspired by the houses of cattle ranchers of the Spanish Colonial era. In Indiana, the Ranch house refers to a one story, detached house with low pitched roof, typically with few if any traces of past traditional architectural styles.

Origins of the Ranch House in Indiana and Indianapolis

Indiana seems like an unlikely place to have such larger numbers of Ranch houses. It is far from the California that Cliff May, one of the originators of the Ranch house, called home. Nonetheless, it was the Ranch house and its neighborhoods that characterize the first two-and-a-half decades of post World War II development in Indianapolis.

Cliff May designed his first house in 1932 in San Diego. Soon, he was dubbing his houses "haciendas" or "rancheras" and his adaptations of Spanish Colonial, one story, stuccoed houses were gaining notoriety. One of his early designs was even published in *Architectural Digest*. May was in part drawing on personal familiarity with the historical type, since his family's ancestral home, Casa de Estudillo in San Diego, and his aunt's home, Los Flores, were heavily restored Spanish Colonial ranches.[1] In the post war

[1] Generally see Mary A. van Balgooy, "Before LA: Cliff May's Beginnings in San Diego," *The Journal of San Diego History*, Fall 2011, Volume 57, No. 4, pp. 255-272.

years, May and fellow builders and architects would apply the tenents of Modernism to the Ranch type. It is this later version of the Ranch which proved to be pervasive in Central Indiana.

Hoosiers were receptive to architectural ideas from many places, and those from California had captured the imagination of local architects early in the 20th century. During the Arts & Crafts era, the bungalow craze was well acknowledged in Indiana by 1910, when the *Indianapolis Star* published a large feature article titled "Are You Bungalowing?"[2] While today, any number of these early bungalows might be termed "California Bungalows," anonymous authors for the *Star* used the term to describe specific houses, a clear indication that architects, builders, and homeowners in Indiana were well-familiar with the type.[3] Additionally, a development type, the bungalow court, was known in Indianapolis decades before World War II. Beverly Court, a large development just north of West 38th Street, was completed in the mid-1920s. Others in Indianapolis date from about the same period. Though the association of Indianapolis bungalow courts with those in California is not expressed in writing, the influence is apparent.

Shannon (Hill) Zuercher's research on the Indianapolis Home Show reveals that the Ranch house type and name were familiar to Indianapolis architects and builders within several years of May's first houses, conjointly with the spread of the type in California. Leslie Ayres' Personality House for the 1935 show has Art Moderne styling, but it presages the post-war Ranch in plan. Its rear elevation anticipates the front elevations of post-war Ranches. Better known for his staid, traditional Tudor Revival houses in Golden Hill and North Meridian Street in the 1920s and 30s, Frederick Wallick nonetheless provided a prototype Ranch design for the 1939 Home Show. Though it draws much inspiration from Colonial Revival sources, the design can be described as a Ranch house.[4] Pierre & Wright created a Ranch house that more clearly anticipates post-war designs for the 1941 home show. Called the "All-American Four Star Home," it included one story with an attached garage, picture window-lit living room, sun room and bedrooms under a long, low hip roof. Curiously, the term "Ranch house" was not often used in conjunction with these trend setting homes. The "All-American" design was republished after the war, in 1947, in *Popular Home* magazine.[5]

While the home show often touted the latest ideas in housing for those interested, builders were already catering to those of more average means. The housing economy was rebounding, providing the opportunity for new concepts, including the Ranch type. From housing starts totaling around 3,000 per year during the mid-1920s, Indianapolis builders had taken enormous losses. By 1929, new dwelling units completed were down to 1,452 units for the year. The all-time (recorded) low was for Indianapolis was in 1933, when homeowners and landlords commissioned only 47 new units.[6] By the eve of America's entry into World War II, housing was on the comeback. War-related industries were expanding in Indianapolis. As well as factory work, firms like Allison Division of GM and new Naval

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[2] "Are You Bungalowing?" *Indianapolis Star*, April 24, 1910, Magazine Section, p. 8 (pages are unnumbered).
[3] "New California Bungalow on North Side," *Indianapolis Star*, April 9, 1916, Society Section, p. 52. The article featured a house at 509 E. 29th Street. Also, an article about a group of California bungalows located in the 3800 block of English Avenue was featured in: "California Bungalows Have Wide Appeal," *Indianapolis Star*, November 13, 1927, pt. 3, p. 35.
[4] Shannon L. Hill, "The Indianapolis Home Show: Its History, Evolution, and Centerpiece Homes," (Master's thesis, Ball State University, 2002), p. 156.
[5] Hill, pp. 44 and 160.
[6] U.S. Department of Labor, Bureau of Labor Statistics, Division of Construction and Public Employment, "Building Construction in Principal Cities of the United States, 1921, 1946, Based on Building Permits Issued." Washington, D.C., U.S. Government Printing Office, July 1947.

Ordinance Plant were hiring engineers and administrators at good salaries. As families expanded their income, the new FHA mortgages and programs were making it easier for potential homeowners to build or buy. In 1939, Indianapolis builders completed 1,353 new units; 1940 showed a modest increase to 1,452 new units. While it was only about half of the rate for new units in Indianapolis during the mid 1920s, the upward trend was welcome news.

The first new neighborhoods that would set the stage for post-war expansion came at this crucial time. The Green Lawns Addition on Emerson Avenue on the east side was planned by architects Pierre & Wright in 1939.[7] The firm both planned the subdivision and designed the houses, which were intended meet FHA housing and mortgage requirements. Pierre & Wright combined traditional elements with floor plans that were transitional to those of Ranch houses. Best described as American Small House designs, Green Lawns' housing had the minimal amount of detail and a more traditional roof pitch that most Ranch house builders eschewed.

Valley View Park Subdivision, between 67th St., 65th St., Keystone Ave., and Hillside Ave., was developed in late 1940 and early 1941 by H.L. Horton Company.[8] The firm completed three examples by January 1941, and these modest, one story frame houses included a breezeway-attached garage. One of the pilot houses built in time for the opening of the subdivision, at 6513 N. Keystone Ave., was described as a "ranch-type structure." A later article, on January 19, 1941, describes the three pilot houses as "ranch" houses.[9] The three, like the houses of Green Lawns, have minimal historical references.

Merchant builders weren't active only on the east and north sides of town before the war. Bert Wilhelm developed Oak Lawn Addition along Georgetown Road in Speedway in the early 1940s.[10] Wilhelm planned to build 30 houses in the addition in 1941, and the *Star* described one of the simple gabled houses as a "dude ranch-type" house.

Despite promotion of the new housing type in nationally accessible literature, at the Indianapolis Home Show, and in occasional articles in the local papers, the Ranch type was not popular in Indianapolis before World War II. Most local home builders were content with the tried and true American Small House plans, with exteriors that featured just enough Colonial or Tudor elements to increase curb appeal. Articles and real estate ads of the late 1930s feature such houses, almost without exception.

Individual houses built on speculation or for specific owners were a specialty of many Indianapolis home builders in the 1920s; those who had survived the Depression shouldered on to the beginning of World War II. They began to adopt the Ranch house type and sometimes used the name to promote their product. Schoen-Morgan was one such home building firm. They had prospered in the interwar years, building large Tudor Revival homes in Butler-Tarkington and Meridian-Kessler neighborhoods. In early 1941, Schoen-Morgan was marketing the house at 5637 N. Central Avenue that they had just completed.[11] The *Star* called the house a "…ranch-type dwelling planned to appeal to Hoosier home

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[7] "Private Financed Housing Development Appeals to Home Buyers of Modest Income," *Indianapolis Star*, December 22, 1940, p. 35.
[8] "Three Suburban 'Homes of Happiness' Open Today," *Indianapolis Star*, January 5, 1941, p. 28.
[9] "2,500 Persons See Homes of Happiness in Valley View," *Indianapolis Star*, January 19, 1941, p. 31.
[10] "Wilhelm Offers Dude Ranch-Type Dwelling In Oak Lawn Addition in Speedway City," *Indianapolis Star*, January 5, 1941, p. 28.
[11] "Ranch-Type Dwelling with Western Touch Is Built by Schoen-Morgan on Central," *Indianapolis Star*, March 23, 1941, p. 36.

owners who relish the Western touch in the style of their home…" This house featured stone and brick veneer, a low-pitched, side gable roof, and two different kinds of picture window, much like many post-war Ranches would. This appears to be one of the earliest, widely published acknowledgements of the new Ranch house type in Indianapolis.

Dissemination After the War

While single family residential construction was restricted during war years, the *Star* continued to run articles about house design under the title "Homes for Americans." One, published just after the war, was a design by noted Modernist Alden Dow, for a "square house" and even included instructions for contacting the architect. Others were variations of Ranch houses; all seem to be aimed at stimulating discussion about the future.

Victory in the Pacific Theater came on August 15, 1945, but battles were just beginning for the housing industry. High material costs, unprecedented demand, and the need for quickly built housing were major issues. Brookville Village, located between Brookville Road and the B & O Railroad, just south of Irvington, was one example of how Indianapolis builders met the new demand. This curvilinear plat was laid out in 1949 and it was hoped that 170 houses would be completed that season.[12] The developers used modest, prefabricated Ranch houses, some from Thayer Prefabricated Houses of Columbus, Indiana some from National Homes Company.

Numerous Indianapolis area neighborhoods were developed similarly. Eagledale, located just north and west of the Indianapolis Motor Speedway, was platted and its simple Ranch houses were offered for sale beginning in 1955. Many were prefabricated.[13] Some sections of Eagledale featured slightly larger brick Ranches. The area of 3,400 homes was fully built out and annexed to Indianapolis by 1961. Just as Speedway had been a suburb long before adjacent Eagledale came into being, Beech Grove would experience rapid expansion after World War II. Beech Grove was a minor rail siding, when, in 1906, the New York Central Railroad built a massive rail shop there. The Beech Grove Improvement Company platted the original section of the adjacent community the same year. After the war, large sections of Beech Grove were developed with modest Ranch houses during the 1950s.

In Warren Park, builders were appealing to middle class, white-collar owners with one story stone or brick, hip roof Ranch houses. The *Indianapolis News* noted that the Ranch house "…typifies the newer section of in the Irvington area. Home styles vary considerably with the preference running toward the stone ranch type."[14] Further away from established neighborhoods, exclusive enclaves like Avalon Hills were being built out with a variety of Ranch housing in the 1950s. Though the age of the trolley and interurban were past, many Indianapolis developers stayed within easy reach of bus routes with their holdings, well into the 1950s.[15] Avalon Hills would have been an exception to the trend; doubtless, its planners envisioned it as a totally auto-oriented suburb.

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[12] "Million-Dollar Subdivision Due with 170 Homes," *Indianapolis News*, January 7, 1949, p. 1.
[13] Bodenhamer et al. *Encyclopedia of Indianapolis*, Indianapolis: I.U. Press, 1994, p. 520.
[14] "Today's Picture News," *Indianapolis News*, July 19, 1952, p. 10.
[15] Indianapolis had ended trolley service in the 1940s, and by the 1950s, electric buses powered by overhead catenary wires were operating on fixed routes. Motor bus routes had been started by Citizen's Street Railway in the decades before, and these continued to augment the fixed routes. It is also likely that developers hoped to contain utility costs by staying within, or close, to existing infrastructure.

In Avalon Hills, many of the new homes were traditional, Colonial interpretations of the Ranch. Interest in Colonial architecture persisted, even as the Ranch and Modernism were taking root in post-war Indy. Prolific Indianapolis home builder and entrepreneur R.V. Welch was still offering Cape Cod models from National Homes for his new North Eastwood development in 1960.[16] At virtually the same time, architect and developer Avriel Shull was planning an entirely Modernist subdivision in Carmel, Indiana, just north of Indianapolis. Shull's designs were variations of the Modern style Ranch house, emphasizing clean lines and functional interiors, with few if any traces of traditionalism.[17] The clash, and in some cases, the combination, of traditional architecture and purer forms of Modernism would typify the Indianapolis post-war streetscape. Architectural historians hoping to document and nominate Ranch houses and their neighborhoods to the National Register of Historic Places will need to research this phenomenon to provide further context.

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"2,500 Persons See Homes of Happiness in Valley View," *Indianapolis Star*, January 19, 1941, p. 31.

Avriel Shull Collection, Indiana Historical Society

"Are You Bungalowing?" *Indianapolis Star*, April 24, 1910, Magazine Section, p. 8 (pages are unnumbered).

"California Bungalows Have Wide Appeal," *Indianapolis Star*, November 13, 1927, pt. 3, p. 35.

Hill (Zuecher), Shannon L. "The Indianapolis Home Show: Its History, Evolution, and Centerpiece Homes," (Master's thesis, Ball State University, 2002)

"Million-Dollar Subdivision Due with 170 Homes," *Indianapolis News*, January 7, 1949, p. 1.

"New California Bungalow on North Side," *Indianapolis Star*, April 9, 1916, Society Section, p. 52. The article featured a house at 509 E. 29th Street.

"New 1 ½ Story Cape Cod National To Be Shown in North Eastwood," *Indianapolis Star*, December 18, 1960, Section 7, page 7.

"Private Financed Housing Development Appeals to Home Buyers of Modest Income," *Indianapolis Star*, December 22, 1940, p. 35.

"Ranch-Type Dwelling with Western Touch Is Built by Schoen-Morgan on Central," *Indianapolis Star*,

[16] "New 1 ½ Story Cape Cod National To Be Shown in North Eastwood," *Indianapolis Star*, December 18, 1960, Section 7, page 7. A large ad for North Eastwood appears on page 41.

[17] Shull published many of her house designs nationally through several periodicals. Sources of information about her career can be researched in the Avriel Shull Collection of the Indiana Historical Society; also see Connie J. Zeigler, National Register of Historic Places nomination, Thornhurst Addition Historic District, listed June 24, 2010.

March 23, 1941, p. 36.

"Three Suburban 'Homes of Happiness' Open Today," *Indianapolis Star*, January 5, 1941, p. 28.

"Today's Picture News," *Indianapolis News*, July 19, 1952, p. 10.

U.S. Department of Labor, Bureau of Labor Statistics, Division of Construction and Public Employment, "Building Construction in Principal Cities of the United States, 1921, 1946, Based on Building Permits Issued." Washington, D.C., U.S. Government Printing Office, July 1947.

Van Balgooy, Mary A. "Before LA: Cliff May's Beginnings in San Diego," *The Journal of San Diego History*, Fall 2011, Volume 57, No. 4, pp. 255-272.

"Wilhelm Offers Dude Ranch-Type Dwelling In Oak Lawn Addition in Speedway City," *Indianapolis Star*, January 5, 1941, p. 28.

Zeigler, Connie J. National Register of Historic Places nomination, Thornhurst Addition Historic District, listed June 24, 2010.

Builders, Architects, Designers and Contractors of Early Ranch, American Small House or Similar Housing in Indianapolis. Compiled by Michael Flowers

George Simpson, Contractor
5801 Haverford Avenue, 1940

Pierre and Wright
"Green Lawns" Addition Houses, 1940
"All American Four Star Home" 2708 E. 58th, 1941

H.L. Horton Company,
Valley View Park, Homes of Happiness; 6509 North Keystone, 6513 North Keystone, 6601 North Keystone, 6514 Keystone Avenue, 2154 North Sherman Drive, 1941

American Home Builders
6340, 6344 Washington Boulevard, 1941

The Shoen-Morgan Realty Company, Inc.
5637 Central Avenue, 1941
2909 East 62nd street, 1942

M. Knight Realty Company
5645 and 5651 Indianola Ave, 1941

Lyndale Construction Company
515 South Manhattan, 1941

Charles D. Ward
The "Home Maker" 5805 North Oxford, 1941

H.D. Tumbleson
5245 Southeastern Avenue, 1941

S.C. Kirkpatrick
1050 West 58th Street, 1941

R.K. Cordill
6101 Riverview drive, 1942

Louis Heck
36th street and Colorado Avenue, 1942

Joseph O. Cezar
Sketches and plans for Ranch style houses in the Drawings and Documents Archive, College of Architecture and Planning, Ball State University.

Fran E. Schroeder
Plans for Spickelmier Co. Model Houses 1955
Residence for Mr. and Mrs. C.L. Kittle 3-25-52

Frederick Wallick
Indianapolis Home Builder's association, All-Indiana Home from the Indianapolis Home, 1939

Guidelines for Evaluating National Register Eligibility of Mid Century Modern Housing and Post-War Suburbs

Increasingly, consultants in the field and preservation planners are finding a need to evaluate post-war suburbs and housing types. The need is sometimes practical, as Section 106 calls for agencies and those utilizing Federal funds, or undertaking licensed activities, to evaluate the impact on historic areas. In other cases, communities hope to identify previously overlooked historic resources.

The following guide is intended as a framework to assist in evaluating the potential eligibility for the National Register of Historic Places, for areas that may have concentrations of Ranch housing. For the most part, these resources date from the 1941-1970 time period. While the National Register of Historic Places, Criteria for Evaluation (see sidebar) are the basis for any opinion of eligibility, this document is intended to specifically apply the criteria to post-war architecture. In all cases, DHPA will consult with you to provide a final assessment of eligibility.

(sidebar section)

The National Register of Historic Places
Criteria for Evaluation

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

Criterion A
That are associated with events that have made a significant contribution to the board patterns of our history.

Criterion B
That are associated with the lives of persons significant in our past.

Criterion C
The embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components lack individual distinction.

Criterion D
That have yielded, or may be likely to yield, information important in prehistory or history.

Criteria Considerations

Ordinarily cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

A: A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
B: A building or structure removed from its original location but which is primarily significant for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
C: A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building associated with his or her productive life; or
D: A cemetery that derives its primary importance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
E: A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
F: A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or
G: A property achieving significance within the past 50 years if it is of exceptional importance.

(end sidebar section)

Mid Century Modern and Ranch House Historic Districts

Criterion A – districts that have close association with patterns of history or development trends. Districts that are eligible will have many of these qualities:
1) They have a distinct place in the history of the development of the community (e.g., “one of the first,” “one of the best,”) to implement a type of development.
2) They can be linked to particular significant developer, builder, or planner in a significant way (e.g. “one of Mr. Smith’s best examples of a cul-de-sac ranch house development”)
3) They reflect design trends in a significant way in a community, such as cul-de-sacs, the “rural lane,” common setbacks, acreage of yards, plantings, or other collective community building guidelines described or set forth in writing at the time.
4) They may have a set of guidelines or mechanism to control aesthetics, such a peer design review committees, deed restrictions, etc.
5) They may have been planned for a particular socio-economic or even ethnic group that had an impact on a community (G.I.s, areas like Flanner House Homes in Indianapolis, or factory housing).

Criterion C
Mid Century Modern or Ranch house districts that are eligible should have a distinct core of superior-design homes or buildings:
1) The “core” may be difficult to quantify in percentage, but, visually, has a decided impact on the aesthetics of the area or neighborhood as one walks or travels through the area.
2) The core of significant houses reflect tenets of Modernism or other design trends in a substantial way.
3) The core and other houses are architect or master builder-designed.

4) The core houses have a high level of physical integrity.
5) The district as a whole has a minimum of typical, stock designs
6) The district can be quantified as at least locally significant, compared to similar areas within the community.

Individual listings for Mid Century Modern and Ranch Housing
DHPA expects individually eligible houses to embody Modernism or other facets of post-war design in a clearly distinguishable manner:
1) Individually eligible buildings will be architect or master-builder designed and documented as such (This may not be possible immediately for in-the-field findings, but, should be researched whenever feasible).
2) Individually eligible buildings will have a very high level of integrity. No (non-original) siding, no or very few window replacements, and an intact interior.
3) Individually eligible buildings probably have architectural refinements and materials that enhance the aesthetics of the property (e.g., Roman brick that enhances the horizontal nature of a ranch design; a marble foyer that reflects the Miesian qualities of an office building).
4) Individually eligible buildings reflect tenets of a particular, significant, and scholarly-recognized design idiom to a high degree. While one can list and to some degree quantify elements of such styles, it may be that the design as a whole sufficiently represents its defined idiom.
5) Individually eligible buildings should retain a setting, landscaping, outbuildings, or structures that enhance the total design of the property.

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

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

HISTORIC PRESERVATION AND ARCHAEOLOGY

October 3, 2014

Linda Weintraut, Ph.D.
Weintraut & Associates, Inc.
PO Box 5034
Zionsville, Indiana 46077

Federal Agency: Federal Highway Administration ("FHWA")

Re: Indiana archaeological short report (Goldbach, 09/03/2014), for added travel lanes on I-69 from 106th Street to State Road 13 (Designation Nos. 1383332 and 1383336; DHPA No. 16485)

Dear Dr. Weintraut:

Pursuant to Section 106 of the National Historic Preservation Act (16 U.S.C. § 470f), 36 C.F.R. Part 800, and the "Programmatic Agreement among the Federal Highway Administration, the Indiana Department of Transportation, the Advisory Council on Historic Preservation, 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 conducted an analysis of the materials dated September 10, 2014, and received on September 11, 2014, for the above indicated project in Delaware, Fall Creek, and Wayne Townships, Hamilton County; and Green Township, Madison County, Indiana.

Based upon the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the proposed project area. However, this identification is subject to the project activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the NRHP in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered. The archaeological recording must be done in accordance with the Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation" (48 F.R. 44716) and a report of the archaeological documentation must be submitted to our office for review and comment.

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations.

A copy of the revised 36 C.F.R. Part 800 that went into effect on August 5, 2004 may be found on the Internet at www.achp.gov for your reference. If you have questions about archaeological issues please contact Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. If you have questions about buildings or structures please contact Ashley Thomas at (317) 234-7034 or asthomas@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA No. 16485.

Very truly yours,

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:WTT:wtt

emc: Patrick Carpenter, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Shirley Clark, Indiana Department of Transportation
Jason Goldbach, Weintraut & Associates, Inc.

INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204

PHONE: (317) 233-2061
FAX: (317) 233-4929

Michael R. Pence, Governor
Karl B. Browning, Commissioner

October 9, 2014

Chad Slider
Assistant Director, Environmental Review
AND
Paul Diebold
Team Leader, Survey & Registration
Division of Historic Preservation and Archaeology
Staff of the Indiana State Historic Preservation Officer
402 W. Washington St., Room W274
Indianapolis, IN 46204

RE: Flanagan-Kincaid House, IHSSI No. 057-206-50019
Des. No. 1298035, I-69 & 106th St. Interchange Project, Fishers, Delaware Township, Hamilton County, Indiana, DHPA No. 15147
AND
Des. Nos. 1383332 & 1383336, Added Travel Lanes on I-69 from 106th St. to SR 13, Delaware, Fall Creek & Wayne Townships, Hamilton County; and Green Township, Madison County, Indiana, DHPA No. 16485

Dear Mr. Slider and Mr. Diebold,

As you are probably aware, the structure known as the Flanagan House or the Kincaid House (Indiana Historic Sites & Structures Inventory [IHSSI] No. 057-206-50019) in Hamilton County was recently moved to a new location on October 4, 2014 (See http://www.indystar.com/picture-gallery/news/local/hamilton-county/2014/10/04/moving-the-250-ton-153-year-old-kincaid-house/16717043/). This house fell within the Area of Potential Effects (APE) for both of the above-mentioned projects in its original location. During the consultation for these projects, your office concurred with the recommendation that the Flanagan House is eligible for inclusion in the National Register of Historic Places (National Register) under Criterion C. The following excerpt from the historic properties report (HPR) for Des. No. 1298035 provides the justification for its eligibility (H&H Associates, 8/16/13):

> The Flanagan House is a good example of a mid-1800s I-house with some high-styled Italianate features. Due to encroaching suburban growth in Hamilton County, many such farmsteads have been lost to recent development and only a few similar examples remain in the county. The house has suffered from neglect and vandalism over many decades while it sat vacant that has caused the loss of the original front door and most interior features. Additionally, the house's original setting has been altered by the demolition of numerous outbuildings over time that has left only one small barn, as well as from the lack of landscaping that once included entrance walkways and a driveway entrance from E 106th Street, as well as many shade trees according to historic images of the property. The property once included 160 acres and was an active farm, and today it only retains about 1 acre in the middle of suburban residential and commercial growth. Recent attempts to stabilize the building have resulted in the loss of original windows with vinyl replacements and the addition of a second-story balcony that may be historically accurate but no historic images of the house found by the historian depict a balcony there. The

house does retain its distinctive I- house floorplan, however. Despite its integrity loss, enough of the building's original materials and design remains to recommend it eligible for NRHP listing under Criterion C for its scarce architectural type in the area, as well as for being one of the oldest extant houses in Hamilton County.

The Flanagan House's new location, just over 0.25 mile to the north of its original location, continues to be located within the APEs for these projects. The purpose of this letter is to inquire as to your office's opinion on the continued eligibility of the Flanagan House since its relocation. It is the opinion of our office that in its new location the house continues to maintain the features that had been determined to make it National Register eligible. The house still retains its distinctive I- house floorplan and high-styled Italianate features. It maintains integrity of design, materials, and workmanship. Even in its original location, its integrity of setting, feeling, and association had been compromised due to the surrounding modern development and the loss of all but one of its outbuildings. Its new setting, very close in proximity and character to is previous setting, does not detract from the house's features that made it National Register eligible.

Per the National Register criteria for evaluation, ordinarily structures that have been moved from their original location shall not be considered eligible for the National Register. However, such properties will qualify if they are primarily significant for architectural value (Criterion Consideration b). The HPR excerpt above outlines how the Flanagan House's primary significance is for its architectural value as one of the few extant I-houses in Hamilton County. This remains to be the case. Therefore, our office thinks that the Flanagan House continues to be National Register eligible under Criterion C and is also now eligible under Criterion Consideration b.

We ask that you please review this letter and the enclosed mapping and photographs in order to provide us with your opinion on the National Register eligibility of the Flanagan House. Because the Added Travel Lanes project on I-69 is under a tight project schedule, we request your opinion on this matter as soon as possible so that the schedule is not hindered.

If you have any questions regarding this matter or if you need further information, please feel free to contact Ms. Mary Kennedy at 317-232-5215 or mkennedy@indot.in.gov.

Sincerely,

Patrick Carpenter

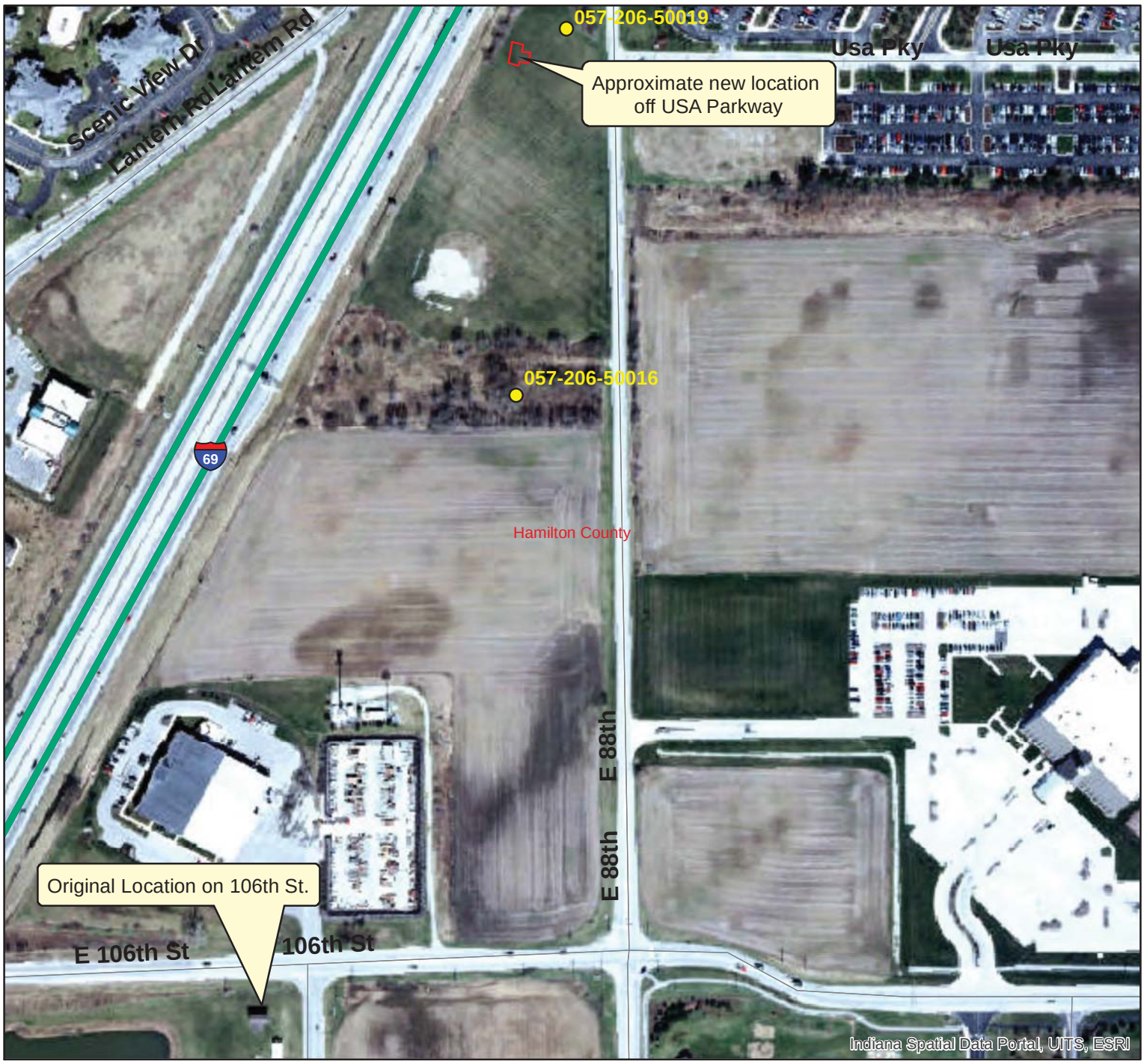
Patrick Carpenter, Manager
Cultural Resources Office
Environmental Services

PAC/MEK/mek
Enclosure

cc: ES project files

emc: Runfa Shi, INDOT Project Manager
Anthony Jones, INDOT Project Manager
David Cleveland, Corradino Group
Candace Hudziak, H&H Associates
Daniel Miller, Parsons
Linda Weintraut, Weintraut & Associates

Flanagan House
IHSSI No. 057-206-50019



Scale 1:3,388

Miles

0.065 0.0325 0 0.065

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

N

National Register properties
IHSSI properties
National Register districts
Local Road

State Routes
Highways
Interstates
State Routes
US Routes
Local Road
State Boundary

Flanagan House
IHSSI No. 057-206-50019

Scale 1:1,108

Miles

0.02 0.01 0 0.02

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

N

Local Road
Local Road
State Routes
Highways
Interstates
State Routes
US Routes
Photo Location
1

Photo 1

Photo 2

Photo 3

Photo 4

Photo 5

Photo 6

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology•402 W. Washington Street, W274•Indianapolis, IN 46204-2739
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October 22, 2014

Mary Kennedy
Architectural Historian/History Team Lead
Cultural Resources Office
Environmental Services
100 N. Senate Ave., Room N642
Indianapolis, IN 46201

Re: Flanagan-Kincaid House, IHSSI No. 057-206-50019
Des. No. 1298035, DHPA No. 15147 and
Des. Nos. 1383332 & 1383336, DHPA No. 16485

Dear Mary,

Per your request of October 9th, National Register staff has reevaluated the eligibility of the Flanagan-Kincaid House, following its relocation on October 4th. We appreciate the photos and documentation you attached to your letter and email. Several staff members have also viewed the building on its new site.

After some debate, we have reached the conclusion that the house no longer meets the National Register criteria. In particular, the siting and orientation of the house render it incapable of conveying its architectural significance.

Orientation of the main mass of the house in relationship to its intended viewer has long been understood as one of the key elements of vernacular architecture. Orientation and placement also correlate to several of the seven aspects of integrity used by the National Park Service to evaluate properties, namely; location, setting, feeling, and, to a degree, design. Examples of vernacular architecture like the Kincaid House convey their sense of time and place, in good measure, by their orientation. Placement of the main house on a traditional, mid-nineteenth century farm in Central Indiana is almost universally marked by orientation to the cardinal points of the compass. Additionally, the status of the house was typically conveyed by formal design of the front elevation, ornament, and placement of the front door in a highly visible location with relation to the main road visitors are likely to use.

It may be possible that a particular use might be aided by the placement the house now has. We believe, however, that our role is focused on the current situation. The house now faces and addresses a major man-made structure that has no relationship to its history. From a preservation point of view, we believe that this so compromises integrity of setting, location and feeling as to render the building ineligible for listing on the National Register of Historic Places.

We appreciate the opportunity to comment on the eligibility of the house. Please contact me if you should have any questions about our opinion.

Sincerely,

Paul C. Diebold
Assistant Director of Preservation Services

copies: ER files.
enclosures: none.

The DNR mission: Protect, enhance, preserve and wisely use natural, cultural and recreational resources for the benefit of Indiana's citizens through professional leadership, management and education.

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APPENDIX G. Section 106 Documentation and Additional Information Relating to the Flanagan House

HISTORIC PROPERTY REPORT FOR:
I-69 AND 106TH STREET INTERCHANGE PROJECT
FISHERS, DELAWARE TOWNSHIP, HAMILTON COUNTY, INDIANA

DES NO: 1298035

FEDERAL PROJECT NO: PENDING

8/16/2013

PREPARED FOR UNITED CONSULTING

Candace Hudziak

H&H Associates, LLC
Principal Investigator: Candace Hudziak, M.A.
218 E. North Street
Greenfield, IN 46140
317.462.7177
historian@hhpast.com

Abstract

I-69 and 106th Street Interchange Project
Fishers, Delaware Township, Hamilton County, Indiana

In May 2013 United Consulting contracted H&H Associates, LLC, to conduct an architectural and historical investigation in support of the I-69 and 106th Street Interchange Project, located in Fishers, Delaware Township, Hamilton County, Indiana.

The project historian who meets or exceeds the Secretary of the Interior's standards for Section 106 work identified and evaluated historic properties within the proposed Area of Potential Effects (APE) for this project. Historic properties were identified and evaluated in accordance with Section 106, National Historic Preservation Act (NHPA) of 1966, as amended, and CFR Part 800 (Revised January 2001), Final Rule on Revision of Current Regulations, December 12, 2000, and incorporating amendments effective August 5, 2004.

This Historic Properties Report documents the methodology and findings of eligibility as part of the Section 106 process. Survey and documentation were completed for the entire APE, including above ground resources previously recorded in the 1992 *Hamilton County Interim Historic Sites and Structures Inventory* report. There are no individual properties currently listed in the National Register of Historic Places (NRHP) or in the Indiana Register of Historic Places (SR) within the proposed APE. As a result of identification and evaluation efforts for this project, one individual property within the APE of this project known as the Flanagan House has been determined as eligible for inclusion in the NRHP.

Fig B.5: Aerial map showing proposed APE boundary with Flanagan House identified; Fig B.10 and B.11 show close up views of the APE
Image provided by Hamilton County Flex Viewer GIS

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

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

October 4, 2013

David Cleveland, PE, PTOE
Corradino LLC
200 South Meridian Street, Suite 330
Indianapolis, Indiana 46225

Federal Agency: Federal Highway Administration ("FHWA")

Re: Project information and *Historic Property Report for: I-69 and 106th Street Interchange Project, Fishers, Delaware Township, Hamilton County, Indiana* (Hudziak, 8/16/2013) (Des. No. 1298035; DHPA No. 15147)

Dear Mr. Cleveland:

Pursuant to Section 106 of the National Historic Preservation Act, as amended (16 U.S.C. § 470f), implementing regulations at 36 C.F.R. Part 800, and the "Programmatic Agreement . . . 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 the materials submitted with your September 6, 2013, cover letter, which we received on September 9, for the aforementioned project in Hamilton County, Indiana.

The area of potential effects, as proposed in the historic property report ("HPR"), appears to be appropriate to the nature and scale of this project.

We agree with the opinion expressed in the HPR that the Flanagan House (IHSSI No. 057-206-50019) is eligible for inclusion in the National Register of Historic Places under Criterion C. It also appears to us, based on the HPR, that the Flanagan House is the only property within the APE that is eligible for the National Register.

During the September 19, 2013, consulting parties meeting, there was a discussion of the boundaries of the eligible Flanagan House property. As we recall, it was proposed by FHWA that the historic property boundaries be considered to be the current legal boundaries of the land on which the house sits. It apparently was assumed that the northern boundary (i.e., the boundary closest to 106th Street) would not include the area under the utility lines in front of the house. As we recall, the legal boundaries of the Flanagan House property are going to be checked. We think it is important to ascertain the location of that northern property line, because FHWA also indicated that the project should avoid encroaching on the Flanagan House property. In comparing the alternatives for the project design that are represented schematically in Appendix 2 of your September 6 cover letter, we see that the Roundabout Option and the Tight Diamond Option apparently would avoid encroachment upon the legal boundaries of the Flanagan House property, assuming that the legal boundaries are as depicted on those schematic drawings. On the other hand, it appears that the Single Point Option would require temporary right-of-way from the Flanagan House property and that the construction limits would extend into the historic property.

A cross section drawing showing the proposed elevation of 106th Street with respect to the Flanagan House—or, at least, an elevation drawing showing the increase in elevation between the current street and the proposed, rebuilt street—would be helpful to our effort to assess the visual impact of the rebuilt roadway on the historic house.

We recall, as well, that the planting of a few trees between the rebuilt 106th Street and the Flanagan House property was discussed on September 19 and was generally thought to be beneficial in providing a limited, visual buffer between the house and traffic passing by. We would appreciate clarification as to whether those trees could be planted in the 106th Street right-of-way, as distinguished from the Flanagan House property, given their likely proximity to the pavement and to the overhead utility lines and in light of any clear zone restrictions that might be applicable.

We would like to have these points clarified about the Flanagan House property boundary and its relationship to right-of-way that might need to be acquired, about the construction limits, about the increased elevation of the roadway, and about the prudence of planting trees in the right-of-way, before we comment further on the project's likely effects.

As we previously had commented in regard to the Indiana archaeological short report (Goldbach, 7/17/2013), based upon the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register within the proposed project area. However, this identification is subject to the project activities remaining within areas disturbed by previous construction of a recent and non-historical nature. If archaeological deposits are encountered from the post-contact period, they will be evaluated regarding their eligibility for the National Register in consultation with the staff of the Indiana SHPO. Please contact our office if such deposits are encountered. The archaeological recording must be done in accordance with the Secretary of the Interior's "Standards and Guidelines for Archaeology and Historic Preservation" (48 F.R. 44716) and a report of the archaeological documentation must be submitted to our office for review and comment.

If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires that the discovery be reported to the Department of Natural Resources 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 -29 does not obviate the need to adhere to applicable federal statutes and regulations.

If you have questions about archaeological issues, please contact Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. In all future correspondence regarding the New Interchange Project at I-69 and 106th Street, please refer to DHPA No. 15147.

Very truly yours,

Chad W. Slider

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:JLC:jlc

cmc: Lawrence Heil, PE, Federal Highway Administration, Indiana Division
Patrick Carpenter, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Melany Prather, Indiana Department of Transportation
David Cleveland, PE, PTOE, Corradino LLC
Candace Hudziak, H&H Associates, LLC
Linda Weintraut, Ph.D., Weintraut & Associates, Inc.

19th-century Fishers farm house at risk of demolition

19TH-CENTURY FISHERS FARMHOUSE AT RISK

Since its construction in 1861, an Italianate-style brick farmhouse at the corner of 106th Street and Kincaid Drive in Fishers has survived the elements and, more recently, the same kind of rapid growth and development that has come to the rest of the town. Due to its proximity to a proposed interchange at I-69 and 106th Street, the home's future is uncertain. Below, aerial imagery taken in 1936 and 2014 shows how much the area has developed.

Aerial imagery from Hamilton County GIS
Stephen J. Beard / The Star

Steph Solis *12:27 p.m. EDT June 17, 2014*

(Photo: Fishers farm house at risk of demolition)

Hamilton County preservationists are trying to halt the demolition of a 153-year-old Fishers farm house.

Thompson Thrift, the property owner and development firm, planned to tear down the house earlier this month. Developers stopped the demolition after local residents and organizations raised concerns about the historical significance of the 19th-century Italianate-style brick house.

"There are not many examples of that kind of architecture anymore in Fishers, even in Hamilton County," said Mike Corbett, treasurer of the Noblesville Preservation Alliance. "It is a great representation of our history. We shouldn't just be tearing those things down."

The property on the corner of 106th Street and Kincaid Drive is part of a 70-acre chunk of land that Thomas Thrift intends to propose for a tech, office, and retail development project, said Ashlee Boyd, Thompson Thrift's senior vice president.

Boyd, city officials and preservationists met Monday afternoon to discuss the future of the house. They agreed that Thompson Thrift would delay the demolition a few weeks to give local organizations time to relocate the house, Corbett said.

"It was a nice, civil meeting," he said. "We're glad that they're willing to work with us."

Supporters of the house plan to meet early next week to prepare their next move.

"They know we want to save the building. It's on us," he said. "It's our responsibility to meet and start talking to people in the community."

The house was purchased by Loma E. Kincaid, founder of L.E. Kincaid & Sons meat market, after moving there in 1934. He went on to purchase more than 600 acres of land in the Fishers area, his grandson, Dan Kincaid, said. The house eventually was passed down to Dan Kincaid, who was working on restoring it before selling it in 2013. The exterior remains in strong shape, though the interior has been stripped and vandalized over time.

The house was examined by state officials in the fall due to its proximity to a proposed Interstate 69 interchange at 106th Street. John Carr, team leader of structures review for Federal Highway Administration and Indiana Department of Transportation projects, said his team deemed the house eligible for the National Register of Historic Places.

Many residents who found out about the demolition plans expressed concern over losing what they consider a significant piece of Fishers' past. A post on the Indiana Landmarks Facebook page about the demolition delay had more than 15,000 views and several comments from residents supporting the house's preservation, said Mark Dollase, vice president of preservation for Indiana Landmarks.

"We have to stop tearing down our history! (I)'m so glad to hear this was saved," Indianapolis resident Samantha Combs wrote on Facebook.

Emily Compton, a member of the Noblesville Preservation Alliance, also saw the post from Indiana Landmarks. She decided to get involved in the talks to save the house.

"I work in Indianapolis, and I've lived here (nearby) my whole life," Compton, 59, said. "I've just admired that house forever."

Keeping the house at its current location appears to be the least viable option, Kincaid said. The house is surrounded by commercial properties and the area will only become more crowded when the proposed I-69 highway exit is constructed, he said.

Thompson Thrift originally planned to demolish the house and allow local organizations to salvage the brick and timber and re-purpose it in new construction in Fishers, Boyd said. He also said he would consider an "actionable plan" to relocate the home.

"Because there's been a request and some interest in the home, we're taking time to vet the inquires that are out," Boyd said.

Preservationists want to see the house saved or relocated.

"I'm not real interested in talking about salvaging," Dollase said. "What we want is to see if there is a future for the building and having those conversations with the property owner, with the town and seeing what their reactions are."

Moving the house would be "too bad for Fishers," Compton said, "but I do believe that we can all work together to find a new place or a new purpose for it."

Call Star reporter Steph Solis at (317) 444-6494. Follow her on Twitter: @stephmsolis

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Navient to donate land to relocate Kincaid house

19TH-CENTURY FISHERS FARMHOUSE AT RISK

Since its construction in 1861, an Italianate-style brick farmhouse at the corner of 106th Street and Kincaid Drive in Fishers has survived the elements and, more recently, the same kind of rapid growth and development that has come to the rest of the town. Due to its proximity to a proposed interchange at I-69 and 106th Street, the home's future is uncertain. Below, aerial imagery taken in 1936 and 2014 shows how much the area has developed.

Aerial imagery from Hamilton County GIS
Stephen J. Beard / The Star

Steph Solis *5 a.m. EDT August 15, 2014*

(Photo: Photo provided by Navient)

Sallie Mae spinoff Navient has agreed to donate two acres of its Fishers campus to relocate a 153-year-old house, bringing preservationists one step closer to finding a new site for the historic building.

The Italianate-style brick farmhouse, formerly owned by the Kincaid family of the L.E. Kincaid Meat Market in Indianapolis, sits on the corner of 106th Street and Kincaid Drive. Owners development firm Thompson Thrift, had planned to level the home in June but put those plans on hold following protests from local preservationists.

Navient's offer would move the Kincaid house half a mile down the road to the westside of the company's 470,000-square-foot office building. John Kroehler, Navient's senior vice president, said the company would hand over ownership of the land to whomever agreed to maintain the building after its relocation.

"It was really just an outreach that we made with the thought that we might be able to do something for the community, given the obvious interest in saving the house," said Krohler, a longtime Fishers resident.

Thompson Thrift has been in talks over the last two months with members of Indiana Landmarks, the Noblesville Preservation Alliance and the Town of Fishers about the historical significance of the house.

From those discussions, Kroehler approached preservationists with the land offer.

Mike Corbett, treasurer of the Noblesville Preservation Alliance, said the donation puts the house on the path for preservation. Advocates still have to raise funds — an estimated $100,000 — to relocate the building, but Corbett said that planning is in the works.

"We're delighted that we have taken this first step," he said. "Now the really hard work starts, and we're going to have to come up with some concrete plans."

A statement from Navient also said that Thompson Thrift has agreed to contribute funds towards the cost of moving the house.

Calls to Thompson Thrift Senior Vice President Ashlee Boyd were not returned Thursday afternoon.

The property was once owned by Gen. Thomas Armstrong Morris, a key player in building Indiana's railroad and canal systems, and state capital. Loma E. Kincaid, who founded the meat market, later purchased the property and passed it down to Dan Kincaid.

Many residents across Fishers consider the Kincaid House a significant piece of local history. A post on the Indiana Landmarks Facebook page about the demolition delay gained tens of thousands of views and comments supporting its preservation.

Dan Kincaid said he has received a lot of positive feedback from local residents about the property over the years, including those who've never set foot in the house.

The Navient donation, he said, is "absolutely wonderful. I know lots and lots of people in the community would be highly in favor of that."

Call Star reporter Steph Solis at (317) 444-6494. Follow her on Twitter: @stephmsolis.

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Crowdfunding campaign launched for Kincaid house

19TH-CENTURY FISHERS FARMHOUSE AT RISK

Since its construction in 1861, an Italianate-style brick farmhouse at the corner of 106th Street and Kincaid Drive in Fishers has survived the elements and, more recently, the same kind of rapid growth and development that has come to the rest of the town. Due to its proximity to a proposed interchange at I-69 and 106th Street, the home's future is uncertain. Below, aerial imagery taken in 1936 and 2014 shows how much the area has developed.

Aerial imagery from Hamilton County GIS
Stephen J. Beard / The Star

Steph Solis, steph.solis@indystar.com *5:29 p.m. EDT August 25, 2014*

(Photo: Matt Detrich/The Star)

Preservationists are reaching out to the public for help in saving the Kincaid house in Fishers.

Nickel Plate Arts studio and the Noblesville Preservation Alliance launched a crowdfunding campaign (http://movethekincaidhouse.org/)on Friday to relocate the 153-year-old farmhouse, which sits on the corner of 106th Street and Kincaid Drive.

Advocates are looking for about $115,000 to fund the relocation of thehouse, considered historically significant, to the west side of Sallie Mae spin off Navient's campus (/story/news/local/hamilton-county/2014/08/15/navient-donate-land-relocate-kincaid-house/14085997/), half a mile away. They've raised half of their goal through donation pledges from the Hamilton County Tourism agency and Thompson Thrift, the development firm that owns the land on 106th Street and Kincaid Drivve.

"The Noblesville Preservation Alliance is making history by saving history," Ailithir McGill, Nickel Plate Arts' director, said in a statement. "After partnering with them to save the Judge Stone House in Noblesville, we're excited to work together again to give this Hamilton County historical landmark a new home."

The property was once owned by Gen. Thomas Armstrong Morris, a key player in building Indiana's railroad and canal systems, and state capital. Loma E. Kincaid, who founded Kincaid's meat market, later purchased the property and passed it down to Dan Kincaid before it was sold to Thompson Thrift.

Members of the Noblesville Preservation Alliance, Indiana Landmarks and other local groups stopped Thompson Thrift demolishing the farmhouse in June.

The firm agreed to hold off if preservationists could find a new place for the farmhouse and relocate it.

Contributors in Hamilton County have surfaced to help.

Navient announced Aug. 15 that it would donate a two-acre stretch of land for the house. Indiana Landmarks offered a $2,500 grant to consult on landscaping and construction options for the property once it is relocated andPeterson Architecture, based in Noblesville, has offered to donate architectural services, according to the statement.

INDYSTAR

Navient to donate land to relocate Kincaid house

(http://www.indystar.com/story/news/local/hamilton-county/2014/08/15/navient-donate-land-relocate-kincaid-house/14085997/?from=global&sessionKey=&autologin=)

The crowdfunding campaign, called "Help Move the Kincaid House," will run until Sept. 30. Since it launched, Thompson Thrift pledged to contribute $20,000. The Hamilton County Tourism agency said it will give $45,000. As of today, $595 had been raised by online donors.

"We're grateful for the community support that is rallying behind the house," said Mike Corbett, treasurer, Noblesville Preservation Alliance. "Without involvement from Nickel Plate Arts, Hamilton County Tourism, Navient, Indiana Landmarks and Thompson Thrift, Hamilton County would have lost a major piece of history."

If the campaign reaches its goal, the home is scheduled to be moved in the fall.

What the farmhouse will be used for is not known. The Hamilton County Tourism office and other agencies will conduct a study to determine the best use for the house after the move. The public can offer ideas on the crowdfunding site.

Call Star reporter Steph Solis at (317) 444-6494. Follow her on Twitter: @stephmsolis.

Want to help relocate the Kincaid House? Donate at http://movethekincaidhouse.org (http://movethekincaidhouse.org/).

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Oct. 6, 2014, 10:33 a.m.

The day in pictures (/picture-gallery/news/2014

How to move a 250-ton, 153-year-old house

Steph Solis, steph.solis@indystar.com *2:11 p.m. EDT October 4, 2014*

(Photo: Matt Detrich/The Star)

It's not every day a 250-ton brick farmhouse rolls down the street in Fishers.

Come Saturday morning, the historic Kincaid House, which sits on the corner of Kincaid Drive and 106th Street, will be relocated to a parcel of land a half mile away on the campus of Sallie Mae spinoff Navient.

The milestone marks a victory for preservationists who fought to save the 153-year-old house from demolition (/story/news/local/hamilton-county/2014/06/15/th-century-fishers-farm-house-risk-demolition/10497039/)this summer. The property owner, development firm Thompson Thrift, plans to propose a tech, retail and office development project on the property. The firm is pitching in toward the moving costs.

How does a century-and-half-old house make the trip?

Not quickly, said Peter Brubaker, spokesman for Wolfe House & Building Movers.

"Each job is unique, just as each home is unique," Brubaker said.

Here's a look at the process.

Before the move

At a glance, the Kincaid house looks like a rectangular, two-story structure. But the back reveals a small single-story section that gives the building a T-shape.

The shape of the house called for some additional supports, Brubaker said. The moving team installed at least 11 steel beams, running from one side of the house to the other underneath the ground floor and through the basement.

The two-story section of the house led to the basement, but movers decided to separate most of the basement from the house.

Below the steel beams are two crossbeams, which run from the front to the back of the building.

The beams are designed to support the masonry and keep all parts of the house level during the move. Essentially, the beams replace the original stone foundation until the move is complete.

The beams are supported by crib piles, stacks of wood that support the weight of the house when it's lifted. From there the structure is lifted by a jacking machine then placed on self-propelled hydraulic moving dollies in preparation for**move day.**

It all forms a moving platform, similar to a trailer, underneath the house, Brubaker said.

Thick chains run around the house strapped to the steel beams as well as to supports that run vertically along the corners of the two-story section of the building. Additional chains and cables run through the house's interior.

While the house was getting prepped for the move, builders from Design and Build Corp. set up part of the new foundation and cleared the path ahead.

The Kincaid house's width created some extra work for the movers. The structure is 36 feet wide, 10 feet more than the width of the road. The movers trimmed the trees on the side of the road and took down any signs that might be in the house's path, Brubaker said.

The day of the move

Typically, a house is lifted onto a truck and driven to its new lot. Wolfe House & Building Movers created a in-house power dolly system (http://www.wolfehousebuildingmovers.com/services/moving/), manufactured by its spinoff company, Buckingham structural moving equipment.

By Saturday morning, a series of self-propelled dollies, operated by remote control, will be attached to the house and a power unit.

Brubaker said the power dolly system can transport the house more smoothly than a moving truck can, and it's easier to manage.

Normally a house is moved over to the foundation's platform and aligned that day. Because of a forecast calling for rain, however, movers likely will drop off the house at the edge of the new property Saturday morning to avoid settling problems. They plan to return the following week, after the ground dries, to complete the move atop the new foundation.

The builders then will finish building the foundation, a 5-foot-deep, cinder-block wall. Movers will take out the steel beams, cover the ground with dirt, re-seed the lawn and — voila — the house will be settled into its new home.

After the move

What the house will be used for has yet to be determined.

Hamilton County Tourism Inc., one of several local agencies involved in efforts to save the Kincaid house, is still deciding how the building will be repurposed, spokeswoman Kate Burkhardt said. She didn't elaborate on what options the organization is considering.

The public can offer suggestions on how the Kincaid house can be used by filling out an online form (http://www.movethekincaidhouse.org/)on the preservation campaign's website.

As it stands now, the house is uninhabitable, Burkhardt said. Whoever takes over the house will need to give the house a facelift and set up the electricity and utilities.

Call Star reporter Steph Solis at (317) 444-6494. Follow her on Twitter: @stephmsolis.

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Same-sex marriage, once inconceivable, now appears inevitable (/story/news/nation/2014/10/06/same-sex-marriage-appears-

OUR COMMUNITIES: NORTH

FISHERS

OLD HOUSE MOVES TO NEW HOME

The 153-year-old Kincaid House, originally scheduled for demolition, was saved by Indiana Landmarks and a social media campaign. It was moved half a mile from its original location to the grounds of Fishers company Navient.

indystar.com: View more photos of the Kincaid House's move on Saturday

The Stout family watches the historic Kincaid House's move from 106th Street and Kincaid Drive.

The Kincaid House is moved from its original location on Saturday to the campus of Sallie Mae spinoff Navient.

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Navient Property

Printed: Jul 08, 2014

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Waters of the U.S. Report

I-69 Interstate Expansion; Projects 1, 2, and 3
Hamilton and Madison Counties, Indiana
INDOT Designation Numbers 1383332, 1383336, and 1383489

October 16, 2014

Prepared by:

PARSONS
101 West Ohio Street, Suite 2121
Indianapolis, Indiana 46204

Prepared for:
Indiana Department of Transportation
Environmental Services Division
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204

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WATERS OF THE U.S. REPORT
I-69 Interstate Expansion; Projects 1, 2, and 3
Hamilton and Madison Counties, Indiana
INDOT Designation Numbers 1383332, 1383336, and 1383489

Prepared By: Thomas J. Warrner, Environmental Planner

October 16, 2014

I: Project Information

Fieldwork Dates:
Fieldwork was conducted on the following dates in 2014: May 7, May 8, May 12, June 16, June 17, June 18, June 19, June 23, June 25, June 27, July 3, July 9, July 10, and August 14.

Contributors:
Daniel J. Miller, Senior Environmental Planner
Alan Ball, Senior Environmental Planner
Thomas J. Warrner, Environmental Planner
Stephany Stamatis, Associate Environmental Planner
Wade Kimmon, GIS Specialist

Project Location:
Fishers Quadrangle:
Sections 1 and 12 of Township 17N, Range 4E
Section 6 of Township 17N, Range 5E
Section 31 of Township 18N, Range 5E

McCordsville Quadrangle:
Sections 19, 23, 24, 26, 27, 28, 31, 32, and 33 of Township 18N, Range 5E
Section 20 of Township 18N, Range 6E

Ingalls Quadrangle:
Sections 20, 21, and 22 of Township 18N, Range 6E

Hamilton and Madison Counties, Indiana

Project Description:
The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion Project from 106th Street in Fishers to Exit 226 (S.R. 9 and S.R. 109 in Anderson) in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report pertains to Projects 1, 2, and 3.

Project 1
Project 1 (Des. 1383332) extends on I-69 from 106th Street to 0.5 mile north of the Campus Parkway in Hamilton County. This project would construct additional lanes from Exit 205 (116th Street and S.R. 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on southbound I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on the overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures would be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way. No new right-of-way would be required for this project.

Project 2

Project 2 (Des. 1383489) is a proposed interchange modification at Exit 210 (Campus Parkway) to improve the level of service (LOS). Improvements to the existing interchange, such as added auxiliary lanes, will be considered. Transportation System Management (TSM) improvements, such as ramp metering and signal coordination, will also be considered. In addition, modification to the interchange type will be considered. While all interchange types will be considered as possible improvements, the limited right-of-way in the vicinity of the interchange will make the following interchange types most likely to be selected: partial-cloverleaf interchange, tight diamond with roundabouts at the ramp termini, single point urban interchange, and double-crossover diamond interchange. The primary factors in determining the modifications selected will be construction costs, LOS rating, traffic safety, land acquisition costs, environmental impacts, and cultural resources impacts. New permanent and/or temporary right-of-way may be required for this project depending upon the type of improvements selected for this undertaking.

Project 3

Project 3 (Des. 1383336) extends on I-69 from 0.5 mile north of Campus Parkway to 0.5 mile east of S.R. 13 in Hamilton and Madison Counties. The project would construct additional lanes from Exit 210 (Campus Parkway) to S.R. 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on S.R. 13 under I-69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way. No new right-of-way would be required for this project.

A project location map is provided in Exhibit 1 (page 45) for reference.

II: Office Evaluation

Methodology

A desktop review of the project limits was conducted to identify potential waters or waters of the U.S. (streams, wetlands, ponds, etc.). This included review of historic and recent aerial photography for any areas with a water signature or a sharp change in vegetation. Any such areas were flagged for field follow-up. National Wetlands Inventory (NWI) mapping, USGS topographic mapping, mapped soil units, and historic drainage were also reviewed.

NWI Mapping:

During NWI review, two potential wetlands were identified within the project limits. Both of these were located near the Campus Parkway Interchange, with one being an open water area (based on review of aerial photography). Ten (10) NWI polygons were noted adjacent to the project limits. Eight (8) of these, however, appeared to be associated with open water areas (based on review of aerial photography). NWI maps are provided for reference in Exhibit 2 (pages 47 to 53).

USGS Mapping:

After review of USGS 7.5 minutes series topographic maps, three solid blue-line streams were identified within the project limits (Sand Creek, Mud Creek, and Thorpe Creek). One dashed blue-line stream is immediately adjacent to the project limits (Cheeney Creek). USGS maps are provided for reference in Exhibit 2 (pages 47 to 53).

Mapped Soil Units:

According to the Soil Survey Geographic (SSURGO) Database for Hamilton and Madison Counties, Indiana, the project area does contain nationally listed hydric soils. In addition, several of the non-hydric soils that are prevalent within the project limits contain hydric inclusions. The Natural Resources Conservation Service (NRCS) classifies soil types as follows: hydric (100%), predominantly hydric (66-99%), partially

hydric (33-65%), predominantly non-hydric (1-32%), and non-hydric (0%). The Soil Summary Table (Table 1, page 36) details all soil units noted within the project limits. Maps showing the location of soil types are provided in Exhibit 3 (pages 55 to 61).

Historic Drainage:
Soil surveys for both Hamilton and Madison Counties were reviewed to identify areas with historic drainage. Twenty-four (24) historic drainage features were identified within or near the project limits (Exhibit 4, pages 63 to 68). Each of these areas was flagged for field review.

III: Field Reconnaissance

Methodology
Parsons conducted fieldwork in May, June, July, and August of 2014 to determine the presence of streams, wetlands, and other water resources within the project limits. While specific areas identified via desktop review were targeted for review, the entire project was surveyed for resources. When observed, features located adjacent to, but outside of the project limits were also noted. Resource maps showing all identified features are attached for reference (Exhibit 5, pages 70 to 118).

Photographs were taken throughout the right-of-way, and specifically for each feature identified. Selected photographs are included within this report for reference (Exhibit 6, pages 120 to 218).

Each stream's ordinary high water mark (OHWM) was obtained using a measuring tape. Both a qualitative assessment of stream quality and quantitative assessment of stream quality were conducted. Qualitative assessments were only done within the project limits, while quantitative assessments often extended outside of INDOT right-of-way. Quantitative assessments were conducted based on each stream's drainage area using the guidelines for either the headwater habitat evaluation index (HHEI) (Ohio EPA, 2012) or qualitative habitat evaluation index (QHEI) (Ohio EPA, 2006). The results of these evaluations are provided in Exhibit 7 (pages 220 to 258). A hand-held GPS unit (Geoexplorer 6000 Series) was used to collect the location of each identified stream.

Vegetation, soil, and hydrology data were collected using the methods described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (Version 2.0)* (USACE 2010). Wetland indicator statuses for plants were obtained from the 2014 National Wetland Plant List. Wetland data forms are provided in Exhibit 8 (pages 259 to 434) for reference. A qualitative assessment of each wetland's quality and function was conducted. A hand-held GPS unit (Geoexplorer 6000 Series) was used to collect the boundary of each identified wetland, as well as its data points.

Streams
Field investigations resulted in the identification of nineteen (19) likely jurisdictional streams totaling 17,605 linear feet within the project area. These features are summarized in the Stream Summary Table (Table 2, page 37). All roadside drainage features within the project limits were evaluated for the presence or absence of an OHWM. Due to the large number of these features, only those that exhibited an OHWM are discussed in this report. ***All other roadside drainages lacked OHWMs and are therefore not likely to be considered to be waters of the U.S.***

Cheeney Creek (R.J. Craig Drain)
Cheeney Creek (page 72) crosses under I-69 approximately 1.35 miles north of the 106th Street Overpass. Historic drainage was noted for this area during the desktop evaluation (Exhibit 4, page 63). At the May 8, 2014 field check, Cheeney Creek exhibited a 10-foot wide by 22-inch deep OHWM within the project area. Approximately 400 linear feet of Cheeney Creek lies within the project limits.

Within the project limits, this stream is predominantly encapsulated under I-69. The remaining segments within the project limits lack riffles/pools as well as a wooded riparian corridor. Upstream of the project limits, the creek is encapsulated underground after a distance of less than 50 feet. Cheeney Creek is also a Hamilton County regulated drain (R.J. Craig Drain). Because of these factors, qualitatively the aquatic and

terrestrial habitat quality for this stream within the project limits was considered to be poor. An HHEI evaluation was done downstream of the project limits for Cheeney Creek since sufficient room (200 meters) was not available within INDOT right-of-way. This index scored 75 (Exhibit 7, pages 220 to 221), indicating a higher quality than the qualitative evaluation. However, based on level of encapsulation and lack of riffles/pools, the actual stream quality within the project limits is likely a combination of both (average). The primary function of this stream is conveyance of storm water with some habitat value. Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River,* or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

Cheeney Creek is noted as a dashed blue line stream on USGS 7.5 series topographic maps immediately downstream of the project limits (Exhibit 2, page 47). However, flowing water was observed during all field checks, including on August 14, 2014. Therefore, Cheeney Creek would likely be classified as a perennial stream. This creek is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, Cheeney Creek would likely be considered a water of the U.S.

Unnamed Tributary 1 to Cheeney Creek

Unnamed Tributary 1 (UNT1) to Cheeney Creek (pages 72 to 76) is located along the west side of I-69, from the S.R. 37 Interchange to Cheeney Creek. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, pages 63 to 64). However, at the May 7, 2014 field check, an OHWM was observed. South of the 116th Street Interchange the OHWM was 11-feet in width by 6-inches in depth. North of the 116th Street Interchange, the OHWM was 6-feet in width by 12-inches in depth. Approximately 5,865 linear feet of UNT1 lies within the project limits. Of this length, 1,600 linear feet is lined with concrete with an additional 530 linear feet lined with riprap. The concrete lined section at the confluence with Cheeney Creek is broken, allowing the stream to flow under this lining for approximately 50 linear feet. In addition, approximately 350' of this stream contains *Typha spp.* (cattails, OBL) below the OHWM.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. Significant portions of this stream are lined with concrete or riprap. It also lacks a wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT1 to Cheeney Creek received an HHEI score of 30 (Exhibit 7, pages 222 to 223), indicating low habitat quality and supporting the qualitative determination. The primary function of this stream is conveyance of storm water. UNT1 to Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River,* or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT1 to Cheeney Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 47). UNT1, however, would likely be classified as an intermittent stream. Water was flowing during the May 7, 2014 field check, but was nearly dry during the August 14, 2014 field check. This feature discharges into Cheeney Creek, which a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT1 to Cheeney Creek would likely be considered a water of the U.S.

Unnamed Tributary 2 to Cheeney Creek

Unnamed Tributary 2 (UNT2) to Cheeney Creek is located along the east side of I-69 within the roadside drainage (page 72). This stream discharges at the southeast quadrant of the Cheeney Creek crossing under I-69. Historic drainage was noted for this area during the desktop evaluation, indicating that a stream may have been captured during I-69's construction (Exhibit 4, page 63). At the May 8, 2014 field check, UNT2 exhibited a 1-foot wide and 4-inch deep OHWM within the project area. Approximately 960 linear feet of UNT2 lies within the project limits.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. Approximately 100 linear feet of the stream has been lined with concrete. It lacks a wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial

habitat quality for this stream was considered to be poor. UNT2 to Cheeney Creek had an HHEI score of 35 (Exhibit 7, pages 224 to 225), indicating low habitat quality and supporting the qualitative determination. The primary function of this stream is conveyance of storm water. UNT2 to Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT2 to Cheeney Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 47). UNT2, however, would likely be classified as an ephemeral stream. An OHWM was observed, but no flowing water was observed during any of the field checks. This feature discharges into Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT2 to Cheeney Creek would be likely considered a water of the U.S.

Unnamed Tributary 3 to Cheeney Creek

Unnamed Tributary 3 (UNT3) to Cheeney Creek is located along the east side of I-69 within the roadside drainage (pages 72 to 73). This stream discharges at the northeast quadrant of the Cheeney Creek crossing under I-69. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, page 63). At the August 14, 2014 field check, UNT3 exhibited a 1-foot wide by 4-inch deep OHWM within the project area. Approximately 1,000 linear feet of UNT3 lies within the project limits.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. Approximately 120 linear feet of the stream has been lined with concrete. It also lacks a wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT3 to Cheeney Creek had an HHEI score of 28 (Exhibit 7, pages 226 to 227), indicating low habitat quality and supporting the qualitative determination. The primary function of this stream is conveyance of storm water. UNT3 to Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT3 to Cheeney Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 47). UNT3, however, would likely be classified as an ephemeral stream. An OHWM was observed, but no flowing water was observed after the May 8, 2014 field check. This feature discharges into Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT3 to Cheeney Creek would likely be considered a water of the U.S.

Unnamed Tributary 4 to Cheeney Creek

Unnamed Tributary 4 (UNT4) to Cheeney Creek (pages 72 to 73) is located along the east side of I-69 in the roadside drainage between UNT3 to Cheeney Creek and USA Parkway. This stream discharges at the northeast quadrant of the Cheeney Creek crossing under I-69. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, page 63). At the August 14, 2014 field check, UNT4 exhibited a 3-foot wide by 6-inch deep OHWM within the project area. Approximately 425 linear feet of UNT3 lies within the project limits.

This stream is channelized and lined with concrete. Despite having a narrow wooded riparian corridor (shrubs) along both banks, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT4 to Cheeney Creek had an HHEI score of 49 (Exhibit 7, pages 228 to 229), suggesting average aquatic habitat quality. Despite scoring high in both the bankfull width and pool depth metrics, the paved nature of the channel bottom is likely a limiting factor for aquatic habitat. Therefore, the overall quality of this stream is likely a combination of both (below average). The primary function of this stream is likely conveyance of storm water with limited habitat value. UNT4 to Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT4 to Cheeney Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 47). UNT4, however, would likely be classified as a perennial stream. Water was flowing during all field checks, including the August 14, 2014 field check. This feature discharges into Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT4 to Cheeney Creek would likely be considered a water of the U.S.

Unnamed Tributary 5 to Cheeney Creek

Unnamed Tributary 5 (UNT5) to Cheeney Creek (page 71) is located in the southwest quadrant of the 106th Street Overpass over I-69. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, page 63). At the August 14, 2014 field check, UNT5 exhibited a 4-foot wide by 3-inch deep OHWM within the project area. Approximately 55 linear feet of UNT5 lies within the project limits.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage along the 106th Street overpass. It lacks a wooded riparian corridor along both banks and is impounded immediately downstream in a commercial property's retention pond. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT5 to Cheeney Creek had an HHEI score of 52 (Exhibit 7, pages 230 to 231), suggesting average aquatic habitat quality. Because several components of the qualitative assessment are not included in HHEI scoring, the overall quality of this stream is likely a combination of both (below average). The primary function of this stream is conveyance of storm water with limited habitat value. UNT5 to Cheeney Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River,* or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT5 to Cheeney Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 47). UNT5, however, would likely be classified as an ephemeral stream. Water was flowing at the May 8, 2014 field check, but not at the August 14, 2014 field check. This feature discharges into Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT5 to Cheeney Creek would likely be considered a water of the U.S.

Sand Creek

Sand Creek (page 83) crosses under I-69 approximately 0.5 mile south of the 126th Street Overpass. Historic drainage was noted in this area during desktop review (Exhibit 4, page 65). At the June 16, 2014 field check, Sand Creek exhibited a 21-foot wide by 28-inch deep OHWM within the project area. Approximately 340 linear feet of Sand Creek lies within the project limits.

Immediately adjacent to the project limits, Sand Creek has a wooded riparian along each bank as well as riffles and pools. It is a Hamilton County regulated drain (Sand Creek Drain), however. Based on these qualitative observations, Sand Creek provides average aquatic and terrestrial wildlife habitat. Sand Creek had a QHEI score of 41.5 (Exhibit 7, pages 232 to 233), which supports the determination of average quality. Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River,* or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

Sand Creek is noted as a solid blue line stream on USGS 7.5 series topographic maps (Exhibit 2, page 49). Field observations in June and August confirmed the perennial flow of this stream. Sand Creek is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, Sand Creek would likely be considered a water of the U.S.

Unnamed Tributary 1 to Sand Creek

Unnamed Tributary 1 (UNT1) to Sand Creek (pages 82 to 83) is located on the south side of I-69 near the I-69 Northbound Bridge over Sand Creek. UNT1 discharges into Sand Creek approximately 430 linear feet west of this bridge. Historic drainage was noted in this area during desktop review, indicating that a stream

may have been captured in I-69's roadside drainage (Exhibit 4, pages 64 to 65). At the August 14, 2014 field check, UNT1 exhibited a 1.5-foot wide by 8-inch deep OHWM within the project area. Approximately 1,930 linear feet of UNT1 lies within the project limits. Of this, approximately 270 linear feet of the stream channel is concrete lined and 160 linear feet is riprap lined. The concrete lined portion consists of broken pavement, allowing the stream to flow underneath the lining for a distance of about 75 linear feet.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. Portions of this stream are lined with concrete or riprap. UNT1 lacks a wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT1 to Sand Creek had an HHEI score of 20 (Exhibit 7, pages 234 to 235), supporting the qualitative assessment of quality. The primary function of this stream is conveyance of storm water. UNT1 to Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT1 to Sand Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, pages 48 to 49). This stream, however, would likely be classified as an ephemeral stream. Water was flowing during the May 12, 2014 field check, but not at the August 14, 2014 field check. This feature discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT1 to Sand Creek would likely be considered a water of the U.S.

Unnamed Tributary 2 to Sand Creek

Unnamed Tributary 2 (UNT2) to Sand Creek (page 83) is located in the northwest quadrant of the I-69 Southbound Bridge over Sand Creek. Historic drainage was noted in this area during the desktop review (Exhibit 4, page 65). At the June 16, 2014 field check, UNT2 exhibited a 3-foot wide by 8-inch deep OHWM within the project area. UNT2 originates in an adjacent pasture, and approximately 135 linear feet lies within the project limits. Of this, approximately 75 linear feet of the stream channel is lined with concrete.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. It also receives pollutants from the adjacent pasture in which animals have unrestricted access. Portions of this stream are lined with concrete. UNT2 does have a wooded riparian along both banks, but this does not extend beyond INDOT right-of-way. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT2 to Sand Creek had an HHEI score of 20 (Exhibit 7, pages 236 to 237), which supports this qualitative determination. The primary function of this stream is conveyance of storm water. UNT2 to Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT2 to Sand Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 49). This stream, however, would likely be classified as an ephemeral stream. Water was flowing during the May 12, 2014 field check, but not at the August 14, 2014 field check. This feature discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT2 to Sand Creek would likely be considered a water of the U.S.

Unnamed Tributary 3 to Sand Creek

Unnamed Tributary 3 (UNT3) to Sand Creek (page 83) is located in the southeast quadrant of the I-69 Northbound Bridge over Sand Creek. No historic drainage was noted in this area during the desktop review (Exhibit 4, page 65). At the June 16, 2014 field check, UNT3 exhibited a 1.3-foot wide by 7-inch deep OHWM within the project area. UNT3 originates from a small pipe located on the I-69 roadside slope, and approximately 100 linear feet lies within the project limits. Of this length, 90 linear feet is lined with riprap.

UNT3 is channelized within the roadside drainage along I-69. The majority of the stream has been lined with riprap. It lacks a wooded riparian corridor along both banks for the majority of its length. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT3 to Sand Creek had an HHEI score of 10 (Exhibit 7, pages 238 to 239), supporting the qualitative determination. The primary function of this stream is conveyance of storm water. UNT3 to Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT3 to Sand Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 49). This stream, however, would likely be classified as an ephemeral stream. An OHWM was observed at the June 16, 2014 field check, but without flowing water. This feature discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT3 to Sand Creek would likely be considered a water of the U.S.

Unnamed Tributary 4 to Sand Creek

Unnamed Tributary 4 (UNT4) to Sand Creek (page 84) is located approximately 1,000 feet north of the I-69 Bridges over Sand Creek. UNT4 discharges into Sand Creek approximately 1,700 linear feet upstream (north) of the I-69 crossing. Historic drainage was noted in this area during the desktop review (Exhibit 4, page 65). At the June 16, 2014 field check, UNT4 exhibited a 17-foot wide by 4-inch deep OHWM within the project area. Approximately 325 linear feet of UNT4 lies within the project limits. Of this, approximately 185 linear feet is encapsulated under I-69 and 30 linear feet is lined with riprap. Immediately upstream from the project limits, this stream is impounded in a residential retention pond.

This stream in largely encapsulated within INDOT right-of-way. Upstream of the project limits, the stream is impounded within a residential retention pond, and downstream the stream is channelized with a non-wooded riparian corridor. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT4 to Sand Creek had an HHEI score of 44 (Exhibit 7, pages 240 to 241), suggesting average aquatic habitat value. Because several components of the qualitative assessment are not scored in the HHEI, the actual quality of this stream is likely a combination of both (below average). The primary function of this stream is conveyance of storm water with limited habitat value. UNT4 to Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT4 to Sand Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 49). This stream, however, would likely be classified as a perennial stream. Water was flowing during both the June 16, 2014 and August 14, 2014 field checks. This feature discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT4 to Sand Creek would likely be considered a water of the U.S.

Unnamed Tributary 5 to Sand Creek

Unnamed Tributary 5 (UNT5) to Sand Creek (page 94) is located approximately 0.75 mile west of the Campus Parkway Interchange. UNT5 discharges to Sand Creek approximately 2 miles upstream (north) of the I-69 Bridges over Sand Creek. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, page 66). At the June 17, 2014 field check, however, UNT5 exhibited a 10-foot wide by 5-inch deep OHWM within the project area. Approximately 260 linear feet of UNT5 lies within the project limits. Of this, 220 linear feet is encapsulated under I-69, and 15 linear feet is lined with riprap.

This stream in primarily encapsulated within INDOT right-of-way. Upstream of the project limits, the stream is impounded within a retention pond, and downstream the stream is channelized and has a non-wooded riparian corridor. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for

this stream was considered to be poor. An HHEI evaluation was done downstream of the project limits since sufficient room (200 meters) was not available within INDOT right-of-way. UNT5 scored 50 on this index (Exhibit 7, pages 242 to 243), suggesting average aquatic habitat value. Because several components of the qualitative assessment are not scored in the HHEI, the actual quality of this stream is likely a combination of both assessments (below average). The primary function of this stream is conveyance of storm water with limited habitat value. UNT5 to Sand Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT5 to Sand Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 50). UNT5, however, would likely be classified as an intermittent stream. Water was flowing during the June 17, 2014 field check, but the channel was nearly dry at the August 14, 2014 field check. This feature discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT5 to Sand Creek would likely be considered a water of the U.S.

Mud Creek

Mud Creek (page 103) crosses under I-69 approximately 1.16 miles east of the Campus Parkway Interchange. Historic drainage was noted in this area during the desktop review (Exhibit 4, page 67). At the August 14, 2014 field check, Mud Creek exhibited a 27-foot wide by 54-inch deep OHWM within the project area. Approximately 430 linear feet of Mud Creek lies within the project limits.

Immediately adjacent to the project limits, Mud Creek has a wooded riparian. This stream also has riffles and pools. It is a Hamilton County regulated drain (Daniel Heiney Drain), however. Based on these observations, qualitatively the aquatic and terrestrial wildlife habitat of this stream was considered to be average. Mud Creek had a QHEI score of 47 (Exhibit 7, pages 244 to 245), supporting this assessment. Mud Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

Mud Creek is noted as a solid blue line stream on USGS 7.5 series topographic maps (Exhibit 2, page 51). Field observations in June and August confirmed the perennial flow of this stream. This stream is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, Mud Creek would likely be considered a water of the U.S.

Unnamed Tributary 1 to Mud Creek

Unnamed Tributary 1 (UNT1) to Mud Creek (pages 101 to 103) is located on the south side of I-69 and discharges into Mud Creek at the southwest bridge quadrant of the northbound bridge. Historic drainage was noted in this area during the desktop review indicating that a stream may have been captured during I-69's construction (Exhibit 4, page 67). At the August 14, 2014 field check, UNT1 exhibited a 0.5-foot wide by 3-inch deep OHWM within the project area. Approximately 2,920 linear feet of UNT1 lies within the project limits. Of this, approximately 2,030 linear feet of the stream channel is lined with riprap.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. The majority of this tributary is riprap lined. UNT1 lacks a wooded riparian corridor along both banks for the vast majority of its length. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT1 to Mud Creek had an HHEI score of 9 (Exhibit 7, pages 246 to 247), supporting this assessment. The primary function of this stream is conveyance of storm water. UNT1 to Mud Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT1 to Mud Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 51). This stream, however, would likely be classified as an ephemeral stream. Water was flowing during the June 19, 2014 field check, but not flowing during the August 14, 2014 field check. This feature discharges into

Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT1 to Mud Creek would likely be considered a water of the U.S.

Unnamed Tributary 2 to Mud Creek

Unnamed Tributary 2 (UNT2) to Mud Creek (page 103) is located on the south side of I-69 and discharges into Mud Creek at the southeast bridge quadrant of the northbound bridge. Historic drainage was noted in this area during the desktop review indicating that a stream may have been captured during I-69's construction (Exhibit 4, page 67). At the June 25, 2014 field check, UNT2 exhibited a 3-foot wide by 10-inch deep OHWM within the project area. Approximately 200 linear feet of UNT2 lies within the project limits.

This stream receives direct pollutant inputs due to its location within the roadside drainage of I-69. UNT2 does have a mature wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be average. UNT2 to Mud Creek had an HHEI score of 32 (Exhibit 7, pages 248 to 249), suggesting below average quality. Based on the riparian quality, which is not scored in the HHEI, the overall stream quality is likely average. The primary function of UNT2 is storm water conveyance with some habitat value. UNT2 to Mud Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT2 to Mud Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 51). This stream, however, would likely be classified as ephemeral. Water was barely flowing during the June 25, 2014 field check, but not flowing at all during the August 14, 2014 field check. This feature discharges into Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT2 to Mud Creek would likely be considered a water of the U.S.

Unnamed Tributary 3 to Mud Creek

Unnamed Tributary 3 (UNT3) to Mud Creek (page 103) is located on the north side of I-69 and discharges into Mud Creek at the northeast bridge quadrant of the I-69 Southbound Bridge. Historic drainage was noted in this area during the desktop review indicating that a stream may have been captured in I-69's roadside drainage (Exhibit 4, page 67). At the June 25, 2014 field check, UNT3 exhibited a 4-foot wide by 6-inch deep OHWM within the project area. Approximately 185 linear feet of UNT2 lies within the project limits.

This stream receives direct pollutant inputs due to its location within the roadside drainage of I-69. UNT3 only has a wooded riparian along its north bank. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was considered to be poor. UNT3 to Mud Creek had an HHEI score of 26 (Exhibit 7, pages 250 to 251), supporting the qualitative determination. The primary function of UNT3 is conveyance of storm water. UNT3 to Mud Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT3 to Mud Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 51). This stream, however, would likely be classified as ephemeral. Water was barely flowing during the June 25, 2014 field check, but not flowing at all during the August 14, 2014 field check. This feature discharges into Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT3 to Mud Creek would likely be considered a water of the U.S.

Thorpe Creek

Thorpe Creek (page 115) crosses under I-69 approximately 0.28 mile west of the S.R. 13 Interchange. Historic drainage was noted in this area during the desktop review (Exhibit 4, page 53). At the July 9, 2014 field check, Thorpe Creek exhibited a 8.5-foot wide by 6-inch deep OHWM within the project area. Approximately 370 linear feet of Thorpe Creek lies within the project limits.

Thorpe Creek has a narrow wooded riparian both upstream and downstream of the project limits. The stream is impounded directly upstream of the project limits. It is a Madison County regulated drain (Martha A. Ford Drain), as well. Based on these qualitative observations, the aquatic and terrestrial wildlife habitat quality was considered poor. Thorpe Creek had a QHEI score of 35 (Exhibit 7, pages 252 to 253) supporting this assessment. Thorpe Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

Thorpe Creek is noted as a solid blue line stream on USGS 7.5 series topographic maps (Exhibit 2, page 68). Field observations in June, July, and August confirmed the perennial flow of this stream. This stream flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, Thorpe Creek would likely be considered a water of the U.S.

Unnamed Tributary 1 to Thorpe Creek (John Underwood Drain)

Unnamed Tributary 1 (UNT1) to Thorpe Creek (page 110) crosses under I-69 approximately 0.5 mile east of the Cyntheanne Road Overpass. Historic drainage was noted in this area during the desktop evaluation (Exhibit 4, page 67). At the August 14, 2014 field check, UNT1 exhibited a 2.5-foot wide by 12-inch deep OHWM within the project area. Approximately 275 linear feet of UNT1 lies within the project limits.

UNT1 is channelized. Downstream of the project limits it has a wooded riparian, but this is largely absent north of the project limits. This stream is also a Hamilton County regulated drain (John Underwood Drain). Because of these factors, qualitatively this aquatic and terrestrial wildlife habitat quality for this stream was considered poor. UNT1 to Thorpe Creek had an HHEI score of 48 (Exhibit 7, pages 254 to 255) suggesting average quality. Since there are components of the qualitative assessment not scored in the HHEI, the actual quality of this stream is likely a combination of both assessments (below average). The primary function of UNT1 is conveyance of storm water with limited habitat value. UNT1 is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT1 is not noted as a blue line stream on USGS 7.5 series topographic maps (Exhibit 2, page 52). This stream, however, would likely be classified as perennial. Flowing water was observed during multiple field checks, including at the August 14, 2014 field check. This stream is a direct tributary to Thorpe Creek, which flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT1 to Thorpe Creek would likely be considered a water of the U.S.

Unnamed Tributary 2 to Thorpe Creek

Unnamed Tributary 2 (UNT2) to Thorpe Creek is located along the south side of I-69 (pages 110 to 111). UNT2 discharges into UNT1 to Thorpe Creek (John Underwood Drain) at the southeast quadrant of this crossing. No historic drainage was noted for this area during desktop evaluation (Exhibit 4, page 67). During the August 14, 2014 field check, however, UNT2 exhibited a 1-foot wide by 4-inch deep OHWM within the project area. Approximately 1,430 linear feet of UNT2 lies within the project limits. Of this, approximately 160 linear feet is riprap lined.

This stream is channelized and receives direct pollutant inputs due to its location within the roadside drainage of I-69. A portion of this stream is riprap lined. UNT2 lacks a wooded riparian corridor along both banks. Because of these factors, qualitatively the aquatic and terrestrial habitat quality for this stream was

considered poor. UNT2 to Thorpe Creek had an HHEI score of 16 (Exhibit 7, pages 256 to 257) supporting this assessment. The primary function of this stream is conveyance of storm water. UNT2 to Thorpe Creek is not listed as a *Federal Wild and Scenic River*, a *State Natural, Scenic and Recreational River*, or on the Indiana Register's listing of *Outstanding Rivers and Streams*.

UNT2 to Thorpe Creek is not noted as a stream on USGS 7.5 series topographic maps (Exhibit 2, page 52). This stream, however, would likely be classified as ephemeral. Water was barely flowing during the June 26, 2014 field check, but not flowing at all during the August 14, 2014 field check. This feature discharges into UNT1 to Thorpe Creek (John Underwood Drain), which is a direct tributary to Thorpe Creek, which flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Due to the presence of an OHWM and this connectivity, UNT2 to Thorpe Creek would likely be considered a water of the U.S.

Wetlands

A total of forty-two (42) wetlands totaling 5.62 acres were identified within the project limits. Of these, the vast majority were emergent wetlands, with four (4) forested wetland and one (1) shrub-scrub wetland observed. Twenty-two (22) wetlands are likely jurisdictional because of their connection to a likely water of the U.S. The remaining twenty (20) wetlands are likely isolated due to the absence of a detectable connection to a water of the U.S. A minimum of two data points (one within and one outside) were obtained for each wetland (Exhibit 8, pages 259 to 434). The Wetland Summary Table (Table 3, page 38) and Wetland Data Point Summary Table (Table 4, pages 39 to 40) summarize the data collected.

Wetland 01

Data Point 1 (Exhibit 8, pages 259 to 260) was dominated by *Phalaris arundinacea* (reed canary grass, FACW) and *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Redox Dark Surface (F6). One primary indicator (oxidized rhizospheres on living roots) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 47), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of both *Phalaris* and *Typha*, the high prevalence of bare soil (65%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 261 to 262) was dominated by an unidentified grass. Identification was not possible due to recent mowing. Without an indicator for this species, the presence of a hydrophytic vegetation indicator could not be ruled out. The remaining three species that were identified at this location were all FACU, suggesting that this data point would not meet this criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Redox Dark Surface (F6). No primary indicators and no secondary indicators for hydrology were observed. Since one of the three wetland criteria was not met, this point was considered to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 01. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 01 is adjacent to UNT5 to Cheeney Creek near the 106th Street Overpass (Exhibit 5, page 71). UNT5 discharges to Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 02

Data Point 1 (Exhibit 8, pages 263 to 264) was dominated by *Phragmites australis* (common reed, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary

indicator (oxidized rhizospheres on living roots) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 47), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Phragmites*, the high prevalence of bare soil (58%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 265 to 266) was dominated by *Trifolium spp.* (clover, FACU) and *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicator for the hydrophytic vegetation criterion. The soil profile did not meet any indicators under the hydric soil criterion. No primary indicators and no secondary indicators for hydrology were observed. Since none of the three wetland criteria were met, this data point was determined to be upland. Data Point 2 was used to establish the wetland/upland boundary for Wetland 02. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 02 is located near the 106th Street Overpass (Exhibit 5, page 71). It drains via roadside drainage into Cheeney Creek. Cheeney Creek is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditional navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 03

Data Point 1 (Exhibit 8, pages 267 to 268) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Redox Dark Surface (F6). Two primary indicators (surface water and oxidized rhizospheres on living roots) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 47), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, the high prevalence of bare soil (60%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 269 to 270) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Redox Dark Surface (F6). One primary indicator (oxidized rhizospheres on living roots) of hydrology was observed. Since one of the three wetland criteria was not met at this point, this area was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 03. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 03 is located near the 106th Street Overpass (Exhibit 5, page 71) and is connected via roadside drainage to UNT2 to Cheeney Creek. UNT2 discharges to Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 04

Data Point 1 (Exhibit 8, pages 271 to 272) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two primary indicators (high water table and saturation) and three secondary indicators (crayfish burrows, geomorphic position, and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 47), this area would likely

be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, the prevalence of bare soil (35%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 273 to 274) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass indictors for the hydrophytic vegetation criterion. The soil profile did not meet any hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland criteria were met at this point, this area was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 04. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing the boundary.

Wetland 04 is located near the 106th Street Overpass (Exhibit 5, page 71). It is connected via roadside drainage to Cheeney Creek. Cheeney Creek is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditional navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 05

Data Point 1 (Exhibit 8, pages 275 to 276) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators of hydrology were observed (geomorphic position and FAC-neutral test). Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, the prevalence of bare soil (40%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 277 to 278) was dominated by *Solidago altissima* (tall goldenrod, FACU) and *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indictors for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland criteria were not met, Data Point 2 was determined to be upland. This point helped establish the wetland/upland boundary for Wetland 05. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 05 is located near the S.R. 37 Interchange (Exhibit 5, page 77). It is connected via roadside drainage to UNT1 to Cheeney Creek. UNT1 discharges to Cheeney Creek, which is a direct tributary to the West Fork of the White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 06

Data Point 1 (Exhibit 8, pages 279 to 280) was dominated by *Juncus effusus* (common rush, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 281 to 282) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indictors for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Loamy Gleyed Matrix (F2). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland criteria were not met at this location, this area was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 06. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 06 is located near the S.R. 37 Interchange adjacent to a large open water feature just outside of INDOT right-of-way (Exhibit 5, pages 77 and 79). No connection between this open water feature and a water of the U.S. was detected. Therefore, this wetland is likely isolated.

Wetland 07

Data Point 1 (Exhibit 8, pages 283 to 284) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (hydrogen sulfide odor) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 285 to 286) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not observed, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 07. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 07 is located near the S.R. 37 Interchange (Exhibit 5, pages 77 and 79). No connection to a water of the U.S. was detected for Wetland 07. Water appears to pond in this area without any observed outlet. Therefore, this feature is likely isolated.

Wetland 08

Data Point 1 (Exhibit 8, pages 287 to 288) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (oxidized rhizospheres on living roots) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 289 to 290) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland criteria were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 08. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 08 is located near the Cumberland Road Overpass (Exhibit 5, pages 79 and 80). No connection to a water of the U.S. was detected for Wetland 08. This wetland is connected via roadside drainage to Wetland 07, but no connection for this feature was observed. Therefore, this feature is likely isolated.

Wetland 09

Data Point 1 (Exhibit 8, pages 291 to 292) was dominated by *Populus deltoides* (eastern cottonwood, FAC) and *Eleocharis palustris* (common spike-rush, OBL). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, forested wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered average due to its increased species diversity (including tree and shrub stratums), the presence of *Typha*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 293 to 294) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not observed, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 09. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 09 is located near the Cumberland Road Overpass (Exhibit 5, page 80). It is connected via an equalizer pipe under I-69 to Wetland 10. Wetland 10 is connected to a water of the U.S. (see below). Therefore, this feature is likely a water of the U.S.

Wetland 10

Data Point 1 (Exhibit 8, pages 295 to 296) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU) and *Typha spp.* (cattail, OBL). This point passed the prevalence test, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Redox Dark Surface (F6). Two secondary indicators (surface soil cracks and geomorphic position) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to its low species diversity, the dominance of *Festuca* and *Typha*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 297 to 298) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any indicators under the hydric soil criterion. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland criteria were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 10. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 10 is located near the Cumberland Road Overpass (Exhibit 5, page 80). It is connected via roadside drainage to UNT1 to Sand Creek. UNT1 discharges to Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 11

Data Point 1 (Exhibit 8, pages 299 to 300) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (saturation) and two secondary indicators (geomorphic position and FAC-neutral test) were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 48), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity, the dominance of *Typha*, the prevalence of bare soil (35%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 301 to 302) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary and no secondary indicators of hydrology were observed. Since two of the three wetland criteria were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 11. There was a distinct change in plant communities, along with a very minor topographic change, that was used in establishing this boundary.

Wetland 11 is located near the Cumberland Road Overpass (Exhibit 5, page 80). It is connected via roadside drainage to UNT1 to Sand Creek. UNT1 discharges to Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 12

Data Point 1 (Exhibit 8, pages 303 to 304) was dominated by *Hordeum jubatum* (fox-tail barley, FAC) and *Carex stipata* (stalk-grain sedge, OBL). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor based on its low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 305 to 306) was dominated by *Hordeum jubatum* (fox-tail barley, FAC). This point passed the dominance and prevalence test, and therefore met the hydrophytic vegetation criterion. The soil profile did not meet any hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 12. There was a distinct change in the soil profile associated with a minor topographic change that was used in establishing the wetland/upland boundary.

Wetland 12 is located between Sand Creek and the 126th Street Overpass (Exhibit 5, page 84). No connection to a water of the U.S. was detected for Wetland 12. Roadside drainage at this location has no outlet, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 13

Data Point 1 (Exhibit 8, pages 307 to 308) was dominated by *Hordeum jubatum* (fox-tail barley, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (oxidized rhizospheres on living roots) and one secondary indicator (geomorphic position) of hydrology were

observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 309 to 310) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass indicators for the hydrophytic vegetation criterion. The soil profile did not meet any of the hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 13. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 13 is located near the 126th Street Overpass (Exhibit 5, page 85). No connection to a water of the U.S. was detected for Wetland 13. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 14

Data Point 1 (Exhibit 8, pages 311 to 312) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, high prevalence of bare soil (70%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 313 to 314) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any of the hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 14. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 14 is located near the 126th Street Overpass (Exhibit 5, page 85). No connection to a water of the U.S. was detected for Wetland 14. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 15

Data Point 1 (Exhibit 8, pages 315 to 316) was dominated by *Carex stipata* (stalk-grain sedge, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and its location within maintained INDOT right-of-way.

Data Point 2 (Exhibit 8, pages 317 to 318) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Redox Dark Surface (F6). No

primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 15. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 15 is located approximately 0.4 mile northeast of the 126th Street Overpass (Exhibit 5, page 87). No connection to a water of the U.S. was detected for Wetland 15. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 16

Data Point 1 (Exhibit 8, pages 319 to 320) was dominated by *Typha spp.* (cattail, OBL) and *Apocynum cannabinum* (Indian-hemp, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3) and Redox Dark Surface (F6). Two primary indicators (high water table and saturation) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the presence of *Typha* as a dominant species, and its location within maintained INDOT right-of-way.

Data Point 2 (Exhibit 8, pages 321 to 322) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators of the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it displayed Depleted Below Dark Surface (A11). Two primary indicators (high water table and saturation) of hydrology were observed. Since one of the three wetland indicators was not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 16. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 16 is located approximately 0.5 mile northeast of the 126th Street Overpass and extends outside of INDOT right-of-way (Exhibit 5, page 87). No connection to a water of the U.S. was detected for Wetland 16. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 17

Wetland 17 consisted of inundated, sparsely vegetated areas with drainage patterns that fed into a forested wetland outside of INDOT right-of-way. Data Point 1 (Exhibit 8, pages 323 to 324) was collected above an unvegetated, inundated area. The soil profile met the hydric soil criterion as it displayed a Depleted Matrix (F3) and Redox Dark Surface (F6). One primary indicator (saturation) and one secondary indicator (geomorphic position) of hydrology were observed. As previously stated, surface water was noted adjacent to this point. Data Point 1 contained only *Festuca arundinacea* (Kentucky fescue, FACU), with approximately 40% of the area being unvegetated. Although no hydrophytic vegetation was present, problematic hydrophytic vegetation was marked as an indicator because of the adjacent areas with sparse vegetation, standing water, and drainage patterns, and the fact that it was hydrologically connected to the forested wetland located outside of INDOT right-of-way. Therefore, this area was determined to be a wetland. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to the low species diversity and its location within maintained INDOT right-of-way.

Data Point 2 (Exhibit 8, pages 325 to 326) was dominated by Festuca arundinacea (Kentucky fescue, FACU). This point failed to pass any indicators of the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it displayed a Depleted Matrix (F3). One secondary indicator (geomorphic position) of hydrology was observed. Since two of the three wetland indicators were not met, this point was

determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 17. There was a minor topographic and hydrology change that was used in establishing the wetland/upland boundary.

Wetland 17 is located approximately 0.6 mile northeast of the 126th Street Overpass (Exhibit 5, page 87). No connection to a water of the U.S. was detected for Wetland 17. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 18

Data Point 1 (Exhibit 8, pages 327 to 328) was dominated by *Quercus palustris* (pin oak, FACW), *Cornus drummondii* (rough-leaf dogwood, FAC), and *Carex grayi* (gray's sedge, FACW). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (water-stained leaves) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, forested wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was classified average based on its species diversity, which included components in the tree stratum.

Data Point 2 (Exhibit 8, pages 329 to 330) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 18. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 18 is located approximately 0.7 mile northeast of the 126th Street Overpass (Exhibit 5, page 87) and extends outside of INDOT right-of-way. No connection to a water of the U.S. was detected for Wetland 18. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 19

Data Point 1 (Exhibit 8, pages 331 to 332) was dominated by *Persicaria maculosa* (spotted ladysthumb, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it displayed Depleted Below Dark Surface (A11). Three secondary indicators (surface soil cracks, geomorphic position, and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 49), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 333 to 334) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 19. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 19 is located approximately 0.6 mile southwest of the Brooks School Road Overpass (Exhibit 5, page 88). No connection to a water of the U.S. was detected for Wetland 19. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 20

Data Point 1 (Exhibit 8, pages 335 to 336) was dominated by *Persicaria maculosa* (spotted ladysthumb, FACW) and *Carex stipata* (stalk-grain sedge, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three secondary indicators (surface soil cracks, geomorphic position, and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 337 to 338) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 20. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 20 is located approximately 0.5 mile southwest of the Brooks School Road Overpass (Exhibit 5, page 89). No connection to a water of the U.S. was detected for Wetland 20. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 21

Data Point 1 (Exhibit 8, pages 339 to 340) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three primary indicators (surface water, high water table, and saturation) and three secondary indicators (surface soil cracks, geomorphic position, and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the dominance of *Typha*, the high prevalence of bare soil (60%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 341 to 342) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 21. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 21 is located near the Brooks School Road Overpass (Exhibit 5, page 90). No connection to a water of the U.S. was detected for Wetland 21. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 22

Data Point 1 (Exhibit 8, pages 343 to 344) was dominated by *Carex stipata* (stalk-grain sedge, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three secondary indicators (surface soil cracks, geomorphic position, and FAC-neutral test) of hydrology were

observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 345 to 346) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 22. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 22 is located near the Brooks School Road Overpass (Exhibit 5, page 91). No connection to a water of the U.S. was detected for Wetland 22. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 23

Data Point 1 (Exhibit 8, pages 347 to 348) was dominated by *Carex stipata* (stalk-grain sedge, OBL) and *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three secondary indicators (surface soil cracks, geomorphic position, and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50) this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, dominance of *Typha*, high prevalence of bare soil (70%), and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 349 to 350) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 23. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 23 is located near the Brooks School Road Overpass (Exhibit 5, page 91). No connection to a water of the U.S. was detected for Wetland 23. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 24

Data Point 1 (Exhibit 8, pages 351 to 352) was dominated by *Salix interior* (sandbar willow, FACW), *Typha spp.* (cattail, OBL), and *Carex vulpinoidea* (common fox sedge, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this feature would likely be considered a palustrine shrub-scrub wetland (with a palustrine emergent component) according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was classified as average due to its species diversity, which included a shrub-scrub component. However, it is located within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 353 to 354) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile failed to meet any indicators for hydric soil. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 24. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 24 is located approximately 0.25 mile northeast of the Brooks School Road Overpass and borders UNT5 to Sand Creek (Exhibit 5, page 94). This wetland extends off INDOT right-of-way. UNT5 discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 25

Data Point 1 (Exhibit 8, pages 355 to 356) was dominated by *Leersia oryzoides* (rice cut grass, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile could not be evaluated since the roadside drainage had been riprap lined. The soil in the adjacent Data Point 2 met the hydric soil criterion, and the point met both the vegetation and hydrology criteria. Because of this, it was assumed that the soil criterion would be met for Data Point 1. One primary indicator (surface water) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor because it was lined with riprap and is located within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 357 to 358) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 25. There was a distinct change in plant communities, along with a topographic change, that was used in establishing the wetland/upland boundary.

Wetland 25 is located approximately 0.25 mile northeast of the Brooks School Road Overpass and borders UNT5 to Sand Creek (Exhibit 5, page 94). UNT5 discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 26

Data Point 1 (Exhibit 8, pages 359 to 360) was dominated by *Carex lacustris* (lakebank sedge, OBL) and *Carex vulpinoidea* (common fox sedge, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (algal mat or crust) and two secondary indicators (crayfish burrows and FAC-neutral test) for hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to its low species diversity, prevalence of bare soil (30%), and the fact that it is located within frequently maintained INDOT right-of-way.

Data Point 2 (Exhibit 8, pages 361 to 362) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 26. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 26 is located approximately 0.4 mile northeast of the Brooks School Road Overpass (Exhibit 5, page 94). It drains via riprap lined roadside drainage to UNT5 to Sand Creek. UNT5 discharges into Sand Creek, which is a direct tributary to Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 27

Data Point 1 (Exhibit 8, pages 363 to 364) was dominated by *Salix interior* (sandbar willow, FACW) and *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three primary indicators (surface water, high water table, and saturation) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. This would likely not be considered a shrub-scrub wetland due to the low coverage of *Salix interior* (5%) and the fact that this entire area has been mowed as recently as September 2013 (as noted during desktop review using online resources). The quality of the wetland was classified poor due to low species diversity, the presence of *Typha*, and the fact that it is located within frequently maintained INDOT right-of-way.

Data Point 2 (Exhibit 8, pages 365 to 366) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any of the hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 27. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 27 is located near the Campus Parkway Interchange (Exhibit 5, page 96). It drains under I-69 via a slip-lined pipe into Wetland 28. No connection to a water of the U.S. was detected for Wetland 28. Therefore, this feature is likely isolated.

Wetland 28

Data Point 1 (Exhibit 8, pages 367 to 368) was dominated by *Fraxinus pennsylvanica* (green ash, FACW), *Celtis occidentalis* (common hackberry, FAC), *Populus deltoides* (eastern cottonwood, FAC), *Acer negundo* (ash-leaf maple, FAC), *Morus rubra* (red mulberry, FACU), *Carex stipata* (stalk-grain sedge, OBL), *and Toxicodendron radicans* (eastern poison-ivy, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1.

Data Point 2 (Exhibit 8, pages 369 to 370) was dominated by *Fraxinus pennsylvanica* (green ash, FACW), *Acer negundo* (ash-leaf maple, FAC), and *Cephalanthus occidentalis* (common buttonbush, OBL). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Four primary indicators (sediment deposits, drift deposits, sparsely vegetated concave surface, and water-stained leaves) and two secondary indicators (geomorphic position and FAC-neutral test) for hydrology were observed. Therefore, all three wetland criteria were met at Data Point 2.

Data Point 3 (Exhibit 8, pages 371 to 372) was dominated by *Morus rubra* (red mulberry, FACU) and *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any of the hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 3 helped establish the wetland/upland boundary for Wetland 28. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Data Point 4 (Exhibit 8, pages 373 to 374) was dominated by *Carex stipata* (stalk-grain sedge, OBL) and an unidentified grass. This point passed the prevalence test, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and one secondary indicator (geomorphic position) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 4. This plot represented the small emergent community draining into the forested wetland portion of Wetland 28.

Wetland 28 was noted as a palustrine shrub-scrub wetland on the NWI Map (Exhibit 2, page 50). Based on field observations, this feature would be considered a palustrine forested wetland (with a small palustrine emergent wetland component) according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was classified average due to its species diversity. It is negatively impacted by roadside drainage along I-69 and Campus Parkway, receiving storm water pollutants and a large amount of litter/trash.

Wetland 28 is located near the Campus Parkway Interchange (Exhibit 5, page 96). No connection to a water of the U.S. was detected for Wetland 28. No outlet for the roadside drainage at this location was observed, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 29

Data Point 1 (Exhibit 8, pages 375 to 376) was dominated by *Ambrosia trifida* (great ragweed, FAC), *Carex gracillima* (graceful sedge, FACU), and *Carex stipata* (stalk-grain sedge, OBL). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it was Depleted Below Dark Surface (A11). One primary indicator (saturation) was observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered average due to species diversity and low prevalence of invasive species. However, this wetland still receives direct runoff from I-69 and its associated pollutants.

Data Point 2 (Exhibit 8, pages 377 to 378) was dominated by *Euthamia graminifolia* (flat-top goldentop, FACW) and *Ambrosia trifida* (great ragweed, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile did not meet any of the hydric soil indicators. No primary and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 29. There was a minor change topography that was used in establishing the wetland/upland boundary.

Wetland 29 is located near the Campus Parkway Interchange (Exhibit 5, page 96). It is bordered to the north by an old roadbed (and its associated slope). No connection to a water of the U.S. was detected for Wetland 29. No outlet for the roadside drainage was observed at this location, and water appears to pond in this area. Therefore, this feature is likely isolated.

Wetland 30

Data Point 1 (Exhibit 8, pages 379 to 380) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and one secondary indicator (FAC-neutral test) for hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map

(Exhibit 2, page 50), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the dominance of *Typha*, and the high prevalence of bare soil (40%).

Data Point 2 (Exhibit 8, pages 381 to 382) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 30. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 30 is located within the Campus Parkway Interchange (Exhibit 5, page 96). It has formed on the hillslope for the I-69 southbound off-ramp. Its primary source of hydrology appears to be an underdrain. No connection to a water of the U.S. was detected for Wetland 30. The roadside drainage at the toe of this slope is not connected to a water of the U.S. Therefore, this feature is likely isolated.

Wetland 31

Data Point 1 (Exhibit 8, pages 383 to 384) was dominated by an unidentified *Carex*. The other three species could be identified, two of which were FACW and one OBL. Although the dominant species could not be confirmed, the point still passed the prevalence test. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Three secondary indicators (surface soil cracks, crayfish burrows, and geomorphic position) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 51), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered average due to its species diversity. However, it is located within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 385 to 386) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU) and *Cirsium arvense* (Canadian thistle, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 31. There was a distinct change in plant communities, as well as a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 31 is located near the Olio Road Overpass (Exhibit 5, page 100). No connection to a water of the U.S. was detected for this wetland. Water outlets from this feature via a pipe to the adjacent farm field. However, this drainage feature appears to be actively farmed and is completely consumed within the adjacent field with no connection to a water of the U.S. Therefore, this feature is likely isolated.

Wetland 32

Data Point 1 (Exhibit 8, pages 387 to 388) was dominated by *Juglans nigra* (black walnut, FACU), *Acer negundo* (ash-leaf maple, FAC), *Impatiens capensis* (spotted touch-me-not, FACW), and *Elymus virginicus* (Virginia wild rye, FACW). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 51) this area would likely be considered a temporarily flooded, palustrine, forested wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered average due species diversity, which included species in both the tree and shrub stratum. However, this wetland is located its location within INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 389 to 390) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were observed, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 32. There was a distinct change in plant communities, as well as a topographic change, that was used in establishing the wetland/upland boundary.

Wetland 32 borders UNT2 to Mud Creek near the I-69 Bridges over Mud Creek (Exhibit 5, page 103). UNT2 drains into Mud Creek, which is a direct tributary to Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Because of this connection, this feature is likely a water of the U.S.

Wetland 33

Data Point 1 (Exhibit 8, pages 391 to 392) was dominated by *Phalaris arundinacea* (reed canary grass, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the dominance of *Phalaris*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 393 to 394) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the wetland indicators were observed, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 33. There was a distinct change in plant communities, and a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 33 is located approximately 0.7 mile west of the I-69 Bridges over Thorpe Creek (Exhibit 5, page 112). It drains via roadside drainage to UNT1 to Thorpe Creek (John Underwood Drain). UNT1 flows into Thorpe Creek, which drains into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 34

Data Point 1 (Exhibit 8, pages 395 to 396) was dominated by *Phalaris arundinacea* (reed canary grass, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two primary indicators (high water table and saturation) and two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and the dominance of *Phalaris*.

The surface of Data Point 2 (Exhibit 8, pages 397 to 398) was lined with riprap. This stone is associated with the Thorpe Creek bridge cone, which runs from the top of slope to the toe of slope. No vegetation was growing on top of this riprap, and surrounding vegetation at the top of slope was *Festuca arundinacea* (Kentucky fescue, FACU). This location, therefore, would likely not meet the hydrophytic vegetation criterion. Riprap at this location was greater than 12 inches in depth, preventing the collection of a soil sample. This also prohibited the investigation for subsurface hydrology indictors. No surface indicators of

hydrology were observed, and subsurface indicators would not be anticipated based on the topography (hillslope) of this area. Therefore, this point would likely be considered upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 34. The distinct change in topography and lack of a plant community was used in establishing the wetland/upland boundary.

Wetland 34 is adjacent to Thorpe Creek (Exhibit 5, page 115). Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 35

Data Point 1 (Exhibit 8, pages 399 to 400) was dominated by *Phalaris arundinacea* (reed canary grass, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and the dominance of *Phalaris*.

The surface of Data Point 2 (Exhibit 8, pages 401 to 402) was lined with riprap. This stone is associated with the Thorpe Creek bridge cone, which runs from the top of slope to the toe of slope. No vegetation was growing on top of this riprap, and surrounding vegetation at the top of slope was *Festuca arundinacea* (Kentucky fescue, FACU). This location, therefore, would likely not meet the hydrophytic vegetation criterion. Riprap at this location was greater than 12 inches in depth, preventing the collection of a soil sample. This also prohibited the investigation for subsurface hydrology indictors. No surface indicators of hydrology were observed, and subsurface indicators would not be anticipated based on the topography (hillslope) of this area. Therefore, this point would likely be considered upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 34. The distinct change in topography and lack of a plant community was used in establishing the wetland/upland boundary.

Wetland 35 is adjacent to Thorpe Creek (Exhibit 5, page 115). Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 36

Data Point 1 (Exhibit 8, pages 403 to 404) was dominated by *Eleocharis palustris* (common spike-rush, OBL) and *Typha spp*. (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Loamy Gleyed Matrix (F2). Two primary indicators (high water table and saturation) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the high prevalence of bare soil (45%), and the dominance of *Typha*.

Data Point 2 (Exhibit 8, pages 405 to 406) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU) and *Trifolium pratense* (red clover, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile did not meet any hydric soil indicators. No primary indicators and no secondary indicators of hydrology were observed. Since none of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 36. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 36 is located near the I-69 Northbound Bridge over Thorpe Creek (Exhibit 5, page 115). It is located on the I-69 northbound roadside slope and its primary source of hydrology is an underdrain. It is connected via a riprap lined ditch into Thorpe Creek. Thorpe Creek drains into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 37

Data Point 1 (Exhibit 8, pages 407 to 408) was dominated by *Typha spp.* (cattail, OBL) and *Hordeum jubatum* (fox-tail barley, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and the dominance of *Typha*.

Data Point 2 (Exhibit 8, pages 409 to 410) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 37. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 37 is located near the I-69 Southbound Bridge over Thorpe Creek (Exhibit 5, page 115). It is located on the I-69 southbound roadside slope and its primary source of hydrology is an underdrain. It is connected via a riprap lined conveyance into Thorpe Creek. Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 38

Data Point 1 (Exhibit 8, pages 411 to 412) was dominated by *Typha spp.* (cattail, OBL) and *Eleocharis palustris* (common spike-rush, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and the dominance of *Typha*.

Data Point 2 (Exhibit 8, pages 413 to 414) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 38. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 38 is located within the S.R. 13 Interchange (Exhibit 5, page 116). It is located on the I-69 southbound roadside slope and its primary source of hydrology is an underdrain. It is connected, via several roadside drainages along the I-69 southbound on ramp, to Thorpe Creek. Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a

direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 39

Data Point 1 (Exhibit 8, pages 415 to 416) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (saturation) and one secondary indicator (FAC-neutral test) for hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was classified poor due to low species diversity and the dominance of *Typha*.

Data Point 2 (Exhibit 8, pages 417 to 418) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 39. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 39 is located within the S.R. 13 Interchange (Exhibit 5, page 116). It is located on the I-69 northbound roadside slope and its primary source of hydrology is an underdrain. It is connected to a roadside conveyance that flows under the I-69 northbound off-ramp into another roadside conveyance connected Thorpe Creek. Thorpe Creek drains into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 40

Data Point 1 (Exhibit 8, pages 419 to 420) was dominated by *Typha spp.* (cattail, OBL) and *Hordeum jubatum* (fox-tail barley, FAC). This point passed the dominance and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). One primary indicator (surface water) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the dominance of *Typha*, and the high prevalence of bare soil (40%).

Data Point 2 (Exhibit 8, pages 421 to 422) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 40. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 40 is located within the S.R. 13 Interchange (Exhibit 5, page 116). It is located on the I-69 northbound roadside slope and its primary source of hydrology is an underdrain. It is connected via several roadside drainages into Thorpe Creek. Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets to the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 41

Data Point 1 (Exhibit 8, pages 423 to 424) was dominated by *Typha spp.* (cattail, OBL). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil

profile met the hydric soil criterion as it exhibited a Loamy Gleyed Matrix (F2). Two primary indicators (surface water and algal mat or crust) and one secondary indicator (FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity and the dominance of *Typha*.

Data Point 2 (Exhibit 8, pages 425 to 426) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were not met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 41. There was a distinct change in plant communities that was used in establishing the wetland/upland boundary.

Wetland 41 is located within the S.R. 13 Interchange (Exhibit 5, page 116). It is located on the I-69 southbound roadside slope and its primary source of hydrology is an underdrain. It is connected via several vegetated roadside drainages Thorpe Creek. Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Wetland 42

Data Point 1 (Exhibit 8, pages 427 to 428) was dominated by *Lythrum salicaria* (purple loosestrife, OBL) and *Carex cristatella* (crested sedge, FACW). This point passed the rapid, dominance, and prevalence tests, and therefore met the hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited a Depleted Matrix (F3). Two secondary indicators (geomorphic position and FAC-neutral test) of hydrology were observed. Therefore, all three wetland criteria were met at Data Point 1. Although not classified as a potential wetland on the NWI Map (Exhibit 2, page 53), this area would likely be considered a temporarily flooded, palustrine, emergent wetland according to the Cowardin et. al. (1979) classification scheme. The quality of the wetland was considered poor due to low species diversity, the dominance of *Lythrum*, and its location within maintained INDOT right-of-way. The wetland does extend beyond the boundary of the roadside drainage at this location.

Data Point 2 (Exhibit 8, pages 429 to 430) was dominated by *Festuca arundinacea* (Kentucky fescue, FACU). This point failed to pass any indicators for hydrophytic vegetation criterion. The soil profile met the hydric soil criterion as it exhibited at Loamy Gleyed Matrix (F2). No primary indicators and no secondary indicators of hydrology were observed. Since two of the three wetland indicators were met, this point was determined to be upland. Data Point 2 helped establish the wetland/upland boundary for Wetland 42. There was a distinct change in plant communities, and a minor topographic change, that was used in establishing the wetland/upland boundary.

Wetland 42 is located approximately 0.25 mile east of the S.R. 13 Interchange (Exhibit 5, page 117). It drains under I-69 into a roadside conveyance that eventually discharges into Thorpe Creek. Thorpe Creek flows into Geist Reservoir, which drains into Fall Creek, which is a direct tributary to the West Fork White River, which is a direct tributary to the Wabash River, which outlets into the Ohio River (a traditionally navigable waterway). Therefore, this feature is likely a water of the U.S.

Miscellaneous Features

Non-Jurisdictional Features

Parsons met with representatives from INDOT, the Indiana Department of Environmental Management (IDEM), and the United States Army Corps of Engineers (USACE) on August 13, 2014 to discuss features identified during fieldwork. A follow-up field review with these agencies was held on August 18, 2014. Combined minutes from these two meetings are provided in Exhibit 9 (pages 436 to 441). An additional conference call between Parsons and the USACE on September 17, 2014 provided further guidance, and is summarized in Exhibit 9 (pages 442 to 444), as well.

As a result of this coordination, multiple features delineated by Parsons would not be considered jurisdictional, despite meeting all three wetland criteria. Based on agency coordination, features were considered non-jurisdictional if they were entirely contained within roadside drainage. If the feature extended beyond the existing ditchline, the feature was considered a wetland. The mapped soil unit did not factor into this determination.

Based on regulatory agency feedback, ninety (90) likely non-jurisdictional features that met the three wetland criteria, but fall under the USACE roadside ditch guidance, were delineated in the field. Table 5 (pages 40 to 43) summarizes these features. Their boundaries are included on the resource maps (Exhibit 5, pages 70 to 118), and each is documented in this report with a single photograph (Exhibit 6, pages 120 to 218).

Sand Creek Point 1

A data point (Exhibit 8, pages 431 to 432) was taken on a floodplain shelf at Sand Creek due to the presence of hydrophytic vegetation. The point was dominated by *Phalaris arundinacea* (reed canary grass, FACW) and *Equisetum arvense* (field horsetail, FAC) and therefore met the dominance and prevalence test for hydrophytic vegetation. The soil profile failed to meet any hydric soil indicators. Two secondary indicators (geomorphic position and FAC-neutral test) were observed. Since one of the three wetland indicators was not met, this area is likely upland.

Mud Creek Point 1

A data point (Exhibit 8, pages 433 to 434) was taken on a floodplain shelf at Mud Creek due to the presence of hydrophytic vegetation. The point was dominated by *Phalaris arundinacea* (reed canary grass, FACW) and *Ambrosia trifida* (great ragweed, FAC) and therefore met the dominance and prevalence test for hydrophytic vegetation. The soil profile failed to meet any hydric soil indicators. Two secondary indicators (geomorphic position and FAC-neutral test) were observed. Since one of the three wetland indicators was not met, this area is likely upland.

IV: Conclusions

Based on the field review, this project has features that are likely waters of the U.S. within the project limits.

A total of nineteen (19) streams totaling 17,605 linear feet were identified within the project limits. All roadside drainage features within the project limits were evaluated for an OHWM. Due to the large number of these features, only those that exhibited an OHWM are specifically detailed in this report. ***All roadside drainages not detailed in this report lacked OHWMs and are therefore not likely waters of the U.S.***

A total of forty-two (42) wetlands totaling 5.62 acres were identified within the project limits. Of these, the vast majority were emergent wetlands with the exception of four forested wetlands and one shrub-scrub wetland. Twenty-two (22) of these are likely jurisdictional, while the remaining twenty (20) are likely isolated.

Every effort should be taken to avoid impacts to the resources outlined in this report. If impacts will occur, waterway permits will be required and mitigation may be required. Impacts must be minimized before mitigation can be considered. INDOT's Ecology and Waterway Permitting Office (EWPO) staff should be contacted immediately if impacts will occur.

The conclusions in this report are the best judgment of Parsons and based on the guidelines set forth by the USACE. ***The final determination of jurisdictional waters, however, is ultimately made by the USACE.***

A preliminary jurisdictional determination (pre-JD) form is provided in Exhibit 10 (pages 446 to 452).

V. References

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TABLES

TABLE 1: SOIL SUMMARY TABLE

TABLE 2: STREAM SUMMARY TABLE

TABLE 3: WETLAND SUMMARY TABLE

TABLE 4: WETLAND DATA POINT SUMMARY TABLE

TABLE 5: NON-JURISDICTIONAL FEATURES SUMMARY TABLE

Table 1: Soil Summary Table I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties, Indiana Designation Numbers 1383332, 1383336, 1383489			
Abbreviation	**Soil Name**	**Nationally Listed Hydric Soil (Y/N)**	**Hydric Component (%)**
Br	Brookston silt loam	Yes	100
Bs	Brookston silty clay loam	Yes	100
CnB2	Celina silt loam	No	0
CrA	Crosby silt loam	No	1-32
MmA	Miami silt loam	No	0
MmB2	Miami silt loam	No	1-32
MmC2	Miami silt loam	Yes	1-32
MmD2	Miami silt loam	No	0
MoC3	Miami clay loam	No	0
MoD3	Miami clay loam	No	0
Or	Orthents	No	0
Pn	Patton silty clay loam	Yes	100
Sh	Shoals silt loam	No	0
St	Sleeth loam	No	0
W	Water	No	0

Table 2: Stream Summary Table
I-69 Interstate Expansion Projects 1, 2, and 3
Hamilton and Madison Counties, Indiana
Designation Numbers 1383332, 1383336, and 1383489

Stream Name	Photograph # (Exhibit 6)	Latitude/Longitude	Section, Township, Range	OHWM Width (ft)	OHWM Depth (in)	USGS Blue-line (Y/N)	Riffles/ Pools (Y/N)	Habitat Quality* (Qualitative)	HHEI/ QHEI Score**	Likely Waters of U.S. (Y/N)	Length in Project Limits (ft)	Stream Type
Cheeney Creek	16,17,18	39.947832 N -86.014879 W	Sec 1 T17N R4E	10	22	Yes	Yes	Average	75	Yes	400	Perennial
UNT1 to Cheeney Creek	22-27	39.953972 N -86.010587 W	Sec 1 T17N R4E	11	6	No	No	Poor	30	Yes	5,865	Intermittent
UNT2 to Cheeney Creek	14,15	39.946620 N -86.014934 W	Sec1 T17N R4E	1	4	No	No	Poor	35	Yes	960	Ephemeral
UNT3 to Cheeney Creek	18,19	39.949073 N -86.013086 W	Sec 1 T17N R4E	1	4	No	No	Poor	28	Yes	1,000	Ephemeral
UNT4 to Cheeney Creek	20,21	39.948231 N -86.013557 W	Sec 1 T17N R4E	3	6	No	No	Poor	49	Yes	425	Perennial
UNT5 to Cheeney Creek	3,4	39.941494 N -86.019577 W	Sec 12 T17N R4E	4	3	No	No	Poor	52	Yes	55	Ephemeral
Sand Creek	55-57	39.969304 N -85.975870 W	Sec 32 T18N R5E	21	28	Yes	Yes	Average	41.5	Yes	340	Perennial
UNT1 to Sand Creek	49-52	39.968671 N -85.979058 W	Sec 32 T18N R5E	1.5	8	No	No	Poor	20	Yes	1,930	Ephemeral
UNT2 to Sand Creek	53,54	39.969631 N -85.976066 W	Sec 32 T18N R5E	3	8	No	No	Poor	20	Yes	135	Ephemeral
UNT3 to Sand Creek	58,59	39.969063 N -85.975866 W	Sec 32 T18N R5E	1.3	7	No	No	Poor	10	Yes	100	Ephemeral
UNT4 to Sand Creek	60,61	39.970221 N -85.972345 W	Sec 33 T18N R5E	17	4	No	No	Poor	44	Yes	325	Perennial
UNT5 to Sand Creek	113,117	39.986532 N -85.937797 W	Sec 27 T18N R5E	10	5	No	Yes	Poor	50	Yes	260	Intermittent
Mud Creek	150-152	39.991031 N -85.902347 W	Sec 18 T18N R5E	27	54	Yes	Yes	Average	47	Yes	430	Perennial
UNT1 to Mud Creek	148,149	39.990680 N -85.903144 W	Sec 24 T18N R5E	0.5	3	No	No	Poor	9	Yes	2,920	Ephemeral
UNT2 to Mud Creek	153,154	39.990579 N -85.902138 W	Sec 24 T18N R5E	3	10	No	Yes	Average	32	Yes	200	Ephemeral
UNT3 to Mud Creek	158,159	39.990580 N -85.902244 W	Sec 24 T18N R5E	4	6	No	Yes	Poor	26	Yes	185	Ephemeral
Thorpe Creek	194-197	39.993419 N -85.848462 W	Sec 21 T18N R6E	8.5	6	Yes	Yes	Poor	35	Yes	370	Perennial
UNT1 to Thorpe Creek (John Underwood Drain)	171,172	39.991478 N -85.871661 W	Sec 20 T18N R6E	2.5	12	No	Yes	Poor	48	Yes	275	Perennial
UNT2 to Thorpe Creek	174,175	39.991175 N -85.871161 W	Sec 20 T18N R6E	1	4	No	No	Poor	16	Yes	1,430	Ephemeral
			TOTAL								**17605**	

** Aquatic and terrestrial habitat quality within the project limits only*
*** Sample reach in some cases extended outside of the project limits*

Table 3: Wetland Summary Table
I-69 Interstate Expansion Projects 1, 2, and 3
Hamilton and Madison Counties, Indiana
Designation Numbers 1383332, 1383336, and 1383489

Wetland Name	Photograph # (Exhibit 6)	Latitude/Longitude	Wetland Type	Area (Acres)	Quality	Likely Jurisdictional/ Isolated
Wetland 01	1,2	39.941511 N -86.019662 W	Palustrine Emergent	0.0438	Poor	Jurisdictional
Wetland 02	5,6	39.942207 N -86.019095 W	Palustrine Emergent	0.0495	Poor	Jurisdictional
Wetland 03	9,10	39.942749 N -86.017783 W	Palustrine Emergent	0.1479	Poor	Jurisdictional
Wetland 04	7,8	39.942755 N -86.018625 W	Palustrine Emergent	0.0344	Poor	Jurisdictional
Wetland 05	28,29	39.963123 N -86.004264 W	Palustrine Emergent	0.0290	Poor	Jurisdictional
Wetland 06	31,32	39.965024 N -86.001207 W	Palustrine Emergent	0.4532	Poor	Isolated
Wetland 07	33,34	39.965956 N -86.000959 W	Palustrine Emergent	0.2222	Poor	Isolated
Wetland 08	37,38,39	39.967467 N -85.994772 W	Palustrine Emergent	0.7879	Poor	Isolated
Wetland 09	40,41	39.967663 N -85.993443 W	Palustrine Forested	0.0845	Average	Jurisdictional
Wetland 10	43,44	39.967081 N -85.993381 W	Palustrine Emergent	0.1198	Poor	Jurisdictional
Wetland 11	46,47	39.967321 N -85.990890 W	Palustrine Emergent	0.0556	Poor	Jurisdictional
Wetland 12	62,63	39.970826 N -85.970673 W	Palustrine Emergent	0.0216	Poor	Isolated
Wetland 13	66,67	39.972154 N -85.967835 W	Palustrine Emergent	0.1800	Poor	Isolated
Wetland 14	71	39.972774 N -85.966487 W	Palustrine Emergent	0.0084	Poor	Isolated
Wetland 15	75	39.975844 N -85.960098 W	Palustrine Emergent	0.0037	Poor	Isolated
Wetland 16	76, 77	39.976626 N -85.958684 W	Palustrine Emergent	0.1970	Poor	Isolated
Wetland 17	80,81	39.977147 N -85.957434 W	Palustrine Emergent	0.0350	Poor	Isolated
Wetland 18	82, 83	39.977592 N -85.956632 W	Palustrine Forested	0.0549	Average	Isolated
Wetland 19	89,90	39.979228 N -85.953082 W	Palustrine Emergent	0.2472	Poor	Isolated
Wetland 20	91,92	39.980530 N -85.950366 W	Palustrine Emergent	0.1946	Poor	Isolated
Wetland 21	100,101	39.983607 N -85.943890 W	Palustrine Emergent	0.0090	Poor	Isolated
Wetland 22	102,103	39.984029 N -85.943140 W	Palustrine Emergent	0.0659	Poor	Isolated
Wetland 23	105,106	39.984469 N -85.942132 W	Palustrine Emergent	0.0225	Poor	Isolated
Wetland 24	111-113	39.986690 N -85.937636 W	Palustrine Shrub-Scrub (0.1137 acre) and Palustrine Emergent (0.1583 acre)	0.2720	Average	Jurisdictional
Wetland 25	116,117	39.986188 N -85.937119 W	Palustrine Emergent	0.0072	Poor	Jurisdictional
Wetland 26	118,119	39.987122 N -85.935137 W	Palustrine Emergent	0.1881	Poor	Jurisdictional
Wetland 27	125,126	39.989670 N -85.927868 W	Palustrine Emergent	0.0592	Poor	Isolated
Wetland 28	127-130	39.991350 N -85.927043 W	Palustrine Forested (0.6932 acre) and Palustrine Emergent (0.1068 acre)	0.8000	Average	Isolated
Wetland 29	133-135	39.992603 N -85.924896 W	Palustrine Emergent	0.6763	Average	Isolated
Wetland 30	138,139	39.991734 N -85.923098 W	Palustrine Emergent	0.0110	Poor	Isolated
Wetland 31	145,146	39.991403 N -85.916568 W	Palustrine Emergent	0.0709	Average	Isolated
Wetland 32	155,156	39.990578 N -85.901911 W	Palustrine Forested	0.0947	Average	Jurisdictional
Wetland 33	180,181	39.991914 N -85.861960 W	Palustrine Emergent	0.0490	Poor	Jurisdictional
Wetland 34	192-194	39.993123 N -85.848439 W	Palustrine Emergent	0.0708	Poor	Jurisdictional
Wetland 35	194,198,199	39.993134 N -85.848327 W	Palustrine Emergent	0.0434	Poor	Jurisdictional
Wetland 36	200,201	39.993155 N -85.848169 W	Palustrine Emergent	0.0061	Poor	Jurisdictional
Wetland 37	202	39.993760 N -85.848281 W	Palustrine Emergent	0.0046	Poor	Jurisdictional
Wetland 38	205,206	39.994123 N -85.844783 W	Palustrine Emergent	0.0214	Poor	Jurisdictional
Wetland 39	207,208	39.993470 N -85.844670 W	Palustrine Emergent	0.0232	Poor	Jurisdictional
Wetland 40	216,217	39.993376 N -85.841504 W	Palustrine Emergent	0.0321	Poor	Jurisdictional
Wetland 41	214,215	39.994010 N -85.841344 W	Palustrine Emergent	0.0385	Poor	Jurisdictional
Wetland 42	218,219	39.992773 N -85.837616 W	Palustrine Emergent	0.0843	Poor	Jurisdictional
TOTAL				**5.6205**		

Table 4: Wetland Data Point Summary Table I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties Indiana Designation Numbers 1383332, 1383336, and 1383489						
Wetland ID	**Latitude/Longitude**	**Soil Unit**	**NWI (Y/N)**	**Quadrangle**	**Section Township Range**	**Wetland (Y/N)**
Wetland 01 Point 1	39.941511 N -86.019662 W	Brookston silt loam	No	Fishers	Section 12 T17N R4E	Yes
Wetland 01 Point 2	39.941471 N -86.019665 W	Brookston silt loam	No	Fishers	Section 12 T17N R4E	No
Wetland 02 Point 1	39.942207 N -86.019095 W	Crosby silt loam	No	Fishers	Section 1 T17N R4E	Yes
Wetland 02 Point 2	39.942266 N -86.019062 W	Crosby silt loam	No	Fishers	Section 1 T17N R4E	No
Wetland 03 Point 1	39.942749 N -86.017783 W	Brookston silt loam	No	Fishers	Section 1 T17N R4E	Yes
Wetland 03 Point 2	39.942718 N -86.017780 W	Brookston silt loam	No	Fishers	Section 1 T17N R4E	No
Wetland 04 Point 1	39.942755 N -86.018625 W	Crosby silt loam	No	Fishers	Section 1 T17N R4E	Yes
Wetland 04 Point 2	39.942745 N -86.018655 W	Crosby silt loam	No	Fishers	Section 1 T17N R4E	No
Wetland 05 Point 1	39.963232 N -86.004232 W	Crosby silt loam	No	Fishers	Section 31 T18N R5E	Yes
Wetland 05 Point 2	39.963240 N -86.004221 W	Crosby silt loam	No	Fishers	Section 31 T18N R5E	No
Wetland 06 Point 1	39.965024 N -86.001207 W	Brookston silt loam	No	Fishers	Section 31 T18N R5E	Yes
Wetland 06 Point 2	39.964980 N -86.001174 W	Brookston silt loam	No	Fishers	Section 31 T18N R5E	No
Wetland 07 Point 1	39.966391 N -86.000065 W	Brookston silt loam	No	Fishers	Section 31 T18N R5E	Yes
Wetland 07 Point 2	39.966374 N -86.000048 W	Brookston silt loam	No	Fishers	Section 31 T18N R5E	No
Wetland 08 Point 1	39.967467 N -85.994772 W	Brookston silt loam	No	McCordsville	Section 31 T18N R5E	Yes
Wetland 08 Point 2	39.967442 N -85.994754 W	Brookston silt loam	No	McCordsville	Section 31 T18N R5E	No
Wetland 09 Point 1	39.967668 N -85.993323 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	Yes
Wetland 09 Point 2	39.967664 N -85.993294 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	No
Wetland 10 Point 1	39.967081 N -85.993381 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	Yes
Wetland 10 Point 2	39.967071 N -85.993455 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	No
Wetland 11 Point 1	39.967321 N -85.990890 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	Yes
Wetland 11 Point 2	39.967362 N -85.990869 W	Crosby silt loam	No	McCordsville	Section 32 T18N R5E	No
Wetland 12 Point 1	39.970825 N -85.970641 W	Crosby silt loam	No	McCordsville	Section 33 T18N R5E	Yes
Wetland 12 Point 2	39.970822 N -85.970611 W	Crosby silt loam	No	McCordsville	Section 33 T18N R5E	No
Wetland 13 Point 1	39.971546 N -85.969042 W	Brookston silt loam	No	McCordsville	Section 33 T18N R5E	Yes
Wetland 13 Point 2	39.971568 N -85.969061 W	Brookston silt loam	No	McCordsville	Section 33 T18N R5E	No
Wetland 14 Point 1	39.972754 N -85.966506 W	Crosby silt loam	No	McCordsville	Section 28 T18N R5E	Yes
Wetland 14 Point 2	39.972752 N -85.966528 W	Crosby silt loam	No	McCordsville	Section 28 T18N R5E	No
Wetland 15 Point 1	39.975828 N -85.960097 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	Yes
Wetland 15 Point 2	39.975819 N -85.960093 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	No
Wetland 16 Point 1	39.976389 N -85.958963 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	Yes
Wetland 16 Point 2	39.976389 N -85.958944 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	No
Wetland 17 Point 1	39.977130 N -85.957401 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	Yes
Wetland 17 Point 2	39.977118 N -85.957386 W	Brookston silt loam	No	McCordsville	Section 28 T18N R5E	No
Wetland 18 Point 1	39.977620 N -85.956577 W	Crosby silt loam	No	McCordsville	Section 28 T18N R5E	Yes
Wetland 18 Point 2	39.977555 N -85.956590 W	Crosby silt loam	No	McCordsville	Section 28 T18N R5E	No
Wetland 19 Point 1	39.979623 N -85.952279 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	Yes
Wetland 19 Point 2	39.979574 N -85.952250 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	No
Wetland 20 Point 1	39.980628 N -85.950198 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	Yes
Wetland 20 Point 2	39.980571 N -85.950147 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	No
Wetland 21 Point 1	39.983605 N -85.943915 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	Yes
Wetland 21 Point 2	39.983602 N -85.943926 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	No
Wetland 22 Point 1	39.984160 N -85.942821 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	Yes
Wetland 22 Point 2	39.984150 N -85.942804 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	No
Wetland 23 Point 1	39.984541 N -85.941900 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	Yes
Wetland 23 Point 2	39.984547 N -85.941908 W	Brookston silt loam	No	McCordsville	Section 27 T18N R5E	No
Wetland 24 Point 1	39.986738 N -85.937508 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	Yes
Wetland 24 Point 2	39.986697 N -85.937473 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	No
Wetland 25 Point 1	39.986181 N -85.937131 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	Yes
Wetland 25 Point 2	39.986190 N -85.937143 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	No
Wetland 26 Point 1	39.987002 N -85.935515 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	Yes
Wetland 26 Point 2	39.987002 N -85.935526 W	Brookston silt loam	No	McCordsville	Section 26 T18N R5E	No
Wetland 27 Point 1	39.989690 N -85.927774 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	Yes
Wetland 27 Point 2	39.989714 N -85.927693 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	No
Wetland 28 Point 1	39.991665 N -85.927061 W	Brookston silt loam	Yes	McCordsville	Section 23 T18N R5E	Yes
Wetland 28 Point 2	39.991262 N -85.927111 W	Brookston silt loam	Yes	McCordsville	Section 23 T18N R5E	Yes
Wetland 28 Point 3	39.991753 N -85.927156 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	No
Wetland 28 Point 4	39.991379 N -85.926600 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	Yes

Table 4: Wetland Data Point Summary Table *(cont.)* I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties Indiana Designation Numbers 1383332, 1383336, and 1383489						
Wetland 29 Point 1	39.992423 N -85.925063 W	Crosby silt loam	No	McCordsville	Section 23 T18N R5E	Yes
Wetland 29 Point 2	39.992410 N -85.925076 W	Crosby silt loam	No	McCordsville	Section 23 T18N R5E	No
Wetland 30 Point 1	39.991767 N -85.923094 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	Yes
Wetland 30 Point 2	39.991771 N -85.923110 W	Brookston silt loam	No	McCordsville	Section 23 T18N R5E	No
Wetland 31 Point 1	39.991404 N -85.916771 W	Brookston silt loam	No	McCordsville	Section 24 T18N R5E	Yes
Wetland 31 Point 2	39.991395 N -85.916780 W	Brookston silt loam	No	McCordsville	Section 24 T18N R5E	No
Wetland 32 Point 1	39.990576 N -85.901688 W	Shoals silt loam	No	McCordsville	Section 24 T18N R5E	Yes
Wetland 32 Point 2	39.990612 N -85.901690 W	Shoals silt loam	No	McCordsville	Section 24 T18N R5E	No
Wetland 33 Point 1	39.991924 N -85.862008 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 33 Point 2	39.991935 N -85.862007 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 34 Point 1	39.993176 N -85.848432 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 34 Point 2	39.993187 N -85.848471 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 35 Point 1	39.993196 N -85.848376 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 35 Point 2	39.993199 N -85.848348 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 36 Point 1	39.993153 N -85.848156 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 36 Point 2	39.993154 N -85.848139 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 37 Point 1	39.993757 N -85.848283 W	Crosby silt loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 37 Point 2	39.993761 N -85.848250 W	Crosby silt loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 38 Point 1	39.994088 N -85.844792 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 38 Point 2	39.994086 N -85.844804 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 39 Point 1	39.993483 N -85.844652 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	Yes
Wetland 39 Point 2	39.993483 N -85.844617 W	Brookston silty clay loam	No	Ingalls	Section 21 T18N R6E	No
Wetland 40 Point 1	39.993404 N -85.841538 W	Crosby silt loam	No	Ingalls	Section 22 T18N R6E	Yes
Wetland 40 Point 2	39.993402 N -85.841563 W	Crosby silt loam	No	Ingalls	Section 22 T18N R6E	No
Wetland 41 Point 1	39.994038 N -85.841364 W	Brookston silty clay loam	No	Ingalls	Section 22 T18N R6E	Yes
Wetland 41 Point 2	39.994041 N -85.841385 W	Brookston silty clay loam	No	Ingalls	Section 22 T18N R6E	No
Wetland 42 Point 1	39.992809 N -85.837827 W	Brookston silty clay loam	No	Ingalls	Section 22 T18N R6E	Yes
Wetland 42 Point 2	39.992838 N -85.837821 W	Brookston silty clay loam	No	Ingalls	Section 22 T18N R6E	No
Sand Creek Point 1	39.969305 N -85.975931 W	Shoals silt loam	No	McCordsville	Sec 32 T18N R5E	No
Mud Creek Point 1	39.991440 N -85.902151 W	Shoals silt loam	No	McCordsville	Section 18 T18N R5E	No

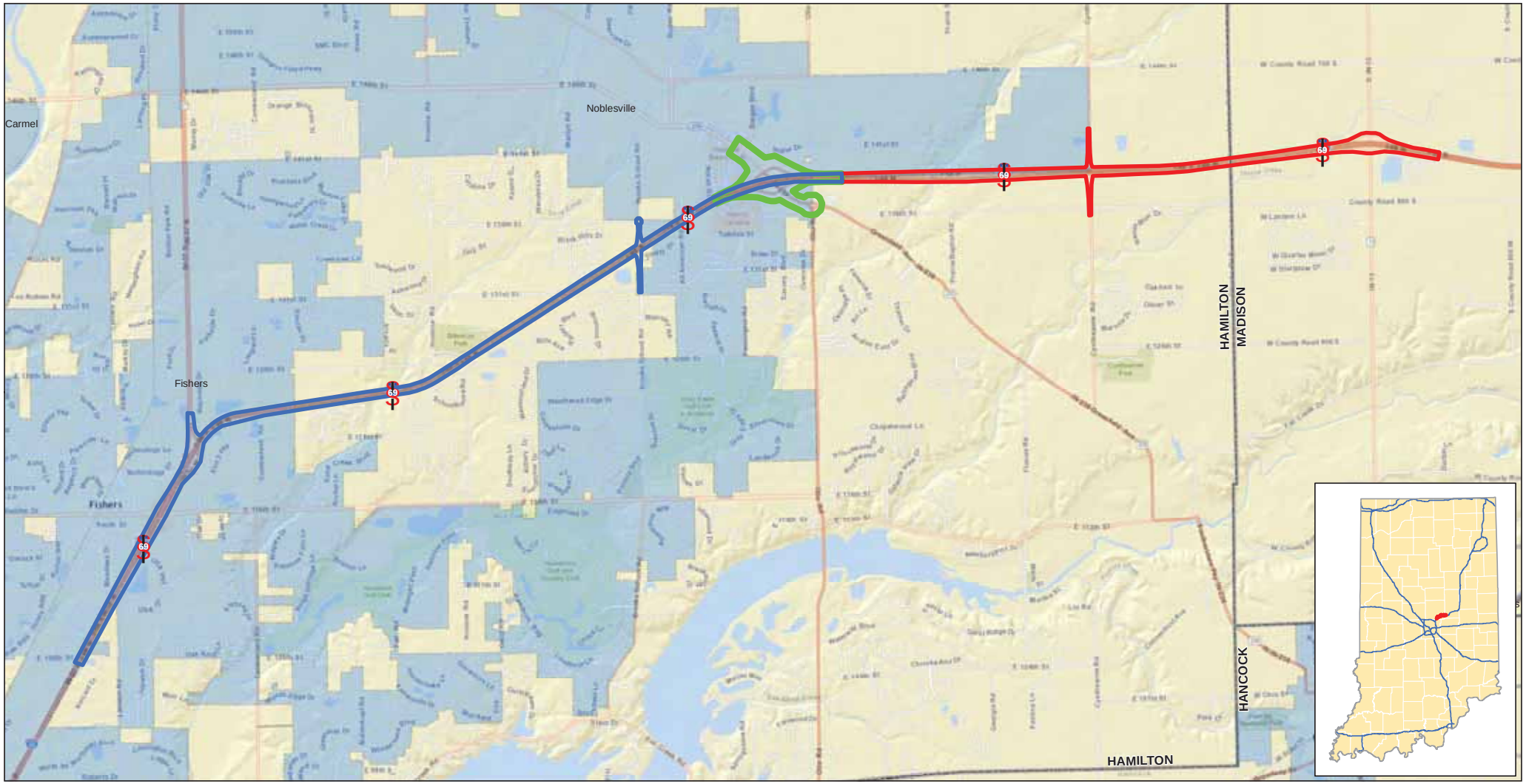
Table 5: Non-Jurisdictional Features Summary Table I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties, Indiana Designation Numbers 1383332, 1383336, and 1383489			
Feature Name	**Photograph # (Exhibit 6)**	**Latitude/Longitude**	**Area (Acre)**
A	11	39.943429 N -86.018083 W	0.0257
B	12	39.946415 N -86.015915 W	0.0045
C	13	39.946832 N -86.015598 W	0.0104
D	224	39.957473 N -86.006833 W	0.1922
E	30	39.963327 N -86.003191 W	0.0081
F	35	39.966185 N -85.999889 W	0.0171
G	36	39.967141 N -85.995718 W	0.0916
H	42	39.967368 N -85.993444 W	0.0054
I	45	39.967750 N -85.990081 W	0.0472
J	48	39.968009 N -85.985358 W	0.0700
K	50	39.968336 N -85.982437 W	0.0126
L	64	39.970665 N -85.970207 W	0.0080
M	65	39.970565 N -85.969881 W	0.0151
N	68	39.971418 N -85.968645 W	0.0194
O	69	39.971982 N -85.967499 W	0.0060
P	70	39.972087 N -85.966657 W	0.0132
Q	72	39.973476 N -85.964357 W	0.0053
R	73	39.973777 N -85.963769 W	0.0031
S	74	39.975041 N -85.960519 W	0.0327
T	225	39.975380 N -85.960424 W	0.0065
U	78	39.976718 N -85.957084 W	0.1190
V	79	39.976748 N -85.957563 W	0.0220
W	84	39.977259 N -85.956503 W	0.0082
X	85	39.977649 N -85.955675 W	0.0085
Y	86	39.978181 N -85.954027 W	0.0048
Z	87	39.978725 N -85.952867 W	0.0090
AA	88	39.978829 N -85.952634 W	0.0256
AB	93	39.980112 N -85.949956 W	0.0012
AC	94	39.981142 N -85.947795 W	0.0246
AD	95	39.981748 N -85.947139 W	0.0067
AE	96	39.982712 N -85.944539 W	0.0014
AF	97	39.983070 N -85.944367 W	0.0031
AG	98	39.982961 N -85.943996 W	0.0122
AH	99	39.983140 N -85.943533 W	0.0041
AI	104	39.984137 N -85.942167 W	0.0055
AJ	107	39.984811 N -85.940755 W	0.0947
AK	108	39.984830 N -85.941316 W	0.0212
AL	109	39.984508 N -85.940786 W	0.0145
AM	110	39.985246 N -85.939235 W	0.0038

Table 5: Non-Jurisdictional Features Summary Table *(cont.)* I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties, Indiana Designation Numbers 1383332, 1383336, and 1383489			
AN	114	39.986203 N -85.937833 W	0.0030
AO	115	39.986021 N -85.937639 W	0.0056
AP	120	39.988201 N -85.934236 W	0.0026
AQ	121	39.989106 N -85.932128 W	0.0107
AR	122	39.989480 N -85.931133 W	0.0077
AS	123	39.990264 N -85.928681 W	0.0092
AT	124	39.990155 N -85.927764 W	0.0168
AU	131	39.990703 N -85.926369 W	0.0188
AV	132	39.989597 N -85.925835 W	0.0023
AW	136	39.991630 N -85.924286 W	0.0409
AX	137	39.989392 N -85.923499 W	0.0226
AY	140	39.990333 N -85.921838 W	0.0718
AZ	141	39.991495 N -85.921342 W	0.0300
BA	142	39.990736 N -85.917909 W	0.2475
BB	143	39.991066 N -85.919746 W	0.0055
BC	144	39.991382 N -85.918095 W	0.0247
BD	147	39.991074 N -85.913806 W	0.0105
BE	157	39.991044 N -85.901869 W	0.0681
BF	163	39.990761 N -85.892170 W	0.0182
BG	164	39.991006 N -85.881459 W	0.0173
BH	165	39.991034 N -85.880925 W	0.0032
BI	166	39.991354 N -85.879614 W	0.0707
BJ	167	39.991695 N -85.879358 W	0.2621
BK	226	39.991045 N -85.879365 W	0.0092
BL	168	39.991380 N -85.878149 W	0.0556
BM	169	39.991165 N -85.872749 W	0.1869
BN	170	39.991450 N -85.873191 W	0.0141
BO	173	39.991248 N -85.870089 W	0.0765
BP	176	39.991538 N -85.869711 W	0.0207
BQ	177	39.99215 N -85.864781 W	0.0957
BR	178	39.991623 N -85.865375 W	0.0109
BS	179	39.992115 N -85.862689 W	0.0089
BT	182	39.992082 N -85.860385 W	0.0263
BU	183	39.992575 N -85.860353 W	0.0229
BV	184	39.992439 N -85.859250 W	0.0064
BW	185	39.992518 N -85.858365 W	0.0068
BX	186	39.992841 N -85.854888 W	0.0591
BY	187	39.993221 N -85.853846 W	0.0290
BZ	188	39.992921 N -85.853992 W	0.0087
CA	189	39.993722 N -85.849099 W	0.4078
CB	190	39.993055 N -85.848864 W	0.2949

Table 5: Non-Jurisdictional Features Summary Table *(cont.)* I-69 Interstate Expansion Projects 1, 2, and 3 Hamilton and Madison Counties, Indiana Designation Numbers 1383332, 1383336, and 1383489			
CC	191	39.993086 N -85.852262 W	0.0136
CD	203	39.994470 N -85.845244 W	0.3243
CE	204	39.993063 N -85.844616 W	0.3269
CF	209	39.993249 N -85.843627 W	0.0365
CG	210	39.993037 N -85.842048 W	0.2222
CH	213	39.993301 N 85.836903 W	0.9588
CI	212	39.99458 N -85.842686 W	0.0164
CJ	211	39.993232 N -85.842364 W	0.0129
CK	220	39.993088 N -85.837616 W	0.0020
CL	221	39.993013 N -85.837095 W	0.0087
CM	222	39.992602 N -85.836130 W	0.2437
CN	223	39.992545 N -85.834041 W	0.0036
TOTAL			**5.4640**

EXHIBIT 1

PROJECT LOCATION MAP



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Incorporated Areas
- Indiana County Lines

0 0.5 1 2 Miles

1 inch = 3,500 feet

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, MapmyIndia, © OpenStreetMap contributors, and the GIS

Exhibit 1: Project Location Map

Des. 1383332, 1383336, 1383489

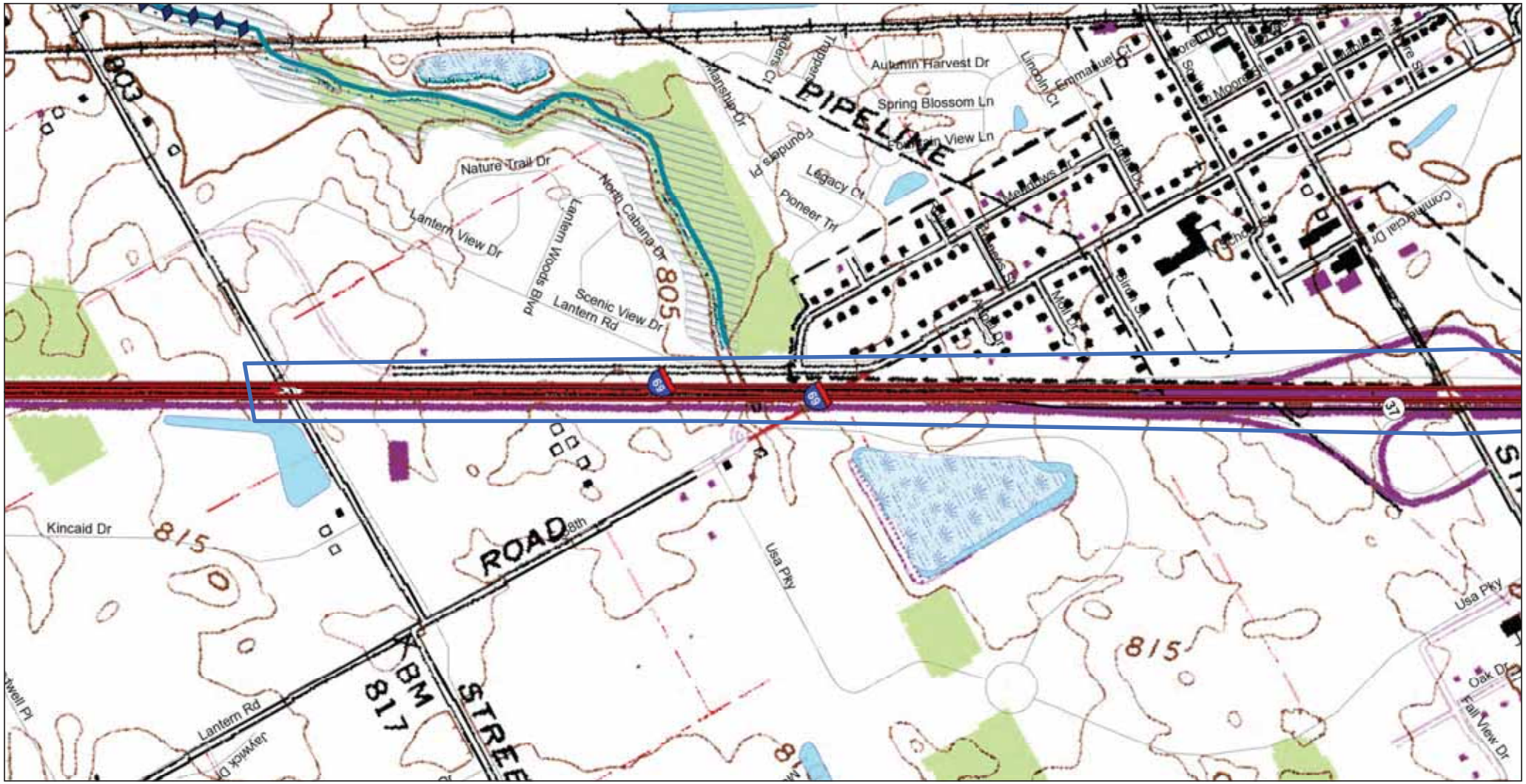
Date: 10/6/2014

Created By: WCK

PARSONS

EXHIBIT 2

NATIONAL WETLANDS INVENTORY (NWI) OVERVIEW



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
- NPS NRI listed
- NWI- Line
- Stream - Impaired
- River
- Canal Route - Historic
- Wetlands
- Lake - Impaired
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
- Local Road

0 250 500 1,000 Feet

1 inch = 500 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

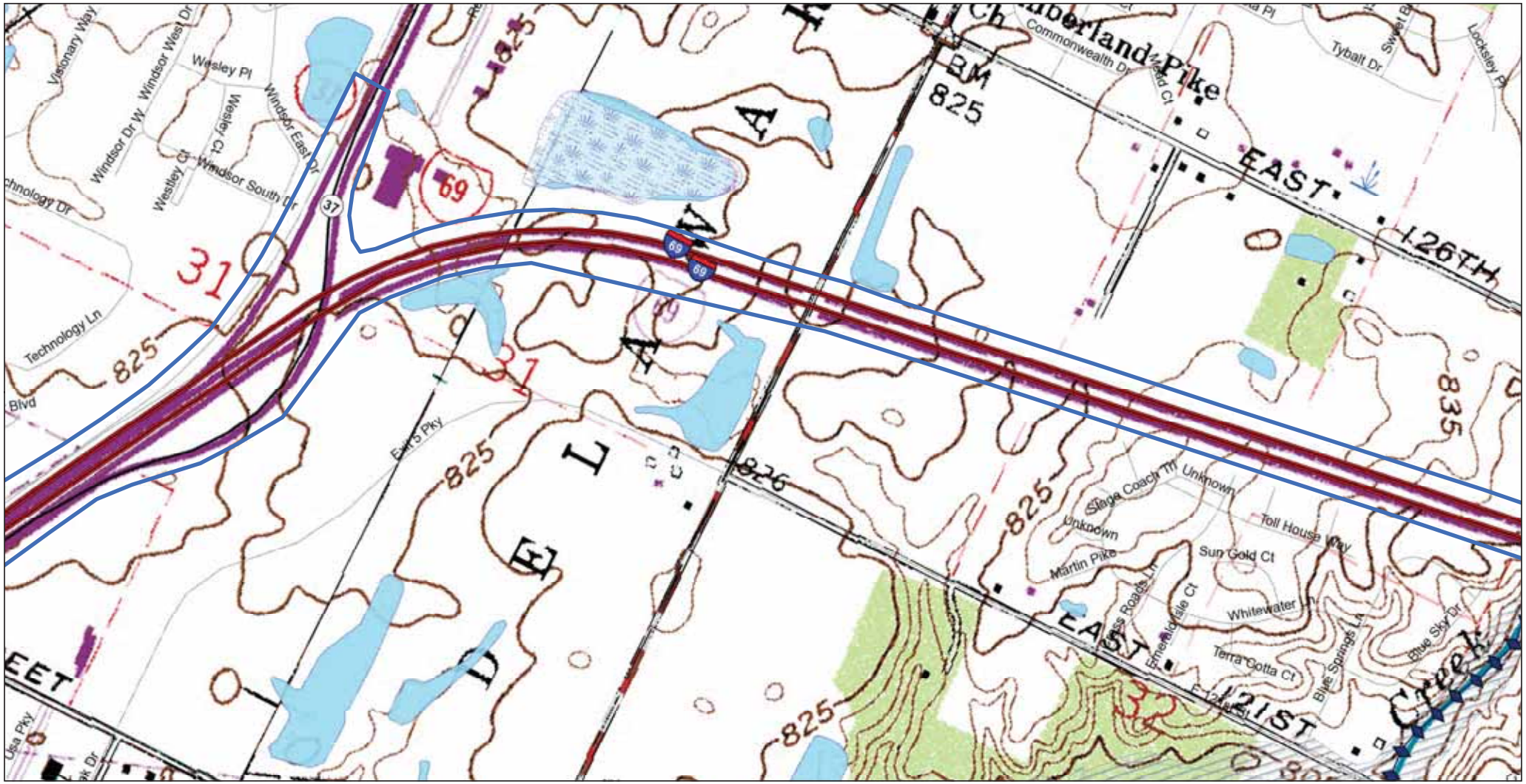
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 1 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
- NPS NRI listed
- NWI- Line
- Stream - Impaired
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- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
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1 inch = 500 feet

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

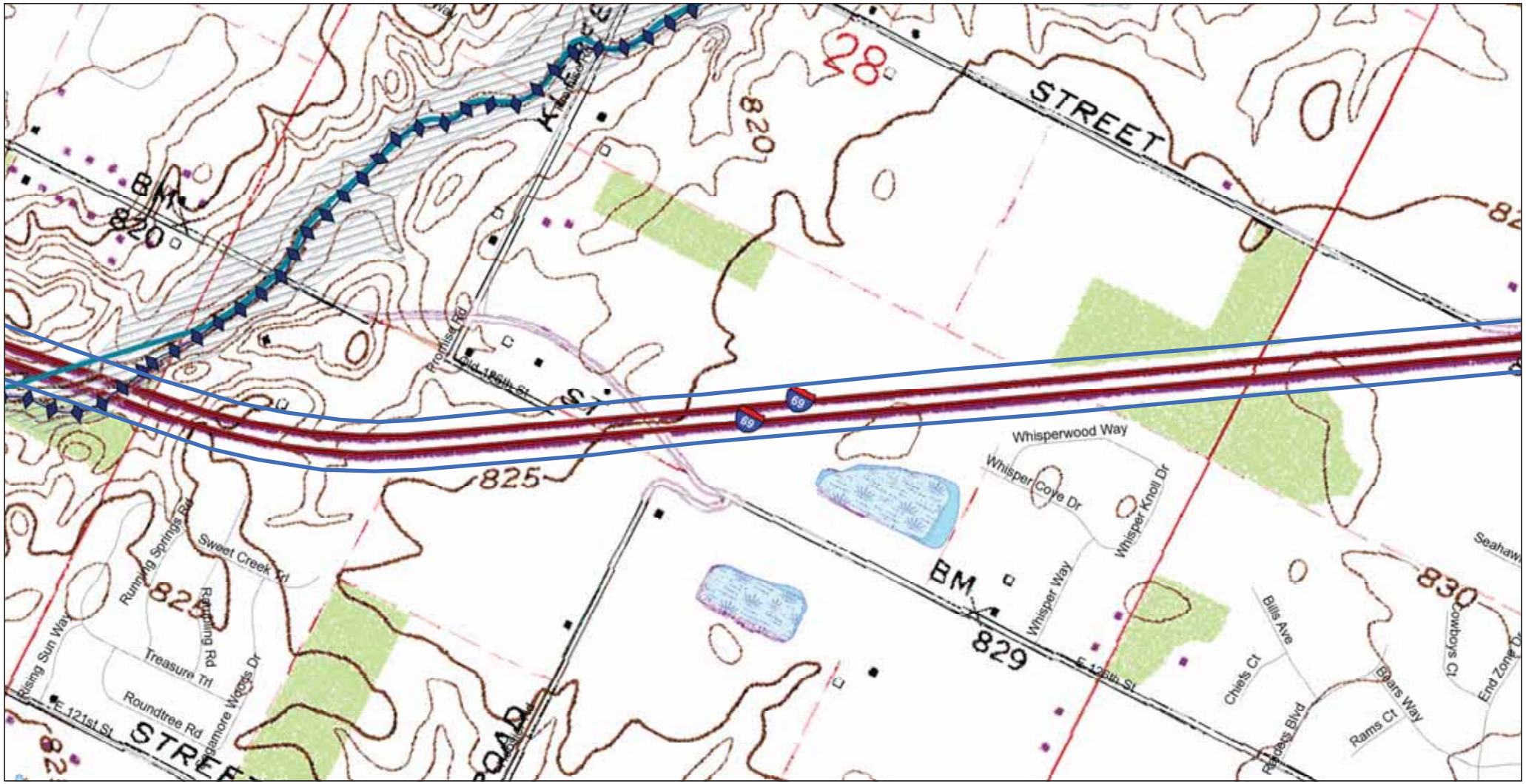
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 2 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
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- Project Area 3
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- NPS NRI listed
- NWI- Line
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- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
- Local Road

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

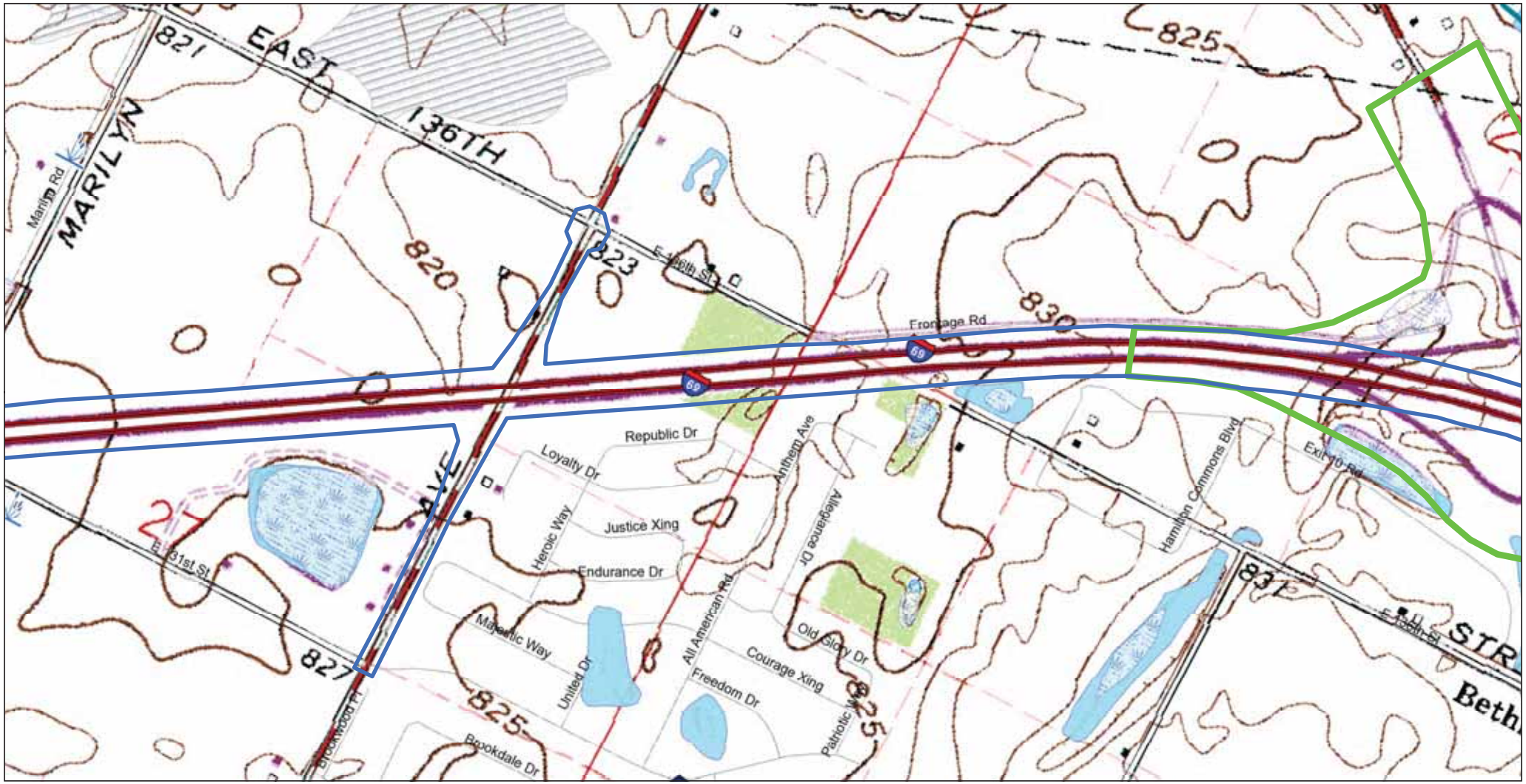
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 3 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
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- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
- Local Road

0 250 500 1,000 Feet

1 inch = 500 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

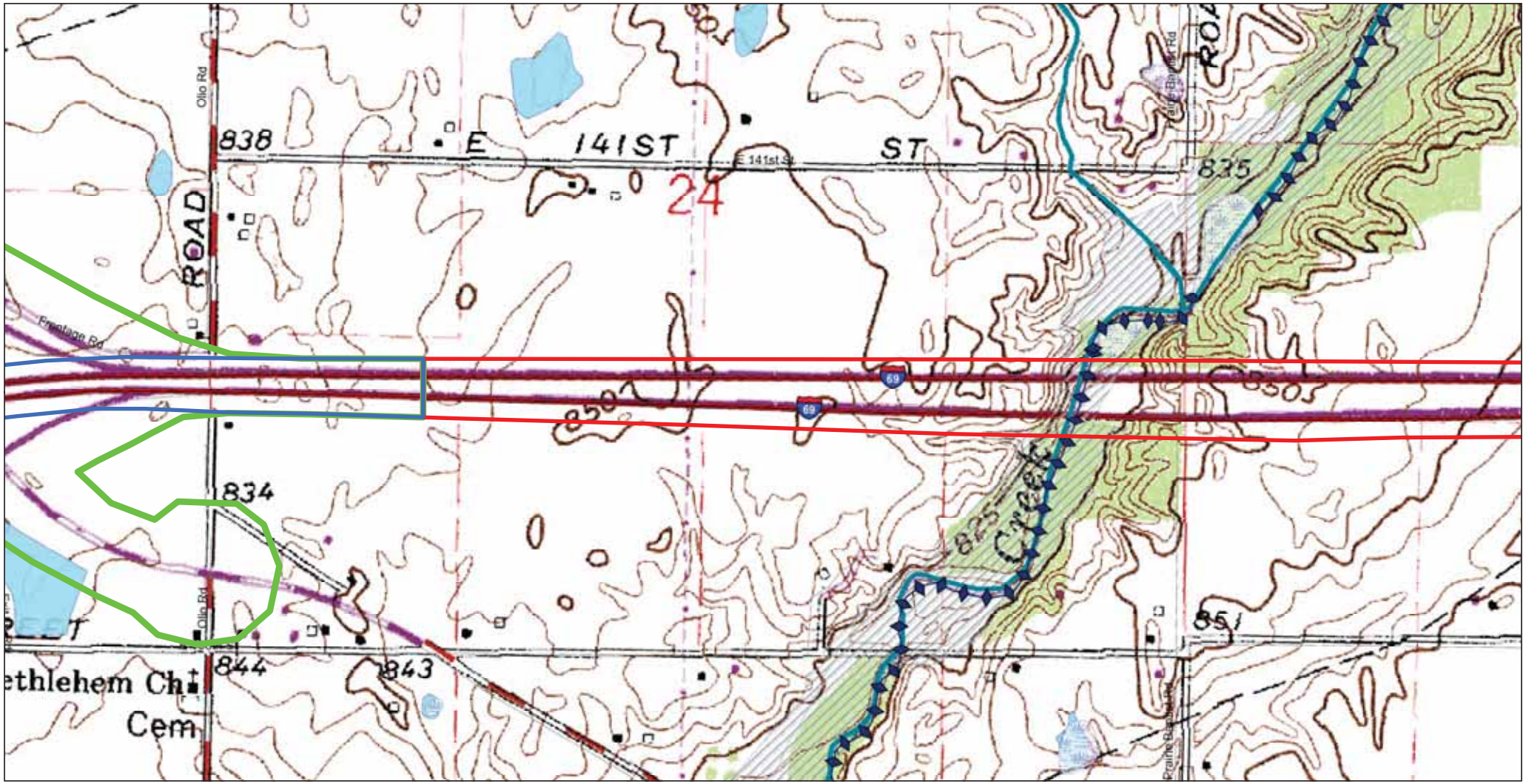
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 4 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
- NPS NRI listed
- NWI- Line
- Stream - Impaired
- River
- Canal Route - Historic
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- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
- Local Road

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Sources:
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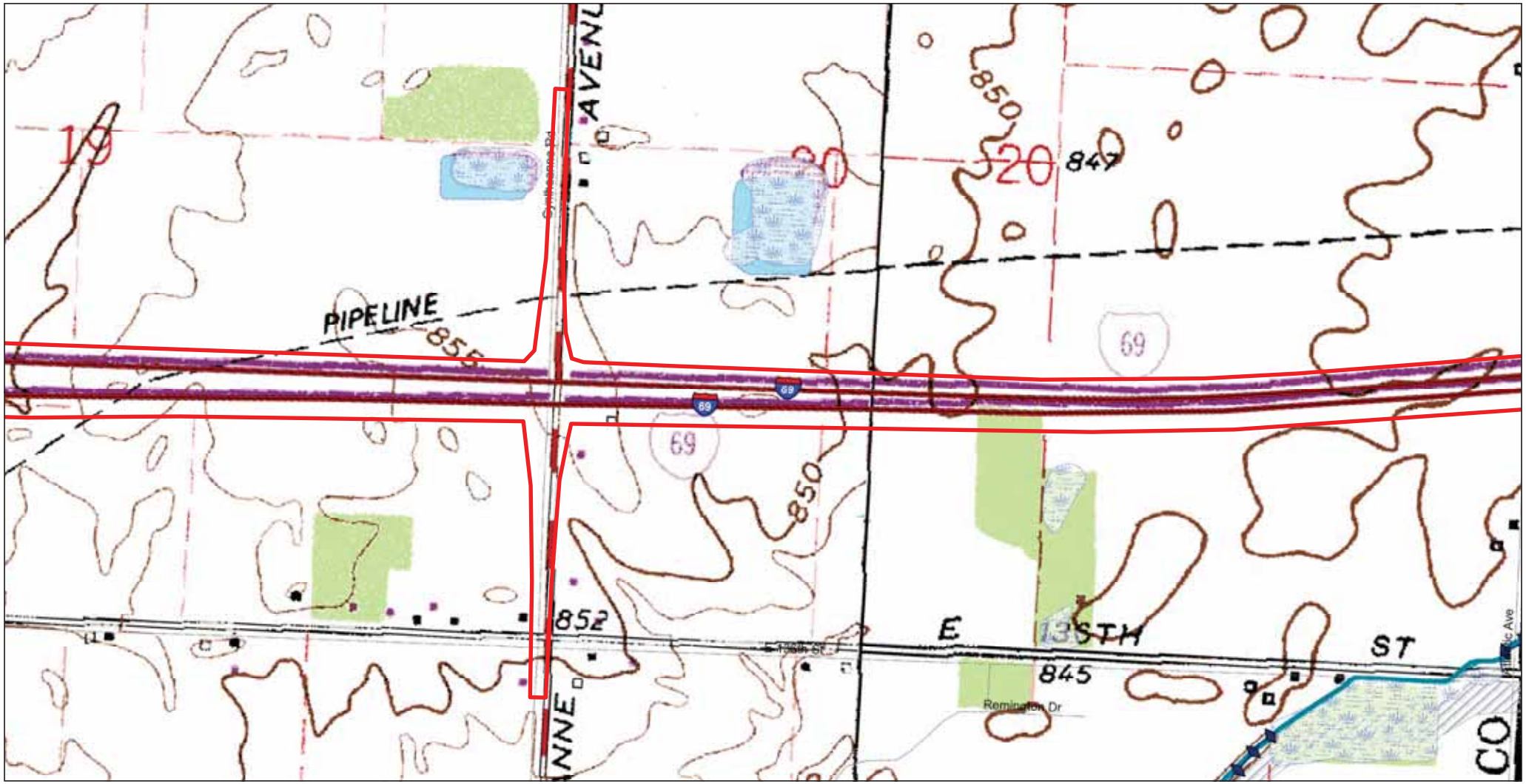
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 5 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
- NPS NRI listed
- NWI- Line
- Stream - Impaired
- River
- Canal Route - Historic
- Wetlands
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- Lake
- Floodplain - DFIRM
- Cave Entrance Density
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- Sinking-Stream Basin
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- State Routes
- US Routes
- Local Road

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

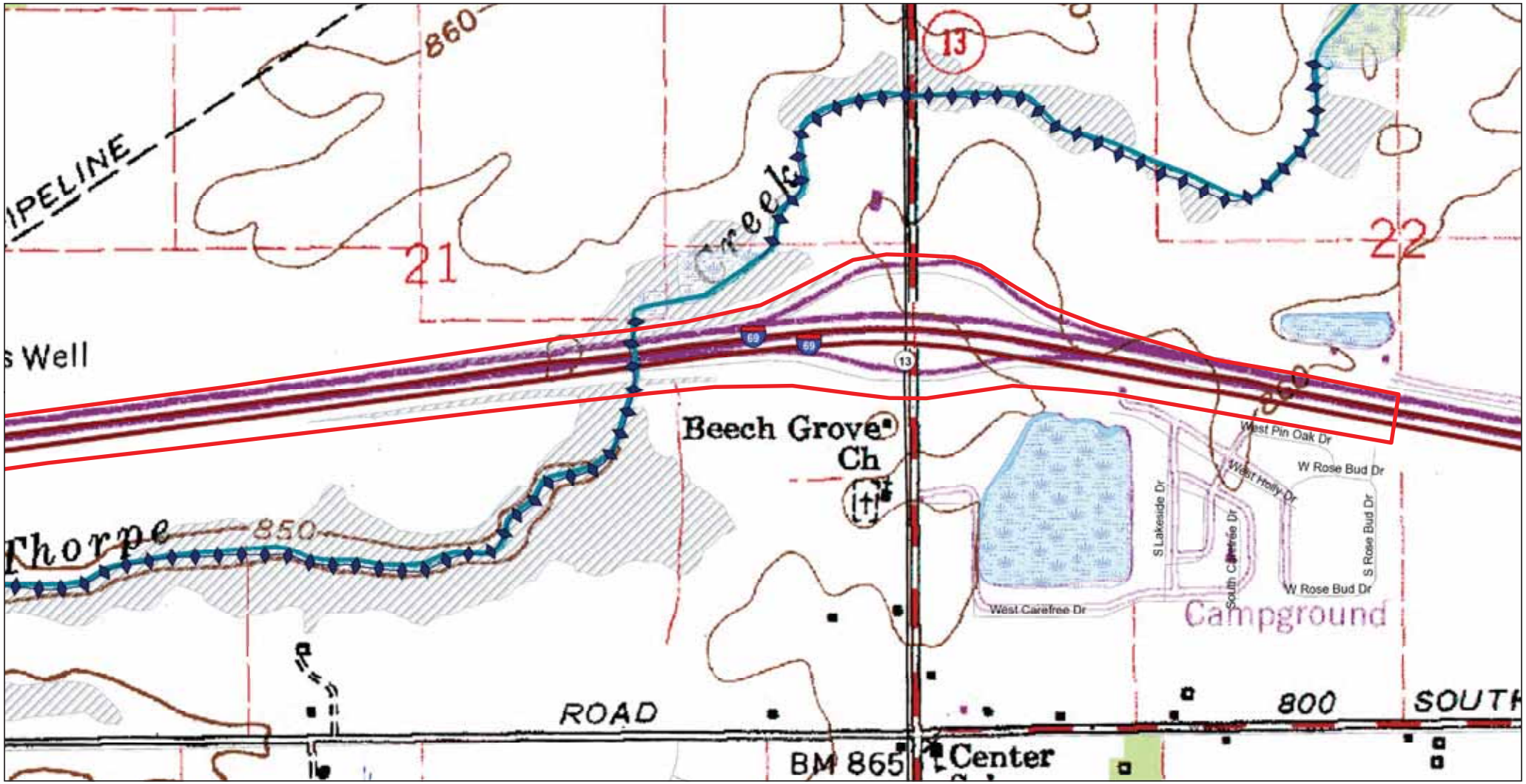
Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 6 of 7

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- NWI - Point
- Karst Spring
- Canal Structure - Historic
- NPS NRI listed
- NWI- Line
- Stream - Impaired
- River
- Canal Route - Historic
- Wetlands
- Lake - Impaired
- Lake
- Floodplain - DFIRM
- Cave Entrance Density
- Sinkhole Area
- Sinking-Stream Basin
- Interstates
- State Routes
- US Routes
- Local Road

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1 inch = 500 feet

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

Exhibit 2: National Wetlands Inventory (NWI) Overview
Sheet 7 of 7

Des. 1383332, 1383336, 1383489

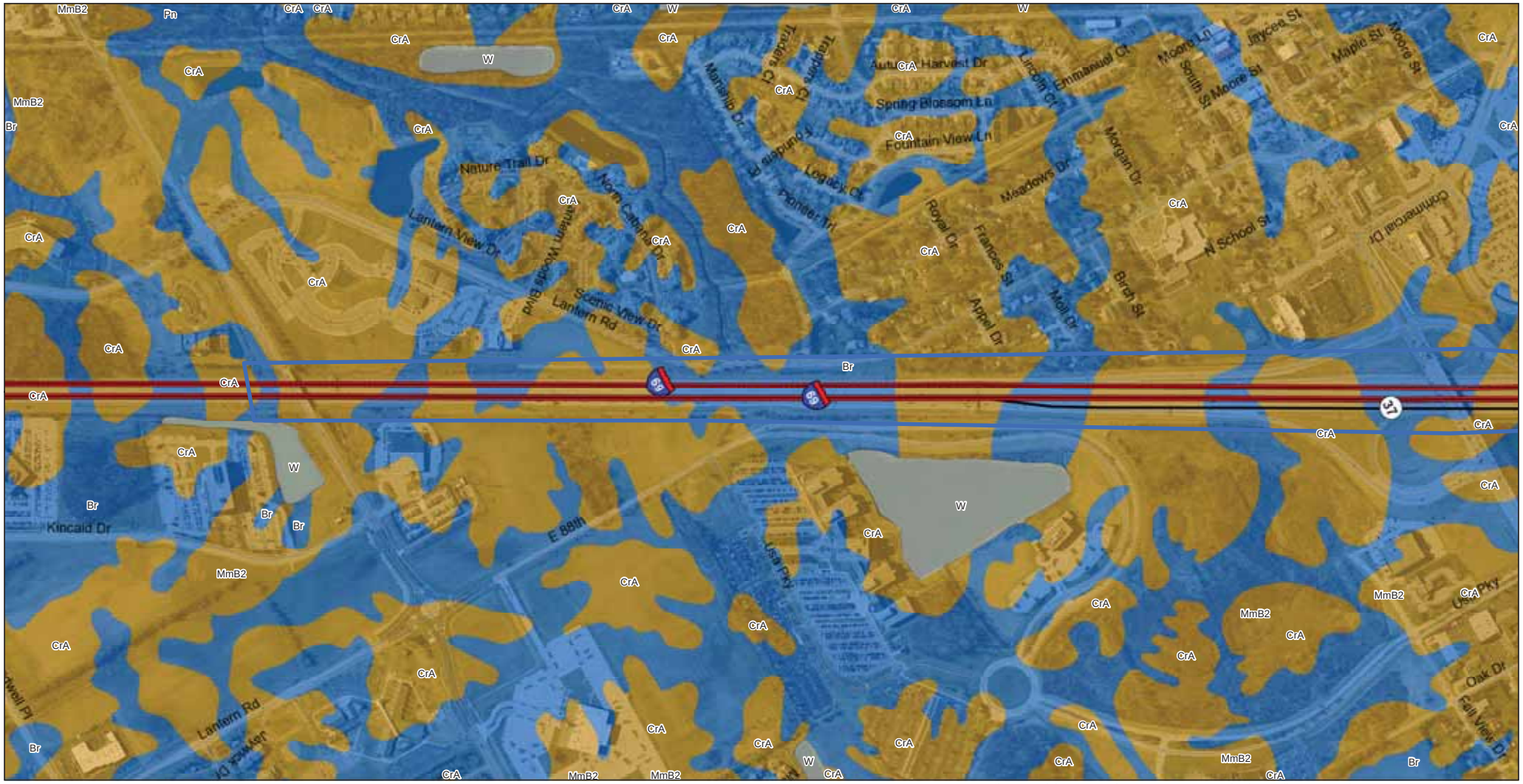
Date: 10/2/2014

Created By: WCK

PARSONS

EXHIBIT 3

MAPPED SOIL UNITS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

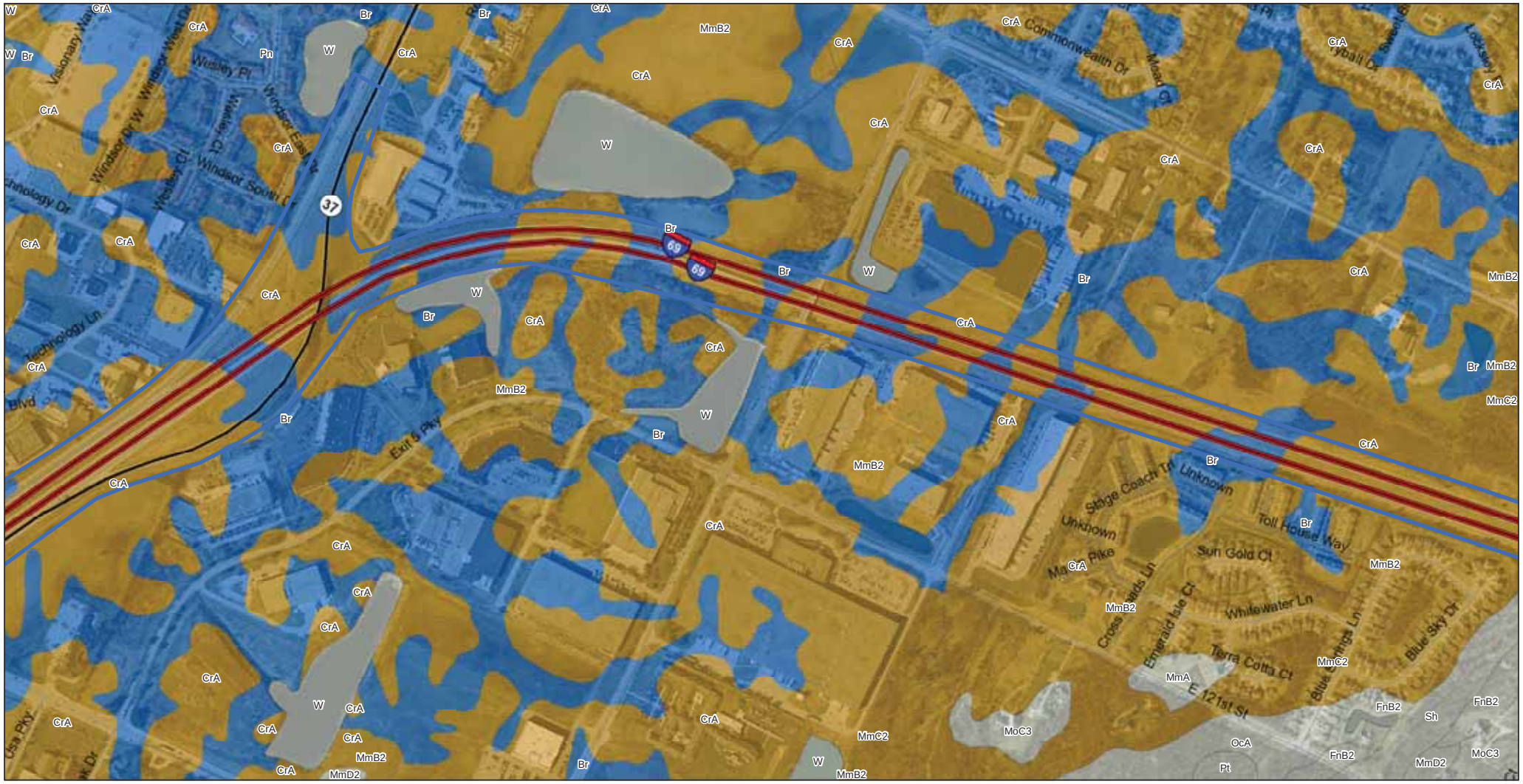
Exhibit 3: Mapped Soil Units
Sheet 1 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

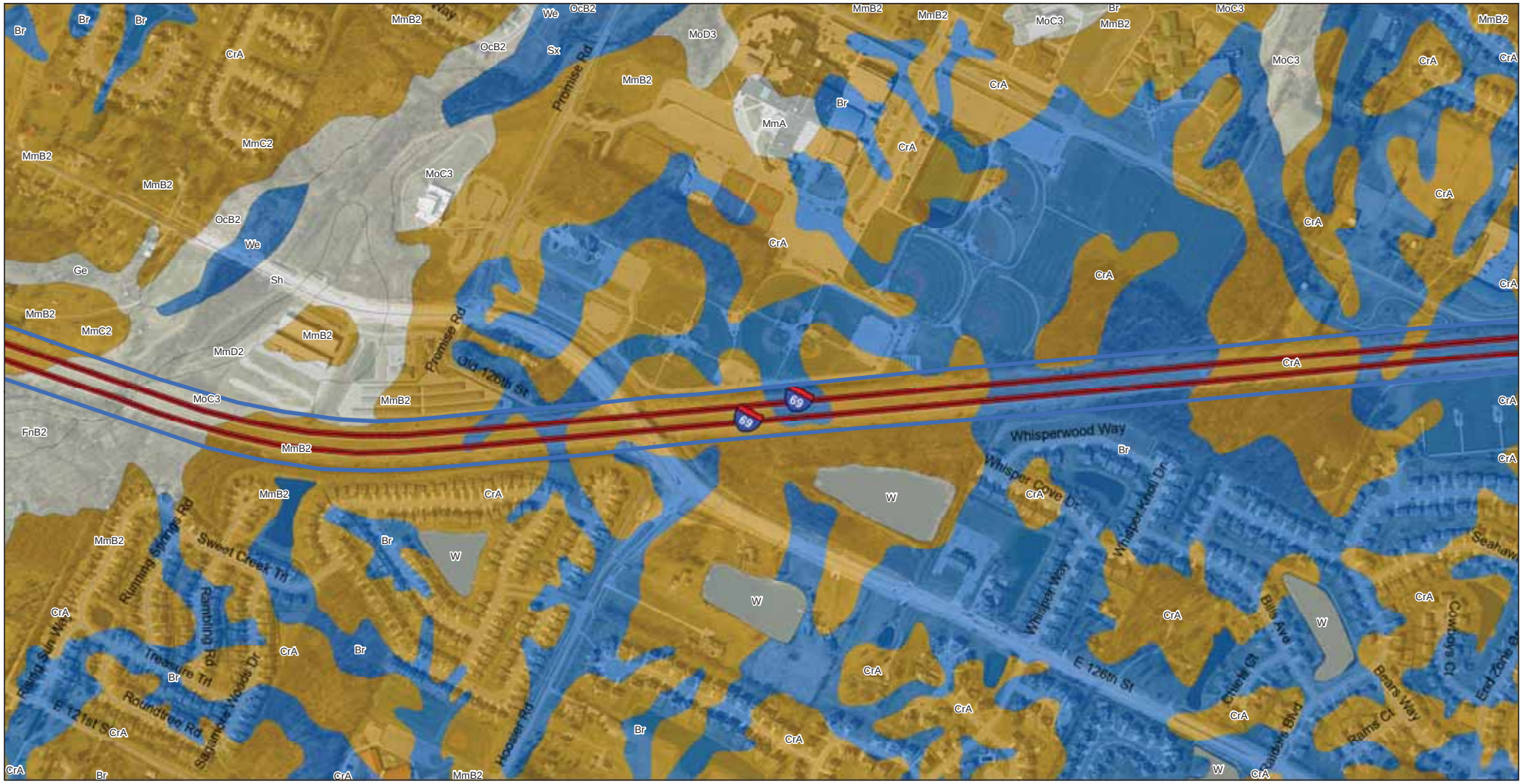
Exhibit 3: Mapped Soil Units
Sheet 2 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

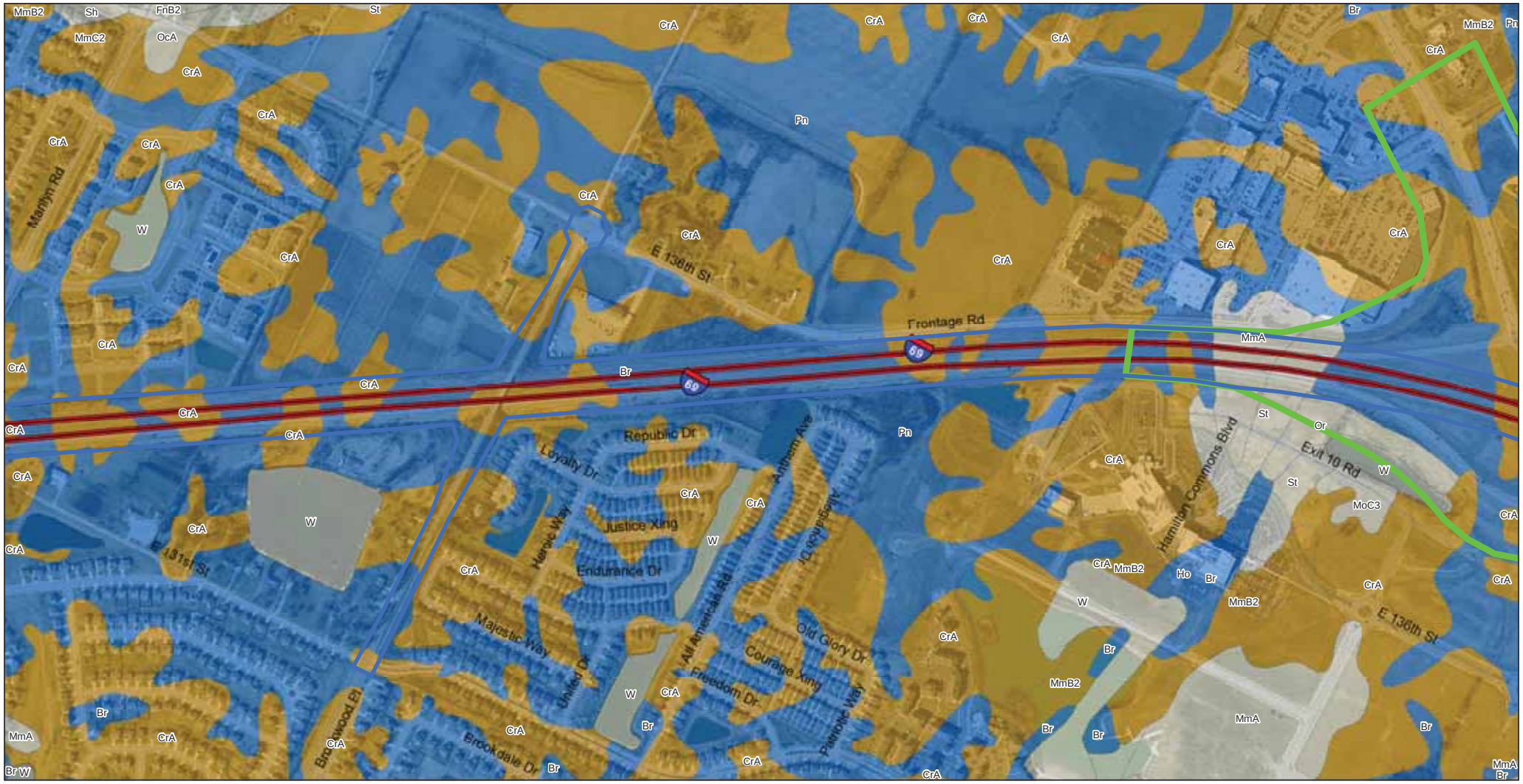
Exhibit 3: Mapped Soil Units
Sheet 3 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

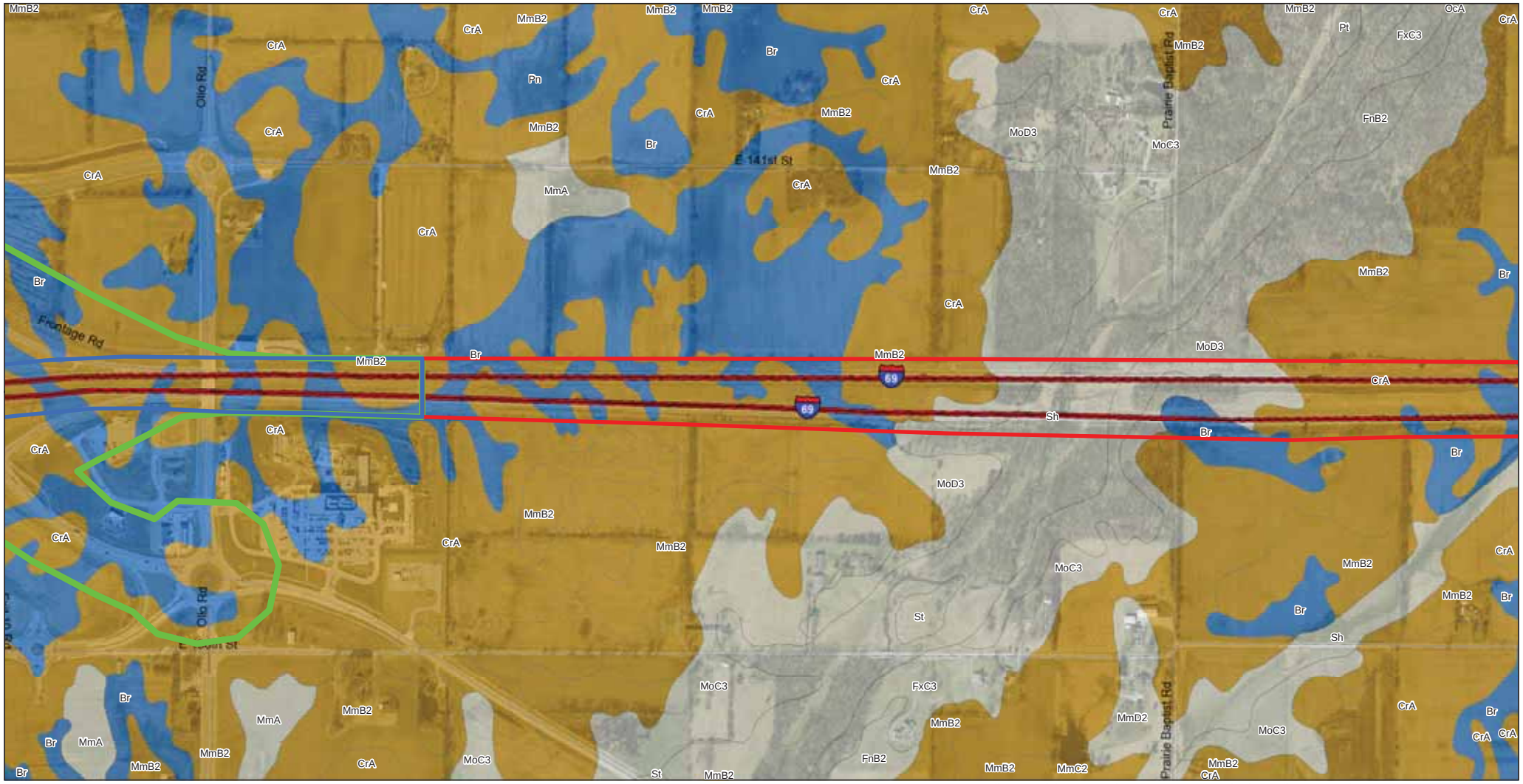
Exhibit 3: Mapped Soil Units
Sheet 4 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

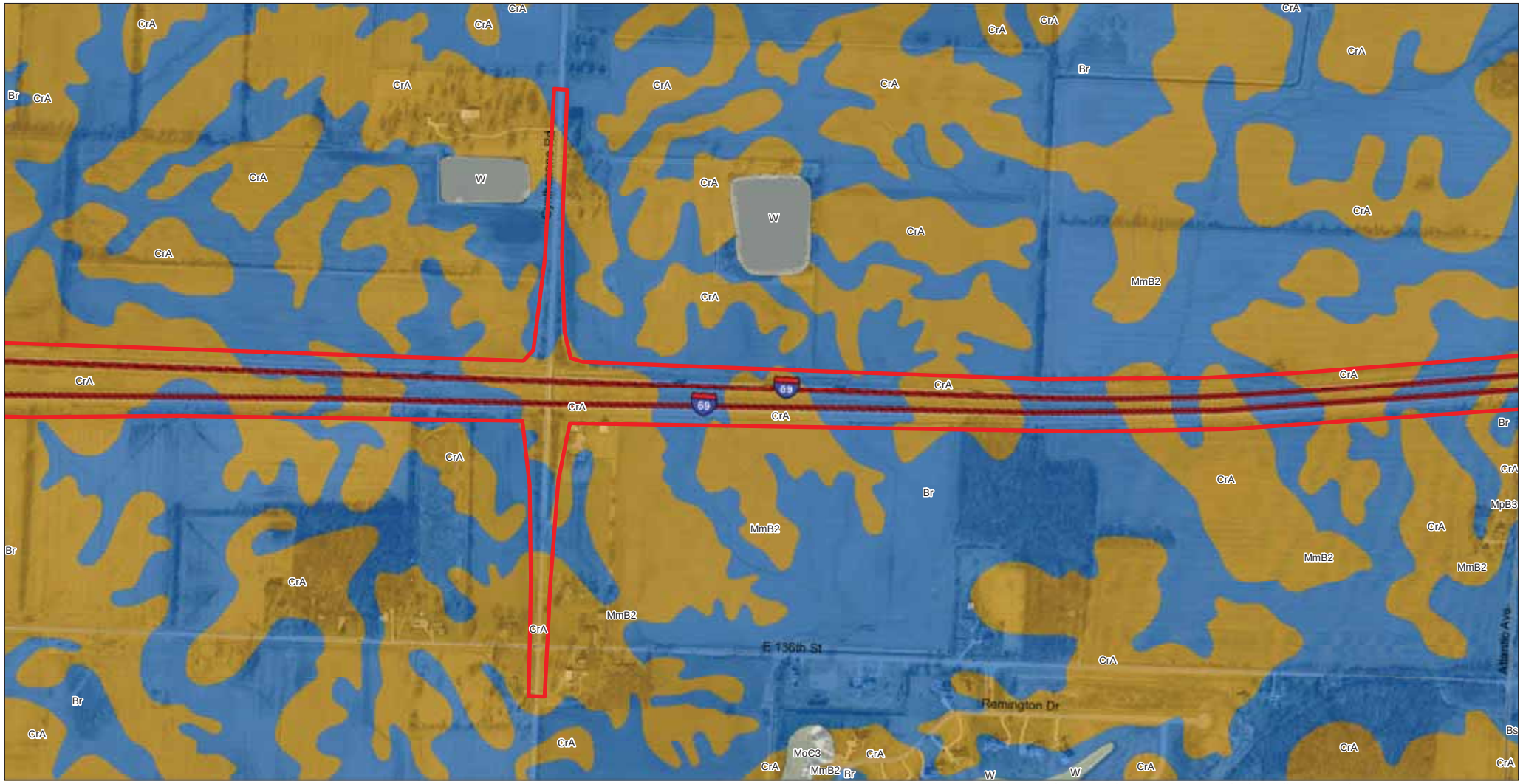
Exhibit 3: Mapped Soil Units
Sheet 5 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

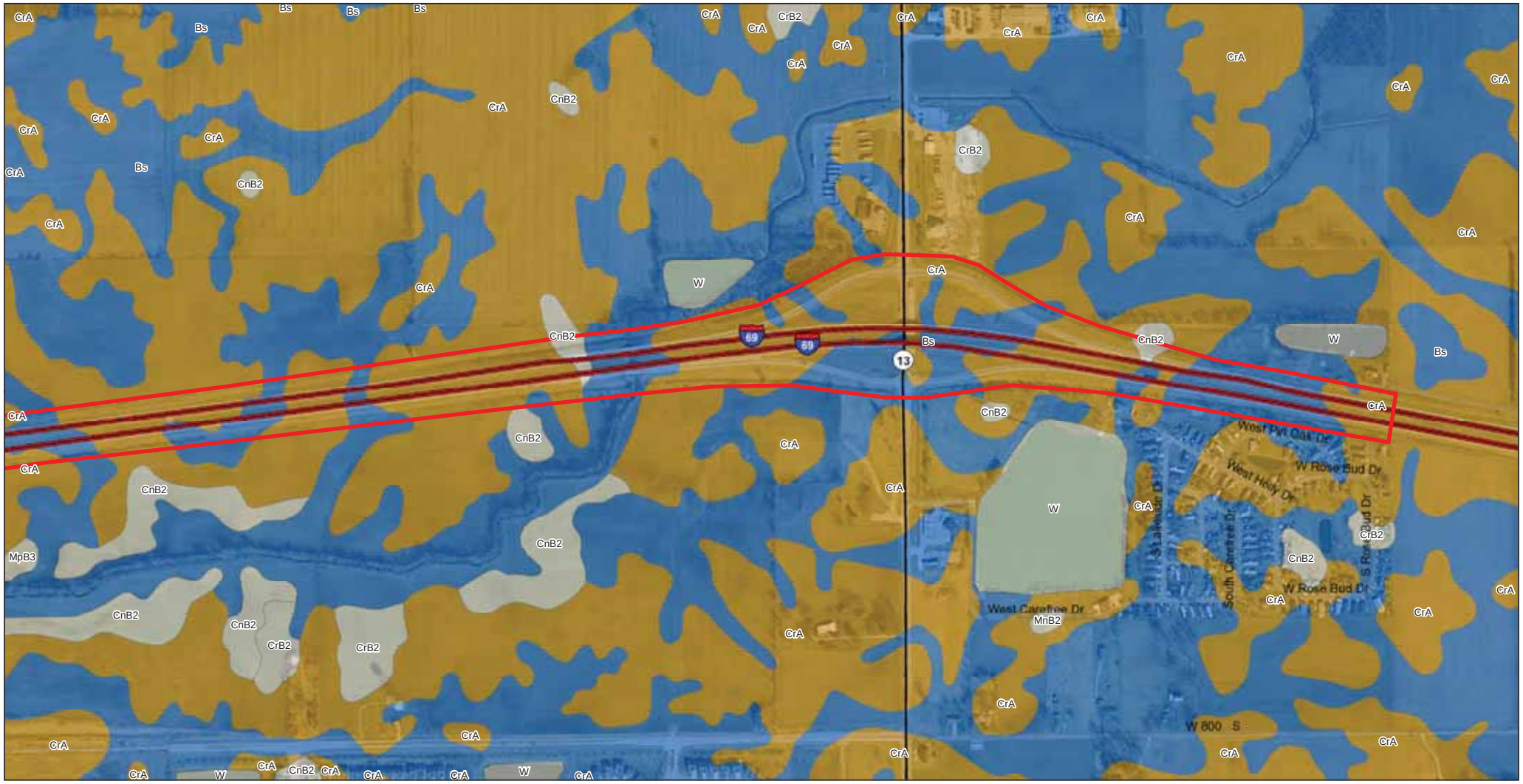
Exhibit 3: Mapped Soil Units
Sheet 6 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

Created By: WCK

PARSONS



Base Map: Indiana Spatial Data Portal, UITS, ESRI Map Projection: Indiana State Plane East Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3

Hydric Classification-Presence
- Hydric (100%)
- Predominantly Hydric (66-99%)
- Partially Hydric (33-65%)
- Predominantly Non-hydric (1-32%)
- Not Hydric (0%)

State Routes
- Interstates
- State Routes
- US Routes
- Local Road

0 375 750 1,500 Feet

1 inch = 500 feet

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Soil Survey Geographic (SSURGO) Database for Hamilton and Madison County, Indiana. Available online at http://www.arcgis.com/apps/OnePane/basicviewer/index.html?appid=a23eb436f6ec4ad6982000dbaddea5ea. Accessed [8/2014].

Exhibit 3: Mapped Soil Units
Sheet 7 of 7

Des. 1383332, 1383336, 1383489

Date: 9/30/2014

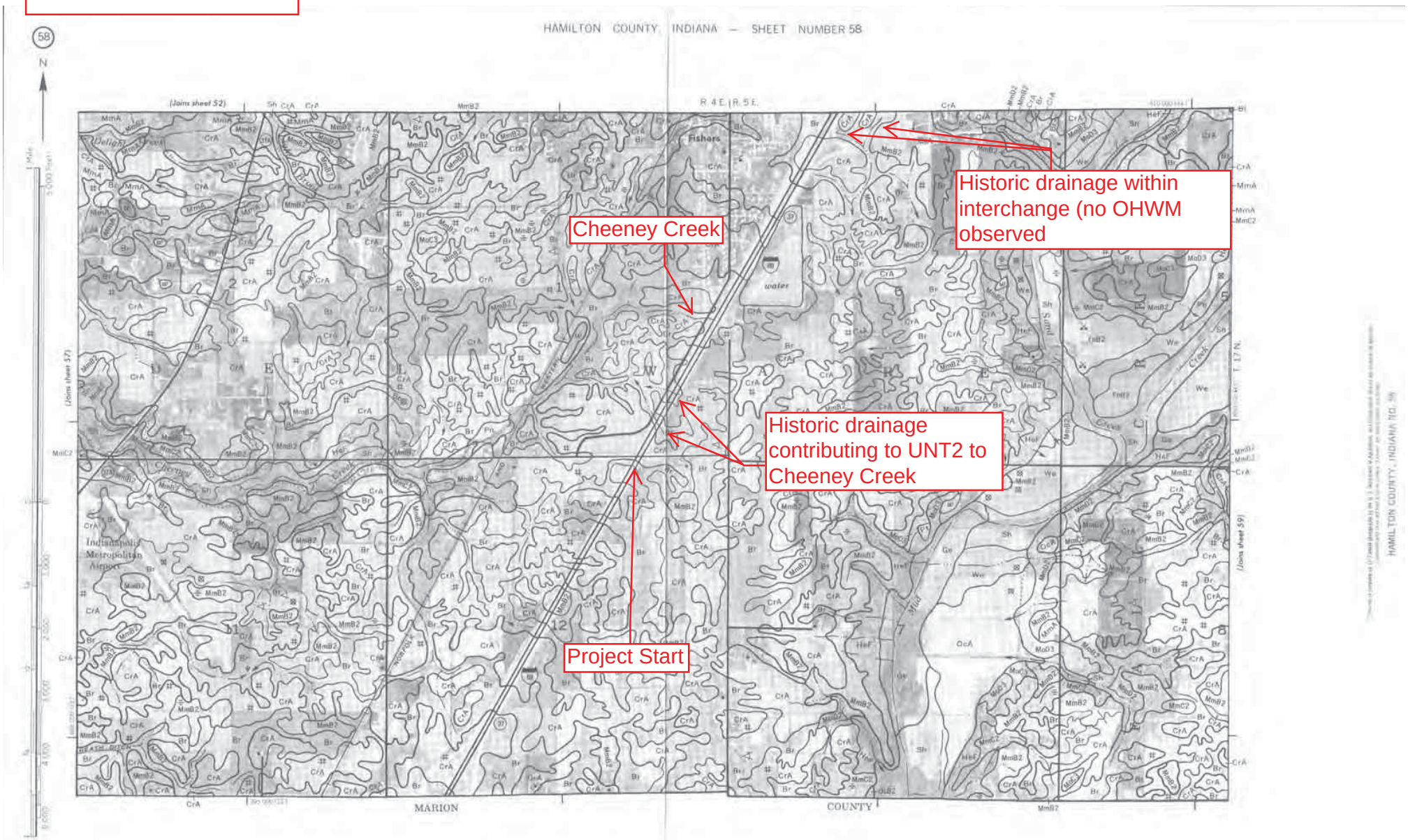
Created By: WCK

PARSONS

EXHIBIT 4

HISTORIC DRAINAGE

Figure 4: Historic Drainage
Sheet 1 of 6

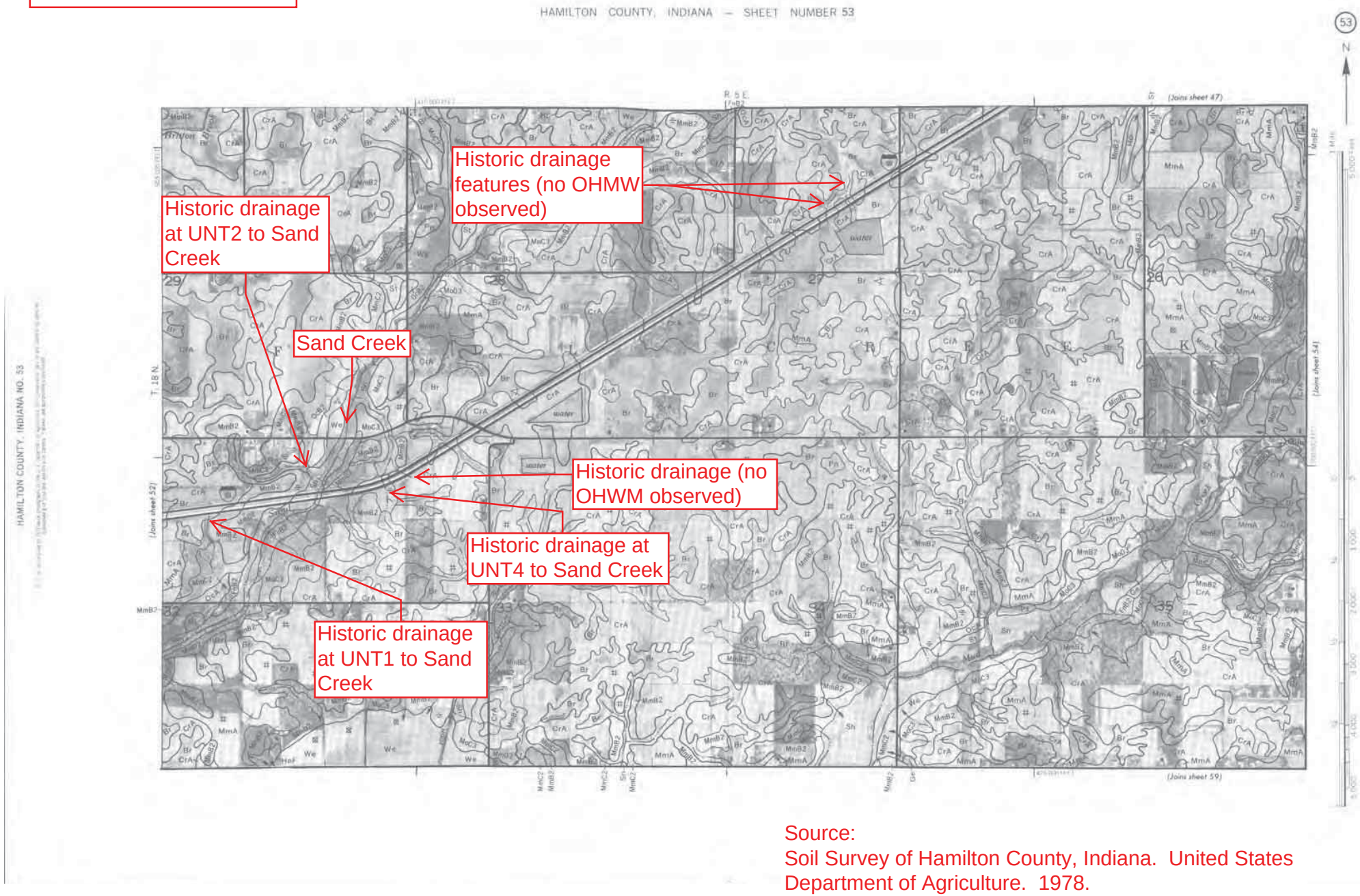


Source:
Soil Survey of Hamilton County, Indiana. United States Department of Agriculture. 1978.

Figure 4: Historic Drainage
Sheet 2 of 6

Source:
Soil Survey of Hamilton County, Indiana. United States Department of Agriculture. 1978.

Figure 4: Historic Drainage
Sheet 3 of 6

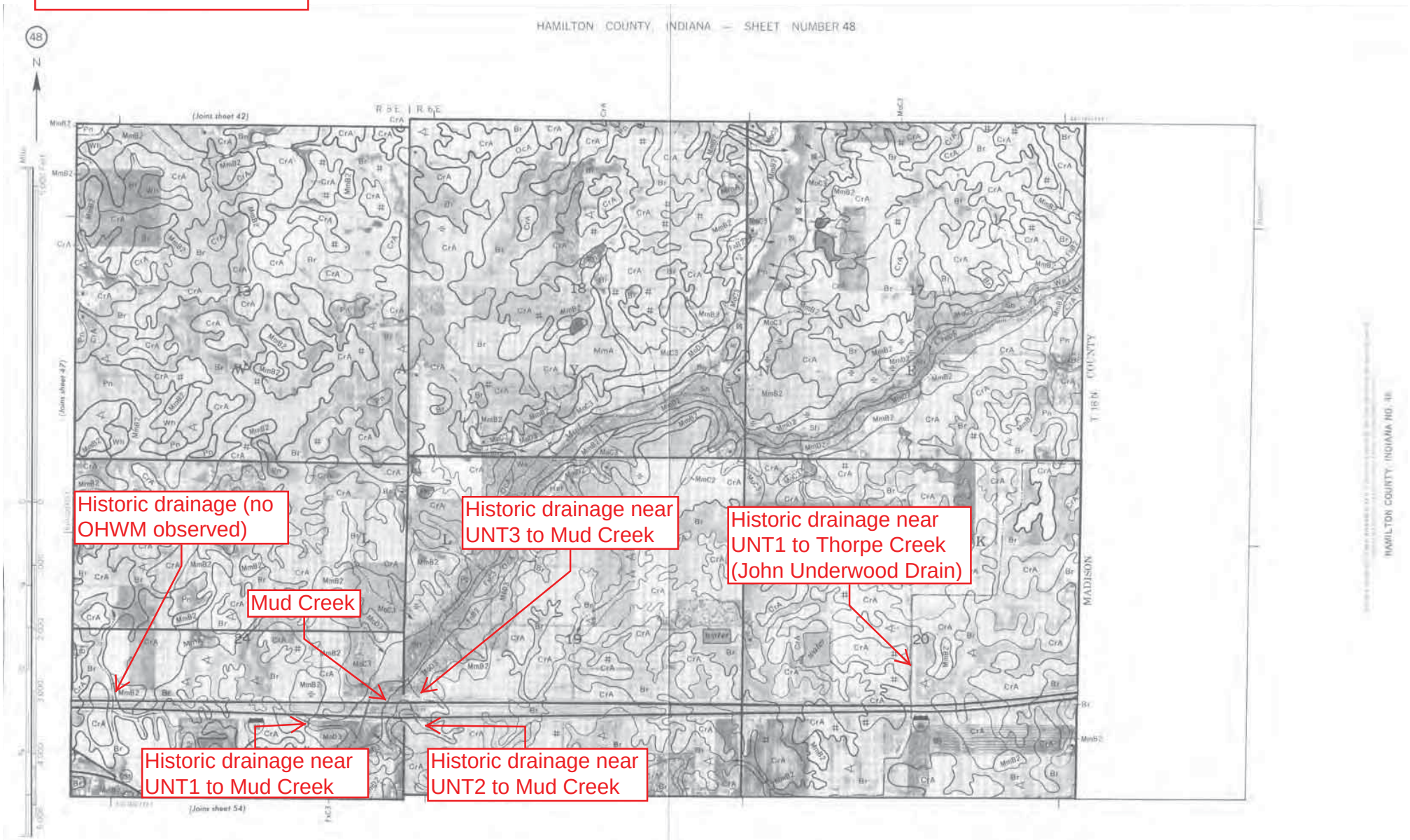


Source:
Soil Survey of Hamilton County, Indiana. United States Department of Agriculture. 1978.

Figure 4: Historic Drainage
Sheet 4 of 6

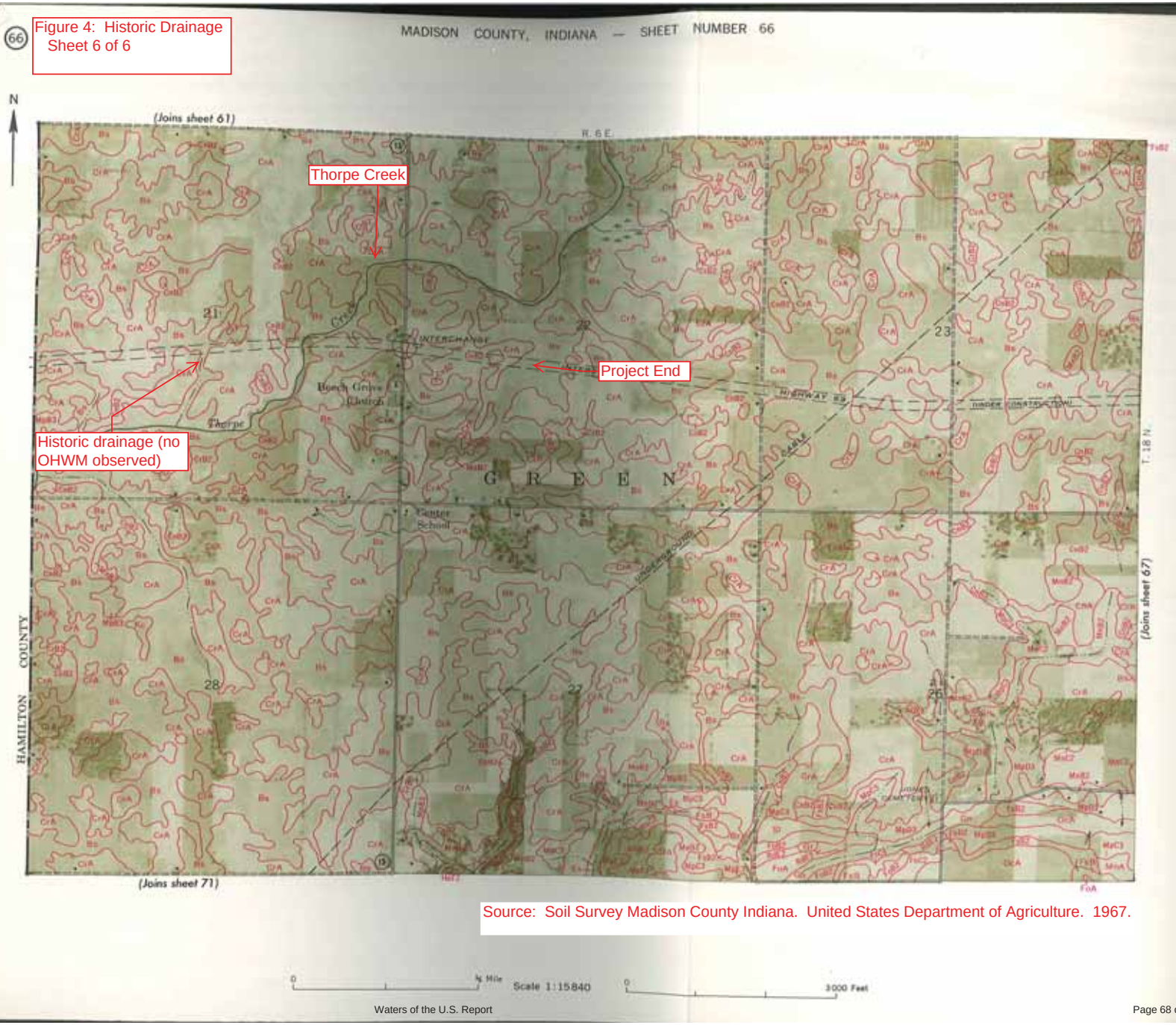
Source:
Soil Survey of Hamilton County, Indiana. United States Department of Agriculture. 1978.

Figure 4: Historic Drainage
Sheet 5 of 6



Source:
Soil Survey of Hamilton County, Indiana. United States Department of Agriculture. 1978.

Figure 4: Historic Drainage
Sheet 6 of 6



Source: Soil Survey Madison County Indiana. United States Department of Agriculture. 1967.

EXHIBIT 5

RESOURCE MAPS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- I69ResourceMapStripMap

0 0.5 1 2 Miles

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

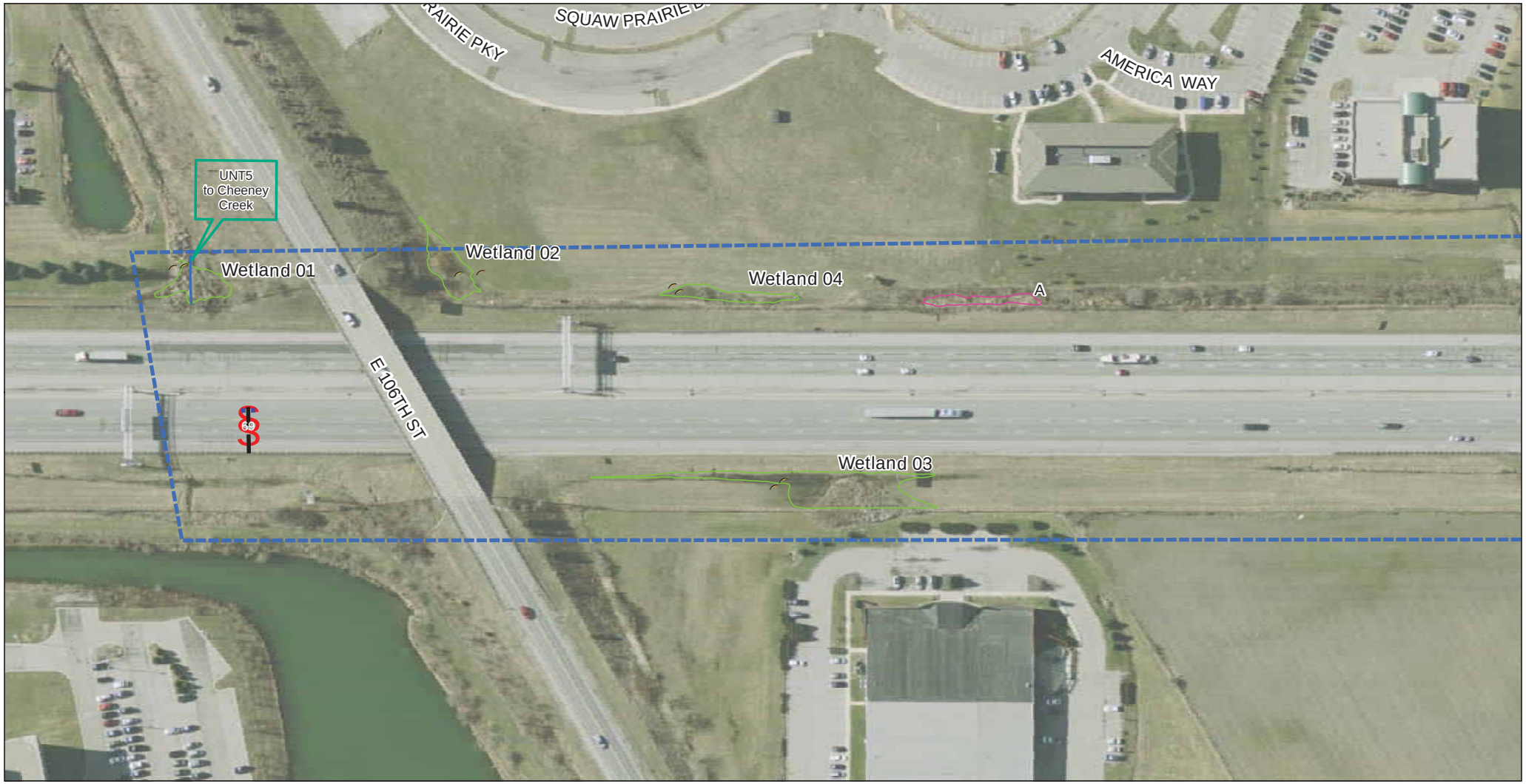
Exhibit 5: Resource Map

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

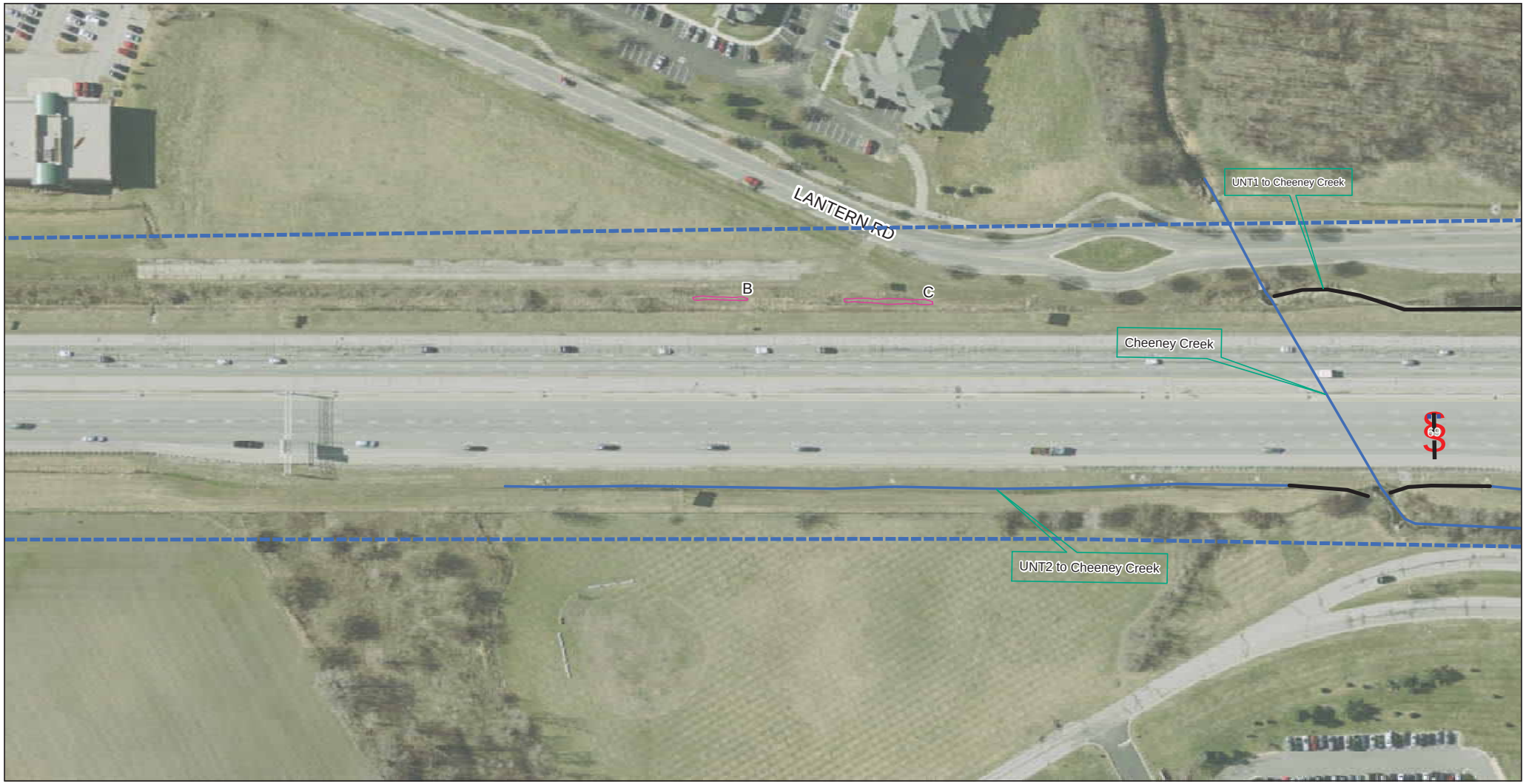
Exhibit 5: Resource Map
Sheet 1 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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

Exhibit 5: Resource Map
Sheet 2 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

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

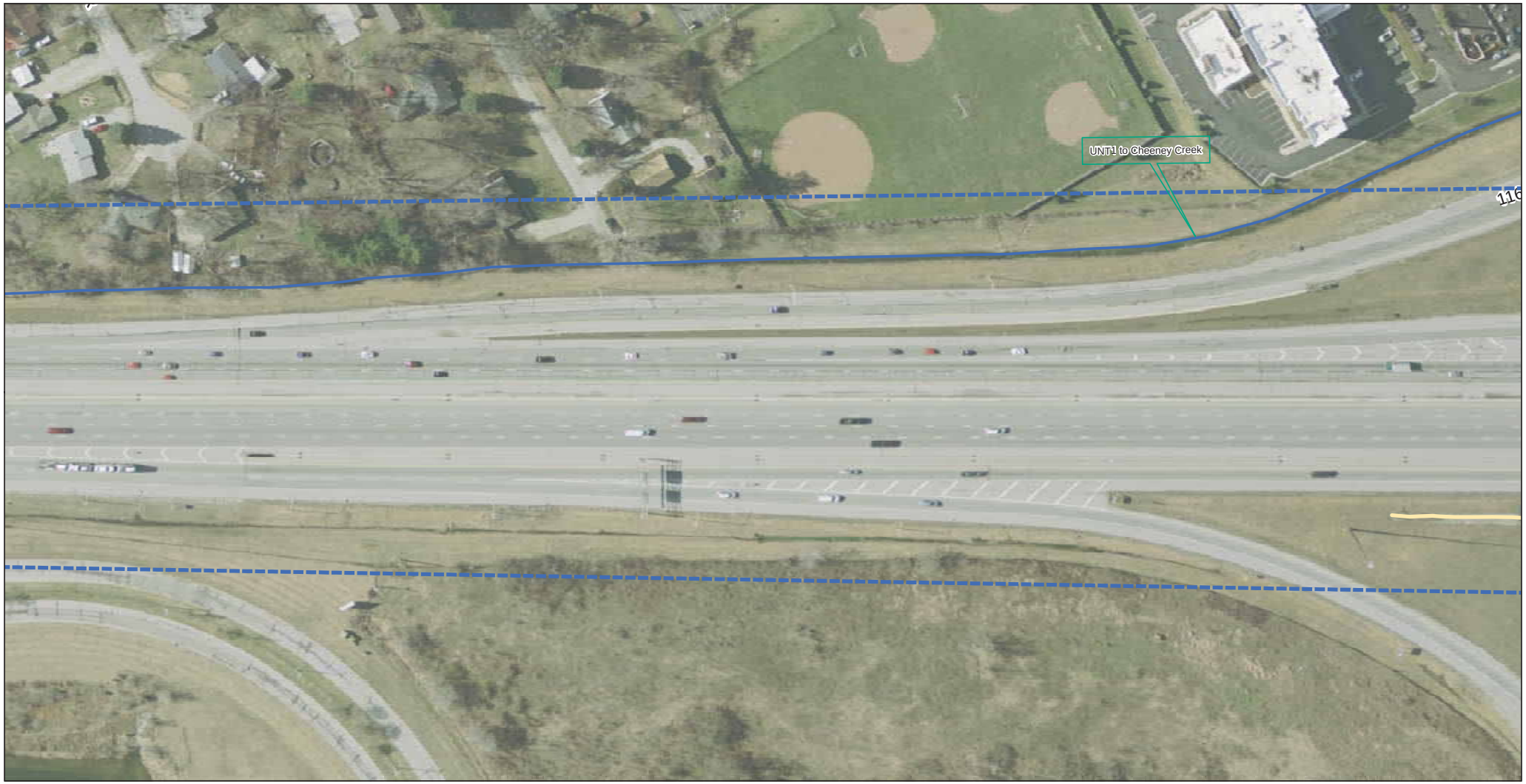
Exhibit 5: Resource Map
Sheet 3 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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

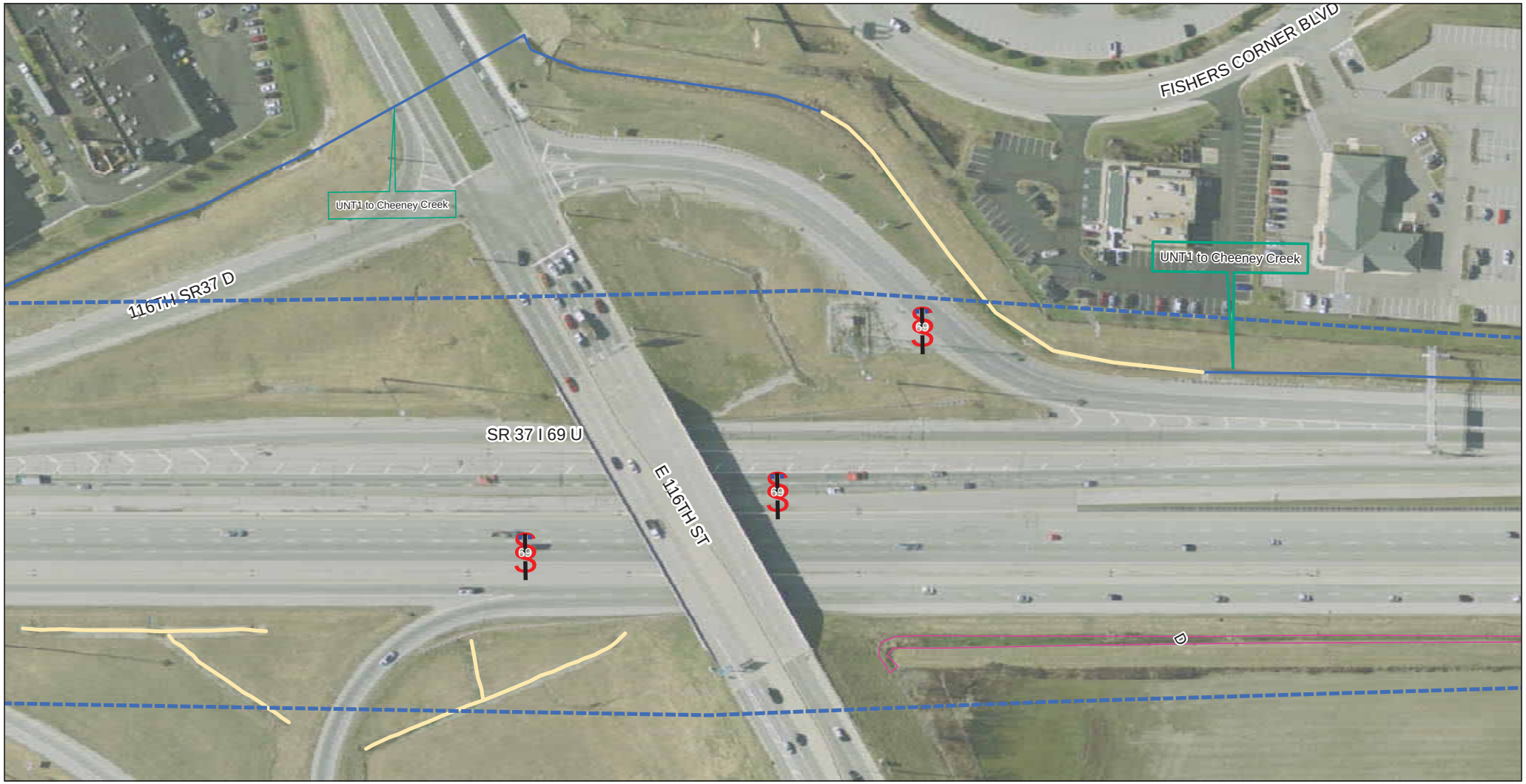
Exhibit 5: Resource Map
Sheet 4 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

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Exhibit 5: Resource Map
Sheet 5 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
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- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

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1 inch = 100 feet

Sources:
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Exhibit 5: Resource Map
Sheet 6 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
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- Wetlands
- Non-Jurisdictional Features

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Exhibit 5: Resource Map
Sheet 7 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

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

Exhibit 5: Resource Map
Sheet 8 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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

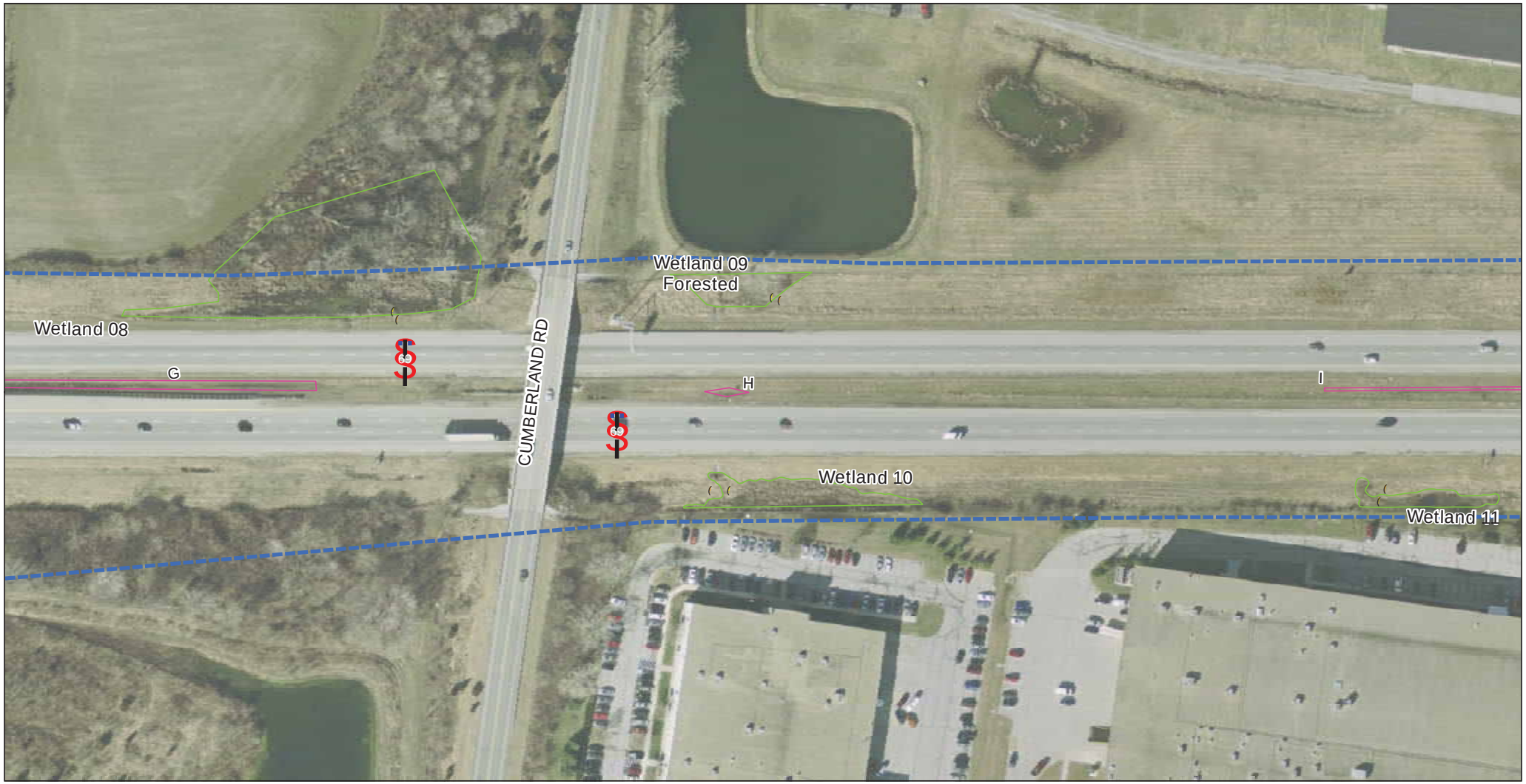
Exhibit 5: Resource Map
Sheet 9 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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Exhibit 5: Resource Map
Sheet 10 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

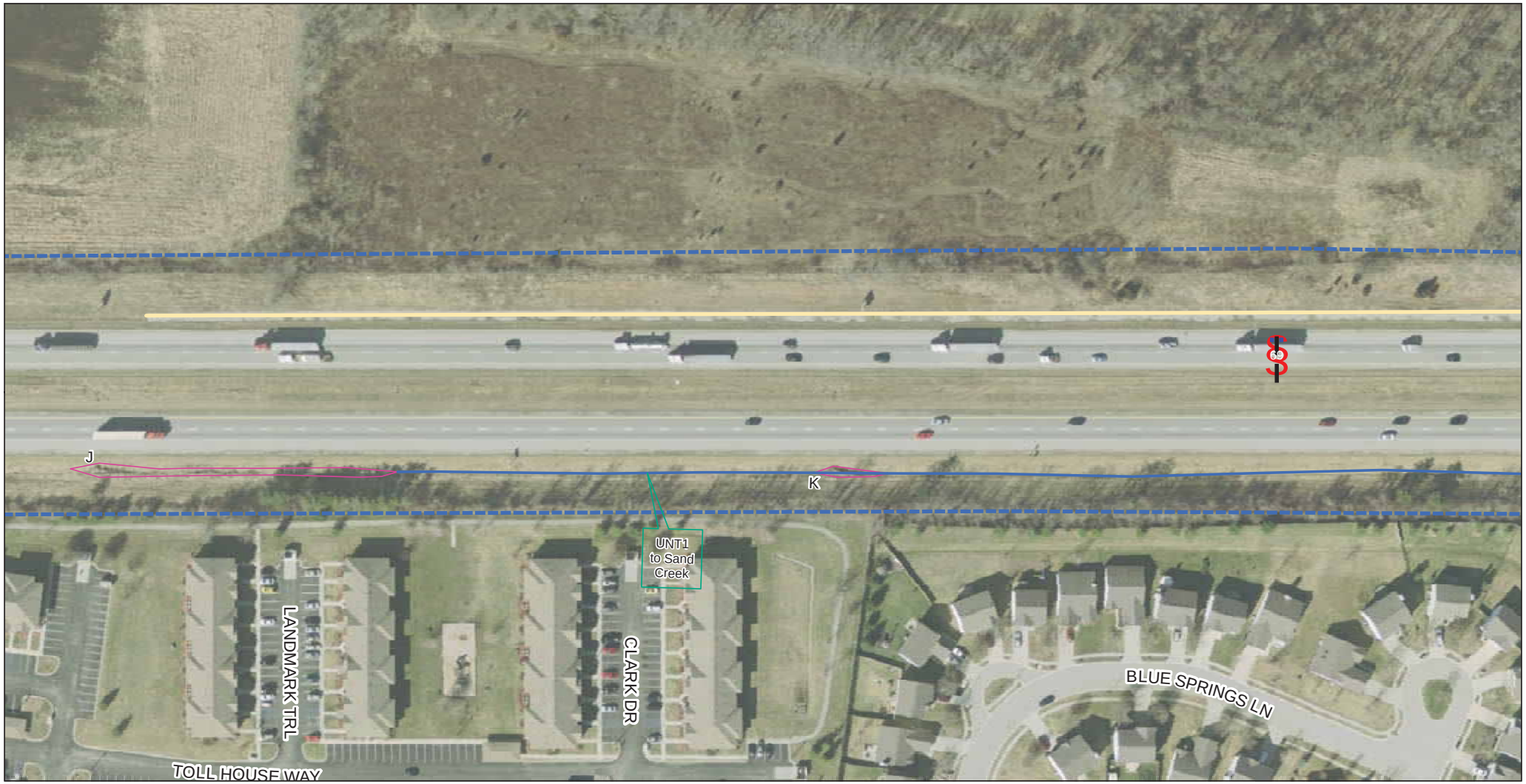
Exhibit 5: Resource Map
Sheet 11 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

3

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

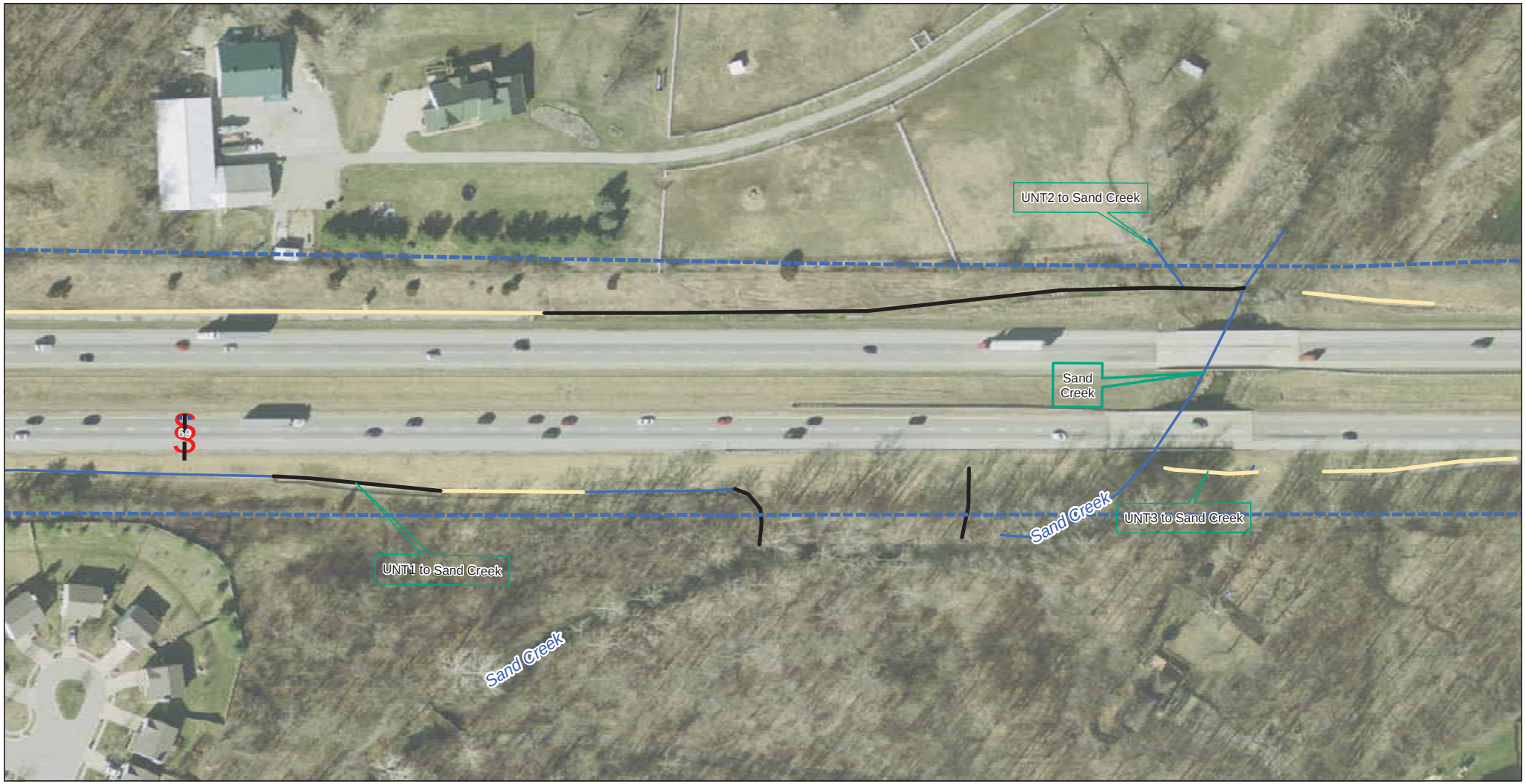
Exhibit 5: Resource Map
Sheet 12 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

3

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

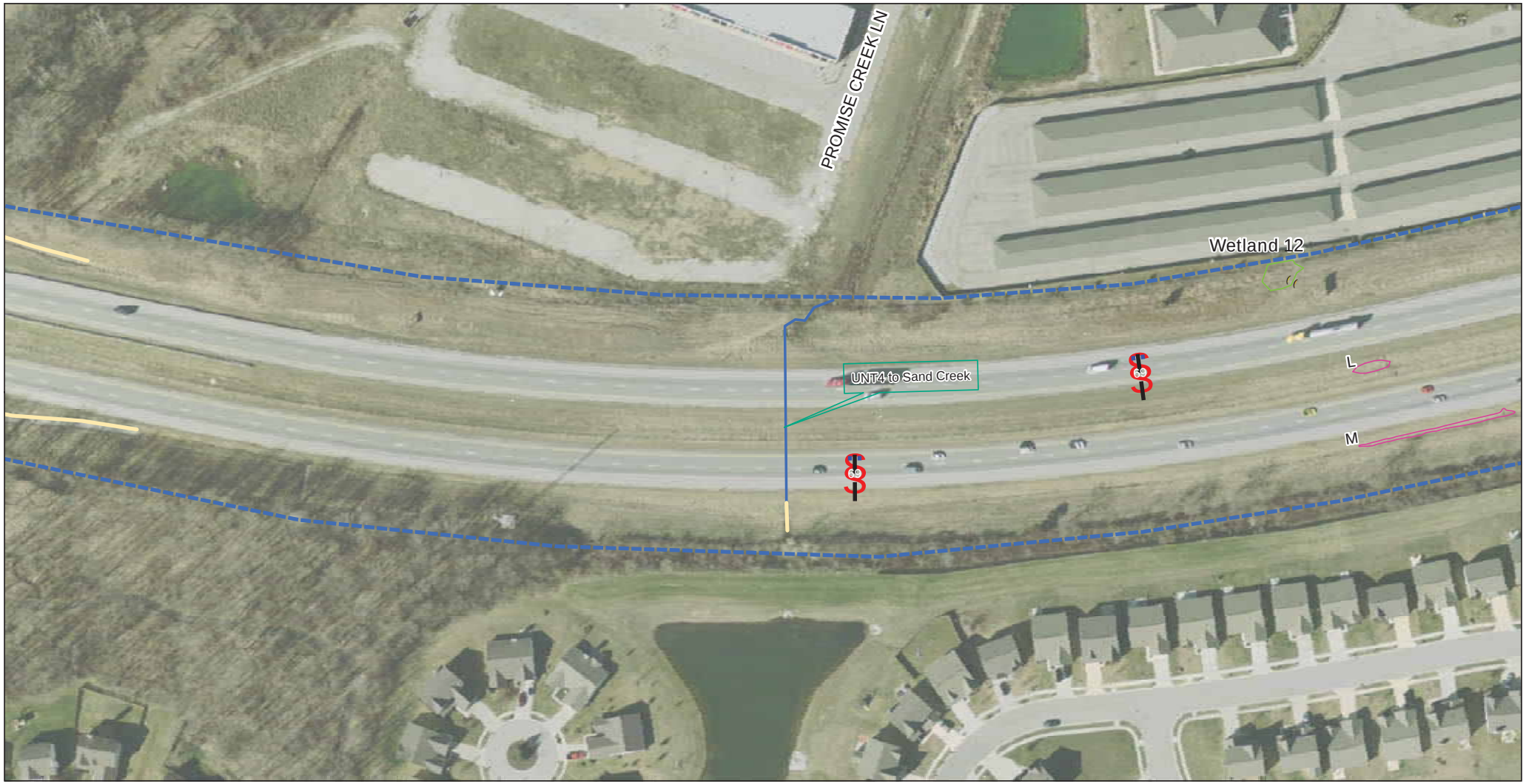
Exhibit 5: Resource Map
Sheet 13 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

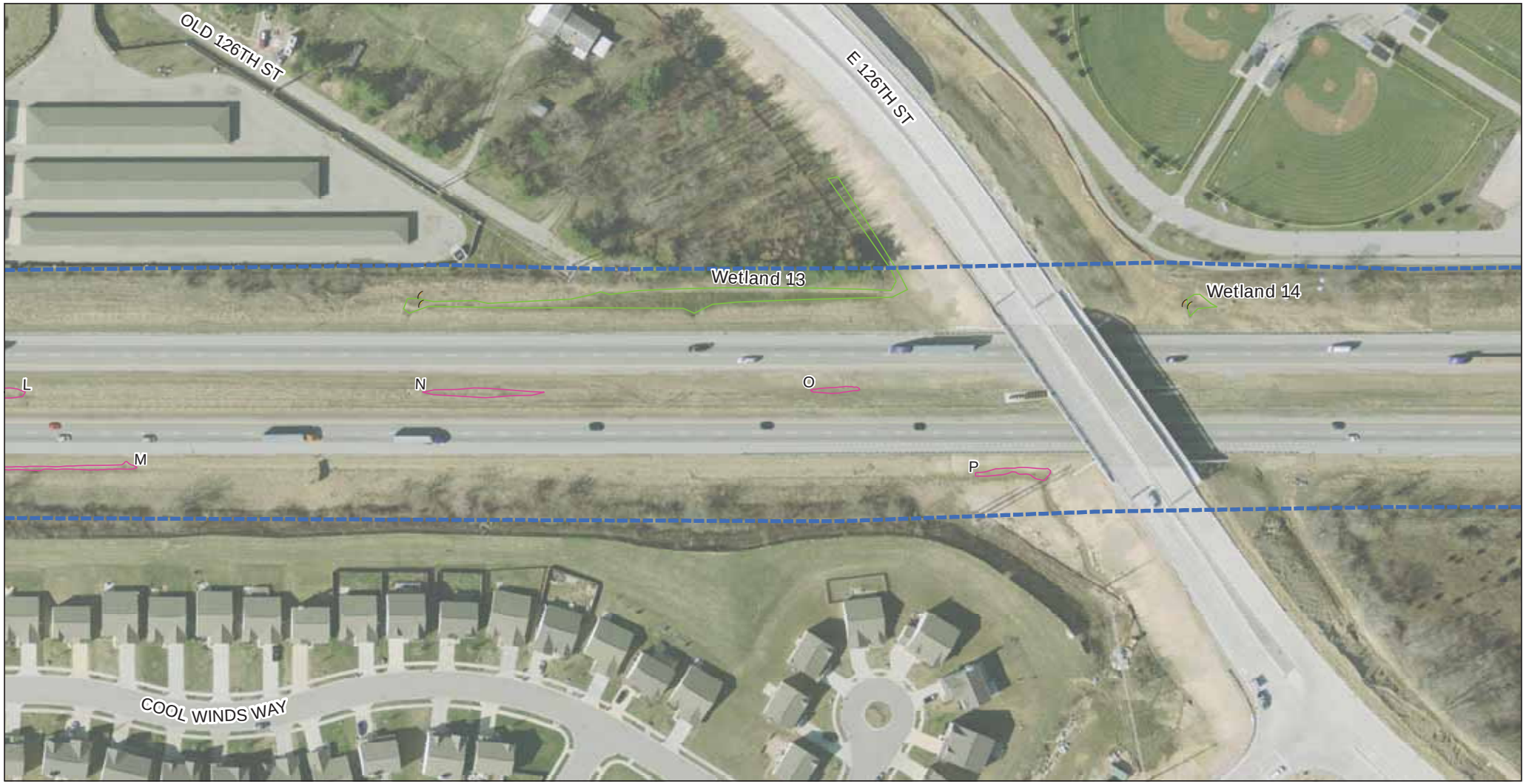
Exhibit 5: Resource Map
Sheet 14 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

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

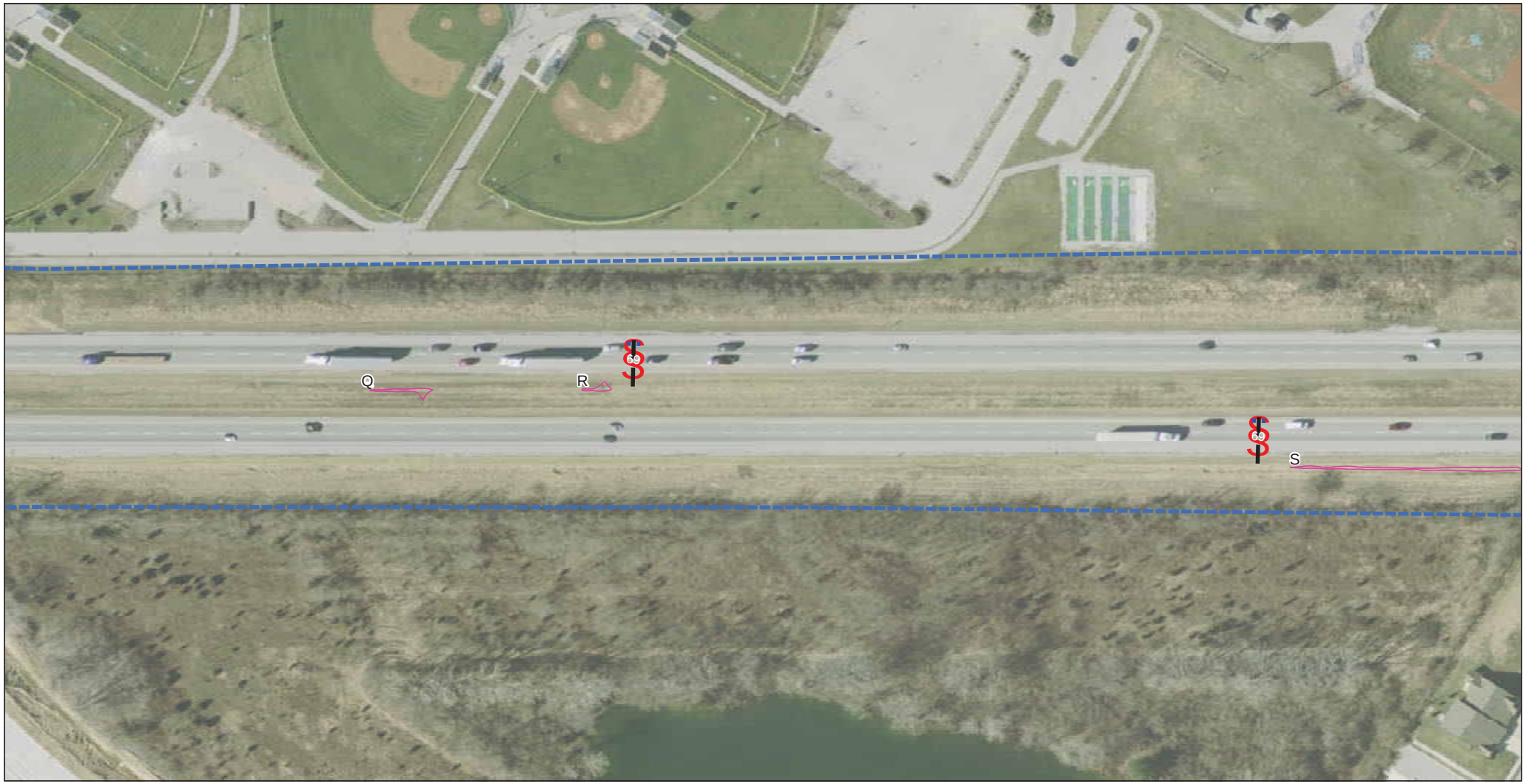
Exhibit 5: Resource Map
Sheet 15 of 48

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 16 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
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- Concrete Lined Ditch
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- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
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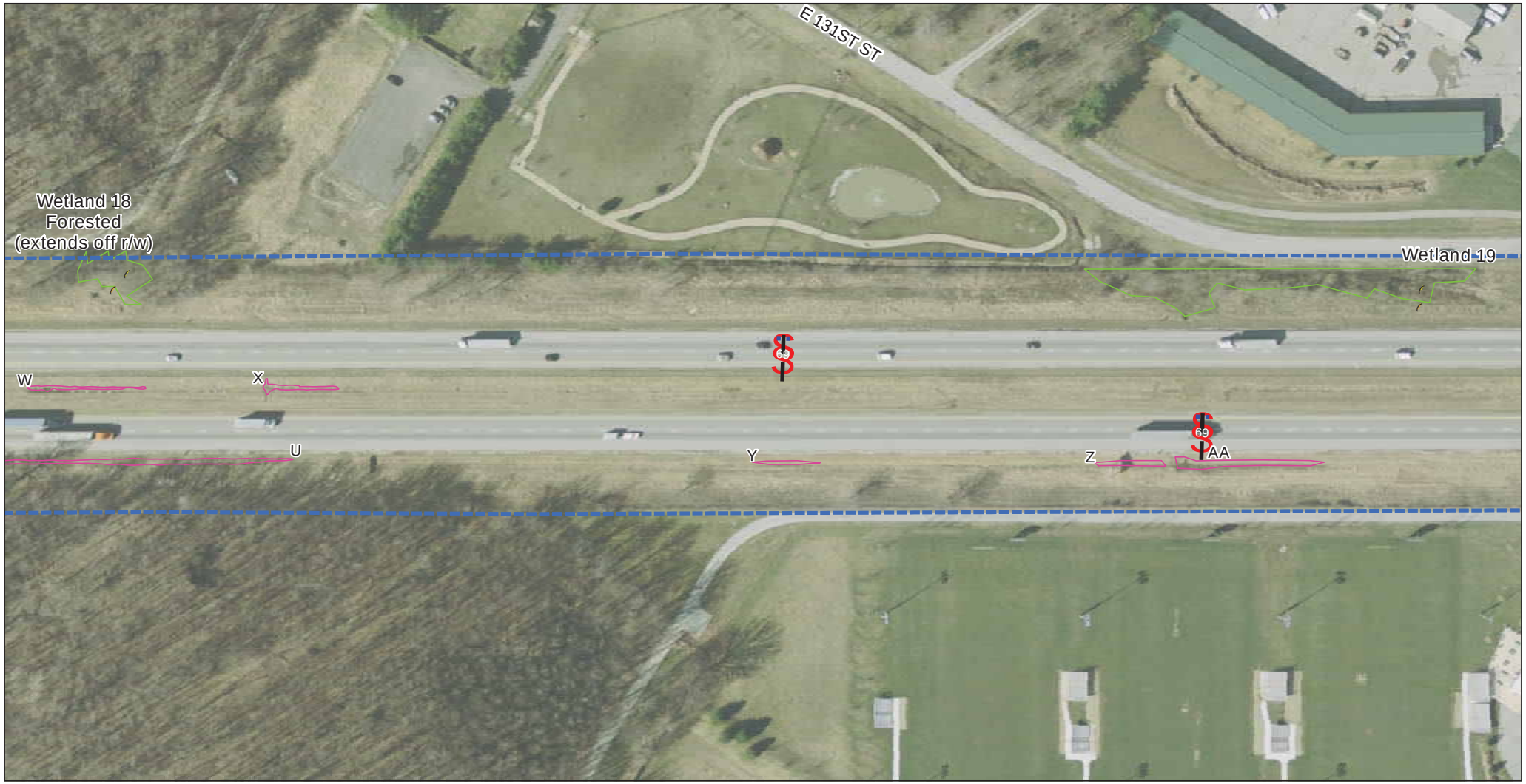
Exhibit 5: Resource Map
Sheet 17 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
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- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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Sources:
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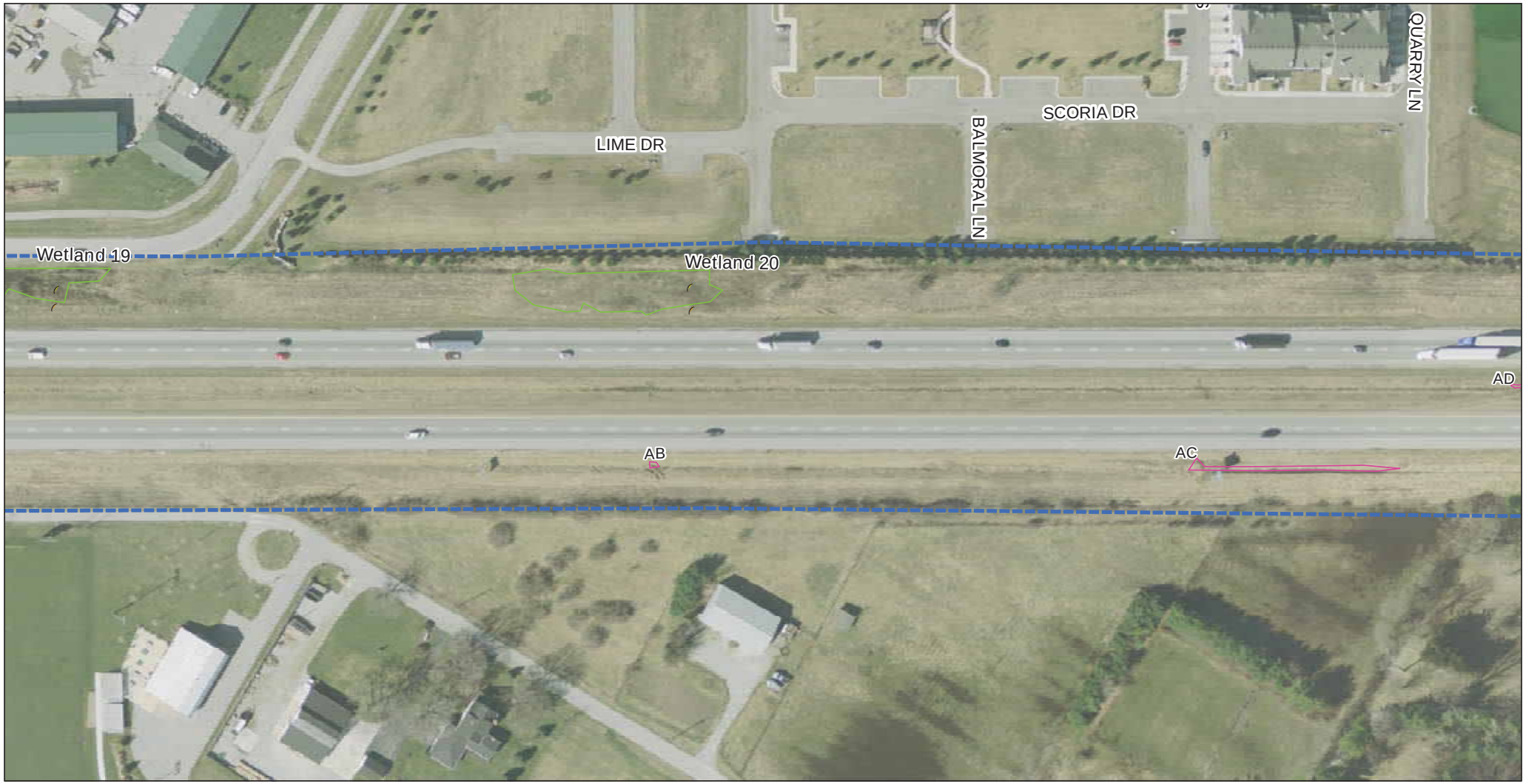
Exhibit 5: Resource Map
Sheet 18 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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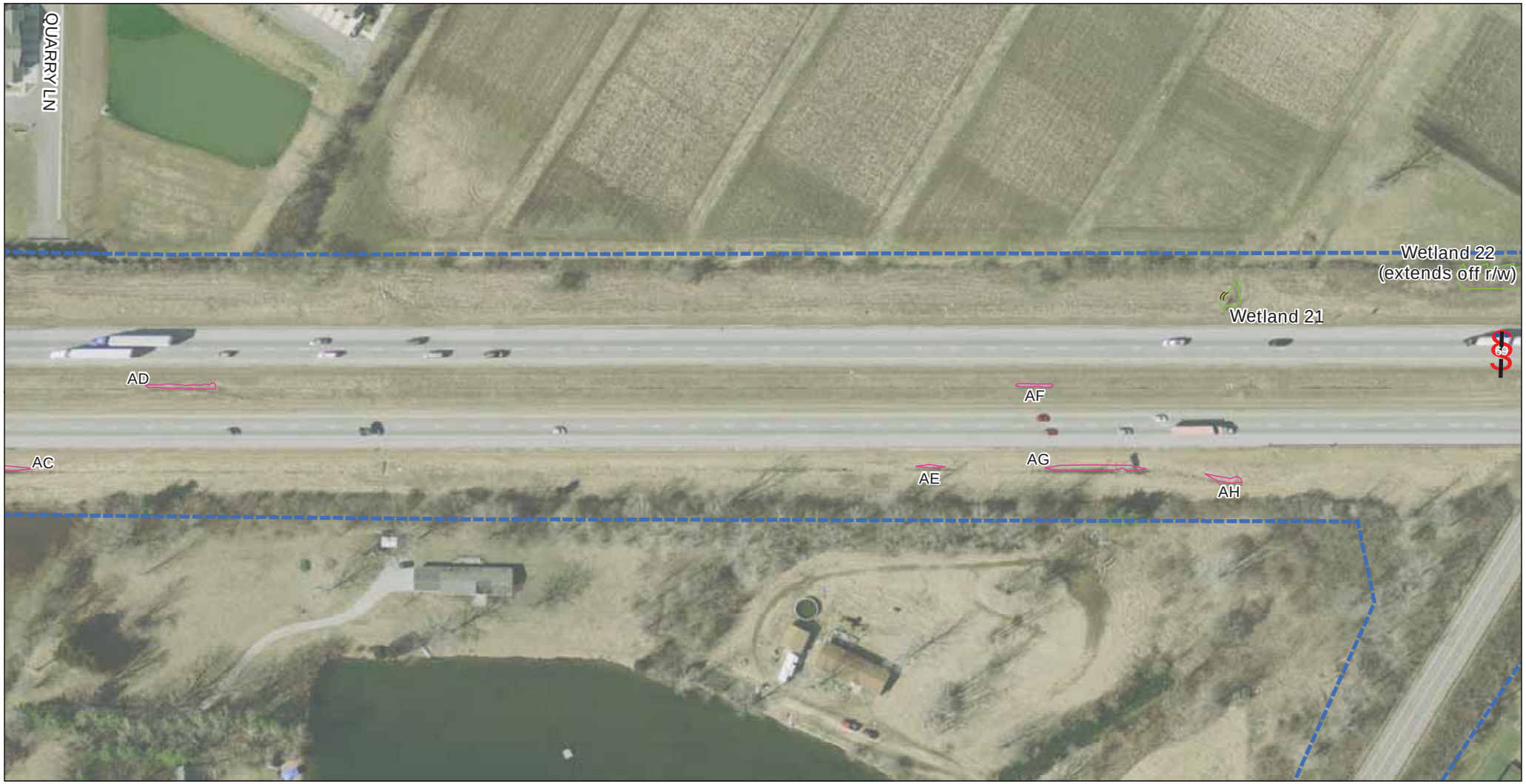
Exhibit 5: Resource Map
Sheet 19 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
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- Project Area 3
- Wetland Data Point (In)
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- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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Sources:
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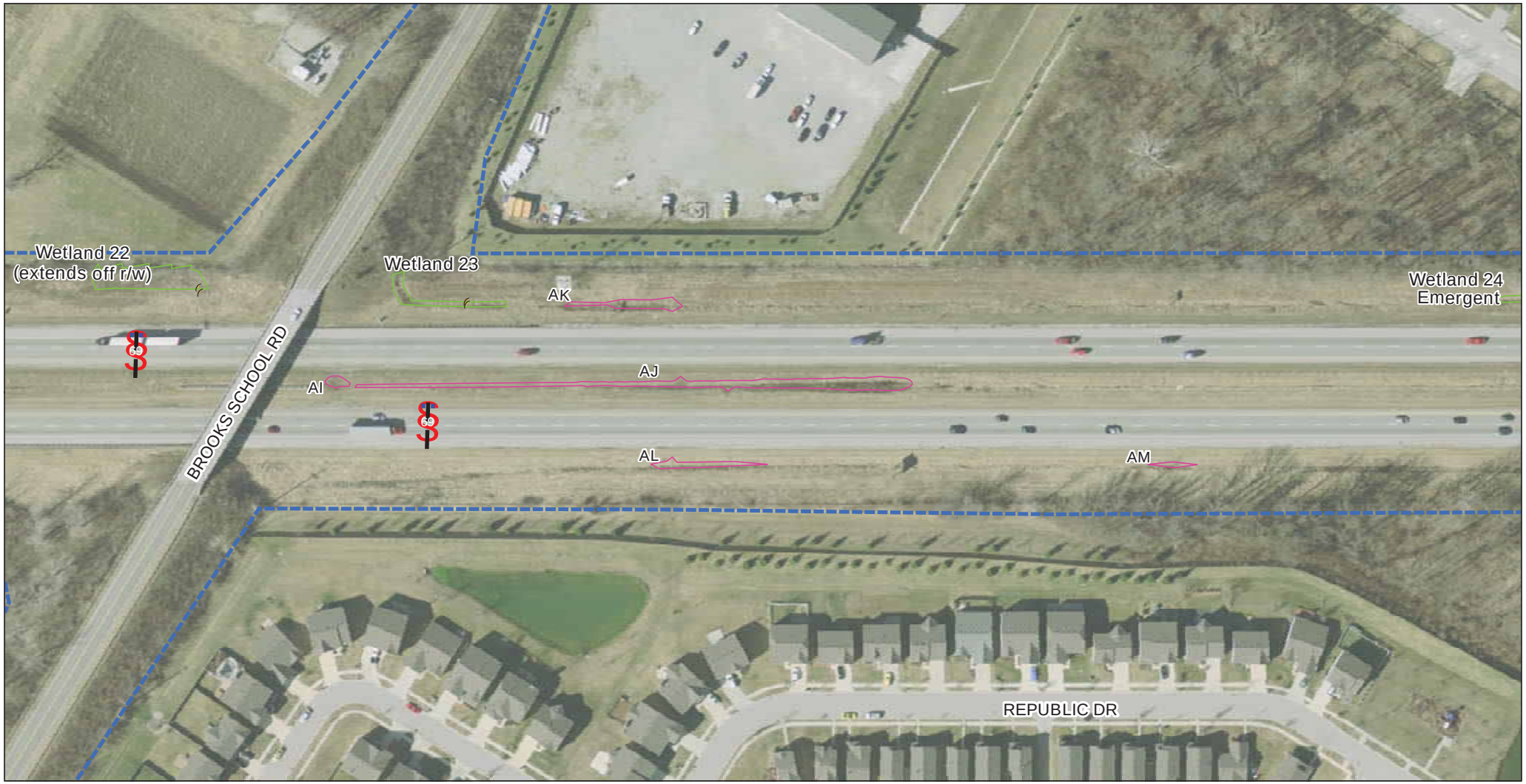
Exhibit 5: Resource Map
Sheet 20 of 48

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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Exhibit 5: Resource Map
Sheet 21 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

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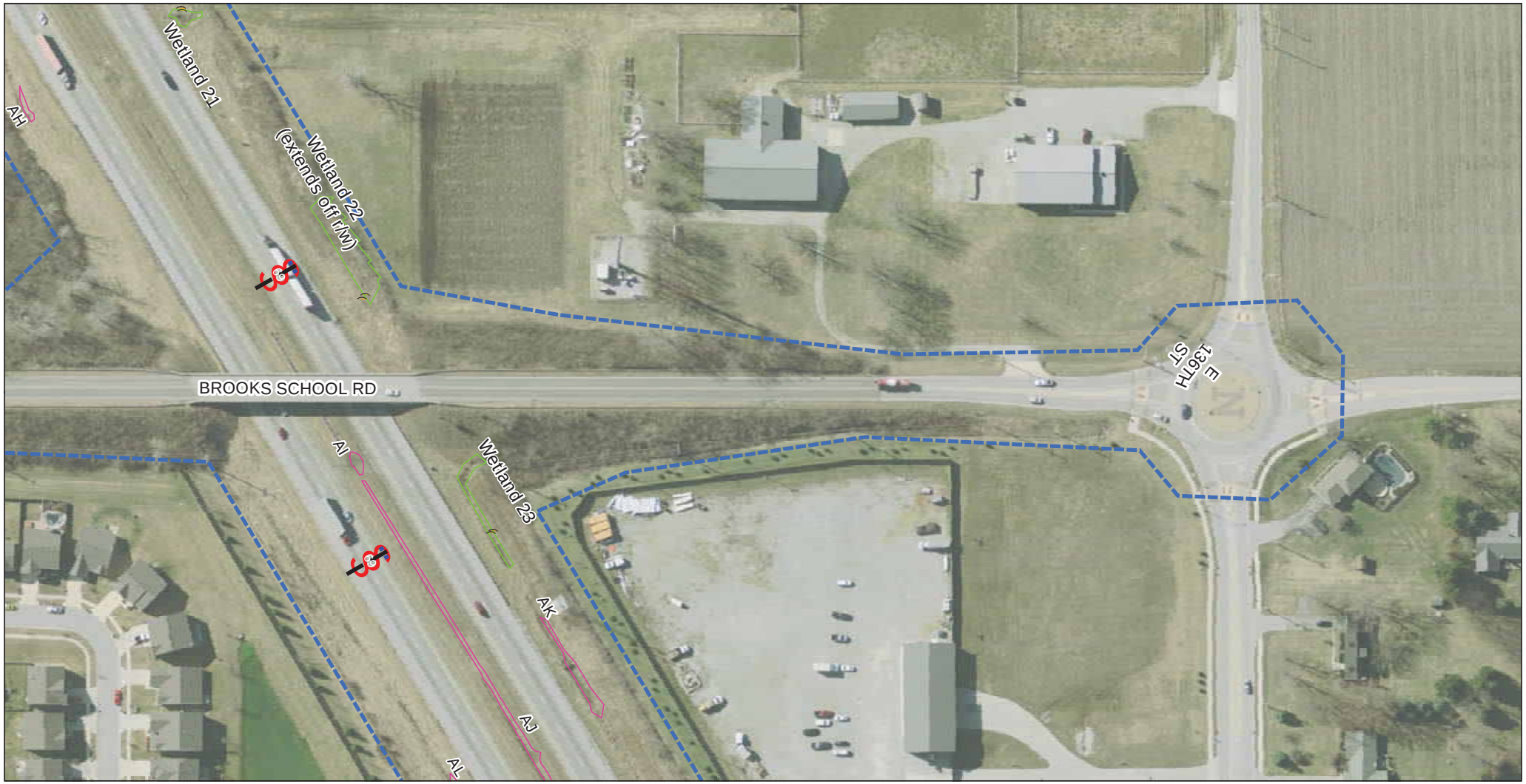
Exhibit 5: Resource Map
Sheet 22 of 48

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
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- Wetlands
- Non-Jurisdictional Features

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Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

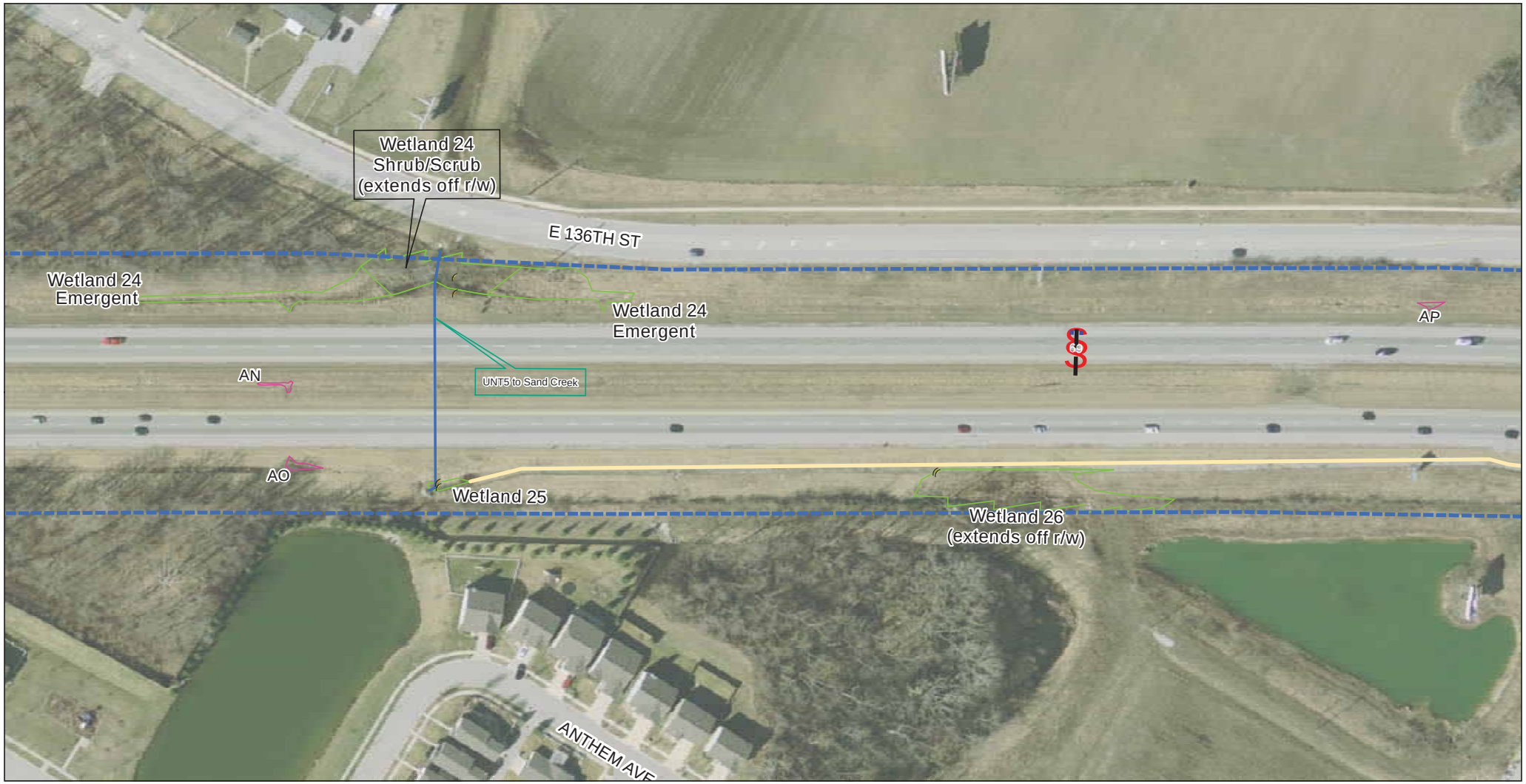
Exhibit 5: Resource Map
Sheet 23 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

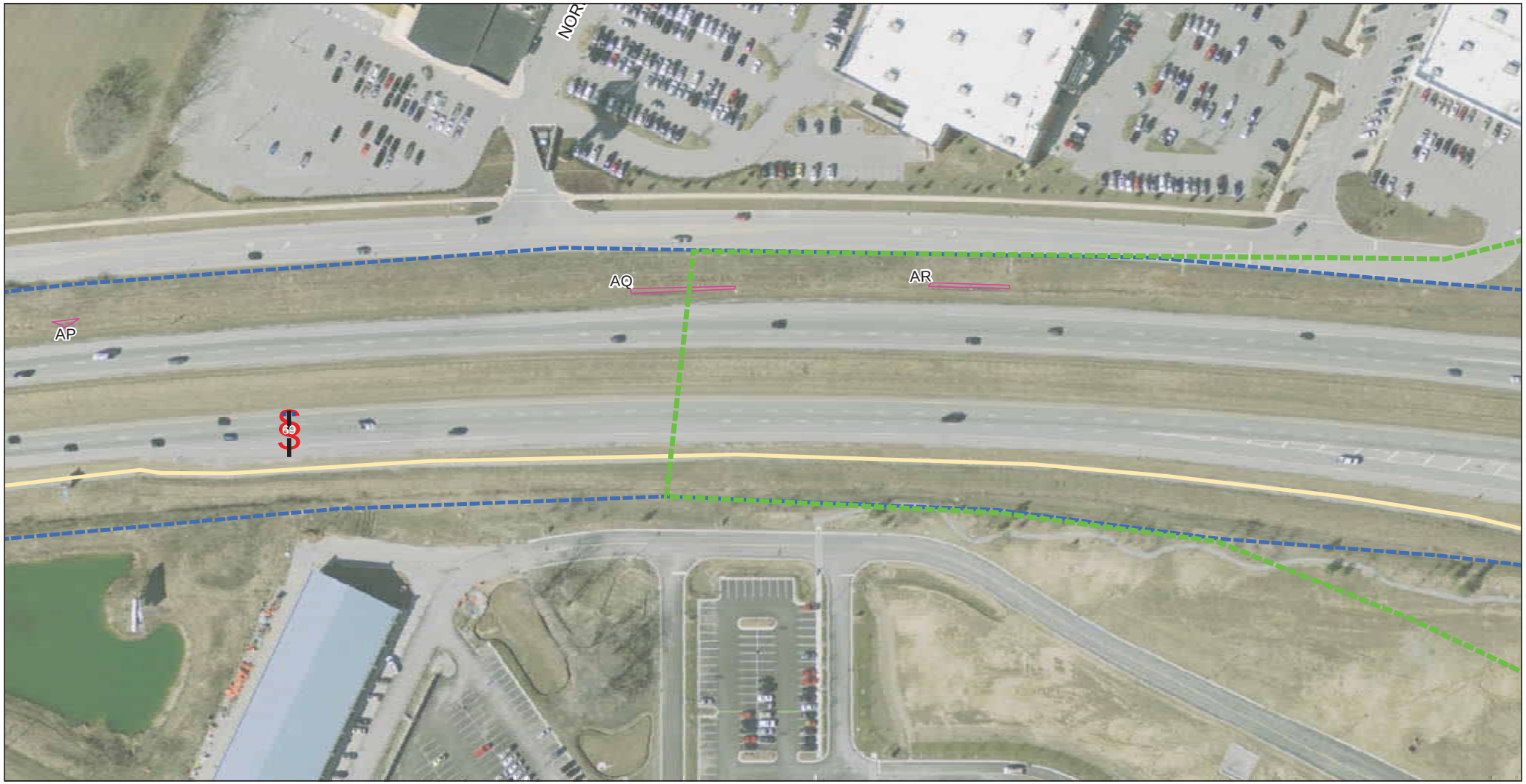
Exhibit 5: Resource Map
Sheet 24 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

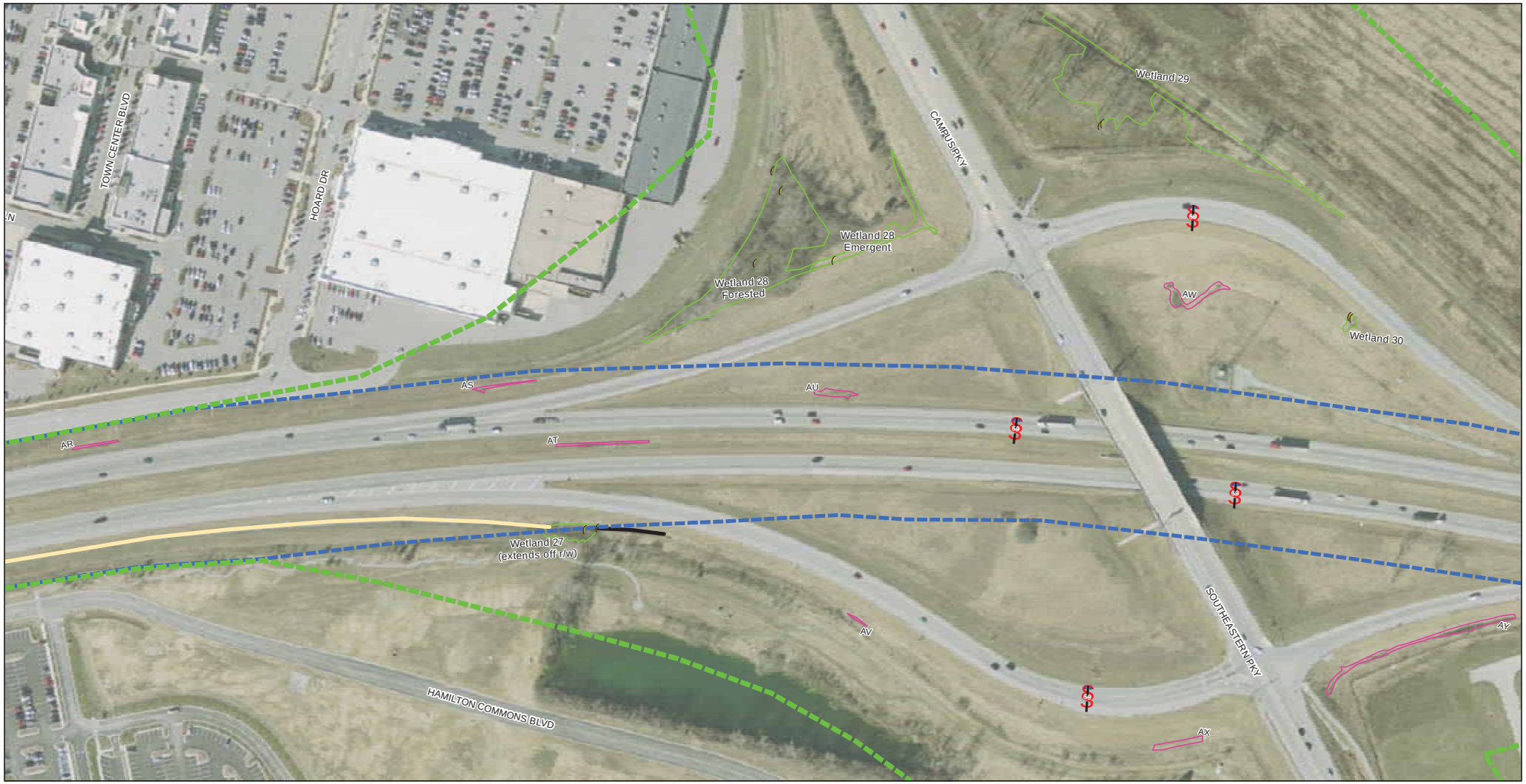
Exhibit 5: Resource Map
Sheet 25 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

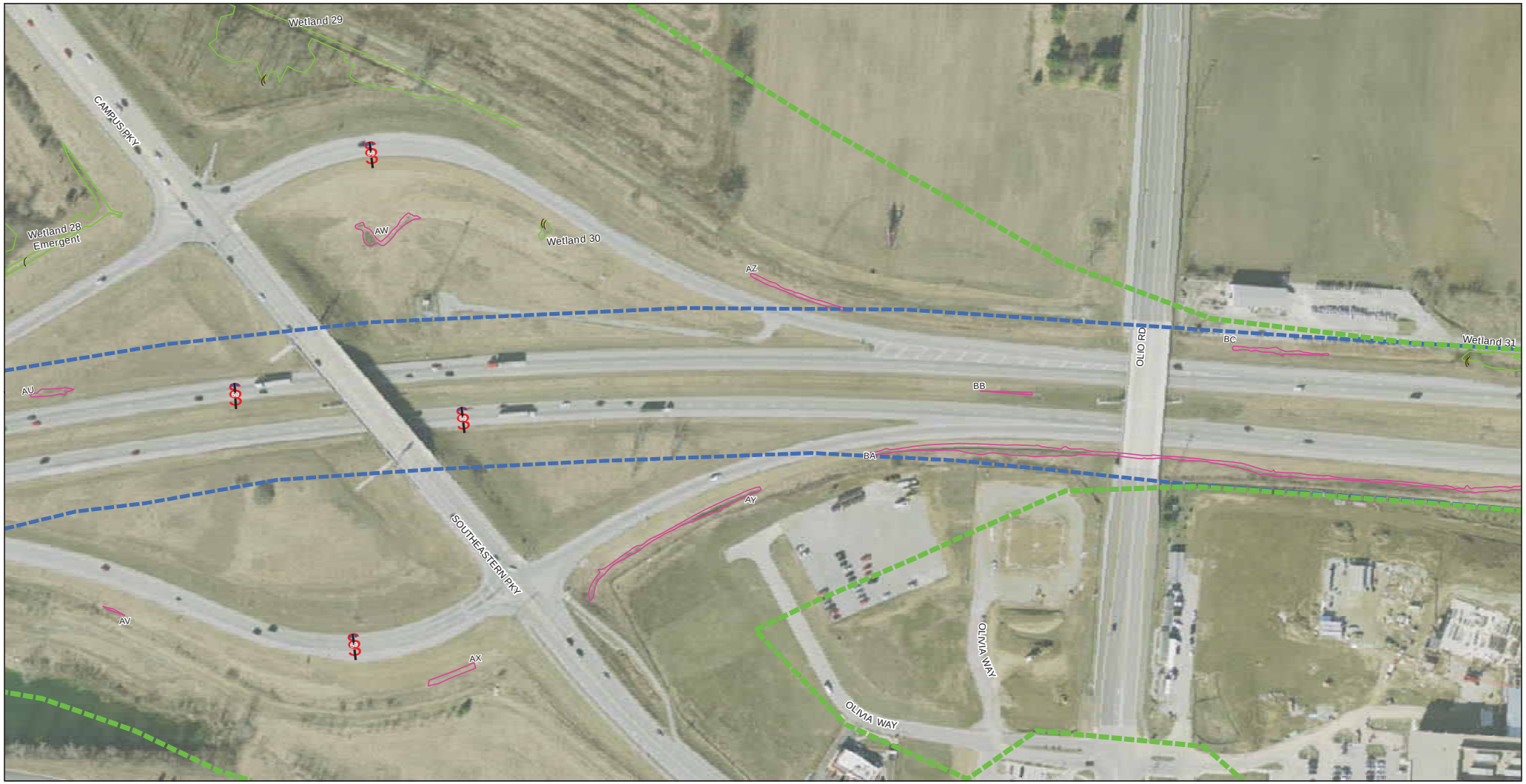
Exhibit 5: Resource Map
Sheet 26 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

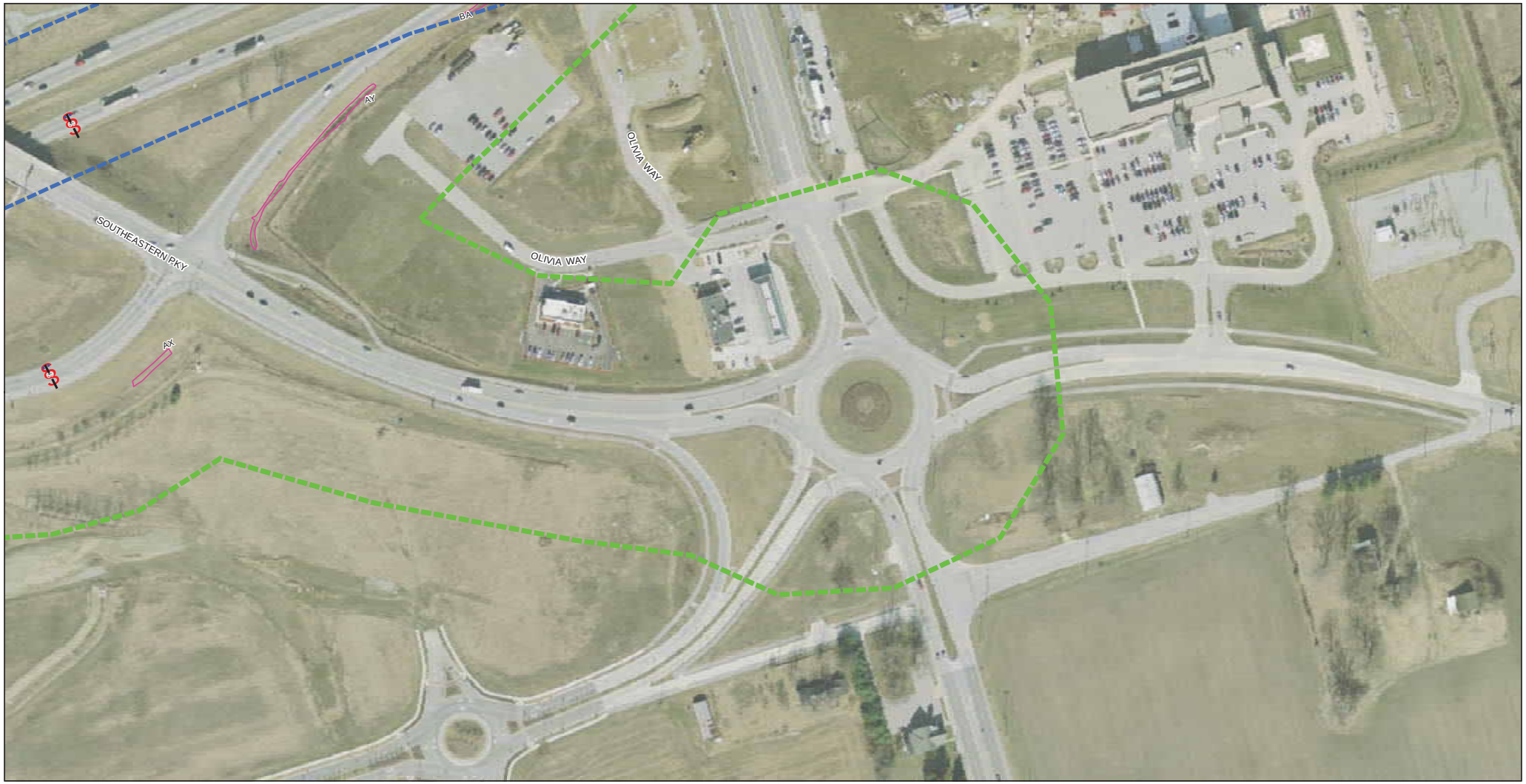
Exhibit 5: Resource Map
Sheet 27 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

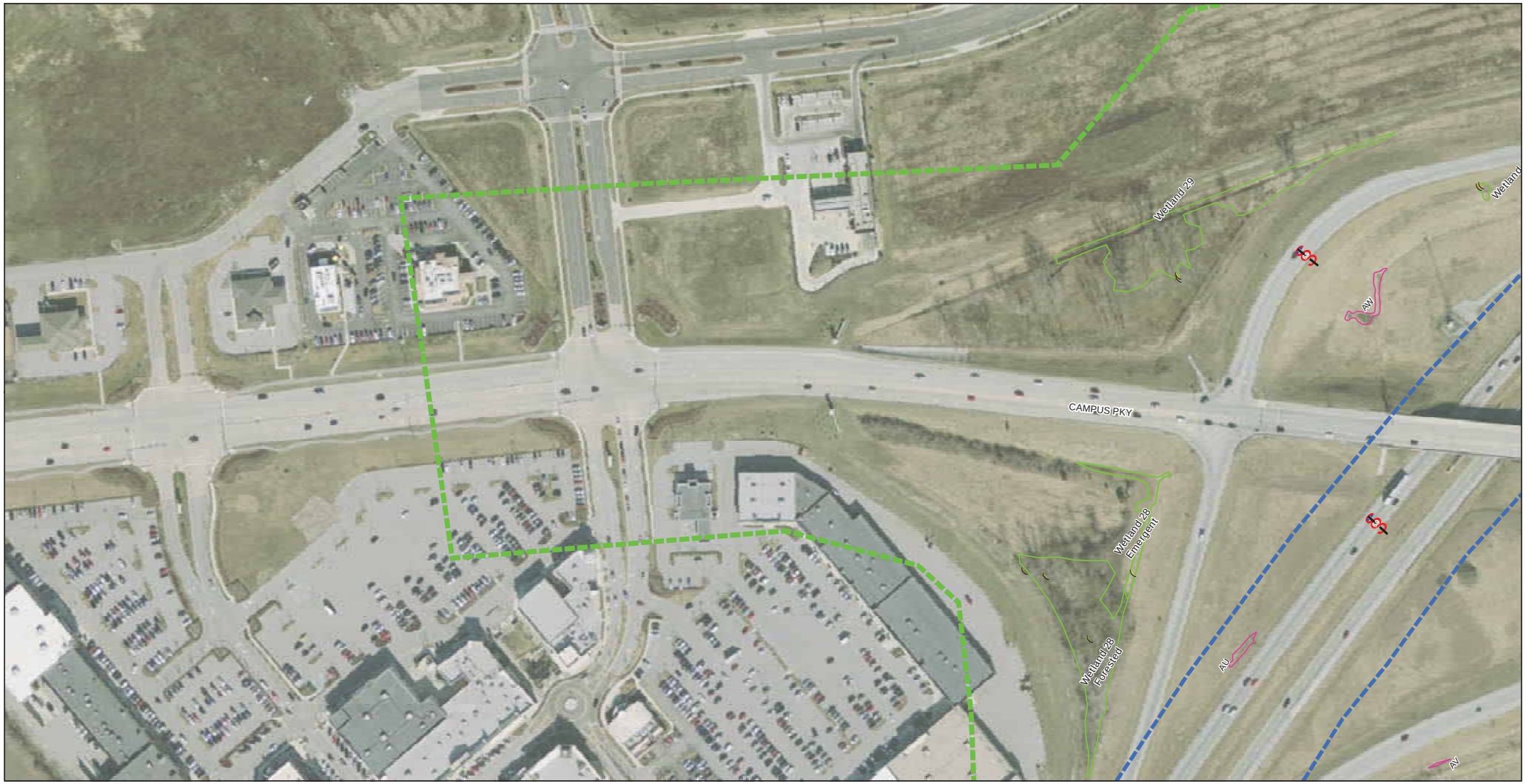
Exhibit 5: Resource Map
Sheet 28 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

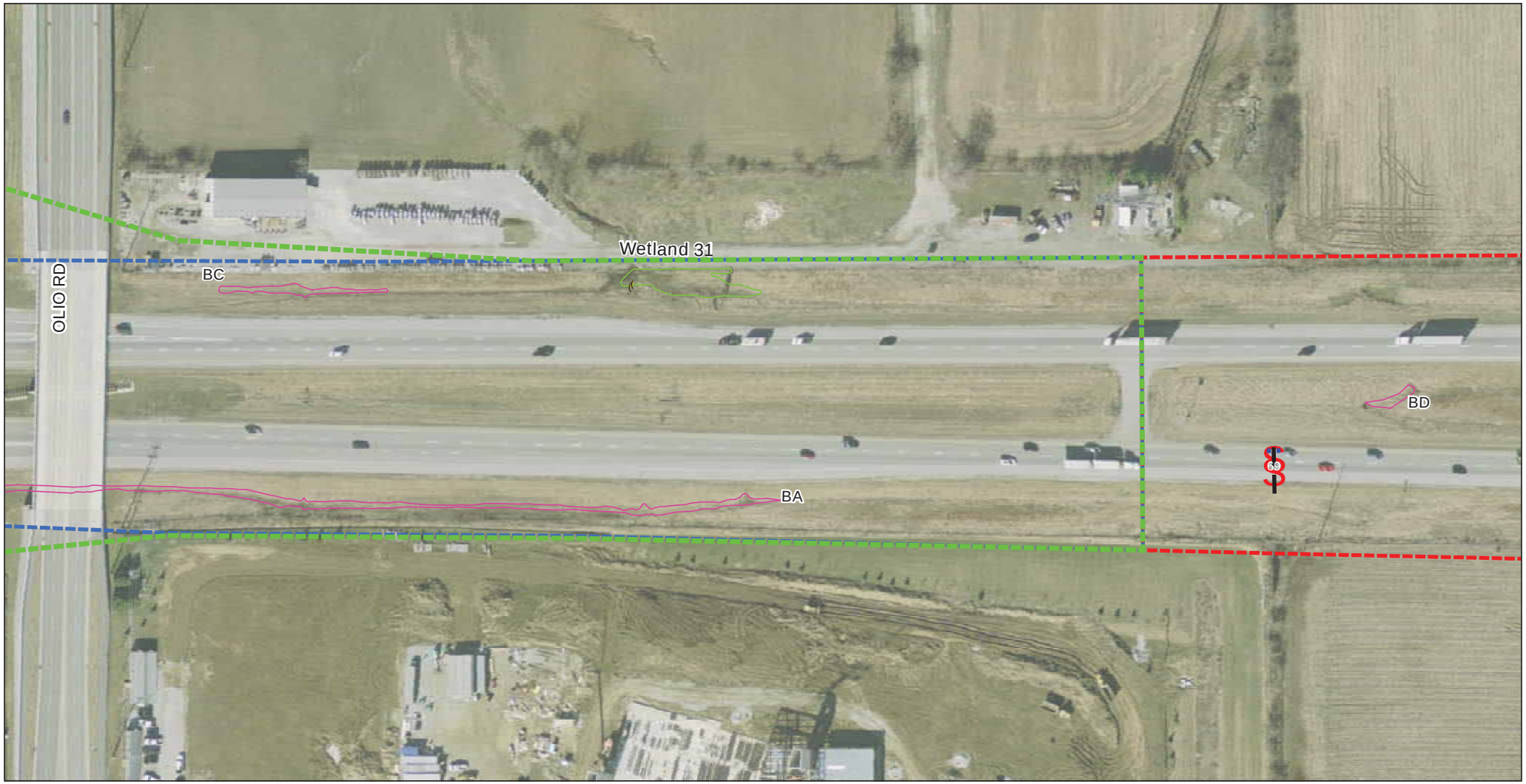
Exhibit 5: Resource Map
Sheet 29 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 30 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 31 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

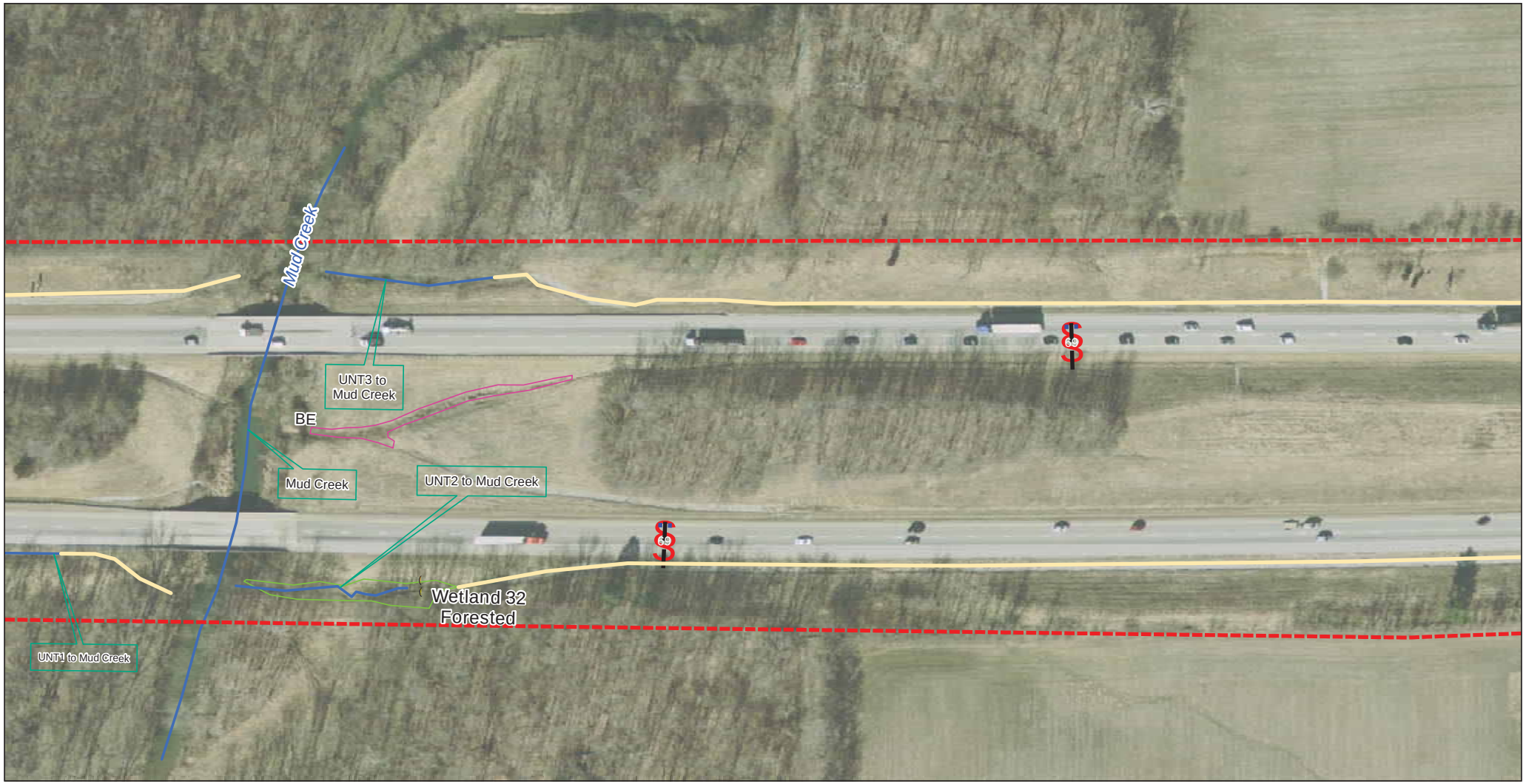
Exhibit 5: Resource Map
Sheet 32 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 33 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3
Wetland Data Point (In)
Wetland Data Point (out)
Concrete Lined Ditch
Riprap Lined Ditch
Streams
Wetlands
Non-Jurisdictional Features

0 50 100 200 Feet
1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 34 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 35 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

Project Area 1
Project Area 2
Project Area 3
Wetland Data Point (In)
Wetland Data Point (out)
Concrete Lined Ditch
Riprap Lined Ditch
Streams
Wetlands
Non-Jurisdictional Features

0 50 100 200 Feet
1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

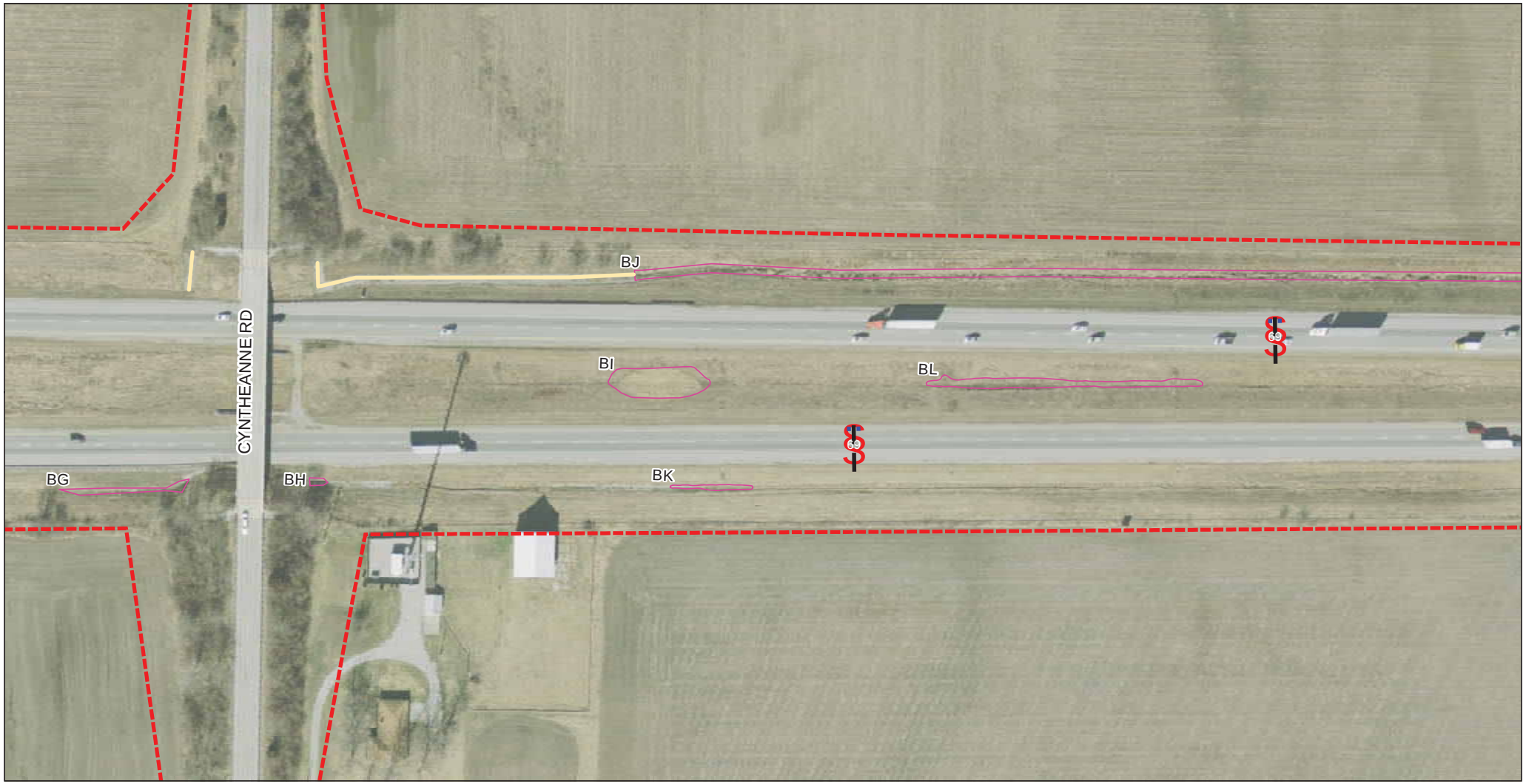
Exhibit 5: Resource Map
Sheet 36 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

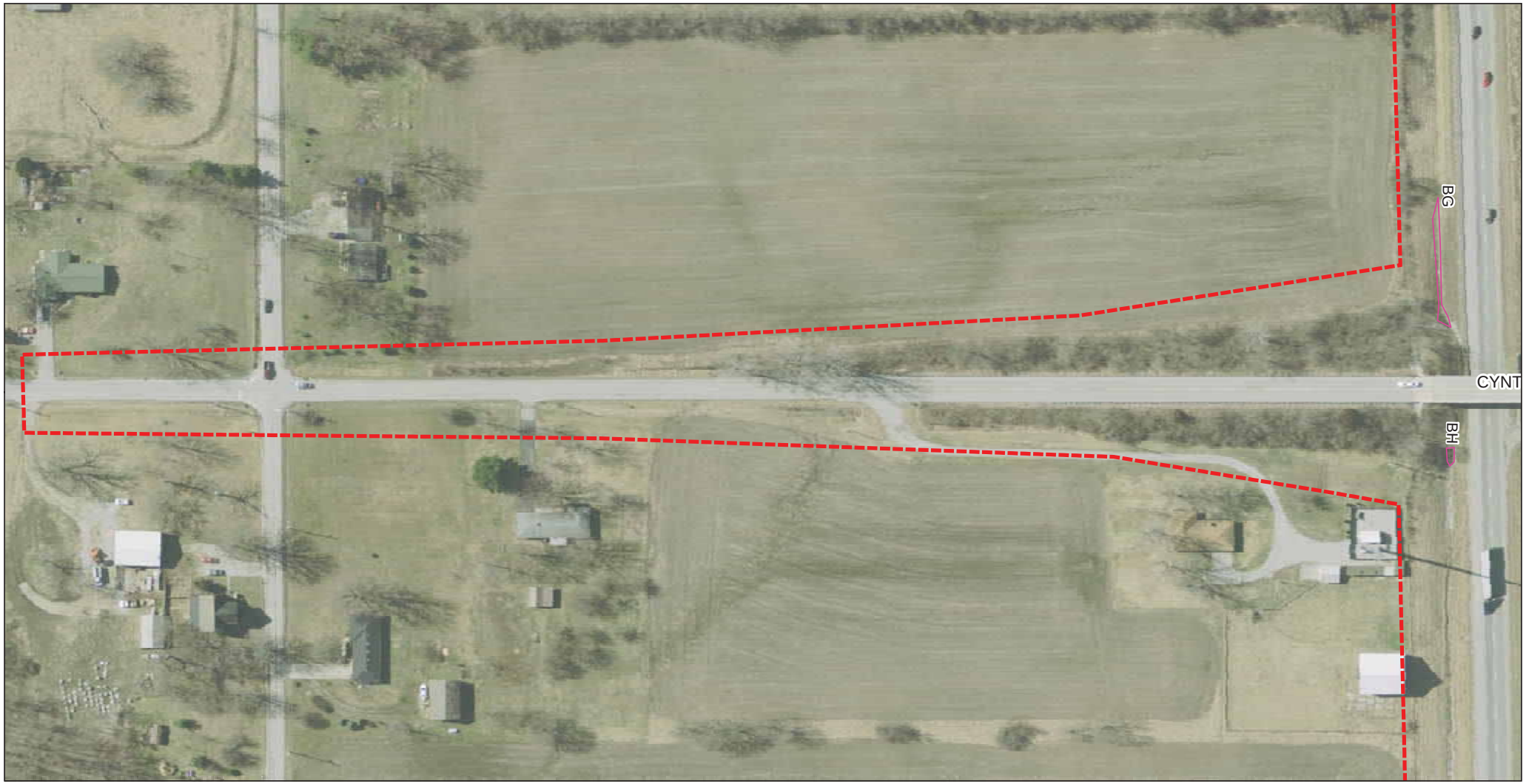
Exhibit 5: Resource Map
Sheet 37 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 38 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

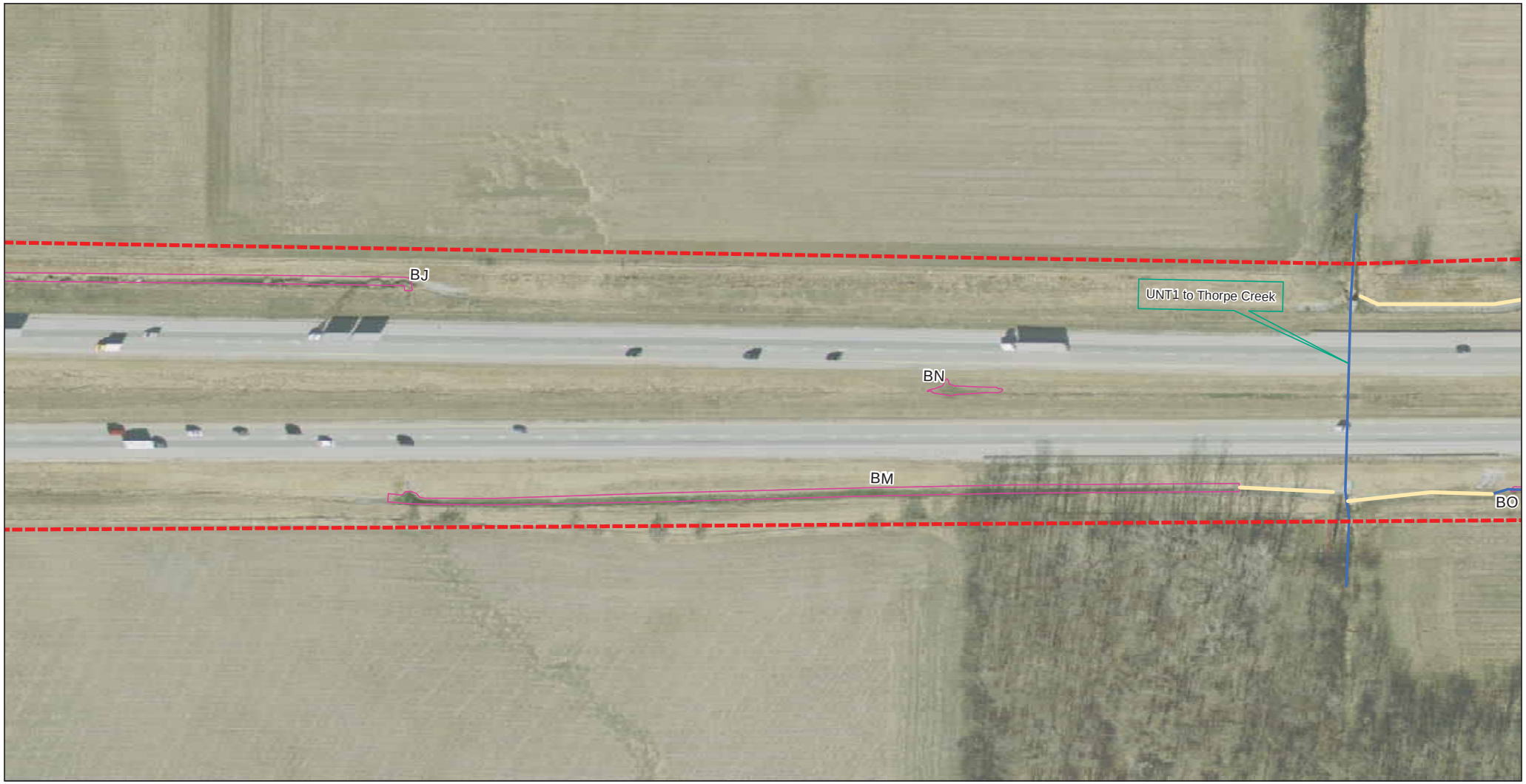
Exhibit 5: Resource Map
Sheet 39 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

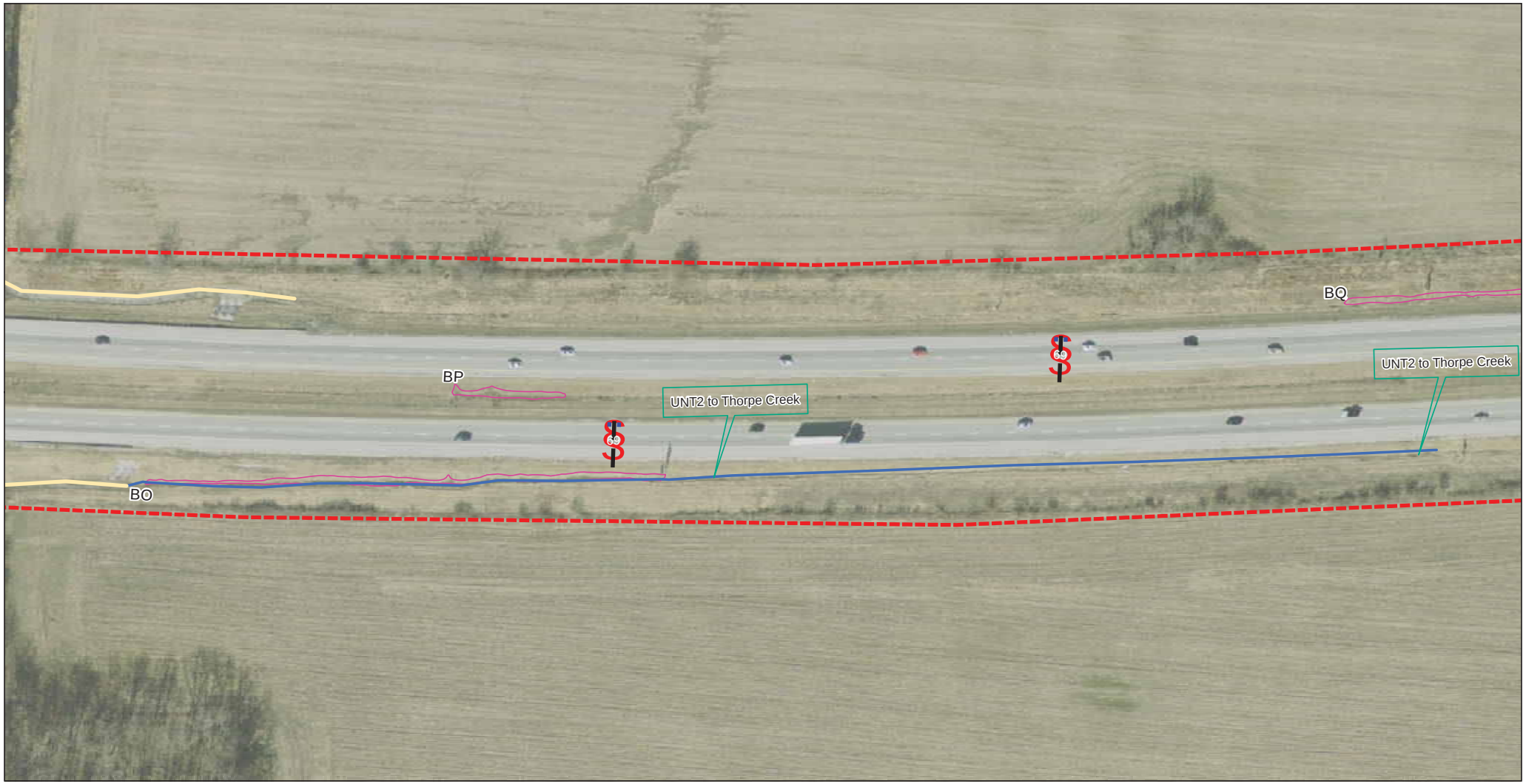
Exhibit 5: Resource Map
Sheet 40 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 41 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

3

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 42 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

3

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 43 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

3

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

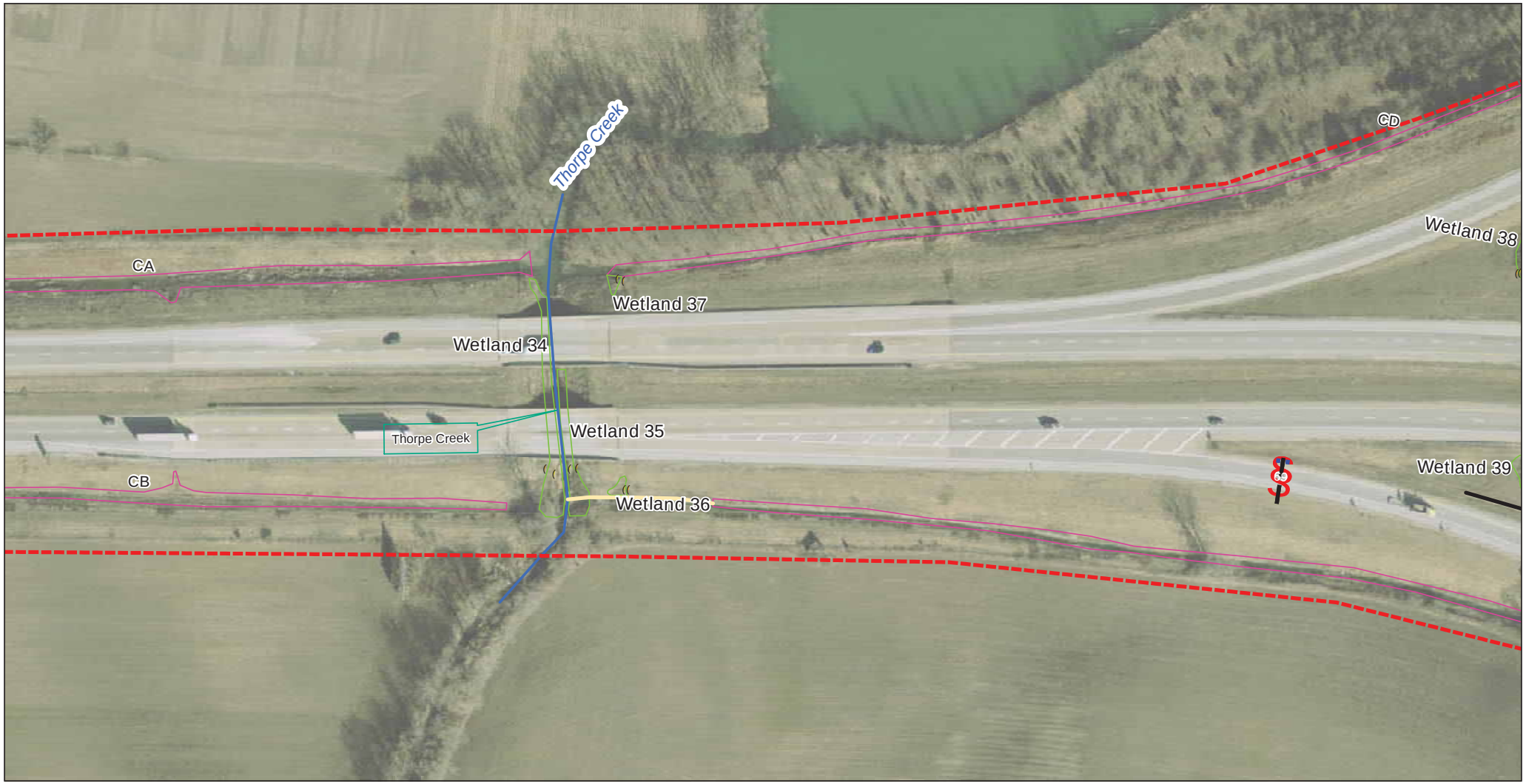
Exhibit 5: Resource Map
Sheet 44 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

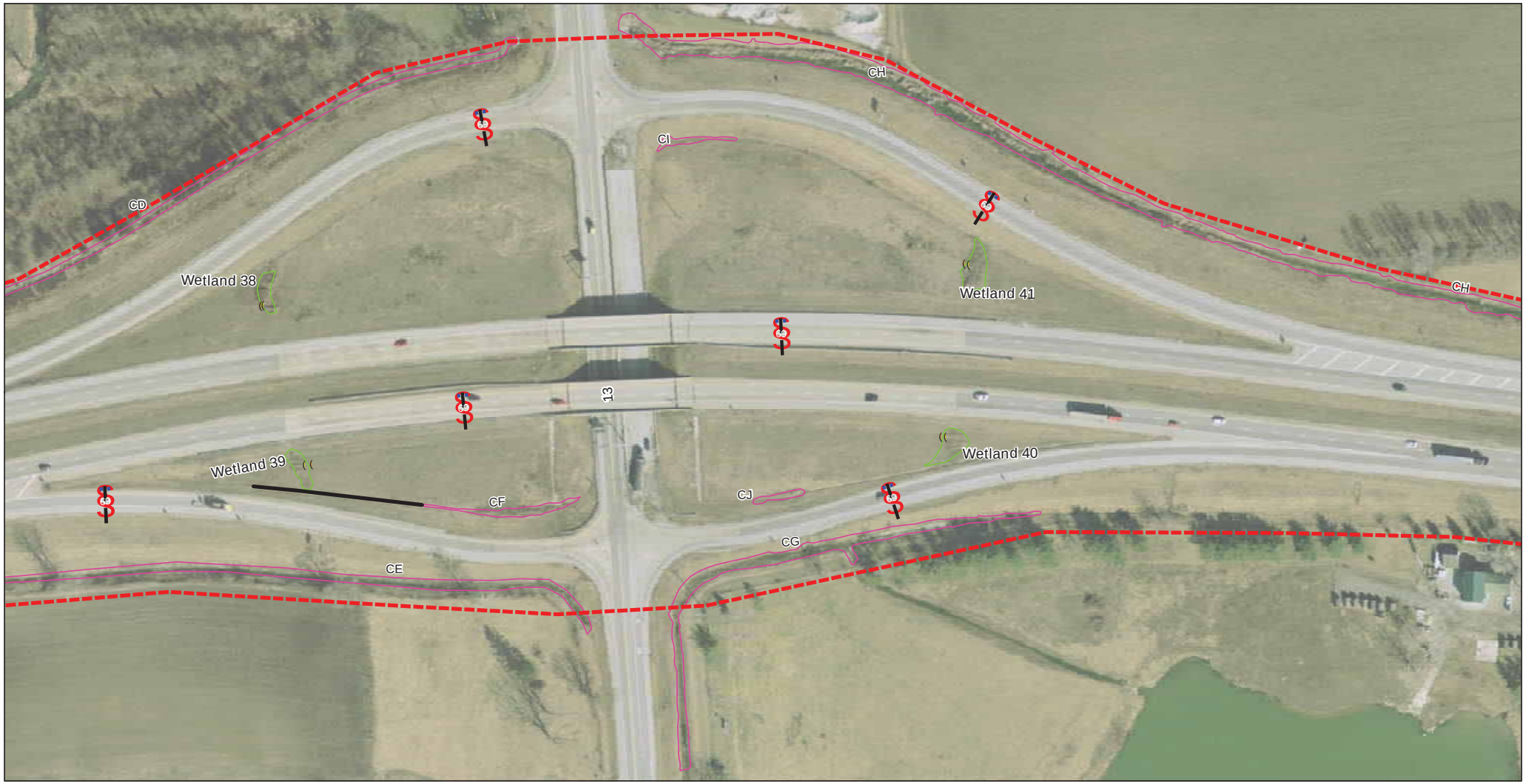
Exhibit 5: Resource Map
Sheet 45 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 65 130 260 Feet

1 inch = 125 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

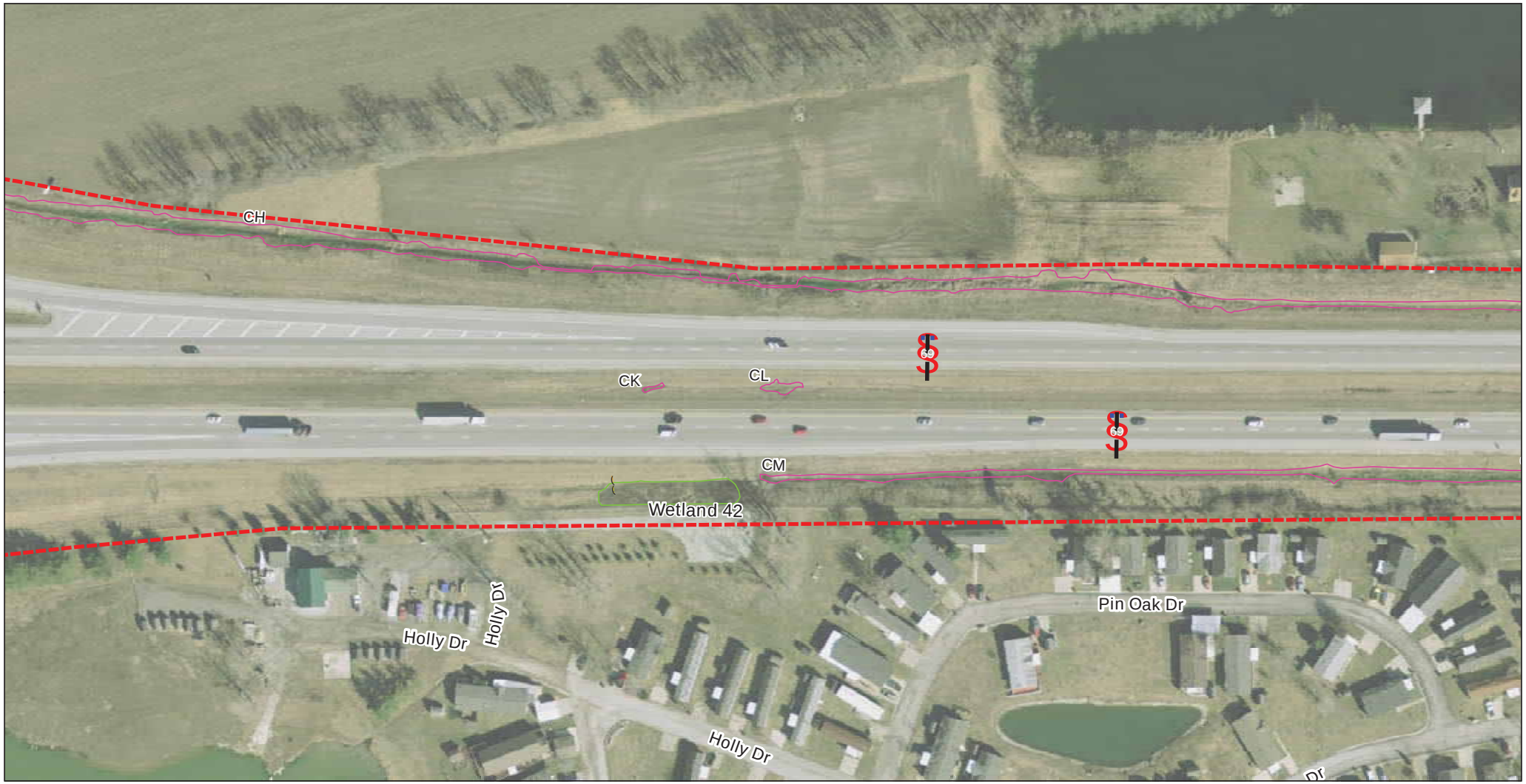
Exhibit 5: Resource Map
Sheet 46 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 47 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetland Data Point (In)
- Wetland Data Point (out)
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Wetlands
- Non-Jurisdictional Features

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 5: Resource Map
Sheet 48 of 48

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

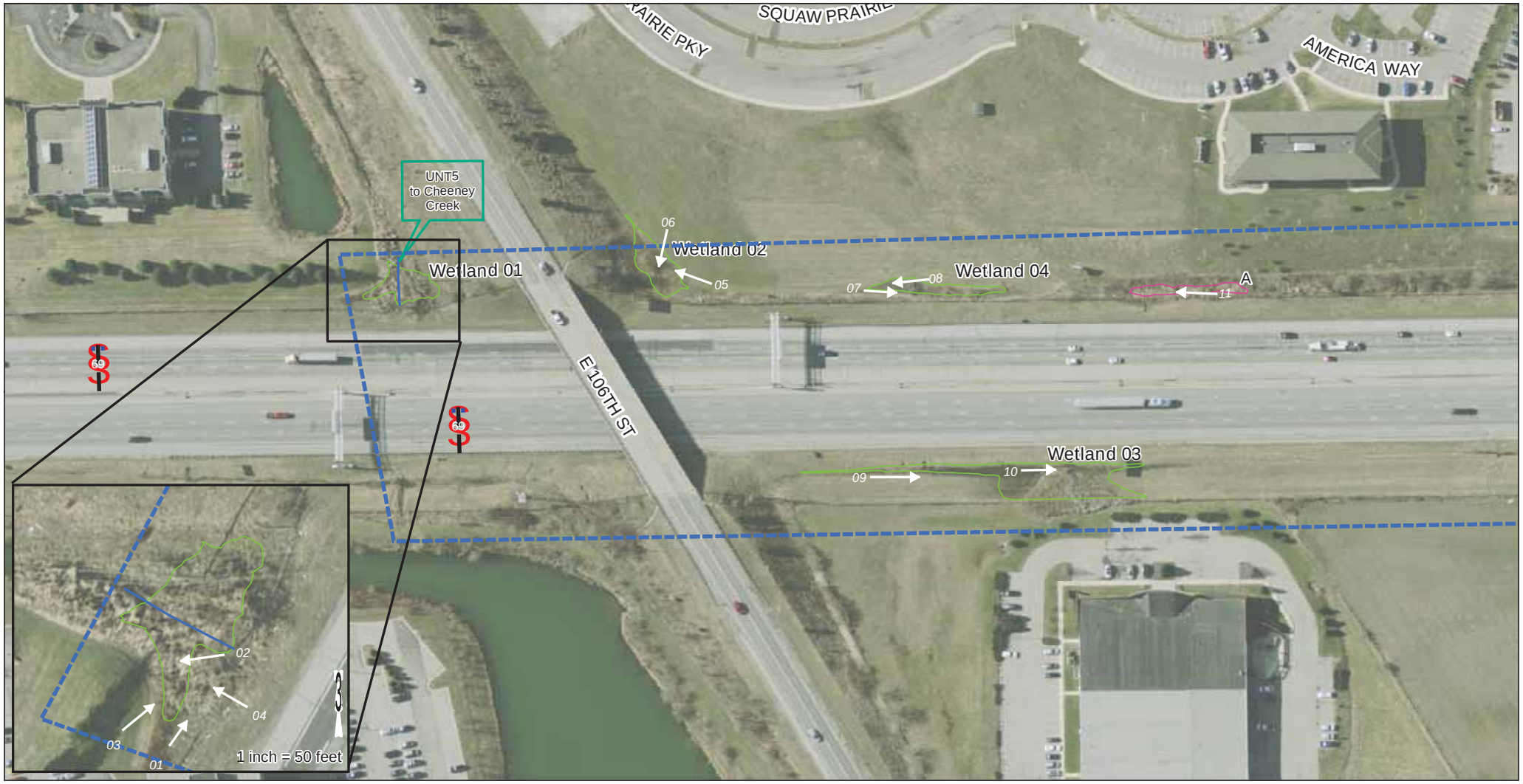
PARSONS

EXHIBIT 6

PHOTO-ORIENTATION MAPS

AND

PHOTOGRAPHS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

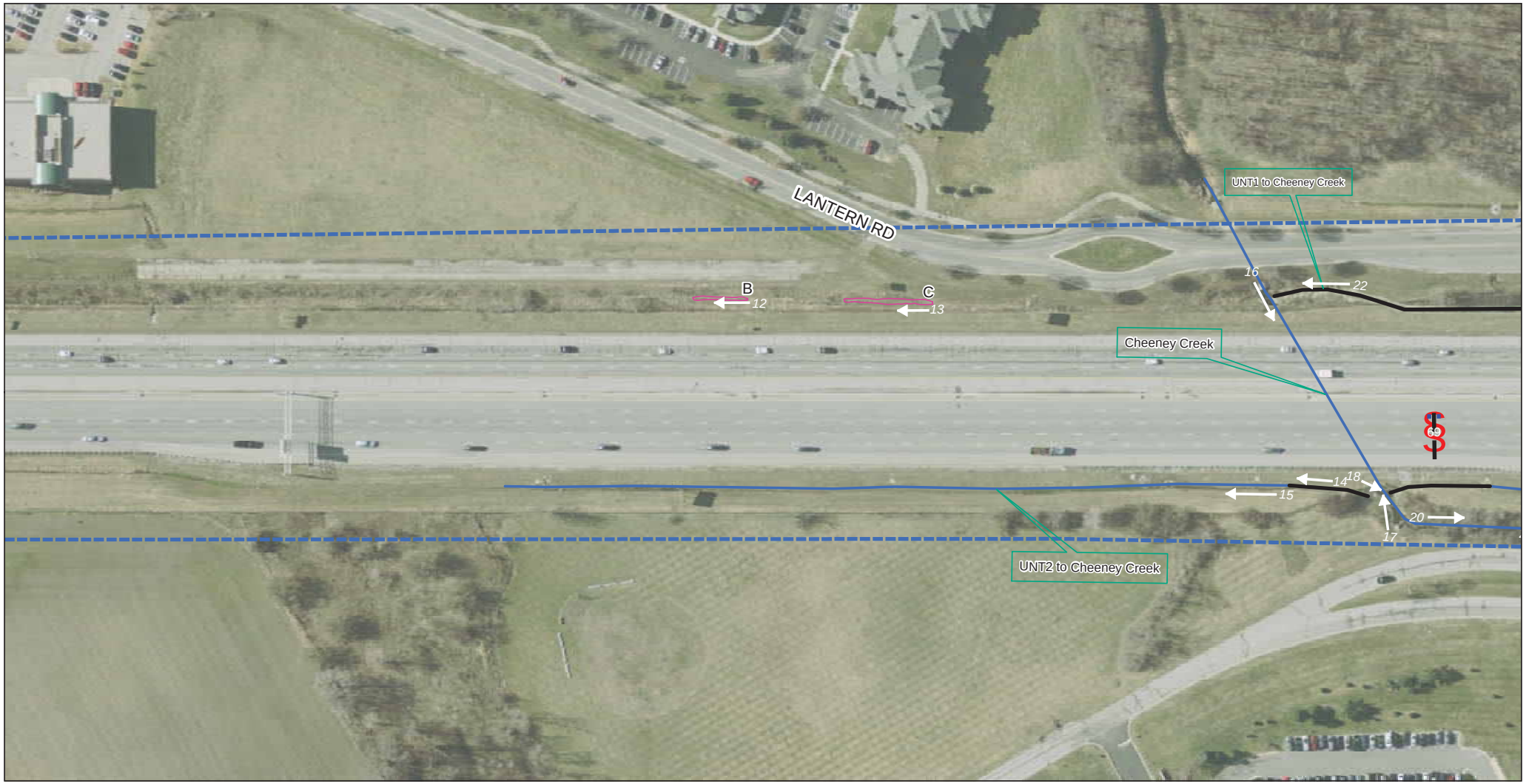
Exhibit 6: Photo Orientation
Sheet 1 of 41

Des. 1383332, 1383336, 1383489

Date: 10/1/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 2 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- # Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

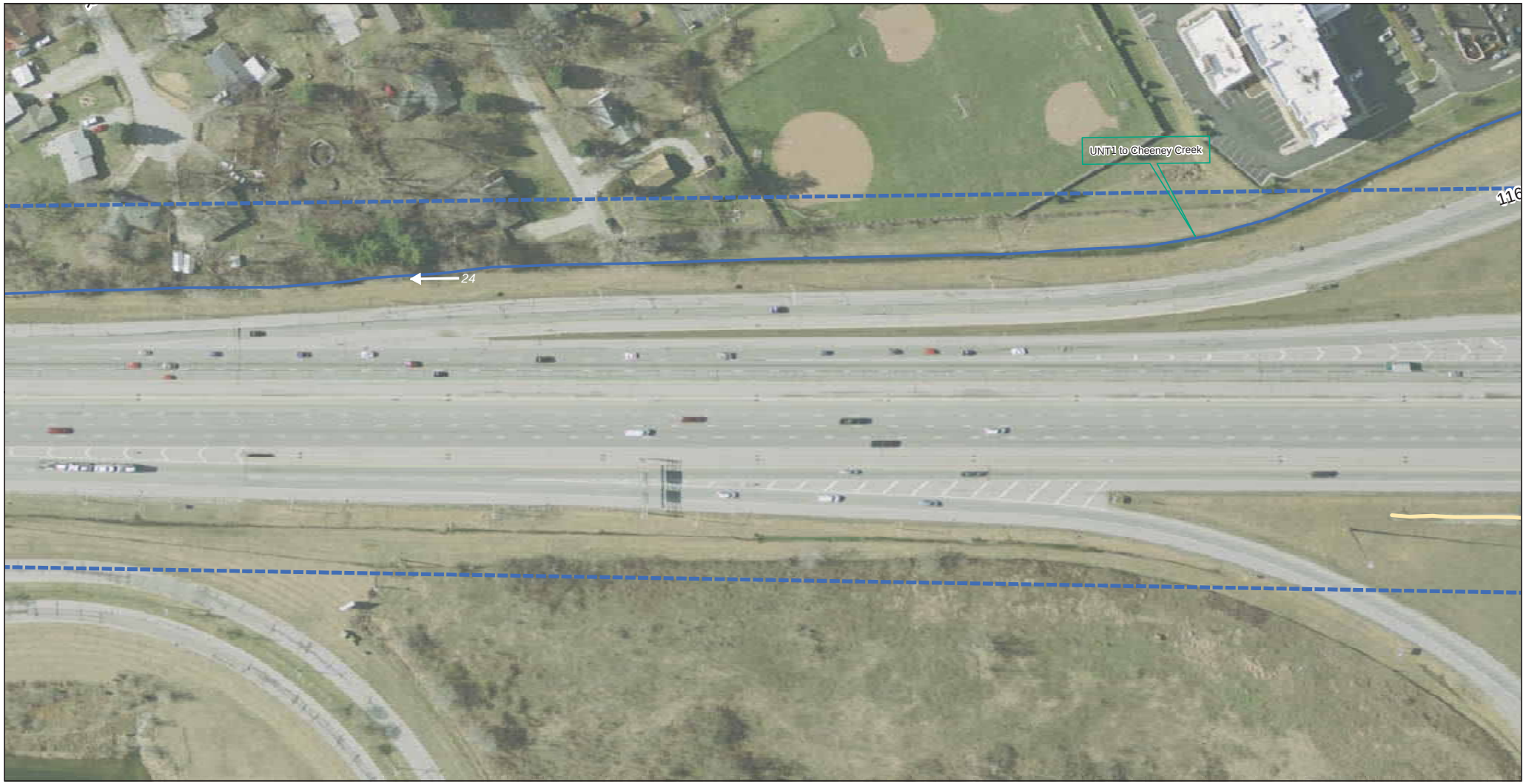
Exhibit 6: Photo Orientation
Sheet 3 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

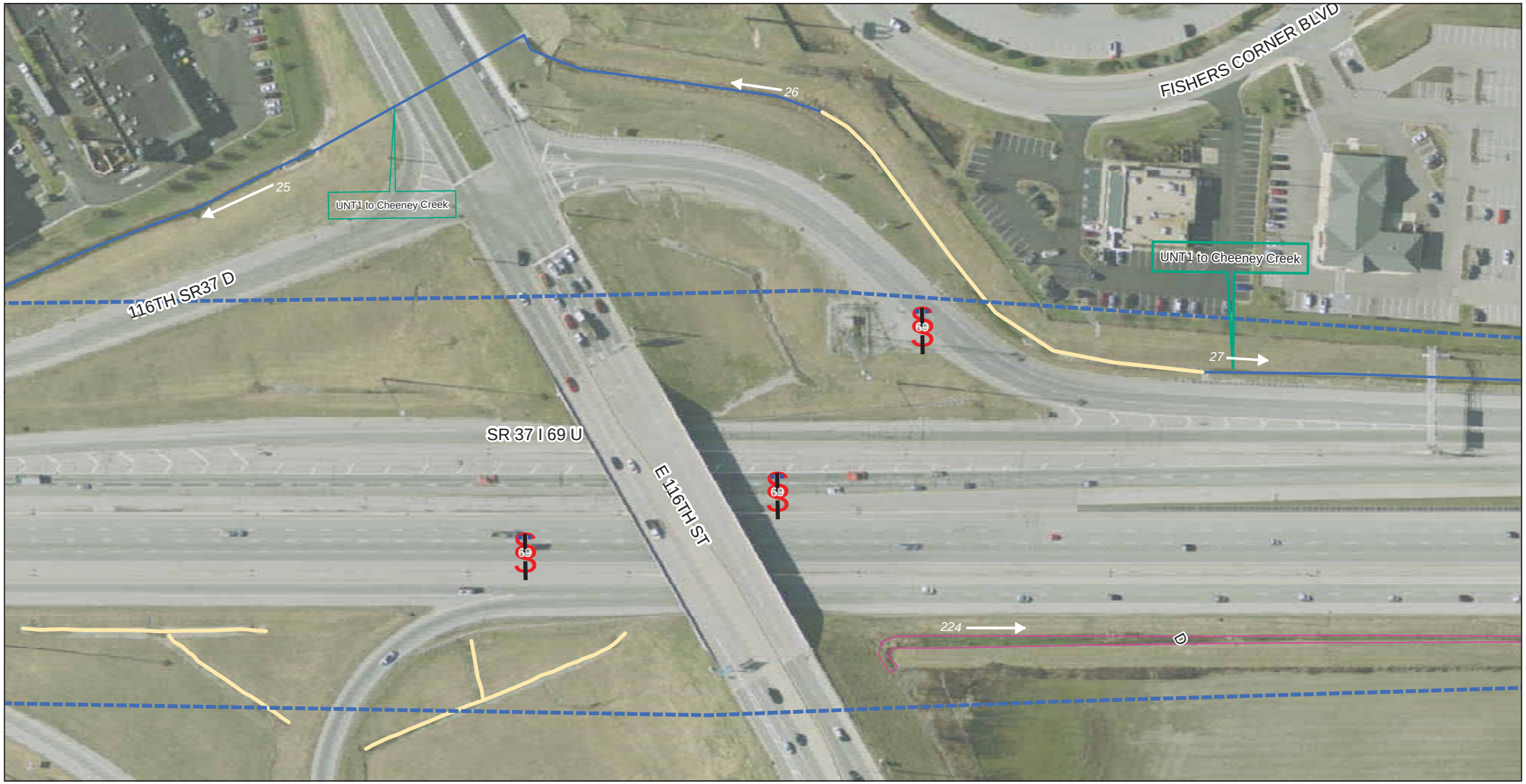
Exhibit 6: Photo Orientation
Sheet 4 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 5 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 6 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- # Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 7 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

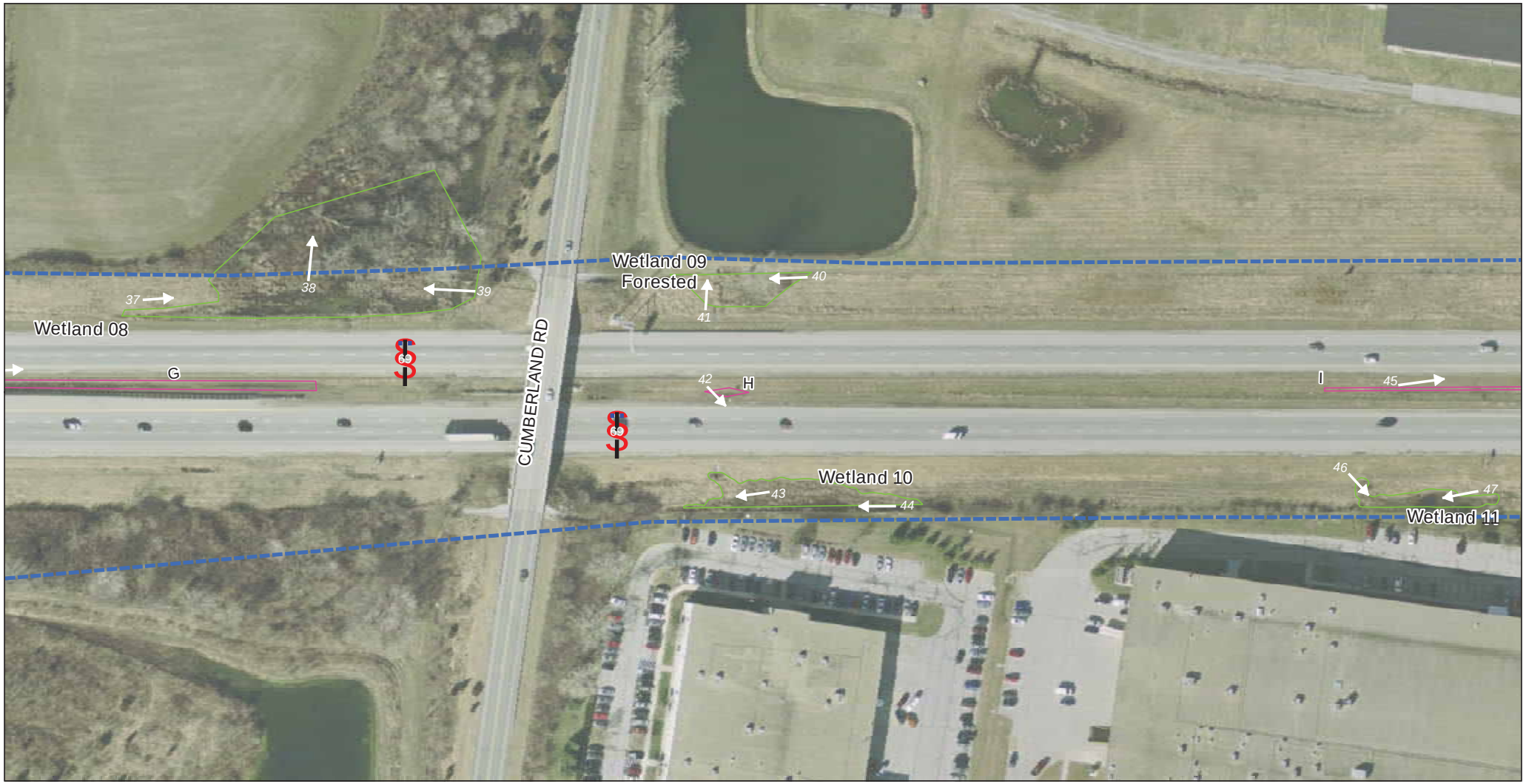
Exhibit 6: Photo Orientation
Sheet 8 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 9 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- # Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

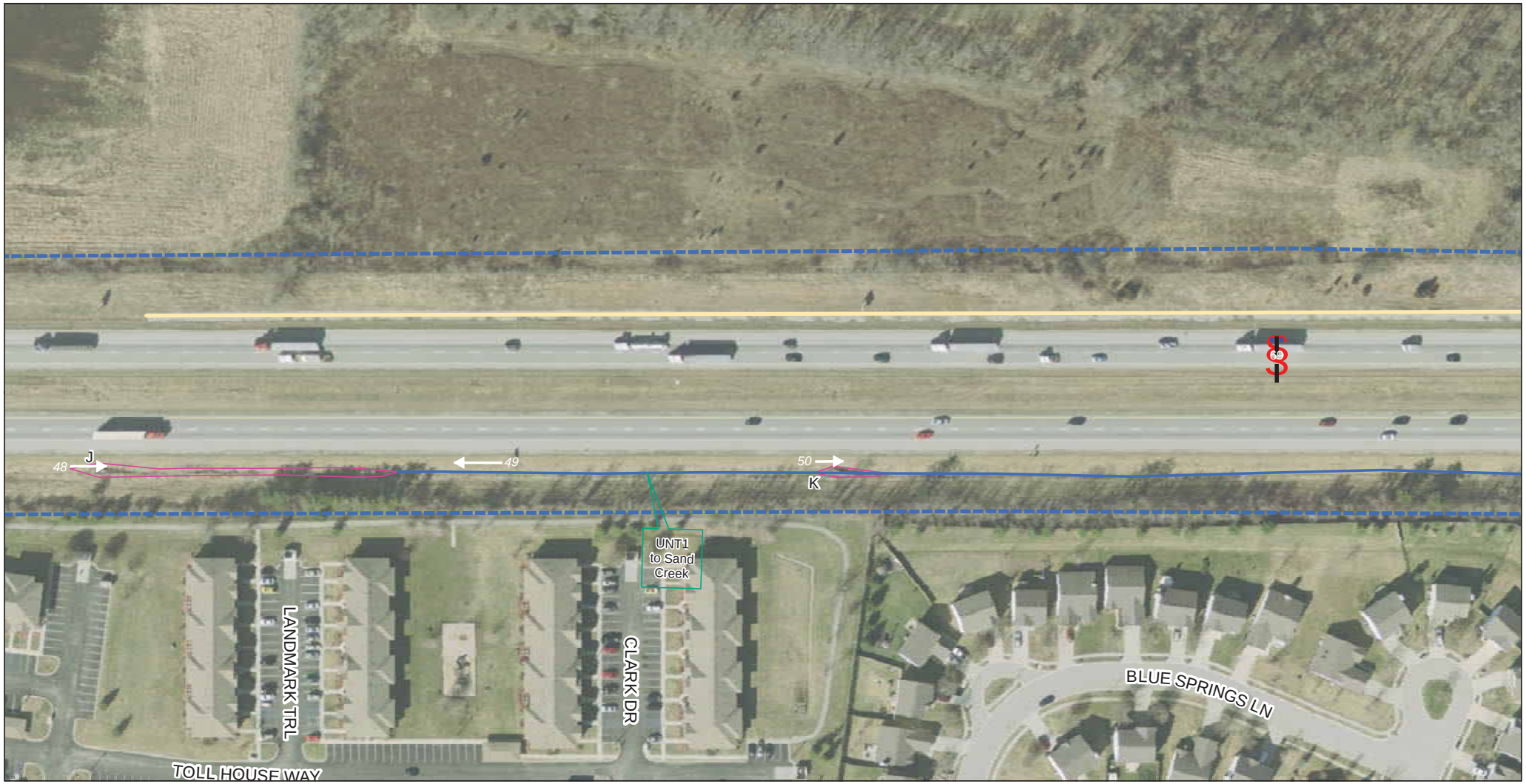
Exhibit 6: Photo Orientation
Sheet 10 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

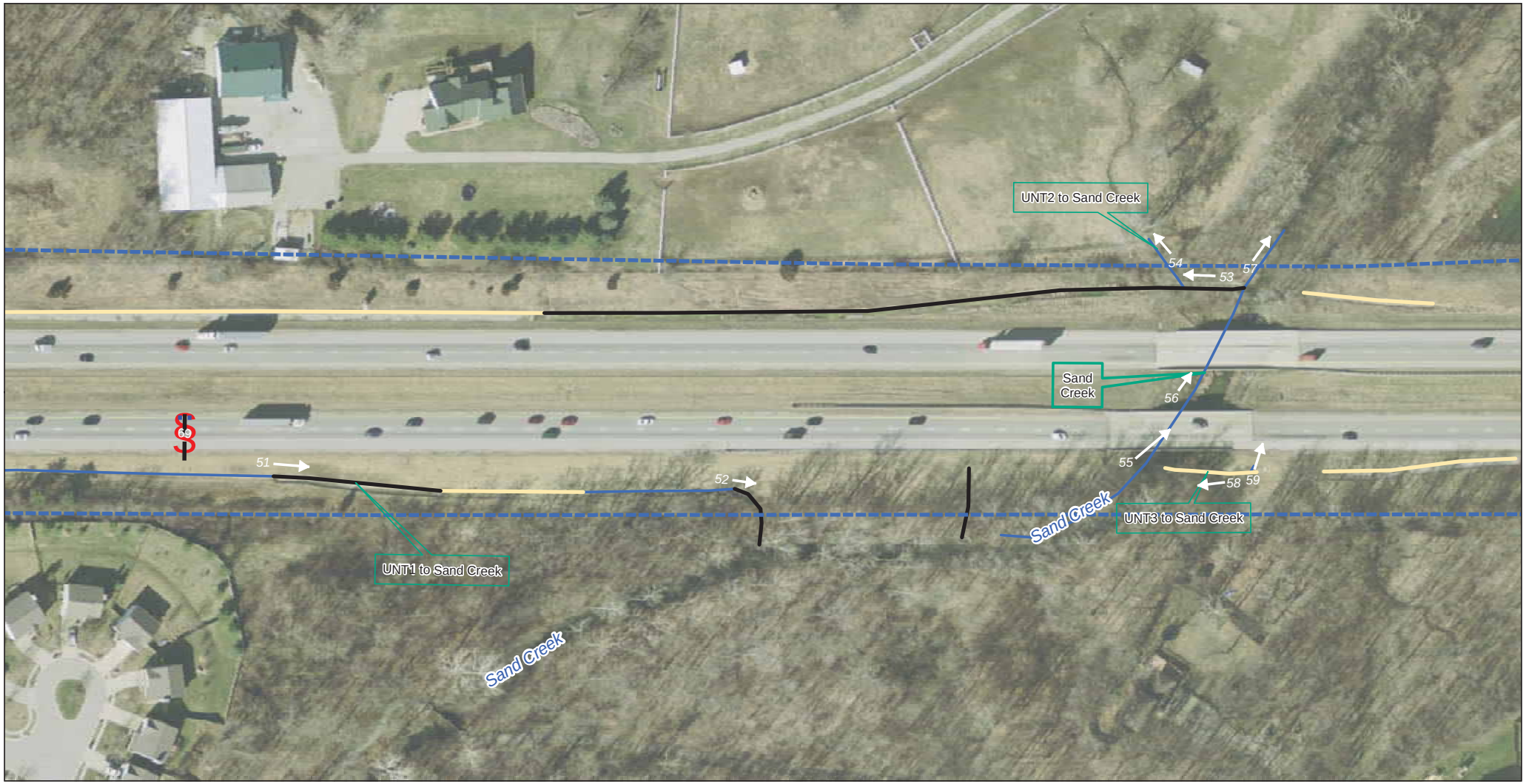
Exhibit 6: Photo Orientation
Sheet 11 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

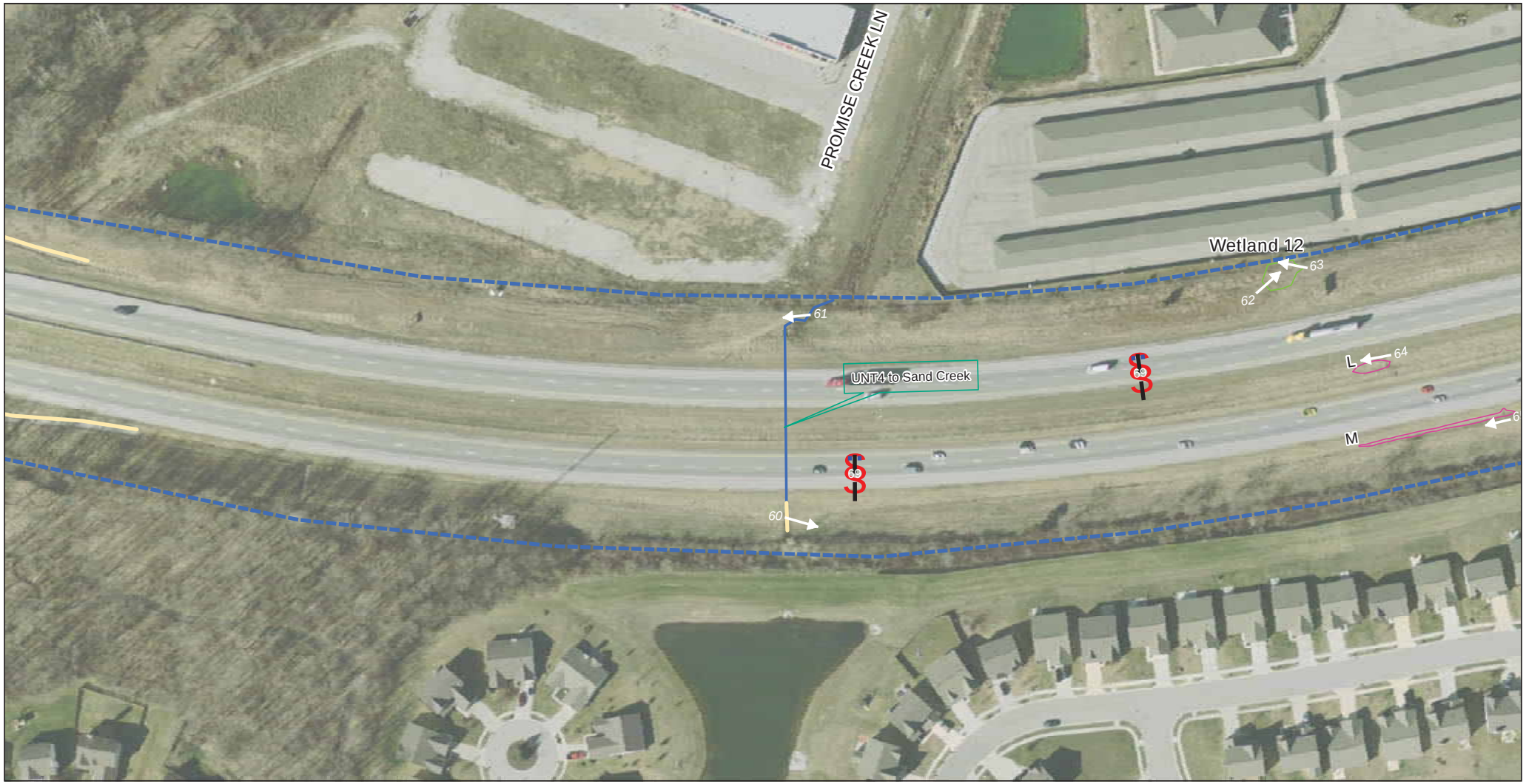
Exhibit 6: Photo Orientation
Sheet 12 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

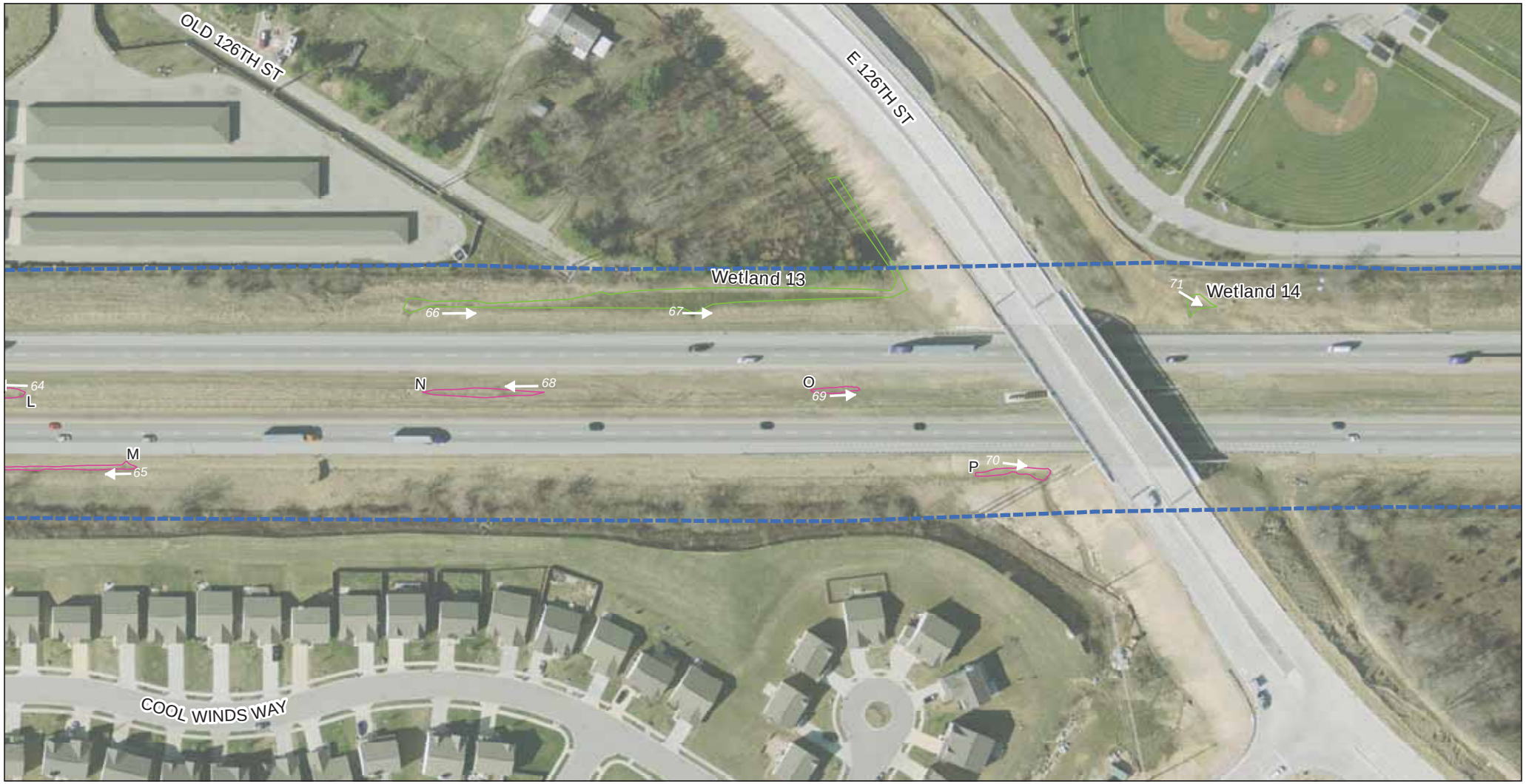
Exhibit 6: Photo Orientation
Sheet 13 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

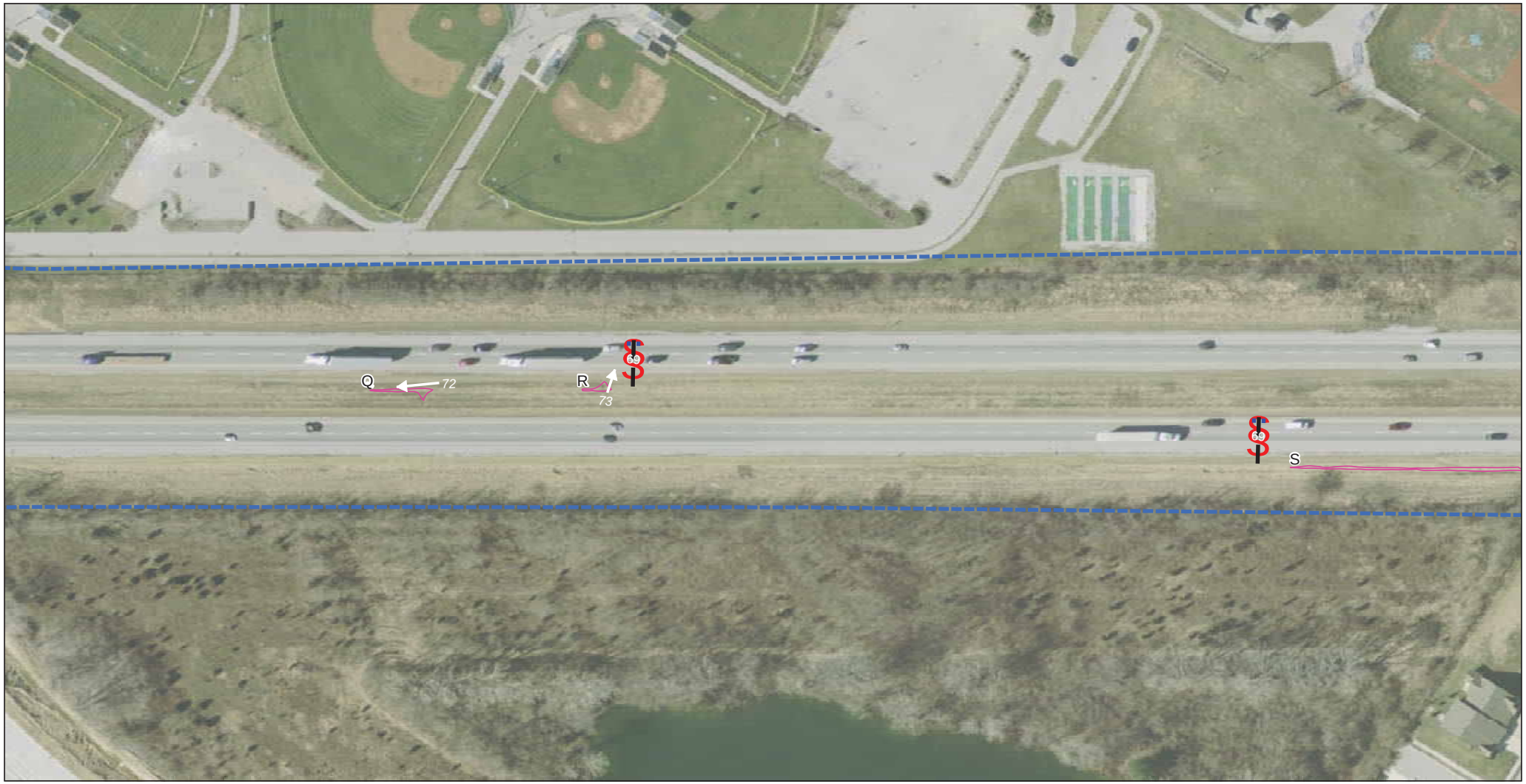
Exhibit 6: Photo Orientation
Sheet 14 of 41

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 15 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

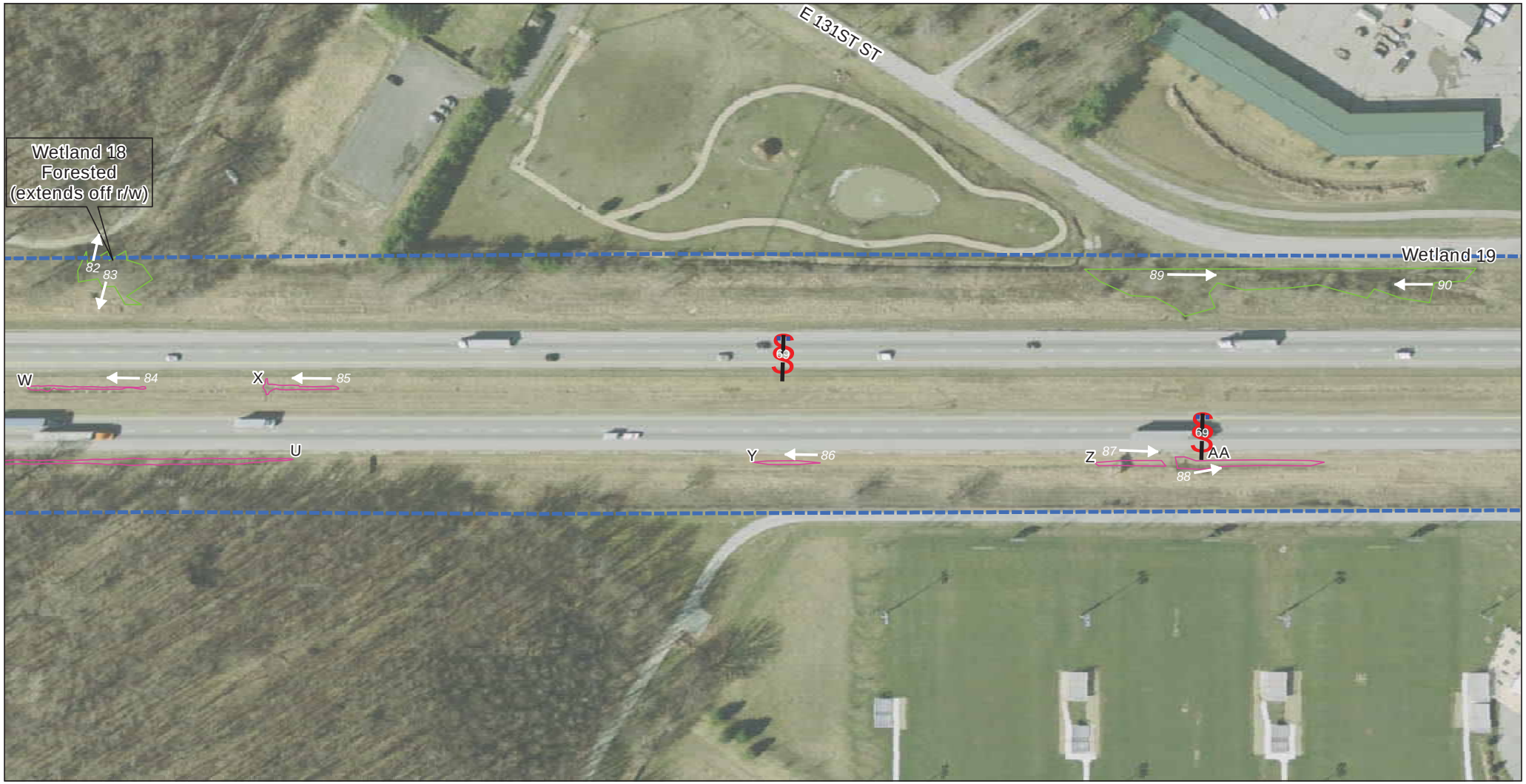
Exhibit 6: Photo Orientation
Sheet 16 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- # Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

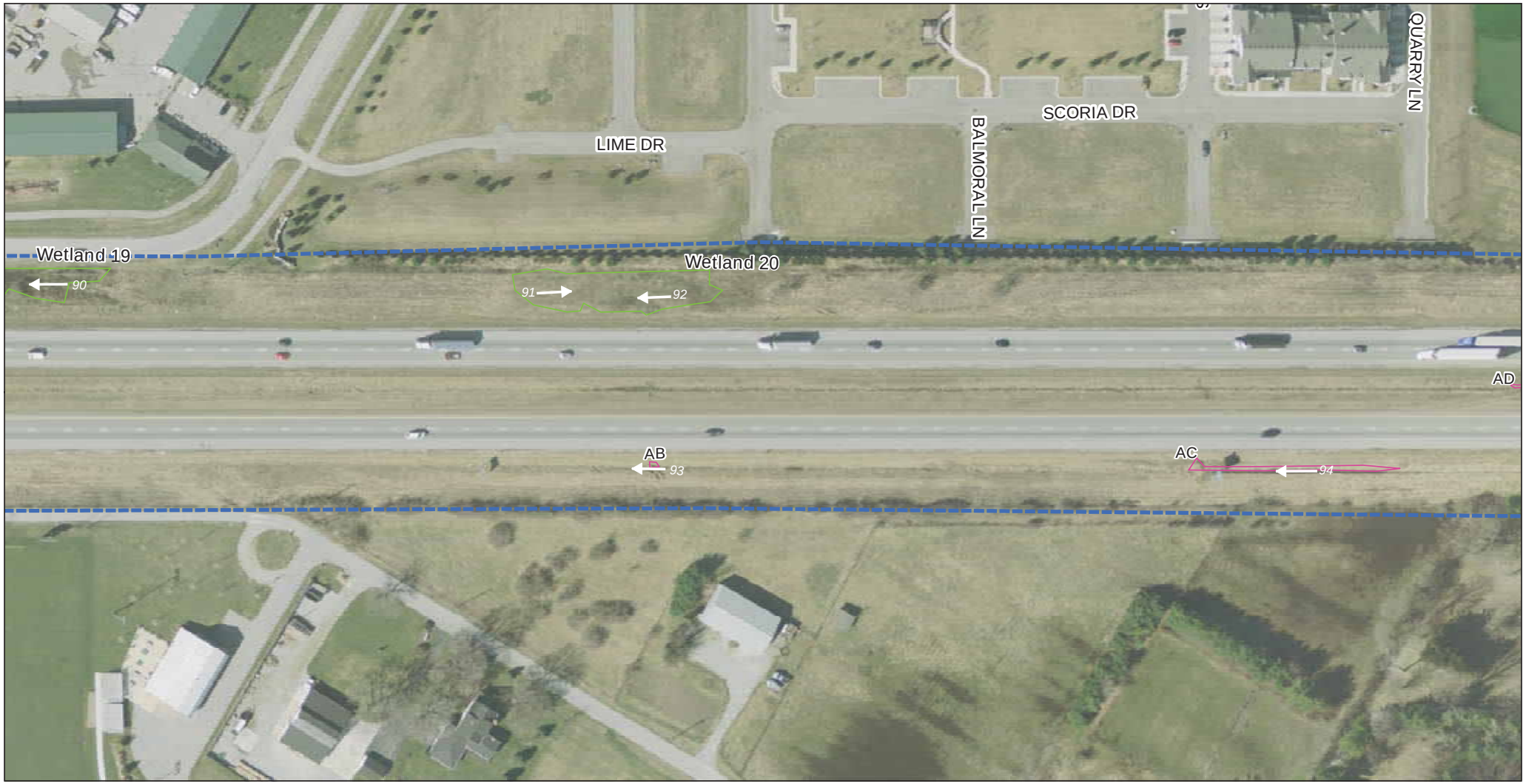
Exhibit 6: Photo Orientation
Sheet 17 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 18 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

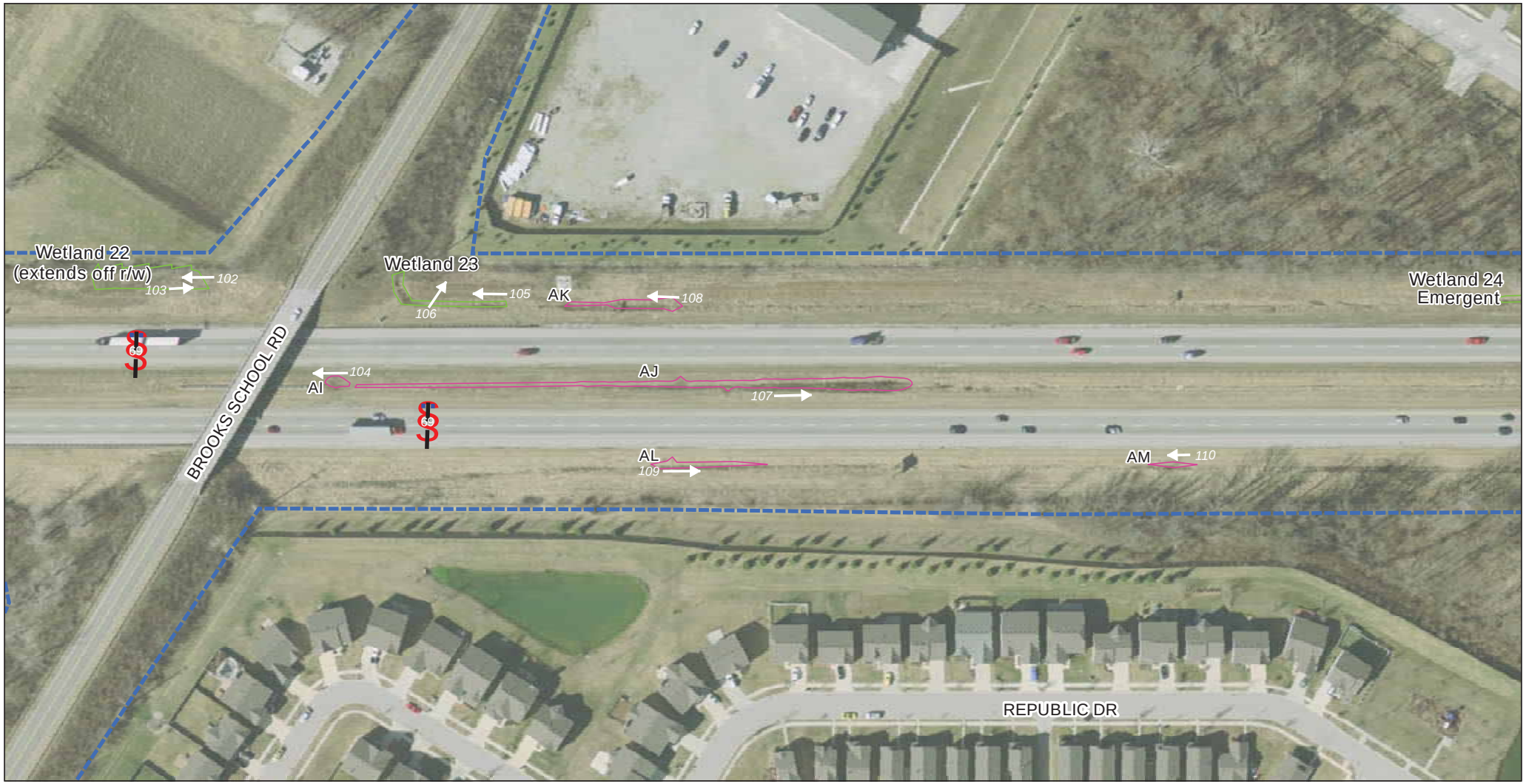
Exhibit 6: Photo Orientation
Sheet 19 of 41

Des. 1383332, 1383336, 1383489

Date: 10/2/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

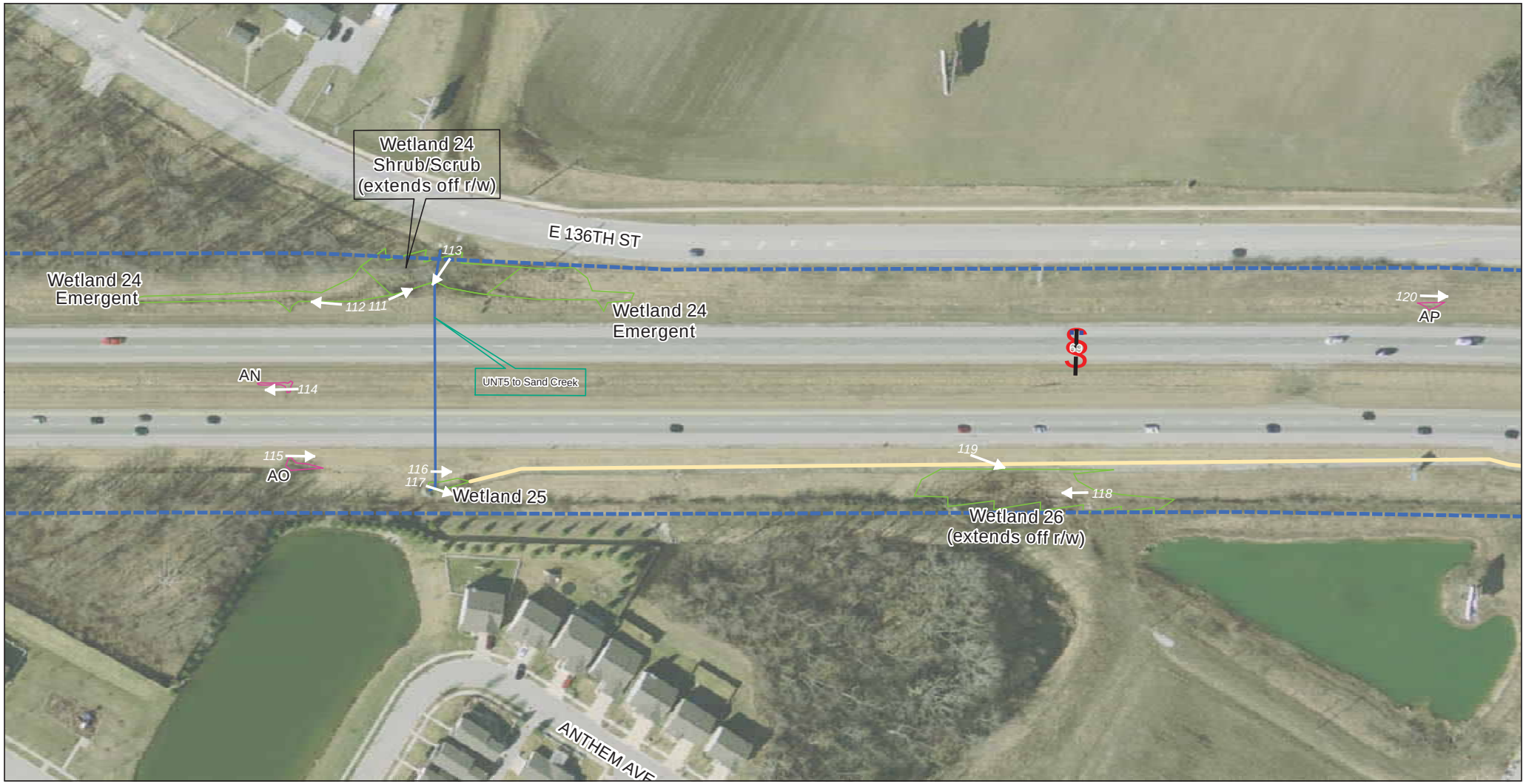
Exhibit 6: Photo Orientation
Sheet 20 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

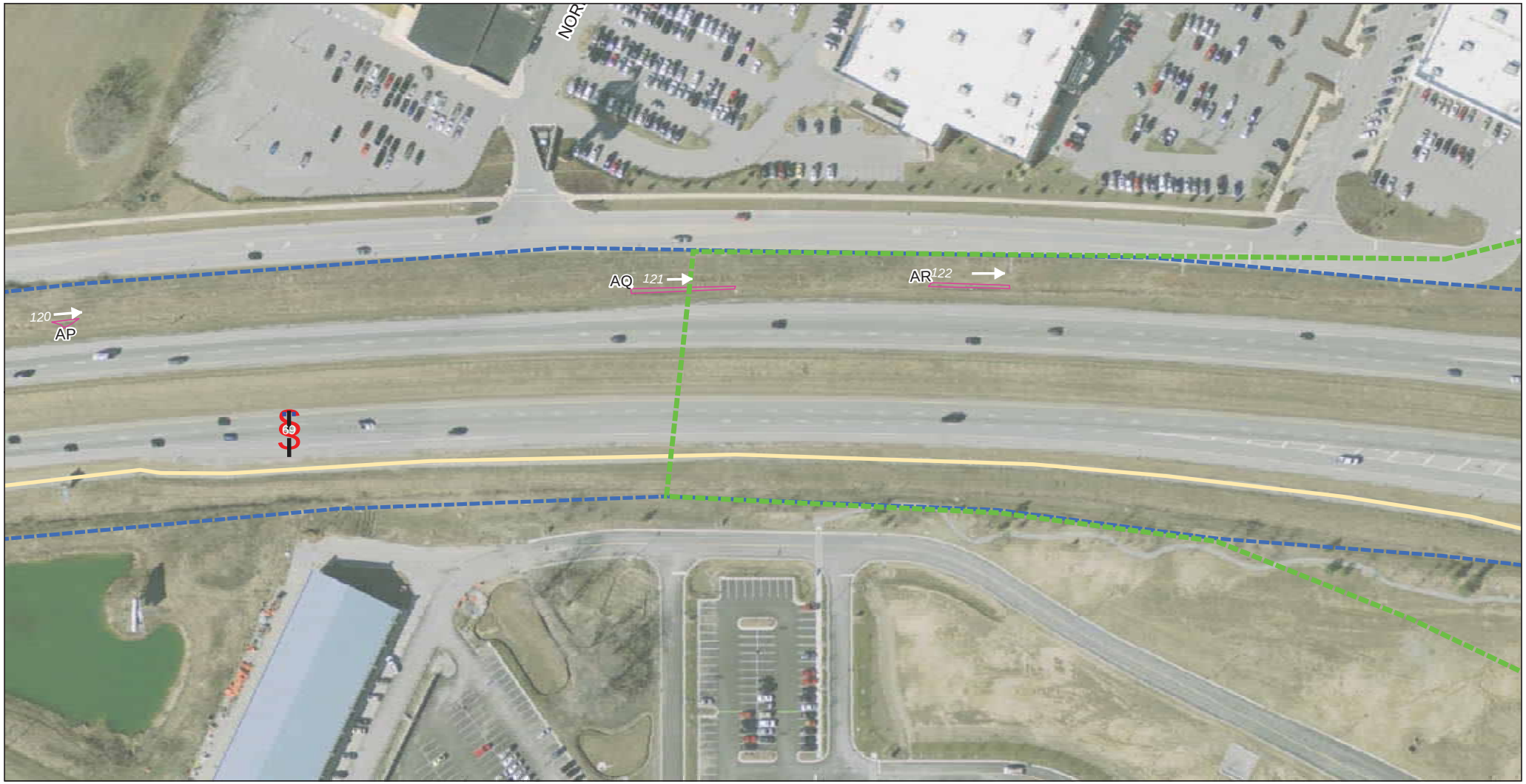
Exhibit 6: Photo Orientation
Sheet 21 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

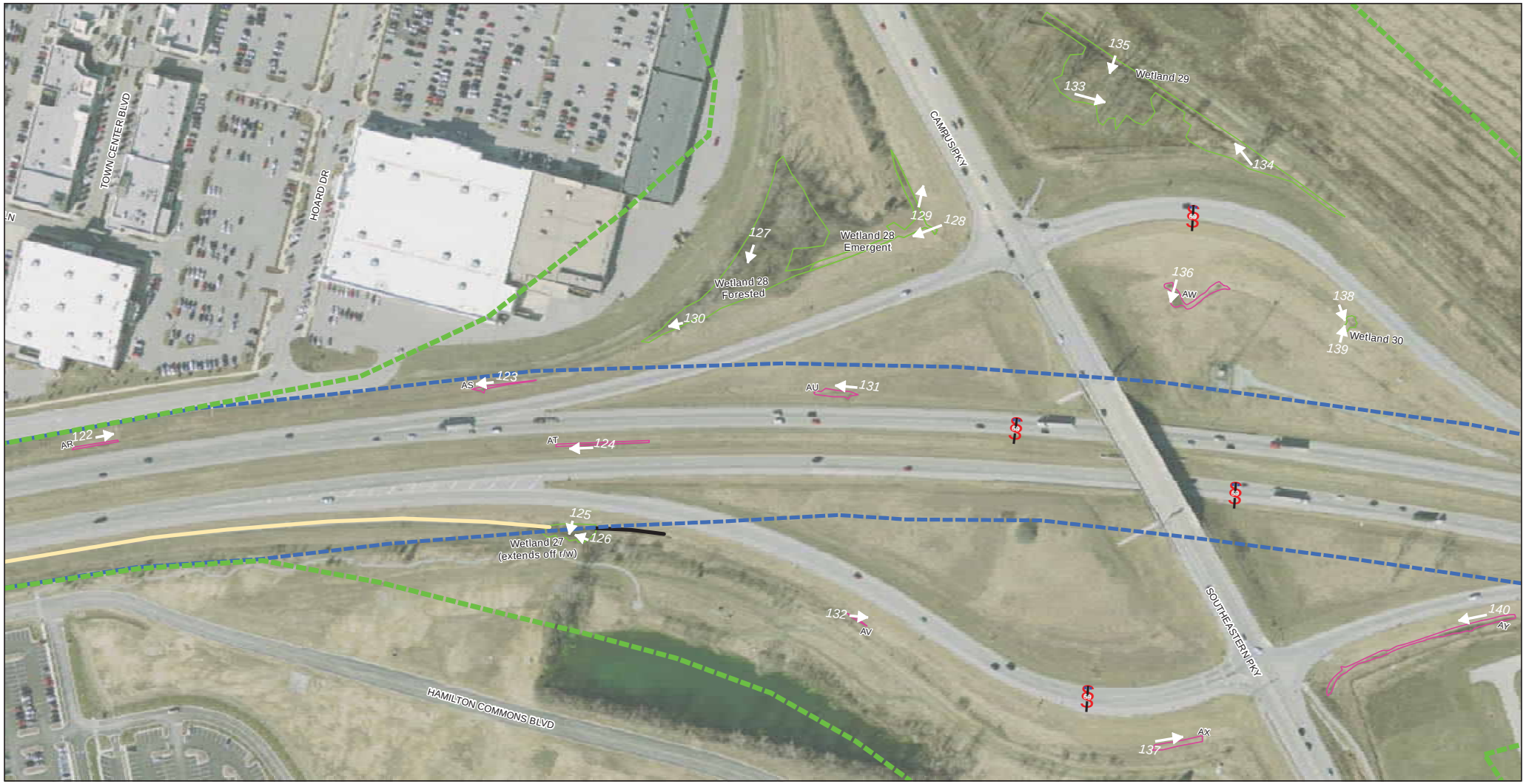
Exhibit 6: Photo Orientation
Sheet 22 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

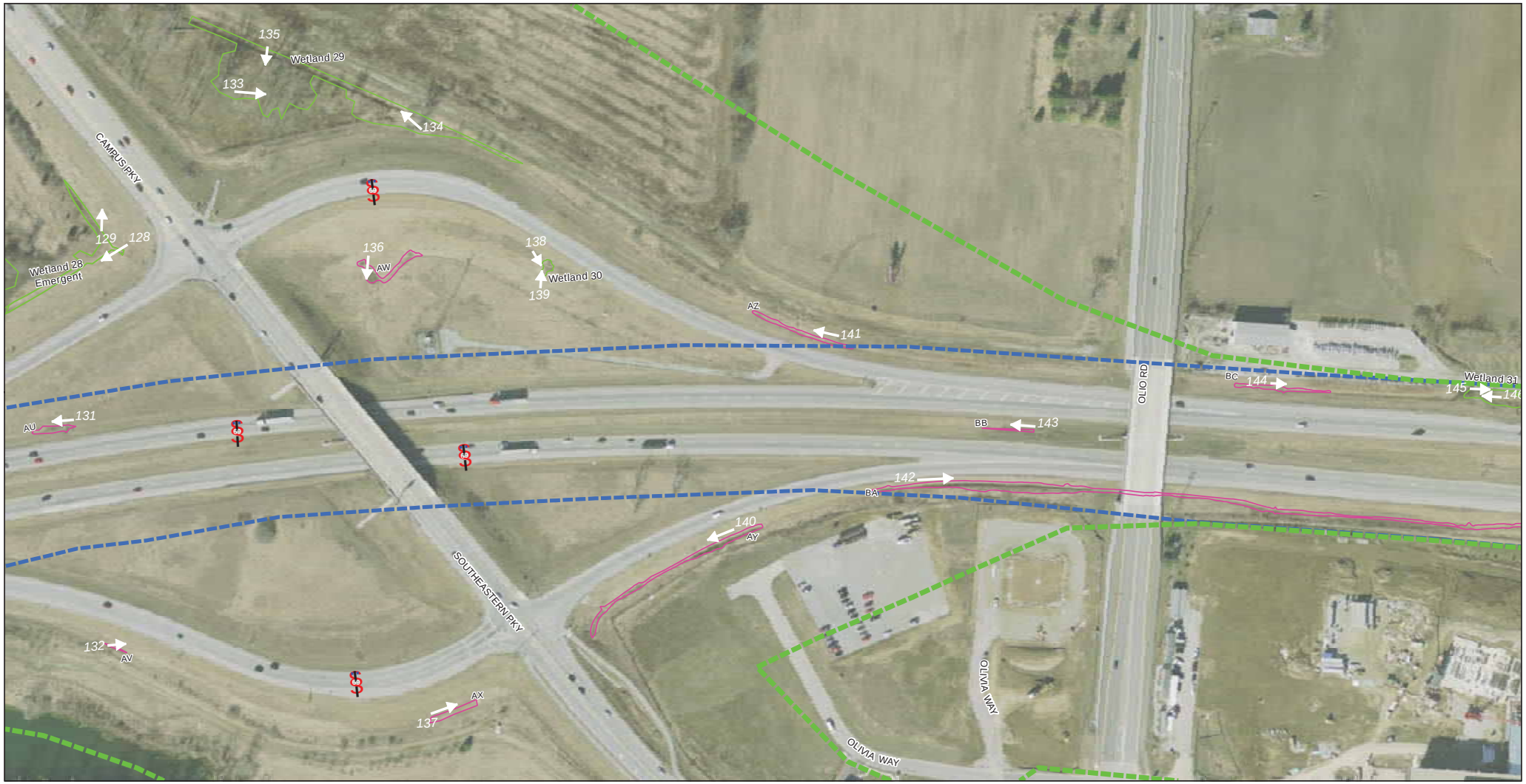
Exhibit 6: Photo Orientation
Sheet 23 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 90 180 360 Feet

1 inch = 175 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

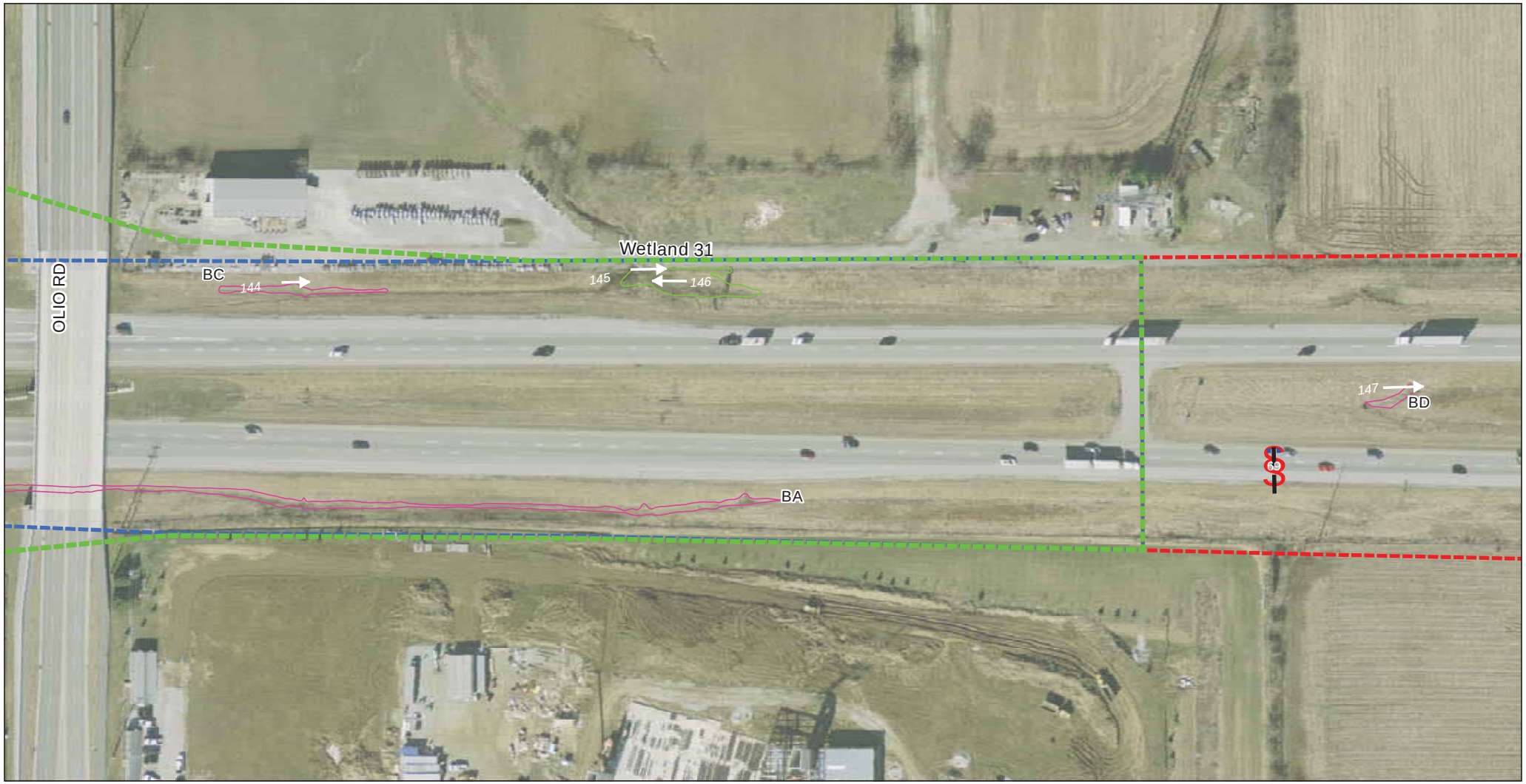
Exhibit 6: Photo Orientation
Sheet 24 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 25 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 26 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

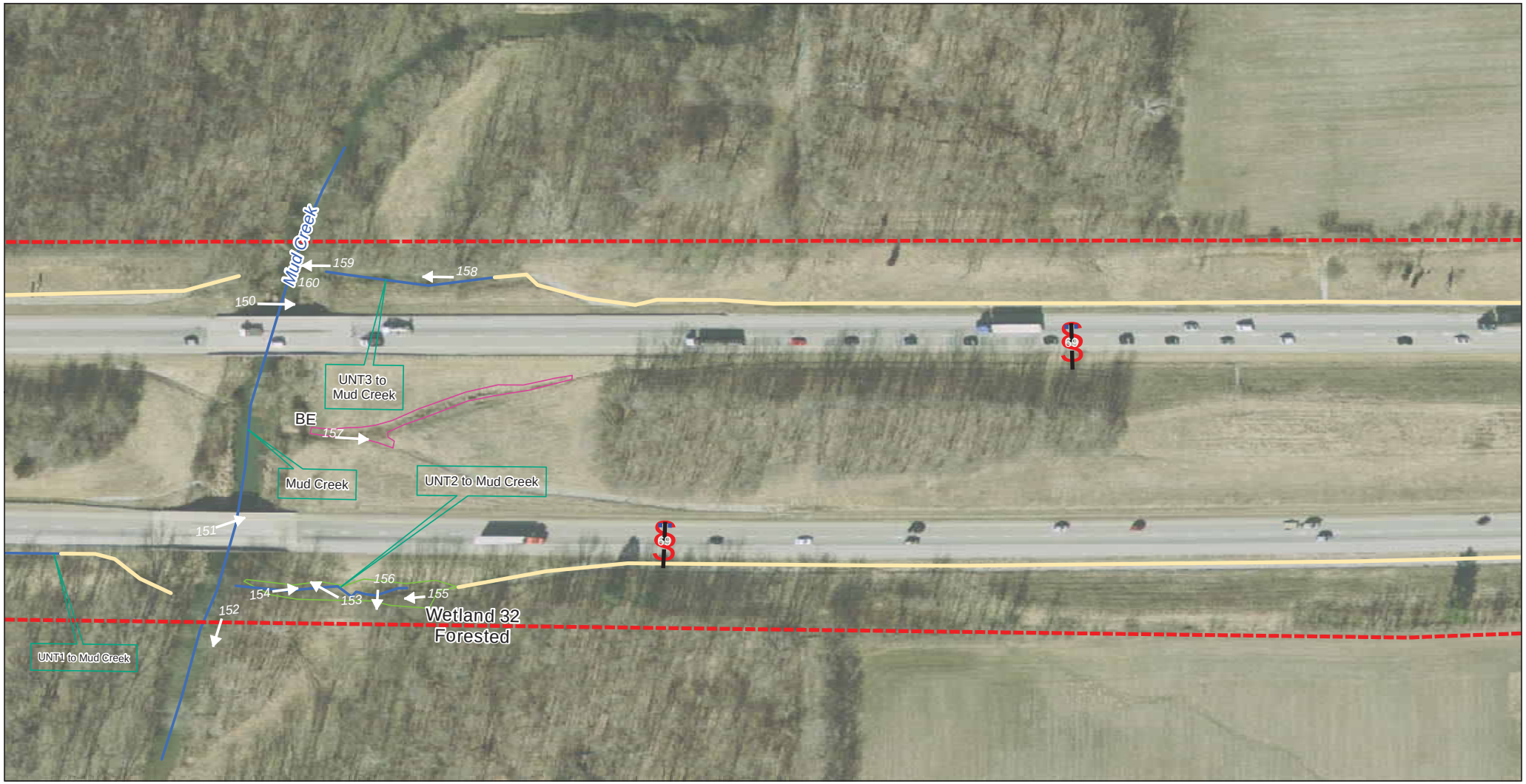
Exhibit 6: Photo Orientation
Sheet 27 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- # Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Exhibit 6: Photo Orientation
Sheet 28 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
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Exhibit 6: Photo Orientation
Sheet 29 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

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

Exhibit 6: Photo Orientation
Sheet 30 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

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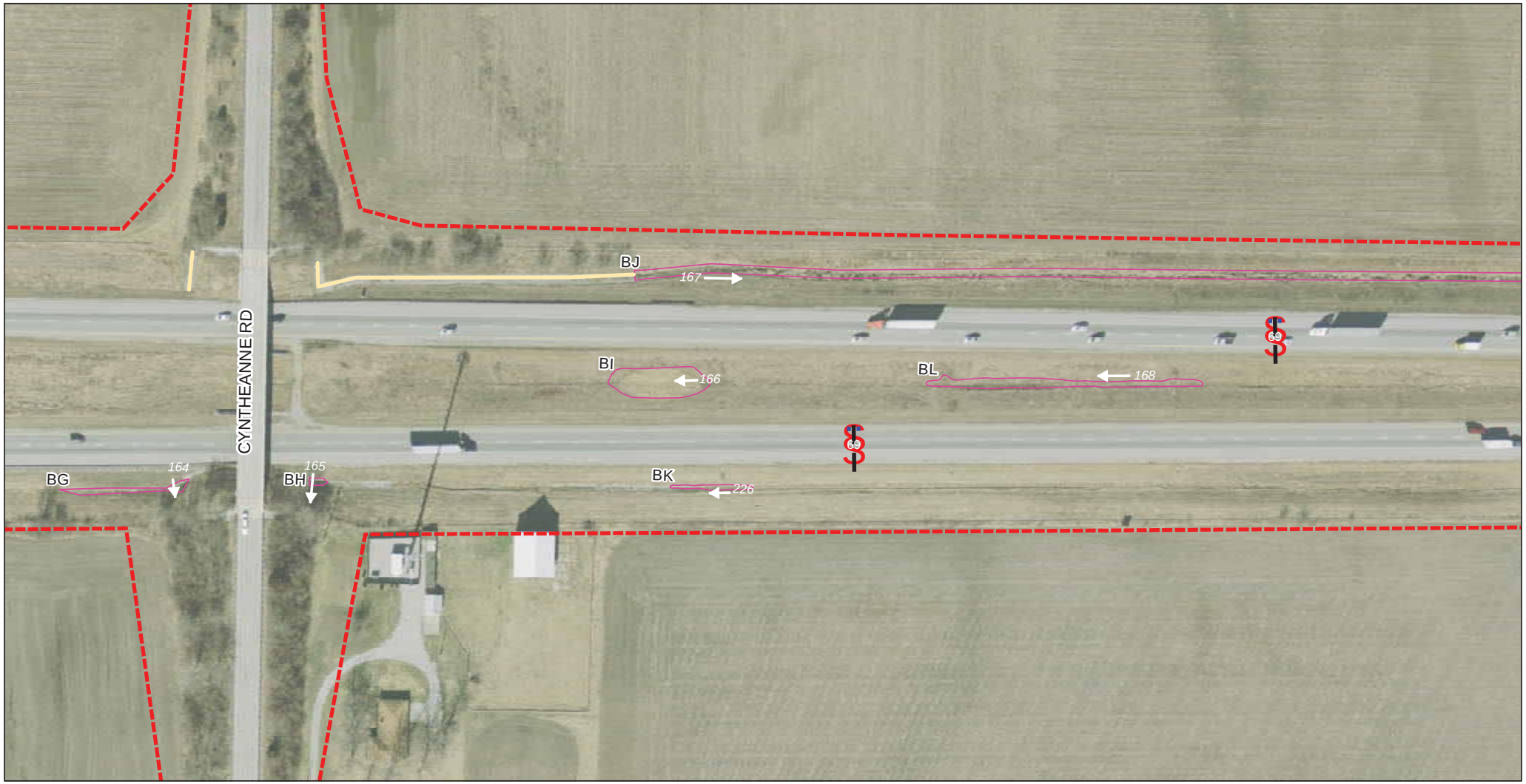
Exhibit 6: Photo Orientation
Sheet 31 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

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

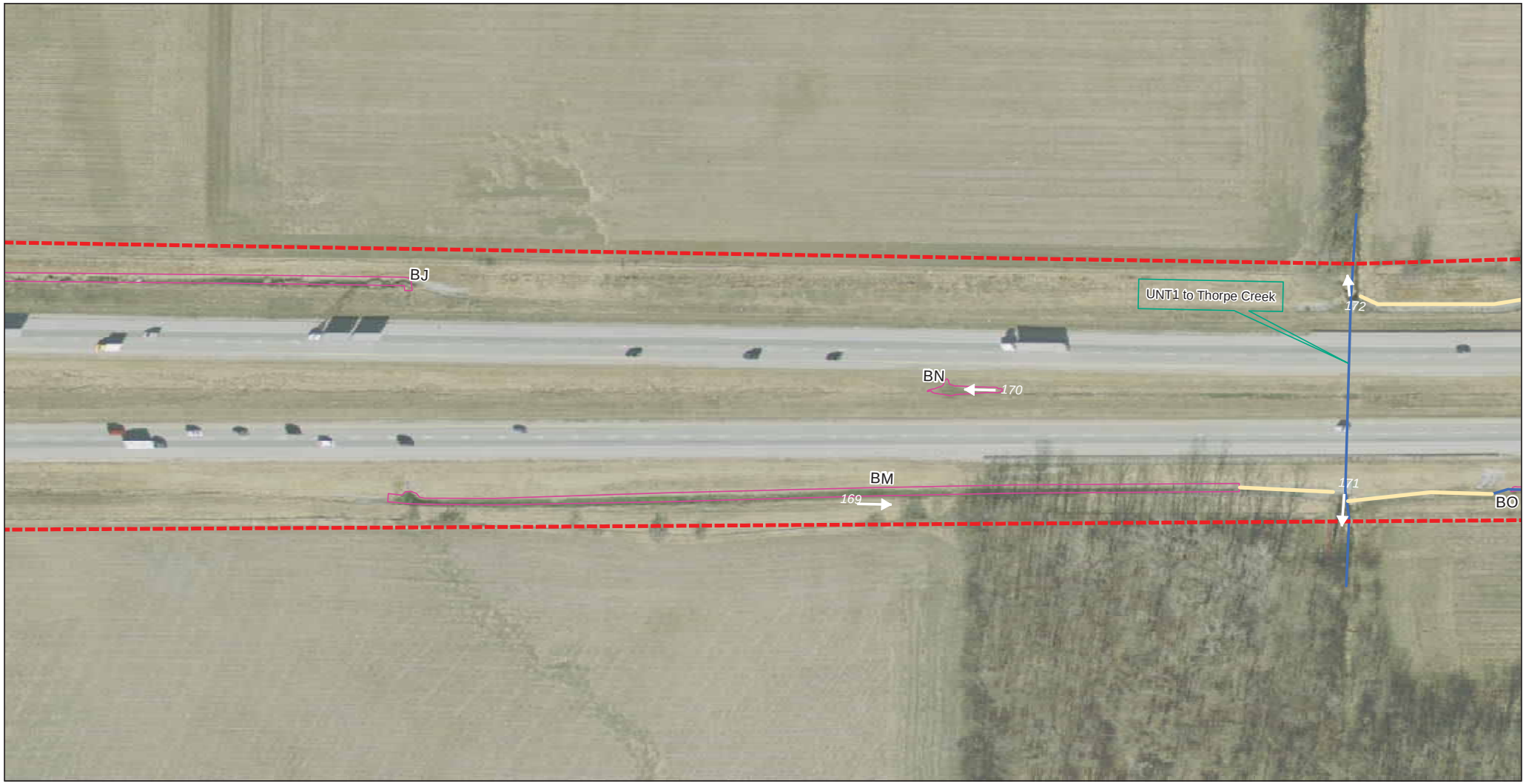
Exhibit 6: Photo Orientation
Sheet 32 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
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Exhibit 6: Photo Orientation

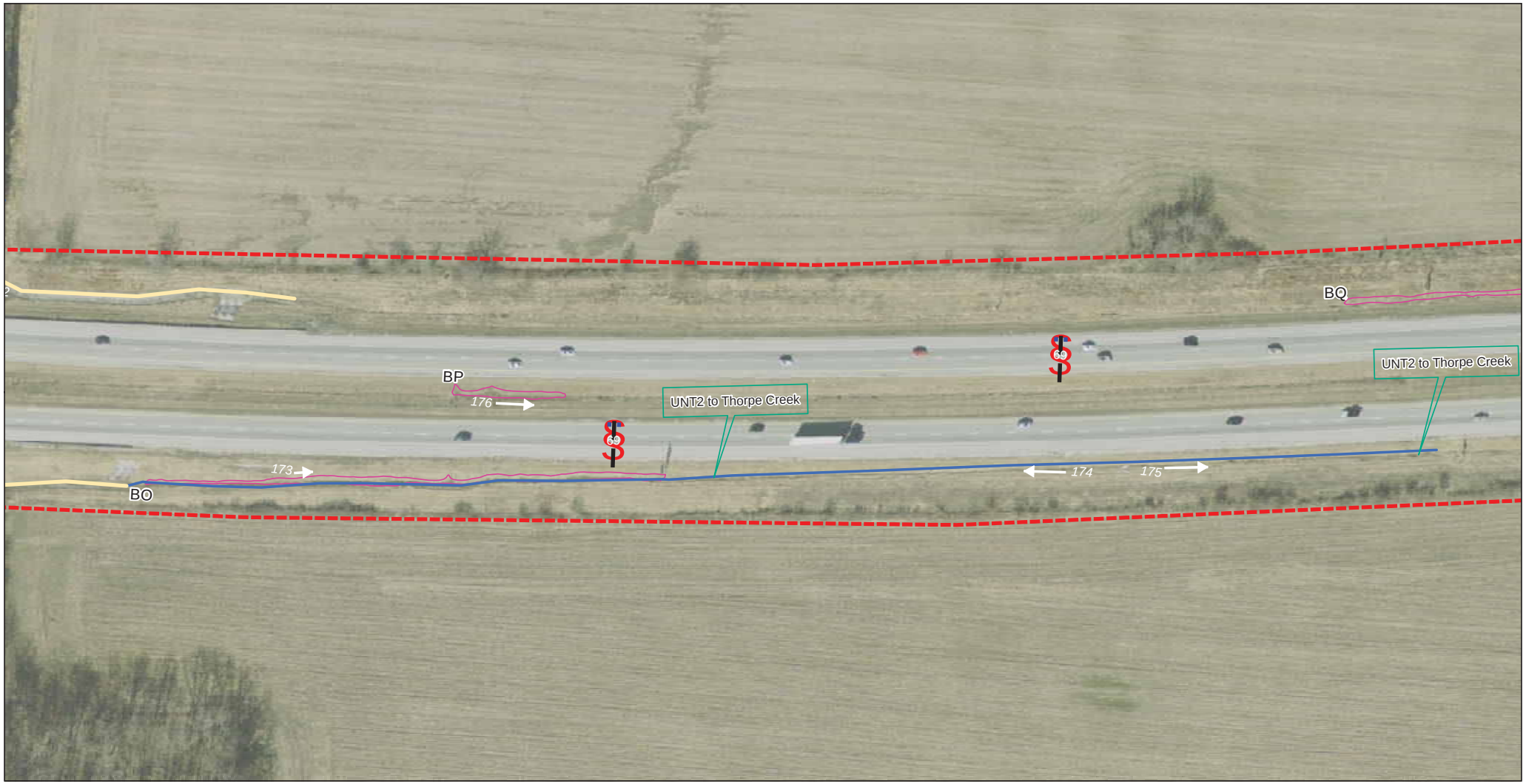
Sheet 33 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
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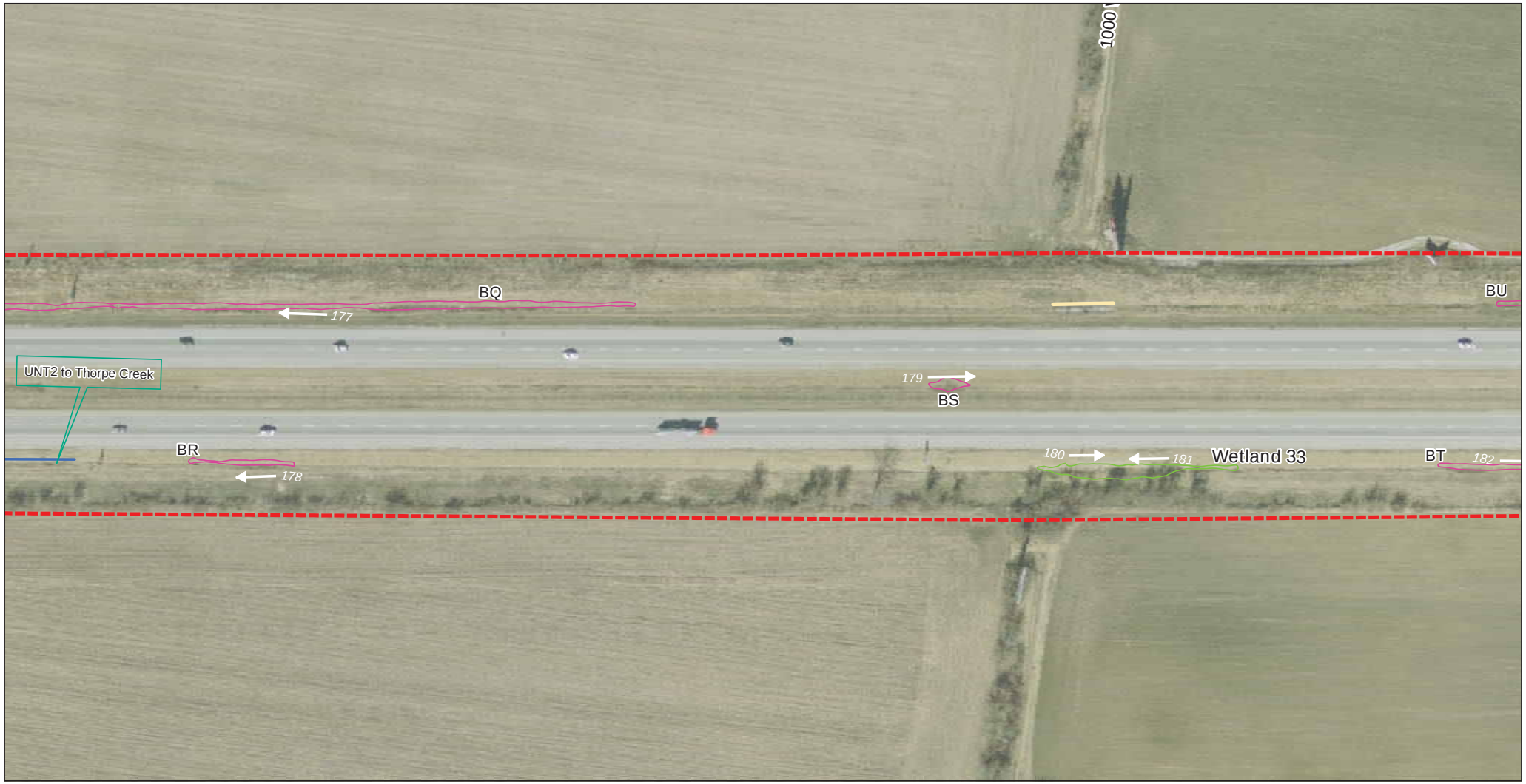
Exhibit 6: Photo Orientation
Sheet 34 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

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

Exhibit 6: Photo Orientation
Sheet 35 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
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Exhibit 6: Photo Orientation
Sheet 36 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
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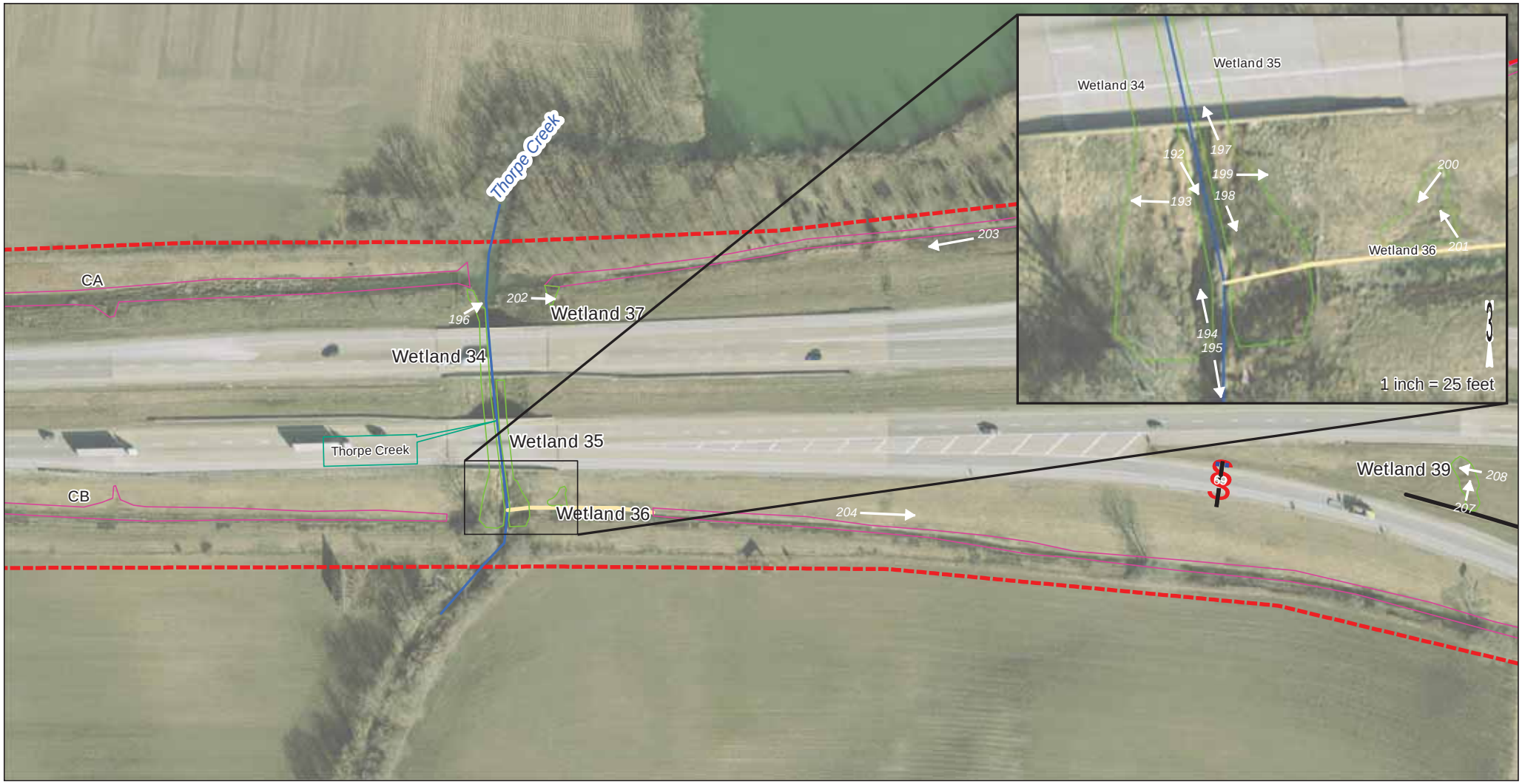
Exhibit 6: Photo Orientation
Sheet 37 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

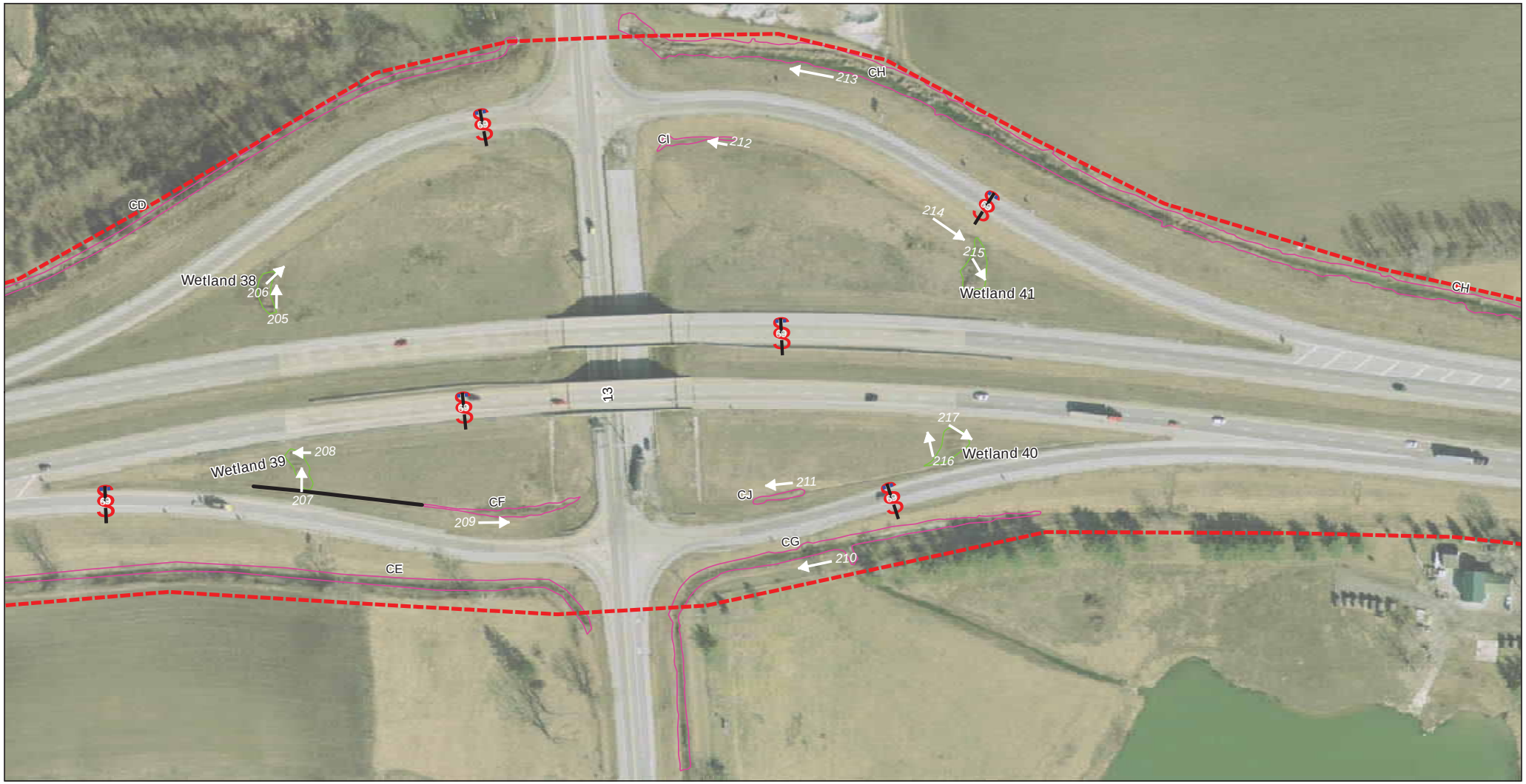
Exhibit 6: Photo Orientation
Sheet 38 of 41

Des. 1383332, 1383336, 1383489

Date: 10/1/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
- Non- Jurisdictional Features
- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 62.5 125 250 Feet

1 inch = 125 feet

Sources:
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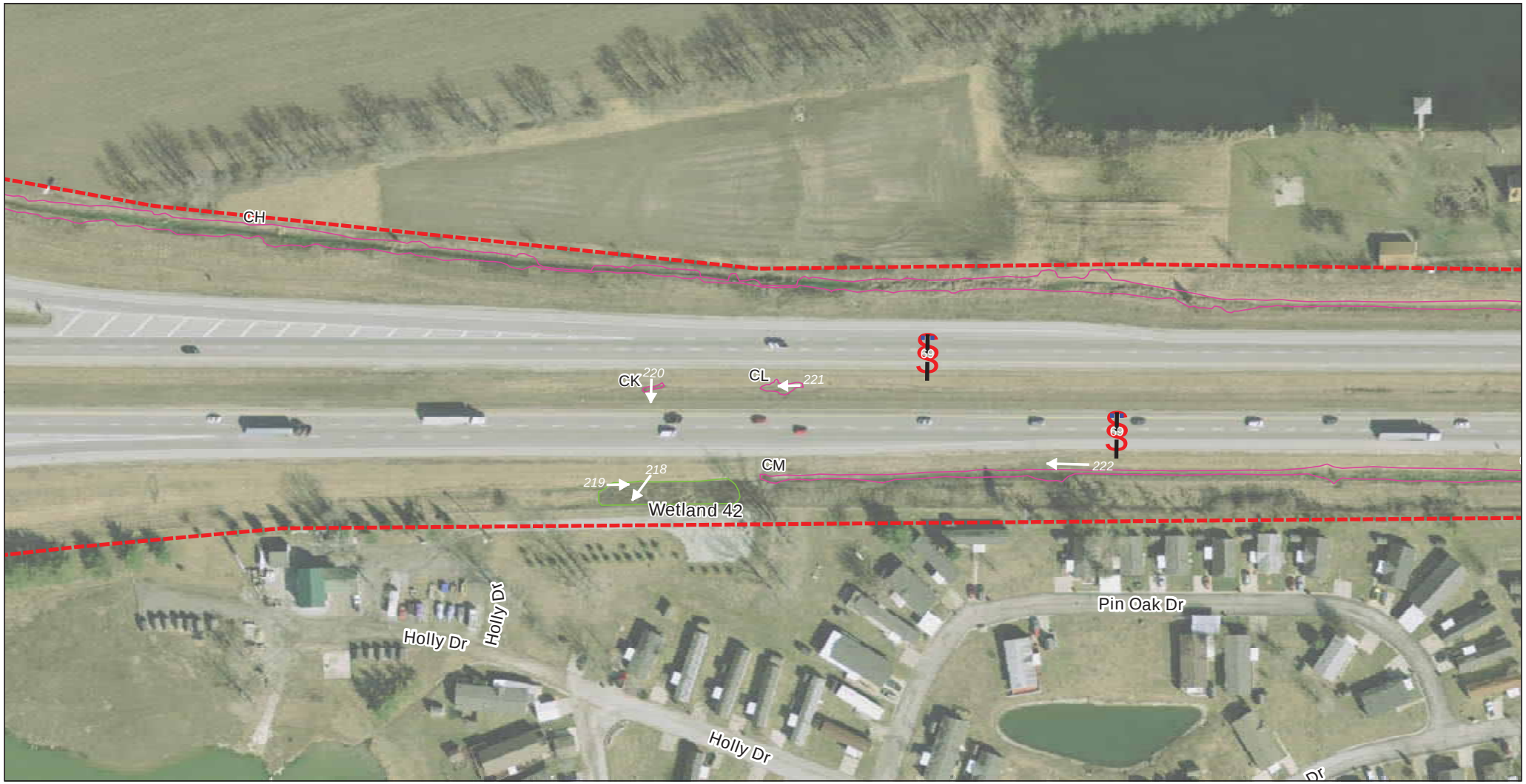
Exhibit 6: Photo Orientation
Sheet 39 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
- Project Area 2
- Project Area 3
- Wetlands
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- Photograph Location
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0 50 100 200 Feet

1 inch = 100 feet

Sources:
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Exhibit 6: Photo Orientation
Sheet 40 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

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PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Project Area 1
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- Concrete Lined Ditch
- Riprap Lined Ditch
- Streams
- Photograph Location
- Direction Taken

0 50 100 200 Feet

1 inch = 100 feet

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Exhibit 6: Photo Orientation
Sheet 41 of 41

Des. 1383332, 1383336, 1383489

Date: 10/16/2014

Created By: WCK

PARSONS

Photo 1: View of Wetland 01 facing northeast towards 106th Street (May 8, 2014). Unnamed Tributary 5 (UNT5) to Cheeney Creek is present in the foreground.

Photo 2: View of Wetland 01 facing west along 106th Street (August 14, 2014).

Photo 3: View of UNT5 to Cheeney Creek facing northeast along I-69 (May 8, 2014).

Photo 4: View of UNT5 to Cheeney Creek facing west (May 8, 2014). This stream discharges to a commercial property's retention pond shown in the background.

Photo 5: View of Wetland 02 facing southwest (May 7, 2014). The 106th Street Overpass is present in the background.

Photo 6: View of Wetland 02 facing southeast (May 7, 2014). The 106th Street Overpass is present in the background.

Photo 7: View of Wetland 04 facing northeast (May 7, 2014). Active construction along I-69 was noted near this feature.

Photo 8: View of Wetland 04 facing southwest (May 7, 2014).

Photo 9: View of Wetland 03 facing northeast (May 8, 2014). This wetland extends outside of the roadside drainage and off INDOT right-of-way.

Photo 10: View of Wetland 03 facing northeast (May 8, 2014). A check dam had been installed in this feature during recent construction along I-69.

Photo 11: View of non-jurisdictional feature A contained entirely within roadside drainage along I-69 facing southwest (May 7, 2014). The 106th Street Overpass is present in the background.

Photo 12: View of non-jurisdictional feature B contained entirely within I-69 roadside drainage facing southwest (May 7, 2014). This feature was not vegetated with the exception of the top of equipment ruts (arrows).

Photo 13: View of non-jurisdictional feature C contained entirely within I-69 roadside drainage facing southwest (May 7, 2014). This feature was sparsely vegetated.

Photo 14: View of UNT2 to Cheeney Creek facing southwest (May 8, 2014). This stream's outlet to Cheeney Creek is lined with concrete.

Photo 15: View of UNT2 to Cheeney Creek facing southwest (August 14, 2014). The ordinary high water mark (OHWM) of this stream is 1 foot wide and 4 inches deep.

Photo 16: View of Cheeney Creek facing east (May 7, 2014). The OHWM of this stream is 10 feet wide and 22 inches deep.

Photo 17: View of Cheeney Creek facing west (May 8, 2014). This stream is encapsulated upstream of INDOT right-of-way.

Photo 18: View of UNT3 to Cheeney Creek facing northeast (May 8, 2014). UNT3 flows into a paved side ditch that discharges into Cheeney Creek at this location.

Photo 19: View of UNT3 to Cheeney Creek facing southwest (May 8, 2014). The OHWM for this stream is 1 foot in width and 4 inches in depth. This photograph was taken following a recent storm event.

Photo 20: View of UNT4 to Cheeney Creek facing northeast from its confluence with Cheeney Creek (May 8, 2014). This stream's channel has been lined with concrete.

Photo 21: View of UNT4 to Cheeney Creek facing northeast (August 14, 2014). The OHWM at this location is 3 feet in width and 6 inches in depth.

Photo 22: View of UNT1 to Cheeney Creek facing southwest (August 14, 2014). This stream flows under the broken paved side ditch at this location until it reaches Cheeney Creek.

Photo 23: View of UNT1 to Cheeney Creek facing northeast along southbound I-69 (August 14, 2014). The OHWM at this location is 11 feet in width and 6 inches in depth.

Photo 24: View of UNT1 to Cheeney Creek facing southwest along southbound I-69 (May 7, 2014).

Photo 25: View of UNT1 to Cheeney Creek facing south from the 116th Street Interchange (May 7, 2014).

Photo 26: View of UNT1 to Cheeney Creek facing southwest along the I-69 southbound off-ramp at the 116th Street Interchange (May 12, 2014). *Typha spp.* was present under the OHWM.

Photo 27: View of UNT1 to Cheeney Creek facing northeast towards the S.R. 37 Overpass (May 12, 2014).

Photo 28: View of Wetland 05 facing west (May 12, 2014). This wetland extended outside of the roadside drainage at this location.

Photo 29: View of Wetland 05 facing south along the S.R. 37 on-ramp onto I-69 (May 12, 2014).

Photo 30: View of non-jurisdictional feature E contained entirely within I-69 median roadside drainage facing northeast (July 10, 2014).

Photo 31: View of Wetland 06 facing northeast along I-69 north of the S.R. 37 Overpass (May 8, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 32: View of Wetland 06 facing southwest along northbound I-69 (May 8, 2014). The S.R. 37 Overpass is present in the background.

Photo 33: View of Wetland 07 facing northwest (May 12, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 34: View of Wetland 07 facing northeast (May 12, 2014).

Photo 35: View of non-jurisdictional feature F contained entirely within I-69 median roadside drainage facing northeast (July 10, 2014).

Photo 36: View of non-jurisdictional feature G contained entirely within I-69 median roadside drainage facing east (July 10, 2014).

Photo 37: View of Wetland 08 facing east along I-69 (May 12, 2014). This wetland has emergent vegetation within INDOT right-of-way but extends off-site into a forested wetland.

Photo 38: View of Wetland 08 facing north (May 12, 2014). The forested portion of this wetland is located off INDOT right-of-way.

Photo 39: View of Wetland 08 facing west near the Cumberland Road Overpass (May 12, 2014).

Photo 40: View of Wetland 09 facing west (May 12, 2014). The Cumberland Road Overpass is present in the background.

Photo 41: View of Wetland 09 facing north (May 12, 2014). This wetland drains into a commercial retention pond located off INDOT right-of-way.

Photo 42: View of non-jurisdictional feature H contained entirely within I-69 median roadside drainage facing southeast (July 10, 2014).

Photo 43: View of Wetland 10 facing west (May 8, 2014). This feature extends outside of roadside drainage along I-69. The Cumberland Road Overpass is present in the background.

Photo 44: View of Wetland 10 facing west (May 8, 2014). The Cumberland Road Overpass is present in the background.

Photo 45: View of non-jurisdictional feature I contained entirely within I-69 median roadside drainage facing east (July 10, 2014).

Photo 46: View of Wetland 11 facing southeast (May 8, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 47: View of Wetland 11 facing west along northbound I-69 (May 8, 2014).

Photo 48: View of non-jurisdictional feature J facing east (May 12, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 49: View of UNT1 to Sand Creek facing west (May 12, 2014). The OHWM for this feature is 1.5 feet in width and 8 inches in depth.

Photo 50: View of UNT1 to Sand Creek entering non-jurisdictional feature K facing east (May 12, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 51: View of UNT1 to Sand Creek facing east (May 12, 2014).

Photo 52: View of UNT1 to Sand Creek facing east (May 12, 2014). This stream flows under the broken paved side ditch at this location until it discharges into Sand Creek.

Photo 53: View of UNT2 to Sand Creek facing west (May 12, 2014). This stream is captured within the paved side ditch along I-69.

Photo 54: View of UNT2 to Sand Creek facing northwest (May 12, 2014). This stream flows out of an adjacent pasture. The OHWM is 3 feet in width and 8 inches in depth.

Photo 55: View of Sand Creek facing northeast towards the I-69 Northbound Bridge (May 12, 2014). The OHWM is 21 feet in width and 28 inches in depth.

Photo 56: View of Sand Creek facing north towards the I-69 Southbound Bridge (May 12, 2014). Sand Creek Data Point 1 was taken at this location, and this was confirmed to be upland.

Photo 57: View of Sand Creek facing north outside of INDOT right-of-way (August 14, 2014).

Photo 58: View of UNT3 to Sand Creek facing west (June 16, 2014). The OHWM is 1.3 feet in width and 7 inches in depth.

Photo 59: View of pipe outlet to UNT3 to Sand Creek facing north (June 16, 2014).

Photo 60: View of UNT4 to Sand Creek facing east (June 16, 2014). The OHWM is 17 feet in width and 4 inches in depth.

Photo 61: View of UNT4 to Sand Creek facing west (August 14, 2014).

Photo 62: View of Wetland 12 facing northeast (June 19, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 63: View of Wetland 12 facing west (June 19, 2014).

Photo 64: View of non-jurisdictional feature L facing southwest (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 65: View of non-jurisdictional feature M facing southwest (June 16, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 66: View of Wetland 13 facing northeast (June 19, 2014). The 126th Street Overpass is present in the background

Photo 67: View of Wetland 13 facing northeast (June 19, 2014). This feature extended beyond the limits of the roadside drainage along I-69.

Photo 68: View of non-jurisdictional feature N facing southwest (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 69: View of non-jurisdictional feature O facing northeast (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69. The 126th Street Overpass is in the background.

Photo 70: View of non-jurisdictional feature P facing northeast (June 16, 2014). This feature is located entirely within the roadside drainage along I-69. The 126th Street Overpass is present in the background.

Photo 71: View of Wetland 14 facing east (June 19, 2014). This feature expands beyond the roadside drainage along I-69.

Photo 72: View of non-jurisdictional feature Q facing southwest (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69. The 126th Street Overpass is in the background.

Photo 73: View of non-jurisdictional feature R facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69. The 126th Street Overpass is present in the background.

Photo 74: View of non-jurisdictional feature S facing northeast (June 16, 2014). This feature was non-vegetated, and is located entirely within the roadside drainage along I-69.

Photo 75: View of Wetland 15 facing northeast (June 19, 2014). This feature extends beyond the boundary of the roadside drainage along I-69.

Photo 76: View of Wetland 16 facing northeast (June 19, 2014). This feature extends beyond the boundary of the roadside drainage along I-69.

Photo 77: View of Wetland 16 facing southwest along southbound I-69 (June 19, 2014).

Photo 78: View of non-jurisdictional feature U facing northeast (June 16, 2014). This non-vegetated feature is located entirely within the roadside drainage along I-69.

Photo 79: View of non-jurisdictional feature V facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 80: View of Wetland 17 facing northeast (June 19, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 81: View of Wetland 17 facing north (June 19, 2014). A forested wetland is located directly adjacent to INDOT right-of-way at this location.

Photo 82: View of Wetland 18 facing northeast (June 18, 2014). This forested wetland extends beyond INDOT right-of-way.

Photo 83: View of Wetland 18 facing south (June 18, 2014).

Photo 84: View of non-jurisdictional feature W facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 85: View of non-jurisdictional feature X facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 86: View of non-jurisdictional feature Y facing southwest (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 87: View of non-jurisdictional feature Z facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 88: View of non-jurisdictional feature AA facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 89: View of Wetland 19 facing northeast (June 18, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 90: View of Wetland 19 facing southwest (June 18, 2014).

Photo 91: View of Wetland 20 facing northeast (June 18, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 92: View of Wetland 20 facing southwest (June 18, 2014).

Photo 93: View of non-jurisdictional feature AB facing southwest (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 94: View of non-jurisdictional feature AC facing southwest (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 95: View of non-jurisdictional feature AD facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 96: View of non-jurisdictional feature AE facing southwest (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 97: View of non-jurisdictional feature AF facing northeast (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 98: View of non-jurisdictional feature AG facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 99: View of non-jurisdictional feature AH facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 100: View of Wetland 21 facing northeast (June 18, 2014). This feature extends outside of the roadside drainage along I-69. The Brooks School Road Overpass is present in the background.

Photo 101: View of Wetland 21 facing east (June 18, 2014).

Photo 102: View of Wetland 22 facing southwest (June 18, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 103: View of Wetland 22 facing northeast (June 18, 2014).

Photo 104: View of non-jurisdictional feature AI facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 105: View of Wetland 23 facing southwest (June 18, 2014). This feature extends outside of the roadside drainage along I-69.

Photo 106: View of Wetland 23 facing north (June 18, 2014).

Photo 107: View of non-jurisdictional feature AJ facing northeast (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 108: View of non-jurisdictional feature AK facing southwest (June 18, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 109: View of non-jurisdictional feature AL facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 110: View of non-jurisdictional feature AM facing southwest (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 111: View of shrub-scrub component of Wetland 24 facing northeast (June 18, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 112: View of emergent component of Wetland 24 facing southwest (June 18, 2014).

Photo 113: View of UNT5 to Sand Creek surrounded by Wetland 24 facing south (June 18, 2014).

Photo 114: View of non-jurisdictional feature AN facing southwest (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 115: View of non-jurisdictional feature AO facing northeast (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 116: View of Wetland 25 facing northeast (June 17, 2014). This feature extends outside of the roadside drainage and borders UNT5 to Sand Creek.

Photo 117: View of UNT5 to Sand Creek facing northeast (June 17, 2014). Water enters INDOT right-of-way via twin pipes and then enters the large pipe under I-69. Wetland 25 is in the background.

Photo 118: View of Wetland 26 facing southwest (June 17, 2014). This feature is located adjacent to the roadside drainage along I-69.

Photo 119: View of Wetland 26 facing south (June 17, 2014).

Photo 120: View of non-jurisdictional feature AP facing northeast (June 18, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 121: View of non-jurisdictional feature AQ facing northeast (June 18, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 122: View of non-jurisdictional feature AR facing northeast (June 18, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 123: View of non-jurisdictional feature AS facing southwest (June 18, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 124: View of non-jurisdictional feature AT facing southwest (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 125: View of Wetland 27 facing south (June 17, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 126: View of Wetland 27 facing west (June 17, 2014).

Photo 127: View of Wetland 28 facing south (June 18, 2014). This photograph was taken within the forested portion of this wetland.

Photo 128: View of Wetland 28 from the Campus Parkway Interchange facing west (June 18, 2014). The roadside drainage along this slope contained the emergent portion of this wetland.

Photo 129: View of the emergent portion of Wetland 28 facing northwest along Campus Parkway (June 18, 2014).

Photo 130: View of the pipe draining into the forested portion of Wetland 28 facing southwest (June 18, 2014). No OHWM was observed within (or leaving) this wetland.

Photo 131: View of non-jurisdictional feature AU facing west (June 19, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 132: View of non-jurisdictional feature AV facing east (June 17, 2014). This feature was not vegetated, and is located entirely within the roadside drainage along I-69.

Photo 133: View of Wetland 29 facing east (June 23, 2013). This feature is located between the off-ramp slope and the old roadbed slope to the east.

Photo 134: View of Wetland 29 facing northwest (June 23, 2014).

Photo 135: View of Wetland 29 from the old roadbed slope, facing southwest towards the Campus Parkway Interchange (June 23, 2014).

Photo 136: View of non-jurisdictional feature AW facing south (June 23, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 137: View of non-jurisdictional feature AX facing east (June 17, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 138: View of Wetland 30 facing southeast (June 23, 2014). The primary source of hydrology for this wetland is an underdrain along the I-69 southbound off-ramp.

Photo 139: View of Wetland 30 facing north (June 23, 2014).

Photo 140: View of non-jurisdictional feature AY facing southwest (June 19, 2014). This feature is located entirely within the roadside drainage along I-69. The Campus Parkway Interchange is in the background.

Photo 141: View of non-jurisdictional feature AZ facing northwest (June 23, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 142: View of non-jurisdictional feature BA facing east (June 19, 2014). This feature is located entirely within the roadside drainage along I-69. The Olio Road Overpass is in the background.

Photo 143: View of non-jurisdictional feature BB facing west (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 144: View of non-jurisdictional feature BC facing east (June 23, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 145: View of Wetland 31 facing east (June 23, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 146: View of Wetland 31 facing west (June 23, 2014).

Photo 147: View of non-jurisdictional feature BD facing east (July 10, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 148: View of UNT1 to Mud Creek facing east (June 19, 2014). The OHWM is 6 inches wide and 3 inches in depth.

Photo 149: View of UNT1 to Mud Creek facing west (June 19, 2014).

Photo 150: View of Mud Creek facing east along the southbound lanes of I-69 (June 25, 2014).

Photo 151: View of Mud Creek facing northeast (August 14, 2014). The OHWM is 27 feet wide and 54 inches deep.

Photo 152: View of Mud Creek facing south outside of INDOT right-of-way (June 25, 2014).

Photo 153: View of UNT2 to Mud Creek facing west (June 25, 2014). The OHWM is 3 feet in width and 10 inches in depth.

Photo 154: View of UNT2 to Mud Creek near its confluence with Mud creek facing east (June 25, 2014).

Photo 155: View of Wetland 32 facing west (June 25, 2014). This wetland is adjacent to UNT2 to Mud Creek.

Photo 156: View of Wetland 32 adjacent to UNT2 facing south (June 25, 2014).

Photo 157: View of non-jurisdictional feature BE facing east (June 25, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 158: View of UNT3 to Mud Creek facing west (June 25, 2014). The OHWM is 4 feet in width and 6 inches in depth.

Photo 159: View of UNT3 to Mud Creek at its confluence with Mud Creek facing west (June 25, 2014).

Photo 160: View of the soil profile at Mud Creek Data Point 1 on June 25, 2014. This data point was taken on the floodplain shelf adjacent to Mud Creek and did not meet any hydric soil indicator.

Photo 161: View of George Burke Drain (Hamilton County regulated drain) facing northwest (June 25, 2014). No OHWM was observed.

Photo 162: View of George Burke Drain regulated drain facing south (June 25, 2014). No OHWM was observed.

Photo 163: View of non-jurisdictional feature BF facing east (June 25, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 164: View of non-jurisdictional feature BG facing south (June 25, 2014). This feature is lined with riprap and located entirely within the roadside drainage along I-69.

Photo 165: View of non-jurisdictional feature BH facing south (June 25, 2014). This feature is lined with riprap and located entirely within the roadside drainage along I-69.

Photo 166: View of non-jurisdictional feature BI facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 167: View of non-jurisdictional feature BJ facing east (June 25, 2014). This feature is riprap lined and located entirely within the median roadside drainage along I-69.

Photo 168: View of non-jurisdictional feature BL facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 169: View of non-jurisdictional feature BM facing east (June 25, 2014). This feature is riprap lined and located entirely within the median roadside drainage along I-69.

Photo 170: View of non-jurisdictional feature BN facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 171: View of UNT1 to Thorpe Creek (John Underwood Drain) facing south (June 25, 2014). The OHWM is 2.5 feet in width and 12 inches in deep.

Photo 172: View of UNT1 to Thorpe Creek (John Underwood Drain) facing north (June 25, 2014).

Photo 173: View of non-jurisdictional feature BO facing east (June 26, 2014). This feature is riprap lined and located entirely within the roadside drainage along I-69.

Photo 174: View of UNT2 to Thorpe Creek facing west (June 26, 2014). The OHWM is 1 foot in width and 4 inches in depth.

Photo 175: View of UNT2 to Thorpe Creek facing east (June 26, 2014).

Photo 176: View of non-jurisdictional feature BP facing east (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 177: View of non-jurisdictional feature BQ facing west (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 178: View of non-jurisdictional feature BR facing west (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 179: View of non-jurisdictional feature BS facing east (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 180: View of Wetland 33 facing east (June 26, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 181: View of Wetland 33 facing west (June 26, 2014).

Photo 182: View of non-jurisdictional feature BT facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 183: View of non-jurisdictional feature BU facing west (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 184: View of non-jurisdictional feature BV facing east (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 185: View of non-jurisdictional feature BW facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 186: View of non-jurisdictional feature BX facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 187: View of non-jurisdictional feature BY facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 188: View of non-jurisdictional feature BZ facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 189: View of non-jurisdictional feature CA facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 190: View of non-jurisdictional feature CB facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 191: View of non-jurisdictional feature CC facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 192: View of Wetland 34 facing southeast (July 9, 2014). This feature is located on a floodplain shelf adjacent to Thorpe Creek.

Photo 193: View of Wetland 34 facing west (July 9, 2014).

Photo 194: View of Thorpe Creek facing north near the I-69 Northbound Bridge (August 14, 2014). Note the floodplain shelves on both sides of the creek (Wetlands 34 and 35).

Photo 195: View of Thorpe Creek facing south outside of INDOT right-of-way (August 14, 2014). The OHWM is 8.5 feet in width and 6 inches in depth.

Photo 196: View of Thorpe Creek facing east along the I-69 Southbound Bridge (July 9, 2014).

Photo 197: View of Thorpe Creek under the I-69 Northbound Bridge facing north (June 26, 2014).

Photo 198: View of Wetland 35 facing south (July 9, 2014). This feature is located on a floodplain shelf adjacent to Thorpe Creek.

Photo 199: View of Wetland 35 facing east (July 9, 2014).

Photo 200: View of Wetland 36 facing southwest (June 26, 2014). This feature is located on the I-69 northbound roadside slope.

Photo 201: View of the hydrology source (underdrain) for Wetland 36 facing north (June 26, 2014).

Photo 202: View of Wetland 37 facing east (June 26, 2014). This feature is located on the I-69 southbound roadside slope. The source of hydrology for this wetland is an underdrain.

Photo 203: View of non-jurisdictional feature CD facing west (July 3, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 204: View of non-jurisdictional feature CE facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 205: View of Wetland 38 facing north (July 9, 2014). This feature is located on the I-69 southbound roadside slope.

Photo 206: View of Wetland 38 facing northeast (July 9, 2014). The primary source of hydrology for this wetland is an underdrain.

Photo 207: View of Wetland 39 facing north (June 26, 2014). This feature is located on the I-69 northbound roadside slope.

Photo 208: View of Wetland 39 facing west (June 26, 2014). The primary source of hydrology for this wetland is an underdrain.

Photo 209: View of non-jurisdictional feature CF facing east (June 26, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 210: View of non-jurisdictional feature CG facing west (June 27, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 211: View of non-jurisdictional feature CJ facing west (June 27, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 212: View of non-jurisdictional feature CI facing west (June 27, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 213: View of non-jurisdictional feature CH facing west (June 27, 2014). This feature is located entirely within the roadside drainage along I-69.

Photo 214: View of Wetland 41 facing southeast (June 27, 2014). This feature is located on the I-69 southbound roadside slope.

Photo 215: View of Wetland 41 facing east (July 3, 2014). The primary source of hydrology for this wetland is an underdrain.

Photo 216: View of Wetland 40 facing north (June 27, 2014). This feature is located on the I-69 northbound roadside slope.

Photo 217: View of Wetland 40 facing southeast (June 27, 2014). The primary source of hydrology for this wetland is an underdrain.

Photo 218: View of Wetland 42 facing southwest (June 27, 2014). This feature extends beyond the roadside drainage along I-69.

Photo 219: View of Wetland 42 facing east (June 27, 2014).

Photo 220: View of non-jurisdictional feature CK facing south (July 3, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 221: View of non-jurisdictional feature CL facing west (June 27, 2014). This feature is located entirely within the median roadside drainage along I-69.

Photo 222: View of non-jurisdictional feature CM facing west (June 27, 2014). This feature is lined with riprap and located entirely within the median roadside drainage along I-69.

Photo 223: View of non-jurisdictional feature CN facing west (June 27, 2014). This feature is lined with riprap and located entirely within the median roadside drainage along I-69.

Photo 224: View of non-jurisdictional feature D facing northeast (May 8, 2014). This feature is entirely within the roadside drainage along I-69.

Photo 225: View of non-jurisdictional feature T facing northeast (June 27, 2014). This feature is entirely within the median roadside drainage along I-69.

Photo 226: View of non-jurisdictional feature BK facing west (June 25, 2014). This feature is entirely within the roadside drainage along I-69.

Photo 227: View of typical soil profile exhibiting a depleted matrix as observed throughout the I-69 Interstate Expansion Corridor.

Photo 228: View of typical soil profile redox features as observed throughout the I-69 Interstate Expansion Corridor.

Photo 229: View of typical soil profile exhibiting a depleted matrix as observed throughout the I-69 Interstate Expansion Corridor.

EXHIBIT 7

QHEI/HHEI ASSESSMENTS

*The QHEI/HHEI assessments have been omitted as they are summarized in Table 2 of the report.

EXHIBIT 8

WETLAND DATA FORMS

*The Wetland Data Forms have been omitted as the results are summarized throughout the report.

EXHIBIT 9

MEETING MINUTES

PARSONS

MEETING MINUTES

DATE:	*Office:* August 13, 2014 9:00 am – 12:00 pm	*Field:* August 18, 2014 12:30 pm – 3:30 pm
PROJECT:	I-69 Interstate Expansion Madison/Hamilton Counties INDOT Des. Nos. 1383332/1383336/1383489	
LOCATION:	*Office:* Parsons 101 West Ohio Street, Suite 2121 Indianapolis, Indiana 46204	*Field:* Various locations throughout corridor
ATTENDEES:	Deb Snyder, USACE Jay Turner, IDEM Tony Jones, INDOT Lisa Herber, INDOT Ben Carnahan, Parsons (*office only*) Dan Miller, Parsons T.J. Warrner, Parsons Wade Kimmon, Parsons (*office only*)	

TOPICS:

Introductions were made. All of the meeting participants (above) were in attendance. *Note that these meeting minutes were organized using the agenda and do not necessarily reflect the order items were discussed during the meetings. Discussion items from the field meeting are included as updates to the office meeting minutes to provide all related discussion within the same document.*

Dan provided a summary of the proposed projects and their locations. Project 1 (Des. 1383332) will construct added travel lanes in the median from 106th St to 0.5 mi N of Campus Parkway. An auxiliary lane will be added on southbound I-69 between 106th Street and 116th Street. Project 2 (Des. 1383489) is an Interchange Modification at Exit 210 (Campus Parkway). Currently 4 interchange types are being considered, with 2 being focused on for the possible preferred alternative. Project 3 (Des. 1383336) will construct added travel lanes in the median from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13. Design is in early stages, as these are "design-build" projects. Deb asked if the interchange project was related to the traffic anticipated for the Cabelas store. Ben indicated that, while traffic models had been adjusted to reflect the additional traffic from Cabelas, this was part of INDOT's 2020 funded projects.

Dan detailed Parsons' waters of the U.S. survey efforts to date, which included a walking survey of the entire I-69 project corridor, including median. He also discussed the field data that was collected.

I. Results of May-July Fieldwork
   A. Wetlands
      - 36 median wetlands totaling 0.75 acre (35 isolated)
      - 96 roadside wetlands totaling 9.84 acres (41 isolated)

- 129 located in *mapped* hydric soils; 3 located in mapped non-hydric soils
- Types: 127 emergent, 1 shrub-scrub, 4 forested (all current impacts are emergent)

Dan gave an overview of the wetlands delineated in the field (both in the median and outside ditches), discussed their low quality, and noted 35 of the 36 median wetland and nearly half of the roadside ditch wetlands were isolated.

Deb noted that there have been recent meetings with INDOT regarding roadside ditch (RSD) guidance and associated wetlands (discussed in detail below). She agreed that most of these wetlands were RSDs, had low functional value, and noted that the proposed road design would potentially recreate these features within the new roadside drainage. She noted that the goal of the 404 program is to replace wetland function, and with this potential replacement function would not be lost.

Dan discussed the high prevalence of mapped nationally listed hydric soils within the project area, and noted that only 3 identified wetlands were located in mapped non-hydric soils.

Deb asked about the five non-emergent wetlands and their jurisdiction. TJ indicated that one was isolated while the rest were likely jurisdictional due to their connection to waters of the U.S. Dan noted that no forested or shrub-scrub wetlands would be impacted based on the current design.

Jay noted that Jason Randolph from IDEM had mentioned at least one higher quality wetland of concern was located along the project. Dan noted that these wetlands will not be impacted by the project.

B. Streams
- 5 streams crossed (all have historic drainage)
- 16 streams identified within I-69 roadside drainage (8 have historic drainage)

Deb asked about the age of I-69 in relation to historic drainage features. TJ indicated that the soil surveys from 1967 showed "proposed I-69", likely indicating that this stretch of interstate was constructed in the late 1960s or early 1970s. Ben confirmed that this is correct.

II. Problematic Features

A. Updated USACE guidance on roadside ditch wetlands
- Details on new guidance
- General discussion on impact to field results

Deb referred to a recent meeting with INDOT regarding updated roadside ditch guidance. She stated that if the roadside ditch develops all three wetland indicators and does not extend outside of the RSD it is <u>not</u> jurisdictional. Additionally, the RSD must not have any historic drainage or be dug out of pre-existing wetlands. These features would not be considered wetland since "normal conditions" are not present (their "normal condition" is acting as a roadside ditch). Deb noted that the non-jurisdictional features should not be included in the pre-JD form that is included in the waters report. Dan indicated that three quarters, or more, of the wetlands were located within roadside ditches.

Lisa asked about the gray area regarding the definition of upland soils/excavated in uplands. Deb stated that the areas along the I-69 corridor have been heavily impacted by urbanization, further complicating the discussion.

Jay stated that Deb's feedback is in agreement with a recent IDEM meeting with the USACE on this topic.

UPDATE: Field Meeting: Several wetlands contained entirely within roadside drainage were reviewed in the field. These included multiple drainage features that eventually drain into Thorpe Creek at the S.R. 13 Interchange. Each of these exhibit all three wetland characteristics and are contained entirely within the roadside drainage. None of these features have historic drainage. Deb indicated that all met the updated USACE roadside ditch guidance. Because the median wetlands are all contained within roadside drainage, Deb indicated that this same guidance would apply and she did not need to specifically review these in the field.

B. Stream versus wetland conveyances (7)
   - Field observations/photographs
   - Historic drainage absent
   - Resource agency feedback

Deb indicated that the examples provided in the presentation would likely be considered roadside ditches and therefore not jurisdictional.

Tony asked if it was important to identify features that are located within right-of-way but are unlikely to be impacted by proposed construction. Ben discussed how this is a design-build project, making it important that all resources are clearly identified on the plans, should the contractor make changes once the contract is awarded. It would then be on the contractor to modify the permits and mitigate for any additional impacts.

C. Non-vegetated wetlands (6)
   - Field observations/photographs
   - No vegetation data
   - Resource agency feedback

Dan discussed how some of these features had ruts, with the top of the rut containing non-hydrophytic vegetation (K-31, thistle, etc.). Bare soil was located in the bottom of these ruts, likely where the water collected. Dan noted that these features would likely fall out based on earlier meeting discussion on roadside ditches.

D. Riprap lined wetlands
   - Field observations/photographs
   - 10 failed to meet soils indicator but had adjacent hydric soils for out point
   - Several additional met indicator despite presence of riprap close to surface
   - Resource agency feedback

Deb agreed that the out points located adjacent to these features could be used as a surrogate for the wetland soils data. Dan, however, noted that most if not all of these features will likely be removed based on earlier meeting discussion on roadside ditches. Deb noted that the function of these features will likely be replaced by the nature of the project.

E. Hillslope wetlands (6)
   - Field observations/photographs
   - Artificial hydrology

- USACE previous guidance (I-70) for similar features
- Resource agency feedback

Dan discussed previous USACE feedback on these types of features not being jurisdictional. Deb indicated that she, however, would likely take these features since they exhibit all three characteristics under "normal conditions." She will confirm with her section chief.

The jurisdictional status of these features was discussed. Even though their connections to Thorpe Creek (via roadside ditches) are not considered resources, these features exist outside of the RSDs and would still be considered jurisdictional by connection via the RSDs.

Ben indicated that the under drains feeding these wetland features could be left in place by design. Deb and Jay stated that if these areas are impacted, the only way they could be used as "restoration" would be to monitor these areas (against success criteria) for several years.

UPDATE: Fieldwork Meeting: Several of these were visited within or near the S.R. 13 Interchange and the office meeting determination was confirmed.

F. Data collection in median wetlands with safety concerns (2)
   - Field observations/photographs
   - No soil data collected (met hydrology and vegetation criteria)
   - Located in mapped hydric soils
   - Resource agency feedback

Deb agreed that soil data collection was not required for these two wetlands. Dan noted that these features will likely be removed due to earlier discussion of roadside ditches.

G. Potential jurisdictional ditches
   - Field observation/photographs
   - Concrete lined ditch draining into Cheeney Creek
   - Misc. interchange and roadside drainages without connection to waters of the US (15)

After reviewing the example roadside drainages with OHWMs but undetermined connection, Deb indicated that she would likely not take these since historic drainage was not present.

Lisa asked about making a call on features that lacked historical drainage, such as the long stream relocation area. Deb indicated that this feature would be taken due to its relatively permanent flow. A follow-up field visit was proposed to specifically evaluate several ditches.

UPDATE: Field Meeting: The concrete lined ditch draining to Cheeney Creek was visited. Its poor quality was confirmed by both IDEM and the USACE. Active construction (noise wall) was observed near the 116th Street Interchange within this UNT (non-paved portion). Both Lisa and Deb indicated they would check to see if this was previously permitted. Deb indicated she would evaluate how far upstream of Cheeney Creek she would take jurisdiction on this UNT. Both agencies indicated that there office stance on mitigation remained unchanged for this feature (see Section III Part A).

III. 404/401 Permits

A. Stream relocation

- Concrete lined ditch draining to Cheeney Creek
- Approximately 1,200' impact (most recent estimate)
- Resource agency mitigation requirements

Deb asked if an approved JD was going to be used. TJ indicated that the project schedule likely dictated the use of the preliminary JD.

Dan asked if there would be a deed restriction if the concrete lined ditch was relocated and INDOT pursued on-site mitigation. Deb and Jay both indicated this would not be required. Deb and Jay stated that this would be considered "self mitigating" and no success criteria would be tied to this relocation.

Deb indicated that she would not want to see an increase in the length of concrete-lined ditches. She also stated that if the impact threshold exceeds 1,500' a 404 Individual Permit would be required. This can take 12 months, or longer, to obtain.

Dan indicated that some of the concrete lined ditch may not be necessary following relocation, and could be constructed as a vegetated ditch instead. Per discussions with design, a small section of the concrete would have to remain due to scour. Ben stated that riprap may be a viable alternative. Deb noted that riprap or vegetation would be seen as an improvement in resource quality over concrete. Dan asked about leaving the 400' of concrete ditch (north of the relocation) in place vs. clearing this area and making it a vegetated ditch. Deb and Jay confirmed that removing this portion of the ditch and making it vegetated would be ideal. Deb stated she would look into the upcoming RGP to see if this could be allowed without pushing the project into a 404 Individual Permit.

Jay noted that a key point of this discussion was there is little need to monitor the relocated roadside channel. The post-construction condition of the roadside stream is an important part of the 401 (and 404). The 401 certification might simply refer to the mitigation plan for the design of UNT1 Cheeney Creek, or it might list success criteria. Either way, this roadside channel will not be viewed as a traditional mitigation project requiring monitoring. If success criteria are listed in the 401 certification, they would be used to describe what is to be built and planted to ensure the result is a more natural channel rather than a concrete lined channel. Example success criteria are as follows:

- "Ensure the relocated stream consists of a minimum of xxx linear feet of open channel flowing over native substrate."
- "Construct xxxx linear feet of UNT Cheeney Creek as described in the mitigation plan."
- "Plant an herbaceous wetland seed mix in and along the UNT for xxxx linear feet of the relocated channel."

B. USACE cumulative determination on impacts

- Unnamed tributaries (UNTs) draining to major creeks
- Wetlands in close proximity to each other

Deb indicted that the examples shown in the presentation would likely be considered cumulative. Dan noted that several of the wetlands in these examples would be ruled out based on earlier meeting guidance on roadside ditches.

Jay indicated that impacts along the entire corridor would be considered cumulatively per IDEM requirements.

C. Wetland impacts
   - Mitigation
   - Central Indiana Mitigation Bank
   - Resource agency update on credit status

Dan stated that approximately 0.75 acre of median wetland identified in the field would have been impacted by current design. Ben discussed that some of this was related to lowering the median near SR 13, while in other locations this was due to lane widening into the median. Dan stated that, based on earlier meeting feedback on roadside ditches, it appears that virtually all of these wetlands will be classified as non-jurisdictional.

Deb asked if any forested wetlands would be impacted. Dan indicated that none of these are impacted based on current design.

Dan thought the total wetland impacts for the corridor could potentially be less than 0.1 acre based on resource agency feedback.

Deb noted that the current RGP program expires on 12/15/2014. This could affect the 404 (and 401) application submittal which is anticipated in January.

Dan asked Deb and Jay if they would approve wetland credits from the Central Indiana Mitigation Bank, if/when made available, if the project ended up requiring mitigation. Both indicated that this would be a preferred source for credits. Jay indicated that the typical IDEM ratios would apply. Jay and Deb confirmed that credits are currently not available, but the bank is working to get these released shortly.

D. Hamilton County regulated drain permit requirements
   - Required detention
   - Figures
   - Potential conflicts with 401 permitting

Dan discussed that detention would included water storage for 24 to 48 hours and that berms would be used in some locations to help achieve detention. This could potentially inundate some waters. Jay indicated he would want to see more specifics.

Participants agreed that a field check would be useful to finalize thoughts on several identified waters in the project corridor and questions regarding relatively permanent flow for ditch to Thorpe Creek. Dan indicated he would be scheduling this as soon as possible to accommodate the project schedule.

Tony reiterated that this project is on an aggressive schedule to use the allotted 2020 project funding. He asked all involved to process documents and requests with urgency to help keep this project on schedule.

Warrner, Thomas

From: Warrner, Thomas
Sent: Wednesday, September 17, 2014 11:03 AM
To: 'Snyder, Deborah D LRL'
Cc: Miller, Daniel J; Herber, Lisa
Subject: RE: I-69 Hamilton/Madison Counties Conference Call Minutes (UNCLASSIFIED)

Thanks Deb. Dan and I were in the process of generating a response to confirm that very same thing.

T.J.

-----Original Message-----
From: Snyder, Deborah D LRL [mailto:Deborah.D.Snyder@usace.army.mil]
Sent: Wednesday, September 17, 2014 10:39 AM
To: Warrner, Thomas
Cc: Miller, Daniel J; Herber, Lisa
Subject: RE: I-69 Hamilton/Madison Counties Conference Call Minutes (UNCLASSIFIED)

Classification: UNCLASSIFIED
Caveats: NONE

T.J. and Dan,

I talked to Lisa about this e-mail, and there is one more clarification:

Any roadside ditch that has perennial or relatively permanent flow is considered jurisdictional, no matter what mapped soil type the ditch was cut into.

I think that our discussion assumed this without anybody stating it, but I thought I would reiterate this point.

Thanks,
Deb
317-517-2659

-----Original Message-----
From: Warrner, Thomas [mailto:Thomas.Warrner@parsons.com]
Sent: Wednesday, September 17, 2014 9:55 AM
To: Snyder, Deborah D LRL
Cc: Miller, Daniel J
Subject: [EXTERNAL] I-69 Hamilton/Madison Counties Conference Call Minutes
Importance: High

Hi Deb,

Thank-you for the time this morning to discuss various features that Parsons has field delineated throughout the I-69 Interstate Expansion Corridor.

Since our earlier office meeting and field review, there have been a few changes to the guidance you provided on USACE jurisdiction over potential waters of the U.S. During the phone call you clarified the following:

* Roadside ditches with an OHWM:

o If mapped entirely in hydric (100%) and/or predominantly hydric (66-99%), consider these features jurisdictional.

o If mapped entirely in not hydric (0%), predominantly non-hydric (1-32%), and/or partially hydric (33-65%) consider these features non-jurisdictional. This would be considered cut in upland.

o If the feature is split between the first and second bullet point, only consider those portions that lie within the first bullet point jurisdictional.

Note: Soil classifications are based on revised NRCS hydric classifications that are available for both Hamilton and Madison Counties. These may not be available for all counties in Indiana.

The drainage features that drain into Thorpe Creek were specifically discussed in regards to this revised guidance. These features were evaluated during the field review meeting, and you confirmed over the call that these features lacked an OHWM. Because of this, these will remain non-jurisdictional. This contrasts to Cheeny Creek's tributaries which were also discussed. These have distinct OHWMs and will remain jurisdictional.

* Roadside ditches with wetlands but no OHWM:

o If located entirely within the existing ditchline, the feature will not be considered a wetland. The mapped soil unit does not affect jurisdiction.

o If the feature extends beyond the existing ditchline, the feature will be considered jurisdictional. The mapped soil unit does not affect jurisdiction.

Take care,

T.J.

Thomas J. Warrner

Environmental Planner
Parsons_Blue_300ppi 2
101 West Ohio Street, Suite 2121

Indianapolis, Indiana 46204

Phone: (317) 616-4671

E-mail: thomas.warrner@parsons.com

Web: www.parsons.com <http://www.parsons.com/>

Classification: UNCLASSIFIED
Caveats: NONE

EXHIBIT 10

PRELIMINARY JD FORM

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): September 30, 2014

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD: Parsons; 101 West Ohio Street Suite 2121; Indianapolis, Indiana 46204; Thomas J. Warrner; (317) 616-4671; thomas.warrner@parsons.com

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION: Project 1
The Indiana Department of Transportation (INDOT) is planning an I-69 Interstate Expansion from 106th Street in Fishers to Exit 226 (S.R. 9 and S.R. 109 in Anderson) in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report pertains to Projects 1, 2, and 3.

Project 1 (Des. 1383332) extends on I-69 from 106th Street to 0.5 mile north of the Campus Parkway in Hamilton County. This project would construct additional lanes from Exit 205 (116th Street and S.R. 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on southbound I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. There would be work on the overhead structure at Cumberland Road. The structure at Brooks School Road over I-69 would have the bridge deck replaced. The overhead structure at 126th Street would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures would be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way. No new right-of-way would be required for this project.

Project 3 (Des. 1383336) extends on I-69 from 0.5 mile north of Campus Parkway to 0.5 mile east of S.R. 13 in Hamilton and Madison Counties. The project would construct additional lanes from Exit 210 (Campus Parkway) to S.R. 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 10-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structures at Olio Road and Cyntheanne Road would require no additional work. The pavement on S.R. 13 under I-69 would be lowered to provide adequate bridge clearance. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way. No new right-of-way would be required for this project.

Project 2 (Des. 1383489) is a proposed interchange modification at Exit 210 (Campus Parkway) to improve the level of service (LOS). Improvements to the existing interchange, such as added auxiliary lanes, will be considered. Transportation System Management (TSM) improvements, such as ramp metering and signal coordination, will also be considered. In addition, modification to the interchange type will be considered. While all interchange types will be considered as possible improvements, the limited right-of-way in the vicinity of the interchange will make the following interchange types most likely to be selected: partial-cloverleaf interchange, tight diamond with roundabouts at the ramp termini, single point urban interchange,

and double-crossover diamond interchange. The primary factors in determining the modifications selected will be construction costs, LOS rating, traffic safety, land acquisition costs, environmental impacts, and cultural resources impacts. New permanent and/or temporary right-of-way may be required for this project depending upon the type of improvements selected for this undertaking.

(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: Indiana County/parish/borough: Hamilton/Madison City: Fishers
Center coordinates of site (lat/long in degree decimal format): Lat. 39.582807° N, Long. -85.574496° **W**.
Universal Transverse Mercator: Northing: 496104.1087982189 Easting: 505020.7991331144 Zone: 37
Name of nearest waterbody: various (see attached) that all drain to the West Fork White River

Identify (estimate) amount of waters in the review area:
Non-wetland waters: 17,605 linear feet: various width (ft) and/or 2.6 acres.
Cowardin Class: various (see attached table)
Stream Flow: various (see attached table)
Wetlands: 5.6 acres
Cowardin Class: various (see attached table)

Name of any water bodies on the site that have been identified as Section 10 waters:
Tidal: NA
Non-Tidal: NA

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

☐ Office (Desk) Determination. Date:

☐ Field Determination. Date(s):

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

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 approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of

jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that 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) that 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) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (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 preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes 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 approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, 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, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒ Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:Parsons.

☒ Data sheets prepared/submitted by or on behalf of the applicant/consultant.

- ☐ Office concurs with data sheets/delineation report.
- ☐ Office does not concur with data sheets/delineation report.

☐ Data sheets prepared by the Corps: .

☐ Corps navigable waters' study: .

☐ U.S. Geological Survey Hydrologic Atlas: .

- ☐ USGS NHD data.
- ☐ USGS 8 and 12 digit HUC maps.

☒ U.S. Geological Survey map(s). Cite scale & quad name:USGS 7.5 Minute Topographic Map; Fishers, McCordsville, and Ingalls Quadrangles.
☒ USDA Natural Resources Conservation Service Soil Survey. Citation:Soil Survey Geographic (SSURGO) Hamilton and Madison Counties.
☒ National wetlands inventory map(s). Cite name:USFWS GIS database (see NWI Map).

☐ State/Local wetland inventory map(s): .

☒ FEMA/FIRM maps:as noted on the NWI Map.

☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)

☒ Photographs: ☒ Aerial (Name & Date):Orthos 2012, Orthos 2008, Othos 2005.

or ☒ Other (Name & Date):May-July Fieldwork (see report for specific dates).

☐ 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.

	10/2/2014
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

Site number	Latitude	Longitude	Cowardin Class	Estimated amount of aquatic resource in review area	Class of aquatic resource
Cheeney Creek	39.947832 N	-86.014879 W	Riverine-Perennial	400 linear feet	non-section 10 – non-wetland
UNT1 to Cheeney Creek	39.953972 N	-86.010587 W	Riverine-Intermittent	5,865 linear feet	non-section 10 – non-wetland
UNT2 to Cheeney Creek	39.946620 N	-86.014934 W	Riverine-Ephemeral	960 linear feet	non-section 10 – non-wetland
UNT3 to Cheeney Creek	39.949073 N	-86.013086 W	Riverine-Ephemeral	1,000 linear feet	non-section 10 – non-wetland
UNT4 to Cheeney Creek	39.948231 N	-86.013557 W	Riverine-Perennial	425 linear feet	non-section 10 – non-wetland
UNT5 to Cheeney Creek	39.941494 N	-86.019577 W	Riverine-Ephemeral	55 linear feet	non-section 10 – non-wetland
Sand Creek	39.969304 N	-85.975870 W	Riverine-Perennial	340 linear feet	non-section 10 – non-wetland
UNT1 to Sand Creek	39.968671 N	-85.979058 W	Riverine-Ephemeral	1,930 linear feet	non-section 10 – non-wetland
UNT2 to Sand Creek	39.969631 N	-85.976066 W	Riverine-Ephemeral	135 linear feet	non-section 10 – non-wetland
UNT3 to Sand Creek	39.969063 N	-85.975866 W	Riverine-Ephemeral	100 linear feet	non-section 10 – non-wetland
UNT4 to Sand Creek	39.970221 N	-85.972345 W	Riverine-Perennial	325 linear feet	non-section 10 – non-wetland
UNT5 to Sand Creek	39.986532 N	-85.937797 W	Riverine-Intermittent	260 linear feet	non-section 10 – non-wetland
Mud Creek	39.991031 N	-85.902347 W	Riverine-Perennial	430 linear feet	non-section 10 – non-wetland
UNT1 to Mud Creek	39.990680 N	-85.903144 W	Riverine-Ephemeral	2,920 linear feet	non-section 10 – non-wetland
UNT2 to Mud Creek	39.990579 N	-85.902138 W	Riverine-Ephemeral	200 linear feet	non-section 10 – non-wetland
UNT3 to Mud Creek	39.990580 N	-85.902244 W	Riverine-Ephemeral	185 linear feet	non-section 10 – non-wetland
Thorpe Creek	39.993419 N	-85.848462 W	Riverine-Perennial	370 linear feet	non-section 10 – non-wetland
UNT1 to Thorpe Creek	39.991478 N	-85.871661 W	Riverine-Perennial	275 linear feet	non-section 10 – non-wetland
UNT2 to Thorpe Creek	39.991175 N	-85.871161 W	Riverine-Ephemeral	1,430 linear feet	non-section 10 – non-wetland
Wetland 01	39.941511 N	-86.019662 W	Palustrine Emergent	0.0438 acre	non-section 10 – wetland
Wetland 02	39.942207 N	-86.019095 W	Palustrine Emergent	0.0495 acre	non-section 10 – wetland
Wetland 03	39.942749 N	-86.017783 W	Palustrine Emergent	0.1479 acre	non-section 10 – wetland
Wetland 04	39.942755 N	-86.018625 W	Palustrine Emergent	0.0344 acre	non-section 10 – wetland
Wetland 05	39.963123 N	-86.004264 W	Palustrine Emergent	0.0290 acre	non-section 10 – wetland
Wetland 06	39.965024 N	-86.001207 W	Palustrine Emergent	0.4531 acre	non-section 10 – wetland
Wetland 07	39.965956 N	-86.000959 W	Palustrine Emergent	0.2222 acre	non-section 10 – wetland
Wetland 08	39.967467 N	-85.994772 W	Palustrine Emergent	0.7879 acre	non-section 10 – wetland

Wetland 09	39.967663 N	-85.993443 W	Palustrine Forested	0.0845 acre	non-section 10 – wetland
Wetland 10	39.967081 N	-85.993381 W	Palustrine Emergent	0.1198 acre	non-section 10 – wetland
Wetland 11	39.967321 N	-85.990890 W	Palustrine Emergent	0.0556 acre	non-section 10 – wetland
Wetland 12	39.970826 N	-85.970673 W	Palustrine Emergent	0.0216 acre	non-section 10 – wetland
Wetland 13	39.972154 N	-85.967835 W	Palustrine Emergent	0.1800 acre	non-section 10 – wetland
Wetland 14	39.972774 N	-85.966487 W	Palustrine Emergent	0.0084 acre	non-section 10 – wetland
Wetland 15	39.975844 N	-85.960098 W	Palustrine Emergent	0.0037 acre	non-section 10 – wetland
Wetland 16	39.976626 N	-85.958684 W	Palustrine Emergent	0.1970 acre	non-section 10 – wetland
Wetland 17	39.977147 N	-85.957434 W	Palustrine Emergent	0.0350 acre	non-section 10 – wetland
Wetland 18	39.977592 N	-85.956632 W	Palustrine Forested	0.0549 acre	non-section 10 – wetland
Wetland 19	39.979228 N	-85.953082 W	Palustrine Emergent	0.2472 acre	non-section 10 – wetland
Wetland 20	39.980530 N	-85.950366 W	Palustrine Emergent	0.01946 acre	non-section 10 – wetland
Wetland 21	39.983607 N	-85.943890 W	Palustrine Emergent	0.0090 acre	non-section 10 – wetland
Wetland 22	39.984029 N	-85.943140 W	Palustrine Emergent	0.0659 acre	non-section 10 – wetland
Wetland 23	39.984469 N	-85.942132 W	Palustrine Emergent	0.0225 acre	non-section 10 – wetland
Wetland 24	39.986690 N	-85.937636 W	Palustrine Shrub-Scrub and Palustrine Emergent	0.2720 acre	non-section 10 – wetland
Wetland 25	39.986188 N	-85.937119 W	Palustrine Emergent	0.0072 acre	non-section 10 – wetland
Wetland 26	39.987122 N	-85.935137 W	Palustrine Emergent	0.1881 acre	non-section 10 – wetland
Wetland 27	39.989670 N	-85.927868 W	Palustrine Emergent	0.0592 acre	non-section 10 – wetland
Wetland 28	39.991350 N	-85.927043 W	Palustrine Forested and Palustrine Emergent	0.8000 acre	non-section 10 – wetland
Wetland 29	39.992603 N	-85.924896 W	Palustrine Emergent	0.6763 acre	non-section 10 – wetland
Wetland 30	39.991734 N	-85.923098 W	Palustrine Emergent	0.0110 acre	non-section 10 – wetland
Wetland 31	39.991403 N	-85.916568 W	Palustrine Emergent	0.0709 acre	non-section 10 – wetland
Wetland 32	39.990578 N	-85.901911 W	Palustrine Forested	0.0947 acre	non-section 10 – wetland
Wetland 33	39.991914 N	-85.861960 W	Palustrine Emergent	0.0490 acre	non-section 10 – wetland
Wetland 34	39.993123 N	-85.848439 W	Palustrine Emergent	0.0708 acre	non-section 10 – wetland
Wetland 35	39.993134 N	-85.848327 W	Palustrine Emergent	0.0434 acre	non-section 10 – wetland
Wetland 36	39.993155 N	-85.848169 W	Palustrine Emergent	0.0061 acre	non-section 10 – wetland
Wetland 37	39.993760 N	-85.848281 W	Palustrine Emergent	0.0046 acre	non-section 10 – wetland
Wetland 38	39.994123 N	-85.844783 W	Palustrine Emergent	0.0214 acre	non-section 10 – wetland
Wetland 39	39.993470 N	-85.844670 W	Palustrine Emergent	0.0232 acre	non-section 10 – wetland

Wetland 40	39.993376 N	-85.841504 W	Palustrine Emergent	0.0321 acre	non-section 10 – wetland
Wetland 41	39.994010 N	-85.841344 W	Palustrine Emergent	0.0385 acre	non-section 10 – wetland
Wetland 42	39.992773 N	-85.837616 W	Palustrine Emergent	0.0843 acre	non-section 10 – wetland

Miller, Daniel J

From: Herber, Lisa [LHerber@indot.IN.gov]
Sent: Monday, October 20, 2014 10:21 AM
To: Warrner, Thomas; Jones, Tony W; Allen, Kathleen
Cc: Miller, Daniel J; Carnahan, Ben
Subject: RE: I-69 Des 1383332/138336/1383489 Marion and Hamilton Counties, Waters of the U.S. Report Revisions

Follow Up Flag: Follow up
Flag Status: Flagged

TJ,

I have reviewed the waters revisions and everything looks great! The information in this report should be used by the project designer to determine if waters of the U.S. will be impacted by the project. Avoidance and minimization of impacts must occur *before* mitigation will be considered. If mitigation is required, the project manager or project designer must coordinate with the EWPO to discuss how adequate compensatory mitigation will be provided.

The project manager should notify the EWPO if there is any change to the project footprint presented in this report. Such changes may require additional fieldwork and submittal of an updated waters report covering areas not previously investigated. *This report is only valid for a period of five years from the date of fieldwork.* If the report expires prior to waterway permit application submittal, additional fieldwork and a revised waters report will be required. The waters report will not be sent to the United States Army Corps of Engineers (USACE) or the Indiana Department of Environmental Management (IDEM) until the waterways permit applications are submitted to these agencies.

A couple of things: submittal of the waters report ahead of permits to the USACE for their approval may be preferable if there are concerns with mitigation needs for some of these features. I also saw the status report for milestones/completion dates for the project and did not see a Rule 5 listed as a milestone. Please verify.

Lisa Herber
Ecology & Waterway Permits Team Lead
100 North Senate Avenue, Rm N642
Indianapolis, Indiana 46204
Office: (317) 232-5135
Email: Lherber@indot.in.gov

From: Warrner, Thomas [mailto:Thomas.Warrner@parsons.com]
Sent: Thursday, October 16, 2014 1:41 PM
To: Herber, Lisa
Cc: Miller, Daniel J; Carnahan, Ben; Jones, Tony W
Subject: RE: I-69 Des 1383332/138336/1383489 Marion and Hamilton Counties, Waters of the U.S. Report Revisions

Hi Lisa,

Thank-you for your quick review and comments. The revised waters report I dropped off this afternoon incorporates each comment (below) per our morning phone conversation. Please let me know if you have any additional questions or comments on this report.

Take care,

T.J.
317-616-1033

From: Herber, Lisa [mailto:LHerber@indot.IN.gov]
Sent: Wednesday, October 15, 2014 2:57 PM
To: Warrner, Thomas
Cc: Jones, Tony W; Carnahan, Ben; Miller, Daniel J
Subject: RE: I-69 Des 1383332/138336/1383489 Marion and Hamilton Counties, Waters of the U.S. Report

TJ, I have reviewed the waters report and have a few comments:

1. Table 2, Stream Summary: Habitat Quality for Cheeney Creek is listed as Poor but the report states Average.
Table 2 has been revised as requested.
2. Maps: Waterways are not labeled on Exhibits 2 & 3. Wetland type is not consistently named on the maps.
We discussed over the phone on 10/16/14 that waterways would typically be included on the NWI and soils mapping. However, to keep the report length down (this revision would add approximately 100 pages), we will leave these two exhibits as originally submitted. These layers can be readily combined should the USACE or IDEM request this during their review. Also, as discussed, wetland labels for emergent wetlands will be left as is. An additional label has been added for the three forested wetlands (Wetland 09, Wetland 18, and Wetland 32). The only shrub scrub wetland was labeled previously since it was split between emergent and shrub-scrub wetland types.
3. QHEI & HHEI: Check substrate scores for QHEIs; HHEIs do not have the % substrate filled in on all. Area drawing for both forms should have north arrow and the stream named/labeled.
QHEI substrate scores for Sand Creek and Mud Creek were calculated correctly. The error on the Thorpe Creek QHEI score has been corrected, and all references to this score have been updated in the report. HHEI forms where % substrate was missing have also been updated. A north arrow and stream label has been added to all drawings on both the QHEI and HHEI forms.
4. Pre-JD: Uncheck Box E; typically for USACE use.
This has been revised as requested.

Everything else looks great! Let me know if you have any questions.

Lisa Herber
Ecology & Waterway Permits Team Lead
100 North Senate Avenue, Rm N642
Indianapolis, Indiana 46204
Office: (317) 232-5135
Email: Lherber@indot.in.gov

From: Warrner, Thomas [mailto:Thomas.Warrner@parsons.com]
Sent: Monday, October 06, 2014 3:07 PM
To: Herber, Lisa
Cc: Jones, Tony W; Carnahan, Ben; Miller, Daniel J
Subject: I-69 Des 1383332/138336/1383489 Marion and Hamilton Counties, Waters of the U.S. Report

Hi Lisa,

Thank-you for meeting with me this afternoon so I could deliver the I-69 Interstate Expansion Waters of the U.S. Report for your review. As discussed, we incorporated the feedback from three early coordination meetings with INDOT, IDEM, and the USACE into the document. Attached is a copy of the cover letter that accompanied our submittal.

Please let me know if you have any questions or comments on the report.

Take care,

T.J.
Thomas J. Warrner
Environmental Planner
PARSONS
101 West Ohio Street, Suite 2121
Indianapolis, Indiana 46204
Phone: (317) 616-4671
E-mail: thomas.warrner@parsons.com
Web: www.parsons.com

Appendix G: Red Flag Investigation (Summary)

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204-2216 (317) 232-5348 FAX: (317) 233-4929

Michael R. Pence, Governor
Karl B. Browning, Commissioner

Date: August 13, 2014

To: Hazardous Materials Unit
Environmental Services
Indiana Department of Transportation
100 N Senate Avenue, Room N642
Indianapolis, IN 46204

From: Daniel J Miller
Senior Environmental Planner
Parsons
101 W. Ohio St., Suite 2121
Indianapolis, IN 46204
Daniel.J.Miller@parsons.com

Re: RED FLAG INVESTIGATION
Des. Nos. 1383332 & 1383336
I-69 Interstate Expansion
Project 1 (from 106th St to 0.5 mi N of Campus Parkway) & Project 3 (from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13); Hamilton & Madison Counties, Indiana

NARRATIVE

The Indiana Department of Transportation is planning an I-69 Interstate Expansion from 106th St in Fishers to Exit 226 (SR 9 & 109 in Anderson), in Hamilton and Madison Counties. This expansion has been broken into multiple projects with independent utility and logical termini. This report is being conducted for Project 1 (Des. No. 1383332), from 106th Street to 0.5 mi N of Campus Parkway, and Project 3 (Des. No. 1383336), from 0.5 mi N of Campus Parkway to 0.5 mi East of SR 13.

Purpose and Need: The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2033 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69.

The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

Existing Conditions: The existing cross section of I-69 from Exit 205 to 0.5 mi E of SR 13 has 2 travel lanes in each direction. The northbound cross section of 3 lanes in each direction ends at Cumberland Rd. The southbound 3-lane section starts with the southbound SR 37 entrance ramps. A pavement resurfacing project (Des. No. 0900053) has recently been completed for this segment of I-69. The pavement condition in this area will be determined by INDOT Pavement Design and the ultimate decision on the level of pavement work required for the project will depend on the condition of the pavement.

Proposed Projects:

Project 1: I-69 from 106th Street to 0.5 mile north of Campus Parkway, Hamilton County

The project would construct additional lanes from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) in the form of median travel lanes. An outside auxiliary lane would be added on southbound I-69 from 106th Street to 116th Street. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed. All mainline bridges would be widened in the median. The overhead structure at Cumberland Road would receive minor joint improvements, while the structure at Brooks School Road may be replaced. The overhead structure at 126th St would require no additional work. The interchange at Exit 210 would be modified as part of a separate project (Project 2). All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains. All detention basins would be constructed within existing right-of-way.

Project 3: I-69 from 0.5 mile north of Campus Parkway to 0.5 mile east of SR 13, Hamilton and Madison Counties

The project would construct additional lanes from Exit 210 to SR 13 in the form of median travel lanes. Existing pavement would be resurfaced. The cross section would have a 12-foot paved inside shoulder and a 10-foot paved outside shoulder. Double-sided guardrail would be installed in most areas, though not in wide median areas. All mainline bridges would be widened in the median. The overhead structure at Olio Road would require no additional work. The overhead structure at Cyntheanne Road may be replaced due to horizontal clearance. The SR 13 interchange will be evaluated to determine if additional auxiliary lanes (within existing right-of-way) would be necessary. All small structures will be evaluated to determine if rehabilitation or replacement is necessary. Detention would likely be required at all legal drains within Hamilton County. Detention is not expected to be required in Madison County. All detention basins would be constructed within existing right-of-way.

Right-of-Way (ROW): A small amount of new strip ROW may be required for Project 1 to accommodate the southbound auxiliary lane from 106th Street to 116th Street. Design alternatives, such as Mechanically Stabilized Earth (MSE) walls, will be evaluated to minimize ROW to the extent practical. No new ROW would be required for Project 3.

SUMMARY

Infrastructure Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
Religious Facilities	**4**	Recreational Facilities	**13***
Airports	**1***	Pipelines	**5 (6 segments)**
Cemeteries	**N/A**	Railroads	**1**
Hospitals	**2***	Trails	**64 (segments)**
Schools	**7**	Managed Lands	**N/A**

Explanation: (Please provide a separate paragraph for each item.)

- *Religious Facilities:* Four religious facilities lie within a half-mile radius of the project areas. All four lie outside of the project areas (the closest being Beech Grove Church, approximately 0.1 mile south of the project area on SR 13). Therefore, none of the facilities will be altered by construction activities. Minor inconveniences may occur from the maintenance of traffic (MOT). Due to the local roads offering a very minimal detour around the project

areas, impacts from the MOT would be minimal and should not significantly affect these facilities. These projects are Type I projects, and therefore Noise Analysis will be conducted to determine traffic noise levels, potential noise impacts, and the feasibility of traffic noise mitigation. If any of these facilities are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts.

- *Recreational Facilities:* Thirteen recreational facilities lie within a half-mile radius of the project areas. Four recreational facilities (Lanternwoods, Fishers Elementary School, Billerclay Park, and Fishers High School [*the High School was not included in the output for recreational facilities] lie directly adjacent to the project areas. The other nine locations lie outside of the project areas (beyond 0.1 mile) and will not be altered by construction activities. Billerclay Park and Fishers High School lie north of 116th St, where new ROW will not be required. Therefore, they will not be altered by construction activities. Lanternwoods and Fishers Elementary School lie between 106th St and 116th St, where new ROW may be required. Lanternwoods is located far enough outside of construction limits that ROW will not be required, and it will not be altered by construction activities. Fishers Elementary School lies directly adjacent to the project area (Project 1), with two of its baseball/softball fields lying directly adjacent to the existing ROW. As previously stated, design alternatives, such as MSE walls, will be evaluated to minimize ROW to the greatest extent possible. The school will be coordinated with throughout the project development process. As this facility is likely to be considered a Section 4(f) resource, if impacts to the resource occur, the project will be evaluated to determine the appropriate level of involvement and documentation that must occur.

  Minor inconveniences may occur to all of the recreational facilities due to the MOT. Due to the local roads offering a very minimal detour around the project areas, impacts from the MOT would be minimal and should not significantly affect these facilities. As previously stated, these projects are Type I projects, and therefore Noise Analysis will be conducted to determine traffic noise levels, potential noise impacts, and the feasibility of traffic noise mitigation. If any of these facilities are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts.

- *Airports*: No airports are located within a half-mile radius of the project area. *However, the Indianapolis Metropolitan Airport is located southwest of the project area, approximately 0.8 mile outside of the half-mile radius. Although this airport is beyond the half-mile buffer, it and the INDOT Office of Aviation will be coordinated with during the project development.

- *Pipelines:* Five pipelines (4 Indiana Gas Co. and 1 Buckeye Pipeline Company (2 segments)) lie within a half mile radius of the project areas. One of the Indiana Gas Co. pipelines lies outside of the project areas (approximately 0.17 mile northeast of the project areas near 116th Street) and will not be impacted by the proposed projects. The remaining four pipelines cross the project areas (the Buckeye Pipeline crosses twice). Coordination will occur with the utilities during project development and any impacts will be appropriately mitigated for.

- *Railroads:* One railroad lies within a half-mile radius of the project areas, but well outside of the projects limits (running approximately 0.35 mile northeast of the project areas along the western portion of the project). Therefore, it will not be impacted by the proposed projects.

- *Hospitals:* *The GIS review did not locate any hospitals within a half-mile radius of the project areas. However, IU Health Saxony Hospital is now located off of the southwest quadrant of the Campus Parkway exit, and St. Vincent Health is now located off of the southeast quadrant of the Campus Parkway exit (the locations of the hospitals have been noted on the attached maps). As previously stated, this exit will be modified as part of Project 2, and the hospitals will therefore not be impacted by these projects. Minor inconveniences may occur from the MOT. Due to the local roads offering a very minimal detour around the project areas, impacts from the MOT would be minimal and should not significantly affect these hospitals. As previously stated, these projects are Type I projects, and therefore Noise Analysis will be conducted to determine traffic noise levels, potential

noise impacts, and the feasibility of traffic noise mitigation. If the hospitals are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts.

- *Trails:* Sixty-four segments of trail (37 open, 21 planned, and 6 potential) lie within a half-mile radius of the project areas. Portions of five open trail segments (Billerclay Park Trail, Brooks School Rd/Fall Creek Rd to 136th St, Lantern Road/106th St to Cheeney Creek Park, Commercial Dr to Oak Dr North, and Marilyn Rd/146th St to I-69) lie directly adjacent to the project areas. However, none of these segments are expected to be impacted by the proposed projects. One open segment (146th St from Pointe Blvd to I-69) crosses Campus Parkway and may be impacted by the interchange modification project (Project 2, discussed above), but would not be impacted by the proposed projects.

- *Schools:* Seven schools (Fishers Elementary School, Fishers High School, Lantern Road Elementary School, Eman Elementary School, Hoosier Road Elementary School, Sand Creek Elementary School, and Sand Creek Intermediate School) lie within a half-mile radius of the project areas. Lantern Road Elementary School, Eman Elementary School, Hoosier Road Elementary School, Sand Creek Elementary School, and Sand Creek Intermediate School lie outside of the project areas, and therefore will not be altered by construction activities. Fishers High School lies adjacent to the project area (Project 1) (north of 116th St), where new ROW will not be required. Therefore, it will not be altered by construction activities. Fishers Elementary School lies directly adjacent to the project area (Project 1), with two of its baseball/softball fields lying directly adjacent to the existing ROW. As previously stated, design alternatives, such as MSE walls, will be evaluated to minimize ROW to the greatest extent possible. The school will be coordinated with throughout the project development process. As this facility is likely to be considered a Section 4(f) resource, if impacts to the resource occur, the project will be evaluated to determine the appropriate level of involvement and documentation that must occur.

  Minor inconveniences may occur to these schools from the MOT. Due to the local roads offering a very minimal detour around the project areas, impacts from the MOT would be minimal and should not significantly affect these schools. As previously stated, these projects are Type I projects, and therefore Noise Analysis will be conducted to determine traffic noise levels, potential noise impacts, and the feasibility of traffic noise mitigation. If any of these schools are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts.

Water Resources
Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:

NWI - Points	**7**	NWI - Wetlands	**36**
Karst Springs	**N/A**	IDEM 303d Listed Lakes	**N/A**
Canal Structures – Historic	**N/A**	Lakes	**74**
NWI - Lines	**18**	Floodplain - DFIRM	**4 (37 segments)**
IDEM 303d Listed Rivers and Streams (Impaired)	**N/A**	Cave Entrance Density	**N/A**
Rivers and Streams	**7 (22 segments)**	Sinkhole Areas	**N/A**
Canal Routes - Historic	**N/A**	Sinking-Stream Basins	**N/A**

Explanation: (Please provide a separate paragraph for each item.)

- *NWI Points:* Seven NWI points lie within a half-mile radius of the project areas, but all are located outside of the projects limits (the closest occurring approximately 335 feet south of the project (south of E 131st St.)) and would not be impacted by the proposed projects.

- *NWI Wetlands:* Thirty-six NWI-wetlands lie within a half-mile radius of the project areas. Twelve lie adjacent to the project areas (within 300 feet), but all lie outside of the projects limits. Due to the scope of these projects, a waters/wetland determination will be performed and any possible wetlands delineated. A Waters Report will then be written to summarize the findings. All applicable permits will be applied for and acquired before construction can begin. Applicable agencies will be coordinated with, and any comments received will be incorporated into the environmental document.

- *Lakes:* Seventy-four lakes lie within a half-mile radius of the projects limits with several located adjacent to the projects limits. Currently, no lakes are expected to be impacted by the proposed projects. As previously stated, a waters determination will be performed to verify jurisdictional waters within and/or adjacent to the project areas.

- *NWI Lines:* Eighteen NWI line segments lie within a half-mile radius of the project areas. Three segments lie within the project area (along Sand Creek, Mud Creek, and Thorpe Creek). Again, a waters/wetland determination will be performed and any possible wetlands delineated. A Waters Report will then be written to summarize the findings. All applicable permits will be applied for and acquired before construction can begin. Applicable agencies will be coordinated with, and any comments received will be incorporated into the environmental document.

- *Floodplain – DFIRM*: Four floodplains (Cheeney Creek (1 segment (GIS)), Sand Creek (20 segments), Mud Creek (14 segments), and Thorpe Creek (2 segments)) lie within a half-mile radius of the project areas. The Cheeney Creek Floodplain lies outside of the project areas and will not be impacted by the proposed projects. The other 3 floodplains lie within the project areas. It is expected that all three will require Construction in a Floodway (CIF) permits. All applicable permits will be applied for and acquired before construction can begin. Applicable agencies will be coordinated with, and any comments received will be incorporated into the environmental document.

- *Rivers and Streams:* Seven Streams (Cheeney Creek (1 segment), Sand Creek (7 segments), Unnamed Tributary (UNT) to Sand Creek (3 segments), High Ditch (2 segments), Mud Creek (4 segments), UNT to Mud Creek (1 segment), and Thorpe Creek (4 segments)) lie within a half-mile radius of the project areas. Three streams (Sand Creek, Mud Creek, and Thorpe Creek) lie within the project areas. Again, a waters determination will be performed and a Waters Report will then be written to summarize the findings. All applicable permits will be applied for and acquired before construction can begin. Applicable agencies will be coordinated with, and any comments received will be incorporated into the environmental document.

Mining/Mineral Exploration Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
Petroleum Wells	**54**	Petroleum Fields	**1**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation: (Please provide a separate paragraph for each item.)

- *Petroleum Wells:* Fifty-four petroleum wells lie within a half-mile radius of the project areas. Nine inactive wells are noted within or directly adjacent to the project areas. No wells were identified within or adjacent to the project areas at a field check on December 4, 2013. Therefore, no petroleum wells will be impacted by the proposed projects.

- *Petroleum Fields:* Both project areas lie entirely within the Trenton Petroleum Field. Again, no petroleum wells were identified within or adjacent to the project areas at a field check on December 4, 2013. The proposed projects are not expected to impact this petroleum field.

Hazmat Concerns Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
Brownfield Sites	**N/A**	Restricted Waste Sites	**N/A**
Corrective Action Sites (RCRA)	**N/A**	Septage Waste Sites	**N/A**
Confined Feeding Operations	**1**	Solid Waste Landfills	**N/A**
Construction Demolition Waste	**N/A**	State Cleanup Sites	**2**
Industrial Waste Sites (RCRA Generators)	**3**	Tire Waste Sites	**N/A**
Infectious/Medical Waste Sites	**N/A**	Waste Transfer Stations	**N/A**
Lagoon/Surface Impoundments	**N/A**	RCRA Waste Treatment, Storage, and Disposal Sites (TSDs)	**N/A**
Leaking Underground Storage Tanks (LUSTs)	**9**	Underground Storage Tanks	**5**
Manufactured Gas Plant Sites	**N/A**	Voluntary Remediation Program	**N/A**
NPDES Facilities	**1***	Superfund	**N/A**
NPDES Pipe Locations	**4**	Institutional Control Sites	**N/A**
Open Dump Sites	**N/A**		

Explanation: (Please provide a separate paragraph for each item.)

- *Confined Feeding Operations:* One confined feeding operation lies within a half-mile radius of the project areas (approximately 0.36 mile south of the project areas, southwest of the SR 13 interchange), but well outside of the projects limits. Therefore, it will not be impacted by the proposed projects.

- *State Cleanup Sites:* Two state cleanup sites are located within a half-mile radius of the project areas, but outside of the projects limits (the closest occurring approximately 0.075 mile northwest of the project areas near 116th St). Therefore, they will not be impacted by the proposed projects.

- *Industrial Waste Sites (RCRA Generators):* Three Industrial Waste Sites are located within a half-mile radius of the project areas, but outside of the projects limits (the closest occurring approximately 0.2 mile south of the project areas along Cumberland Road. Therefore, they will not be impacted by the proposed projects.

- *Leaking Underground Storage Tanks (LUSTs):* Nine LUSTs are located within a half-mile radius of the project areas, but outside of the projects limits (the closest occurring approximately 350 feet northeast of the project areas off of Reynolds Drive). Therefore, they will not be impacted by the proposed projects.

- *Underground Storage Tanks (USTs):* Five USTs are located within a half-mile radius of the project areas, but outside of the projects limits (the closest occurring approximately 1,070 feet northeast of the project areas off of Reynolds Drive). Therefore, they will not be impacted by the proposed projects.

- *NPDES Pipe Facilities:* One NPDES Pipe Facility (Carefree Homes Mobile Homes Park) is noted on the maps within a half-mile radius of the project areas. The facility was located directly adjacent to the project area

(Project 3). *However, the permit status is listed as "terminated". Therefore, no NPDES Pipe Facilities will be impacted by the proposed project.

- *NPDES Pipe Locations:* Four NPDES Pipe Locations are located within a half-mile radius of the project areas. Three of the pipes (IH Sewer Corporation, Pilot Travel Center, and Carefree Homes Mobile Homes Park) are located directly adjacent to the project areas. The owners of all three pipes will be coordinated with to determine where exactly the pipes are located, and that they will not be disturbed by the proposed projects. The other pipe is located outside of the project areas and will not be impacted by the proposed projects.

Ecological Information

The Hamilton & Madison Counties listings of the Indiana Natural Heritage Data Center information on endangered, threatened, or rare (ETR) species and high quality natural communities are attached with ETR species highlighted.

Early coordination will be initiated with applicable resource agencies and any comments received will be incorporated into the environmental document.

Cultural Resources

The Section 106 process has been initiated by Weintraut & Associates, Inc. All commitments received from the Section 106 process will be incorporated in the final environmental document for these projects.

RECOMMENDATIONS

INFRASTRUCTURE: Noise Analysis will be conducted to determine traffic noise levels, potential noise impacts, and the feasibility of traffic noise mitigation. If any of the identified religious facilities, recreational facilities, hospitals, or schools are determined to have traffic noise impacts, noise abatement measures will be considered and appropriate measures constructed to mitigate for these impacts.

Fishers Elementary School lies directly adjacent to the project area (Project 1), with two of its baseball/softball fields lying directly adjacent to the existing ROW. Design alternatives, such as MSE walls, will be evaluated to minimize ROW to the greatest extent possible. The school will be coordinated with throughout the project development process. As this facility is likely to be considered a Section 4(f) resource, if impacts to the resource occur, the project will be evaluated to determine the appropriate level of involvement and documentation that must occur.

Four pipelines cross the project areas (three Indiana Gas Co. pipelines and one Buckeye Pipeline Co (twice)). Coordination will occur with the utilities during project development and any impacts will be appropriately mitigated for.

The Indianapolis Metropolitan Airport is located southwest of the project area, approximately 0.8 mile outside of the half-mile radius. Although this airport is beyond the half-mile buffer, it and the INDOT Office of Aviation will be coordinated with during the project development.

WATER RESOURCES: Twelve NWI-wetlands lie adjacent to the project areas, but all lie outside of the projects limits. Seventy-four lakes lie within a half-mile radius of the projects limits with several located adjacent to the projects limits. Currently, no lakes are expected to be impacted by the proposed projects. Three NWI line segments lie within the project area (along Sand Creek, Mud Creek, and Thorpe Creek). Three floodplains Sand Creek (20 segments), Mud Creek (14 segments), and Thorpe Creek (2 segments)) lie within the project areas. Three streams (Sand Creek, Mud Creek, and Thorpe Creek) lie within the project areas.

Due to the scope of these projects, a waters/wetland determination will be performed and any possible wetlands delineated. A Waters Report will then be written to summarize the findings. All applicable permits will be applied for and acquired before construction can begin. Applicable agencies will be coordinated with, and any comments received will be incorporated into the environmental document. It is expected that a Section 401/404 permit, 3 CIF permits, and

8 County Regulated Drain Permits will be required. If mitigation is required for these projects, construction will take place concurrently with or before the construction of these projects.

MINING/MINERAL EXPLORATION: N/A. No impacts to mining/mineral exploration resources are expected to occur from the proposed projects.

HAZMAT CONCERNS: Four NPDES Pipe Locations are located within a half-mile radius of the project areas. Three of the pipes (IH Sewer Corporation, Pilot Travel Center, and Carefree Homes Mobile Homes Park) are located directly adjacent to the project areas. The owners of all three pipes will be coordinated with to determine where exactly the pipes are located, and that they will not be disturbed by the proposed projects.

ECOLOGICAL INFORMATION: Early coordination will be initiated with applicable resource agencies and any comments received will be incorporated into the environmental document. Impacts to endangered species are not expected to occur from the proposed projects.

CULTURAL RESOURCES: The Section 106 process has been initiated by Weintraut & Associates, Inc. All commitments received from the Section 106 process will be incorporated in the final environmental document for these projects.

INDOT Environmental Services concurrence: Marlene Mathas Digitally signed by Marlene Mathas DN: cn=Marlene Mathas, o=INDOT Environmental Services, ou=Hazardous Materials, email=mmathas@indot.in.gov, c=US Date: 2014.09.02 10:29:37 -04'00' (Signature)

Prepared by:

Daniel J. Miller
Senior Environmental Planner
Parsons

Graphics:

A map for each report section with a ½ mile 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:

GENERAL SITE MAP SHOWING PROJECT AREA: YES

Maps/Graphics for the RFI are included in Appendix B.

INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

HAZMAT CONCERNS: YES

Appendix H: Air Quality

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Statewide Transportation Improvement Program

FY2014-2017

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Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2014 - 2017

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2014	2015	2016	2017
Fishers	1383253	A 11	ST 1054	Install New Guard Rail	Install timber guardrail, Brooks School Rd S Fall Cr & 116th St	Greenfield	.78	Off Federal Aid		100% Local Funds	CN	$0.00	$27,750.00		$27,750.00		
Comments: CN Phase in 14-17 IRTIP for FY 15. In 14-17 STIP via amendment 14-11																	
Fishers	1383253	M 07	ST 1054	Install New Guard Rail	Install timber guardrail, Brooks School Rd S Fall Cr & 116th St	Greenfield	.78	Off Federal Aid		Indianapolis MPO	CN	$27,750.00	$0.00		$27,750.00		
Comments: 14-06.1 - ADMINISTRATIVE - Q4S 2014 Increase CN/CE in SFY 2015 by $27,750, to 100% federally funded in order to spend down the MPO's 2015 Section 164 Penalty Funds.																	
Hamilton County	1383254	A 11	IR 1062	Guardrail, Maintenance Or Repair	Guardrail end treatment upgrades - various locations	Greenfield	0	On Federal Aid		Indianapolis MPO	CN	$335,858.00	$0.00		$335,858.00		
										100% Local Funds	PE	$0.00	$81,125.00	$81,125.00			
										100% Local Funds	CN	$0.00	$37,317.00		$37,317.00		
Comments: PE and CN phase in 14-17 IRTIP for FY 15 - in 14-17 STIP via amendment 14-11																	
Hamilton County	1383254	M 07	IR 1062	Guardrail, Maintenance Or Repair	Guardrail end treatment upgrades - various locations	Greenfield	0	On Federal Aid		Indianapolis MPO	CN	$37,317.00	$0.00		$37,317.00		
Comments: 14-06.1 - ADMINISTRATIVE - Q4S 2014 Increase CN/CE in SFY 2015 by $37,317 to 100% federally funded in order to spend down the MPO's 2015 Section 164 Penalty Funds.																	
Hamilton County	1383256	A 11	ST 1001	Traffic Signals, New Or Modernized	Pedestrain countdown signal heads & pushbuttons various intersections in county	Greenfield	0	Off Federal Aid		Indianapolis MPO	CN	$51,300.00	$0.00		$51,300.00		
										100% Local Funds	CN	$0.00	$5,700.00		$5,700.00		
Comments: PE and CN phase in 14-17 IRTIP for FY 15 - in 14-17 STIP via amendment 14-11																	
Hamilton County	1383256	A 24	ST 1001	Traffic Signals, New Or Modernized	Pedestrain countdown signal heads & pushbuttons various intersections in county	Greenfield	0	Off Federal Aid		100% Local Funds	CN	$0.00	$10,670.00		$10,670.00		
										Indianapolis MPO	CN	$96,030.00	$0.00		$96,030.00		
Comments: In 14-17 IRTIP for CE/CN increased funding $106,700																	
Hamilton County	1383256	A 27	ST 1001	Traffic Signals, New Or Modernized	Pedestrain countdown signal heads & pushbuttons various intersections in county	Greenfield	0	Off Federal Aid		100% Local Funds	CN	$0.00	$13,044.00		$13,044.00		
										Indianapolis MPO	CN	$117,392.00	$0.00		$117,392.00		
Comments: 14-03.2 - LOCAL - Q2S 2014 Increase CN/CE by $117,392 Federal HSIP $13,044 Local Match in SFY 2015.																	
Indiana Department of Transportation	1006215	Init.	I 69	Small Structure Pipe Lining	Str#: SS-I69-29-06.30; 0.800 mi. N. of SR 37	Greenfield	0	Interstate		Bridge Construction	CN	$114,300.00	$12,700.00	$127,000.00			
Indiana Department of Transportation	1006439	Init.	I 69	Small Structure Pipe Lining	3.30 mile North SR 37 (SS-I69-29-08.80)	Greenfield	0	Interstate		Bridge Construction	CN	$73,800.00	$8,200.00	$82,000.00			
Indiana Department of Transportation	1383332	A 19	I 69	Added Travel Lanes	At SR 37 (N jct.) to 5.24 miles N of SR 37 (N jct.) (0.50 mile N of old SR 238)	Greenfield	5.242	Interstate		Road Consulting	PE	$0.00	$1,395,800.00	$1,395,800.00			

 Report Created:10/2/2014 3:29:03PM

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2014 - 2017

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2014	2015	2016	2017
Indiana Department of Transportation	1383332	A 19	I 69	Added Travel Lanes	At SR 37 (N jct.) to 5.24 miles N of SR 37 (N jct.) (0.50 mile N of old SR 238)	Greenfield	5.242	Interstate		2020 Trust Fund Program - Construction	CN	$0.00	$41,500,000.00		$41,500,000.00		
Comments: PE in FY 14 and CN in FY 15 amended into 14-17 IRTIP via Reso 14-IMPO-002 on 3.5.14. This is a 2020 project																	
Indiana Department of Transportation	1383485	A 24	I 69	Repair Or Replace Joints	I69 at Cumberland Rd	Greenfield	0	Interstate		Major New - Construction	CN	$18,000.00	$2,000.00		$20,000.00		
Comments: Project added for CN in FY 2015 of the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383486	A 24	I 69	Bridge Widening	I69 NB at Sand Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for FY 2015 CN to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resoluton # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383487	A 24	I 69	Bridge Widening	I69 SB at Sand Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resoluiton # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383488	A 24	I 69	Bridge Deck Replacement	Brook School Rd over I69	Greenfield	0	Interstate		Major New - Construction	CN	$2,025,000.00	$225,000.00		$2,250,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383489	A 24	I 69	Interchange Modification	I69 at Old SR238 (Exit 210)	Greenfield	0	Interstate		Major New - Construction	CN	$11,700,000.00	$1,300,000.00		$13,000,000.00		
										Road Consulting	PE	$1,137,294.00	$126,366.00	$1,163,770.00	$99,890.00		
Comments: Project added for PE in FY 2015 and CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383490	A 24	I 69	Bridge Widening	Old SR238 over I69	Greenfield	0	Interstate		Major New - Construction	CN	$1,800,000.00	$200,000.00		$2,000,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383509	A 24	I 69	Bridge Widening	I69 NB at Mud Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a comformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383510	A 24	I 69	Bridge Widening	I69 SB at Mud Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383511	A 24	I 69	Bridge Replacement, Concrete	Cyntheanne Rd over I69	Greenfield	0	Interstate		Major New - Construction	CN	$2,259,000.00	$251,000.00		$2,510,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	

 Report Created:10/2/2014 3:29:03PM

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Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2014 - 2017

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2014	2015	2016	2017
Elkhart County	1383188	A 30	IR 1001	Sign Modernization (Series Of Units)	Sign Replacements various locations in Elkhart and Kosciusko Counties.	Fort Wayne	0	Multiple		Group III Program	PE	$120,000.00	$0.00		$120,000.00		
Comments: MACOG Resolution 37-14: Add PE phase for project in FY 2015. $120,000 Federal HSIP, ($150,000 total).																	
Elkhart County	1383188	A 07	IR 1001	Sign Modernization (Series Of Units)	Sign Replacements various locations in Elkhart and Kosciusko Counties.	Fort Wayne	0	Multiple		Elkhart-Goshen MPO	CN	$855,325.00	$0.00	$855,325.00			
										100% Local Funds	CN	$0.00	$38,590.00	$38,590.00			
Comments: New HSIP Project added to MACOG TIP for PE & CN via Amendment 34-13.																	
Indiana Department of Transportation	1383181	A 14	SR 25	HMA Overlay, Preventive Maintenance	From 0.18 mi N of SR 55 to 0.06 mi S of the S Jct of SR 28	Crawfordsville	7.074	On Federal Aid		District Other Construction	CN	$1,040,000.00	$260,000.00	$1,300,000.00			
Comments: CN phase added to Lafayette TIP for FY 2014 by Resolution # T-14-02 approved February 19, 2014.																	
Indiana Department of Transportation	1173380	A 10	VA VARI	Traffic Signals Modernization	US231@Wabash, US231@ Pike, US231@US136, US 231@ Main, US 136@ Green,	Crawfordsville	0	On Federal Aid		Safety Construction	CN	$630,000.00	$0.00	$630,000.00			
Comments: Adding CN in FY 2014 for $630,000 Safety Program 100% federal																	
Indiana Department of Transportation	1383336	A 19	I 69	Added Travel Lanes	5.24 mi N of SR 37 (N jct.) (0.50 mi N of old SR 238) to 0.85 mi N of SR13	Greenfield	4.674	Interstate		Road Consulting	PE	$0.00	$1,312,620.00	$1,312,620.00			
										2020 Trust Fund Program - Construction	CN	$0.00	$24,100,000.00		$24,100,000.00		
Comments: PE in FY 14 and CN in FY 15 in 14-17 IRTIP via Reso 14-IMPO-002 on 3.5.14. Also in MCCOG 12-15 TIP via Reso 03-14 on 3.6.14. This is a 2020 project																	
Indiana Department of Transportation	1383343	A 19	I 65	Added Travel Lanes	4.72 miles S of I-465 South Leg to 2.88 miles S of I-465 South Leg	Greenfield	2.385	Interstate		2020 Trust Fund Program - Construction	CN	$0.00	$21,750,000.00		$21,750,000.00		
										Road Consulting	PE	$0.00	$800,000.00	$800,000.00			
Comments: PE in FY 14 and CN in FY 15 amended into 14-17 IRTIP via Reso 14-IMPO-002 on 3.5.14. This is a 2020 project																	
Indiana Department of Transportation	1400679	A 23	I 65	Patch And Rehab Pavement	US 52 to SR 43	Crawfordsville	34.992	Interstate		Road Construction	CN	$3,150,000.00	$350,000.00		$3,500,000.00		
Comments: Amended in 15-18 TCAPC for CN in 15 on May 23, 2014.																	
Indiana Department of Natural Resources	1383283	A 14	MS 1	Other Type Project (Miscellaneous)	Knobstone Trail Maint RT 13003	Seymour	0	On Federal Aid		Recreational Trails Program	CN	$52,791.00	$0.00	$26,396.00	$26,395.00		
Comments: DNR RTP Project for CN in FY 14 and 15																	
Sweetser	1383285	A 14	MS 1	Other Type Project (Miscellaneous)	Sweetser Switch Trail Ph 3 RT 13004	Fort Wayne	0	On Federal Aid		Recreational Trails Program	RW	$29,600.00	$0.00	$29,600.00			
										Recreational Trails Program	PE	$20,000.00	$0.00	$20,000.00			
Comments: RTP/DNR project for PE in FY 14, RW in FY 14 and CN in FY 15 and 16																	
Indiana Department of Transportation	1400582	A 24	VA VARI	Raised Pavement Markings, Refurbished	RPM's throughout the Seymour District	Seymour	0	On Federal Aid		Safety Construction	CN	$160,000.00	$40,000.00		$200,000.00		

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Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2014 - 2017

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2014	2015	2016	2017
Indiana Department of Transportation	1383332	A 19	I 69	Added Travel Lanes	At SR 37 (N jct.) to 5.24 miles N of SR 37 (N jct.) (0.50 mile N of old SR 238)	Greenfield	5.242	Interstate		2020 Trust Fund Program - Construction	CN	$0.00	$41,500,000.00		$41,500,000.00		
Comments: PE in FY 14 and CN in FY 15 amended into 14-17 IRTIP via Reso 14-IMPO-002 on 3.5.14. This is a 2020 project																	
Indiana Department of Transportation	1383485	A 24	I 69	Repair Or Replace Joints	I69 at Cumberland Rd	Greenfield	0	Interstate		Major New - Construction	CN	$18,000.00	$2,000.00		$20,000.00		
Comments: Project added for CN in FY 2015 of the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383486	A 24	I 69	Bridge Widening	I69 NB at Sand Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for FY 2015 CN to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resoluton # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383487	A 24	I 69	Bridge Widening	I69 SB at Sand Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resoluiton # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383488	A 24	I 69	Bridge Deck Replacement	Brook School Rd over I69	Greenfield	0	Interstate		Major New - Construction	CN	$2,025,000.00	$225,000.00		$2,250,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383489	A 24	I 69	Interchange Modification	I69 at Old SR238 (Exit 210)	Greenfield	0	Interstate		Major New - Construction	CN	$11,700,000.00	$1,300,000.00		$13,000,000.00		
										Road Consulting	PE	$1,137,294.00	$126,366.00	$1,163,770.00	$99,890.00		
Comments: Project added for PE in FY 2015 and CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383490	A 24	I 69	Bridge Widening	Old SR238 over I69	Greenfield	0	Interstate		Major New - Construction	CN	$1,800,000.00	$200,000.00		$2,000,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383509	A 24	I 69	Bridge Widening	I69 NB at Mud Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a comformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383510	A 24	I 69	Bridge Widening	I69 SB at Mud Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	
Indiana Department of Transportation	1383511	A 24	I 69	Bridge Replacement, Concrete	Cyntheanne Rd over I69	Greenfield	0	Interstate		Major New - Construction	CN	$2,259,000.00	$251,000.00		$2,510,000.00		
Comments: Project added for CN in FY 2015 to the FY 2014-2017 Indianapolis Regional TIP with the second quarter CY 2014 amendments via Resolution # 14-IMPO-005 approved on May 28, 2014. FHWA issued a conformity letter on June 2, 2014 for USDOT.																	

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Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2014 - 2017

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2014	2015	2016	2017
Comments: Anderson MPO TIP resolution #7 on 6-5-2014 - adding PE to FY 15 Federal 15,400 and Local 3,850. Original PE amounts were in FY 14. Now: total PE Federal = 29,800 total PE Local = 7,450																	
Alexandria	1383054	M 04	ST 1002	Road Rehabilitation (3R/4R Standards)	Washington Street; phase 2 from Wayne Street to Chestnut Street	Greenfield	.6	On Federal Aid		Anderson MPO	RW	$32,000.00	$0.00		$32,000.00		
										100% Local Funds	RW	$0.00	$8,000.00		$8,000.00		
Comments: 1383054 ? Adding RW to FY 15 ? Federal 32,000 and Local 8,000 ? Anderson MPO TIP resolution #7 dated 6-5-14.																	
Alexandria	1383054	A 07	ST 1002	Road Rehabilitation (3R/4R Standards)	Washington Street; phase 2 from Wayne Street to Chestnut Street	Greenfield	.6	On Federal Aid		Anderson MPO	PE	$14,400.00	$0.00	$14,400.00			
										100% Local Funds	RW	$0.00	$60,000.00	$60,000.00			
										Anderson MPO	CN	$600,000.00	$0.00		$600,000.00		
										Anderson MPO	RW	$240,000.00	$0.00	$240,000.00			
										100% Local Funds	CN	$0.00	$150,000.00		$150,000.00		
										100% Local Funds	PE	$0.00	$3,600.00	$3,600.00			
Comments: Policy Resolution in above entry should be 10-3-13.																	
Madison County	1382752	A 07	VA VARI	Bridge Inspections	Various Bridges in Madison County	Greenfield	0	On Federal Aid		Local Bridge Program	PE	$279,200.00	$0.00	$279,200.00			
										100% Local Funds	PE	$0.00	$69,800.00	$69,800.00			
Comments: Adding PE FY 14 MCCOG Policy Resolution 10-3-13.																	
Indiana Department of Transportation	1383512	A 24	I 69	Bridge Widening	I69 NB at Thorpe Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project amended for FY 2015 CN in the FY 2012-2015 Anderson and Madison County TIP via Resoluton 7-2014 approved on June 5, 2014.																	
Indiana Department of Transportation	1383513	A 24	I 69	Bridge Widening	I69 SB at Thorpe Creek	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for CN in FY 2015 of the FY 2012-2015 Anderson and Madison County TIP via Resolutin # 7-2014 approved on June 5, 2014.																	
Indiana Department of Transportation	1383514	A 24	I 69	Bridge Widening	I69 NB at SR13	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		
Comments: Project added for FY 2015 CN to the FY 2012-2015 Anderson and Madison County TIP via Resoluion # 7-2014 approved on June 5, 2014.																	
Indiana Department of Transportation	1383515	A 24	I 69	Bridge Widening	I69 SB at SR13	Greenfield	0	Interstate		Major New - Construction	CN	$1,350,000.00	$150,000.00		$1,500,000.00		

 Report Created:10/31/2014 9:04:19AM

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Last Amended: December 12, 2013

2014-2017 INDIANAPOLIS REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM

Prepared by the Indianapolis Metropolitan Planning Organization

www.indympo.org.

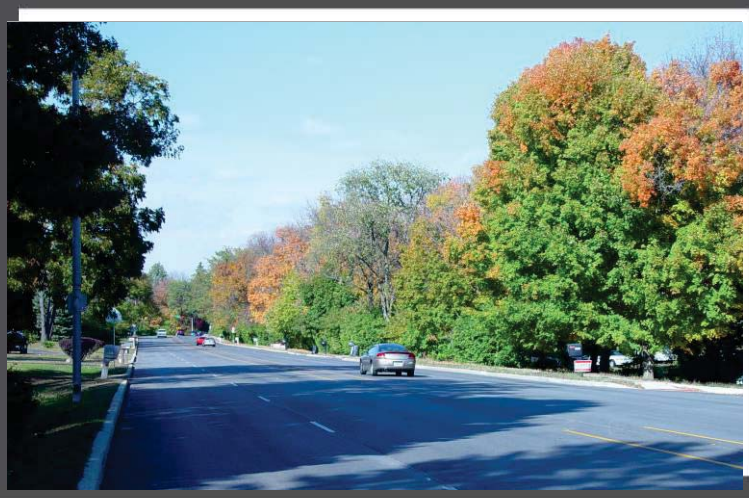

TABLE 5.1
Indiana Department of Transportation (INDOT)
Interstate Projects

Projects in bold are considered regionally significant for air quality purposes.

Des. No.	County	Work Type	Project Description/Length (mi.)	INDOT District	Fund Type	Phase	SFY	Total Cost	Federal Funds	State Match
0900324	Marion Co.	Bridge Painting	Bridge Repair on 7 Streets, RR, Monorail Dist:N/A	G	Interstate	CN	2015	$ 8,200,000	$ 7,380,000	$ 820,000
0900359	Marion Co.	Bridge Painting	7 Streets, RR, Monorail Dist:n/a	G	Interstate	CN	2016	$ 16,101,000	$ 14,490,900	$ 1,610,100
1173721	Marion Co.	Concrete Pavement Restoration (CPR)	I-65 from Morris St. exit ramp to the N split of the inner loop Dist:1.048	G	Interstate	CN	2016	$ 1,083,000	$ 974,700	$ 108,300
0902297	**Marion Co.**	**Interchange Modification**	**I-465 and I-65 S of Indianapolis Dist:0.35**	**G**	**Highway**	**CN**	**2014**	**$ 43,380,000**	**$ 34,704,000**	**$ 8,676,000**
1297786	Marion Co.	Repairs To Approach Slab	I-65 BCPI Project 1.97 mi. N of I-465 Dist:N/A	G	Highway	CN	2014	$ 68,000	$ 61,200	$ 6,800
1297787	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project 2.38 mi. N of I-465 Dist:N/A	G	Highway	CN	2014	$ 36,000	$ 32,400	$ 3,600
1297791	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project 2.38 mi. N of I-465 Dist:N/A	G	Highway	CN	2014	$ 36,000	$ 32,400	$ 3,600
1297829	Marion Co.	Repairs To Approach Slab	I-65 BCPI Project 3.35 mi. N of I-465 Dist:N/A	G	Highway	CN	2014	$ 49,000	$ 44,100	$ 4,900
1297831	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project .39 mi. S of I-70 Dist:N/A	G	Highway	CN	2014	$ 35,000	$ 31,500	$ 3,500
1297832	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project .39 mi. S of I-70 Dist:N/A	G	Highway	CN	2014	$ 35,000	$ 31,500	$ 3,500
1297833	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project .29 mi. S of I-70 Dist:N/A	G	Highway	CN	2014	$ 41,000	$ 36,900	$ 4,100
1297834	Marion Co.	Repair Or Replace Joints	I-65 BCPI Project .29 mi. S of I-70 Dist:N/A	G	Highway	CN	2014	$ 38,000	$ 34,200	$ 3,800
1296613	Marion Co.	Replace Superstructure	I-65; at 1.1 mile N I-70, CSX RR and Ohio St (I-65-112-02431 AO) Dist:N/A	G	State STP	PE	2014	$ 750,000	$ 675,000	$ 75,000
0800960	Marion Co.	Bridge Painting	2 bridges in Marion County (see project log) Dist:N/A	G	State STP	CN	2015	$ 412,000	$ 370,800	$ 41,200
0800963	Marion Co.	Bridge Painting	4 bridges in Marion County (see project log) Dist:N/A	G	State STP	CN	2015	$ 377,000	$ 339,300	$ 37,700
1173296	Marion Co.	Its Traveller Informations Systems	At Mile 119.7 NB & 108.4 SB on I-65 & Mile 98.5 WB on I-74 (Dynamic Message Signs) Dist:N/A	G	State STP	CN	2015	$ 310,000	$ 279,000	$ 31,000
1296613	Marion Co.	Replace Superstructure	I-65; at 1.1 mile N I-70, CSX RR and Ohio St (I-65-112-02431 AO) Dist:N/A	G	State STP	CN	2017	$ 5,594,000	$ 5,034,600	$ 559,400
1296284	Morgan Co.	Install New Cable Rail Barriers	From 4.71 miles north of SR 43 to 0.67 miles south of US 231 south jct Dist:n/a	C	State HSIP	CN	2015	$ 995,000	$ 895,500	$ 99,500
1296193	Shelby Co.	Pipe Lining	I-65 Pipe Lining North of Barthlomew Co. Line at RP 81, .07 miles S of CR 1000S and I-65 Dist:N/A	G	Interstate	CN	2015	$ 54,993	$ 49,494	$ 5,499
1173722	Various	HMA Overlay, Preventive Maintenance	I-65; from 0.55 mile N of I-465 to 0.39 mile S of SR 334 (RP 123+05 to 129+72) Dist:N/A	G	State STP	CN	2015	$ 4,142,000	$ 3,727,800	$ 414,200
			I-69							
1006355	Hamilton Co.	Pipe Lining	I-69 Pipe Lining 0.050 miles north of Marion/Hamilton Co. line Dist:N/A	G	Bridge	CN	2014	$ 75,000	$ 60,000	$ 15,000
1006249	Hamilton Co.	Pipe Lining	I-69 Pipe Lining 2.250 miles north of Marion/Hamilton Co. line Dist:N/A	G	Bridge	CN	2014	$ 110,000	$ 88,000	$ 22,000
1296714	Hamilton Co.	Bridge Deck Overlay	3.74 mi N of I-465 over 106th St. Dist:N/A	G	Bridge	CN	2017	$ 1,659,000	$ 1,493,100	$ 165,900
1006215	Hamilton Co.	Pipe Lining	0.8 mile N of SR 37 Dist:N/A	G	Other	CN	2014	$ 125,000	$ 100,000	$ 25,000
1006439	Hamilton Co.	Pipe Lining	I-69 Pipe Lining, 3.30 miles N of SR 37 Dist:N/A	G	Other	CN	2014	$ 80,000	$ 64,000	$ 16,000
1006233	Marion Co.	Pipe Lining	I-69, Pipe Lining .93 miles North of I-465 Dist:N/A	G	Bridge	CN	2014	$ 125,000	$ 112,500	$ 12,500
1006311	Marion Co.	Pipe Lining	I-69, Pipe Lining .155 miles North of I-465 Dist:N/A	G	Bridge	CN	2014	$ 50,000	$ 45,000	$ 5,000
1006245	Marion Co.	Pipe Lining	I-69, .11 miles North of I-465 Dist:N/A	G	Bridge	CN	2014	$ 50,000	$ 45,000	$ 5,000
1006425	Marion Co.	Pipe Lining	I-69 Pipe Lining, .92 miles North of I-465 Dist:N/A	G	Bridge	CN	2014	$ 75,000	$ 67,500	$ 7,500
1298049	Marion Co.	Bridge - Other	I-69; 0.178 miles N of I-465 Dist:N/A	G	Bridge	CN	2014	$ 145,000	$ 130,500	$ 14,500
1297917	Hamilton Co.	Noise Abatement	I-69 SB side from Fishers Pointe Blvd. to 800 ft south of 116th St.	G	NHS	PE	2014	$ 14,000	$ 12,600	$ 1,400
1297917	Hamilton Co.	Noise Abatement	I-69 SB side from Fishers Pointe Blvd. to 800 ft south of 116th St.	G	NHS	CN	2014	$ 1,200,000	$ 960,000	$ 240,000
			I-70							
0800956	Hancock Co.	Bridge Deck Overlay	4.29 miles E of SR 9 (CR600E) Dist:0.01	G	Bridge	CN	2014	$ 417,000	$ 333,600	$ 83,400
1296692	Hancock Co.	Bridge Deck Overlay	0.3 mi E of SR-9 (Brandywine Creek) Dist:N/A	G	Bridge	CN	2017	$ 225,000	$ 202,500	$ 22,500
1296694	Hancock Co.	Bridge Deck Overlay	0.3 miles E of SR-0 (Brandywine Creek) Dist:N/A	G	Bridge	CN	2017	$ 264,000	$ 237,600	$ 26,400
1296716	Hancock Co.	Bridge Deck Overlay	2.64 mi W of SR 109 over Six Mile Creek Dist:N/A	G	Bridge	CN	2017	$ 167,000	$ 150,300	$ 16,700
1296719	Hancock Co.	Bridge Deck Overlay	2.64 mi W of SR 109 over Six Mile Creek Dist:N/A	G	Bridge	CN	2017	$ 167,000	$ 150,300	$ 16,700
1297868	Hancock Co.	Bridge Rehabilitation Or Repair	I-70, 5.75 mi. W of SR 9 at 400 W (I70-97-05388A) Dist:N/A	G	State STP	CN	2014	$ 35,619	$ 28,495	$ 7,124
1297869	Hancock Co.	Bridge Rehabilitation Or Repair	I-70, 3.75 mi. W of SR 9 at CR 200 W (I70-100-05389A) Dist:N/A	G	State STP	CN	2014	$ 35,619	$ 28,495	$ 7,124

INDIANAPOLIS METROPOLITAN PLANNING ORGANIZATION

INDIANAPOLIS REGIONAL TRANSPORTATION COUNCIL
POLICY COMMITTEE

Resolution Number 14-IMPO-002

A RESOLUTION amending the 2014-2017 Indianapolis Regional Transportation Improvement Program.

WHEREAS, the 2014-2017 Indianapolis Regional Transportation Improvement Program (IRTIP) incorporates projects proposed by local governments and agencies within the Indianapolis Metropolitan Planning Area; and

WHEREAS, the projects contained in the proposed IRTIP amendment have been reviewed as to their immediate impact and importance to the continued improvement of the transportation system operating within the area; and

WHEREAS, changing conditions necessitate periodic amendments to the IRTIP; and

WHEREAS, section 176(c) of the Clean Air Act, amended in 1990, required that the Transportation Conformity Rule establish criteria and procedures by which the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and metropolitan planning organizations (MPOs) determine the conformity of federally funded or approved highway and transit plans, programs, and projects to state implementation plans (SIPs) prepared for criteria pollutants; and

WHEREAS, the MPO consulted with the Interagency Consultation Group and the agencies did not take exception to the MPO finding that (1) each project in the TIP as amended is consistent with the design concept and scope of the project that was modeled in the most recent conformity demonstration, (2) the open-to-traffic date of each project in the TIP as amended is consistent with the open-to-traffic dates in the most recent conformity demonstration, (3) that the previous emissions analysis meets the requirements of 40 CFR 93.118 and demonstrate conformity of the TIP as amended; and

WHEREAS, the proposed IRTIP amendments were made available for public comment and comments received were provided to the Indianapolis Regional Transportation Council Policy Committee (IRTC); and

WHEREAS, the IRTC Policy Committee is the approval body for all transportation-related activities of the Metropolitan Planning Organization for the Indianapolis Urbanized Area under applicable U.S. Department of Transportation regulations;

NOW, THEREFORE, BE IT RESOLVED, that the IRTC hereby approves the amendment to the 2014-2017 Indianapolis Regional Transportation Improvement Program as shown on the attached Exhibit A.

The above and foregoing resolution was adopted this 5 day of March 2014 by the IRTC Policy Committee.

DATE: 3/5/14

Anna M Gremling

Anna M. Gremling, Executive Director
Indianapolis MPO
For the IRTC Policy Committee Chair

QUARTER Q1, 2014 INDOT 14-01

	LEAD AGENCY	DES NUM	ROAD TRAIL	PROJECT TITLE	TYPE	EXEMPT?	TOTAL	TOTAL DIFF	PHASE	FFY DESC	FED FUNDS	LINE TOTAL	FED TOTAL	FED %	STATE TOTAL	STATE %	JUSTIFICATION	ACTION PROPOSED
NEW	INDOT	1383324	I- 465	ITS Communications systems on I-465	Its Communications Systems	Exempt	$1,430,000	$1,430,000	CON	FY 2015	CMAQ-ST	$1,300,000	$1,040,000	80%	$260,000	20%	NEW PROJECT	Add PE to SFY 2014 and CN to SFY 2015
NEW									PE/PL	FY 2014	CMAQ-ST	$130,000	$104,000	80%	$26,000	20%		
NEW	INDOT	1383338	I- 70	Added Travel Lanes on I-70 W from 0.85 mile west of SR 39 to 0.50 mile east of SR 267 in Hendricks and Morgan Counties	Existing Roadway Capacity Improvement	Non-Ex	$63,170,000	$63,170,000	CON	FY 2015		$60,170,000	$-	0%	$60,170,000	100%	NEW PROJECT	Add PE to SFY 2014, RW and CN to SFY 2015.
NEW									PE/PL	FY 2014		$2,800,000	$-	0%	$2,800,000	100%		
NEW									ROW	FY 2015		$200,000	$-	0%	$200,000	100%		
NEW	INDOT	1383341	I- 65	Added Travel Lanes on I-65 S from 0.85 mile S of SR 44 to 5.41 mile N of SR 44 (0.50 mile N of Whiteland Road) in Johnson County	Existing Roadway Capacity Improvement	Non-Ex	$57,930,000	$57,930,000	CON	FY 2015		$55,430,000	$-	0%	$55,430,000	100%	NEW PROJECT	Add PE to SFY 2014 and CN to SFY 2015.
NEW									PE/PL	FY 2014		$2,500,000	$-	0%	$2,500,000	100%		
NEW	INDOT	1383342	I- 65	Added Travel Lanes on I-65 S from 5.41 miles N of SR 44 (0.50 mile N of Whiteland Road) to 6.18 miles S of I-465 ((0.50 mile N of Main Street in Greenwood) in Johnson County	Existing Roadway Capacity Improvement	Non-Ex	$43,600,000	$43,600,000	CON	FY 2015		$41,700,000	$-	0%	$41,700,000	100%	NEW PROJECT	Add PE to SFY 2014 and CN to SFY 2015
NEW									PE/PL	FY 2014		$1,900,000	$-	0%	$1,900,000	100%		
NEW	INDOT	1383354	I- 65	Added Travel Lanes on I-65 S from 6.18 mile S of I-465 (0.50 mile N of Main Street in Greenwood) to 4.72 miles S of I-465 at 0.50 mile N of County Line Road in Johnson and Marion Counties	Existing Roadway Capacity Improvement	Non-Ex	$15,530,000	$15,530,000	CON	FY 2015		$14,830,000	$-	0%	$14,830,000	100%	NEW PROJECT	Add PE to SFY 2014 and CN to SFY 2015
NEW									PE/PL	FY 2014		$700,000	$-	0%	$700,000	100%		
NEW	INDOT	1383343	I- 65	Added Travel Lanes on I-65 S from 4.72 miles S of I-465 (0.50 mile N of County Line Road) to 2.88 miles S of I-465 (Southport Road) in Marion County	Existing Roadway Capacity Improvement	Non-Ex	$24,440,000	$24,440,000	CON	FY 2015		$23,440,000	$-	0%	$23,440,000	100%	NEW PROJECT	Add PE to SFY 2014 and CN to SFY 2015
NEW									PE/PL	FY 2014		$1,000,000	$-	0%	$1,000,000	100%		
NEW	INDOT	1383332	I- 69	Added Travel Lanes on I-69 N from SR 37 N jct to 0.50 mile N of Old SR 238 in Hamilton County	Existing Roadway Capacity Improvement	Non-Ex	$72,520,000	$72,520,000	CON	FY 2015		$67,880,000	$-	0%	$67,880,000	100%	NEW PROJECT	Add PE to SFY 2014, RW to SFY 2014-2015, and CN to SFY 2015
NEW									PE/PL	FY 2014		$3,000,000	$-	0%	$3,000,000	100%		
NEW									ROW	FY 2014		$140,000	$-	0%	$140,000	100%		
NEW									ROW	FY 2015		$1,500,000	$-	0%	$1,500,000	100%		

	LEAD AGENCY	DES NUM	ROAD TRAIL	PROJECT TITLE	TYPE	EXEMPT?	TOTAL	TOTAL DIFF	PHASE	FFY DESC	FED FUNDS	LINE TOTAL	FED TOTAL	FED %	STATE TOTAL	STATE %	JUSTIFICATION	ACTION PROPOSED
NEW	INDOT	1383336	I- 69	Added Travel Lanes on I-69 N from 0.50 North of Old SR 238 to 0.50 mile N of SR 13 in Hamilton and Madison Counties	Existing Roadway Capacity Improvement	Non-Ex	$43,110,000	$43,110,000	CON	FY 2015		$40,810,000	$-	0%	$40,810,000	100%	NEW PROJECT	Add PE to SFY 2014, RW to SFY 2014-2015, and CN to SFY 2015.
NEW									PE/PL	FY 2014		$1,700,000	$-	0%	$1,700,000	100%		
NEW									ROW	FY 2014		$100,000	$-	0%	$100,000	100%		
NEW									ROW	FY 2015		$500,000	$-	0%	$500,000	100%		

INDIANAPOLIS METROPOLITAN PLANNING ORGANIZATION

INDIANAPOLIS REGIONAL TRANSPORTATION COUNCIL
POLICY COMMITTEE

Resolution Number 14-IMPO-005

A RESOLUTION amending the 2014-2017 Indianapolis Regional Transportation Improvement Program.

WHEREAS, the 2014-2017 Indianapolis Regional Transportation Improvement Program (IRTIP) incorporates projects proposed by local governments and agencies within the Indianapolis Metropolitan Planning Area; and

WHEREAS, the projects contained in the proposed IRTIP amendment have been reviewed as to their immediate impact and importance to the continued improvement of the transportation system operating within the area; and

WHEREAS, changing conditions necessitate periodic amendments to the IRTIP; and

WHEREAS, section 176(c) of the Clean Air Act, amended in 1990, required that the Transportation Conformity Rule establish criteria and procedures by which the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and metropolitan planning organizations (MPOs) determine the conformity of federally funded or approved highway and transit plans, programs, and projects to state implementation plans (SIPs) prepared for criteria pollutants; and

WHEREAS, the MPO consulted with the Interagency Consultation Group and the agencies did not take exception to the MPO finding that (1) each project in the TIP as amended is consistent with the design concept and scope of the project that was modeled in the most recent conformity demonstration, (2) the open-to-traffic date of each project in the TIP as amended is consistent with the open-to-traffic dates in the most recent conformity demonstration, (3) that the previous emissions analysis meets the requirements of 40 CFR 93.118 and demonstrate conformity of the TIP as amended; and

WHEREAS, the proposed IRTIP amendments were made available for public comment and comments received were provided to the Indianapolis Regional Transportation Council Policy Committee (IRTC); and

WHEREAS, the IRTC Policy Committee is the approval body for all transportation-related activities of the Metropolitan Planning Organization for the Indianapolis Urbanized Area under applicable U.S. Department of Transportation regulations;

NOW, THEREFORE, BE IT RESOLVED, that the IRTC hereby approves the amendment to the 2014-2017 Indianapolis Regional Transportation Improvement Program as shown on the attached Exhibit A.

The above and foregoing resolution was adopted this 28 day of May 2014 by the IRTC Policy Committee.

DATE: 5/28/14

Anna M. Gremling, Executive Director
Indianapolis MPO
For the IRTC Policy Committee Chair

	LEAD AGENCY	DES NUM	ROAD/TRAIL	PROJECT TITLE	TYPE	EXEMPT?	TOTAL	TOTAL DIFF	PHASE	SFY	FED FUNDS	LINE TOTAL	FED TOTAL	FED %	STATE TOTAL	STATE %	JUSTIFICATION	ACTION PROPOSED
NEW	INDOT	1400014	I- 65	Bridge subproject on CR 500 N (Whiteland Road) over I-65 within the limits of added travel lanes (DES # 1383341) from 0.85 mile S of SR 44 to 0.50 mile N of Whiteland Road	Bridge Deck Overlay	Exempt	$905,000	$905,000	CN	SFY 2015		$905,000	$-	0%	$905,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383485	I- 69	Bridge subproject (Cumberland Road) to I-69 Added Travel Lanes from SR 37 to 0.50 mile N of Old SR 238 (DES # 1383332) that was amended to the LRP and TIP in first quarter CY 2014	Repair Or Replace Joints	Exempt	$20,000	$20,000	CN	SFY 2015		$20,000	$-	0%	$20,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383486	I- 69	Bridge subproject (over Sand Creek - NB lanes) on I-69 added travel lanes project (DES # 1383332) that was amended to the long range plan and TIP in the first quarter of CY 2014	Bridge Widening	Exempt	$1,500,000	$1,500,000	CN	SFY 2015		$1,500,000	$-	0%	$1,500,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383487	I- 69	Bridge subproject over Sand Creek SB lanes on I69 inluded in added travel lanes project (DES # 1383332) that was amended to the long range plan and TIP in the first quarter of CY 2014	Bridge Widening	Exempt	$1,500,000	$1,500,000	CN	SFY 2015		$1,500,000	$-	0%	$1,500,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383488	I- 69	Bridge subproject on Brooks School Road over I-69 within the limits of added travel lanes project (DES # 1383332) that was amended to the long range plan and TIP in the first quarter of CY 2014	Bridge Replacement, Concrete	Exempt	$2,250,000	$2,250,000	CN	SFY 2015		$2,250,000	$-	0%	$2,250,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383489	I- 69	Interchange subproject at I-69 and Old SR 238 within the limits of project DES # 1383332 for added lanes from SR 37 to 0.50 mile N of Old SR 238 added to the LRP and TIP in first quarter CY 2014	Interchange Modification	Exempt	$14,263,660	$14,263,660	PE/PL	SFY 2015		$1,263,660	$-	0%	$1,263,660	100%	NEW PROJECT	Add CN to SFY 2015
NEW									CN	SFY 2015		$13,000,000	$-	0%	$13,000,000	100%		
NEW	INDOT	1383490	I- 69	Bridge subproject Old SR 238 at I-69 as part of added travel lanes project (DES # 1383332) from SR 37 to 0.50 mile N of Old SR 238 that was amended to the LRP and TIP in the first quarter of CY 2014	Bridge Widening	Exempt	$2,000,000	$2,000,000	CN	SFY 2015		$2,000,000	$-	0%	$2,000,000	100%	NEW PROJECT	Add CN to SFY 2015

	LEAD AGENCY	DES NUM	ROAD/TRAIL	PROJECT TITLE	TYPE	EXEMPT?	TOTAL	TOTAL DIFF	PHASE	SFY	FED FUNDS	LINE TOTAL	FED TOTAL	FED %	STATE TOTAL	STATE %	JUSTIFICATION	ACTION PROPOSED
NEW	INDOT	1383509	I- 69	Bridge subproject on I-69 over Mud Creek (NB lanes) within DES # 1383336 for added lanes from 0.50 mile N of Old SR 238 to 0.86 mile N of SR 13 amended to the LRP and TIP in first quarter CY 2014	Bridge Widening	Exempt	$1,500,000	$1,500,000	CN	SFY 2015		$1,500,000	$-	0%	$1,500,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383510	I- 69	Bridge subproject on I-69 (SB lanes over Mud Creek) within the limits of added travel lanes project (DES # 1383336) amended into the LRP and TIP in the first quarter CY 2014	Bridge Widening	Exempt	$1,500,000	$1,500,000	CN	SFY 2015		$1,500,000	$-	0%	$1,500,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1383511	I- 69	Bridge subproject on I-69 (Cyntheanne Road over) within the limits of added travel lanes project (DES # 1383336) that was added to the LRP and TIP in the first quarter of CY 2014	Bridge Replacement, Concrete	Exempt	$2,510,000	$2,510,000	CN	SFY 2015		$2,510,000	$-	0%	$2,510,000	100%	NEW PROJECT	Add CN to SFY 2015
NEW	INDOT	1400422	US 31	Bridge deck overlay on US 31 (NB lanes over Big Blue River) 0.29 mile S of SR 252 in Johnson County	Bridge Deck Overlay	Exempt	$206,000	$206,000	PE/PL	SFY 2015	STP-ST	$20,000	$16,000	80%	$4,000	20%	NEW PROJECT	Add PE in SFY 2015 and CN in SFY 2016.
NEW									CN	SFY 2016	STP-ST	$186,000	$148,800	80%	$37,200	20%		
NEW	INDOT	1400431	US 31	Bridge deck overlay on US 31 (SB lanes over Big Blue River) 0.29 mile S of SR 252 in Johnson County	Bridge Deck Overlay	Exempt	$206,000	$206,000	PE/PL	SFY 2015	STP-ST	$20,000	$16,000	80%	$4,000	20%	NEW PROJECT	Add PE in SFY 2015 and CN in SFY 2016.
NEW									CN	SFY 2016	STP-ST	$186,000	$148,800	80%	$37,200	20%		
NEW	INDOT	1400432	SR 44	SR 44 bridge deck overlay at South Prong Stotts Creek, 0.11 mile W of SR 135 in Johnson County	Bridge Deck Overlay	Exempt	$88,000	$88,000	PE/PL	SFY 2015	STP-ST	$20,000	$16,000	80%	$4,000	20%	NEW PROJECT	Add PE in SFY 2015 and CN in SFY 2016.
NEW									CN	SFY 2016	STP-ST	$68,000	$54,400	80%	$13,600	20%		
NEW	INDOT	1400451	SR 252	SR 252 bridge deck overlay at Big Blue River, 0.52 mile E of US 31 in Johnson County	Bridge Deck Overlay	Exempt	$195,500	$195,500	PE/PL	SFY 2015	STP-ST	$20,000	$16,000	80%	$4,000	20%	NEW PROJECT	Add PE in SFY 2015 and CN in SFY 2016.
NEW									CN	SFY 2016	STP-ST	$175,500	$140,400	80%	$35,100	20%		
NEW	INDOT	1298375	US 36	Small structure pipe lining of US 36, 1.21 miles E of SR 267 in Hendricks County	Pipe Lining	Exempt	$25,000	$25,000	PE/PL	SFY 2015	STP-ST	$15,000	$12,000	80%	$3,000	20%	NEW PROJECT	Add PE in SFY 2015 and RW in SFY 2017.
NEW									ROW	SFY 2017	STP-ST	$10,000	$8,000	80%	$2,000	20%		
NEW	INDOT	1298333	US 36	New Bridge, Pipe Arch or Culvert on US36, 0.58 mile W of SR 39 W Jct in Hendricks County	New Br, Pipe Arch Or Culvert	Exempt	$75,000	$75,000	PE/PL	SFY 2015	STP-ST	$20,000	$16,000	80%	$4,000	20%	NEW PROJECT	Add PE in SFYs 2015 and 2016. Add RW in SFY 2017.
NEW									PE/PL	SFY 2016	STP-ST	$30,000	$24,000	80%	$6,000	20%		
NEW									ROW	SFY 2017	STP-ST	$25,000	$20,000	80%	$5,000	20%		
NEW	INDOT	1400465	SR 267	Repair or replace joints on SR 267 bridge over I-70, 2.98 miles S of US 40 in the Town of Painfield in Hendricks County	Repair Or Replace Joints	Exempt	$27,000	$27,000	CN	SFY 2016	IM	$27,000	$24,300	90%	$2,700	10%	NEW PROJECT	Add CN in SFY 2016.

Madison County Council of Governments (Anderson MPO)
FY 2012-2015 Transportation Improvement Program (TIP)

All Projects: Current Through September 12, 2014

	PROJECT DETAILS						PROJECT FUNDING							
REF	DES	Sponsor Name	Work Category (Work Type)	Location & Description	Length	County	Funding Obligation Year (State Fiscal)	Project Phase	Federal Funds by Phase	Required Local/State Matching Funds	Total Funds by Phase	Federal Funding Program	Letting Date (Obligation Date of CN Phase)	Reference Documents
176	**1296845**	INDOT	Traffic Signals Modernization	**Various Interstates, US, & State Routes** (Statewide)		48	2017	CN	$ 928,000	$ -	$ 928,000	HSIP	7/13/2016	Res. 10-3-13, Res. 12-20-13
177	**1383336**	INDOT	Added Travel Lanes	**I-69,** .5 miles N. of Exit 210 (old SR 238) to .5 miles N. of SR 13		48	2014	PE	$ -	$ 1,700,000	$ 1,700,000	State Funds Only	5/10/2015	Res. 3-6-14, Res. 4-3-14, Res. 6-5-14
178	**1383336**	INDOT	Added Travel Lanes	**I-69,** .5 miles N. of Exit 210 (old SR 238) to .5 miles N. of SR 13		48	2015	CN	$ -	$ 24,010,000	$ 24,010,000	State Funds Only	5/10/2015	Res. 3-6-14, Res. 4-3-14, Res. 6-5-14
179	**1383337**	INDOT	Added Travel Lanes	**I-69,** .5 miles N. of SR 13 to .5 miles N. of SR 38		48	2014	PE	$ -	$ 1,600,000	$ 1,600,000	State Funds Only	TBD	Res. 3-6-14
180	**1383337**	INDOT	Added Travel Lanes	**I-69,** .5 miles N. of SR 13 to .5 miles N. of SR 38		48	2015	CN	$ -	$ 38,610,000	$ 38,610,000	State Funds Only	TBD	Res. 3-6-14
181	**1006489**	INDOT	Br Repl, P.T.Comp.Cont.Pres.Conc.I-Beam	**SR 9 ,** 2.01 miles S. of US 36 @ Bridge over Lick Creek		48	2015	RW	$ 40,000	$ 10,000	$ 50,000	STP	10/5/2016	Res. 4-3-14, Res. 8-7-14
182	**1383512**	INDOT	Bridge Widening	**I-69 @ SB Bridge over Thorpe Creek**		48	2015	CN	$ -	$ 1,500,000	$ 1,500,000	State Funds Only	10/8/2014	Res. 6-5-14
183	**1383513**	INDOT	Bridge Widening	**I-69 @ NB Bridge over Thorpe Creek**		48	2015	CN	$ -	$ 1,500,000	$ 1,500,000	State Funds Only	10/8/2014	Res. 6-5-14
184	**1383514**	INDOT	Bridge Widening	**I-69 @ NB Bridge over SR 13**		48	2015	CN	$ -	$ 1,500,000	$ 1,500,000	State Funds Only	10/8/2014	Res. 6-5-14
185	**1383515**	INDOT	Bridge Widening	**I-69 @ NB Bridge over SR 13**		48	2015	CN	$ -	$ 1,500,000	$ 1,500,000	State Funds Only	10/8/2014	Res. 6-5-14

Indianapolis Metropolitan Planning Area

Air Quality Conformity Determination Report

2035 Long-Range Transportation Plan: 2014 Update & 2014-2017 Indianapolis Regional Transportation Improvement Program

March 5, 2014

Indianapolis Metropolitan Planning Organization
Indiana Department of Transportation

Prepared by:
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Introduction

The Indianapolis Metropolitan Planning Organization is updating its 2035 Long Range Transportation Plan (LRTP) to amend several INDOT interstate widening projects being funded through the 2020 Trust Fund as approved by the Indiana General Assembly in 2013. Many of these interstate widening projects are not new to the LRTP as they have been in both the MPO's and INDOT's long range plan in the recent past.

Another action being taken with this update is the reaffirmation of the goals and objectives as developed and approved in the 2010/2011 LRTP Major Update. Those goals and objectives are shown in the table below:

Goals and Objectives of the 2035 Long Range Transportation Plan	
Goal 1: Preserve, make safe, and improve utilization of the existing transportation system.	***Objective 1:*** Maintain the existing network in a state-of-good repair. ***Objective 2:*** Use cost-effective transportation system management, transportation demand management, intelligent transportation system, and operational improvements and techniques to increase the efficiency and safety of the existing transportation system.
Goal 2: Enhance regional transportation mobility and accessibility.	***Objective 1:*** Provide cost-effective transportation improvements to address identified mobility problems and reduce the growth in traffic congestion. ***Objective 2:*** Provide appropriate travel options and choice for all users, including auto, transit, paratransit, bicycle, and pedestrian. ***Objective 3:*** Improve accessibility to regional employment and activity centers. ***Objective 4:*** Enhance connections between modes. ***Objective 5:*** Support commercial goods movement within and through the region.
Goal 3: Coordinate transportation system improvements to be consistent with regional values.	***Objective 1:*** Partner with state and local jurisdictions to ensure transportation and land use are complementary. ***Objective 2:*** Enhance transportation system sustainability and minimize impacts of the transportation system to the built and natural environment. ***Objective 3:*** Support regional economic development. ***Objective 4:*** Support transportation security.

Current Air Quality Status

Under the standards set forth in the Clean Air Act Amendments in 1990, the 9-county region of Hancock, Hamilton, Hendricks, Johnson, Morgan, Madison, Marion, Boone, and Shelby Counties is currently in

attainment of the annual National Ambient Air Quality Standard (NAAQS) for the current eight-hour ozone standard.

The counties of Hamilton, Hendricks, Johnson, Marion, and Morgan counties are currently a Maintenance area for Particulate Matter of 2.5 microns or less in size (PM2.5).

Planning Assumptions

The only change in the planning assumptions for the 2035 Long Range Transportation Plan is the type of travel demand model (TDM) being used by the Indianapolis MPO. The MPO has moved from a gravity travel demand model to a destination-choice model in order to better reflect transit ridership. Successful checks to the new TDM have been made throughout the transition to make sure air quality conformity is maintained.

Interagency Consultation Group (ICG) Process

As prescribed in the Interagency Consultation Group, Conformity Consultation Guidance document, this consultation process is intended to guide Metropolitan Planning Organizations (MPOs) and other interagency consultation group parties through the Transportation Conformity Process. On January 17, 2014, the MPO held the conference call with members of the ICG and discussed the projects proposed for change in the LRTP, and the travel demand modeling and air quality modeling process to represent those changes. The meeting summary can be found in Appendix A.

Public Involvement Process

The 2014 LRTP Update was offered for public review beginning February 14 through February 28, 2014.

LRTP Project List Changes

See complete table in Appendix B.

INDOT 2020 Trust Fund Projects (added travel lanes to be constructed by 2020):

- I-65 from 0.7 m S of SR 44 to 0.5 m N of Whiteland Rd. in Johnson County
- I-65 from 0.5 m N of Whiteland Rd. to 0.5 N of Main St. (Greenwood) in Johnson County
- I-65 from 0.5 m N of Main St. (Greenwood) to 0.5 m N of County Line Rd. in Johnson County
- I-65 from 0.5 m N of County Line Rd. to Southport Road in Marion County
- I-70 from 0.7 m W of SR 39 to 0.5 m E of SR 267 in Hendricks County
- I-69 from SR 37 (N jct.) to 0.5 miles N of old SR 238 in Hamilton County
- I-69 from Exit 210 (SR 238) in Hamilton County to SR 13 in Madison County
- I-69 from SR 13 to SR 38 in Madison County

IndyGo New Service (locally funded in 2013)

- New Crosstown fixed-route: 86th St. between Traders Point and Community Hospital North

Appendix B: Table of 2014 Project Changes

LRTP #	Roadway/ Route	Project Limits	Project Type	LRTP Period	Sponsor	Funding Source	Comments
5005	I-65	0.7 m S of SR 44 to 0.5 m N of Whiteland Rd.	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
5006	I-65	0.5 m N of Whiteland Rd. to 0.5 N of Main St. (Grnwd)	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
5007	I-65	0.5 m N of Main St. (Grnwd) to 0.5 m N of County Line Rd.	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
6035	I-65	0.5 m N of County Line Rd. to Southport Road	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
4001	I-70	0.7 m W of SR 39 to 0.5 m E of SR 267	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
2014	I-69	SR 37 (N jct.) to 0.5 miles N of old SR 238	Added Travel Lanes	2016-2025	INDOT	INDOT 2020 Trust Fund	Requires State legislative approval.
2015	I-69	from Exit 210 (SR 238) to SR 13 in Madison Co.	Added Travel Lanes	2016-2025	INDOT	2020 Trust Fund	Requires State legislative approval.
2016	I-69	from SR 13 to SR 38 in Madison Co.	Added Travel Lanes	2016-2025	INDOT	2020 Trust Fund	Requires State legislative approval.
9001	86th St.	between Trader's Point (northwest side) and Community Hospital North (northeast side)	New fixed-route service (crosstown)	2011-2015	IndyGo	Local	implemented in 2013 with local money.
9002	Various	extending routes to serve more destinations, improving connections and frequency, offering more direct service	Service Improvements	2011-2015	IndyGo	Local	implemented in 2013 with local money.
1204	Bennett Parkway	from 106th Street to 0.5 miles south (new alignment)	new roadway	2011-2015	Zionsville	Local	Project #1204 being split in two projects. The northern half moves to 1st LRTP Period (2011-2015); the southern half is #1208, and remains in 2nd Period (2016-2025).
1208	Bennett Parkway	from 0.5 miles south of 106th Street to 96th Street	new roadway	2016-2025	Zionsville	Local	Project #1204 being split in two projects. The northern half moves to 1st LRTP Period; the southern half is #1208, and remains in 2nd Period.
2104	96th St.	from just east of Lantern Road to just west of Cumberland Road	Added Travel Lanes (2 to 4)	2026-2035	Fishers	STP (illustrative in '18)	This project is programmed in the TIP as illustrative in 2018 (STP); should be moved to 2nd Period (2016-2025)
5108	CRs 700N and 750N	from CR 325 E to CR 400E in Clark Township	new roadway	2011-2015	Johnson County	STP Group IV	This project is programmed in the TIP, CN in 2015; should be moved to 2nd Period (2016-2025)
6002	I-465	at SR 37 (Indianapolis' south side)	Interchange Modification	2011-2015	INDOT	INDOT	This project has been completed; was included in the LRTP but not considered regionally significant during previous consultation. Remove from the Plan (model changes already made)
2002	SR 32	from SR 37 to E Junction w/ SR 38	Widen 2 to 5 lanes	2011-2015	INDOT	INDOT	This project is not moving forward and should be moved to illustrative list.
6004	I-465	from 0.5 W of Allisonville to Fall Creek	Added Travel Lanes (Widen from 6 to 10 lanes)	2016-2025	INDOT	INDOT	This project is not moving forward and should be moved to illustrative list.
6005	I-69	I-465 to 96th Street interchange + 2 interchanges at I-465 and 82nd Street	Added Travel Lanes (Widen to 8 lanes divided with 6 collector/distributor lanes - up to 14 lanes total)	2016-2025	INDOT	INDOT	This project is not moving forward and should be moved to illustrative list.
5003	SR 135 (Meridian St.)	CR 500 N (Whiteland Rd.) to CR 700 N (Stones Crossing Rd.)	Widen 2 to 5 lanes	2016-2025	INDOT	INDOT	This project is not moving forward and should be moved to illustrative list.
7001	SR 39	SR 37 to SR 67	New Alignment; remains 2 lanes	2016-2025	INDOT	INDOT	This project is not moving forward and should be moved to illustrative list.

2035 LONG RANGE TRANSPORTATION PLAN

ANDERSON / MADISON COUNTY URBANIZED AREA

the County between 1970 and 2000, in which a sizable proportion of the local population moved from the urban areas (Indianapolis, Anderson and smaller municipalities) out into the unincorporated areas of Madison County. The impact of Anderson's out-migration has been significant in Richland, Adams, Union, and Fall Creek Townships. A significant portion of this population is housed in the form of new, single-family homes located on re-zoned parcels of agricultural land adjacent to the County roadway system. In most cases, these new residential properties have required a driveway cut, and have consequently increasing traffic and access conflict points on local roads.

Interstate 69 Corridor

Growth along the I-69 Corridor and the resulting traffic congestion has become a great concern, specifically near and adjacent to the interchanges. This increase in traffic is expected to continue as the Indianapolis metropolitan area and Madison County become more economically interdependent. Requests concerning development potential and land availability have increased substantially for commercial and industrial uses at the interchanges, and large tracts of land are proposed for development as this plan is being developed. Considering the potential and expected inter-county travel patterns, planning efforts will focus toward a more comprehensive approach towards transportation and land use, paying particular attention to potential impacts on the key travel corridors of the County.

Growth Dispersion

Increased growth is anticipated for Stony Creek and Green Townships due to their close proximity to the Indianapolis metropolitan area. As growth in eastern Hamilton County and northern Hancock County moves east and northward, its effects have started to flow into western and southern portions of Madison County, especially to areas near the Hamilton, Hancock, and Madison County lines around I-69 and State Roads 13, 38, 37, and 67. Based on several data sources (MCCOG, Indianapolis MPO, INDOT volume counts, and Census Journey to Work Data) it is estimated that expanded travel patterns will continue to increase, along with growing numbers of vehicle trips to the larger metropolitan area via the interstate, state, and county roads. Growth dispersion, along with out-migration from urban cores, creates these new travel patterns, which in many instances impact the ability of the existing road network to safely and efficiently handle traffic. For example, as individual changes in land use intensity accumulate over time, the operating efficiency of the roadway network often becomes obsolete before its expected lifecycle is fulfilled.

Economic Development

The primary selection factor for locating new business and industry has consistently been highway access. Madison County's transportation system will need to be upgraded to better facilitate the movement of goods and services to remain attractive for growth. Known planned improvements are listed in the current MPO Transportation Improvement Program (TIP). Other improvements to the transportation network should be considered more seriously if/when intense development is proposed. Meaningful truck routes, adequate transfer terminals, and quick access to regional markets are part of the transportation/economic growth or development issue that must be accommodated in any new development. Transportation resources should be protected and preserved in terms of their carrying capacity and ease of access to protect the long-term public financial resources of all governmental units. As the I-69 Corridor has become more developed, concerns have been raised as to whether this vital transportation route and interchanges will become more congested due to unplanned growth patterns that provide accessibility over mobility. If these routes and interchanges continue to become more compromised (e.g. see discussion on **Congestion and Circulation** below), the County will lose an important local competitive advantage. Thus, it is imperative that existing roads be maintained and protected in terms of their ability to function at a high level of service without excessive expansion of access to the I-69 corridor.

8. **SR 37, Between CR 400 N. and SR 28:** Added travel lanes are recommended for the entire length of the portion of SR 37 that travels through Madison County. The State Road 37 corridor from 191st Street to SR 9 North Junction in Marion is currently being studied for added travel lanes. This corridor ranges between 8,500 and 10,500 vehicles per day with a 6-8% heavy-truck classification. The continuous development on this multi-county state route will greatly contribute to the influx of commuting passenger cars and heavy-truck traffic.

9. **SR 37, Between SR 28 and CR 1900 N:** Added travel lanes are recommended for the remaining portion of the corridor that travels through Madison County. This segment of SR 37 is a continuation of the SR 37 corridor feasibility.

10. **SR 38, Between I-69 and Hamilton County Line:** Road reconstruction is recommended for the portion of SR 38 that travels through Madison County. This 4.5 mile segment of SR 38 extends west from Interstate 69 Interchange Exit 19 to the Madison/Hamilton County line. Traffic volumes range from 5,200 to 6,500 vehicles per day with a 5-6% heavy-truck classification. Commercial and residential development on this corridor will continue to increase future travel demand for the next 10-15 years.

11. **I-69, Between SR 238 Exit # 10 Interchange and SR 9/SR 67 Exit # 22 Interchange.** This project was originally scheduled for added travel lanes in the 2011-2020 analysis period but has since been moved back due to funding. The recent developments of the Noblesville Professional Complex at the Exit # 10 Interchange have generated an influx of vehicular travel within the project area. The average daily traffic ranges from 42,000 to 45,000 vehicles per day on I-69. Vehicle classifications for commercial and heavy truck volumes range between 18% to 22%.

12. **I-69, Between SR 9/SR 67 Exit # 22 Interchange and SR 32/SR 67 Exit # 34 Interchange.** This interstate segment was scheduled for construction in the 2011-2020 program period but has been moved out on the schedule due to funding. The increased presence of interstate heavy-truck traffic and the regional commuter traffic from Fort Wayne, Marion, Muncie, and Anderson have created the demand for additional capacity. The average daily traffic ranges from 40,000 to 45,000 vehicles per day on I-69. Vehicle classifications for commercial and heavy truck volumes range between 22% to 25%.

13. **W. Enterprise Drive, Between MLK Blvd. and Ridgeview Drive.** New road construction of a two-lane roadway link of minor arterial/collector functional classification is recommended for 2010-2020 with sidewalks and/or a multi-modal trail. The 60th Street extension project is intended to serve as a frontage road between Exit #22 at Pendleton Avenue and Exit #26 of Interstate 69. The first segment of 60th Street between Scatterfield Road and Columbus Avenue was completed in 1995. Projected traffic volume upon completion of the 3.75 mile roadway segment is 5,000 to 6,000 vehicles per day.

14. **W. Enterprise Drive, Between Ridgeview Drive and Madison Avenue.** New road construction of a two-lane roadway link of minor arterial/collector functional classification is recommended for 2010-2020 with sidewalks and/or a multi-modal trail. The 60th Street extension project is intended to serve as a frontage road between Exit #22 at Pendleton Avenue and Exit #26 of Interstate 69. The first segment of 60th Street between Scatterfield Road and Columbus Avenue was completed in 1995. Projected traffic volume upon completion of the 3.75 mile roadway segment is 5,000 to 6,000 vehicles per day.

15. **W. Enterprise Drive, Between Madison Avenue and Columbus Avenue.** New road construction of a two-lane roadway link of minor arterial/collector functional classification is recommended for

Miller, Daniel J

From: Jones, Tony W [TWJones@indot.IN.gov]
Sent: Tuesday, September 23, 2014 5:15 PM
To: Miller, Daniel J
Cc: Carnahan, Ben
Subject: Hot Spot Analysis
Attachments: INDOT PM25 Project-Level Consultation Handouts 9-18-14.pdf; Project Level ICG_20140918 _FINAL Meeting Minutes.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Dan,
I received email below from Mary Jo Hammons. Our I-69 project is in the list, so FYI.

All,

INDOT & FHWA hosted an Interagency Consultation Group Meeting to discuss whether any of the projects listed below would qualify as "projects of air quality concern" for PM2.5 pollutants on Thursday, Sept. 18, 2014. It was determined that ***none*** *of the listed projects were to be considered with that distinction. As such, no hotspot analysis is required for PM2.5 pollutants for any of the projects listed below. As noted in the INDOT CE Manual, the preparer of each environmental document should summarize the findings, including coordination with other agencies in the CE.*

I've attached the Final Meeting Minutes and the Handouts used at the meeting to this email. ***Please route these to your respective consultants for use as an appendix to their environmental documents.***

Either Ron Bales or I are available if there are any questions.

Kind Regards, Mary Jo

Tony Jones, PE
INDOT, Project Manager
100 North Senate Ave, Rm 601
Indianapolis, IN 46204

twjones@indot.in.gov
317-233-5282 Office
317-503-5026 Cell

INDOT $PM_{2.5}$ Project Level Interagency Consultation

Conference Call Handouts
September 18, 2014

Goals and Methods for Evaluation

Goal:

- Identify INDOT projects "of air quality concern" (if any) that will require a $PM_{2.5}$ quantitative hot-spot analysis
- Include consultation decisions in NEPA documents to indicate projects are <u>not</u> of air quality concern

Evaluation Methods:

- Compare current and forecast traffic volumes from the Indiana Statewide Travel Demand Model (ISTDM) vs. project examples identified in the current guidance
- Determine if ISTDM project Build vs. No-Build volume changes are "significant"
- Assess nearby monitor readings
- Compare project to other projects found to be of air quality concern

EPA Guidance (Appendix B) Examples

Some examples of projects of local air quality concern that would be covered by 40 CFR 93.123(b)(1)(i) and (ii) are:

- A project on a new highway or expressway that serves a significant volume of diesel truck traffic, such as facilities with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic;
- New exit ramps and other highway facility improvements to connect a highway or expressway to a major freight, bus, or intermodal terminal;
- Expansion of an existing highway or other facility that affects a congested intersection (operated at Level-of-Service D, E, or F) that has a significant increase in the number of diesel trucks; and,
- Similar highway projects that involve a significant increase in the number of diesel transit busses and/or diesel trucks.

Reference Link:
http://www.epa.gov/oms/stateresources/transconf/policy/420b13053-appx.pdf

Previous INDOT Project-Level Analyses (Indianapolis)

Item	I-69 Section 5 (Bloomington to Martinsville) DES# 0300381	I-65 (SR44 to Southport Road) DES# 1383343/1383354/1383342/1383341
Highest AADT	2035 Build AADT = **61,588**	2035 Build AADT = **125,695**
Highest Truck Volume	2035 Build Trucks = **12,785**	2035 Build Trucks = **22,442**
Build vs. No-Build %	2035 AADT = **+ 38%** 2035 Trucks = **+ 16%**	2035 Trucks = < **10%**
Background Concentration	**10.43** µg/m³	**11.27** µg/m³
Estimated Analysis Year Design Values	2018 = **11.4** µg/m³ 2035 = **11.1** µg/m³	2017 = **12.0** µg/m³

Compared against 15 µg/m³ Annual NAAQS

** Designations under 12 µg/m³ NAAQS expected in December 2014*

INDOT Initial Project Screening

- Evaluated INDOT project lists to identify projects that clearly do <u>not</u> require a quantitative hot-spot analysis
  - Not in a nonattainment/maintenance area
  - Intersection projects
  - Low traffic volumes (< 75,000 forecast AADT and 10,000 Trucks)
  - No significant capacity increase resulting from project
- Identify projects for further review

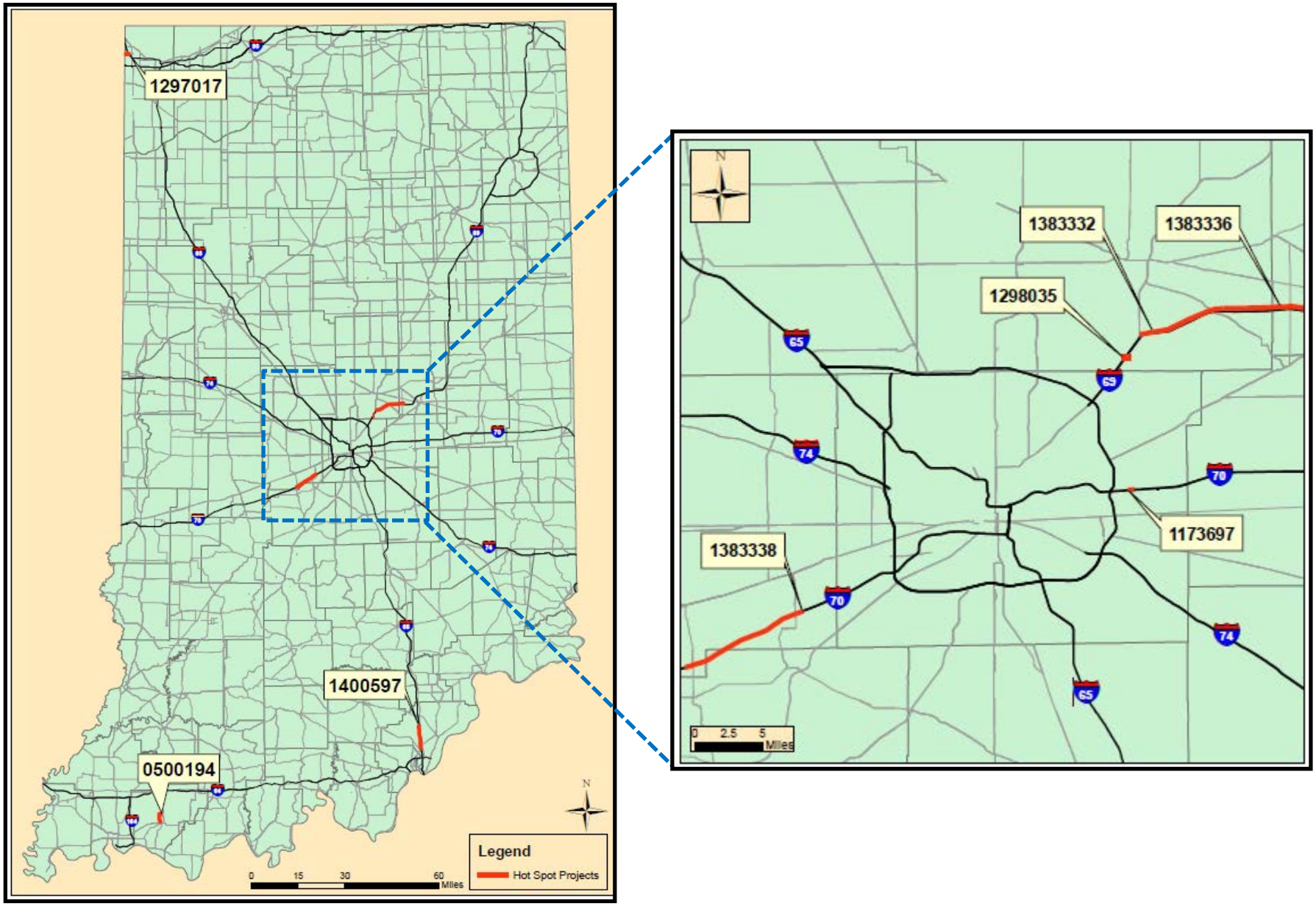
Corr#	LRP#	Old LRP	KIN#	LD	DES	Contract Prefix	Contract Number	Contract#	District	CO#	County	Route	Location	Work Category Name	Section	Notes	ELIMINATE DUE
002			4454	Y	0400283	IR	30153	IR-30153	Greenfield	49	Marion	I465	From 0.5 mile W of I-69 interchange to 75th street	Added Travel Lanes Project	I-69 to 75th St		Active
016				N	1172943	IR	33066	IR-33066	Greenfield	49	Marion	I65	Ramp (I-465 to I-65 SB) over I-65 and I-465	Interchange Modification Project			Active
022				Y	1006581	IR	34001	IR-34001	Greenfield	29	Hamilton	I69	I-69 improvements from I-465 to 116th and SR 37 interchan	Added Travel Lanes Project		SR-37 interchange	Under Construction
022				Y	1173161	IR	34166	IR-34166	Greenfield	49	Marion	I69	I-69 improvements from I-465 to 116th and SR 37 interchan	Added Travel Lanes Project		116th St interchange	Under Construction
																96th St interchange	Under Construction
																82nd St interchange	Under Construction
266			5592	Y	1005696	IR	33274	IR-33274	Greenfield	49	Marion	US52	German Church Road	Intersection Improvement Project		German Church Rd intersection	Project Type
266				N	1005697	IR	33305	IR-33305	Greenfield	49	Marion	US52	Bade Davis	Intersection Improvement Pr	No data for Bade	Bade Rd intersection	Project Type
																Davis Rd intersection	Project Type
266			2645		9700320	PLC	37344	PLC-37344	Greenfield	49	Marion	US52	Marion/Hancock County Line to CR 500W (PE & RW Trackin	Added Travel Lanes Project	C/L to CR500W	Mt. Comfort Rd intersection	Project Type
402				Y	1297199	IR	35187	IR-35187	Seymour	41	Johnson	I65	@ Worthsville Road, 7.7 miles North of SR 44	New Interchange Project			PM2.5 Review COMPLETED as
405				Y	1383332	R	37053	R-37053	Greenfield	29	Hamilton	I69	At SR 37 (N jct.) to 5.24 miles N of SR 37 (N jct.) (0.50 mile N	Added Travel Lanes Project	SR-37 to SR-238		Active
405				N	1383489	R	37053	R-37053	Greenfield	29	Hamilton	I69	I69 at Old SR238 (Exit 210)	Added Travel Lanes Project		SR-238 interchange	Active
405				Y	1383336	R	37055	R-37055	Greenfield	29	Hamilton	I69	5.24 mi N of SR 37 (N jct.) (0.50 mi N of old SR 238) to 0.85 n	Added Travel Lanes Project	SR-238 to SR-13	SR-13 interchange	*Hold - reassessment of MM20*
406				Y	1383338	R	37133	R-37133	Crawfordsville	32	Hendricks	I70	0.85 mile W of SR 39 to 0.50 mile E of SR 267	Added Travel Lanes Project	SR-39 to SR-267		*Hold - reassessment of MM20*
406				N	1400176	R	37133	R-37133	Crawfordsville	32	Hendricks	I70	SR39 at I70, 2.39 mi N of SR42	Added Travel Lanes Project		SR-39 interchange	*Hold - reassessment of MM20*
407				Y	1383343	R	37075	R-37075	Greenfield	41	Johnson	I65	4.72 miles S of I-465 South Leg to 2.88 miles S of I-465 Soutl	Added Travel Lanes Project	County Line Rd to Southport Rd	Southport Rd Interchange	PM2.5 Study COMPLETED as
407				Y	1383354	R	37094	R-37094	Seymour	41	Johnson	I65	6.18 miles S of I-465 South Leg (0.50 mile N of Main St Greer	Added Travel Lanes Project	Main St to County Line Rd	County Line Rd Interchange	PM2.5 Study COMPLETED as
407				Y	1383342	R	37095	R-37095	Seymour	41	Johnson	I65	5.41 miles N of SR 44 to 6.18 miles S of I-465 South Leg (Just	Added Travel Lanes Project	Whiteland Rd to Main St	Main St-Greenwood Interchange	PM2.5 Study COMPLETED as
407				Y	1383341	R	37096	R-37096	Seymour	41	Johnson	I65	0.85 mile S of SR 44 to 5.41 miles N of SR 44 (0.50 mile N of	Added Travel Lanes Project	SR-44 to Whiteland Rd	Whiteland Rd Interchange	PM2.5 Study COMPLETED as
																SR-44 Interchange	PM2.5 Study COMPLETED as
					0400962	R	30395	R-30395	Greenfield	49	Marion	SR135	1.52 miles S of US 31 (Edgewood Avenue)	Intersection Improvement Project		Edgewood Ave intersection	Project Type
					1006121	R	34861	R-34861	Greenfield	29	Hamilton	SR38	At 226th Street/6 Points Road	District Intersection Improvement Project		226th St intersection	Project Type
				Y	1173698	R	35048	R-35048	Greenfield	49	Marion	I465	exit ramp from EB I-465 to US 421(Michigan Road)	**Interchange Modification**	Interchange Modification	I465 at US-421/Michigan Rd interchange	Active
				N	1173700	R	35048	R-35048	Greenfield	49	Marion	I465	Entrance ramp from US 421 (Michigan Road) to EB I-465	Added Travel Lanes Project			Active
				N	1173701	R	35048	R-35048	Greenfield	49	Marion	I465	Entrance Ramp from US 421 (Michigan Road) to WB I-465	Added Travel Lanes Project			Active
				N	1173704	R	35048	R-35048	Greenfield	49	Marion	I465	Exit ramp from WB I-465 to US 421 (Michigan Road)	Added Travel Lanes Project			Active
					1173697	R	35459	R-35459	Greenfield	49	Marion	I70	Exit ramp from EB I-70 to Post Road RP 90+71	**Interchange Modification**		Post Rd interchange	Active
					1298035	IR	35629	IR-35629	Greenfield	29	Hamilton	I69	I-69 at 106 Street	Intersection Improvement Project		106th St interchange	Active
					1296847	R	35680	R-35680	Greenfield	29	Hamilton	SR37	SR 37; at Strawtown Ave (6.34 mile north SR 32 / SR 38 Conn	District Intersection Improvement Project		Strawtown Ave intersection	Project Type

Projects Identified for Consultation Review (List)

Project DES # *	Route	Project Type	Length (mi)	County / Nonattaiment Area
1383332 1383489	I-69	Added Travel Lanes	5.17	Hamilton Indianapolis
1383336		Added Travel Lanes	4.64	
1298035		New Interchange	0.47	
1383338 1400176	I-70	Added Travel Lanes	7.99	Hendricks Indianapolis
1173697		Interchange Modification	0.20	Marion Indianapolis
1400597	I-65	Added Travel Lanes	8.11	Clark Louisville KY-IN
0500194 1005804 (bridge)	SR 61	New Road (Minor Arterial) Construction	4.17	Warrick Evansville
1297017	Chicago Street Corridor	Added Travel Lanes	------	Lake Chicago-Gary-Lake Cty

** Project DES numbers in bold are shown on MAP (next page)*

Projects Identified for Consultation Review (Map)



I-69 Projects

- DES # 1383332
- DES # 1383489
- DES # 1383336
- DES # 1298035

Project Description

I-69 PROJECTS

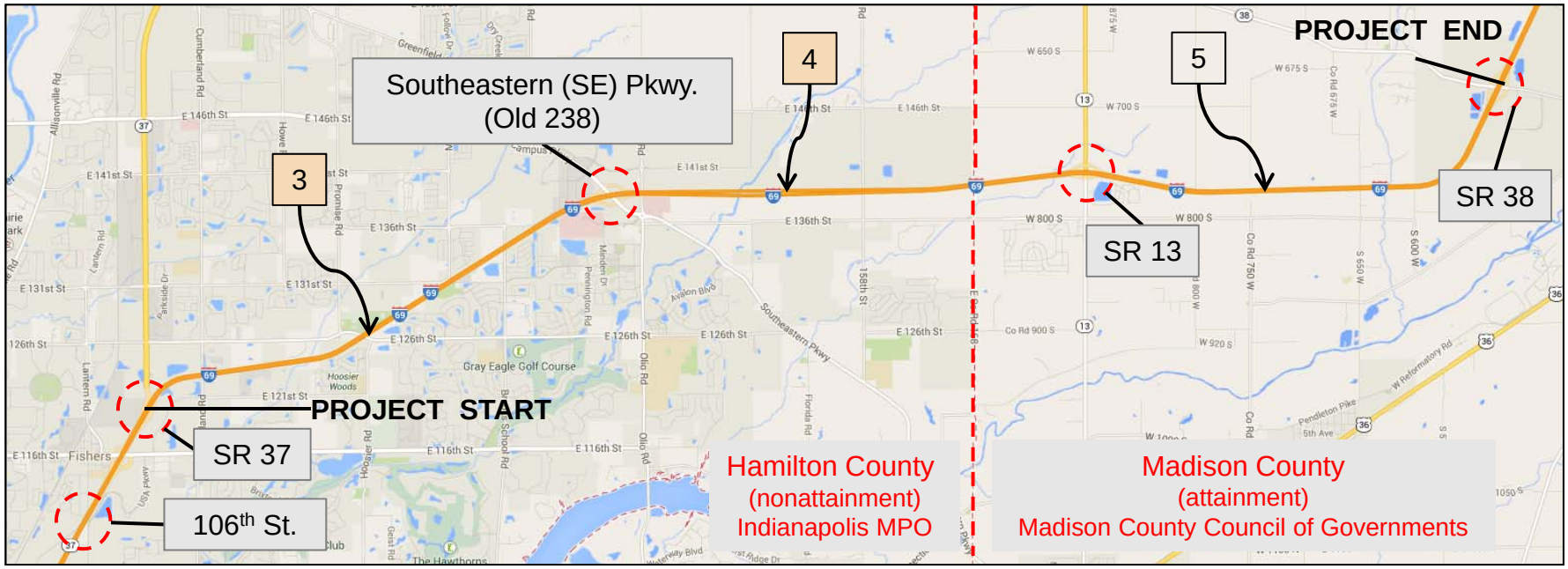
- **Add a third travel lane in each direction on I-69 from SR 37 to SR 38**
- **Interchange modification at Exit 210**
- **New interchange @ 106th Street**

- **Completion Year of 2016**

- **Eastern portion of project located in the Indianapolis PM2.5 nonattainment area**

Project Location & Traffic Volumes

I-69 PROJECTS



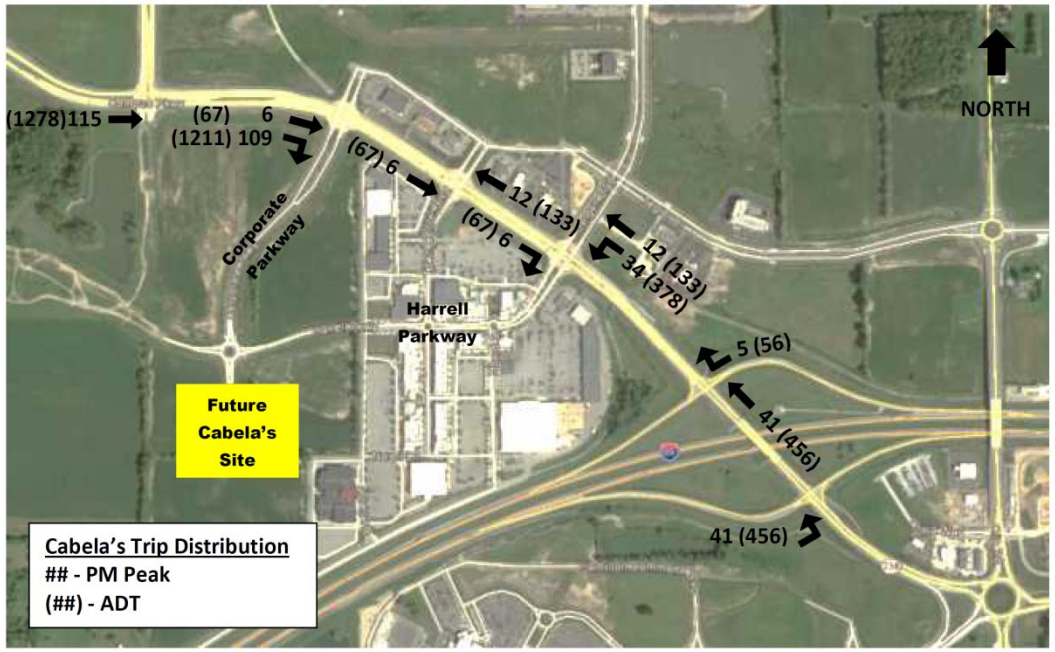
		2010		2020 (closest to completion year)				2035			
ID	I-69 Section	AADT	Truck	AADT	AADT Build vs NoBuild	Truck	Truck Build vs NoBuild	AADT	AADT Build vs NoBuild	Truck	Truck Build vs NoBuild
3	SR 37 to SE Pkwy	62,161	10,485	72,403	+ 4%	12,131	+ 1%	91,016	+ 11%	15,097	+ 11%
4	SE Pkwy to SR 13	57,734	11,749	64,784	+ 4%	13,090	+ 1%	77,006	+ 3%	15,394	+ 3%

August 21, 2014 INDOT Summary of ISTDM Base and Forecast Volumes including Build vs. No-Build

Campus Parkway Study

I-69 PROJECTS

- **April 2014 AECOM "Traffic Volume Forecast" for I-69 at Campus Parkway (Exit 210) and SR 13 (Exit 214)**
- **Exit 210 (Campus Parkway) interchange in nonattainment area**
- **Average traffic growth rates determined from the Indianapolis MPO model**
- **Impact of new Cabela's added to forecasts**

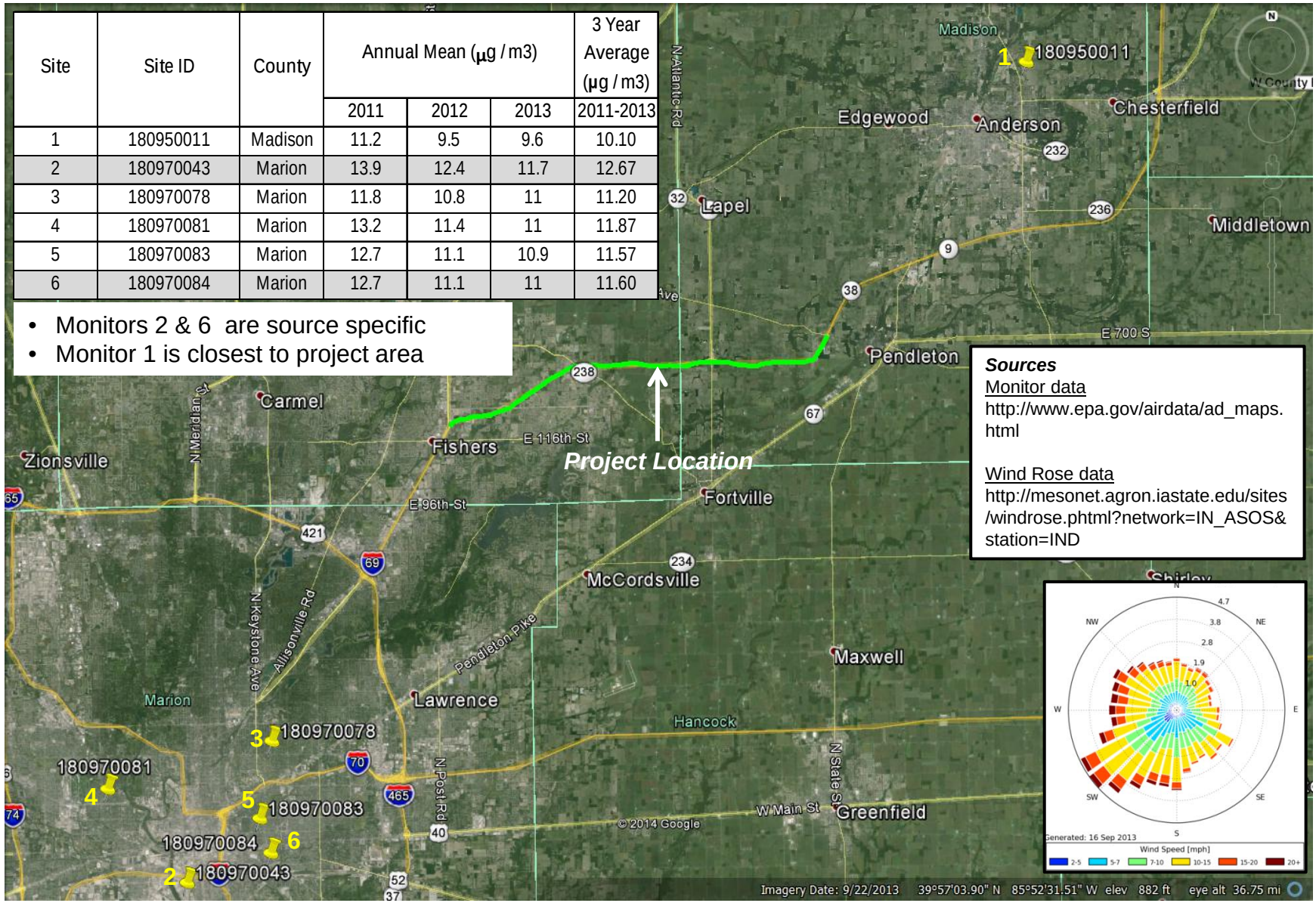


Background Concentration Monitor Locations and Readings

I-69 PROJECTS

Site	Site ID	County	Annual Mean (µg / m3)			3 Year Average (µg / m3)
			2011	2012	2013	2011-2013
1	180950011	Madison	11.2	9.5	9.6	10.10
2	180970043	Marion	13.9	12.4	11.7	12.67
3	180970078	Marion	11.8	10.8	11	11.20
4	180970081	Marion	13.2	11.4	11	11.87
5	180970083	Marion	12.7	11.1	10.9	11.57
6	180970084	Marion	12.7	11.1	11	11.60

- Monitors 2 & 6 are source specific
- Monitor 1 is closest to project area



Sources

Monitor data
http://www.epa.gov/airdata/ad_maps.html

Wind Rose data
http://mesonet.agron.iastate.edu/sites/windrose.phtml?network=IN_ASOS&station=IND

Evaluating Need for Hot-spot Analysis

Highest Section: SR 37 to SE Pkwy

I-69 PROJECTS

Item	Comparison to EPA Guidance Examples	Comparison To Previous I-69 Hot-Spot Analyses	Comparison To Previous I-65 Hot-Spot Analyses
Highest AADT	**< 125,000 AADT**	**Higher**	**Lower** (38% less AADT in 2035)
Highest Truck Volume	**>10,000 Trucks**	**Higher**	**Lower** (32% less Trucks in 2035)
Build vs. No-Build %	**Only 1% Change in 2020 Diesel Traffic**	**Lower**	**Lower**
Background Concentration	-----	Higher	Similar

INDOT PM2.5 Project-Level Consultation Interagency Consultation Group Conference Call

Thursday, September 18, 2014, 2014, 10:00 am

1. *Meeting Attendees*

Name	Organization	Email	Phone
Larry Heil	FHWA – Indiana Division	LHEIL@dot.gov	317-226-748
Michelle Allen	FHWA – Indiana Division	Michelle.Allen@dot.gov	317-226-7344
Tony Maietta	US EPA – Region 5	maietta.anthony@epa.gov	312-353-8777
Laura Hilden	INDOT – Environmental Services	lhilden@indot.in.gov	317-233-5018
Ken McMullen	INDOT – Environmental Policy Manager	KMCMULLEN@indot.IN.gov	317-233-1164
Ron Bales	INDOT – NEPA Specialist	rbales@indot.IN.gov	317-234-4916
Frank Baukert	INDOT – Long Range Planning	FBAUKERT@indot.IN.gov	317-232-1486
Shawn Seals	IDEM – Office of Air Quality	SSEALS@idem.IN.gov	317-233-0425
Dan Szekeres	Michael Baker Jr., Inc. (Baker)	dszekeres@mbakerintl.com	717-221-2019
Rob Dabadie	Baker	RDabadie@mbakerintl.com	410-689-3452
Mary Jo Hamman	Baker	mhamman@mbakerintl.com	317-663-8190
Dean Munn	Corradino Group	dmunn@corradino.com	317-488-2363

Materials: Attached Handouts (INDOT PM25 Project-Level Consultation Handouts 9-18-14.pdf)

2. *Overview*

- Larry Heil (FHWA) provided background on the purpose of the conference call.
- In Indiana, project-level air quality analyses have been completed for three projects (I-69, I-65, Iliana). For each analysis, the project portion of the total concentration was about 1 µg/m³ and forecasted peak year concentrations were below the current 15 µg/m³ annual PM2.5 National Ambient Air Quality Standard (NAAQS).
- All projects except for Chicago St and the 106th St. interchange are being advanced as Categorical Exclusions. These other projects are expected to be Environmental Assessments.

3. *Project Review*

- Dan Szekeres (Baker) led discussions through each of the handout pages including an overview of the key data and resources to assist the consultation group in determining whether projects are of "air quality concern" requiring a quantitative analysis.
- The evaluation methods included an assessment of existing and forecast traffic volumes, the impact of the project on volume (build vs. no-build), nearby monitor readings, and comparisons of volumes to EPA guidance examples. All forecasted traffic volumes were developed from the Indiana Statewide

Travel Demand Model (ISTDM) and produced by INDOT.

- Handout page 4 provides roadway traffic and monitor data for the completed quantitative hotspot analyses for I-69 (Section 5) and I-65 (SR 44 to Southport Road) under the current NAAQS. Both IDEM and EPA noted that they do not expect the Indianapolis area to be nonattainment under the upcoming 2012 PM2.5 NAAQS designations.
- IDEM commented that there may be other factors and considerations when evaluating projects for quantitative analysis beyond the current numbers provided in the handouts. However, no specific concerns or issues were identified for the projects under consideration at this time.
- For the I-65 project in Clark County, IDEM noted that this area is the most sensitive PM area in the state. However, it was agreed that the project impact on diesel traffic for this project is expected to be minimal.
- All participants on the consultation call agreed that quantitative analyses were not required for each of the projects.
- Minor enhancements to the handout materials will be provided including:
    - Remove the reference to "15 μg/m³" in the footnote on Slide 4
    - Modify the graphic on Slide 10 to show the 106th St. Interchange
    - Remove decision references for each grouping of projects on Slides 13, 18, 23, 28, 33
    - Include traffic count information for SR 61 on Slide 26

4. Conclusions

- The interagency consultation group concurred that each of the projects provided in the handouts (see handout page 6) is not a project of air quality concern and does not require a quantitative hotspot analysis. This includes the following project DES #s:
    - DES # 1383332
    - DES # 1383489
    - DES # 1383336
    - DES # 1298035
    - DES # 1383338
    - DES # 1400176
    - DES # 1173697
    - DES #1400597
    - DES # 0500194
    - DES # 1005804
    - DES # 1297017
- Each of the environmental documents should contain the conference call meeting minutes and the associated handouts. The conformity determination will include references to indicate that the associated projects were determined not to be of air quality concern.
- INDOT and FHWA will continue to track other new major transportation investment projects to determine future consultation.

Meeting concluded at 10:55 am ET.

Miller, Daniel J

From: Bales, Ronald [rbales@indot.IN.gov]
Sent: Thursday, November 06, 2014 2:35 PM
To: Miller, Daniel J
Subject: RE: INDOT Des #s 1383332 & 1383336; I-69 Interstate Expansion Projects 1 & 3; Hamilton & Madison Counties; MSAT Analysis

Follow Up Flag: Follow up
Flag Status: Flagged

Dan,

Please use the following language.

> The purpose of this project is to (insert major deficiency that the project is meant to address) by constructing (insert major elements of the project). This project has been determined to generate minimal air quality impacts for CAAA criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause an increase in MSAT impacts of the project from that of the no-build alternative.
>
> Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national trends with EPA's MOVES model forecasts a combined reduction of over 80 percent in the total annual emission rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 100 percent. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

As far as selecting the MSAT Level Analysis Check box, please check Level 1b analysis.

Ron

From: Miller, Daniel J [mailto:Daniel.J.Miller@parsons.com]
Sent: Thursday, November 06, 2014 11:47 AM
To: Bales, Ronald
Subject: RE: INDOT Des #s 1383332 & 1383336; I-69 Interstate Expansion Projects 1 & 3; Hamilton & Madison Counties; MSAT Analysis

Outstanding! Thanks for your help!

Daniel J. Miller
Principal Environmental Planner
PARSONS
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Indianapolis, IN 46204
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E-mail: Daniel.J.Miller@Parsons.com
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Please consider the environment before printing this email

From: Bales, Ronald [mailto:rbales@indot.IN.gov]
Sent: Thursday, November 06, 2014 11:39 AM
To: Miller, Daniel J
Subject: RE: INDOT Des #s 1383332 & 1383336; I-69 Interstate Expansion Projects 1 & 3; Hamilton & Madison Counties; MSAT Analysis

An emission analysis will not be needed. I will get back with you later today. Should be able to provide the standard language in the CE Manual for projects with no meaningful impact. I still need to confer with FHWA. Thank you.

Ron

From: Miller, Daniel J [mailto:Daniel.J.Miller@parsons.com]
Sent: Wednesday, November 05, 2014 3:30 PM
To: Bales, Ronald
Subject: FW: INDOT Des #s 1383332 & 1383336; I-69 Interstate Expansion Projects 1 & 3; Hamilton & Madison Counties; MSAT Analysis
Importance: High

Ron,
I just got a message delivery error for your e-mail saying that the message could not be delivered. Please let me know if you receive this.

Thanks,
Daniel J. Miller
Principal Environmental Planner
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Please consider the environment before printing this email

From: Miller, Daniel J
Sent: Wednesday, November 05, 2014 3:27 PM
To: Bales, Ronald (rbales@indot.IN.gov)
Cc: Carnahan, Ben; 'Jones, Tony W'
Subject: INDOT Des #s 1383332 & 1383336; I-69 Interstate Expansion Projects 1 & 3; Hamilton & Madison Counties; MSAT Analysis
Importance: High

Ron,
As we discussed, in finishing up the CE write-up for the I-69 Added Travel Lanes projects, I noticed that the AADTs provided only covered the sections where the added travel lanes will be included (from Exit 205 (116th Street and SR 37 in Fishers) to Exit 210 (Campus Parkway) and from Exit 210 to SR 13). I discussed this with our designer, and asked him to provide the AADT & other required information for the 106th St to 116th ST section, where an auxiliary lane will be added from 106th St to 116th St. The design year AADT for this section is 163,300.

Previously, we were told that a quantitative analysis would not be required for the ATL projects because the design year AADT would be below 140,000. This is true for the remaining sections of the ATL projects (see below).

ROADWAY CHARACTER:

t 1: I-69 from 106th Street to 116th Street

Functional Classification:	Principal Arterial				
Current ADT:	118,560	VPD (2015)	Design Year ADT:	163,300	VPD (2035)
Design Hour Volume (DHV):	13,064	Truck Percentage (%)	8		
Designed Speed (mph):	70	Legal Speed (mph):	65		

	Existing	Proposed
Number of Lanes:	5 SB *	6 SB*
Type of Lanes:	Through	Through
Pavement Width:	60ft	72ft
Shoulder Width: Inside Outside	4ft 10ft	4ft 10ft
Median Width:	12ft	12ft
Sidewalk Width:	N/A	N/A

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

ork will occur on the NB lanes in this section. Therefore, the information only includes the SB lanes.

t 1: 116th Street Southbound Ramp

Functional Classification:	Principal Arterial				
Current ADT:	12,350	VPD (2015)	Design Year ADT:	15,670	VPD (2035)
Design Hour Volume (DHV):	1,411	Truck Percentage (%)	5		
Designed Speed (mph):	35/60	Legal Speed (mph):	45		

	Existing	Proposed
Number of Lanes:	1	1
Type of Lanes:	Ramp	Ramp
Pavement Width:	16ft	16ft
Shoulder Width: Inside	4ft 6ft	4ft 8ft

Outside		
Median Width:	N/A	N/A
Sidewalk Width:	N/A	N/A

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

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

t 1: I-69 from SR 37 to Campus Parkway

Functional Classification: Principal Arterial

Current ADT: 63,440 VPD (2015) Design Year ADT: 83,850 VPD (2035)

Design Hour Volume (DHV): 5,870 Truck Percentage (%): 20

Designed Speed (mph): 70 Legal Speed (mph): 70

	Existing	Proposed
Number of Lanes:	4 (2 NB, 2 SB)	6 (3 NB, 3 SB)
Type of Lanes:	Through	Through
Pavement Width:	48ft	72ft
Shoulder Width: Inside	4ft	10ft
Outside	10ft	10ft
Median Width:	60ft	36ft
Sidewalk Width:	N/A	N/A

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

t 3: I-69 from Campus Parkway to SR 13

Functional Classification: Principal Arterial

Current ADT: 56,140 VPD (2015) Design Year ADT: 66,190 VPD (2035)

Design Hour Volume (DHV): 5,296 Truck Percentage (%): 10

Designed Speed (mph): 70 Legal Speed (mph): 70

	Existing	Proposed
Number of Lanes:	4 (2 NB, 2 SB)	6 (3 NB, 3 SB)

Type of Lanes:	Through	Through
Pavement Width:	46ft	72ft
Shoulder Width: Inside Outside	4ft 10ft	10ft 10ft
Median Width:	60ft	36ft
Sidewalk Width:	N/A	N/A

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

t 3: SR 13

Functional Classification: State Collector

Current ADT: 12,472 VPD (2015) Design Year ADT: 18,213 VPD (2035)

Design Hour Volume (DHV): 1,989 Truck Percentage (%) 12

Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing	**Proposed**
Number of Lanes:	2	2
Type of Lanes:	Through	Through
Pavement Width:	24ft	24ft
Shoulder Width: Inside Outside	6ft 10ft	6ft 10ft
Median Width:	N/A	N/A
Sidewalk Width:	N/A	N/A

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

As you can see, the portions of the projects where added travel lanes will be added have design year ADTs of 83,850 (Project 1: I-69 from SR 37 to Campus Parkway) and 66,190 (Project 3: I-69 from Campus Parkway to SR 13), and the 116th St SB ramp & SR 13 are well below the 40,000 limit.

I called Mary Jo Hamman from Baker to ask her if she had performed a quantitative analysis for this section of I-69. She stated that Baker was only contracted to do the $PM_{2.5}$ analysis for the I-69 projects. In reviewing their handout that was provided, they did not consider this section of I-69 in their analysis (see attached, pg 10).

Currently we have included the qualitative analysis, but have not conducted the quantitative emission analysis. Again, the section with the high AADT (163,300) is where an auxiliary lane is being built between 106th St. and

116th St. The remaining sections, where the added travel lanes are being built, have design year AADTs below 140,000. Do we need to conduct a quantitative emission analysis for this section? Please advise.

Please let me know if you need any additional information.

Thanks,

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Please consider the environment before printing this email

From: Jones, Tony W [mailto:TWJones@indot.IN.gov]
Sent: Tuesday, September 23, 2014 5:15 PM
To: Miller, Daniel J
Cc: Carnahan, Ben
Subject: Hot Spot Analysis

Dan,
I received email below from Mary Jo Hammons. Our I-69 project is in the list, so FYI.

All,

*INDOT & FHWA hosted an Interagency Consultation Group Meeting to discuss whether any of the projects listed below would qualify as "projects of air quality concern" for PM2.5 pollutants on Thursday, Sept. 18, 2014. It was determined that **none** of the listed projects were to be considered with that distinction. As such, no hotspot analysis is required for PM2.5 pollutants for any of the projects listed below. As noted in the INDOT CE Manual, the preparer of each environmental document should summarize the findings, including coordination with other agencies in the CE.*

*I've attached the Final Meeting Minutes and the Handouts used at the meeting to this email. **Please route these to your respective consultants for use as an appendix to their environmental documents.***

Either Ron Bales or I are available if there are any questions.

Kind Regards, Mary Jo

Tony Jones, PE
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Appendix I: Noise

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Hamilton and Madison Counties, Indiana – Des. No.'s 1383332, 1383336

I-69 EXPANSION DESIGN BUILD PROJECTS DRAFT TRAFFIC NOISE IMPACT ANALYSIS

October 2014

PREPARED BY

PARSONS

101 W. Ohio Street, Suite 2121
Indianapolis, IN 46204

PREPARED FOR

INDIANA DEPARTMENT OF TRANSPORTATION

100 N. Senate Avenue, Room N642
Indianapolis, IN 46204

Executive Summary

A Draft Traffic Noise Impact Analysis was conducted for the I-69 Expansion Project from 106th Street to ½ mile north of SR 13. A subsequent Traffic Noise Impact Analysis will be conducted for the reconfiguration of the I-69 Campus Parkway Interchange Project. The Federal Highway Administration (FHWA) Traffic Noise Model (TNM) Version 2.5 was used to model existing and proposed noise levels. Because numerous design year noise levels have been predicted to approach or exceed the FHWA Noise Abatement Criteria (NAC) for Category B (residential) land uses, the project has been found to have traffic noise impacts. Based on the Indiana Department of Transportation Traffic Noise Analysis Procedure (INDOT Noise 2011), the feasibility and cost effectiveness of noise barriers were evaluated at all locations in the project area where noise impacts were identified under the future build alternative. Based on this evaluation, four feasible and cost effective barriers were identified for this project: NB 00 located between 106th Street and 116th Street west of I-69, NB 1 located on the northbound side of I-69 north of Cumberland Road, NB 10 located on the northbound side of I-69 just north of Brooks School Road, and NB 12 located on the northbound side of I-69 east of the SR 13/I-69 interchange.

Table ES-1 Recommended Noise Barriers

Barrier ID	NSA	Location	Barrier Length	Benefited Receivers
00	1	Between 106th Street and 116th street west of I-69	1,700	73
01	4	South of I-69 and east of Cumberland Road	3,900	307
10	9	South of I-69 and east of Brooks School Road	2,400	69
12	12	South of I-69 and east of the SR 13 interchange	2,020	35

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Table B Identification of Receptors

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Table C-3 Predicted Noise Levels -NSA 3 and 4

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Table E Project Traffic Data

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APPENDIX G TNM Data Tables

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APPENDIX I Field Survey Forms and Photo Log

1.0 PROJECT HISTORY AND BACKGROUND INFORMATION

1.1 Purpose of the Draft Traffic Noise Impact Analysis

The purpose of this Draft Traffic Noise Impact Analysis is to evaluate noise impacts and abatement under the requirements of Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772) "Procedures for Abatement of Highway Traffic Noise" for the I-69 Expansion Design Build Projects. 23 CFR 772 provides procedures for preparing operational and construction noise studies and evaluating noise abatement considered for federal and federal-aid highway projects. According to 23 CFR 772.3, all highway projects that are developed in conformance with this regulation are deemed to be in conformance with Federal Highway Administration (FHWA) noise standards.

The Indiana Department of Transportation (INDOT) *Traffic Noise Analysis Procedure* (INDOT Noise, 2011) establishes INDOT policy for implementing 23 CFR 772 in Indiana. The *Traffic Noise Analysis Procedure* outlines the requirements for analyzing highway traffic noise. Noise impacts associated with this project will be included in the project's Categorical Exclusion Level 4, (CE-4), in compliance with the National Environmental Policy Act (NEPA).

1.2 Project Purpose and Need

The purpose of these projects is to improve overall traffic operation by reducing congestion on this segment of I-69.

The need for these projects stems from traffic congestion issues that currently exist on these segments of I-69. Traffic data was analyzed using Highway Capacity Manual methodology in Highway Capacity Software (HCS). The data was collected by INDOT in 2011, and a 1.5% per year growth rate was applied to forecast the traffic for 2013 ("current year") and 2035 ("design year"). The adjusted and balanced data was then used to produce results in Level of Service (LOS). LOS is a rating for traffic congestion with LOS A being the least delay and LOS F being the most delay. I-69 between Exit 205 and SR 38 is currently operating at LOS E, which is characterized as "unstable flow". In 2033, I-69 from Exit 205 to SR 13 is predicted to experience "forced flow" (LOS F). This is likely to appear in the form of queuing upstream of ramp junctions (southbound at SR 13 in the AM peak hours and northbound at Exit 210 in the PM peak hours). I-69 is considered to be urban to Exit 210 from the south and rural from Exit 210 to the north, which means the minimally acceptable LOS's are D and C, respectively. The results show unacceptable LOS for both existing and future traffic in each direction for this section of I-69.

1.3 Project Description

Project 1 (Des. 1383332) will construct added travel lanes in the median from 106th Street to 0.5 mile north of Campus Parkway. An auxiliary lane will be added on southbound I-69 between 106th Street and 116th Street. Project 2 (Des. 1383489) is an interchange modification at Exit 210 (Campus Parkway). Traffic noise will be analyzed for this project under a separate report. Project 3 (Des. 1383336) will construct added travel lanes in the median from 0.5 mile north of Campus Parkway to 0.5 mile east of S.R. 13. All three are design-build projects that will be let under a single construction contract. A project location map is provided in Appendix A for reference.

2.0 EXISTING NOISE ENVIRONMENT

2.1 Existing Land Uses

Field investigations were conducted on July 21, 22, and 23, 2014 to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Single-family residences,

apartments, condominiums, mobile home parks, light industrial warehouses, manufacturing facilities, a shopping center, schools, recreational areas, athletic fields, hospitals, and agricultural fields were identified as Activity Category B, C, D, E, F and G land uses in the project area.

As required by the *Traffic Noise Analysis Procedure,* although all developed land uses are evaluated in this analysis, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas at other facilities.

For the majority of this project, one receptor was modeled for a single corresponding dwelling unit or area of frequent outdoor use. Receptor locations that were used to represent more than one dwelling unit (apartment complexes and condominium homes) are specified in Table C-1 through C-8 in Appendix C.

To determine the number of receptors appropriate for Billericay Park, Mudsock Fields, Cheeney Creek Natural Area, Fishers High School, and Fishers Elementary School the algorithm provided in the *Traffic Noise Analysis Procedure* was used. This algorithm converts total usage to equivalent receptors. The daily number of users for Billericay Park, Mudsock Fields, and Cheeny Creek Natural Area were obtained through correspondence with the respective Parks Superintendant. The daily number of users for Fishers High School and Fishers Elementary School was obtained through correspondence with administration officials from each school.

2.2 Noise Study Area (NSA) Descriptions

Land uses in the project area have been grouped into a series of numbered Noise Sensitive Areas (NSAs) that are identified in Appendix A.

- NSA 1 is located on the southbound side of I-69 between 106th Street and Cheney Creek. This area consists of a partially built out commercial area and residential land use. The residential land use includes the Lantern Woods Apartments (Activity Category B). The apartment balconies and common use areas such as patios with a line of sight to the highway have been included as modeled receivers. This area is generally flat. No sound barrier or topographical shielding occurs between the highway and the residential areas.
- NSA 2 is located on the southbound side of I-69 between Fishers Pointe Blvd. and 116th Street. Residential land uses (Activity Category B) include the Heritage Meadows Subdivision, Morgan Meadows Subdivision, Fisherdale Subdivision, Lonberger Subdivision, and RE Harold Subdivision. Cheeney Creek Natural Area(Activity Category C), Fishers Elementary School (Activity Category C) and a hotel (Activity Category E) are also located in this area. INDOT is currently constructing a noise barrier in this area to protect sensitive land uses as part of a previous project. This barrier was incorporated into the existing model.
- NSA 3 is located on the southbound side of I-69 between Cumberland Road and 126th Street. This area consists of sparse single family residences (Activity Category C) mixed with commercial properties (Activity Category C). This area is generally flat. No areas of frequent human outdoor use were identified for the commercial land uses. There are no topographical shielding factors between the residences and the highway.
- NSA 4 is located on the northbound side of I-69 from Cumberland Road to Sand Creek. This area consists of a few commercial properties (Activity Category C) and residences (Activity Category B). No areas of frequent outdoor human use were identified for the commercial properties. Residential land uses include the Cumberland Crossing Apartments and Cumberland Woods Subdivision. There are no topographical shielding factors between the highway and Cumberland Crossing Apartments but there is a berm between the highway and Cumberland Woods Subdivision which shields a significant amount of sound from the subdivision.
- NSA 5 is located on the northbound side of I-69 from Sand Creek to 126th Street. This area consists entirely of residential land uses (Activity Category B). This area is generally flat with a high berm. This berm provides significant shielding to the Sumerlin Trails at Hoosier Woods

Subdivision. The Sumerlin Trails at Hoosier Woods Subdivision has single family detached homes with backyards that face the highway.

- NSA 6 is located on the southbound side of I-69 from 126th Street to Brooks School Road. This area consists of Billericay Park (Activity Category C), Fishers High School (Activity Category C), a commercial property (Activity Category E), a private dog park, and residences (Activity Category B). No areas of frequent outdoor human use were identified for the commercial properties. This area is generally flat with the exception of a short berm and fence between the Limestone Springs Condominiums and the highway.
- NSA 7 is located on the northbound side of I-69 from 126th Street to Brooks School Road. This area consists of residences (Activity Category B) and Mudsock Fields athletic fields (Activity Category C). Residential development within this NSA includes Whispering Wood Subdivision, The Bristols Subdivision, and HS Waterview Estates Subdivision. This area is generally flat with the exception of a short berm and fence between Whispering Woods Condominiums Subdivision (front yards facing out) and the highway. There is no topographical shielding or sound barrier between Mudsock Fields and the highway.
- NSA 8 is located on the southbound side of I-69 from Brooks School Road to the western edge of Hamilton Town Center. This area has a commercial property (Activity Category E) and residences (Activity Category B). This area is generally flat. No areas of frequent outdoor human use were identified for the commercial properties. There are no topographical shielding factors between the highway and residential land uses.
- NSA 9 is located on the northbound side of I-69 from Brooks School Road to the western edge of IU Health Saxony Hospital. This area consists entirely of residences (Activity Category B). The backyards of single family detached homes in the Brooks Chase Subdivision face the highway. This area is generally flat with the exception of a berm and fence between the Brooks Chase Subdivision and the highway. This berm and fence provides some shielding to the Brooks Chase Subdivision.
- NSA 10 encompasses the I-69 and Campus Parkway interchange. Traffic Noise impacts within this NSA will be analyzed in a subsequent study as part of the Interchange Reconfiguration project (Des. No. 1383489).
- NSA 11 is located on the northbound and southbound side of I-69 from Olio Road to SR 13. This area consists of St. Vincent Hospital (Activity Category D), a single residence (Activity Category B) and farmland. This area is generally flat. There is no topographical shielding or sound barrier between any of the properties and the highway.
- NSA 12 is located on the northbound side of I-69 from SR 13 to the eastern terminus of the project limits (one half mile east of SR 13). This area consists of residences (Activity Category B) and is generally flat. There are no topographical shielding factors between the highway and residential land uses (Carefree Mobil Homes).
- NSA 13 is located on the southbound side of I-69 from SR 13 to the eastern terminus of the project limits (one half mile east of SR 13). This area consists of one residence (Activity Category B) and is generally flat. There is no topographical shielding or sound barrier between this residence and the highway.

2.3 Noise-Sensitive Receptors and Existing Noise Conditions

Noise-sensitive receptors are those locations where activities that could be affected by increased traffic noise levels occur (e.g., residences, motels, churches, schools, parks and libraries). Existing noise levels are determined for the most commonly used outdoor living areas at sensitive receptors. For residences, this is typically the backyard or front porch. Noise-sensitive receptors are located extensively throughout the project corridor (see Appendix A). A total of 822 sensitive receptors representing 1,091 equivalent dwelling units or areas of frequent outdoor use were identified in the project area for analysis as part of

the noise study. These receptors include all Category B, C, D, and E land uses located within approximately 500 feet of the alignment.

2.3.1 Consideration of Existing Noise Barriers

In accordance with FHWA guidance (FHWA-HEP-12-051) the effectiveness of existing barriers was considered as part of this noise study. This noise barrier within NSA 2 is currently under construction and is anticipated to be complete in late 2014. To evaluate the effectiveness of the barrier a TNM model was prepared that included the existing noise barrier.

With the barrier there are 5 impacted receptors. The existing barrier reduces the noise level by 5 dB(A) or more for 4 impacted receptors, so the existing barrier meets the feasibility requirements of INDOT noise policy. There are 23 benefitting receptors, so at least 12 of these receptors mush achieve the design goal to meet the reasonableness requirement. Thirteen (13) benefitting receptors meet the design goal. In this case, the existing barrier performs according to the requirements of the INDOT policy, so no further action is required.

2.4 Measurement Procedures, Equipment, and Results

Measurement locations were selected to represent major developed areas within the project area.

These short term measurements were conducted using a Larson-Davis Model LD-820 sound level meter (serial number 1501). Measurements were taken over a 20-minute period at a majority of the sites. Noise measurements were stopped short of 20 minutes at the aforementioned sites due to park patrons using the field and creating substantial noise. Calibration of the meter was checked before and after field work using a Larson-Davis Model Cal 200 (serial number 11087). Noise meter calibration data is included in Appendix H.

During the measurements the temperature varied around 80-90 degrees Fahrenheit, and winds were light, having little effect of sound propagation over moderate distances. Temperature, humidity, and winds speeds were within the manufactures recommended guidelines for operation of the sound level meter. Site conditions for each measurement are included on the field survey forms in Appendix I.

Table 2 summarizes the results of the existing noise measurements taken.

Table 1

Summary of Short-Term Measurements

Position	Address	Land Use	Start Time	Duration (minutes)	Measure $D_{Leq(h)}$
ST01	10589 Clay Prairie Parkway	Commercial	11:27 am	20	63.5
ST02	8610 106th Street	Commercial	12:19 pm	20	65.6
ST03	11144 Lantern Road	Residential	10:19 am	20	75.7
ST04	11442 Lantern Road	School	3:22 pm	18	61.4
ST05	10225 Stage Coach Trail	Residential	8:47 am	20	69.3
ST06	10526 Blue Springs Lane	Residential	9:40 am	20	61.5
ST07	11025 Cool Winds Way	Residential	11:20 am	20	52.3

ST08	11066 Cool Winds Way	Residential	10:42 am	20	64.1
ST09	12690 Promise Road	Recreational	11:54 am	20	65.8
ST10	12160 Packers Avenue	Recreational	12:45 pm	15	64.7
ST11	440 Scoria Drive	Residential	9:09 am	20	64.1
ST12	12578 Loyalty Drive	Residential	1:47 pm	20	67.2
ST13	12547 136th Street	Commercial	3:35 pm	20	61.8
ST14	13916 Southeastern Parkway	Hospital	2:49 pm	20	64.9
ST15	8620 Pin Oak Drive	Residential	1:47 pm	20	69.8

TNM 2.5 was used to compare measured traffic noise levels to modeled noise levels at the measurement locations. As shown in Table 3, comparing the modeled and measured noise levels using observed traffic counts confirms the applicability of the model to the study area. In several of the TNM validation model runs it was necessary to input features such as existing wooden fences in order to reduce the modeled noise levels to a level that reasonable matched the measured levels. As these features were not specifically designed as noise attenuation measures they were not included in the existing, no-build, and proposed model runs. Predicted traffic noise levels using the traffic counts observed during the measurements are generally within +/- 3 dBA of the measured levels, indicating reasonable correlation. Only ST-8 was slightly outside of this 3 dBA standard. Therefore, this model is validated per 23 CFR 722.11 (d)(2), and no calibration of the model was made.

Table 2

Comparison of Measured to Predicted Sound Levels in the TNM Model

Measurement Position	Measured Sound Level (dBA)	Predicted Sound Level (dBA)	Measured minus Predicted (dBA)
ST01	63.5	64.1	-0.6
ST02	65.6	66.7	-1.1
ST03	75.7	77.5	-1.8
ST04	61.4	64.0	-2.6
ST05	69.3	70.7	-1.4
ST06	61.5	63.7	-2.2
ST07	52.3	55.1	-2.8
ST08	64.1	60.9	3.2

ST09	65.8	66.0	-0.2
ST10	64.7	63.8	0.9
ST11	64.1	64.8	0.7
ST12	67.2	68.8	-1.6
ST13	61.8	62.2	-0.4
ST14	64.9	62.7	2.2
ST15	69.8	70.4	-0.6

3.0 METHODOLOGY

3.1 Fundamentals of Traffic Noise

The human ear perceives noise as a form of vibration that causes pressure variations. The ear is sensitive to this variation and perceives it as sound. The intensity of these pressure variations causes the ear to discern different levels of loudness. These pressure differences are commonly measured in decibels (dB). The decibel scale that is audible to the human ear spans about 140 decibels. A dB level of zero is barely audible to the human ear while 140 dB is an unrecognizable sound which is painful to the listener. The decibel scale is a logarithmic representation of the actual sound pressure variation. This means that a 26 percent change in energy level only changes the sound level 1 dB. It would be possible for the human ear to detect this difference only in a laboratory. Increasing the energy level 100 percent would result in a 3 dB increase, which would be barely perceptible outdoors. A tripling in sound energy level would result in a clearly noticeable change of 5 dB in the sound level. An increase of ten times the energy level would result in a 10 dB increase in the sound level, which would be perceived as a doubling of the sound level.

The human ear has a non-linear sensitivity to noise. To account for this in noise measurement, electronic weighting scales are used to define the relative loudness of different frequencies. The "A" weighting scale, expressed as dBA, is widely used in environmental work because it most nearly matches the non-linear nature of human hearing.

The measurement that is most commonly used to express dBA levels for traffic noise is the Hourly Equivalent Sound Level [$L_{eq}(h)$]. The $L_{eq}(h)$ describes a noise-sensitive receptor's cumulative exposure from all noise-producing events over a 1-hour period.

Traffic noise studies for road projects in Indiana are performed in accordance with 23 CFR 772 and INDOT's *Traffic Noise Analysis Procedure.* There are five main steps comprising traffic noise studies:

1. Identify noise sensitive receptors,
2. Determine existing ambient peak noise levels,
3. Predict future peak noise levels,
4. Identify traffic noise impacts, and
5. Evaluate mitigation measures for sensitive receptors where traffic noise impacts occur.

Traffic-generated $L_{eq}(h)$ noise levels were predicted for the design year (2035) using FHWA TNM 2.5, a computer simulation model. The model takes into account anticipated traffic volumes, vehicle types, vehicle speeds, roadway geometry, and sensitive receptor locations to calculate future traffic-generated

noise levels. Noise levels were predicted for the outdoor living areas at each sensitive receptor using the worst traffic conditions likely to occur on a regular basis during the design year. Future noise levels predicted for the project area are included on Table C-1 through C-8 in Appendix C.

According to FHWA and INDOT noise policies, a traffic noise impact occurs when either of the following conditions result at a sensitive receptor:

- The future predicted L_{eq}(h) noise level approaches (is within 1 dBA) or exceeds the Noise Abatement Criteria (NAC) shown in Table 3.
- The future predicted L_{eq}(h) noise level substantially exceeds (by 15 or more dBA) the existing L_{eq}(h) noise level. Traffic-generated noise level increases of 15 dBA or more are typically associated with roadway improvements on a new alignment.

3.2 Methods for Identifying Land Uses and Selecting Noise Measurement and Modeling Locations

A field investigation was conducted to identify land uses that could be subject to traffic and construction noise impacts from the proposed project. Land uses in the project area were categorized by land use type, Activity Category as defined in Table 3, and the extent of frequent human use. As stated in the *Traffic Noise Analysis Procedure*, noise abatement is only considered for areas of frequent human use that would benefit from a lowered noise level. Although all developed land uses are evaluated in this analysis, the focus is on locations of frequent human use that would benefit from a lowered noise level. Accordingly, this impact analysis focuses on locations with defined outdoor activity areas, such as residential backyards and common use areas at recreational facilities.

Table 3

Noise Abatement Criteria in 23 CFR 772

Activity Category	***L_{Aeq}(h)***	***Evaluation Location***	***Activity Description***
A	57	Exterior	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67	Exterior	Residential.
C	67	Exterior	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structure, radio stations, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.

D	52	Interior	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structure, radio studios, recording studios, schools, and television studios.
E	72	Exterior	Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D, or F.
F	–––	–––	Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing.
G	–––	–––	Undeveloped lands that are not permitted.

Source: 23 CFR 772

3.3 Traffic Noise Level Prediction Methods

Traffic noise levels were predicted using FHWA TNM 2.5. Traffic noise was evaluated under design year conditions for both alternatives. Loudest-hour traffic volumes, vehicle classification percentages, and traffic speeds under design-year (2035) conditions were developed for input into the model. The loudest hour traffic volumes, vehicle classification percentages, and traffic speeds under design-year (2035) conditions were developed for input into the traffic noise model. The loudest hour is generally characterized by free-flowing traffic at the highway design speed (i.e., Level of Service [LOS] C or better). Peak traffic volumes for the new roadway alternatives are not predicted to exceed LOS C, therefore design hour traffic volumes were used in this analysis. Hourly traffic volumes used in this study were taken from a series of memorandums prepared by INDOT and received via e-mail on June 11, 2014.

3.4 Methods for Identifying Traffic Noise Impacts and Consideration of Abatement

Traffic noise impacts are considered to occur at receptor locations where predicted design-year noise levels are at least 15 dBA greater than existing noise levels, or where predicted design year noise levels approach or exceed the NAC for the applicable activity category. Where traffic noise impacts are identified, noise abatement must be considered for reasonableness and feasibility as required by 23 CFR 772 and the *Traffic Noise Analysis Procedure.*

According to the *Traffic Noise Analysis Procedure,* abatement measures are considered acoustically feasible if a minimum noise reduction of 5 dBA at a majority of impacted receptors is predicted with implementation of the abatement measures. Other factors that affect feasibility include topography, access requirements for driveways and ramps, presence of local cross streets, utility conflicts, other noise sources in the area, and safety considerations. The overall reasonableness of noise abatement is determined by considering factors such as:

- Cost;
- Absolute predicted noise levels;
- Predicted future increase in noise levels;
- Expected noise abatement benefits;
- Build date of surrounding residential development along the highway;
- Environmental impacts of abatement construction;
- Opinions of affected residents;

- Input from the public and local agencies; and
- Social, legal, and technological factors.

Details of this evaluation are provided in Section 4.2.

4.0 FUTURE NOISE ENVIRONMENT, IMPACTS, AND ABATEMENT

4.1 Future Noise Environment and Impacts

Tables C-1 through C-8 in Appendix C summarize the traffic noise modeling results for existing conditions and design-year conditions with and without the noise barriers. As described in Section 3.3, these predictions utilize forecasted design hour traffic conditions to ensure a conservative estimate of noise levels for the loudest noise hour. The comparison to existing conditions is included in the analysis to identify traffic noise impacts under 23 CFR 772. The comparison to no-project conditions indicates the direct effect of the project.

The results shown in Appendix C indicate that predicted traffic noise levels for the design-year with-project conditions approach or exceed the NAC of 67 dBA $L_{eq}(h)$ for Category B land uses. Therefore, traffic noise impacts are predicted to occur at activity category B land uses within the project area, and noise abatement must be considered.

As shown in Appendix A, undeveloped areas adjacent to the corridor are predicted to approach or exceed the NAC for Activity Category B and C land uses based on the 66 dBA contour line.

4.2 Noise Abatement Analysis

In accordance with 23 CFR 772, noise abatement is considered where noise impacts are predicted in areas of frequent human use that would benefit from a lowered noise level. Potential noise abatement measures include the following:

- Avoiding the impact by using design alternatives, such as altering the horizontal and vertical alignment of the project;
- Construction Noise Barriers;
- Acquiring property to serve as a buffer zone;
- Using Traffic management measures to regulate types of vehicles and speeds; and
- Acoustically insulating public-use or nonprofit institutional structures.

Alteration of the roadway geometry would not be feasible. The preferred alternative has been developed to best meet the transportation need of the corridor while minimizing impacts to the immediate area and meeting the purpose of the project. Horizontal geometry changes significant enough to effect noise levels at receiver locations would require numerous relocations and is not a practical alternative. Thus any changes to these alignments would be limited, and have only minimal effects on sound levels.

Noise barriers placed along roadways on State-owned right-of way can effectively shield locations from traffic-related noise. A barrier's feasibility is based on its acoustic effectiveness, which depends on the area's geometry, the barrier's configuration, and the effects of other (unblocked) noise sources. Noise barriers were evaluated, and the results are described below.

Vacant or undeveloped property may be acquired to provide a buffer zone from noise generating facilities. However, there is no vacant land in the study area that, if acquired, would provide effective abatement as a buffer zone.

Traffic management measures would not be effective for this project. Traffic management measures that could reduce sound levels include "traffic calming" actions, such as reducing volumes, especially truck volumes, or travel speeds. Such measures are not consistent with the transportation needs in the area or purpose of the project.

Insulation of public structures and nonprofit institutions is not relevant, since there are no public-use or nonprofit institutional structures impacted by the project. Interior noise levels at public-use or nonprofit institutional structures are not anticipated to be above interior NAC levels.

All of these abatement options have been considered. However, because of the configuration and location of the project, abatement in the form of noise barriers is the only abatement that is suited for this project.

Feasibility of Abatement

Feasibility analysis deals with engineering considerations to determine if a particular form of abatement can actually have an effect on the traffic noise levels at a receiver. It also takes into account such considerations as topography, drainage, safety, and access/maintenance needs (which may include right-of-way considerations). To be feasible, an abatement measure must meet or exceed a 5 dBA reduction at a majority (greater than 50%) of the impacted receptors. If a barrier cannot achieve this acoustic goal, abatement is considered to not be acoustically feasible.

Reasonableness of Abatement

"Reasonable" means that INDOT believes abatement of traffic noise impacts is prudent based on consideration of the following factors:

1. Cost Effectiveness

   To determine cost effectiveness, the estimated cost of constructing a noise barrier (including installation and additional necessary construction such as foundations or guardrail) will be divided among the number of benefited receivers (those who would receive a reduction of at least 5 dBA). A cost of $25,000 or less per benefited receiver is considered to be “cost effective”. A base cost of $30 per square foot was used to estimate the cost of each barrier. Based on the increased cost of noise barriers in excess of twenty (20) feet in height, no wall taller than twenty (20) feet will be considered to be cost effective. Development in which a majority (50% + 1) of the receivers were in place prior to construction of the highway will receive additional consideration for abatement. The cost-effectiveness criteria to be used for these cases will be 20% higher ($30,000). Severe noise impacts may warrant special consideration of highway traffic noise abatement measures beyond what would normally be considered. Severe noise impacts are defined as exceeding the NAC by greater than 15 dBA. These may merit abatement beyond the standard cost criteria and could include measures that are not normally considered, such as purchase of buffer land or impacted properties, or noise insulation of public use or non-profit institutional buildings.

2. Views of impacted and/or Benefited Receivers

   If noise abatement is determined to be feasible and cost effective, then potentially affected property owners will be surveyed to determine whether they do or do not want noise abatement. A majority (50% + 1) of the total benefited receivers must state that they want a barrier constructed for it to be considered reasonable. Note that for apartment complexes and hotels, the decision as to whether a barrier is desired rests with property owners rather than occupants.

Each noise barrier evaluated has been analyzed for feasibility based on achievable noise reduction and engineering considerations. Reasonableness criteria were evaluated for each noise barrier found to be acoustically feasible. Of the 14 noise barriers analyzed along the project four met INDOT’s reasonable and feasible criteria. Table D provided in Appendix D summarizes the reasonable analysis of each feasible barrier.

Any revision to the reasonableness or feasibility of these barriers resulting from the public involvement process will be discussed in the Final Traffic Noise Impact Analysis.

Future Design Revisions

If pertinent parameters change substantially during the continuing project design, the noise abatement decision may be changed or eliminated from the final project design.

5.0 CONSTRUCTION NOISE

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction.

Table 4 summarizes noise levels produced by construction equipment that is commonly used on roadway construction projects. Construction equipment is expected to generate noise levels ranging from 70 to 90 dBA at a distance of 50 feet, and noise produced by construction equipment would be reduced over distance at a rate of approximately 6 dBA per doubling of distance.

Table 4

Construction Equipment Noise

Equipment	Maximum Noise Level (dBA at 50 feet)
Scrapers	89
Bulldozers	85
Heavy Trucks	88
Backhoe	80
Pneumatic Tools	85
Concrete Pump	82

Source: U.S. Environmental Protection Agency 1971.

No adverse noise impacts from construction are anticipated because construction noise would be short-term and intermittent. Measures to minimize the temporary impacts will include requiring equipment to have sound-control devices that are no less effective than those provided on the original equipment and requiring all equipment to be muffled.

6.0 PUBLIC INVOLVEMENT

As described in the *Traffic Noise Analysis Procedure*, INDOT is required to seek the input of owners and residents of all benefited property. The concerns and opinions of the property owner and the unit occupants will be balanced with other considerations in determining whether a barrier is appropriate for a given location. This information will be gathered during a public involvement process that will commence following the approval of this Draft Traffic Noise Impact Analysis and the results of this process will be detailed in the Final Traffic Noise Impact Analysis.

7.0 STATEMENT OF LIKELIHOOD

Based on the studies completed to date, the State of Indiana has identified 287 impacted receptors and has determined that noise abatement is likely, but not guaranteed, at four locations. Noise abatement at these locations is based upon preliminary design costs and design criteria. Noise abatement in these locations at this time has been estimated to cost $4,685,100 and will reduce noise level by a minimum of 7 dB(A) at a majority of the identified impacted receptors. A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise

abatement is not feasible and reasonable, the abatement measures might not be provided. The final decision on the installation of any abatement measure(s) will be made upon the completion of the project's final design and the public involvement process.

8.0 CONCLUSIONS AND RECOMMENDATIONS

Based on this evaluation, four feasible and reasonable barriers were identified for this project: NB 00 located in front of the Lantern Woods Apartments, NB 1 located on the northbound side of I-69 north of Cumberland Road, NB 10 located on the northbound side of I-69 just north of Brooks School Road, and NB 12 located on the northbound side of I-69 east of the SR 13/I-69 interchange. NB 00, at approximately 1,700 feet long and an average of 14.7 feet tall, will reduce noise levels by at least 5dBA for 73 benefitted receptors at a cost of $751,500. NB 1, at approximately 3,900 feet long and an average of 18.8 feet tall, will reduce noise levels by at least 5 dBA for 307 benefited receptors at a cost of $2,202,600. NB 10, at approximately 2,400 feet long and an average of 16.3 feet tall, will reduce noise levels by at least 5 dBA for 69 benefited receivers at a cost of $1,182,000. NB 12, at approximately 2,020 feet long and an average of 9.0 feet tall, will reduce noise levels by at least 5 dBA for 35 benefited receivers at a cost of $549,000.

Additional details regarding these barriers is provided in Table D. Changes to these barriers may be necessary due to conditions encountered during final design.

9.0 REFERENCES

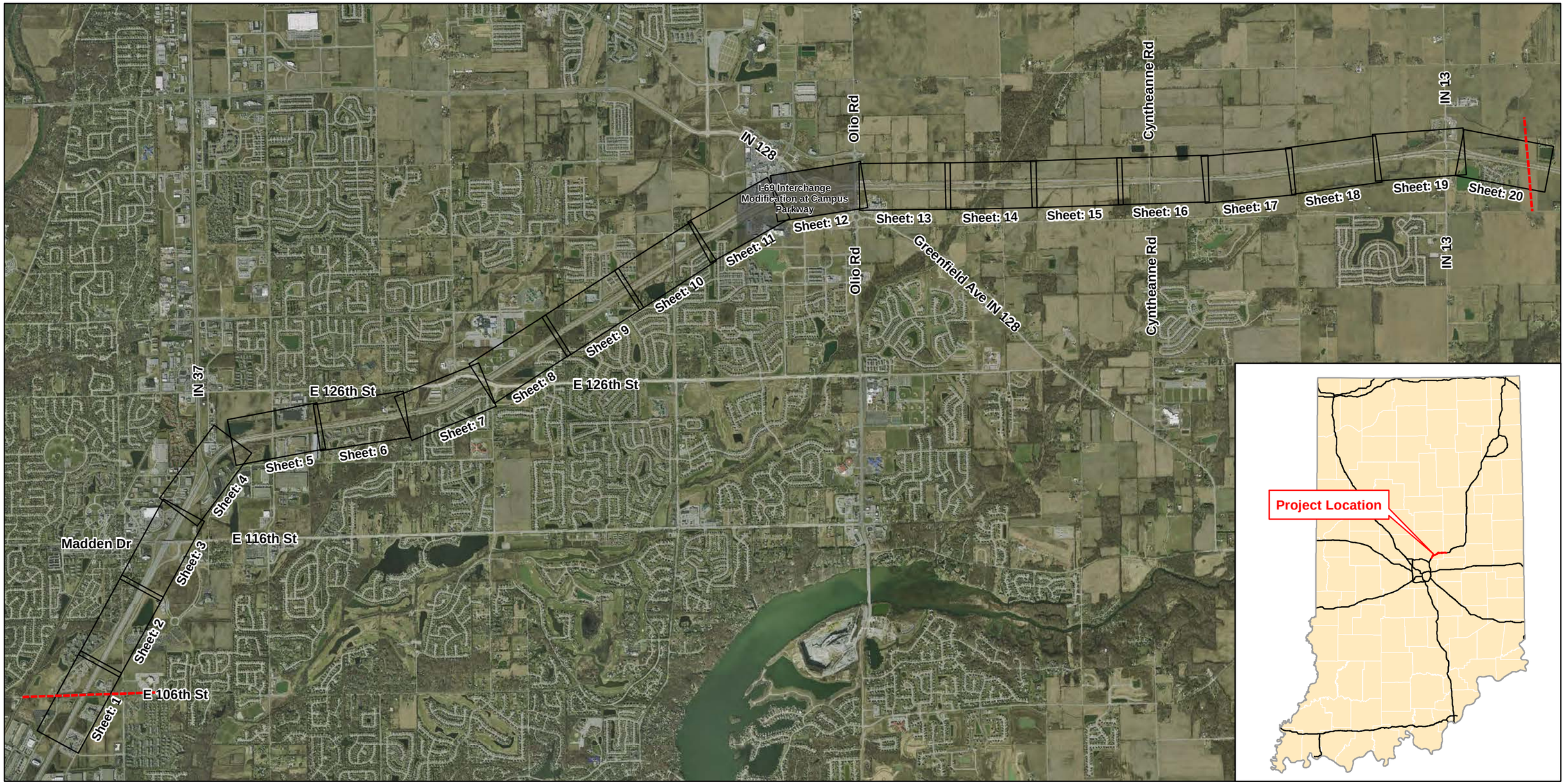
23 CFR 772 (2011). "Procedures for Abatement of Highway Traffic Noise and Construction Noise." Accessed August 4, 2014.

Indiana Department of Transportation (INDOT, Noise). 2011. *Traffic Noise Analysis Procedure.*

U.S. Environmental Protection Agency, "Noise from Construction Equipment and Operations, Building Equipment and Home Appliances," NTID300.1, December 31, 1971.

Appendix A

Noise Measurement and Model Location Figures



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1 inch = 3,500 feet

Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)

Appendix A: Index
Measurment and Modeling Locations

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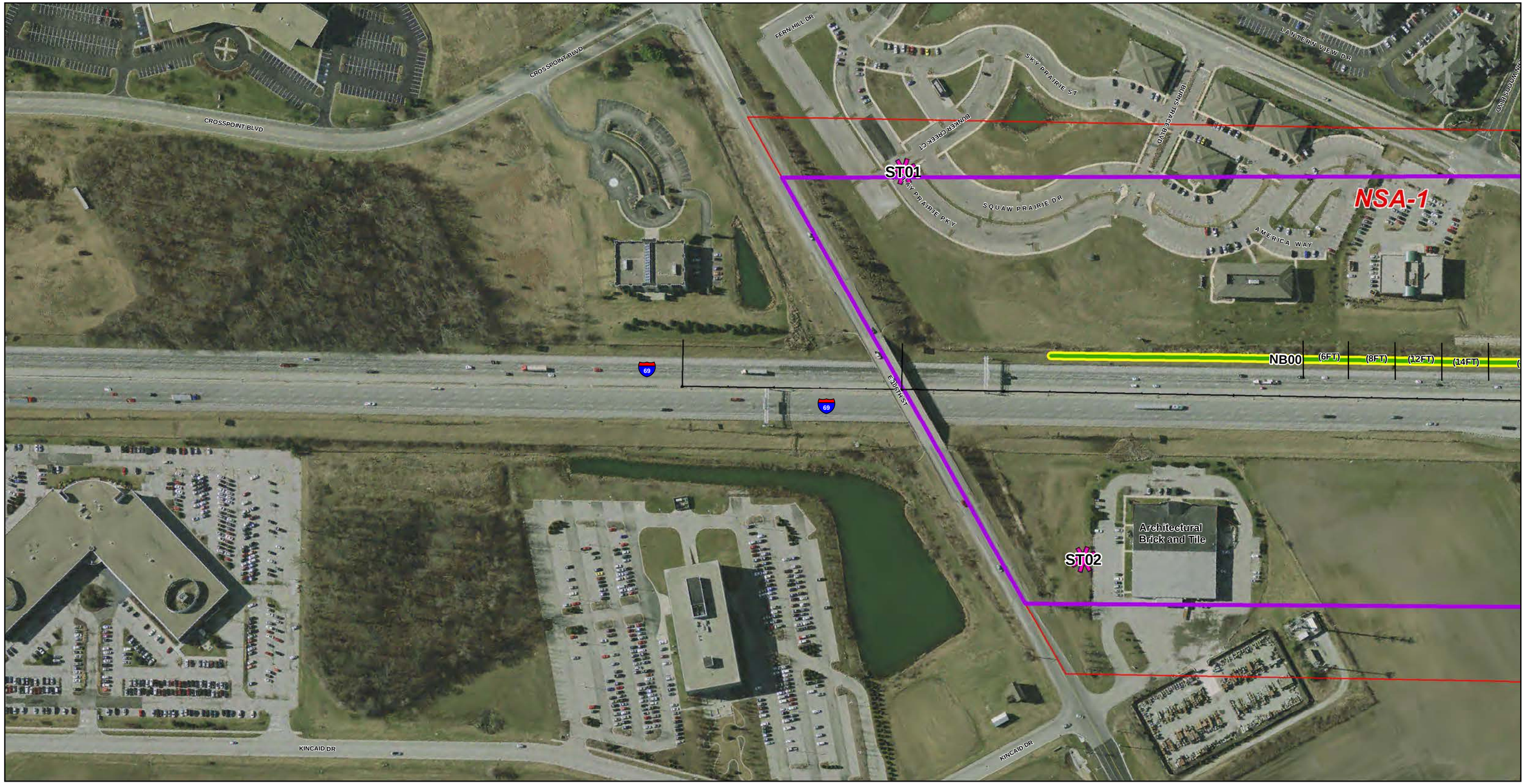

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- Receptors
- Measurement Locations
- Feasible and Cost Effective Noise Barriers
- Analyzed Noise Barriers
- 500' Study Corridor
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- Concrete Barrier

0 125 250 500 Feet

1 inch = 200 feet

Sources:

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

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

Figure 1: Measurement and Modeling Locations

Sheet 1 of 20

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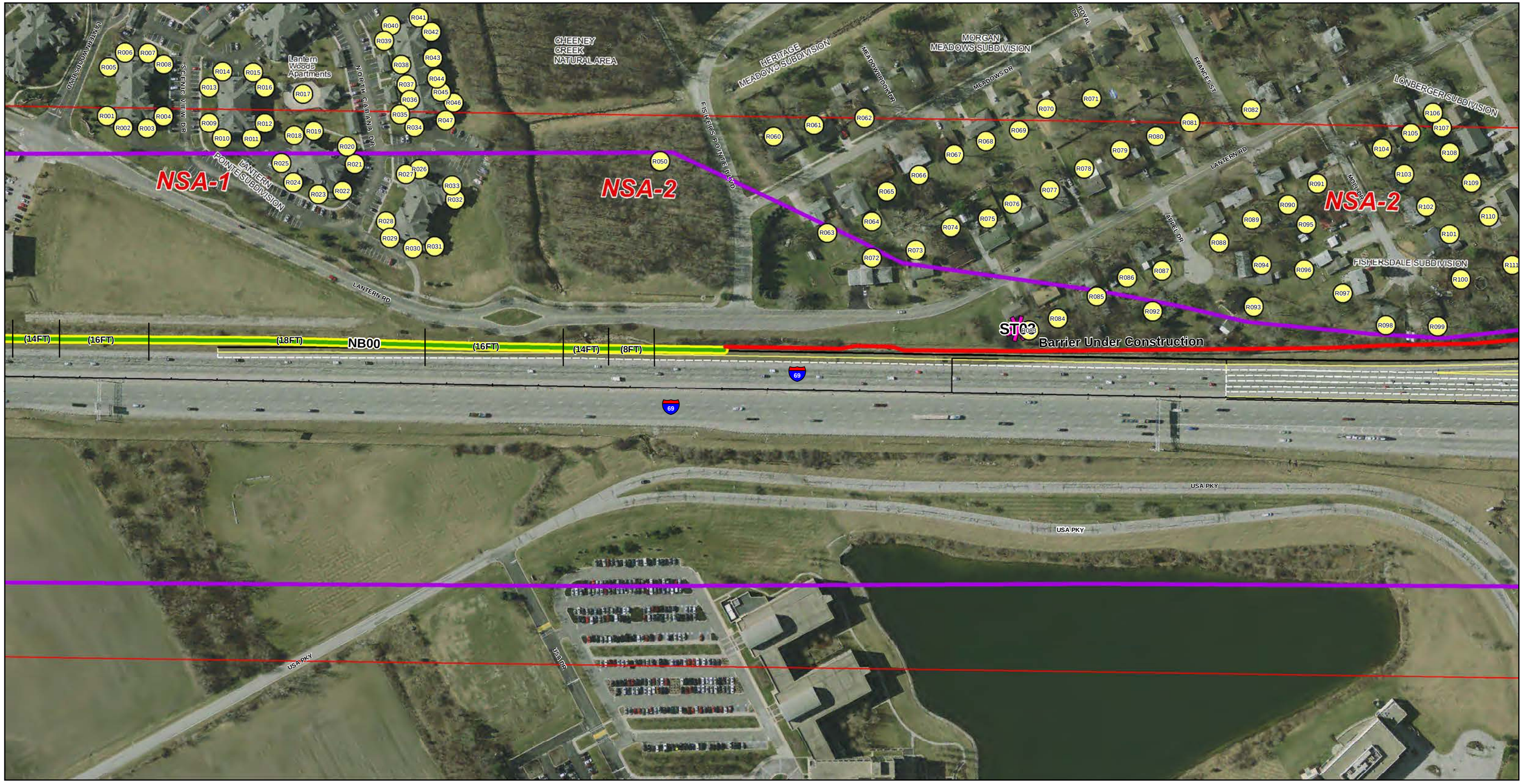

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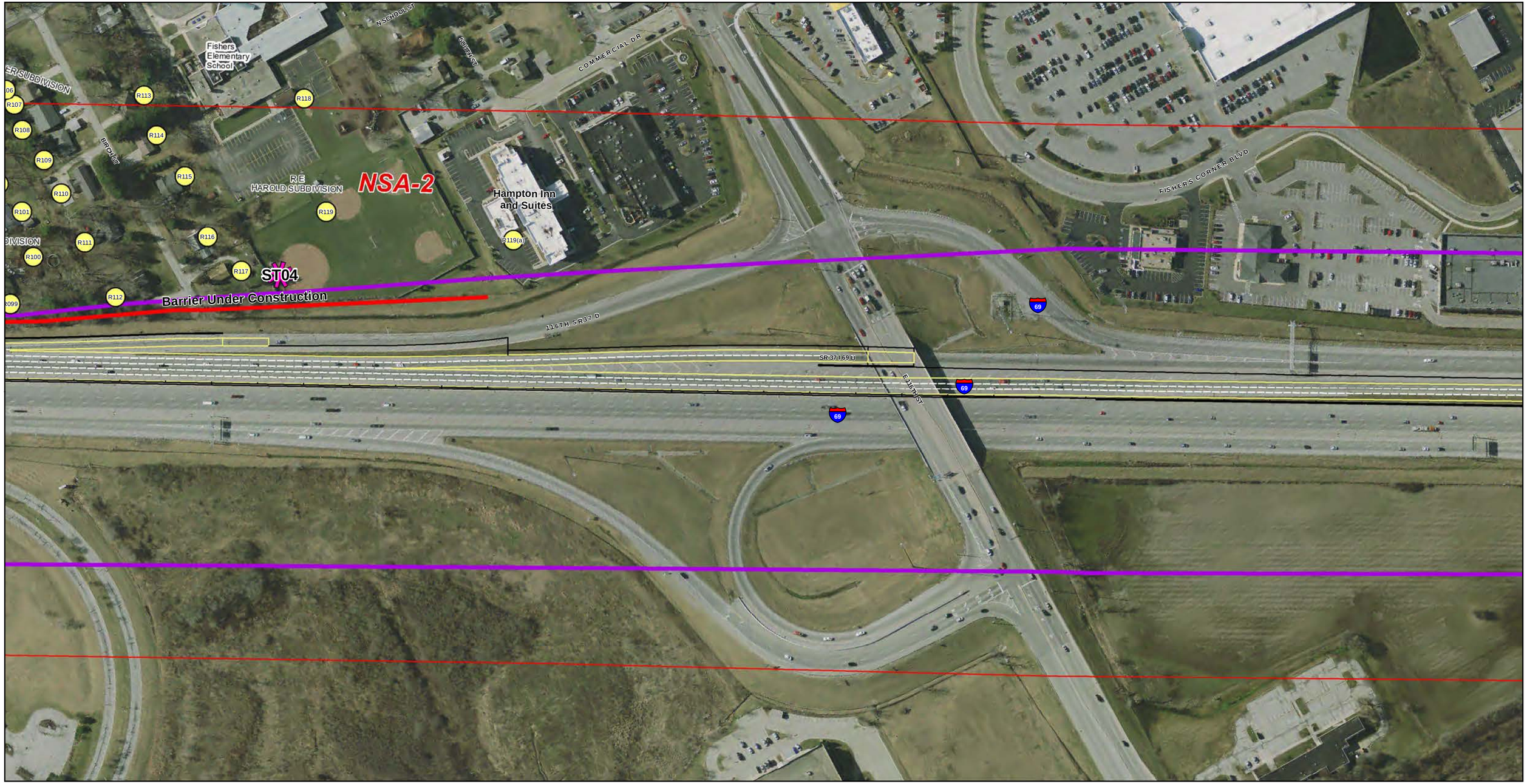

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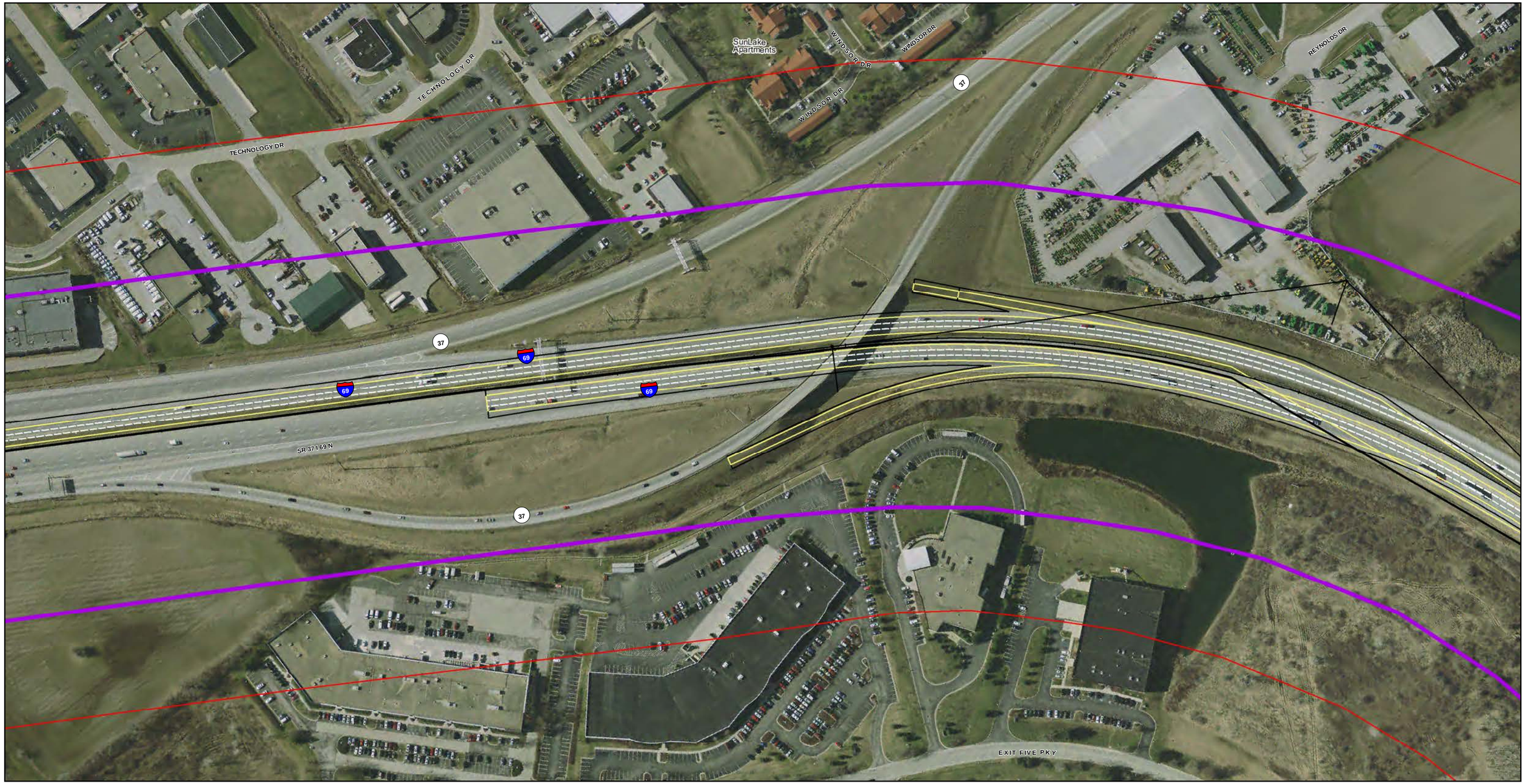

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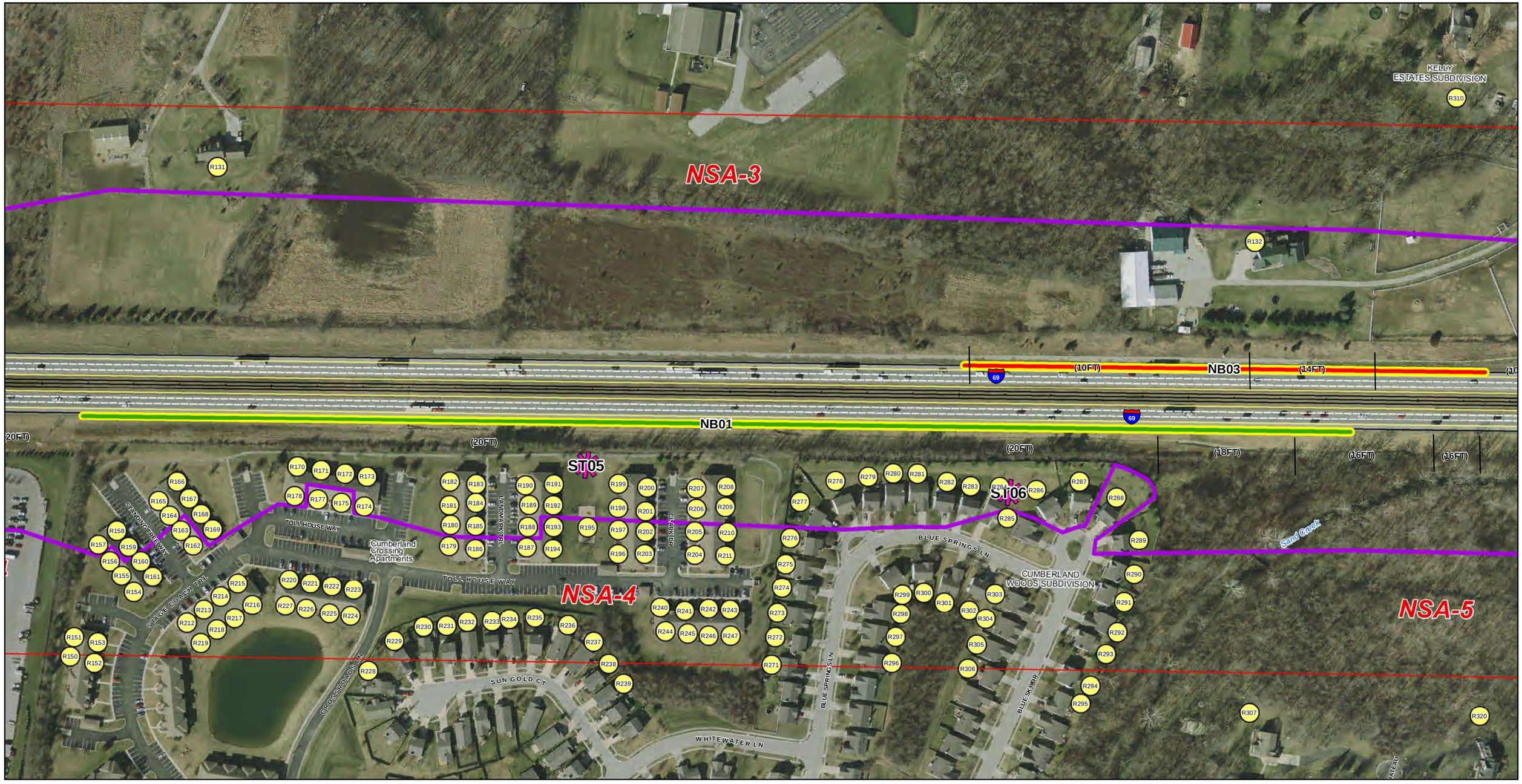

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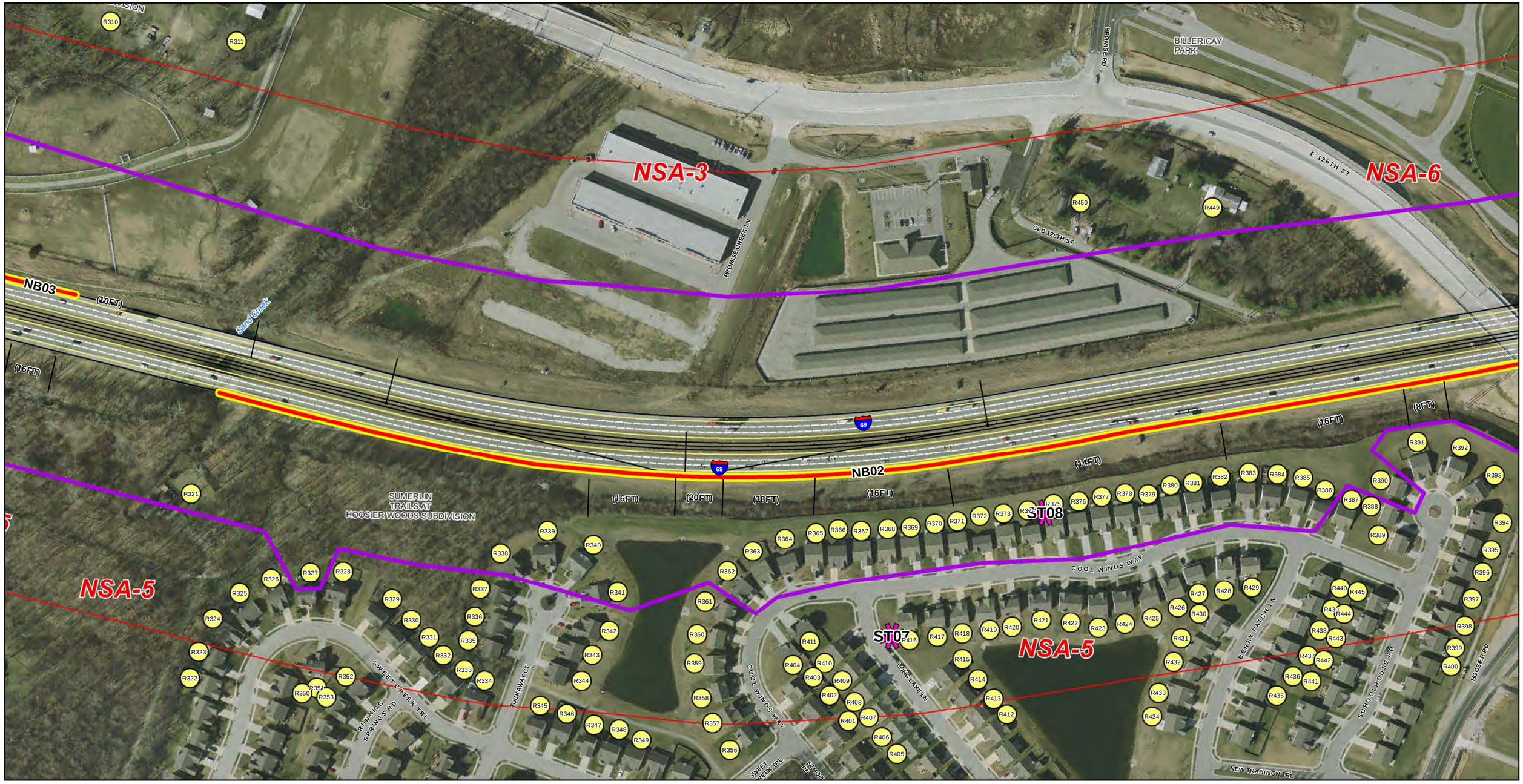

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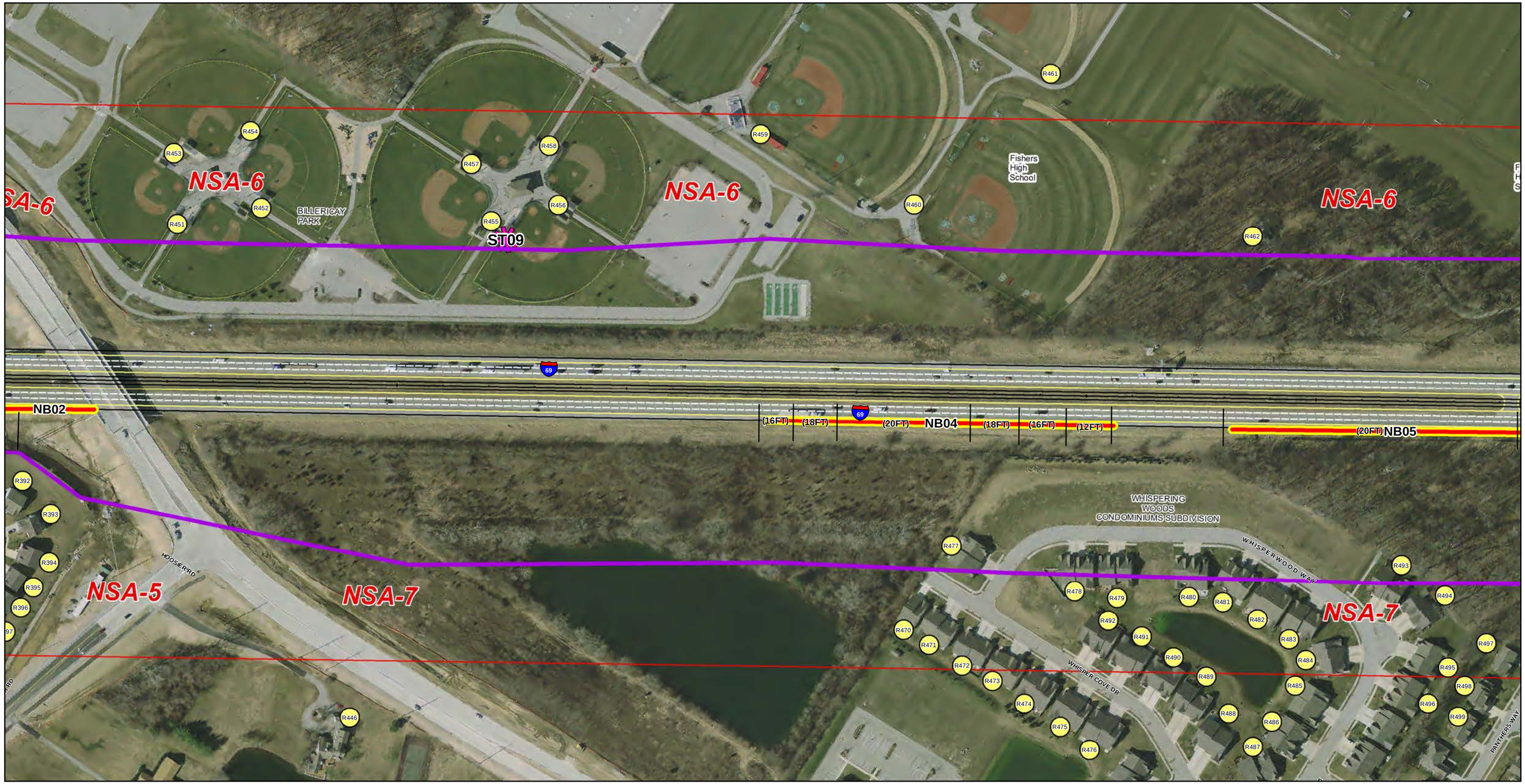

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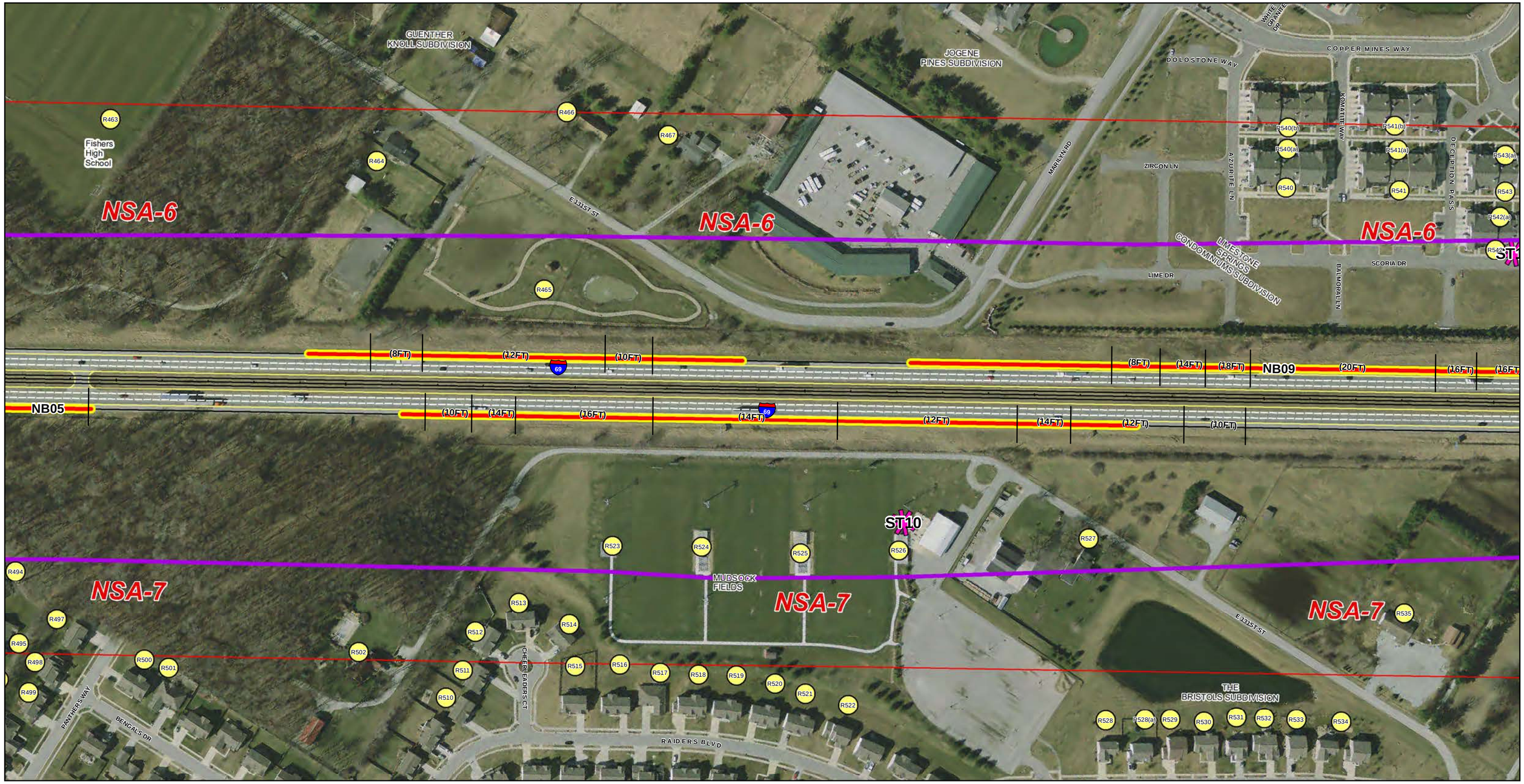

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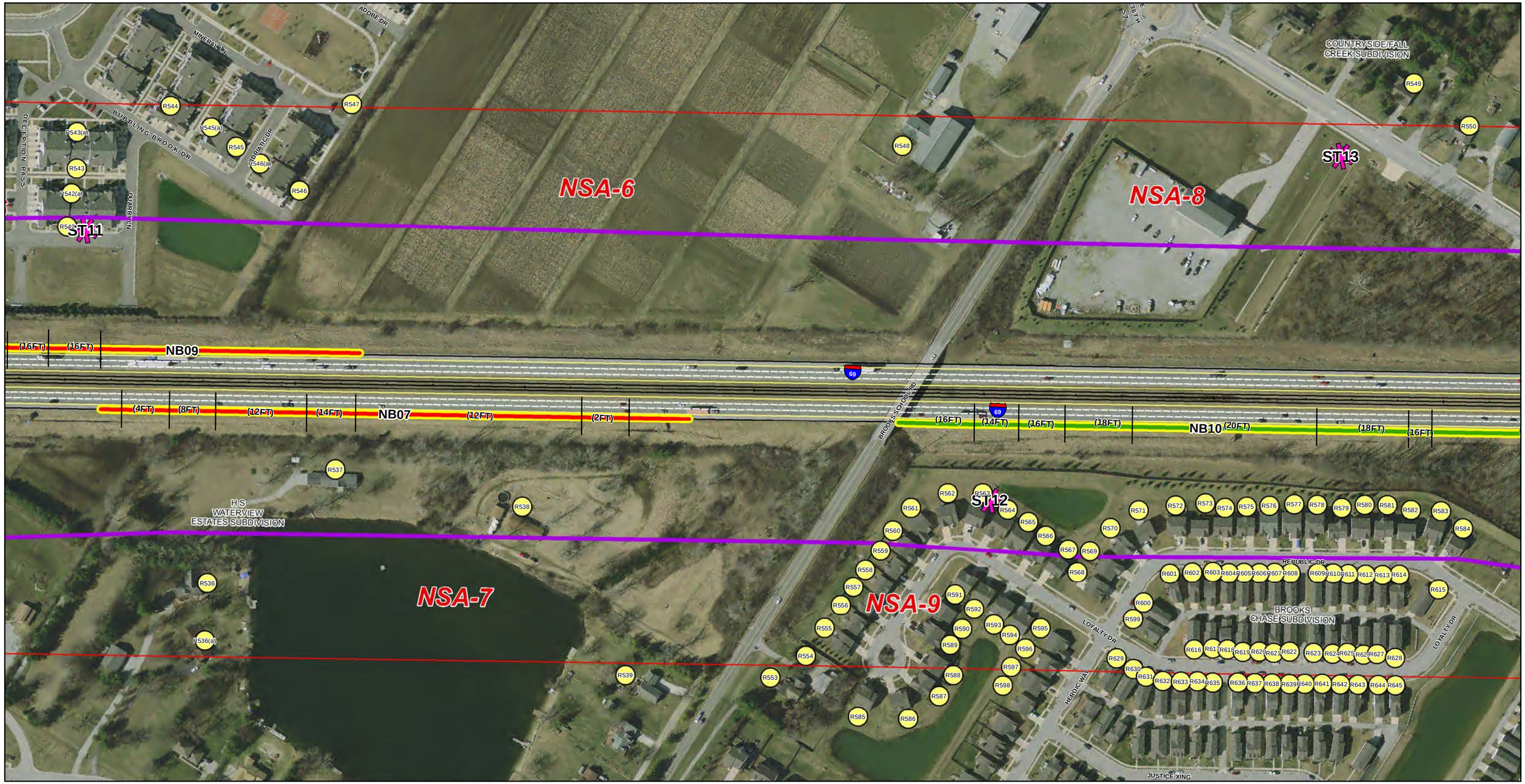

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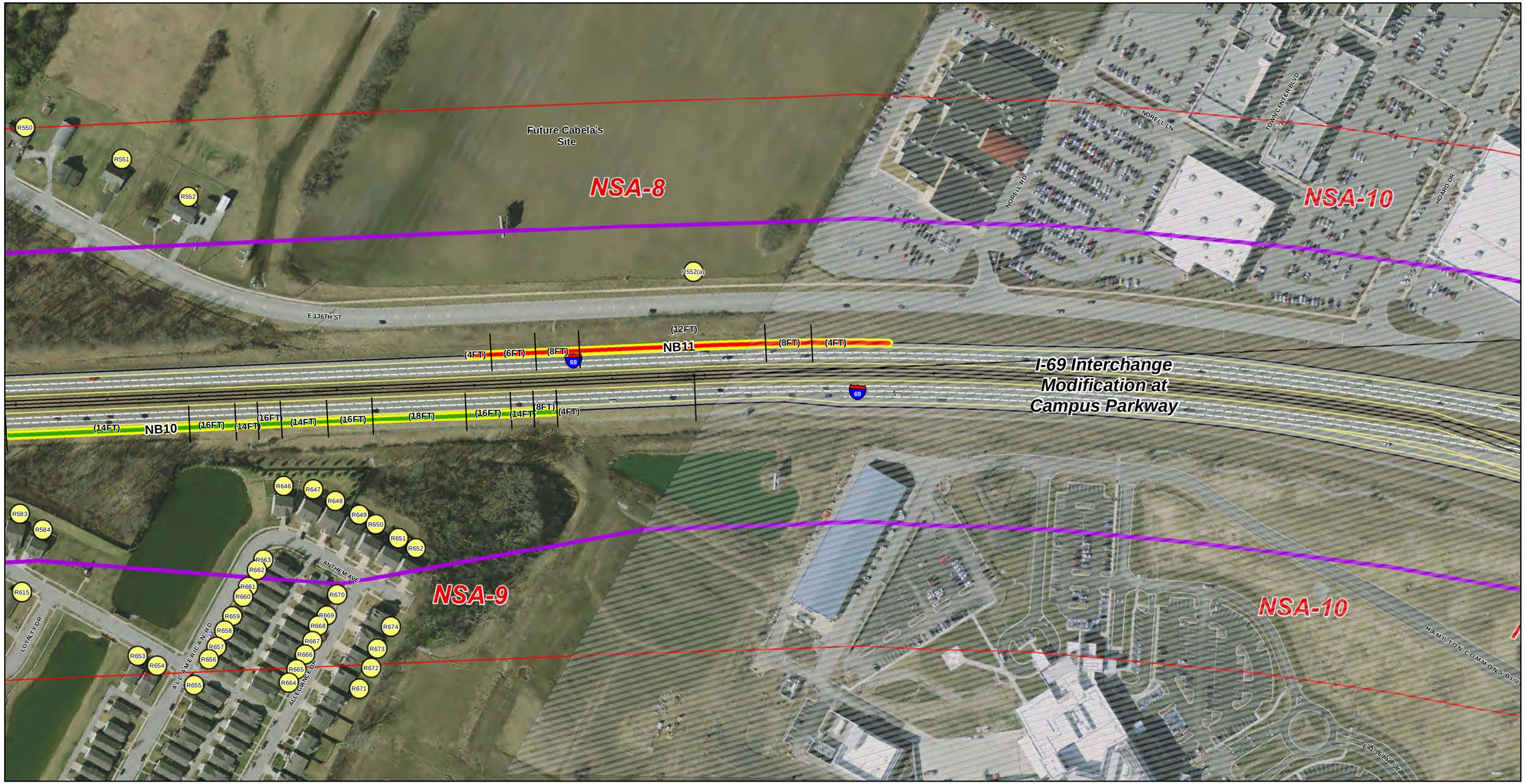

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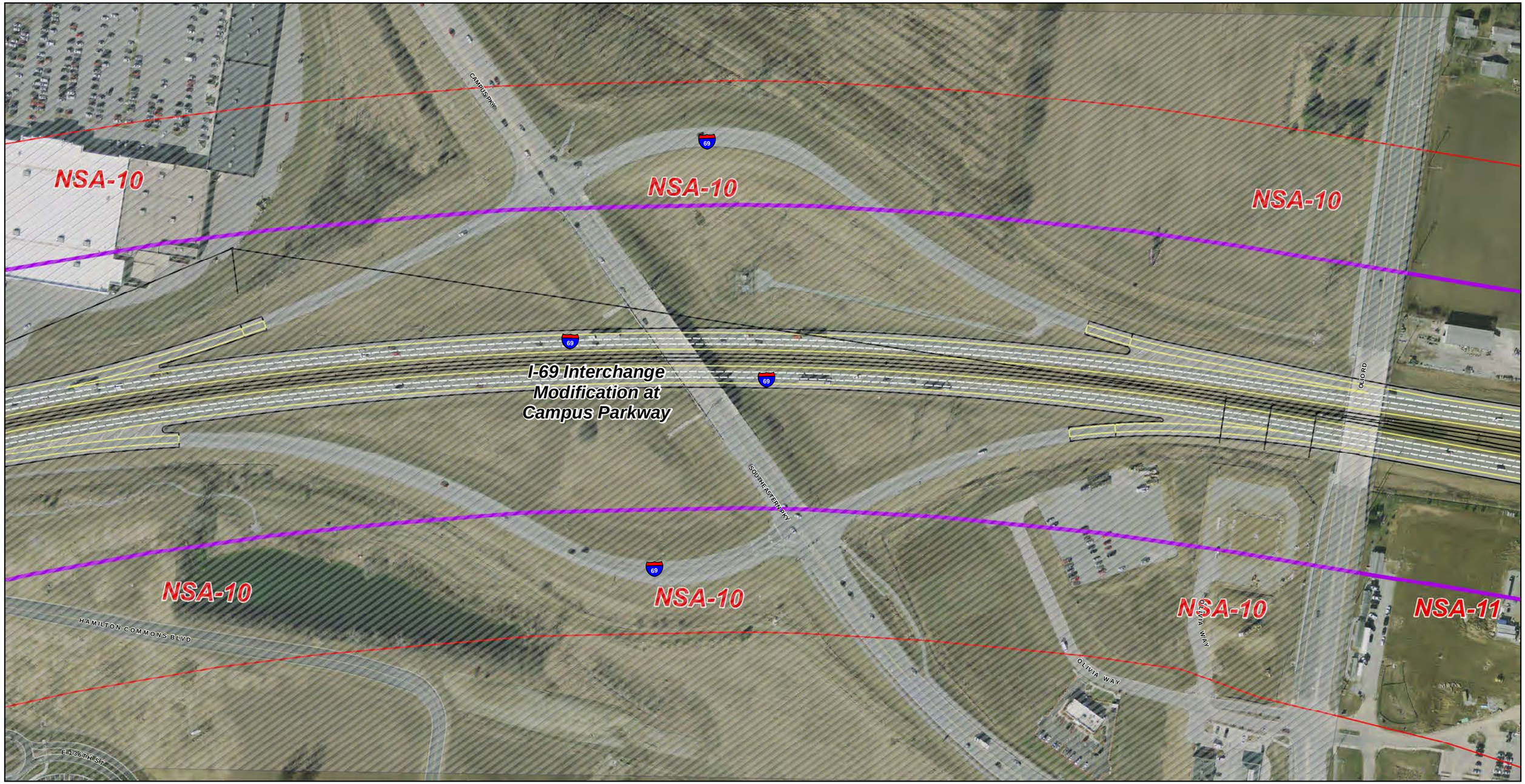

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Receptors
- Measurement Locations
- Feasible and Cost Effective Noise Barriers
- Analyzed Noise Barriers
- 500' Study Corridor
- 66dBA Contour Line at 5' Above Ground Surface
- Pavement Edge
- Pavement Lanes
- Shoulders Paved
- Concrete Barrier

N

0 125 250 500 Feet

1 inch = 200 feet

Sources:

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

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

Figure 1: Measurement and Modeling Locations

Sheet 12 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

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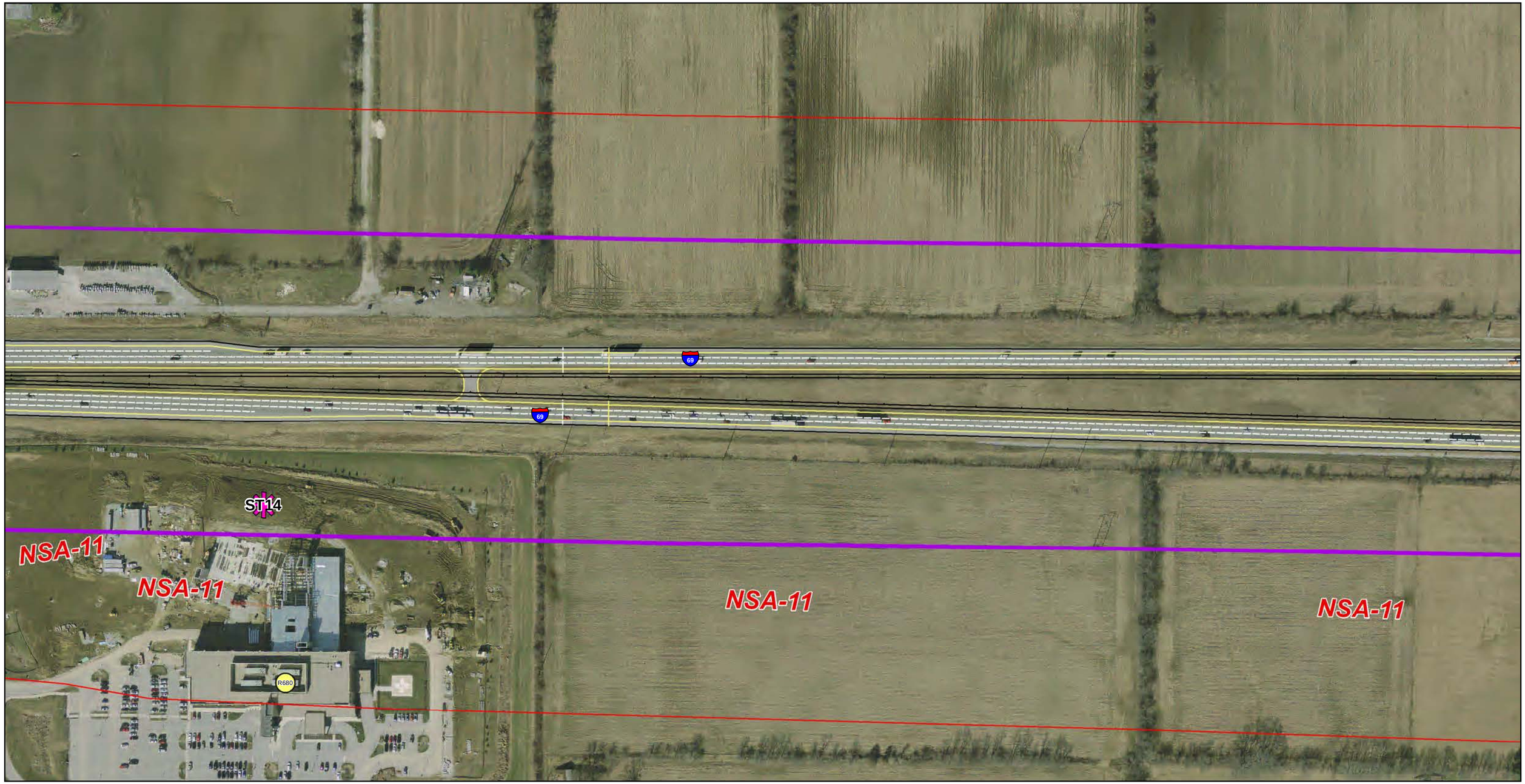
INDIANA DEPARTMENT OF TRANSPORTATION INDOT



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

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Figure 1: Measurement and Modeling Locations

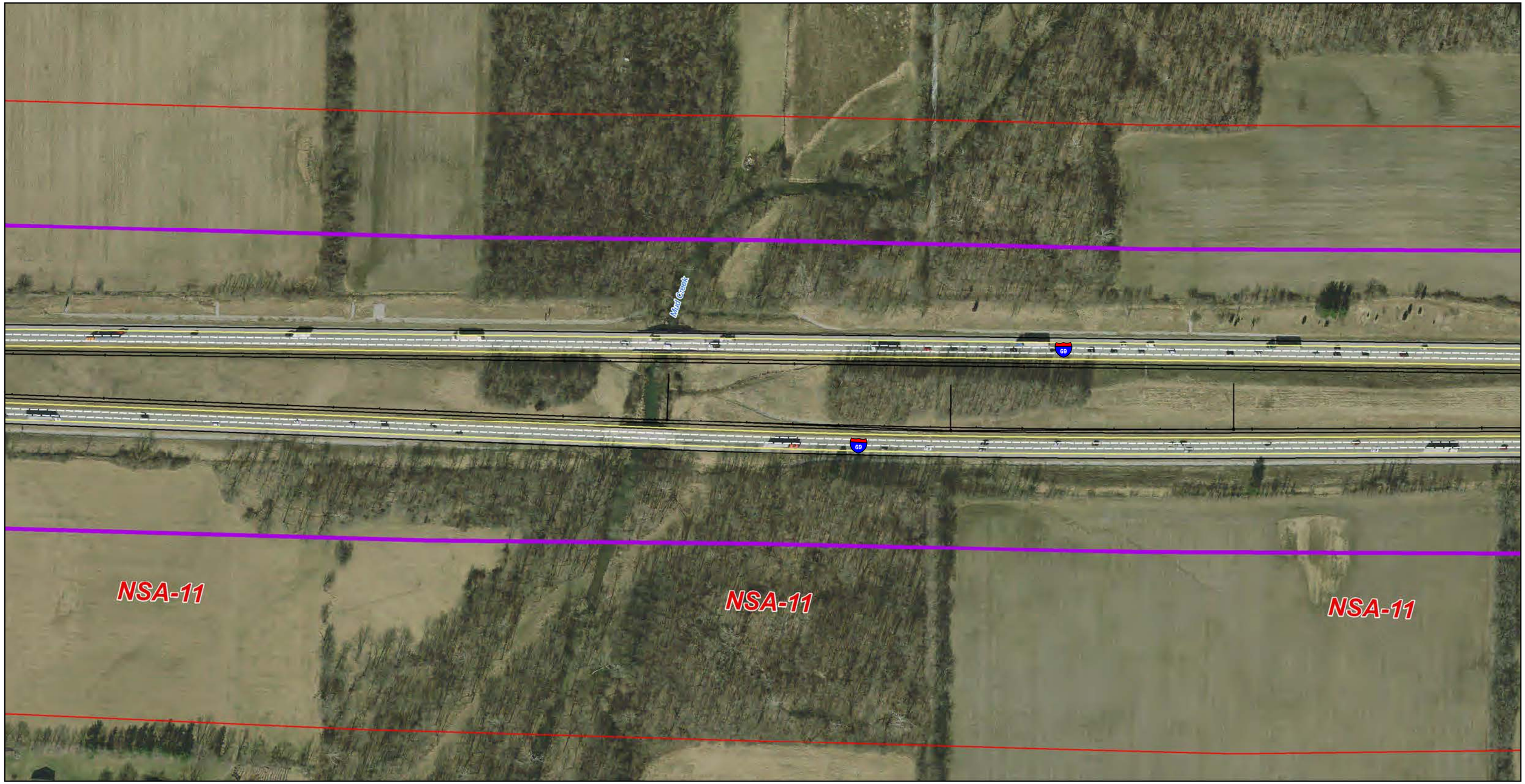
Sheet 13 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

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- Receptors
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Figure 1: Measurement and Modeling Locations

Sheet 14 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

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ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Receptors
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Figure 1: Measurement and Modeling Locations

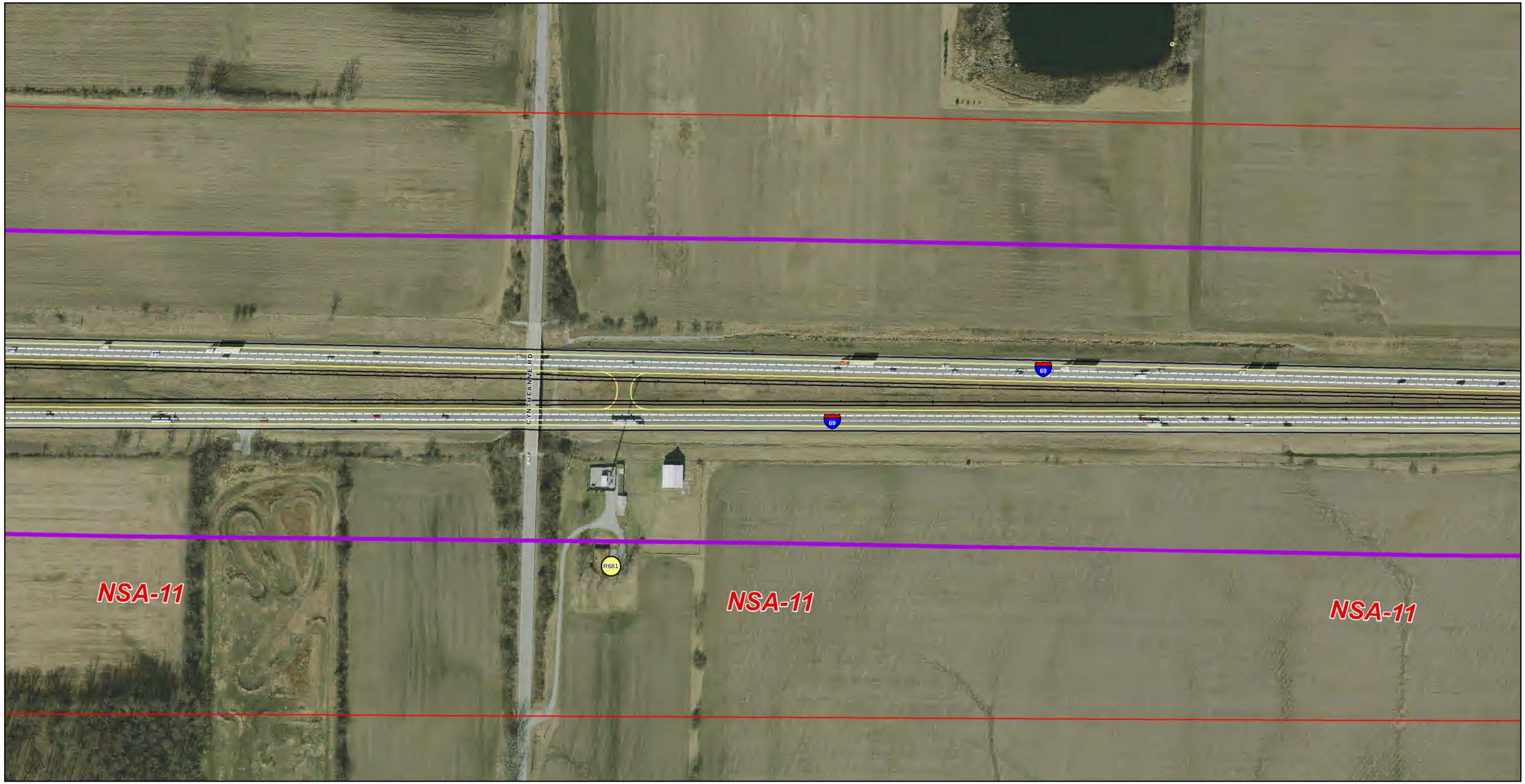
Sheet 15 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Receptors
- Measurement Locations
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Figure 1: Measurement and Modeling Locations
Sheet 16 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

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ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

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Figure 1: Measurement and Modeling Locations

Sheet 17 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

PARSONS

ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

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Figure 1: Measurement and Modeling Locations

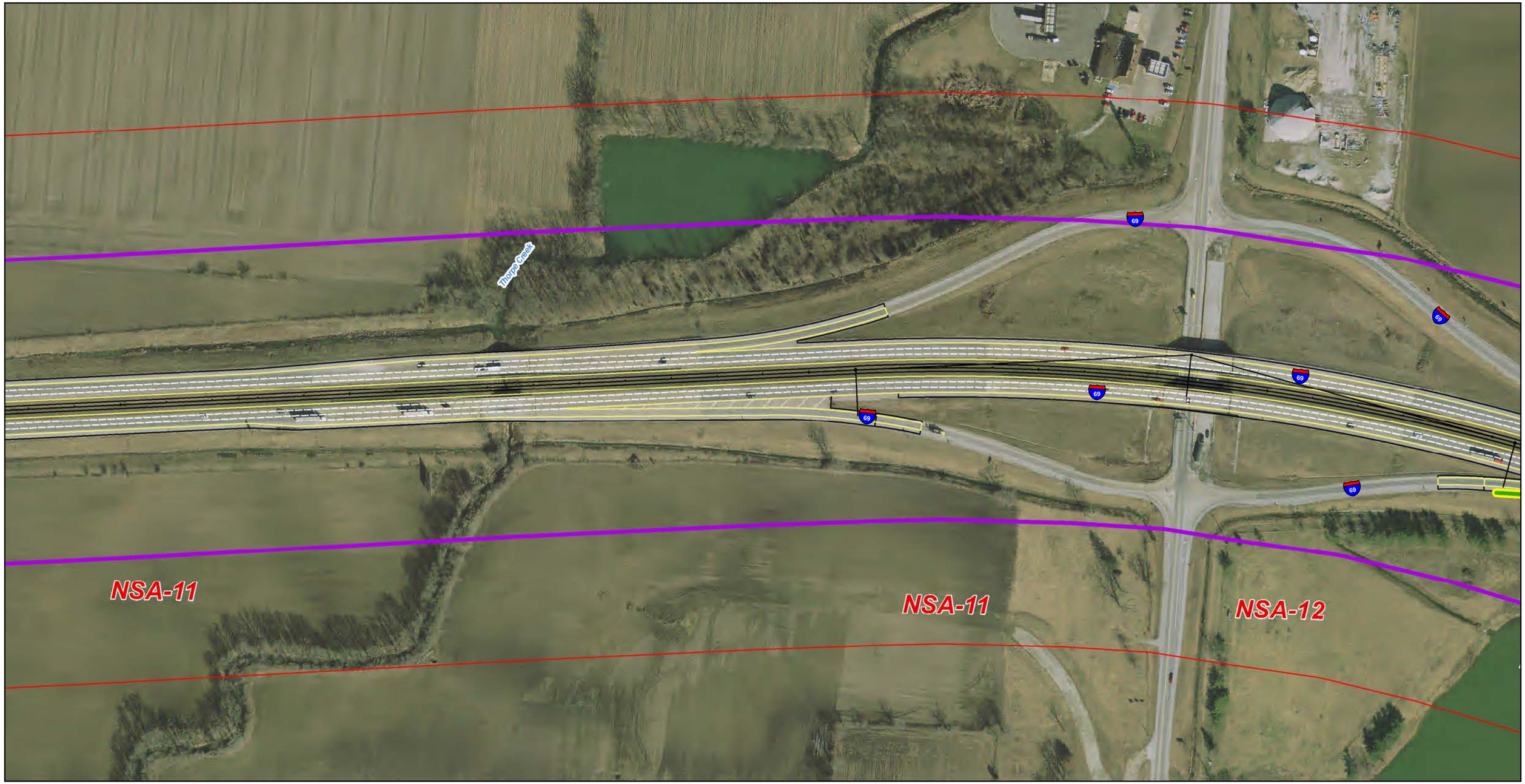
Sheet 18 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

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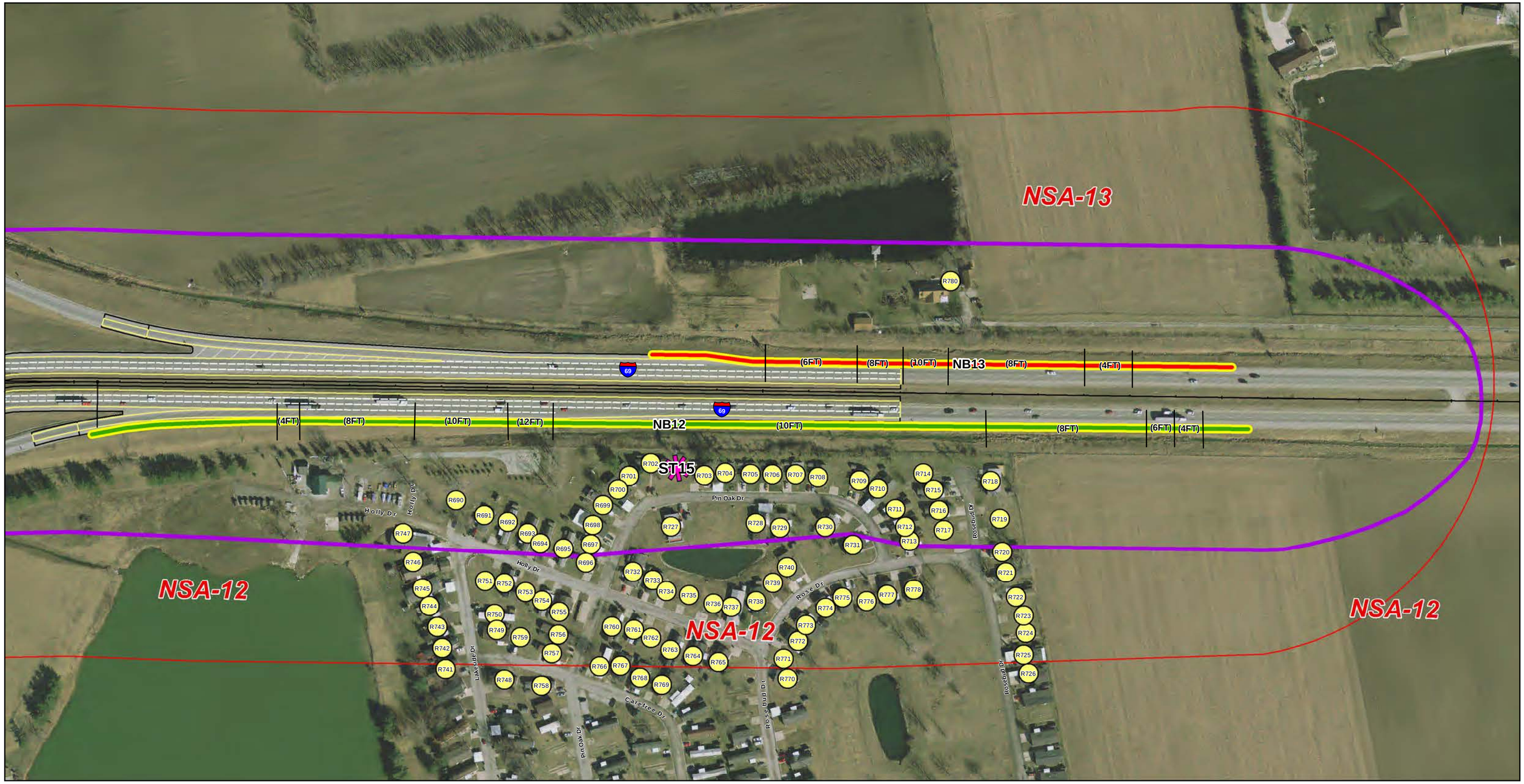
Figure 1: Measurement and Modeling Locations
Sheet 19 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

PARSONS



ESRI Map Projection: NAD 1983 StatePlane Indiana East FIPS 1301 Feet Datum: NAD 1983

Legend

- Receptors
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Figure 1: Measurement and Modeling Locations

Sheet 20 of 20

Des. 1383332, 1383336

Date: 9/22/2014

Created By: WCK

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Appendix B
Identification of Receptors

Table B Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R001	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R001 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R002	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R002 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R003	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R003 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R004	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R004 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R005	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R005 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R006	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R006 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R007	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R007 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R008	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R008 Second Floor	8525 Scenic View Dr	Fishers	46038	Residential	B	67	1
R009	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R009 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R010	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R010 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R011	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R011 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R012	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R012 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R013	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R013 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R014	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R014 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R015	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R015 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R016	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R016 Second Floor	8524 Scenic View Dr	Fishers	46038	Residential	B	67	1
R017	0	0	0	Residential	B	67	1
R017 Second Floor	0	0	0	Residential	B	67	1
R018	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R018 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R019	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R019 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R020	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R020 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R021	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R021 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R022	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R022 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R023	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R023 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R024	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R024 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R025	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R025 Second Floor	8594 Scenic View Dr	Fishers	46038	Residential	B	67	1
R026	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R026 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R027	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R027 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R028	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R028 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R029	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R029 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R030	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R030 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R031	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R031 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R032	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R032 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R033	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R033 Second Floor	8612 North Cabana Dr	Fishers	46038	Residential	B	67	1
R034	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R034 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R035	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R035 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R036	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R036 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R037	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R037 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R038	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R038 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R039	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R039 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R040	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R040 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R041	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R041 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R042	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R042 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R043	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R043 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R044	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R044 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R045	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R045 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R046	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R046 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R047	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R047 Second Floor	8572 North Cabana Dr	Fishers	46038	Residential	B	67	1
R060	11101 MEADOWS DR	Fishers	46038	Residential	B	67	1
R061	11121 MEADOWS DR	Fishers	46038	Residential	B	67	1
R062	8699 MEADOWBROOK DR	Fishers	46038	Residential	B	67	1
R063	11100 MEADOWS DR	Fishers	46038	Residential	B	67	1
R064	11120 MEADOWS DR	Fishers	46038	Residential	B	67	1
R065	11138 MEADOWS DR	Fishers	46038	Residential	B	67	1
R066	11156 MEADOWS DR	Fishers	46038	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R067	11178 MEADOWS DR	Fishers	46038	Residential	B	67	1
R068	11196 MEADOWS DR	Fishers	46038	Residential	B	67	1
R069	11200 MEADOWS DR	Fishers	46038	Residential	B	67	1
R070	11224 MEADOWS DR	Fishers	46038	Residential	B	67	1
R071	11248 MEADOWS DR	Fishers	46038	Residential	B	67	1
R072	11101 LANTERN RD	Fishers	46038	Residential	B	67	1
R073	11123 LANTERN RD	Fishers	46038	Residential	B	67	1
R074	11145 LANTERN RD	Fishers	46038	Residential	B	67	1
R075	11167 LANTERN RD	Fishers	46038	Residential	B	67	1
R076	11199 LANTERN RD	Fishers	46038	Residential	B	67	1
R077	11201 LANTERN RD	Fishers	46038	Residential	B	67	1
R078	11225 LANTERN RD	Fishers	46038	Residential	B	67	1
R079	11249 LANTERN RD	Fishers	46038	Residential	B	67	1
R080	11277 LANTERN RD	Fishers	46038	Residential	B	67	1
R081	11293 LANTERN RD	Fishers	46038	Residential	B	67	1
R082	11301 LANTERN RD	Fishers	46038	Residential	B	67	1
R083	11144 LANTERN RD	Fishers	46038	Residential	B	67	1
R084	11166 LANTERN RD	Fishers	46038	Residential	B	67	1
R085	11198 LANTERN RD	Fishers	46038	Residential	B	67	1
R086	11202 LANTERN RD	Fishers	46038	Residential	B	67	1
R087	11234 LANTERN RD	Fishers	46038	Residential	B	67	1
R088	8800 APPEL DR	Fishers	46038	Residential	B	67	1
R089	11284 LANTERN RD	Fishers	46038	Residential	B	67	1
R090	11296 LANTERN RD	Fishers	46038	Residential	B	67	1
R091	8807 MOLL DR	Fishers	46038	Residential	B	67	1
R092	8827 APPEL ST	Fishers	46038	Residential	B	67	1
R093	8836 APPEL DR	Fishers	46038	Residential	B	67	1
R094	8818 APPEL DR	Fishers	46038	Residential	B	67	1
R095	8829 MOLL DR	Fishers	46038	Residential	B	67	1
R096	8839 MOLL DR	Fishers	46038	Residential	B	67	1
R097	8865 MOLL DR	Fishers	46038	Residential	B	67	1
R098	8883 MOLL DR	Fishers	46038	Residential	B	67	1
R099	8899 MOLL DR	Fishers	46038	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R100	8874 MOLL DR	Fishers	46038	Residential	B	67	1
R101	8856 MOLL DR	Fishers	46038	Residential	B	67	1
R102	8838 MOLL DR	Fishers	46038	Residential	B	67	1
R103	8820 MOLL DR	Fishers	46038	Residential	B	67	1
R104	8802 MOLL DR	Fishers	46038	Residential	B	67	1
R105	11324 LANTERN RD	Fishers	46038	Residential	B	67	1
R106	11336 LANTERN RD	Fishers	46038	Residential	B	67	1
R107	8801 BIRCH ST	Fishers	46038	Residential	B	67	1
R108	8813 BIRCH ST	Fishers	46038	Residential	B	67	1
R109	8831 BIRCH ST	Fishers	46038	Residential	B	67	1
R110	8849 BIRCH ST	Fishers	46038	Residential	B	67	1
R111	8885 BIRCH ST	Fishers	46038	Residential	B	67	1
R112	8927 BIRCH ST	Fishers	46038	Residential	B	67	1
R113	8842 BIRCH ST	Fishers	46038	Residential	B	67	1
R114	8858 BIRCH ST	Fishers	46038	Residential	B	67	1
R115	8900 BIRCH ST	Fishers	46038	Residential	B	67	1
R116	8918 BIRCH ST	Fishers	46038	Residential	B	67	1
R117	8936 BIRCH ST	Fishers	46038	Residential	B	67	1
R118	11442 LANTERN RD	Fishers	46038	Playground	C	67	1
R119	11442 LANTERN RD	Fishers	46038	Sport Area	C	67	1
R119(a)	11575 COMMERCIAL DR	Fishers	46038	Hotel	E	72	1
R130	10049 E 126TH ST	Fishers	46038	Residential	B	67	1
R131	10097 E 126TH ST	Fishers	46038	Residential	B	67	1
R132	10557 E 126TH ST	Fishers	46038	Residential	B	67	1
R150	12244 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R150 Second Floor	12242 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R151	12256 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R151 Second Floor	12254 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R152	12248 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R152 Second Floor	12246 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R153	12252 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R153 Second Floor	12250 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R154	10185 STANDING TREE WAY	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R154 Second Floor	10183 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R155	10175 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R155 Second Floor	10177 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R156	10167 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R156 Second Floor	10169 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R157	10161STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R157 Second Floor	10159 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R158	10157 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R158 Second Floor	10155 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R159	10163 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R159 Second Floor	10165 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R160	10171 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R160 Second Floor	10173 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R161	10179 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R161 Second Floor	10181 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R162	10154 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R162 Second Floor	10156 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R163	10164 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R163 Second Floor	10162 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R164	10172 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R164 Second Floor	10170 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R165	10180 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R165 Second Floor	10178 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R166	10184 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R166 Second Floor	10182 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R167	10176 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R167 Second Floor	10174 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R168	10168 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R168 Second Floor	10166 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R169	10160 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R169 Second Floor	10158 STANDING TREE WAY	Fishers	46037	Residential	B	67	2
R170	10232 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R170 Second Floor	10234 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R171	10238 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R171 Second Floor	10240 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R172	10246 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R172 Second Floor	10248 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R173	10254 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R173 Second Floor	10256 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R174	10262 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R174 Second Floor	10260 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R175	10252 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R175 Second Floor	10254 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R177	10244 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R177 Second Floor	10246 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R178	10236 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R178 Second Floor	10238 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R179	12326 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R179 Second Floor	12322 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R180	12342 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R180 Second Floor	12338 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R181	12358 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R181 Second Floor	12354 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R182	12374 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R182 Second Floor	12370 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R183	12382 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R183 Second Floor	12378 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R184	12366 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R184 Second Floor	12362 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R185	12350 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R185 Second Floor	12346 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R186	12334 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R186 Second Floor	12330 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R187	12327 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R187 Second Floor	12323 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R188	12343 LANDMARK TRL	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R188 Second Floor	12339 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R189	12359 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R189 Second Floor	12355 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R190	12375 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R190 Second Floor	12371 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R191	12383 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R191 Second Floor	12379 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R192	12367 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R192 Second Floor	12363 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R193	12351 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R193 Second Floor	12347 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R194	12335 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R194 Second Floor	12331 LANDMARK TRL	Fishers	46037	Residential	B	67	2
R195	10225 STAGE COACH TRL	Fishers	46037	Playground	C	67	0
R196	12328 CLARK DR	Fishers	46037	Residential	B	67	2
R196 Second Floor	12324 CLARK DR	Fishers	46037	Residential	B	67	2
R197	12344 CLARKS DR	Fishers	46037	Residential	B	67	2
R197 Second Floor	12340 CLARKS DR	Fishers	46037	Residential	B	67	2
R198	12360 CLARKS DR	Fishers	46037	Residential	B	67	2
R198 Second Floor	12356 CLARKS DR	Fishers	46037	Residential	B	67	2
R199	12376 CLARKS DR	Fishers	46037	Residential	B	67	2
R199 Second Floor	12372 CLARKS DR	Fishers	46037	Residential	B	67	2
R200	12384 CLARKS DR	Fishers	46037	Residential	B	67	2
R200 Second Floor	12380 CLARKS DR	Fishers	46037	Residential	B	67	2
R201	12368 CLARKS DR	Fishers	46037	Residential	B	67	2
R201 Second Floor	12364 CLARKS DR	Fishers	46037	Residential	B	67	2
R202	12352 CLARKS DR	Fishers	46037	Residential	B	67	2
R202 Second Floor	12348 CLARKS DR	Fishers	46037	Residential	B	67	2
R203	12336 CLARKS DR	Fishers	46037	Residential	B	67	2
R203 Second Floor	12332 CLARKS DR	Fishers	46037	Residential	B	67	2
R204	12329 CLARKS DR	Fishers	46037	Residential	B	67	2
R204 Second Floor	12325 CLARKS DR	Fishers	46037	Residential	B	67	2
R205	12345 CLARKS DR	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R205 Second Floor	12341 CLARKS DR	Fishers	46037	Residential	B	67	2
R206	12361 CLARKS DR	Fishers	46037	Residential	B	67	2
R206 Second Floor	12357 CLARKS DR	Fishers	46037	Residential	B	67	2
R207	12377 CLARKS DR	Fishers	46037	Residential	B	67	2
R207 Second Floor	12373 CLARKS DR	Fishers	46037	Residential	B	67	2
R208	12385 CLARKS DR	Fishers	46037	Residential	B	67	2
R208 Second Floor	12381 CLARKS DR	Fishers	46037	Residential	B	67	2
R209	12369 CLARKS DR	Fishers	46037	Residential	B	67	2
R209 Second Floor	12365 CLARKS DR	Fishers	46037	Residential	B	67	2
R210	12353 CLARKS DR	Fishers	46037	Residential	B	67	2
R210 Second Floor	12349 CLARKS DR	Fishers	46037	Residential	B	67	2
R211	12337 CLARKS DR	Fishers	46037	Residential	B	67	2
R211 Second Floor	12333 CLARKS DR	Fishers	46037	Residential	B	67	2
R212	12267 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R212 Second Floor	12269 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R213	12277 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R213 Second Floor	12275 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R214	12285 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R214 Second Floor	12283 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R215	12293 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R215 Second Floor	12291 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R216	12297 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R216 Second Floor	12295 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R217	12289 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R217 Second Floor	12287 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R218	12281 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R218 Second Floor	12279 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R219	12273 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R219 Second Floor	12271 STAGE COACH TRL	Fishers	46037	Residential	B	67	2
R220	10233 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R220 Second Floor	10235 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R221	10241 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R221 Second Floor	10243 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R222	10249 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R222 Second Floor	10251 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R223	10257 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R223 Second Floor	10259 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R224	10261 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R224 Second Floor	10263 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R225	10253 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R225 Second Floor	10255 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R226	10245 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R226 Second Floor	10247 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R227	10237 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R227 Second Floor	10239 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R228	10272 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R229	10282 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R230	10292 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R231	10302 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R232	10312 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R233	10322 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R234	10332 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R235	10342 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R236	10352 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R237	10362 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R238	10372 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R239	10382 SUN GOLD CT	Fishers	46037	Residential	B	67	1
R240	10393 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R240 Second Floor	10395 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R241	10401 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R241 Second Floor	10403 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R242	10409 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R242 Seconf Floor	10411 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R243	10417 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R243 Second Floor	10423 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R244	10419 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R244 Second Floor	10421 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R245	10413 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R245 Second Floor	10425 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R246	10405 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R246 Second Floor	10407 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R247	10397 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R247 Second Floor	10427 TOLL HOUSE WAY	Fishers	46037	Residential	B	67	2
R271	12282 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R272	12294 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R273	12306 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R274	12318 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R275	12330 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R276	12342 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R277	12354 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R278	10454 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R279	10466 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R280	10478 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R281	10490 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R282	10502 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R283	10514 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R284	10526 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R285	12352 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R286	12364 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R287	12376 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R288	12375 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R289	12363 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R290	12351 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R291	12339 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R292	12327 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R293	12315 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R294	12303 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R295	12291 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R296	12293 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R297	12305 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R298	12317 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R299	10477 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R300	10501 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R301	10513 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R302	10537 BLUE SPRINGS LN	Fishers	46037	Residential	B	67	1
R303	12328 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R304	12316 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R305	12304 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R306	12292 BLUE SKY DR	Fishers	46037	Residential	B	67	1
R310	10523 E 126TH ST	Fishers	46037	Residential	B	67	1
R311	10543 E 126TH ST	Fishers	46037	Residential	B	67	1
R449	11070 E 126TH ST	Fishers	46038	Residential	B	67	1
R450	11020 126TH ST	Fishers	46038	Residential	B	67	1
R307	12365 CHATEAU CT	Fishers	46037	Residential	B	67	1
R320	12362 CHATEAU CT	Fishers	46037	Residential	B	67	1
R321	10754 E 121ST ST	Fishers	46037	Residential	B	67	1
R322	12290 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R323	12310 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R324	12320 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R325	12330 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R326	10778 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R327	10780 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R328	10784 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R329	10790 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R330	10798 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R331	10802 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R332	10816 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R333	10830 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R334	10850 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R335	12336 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R336	12352 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R337	12368 TUCKAWAY CT	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R338	12384 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R339	12400 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R340	12399 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R341	12383 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R342	12367 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R343	12351 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R344	12335 TUCKAWAY CT	Fishers	46037	Residential	B	67	1
R345	10880 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R346	10890 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R347	10900 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R348	10910 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R349	10920 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R350	12309 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R351	10789 SWEET CREEK TRL	Fishers	46037	Residential	B	67	1
R352	12322 RUNNING SPRINGS RD	Fishers	46037	Residential	B	67	1
R353	12312 RUNNING SPRINGS RD	Fishers	46037	Residential	B	67	1
R356	12322 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R357	12332 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R358	12342 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R359	12352 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R360	12362 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R361	12372 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R362	12382 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R363	12392 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R364	12402 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R365	12412 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R366	12422 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R367	10986 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R368	10996 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R369	11006 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R370	11016 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R371	11026 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R372	11036 COOL WINDS WAY	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R373	11046 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R374	11056 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R375	11066 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R376	11076 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R377	11086 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R378	11096 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R379	11106 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R380	11116 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R381	11126 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R382	11136 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R383	11146 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R384	11156 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R385	11166 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R386	11176 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R387	11186 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R388	12526 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R389	12516 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R390	12536 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R391	12546 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R392	12556 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R393	12545 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R394	12535 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R395	12525 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R396	12515 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R397	12505 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R398	12495 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R399	12485 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R400	12475 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R401	11014 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R403	12353 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R404	12373 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R405	11045 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R406	11035 LONG LAKE LN	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R407	11025 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R408	11015 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R409	11005 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R410	10995 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R411	12383 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R412	11080 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R413	11070 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R414	11060 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R415	11050 LONG LAKE LN	Fishers	46037	Residential	B	67	1
R416	11025 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R417	11035 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R418	11045 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R419	11055 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R420	11065 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R421	11075 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R422	11085 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R423	11095 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R424	11105 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R425	11115 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R426	11125 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R427	11135 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R428	11145 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R429	11155 COOL WINDS WAY	Fishers	46037	Residential	B	67	1
R430	12468 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R431	12458 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R432	12448 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R433	12438 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R434	12428 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R435	12449 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R436	12459 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R437	12469 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R438	12479 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R439	12489 BERRY PATCH LN	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R440	12499 BERRY PATCH LN	Fishers	46037	Residential	B	67	1
R441	12446 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R442	12456 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R443	12466 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R444	12476 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R445	12486 SCHOOLHOUSE RD	Fishers	46037	Residential	B	67	1
R446	12520 HOOSIER RD	Fishers	46037	Residential	B	67	1
R451	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R452	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R453	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R454	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R455	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R456	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R457	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R458	12690 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R459	13000 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R460	13000 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R462	11761 E 131ST ST	Fishers	46038	Residential	B	67	1
R463	13000 PROMISE RD	Fishers	46038	Baseball Field	C	67	1
R464	11787 E 131ST ST	Fishers	46038	Residential	B	67	1
R465	11787 E 131ST ST	Fishers	46038	Dog Park	C	67	2
R466	11842 E 131ST ST	Fishers	46038	Residential	B	67	1
R467	11888 E 131ST ST	Fishers	46038	Residential	B	67	1
R540	13226 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R540(a)	13226 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R540(b)	13266 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R541	13249 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R541(a)	13249 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R541(b)	13289 KOMATITE WAY	Fishers	46038	Residential	B	67	6
R542	13225 DECEPTION PASS	Fishers	46038	Residential	B	67	6
R542(a)	13225 DECEPTION PASS	Fishers	46038	Residential	B	67	6
R543	13255 DECEPTION PASS	Fishers	46038	Residential	B	67	6
R543(a)	13255 DECEPTION PASS	Fishers	46038	Residential	B	67	6

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R544	12175 BUBBLING BROOK DR	Fishers	46038	Residential	B	67	6
R545	12205 BUBBLING BROOK DR	Fishers	46038	Residential	B	67	6
R545(a)	12205 BUBBLING BROOK DR	Fishers	46038	Residential	B	67	6
R546	12235 BUBBLING BROOK DR	Fishers	46038	Residential	B	67	6
R546(a)	12235 BUBBLING BROOK DR	Fishers	46038	Residential	B	67	6
R547	13401 SAHARA DR	Fishers	46038	Park	C	67	1
R548	12491 E 136TH ST	Fishers	46038	Residential	B	67	1
R470	11705 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R471	11709 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R472	11711 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R473	11715 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R474	11717 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R475	11721 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R476	11723 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R477	11727 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R478	11729 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R479	11739 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R480	11741 WHISPER COVE DR	Fishers	46037	Residential	B	67	2
R481	11698 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R482	11702 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R483	11719 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R484	11721 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R485	11725 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R486	11727 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R487	11737 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R488	11739 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R489	11743 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R490	11745 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R491	11747 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R492	11749 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R493	11753 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R494	11755 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2
R495	12822 WHISPERWOOD WAY	Fishers	46037	Residential	B	67	2

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R496	12824 PANTHERS WAY	Fishers	46037	Residential	B	67	2
R497	12814 PANTHERS WAY	Fishers	46037	Residential	B	67	1
R498	12804 PANTHERS WAY	Fishers	46037	Residential	B	67	1
R499	11796 BENGALS DR	Fishers	46037	Residential	B	67	1
R500	11816 BENGALS DR	Fishers	46037	Residential	B	67	1
R501	11981 E 131ST ST	Fishers	46037	Residential	B	67	1
R502	12864 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R510	12884 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R511	12904 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R512	12924 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R513	12925 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R514	12012 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R515	12022 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R516	12032 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R517	12042 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R518	12052 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R519	12062 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R520	12072 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R521	12082 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R522	12160 PACKERS AVE	Fishers	46037	Residential	B	67	1
R523	12160 PACKERS AVE	Fishers	46037	Football Fields	C	67	1
R524	12160 PACKERS AVE	Fishers	46037	Football Fields	C	67	1
R525	12160 PACKERS AVE	Fishers	46037	Football Fields	C	67	1
R526	12071 E 131ST ST	Fishers	46037	Football Fields	C	67	1
R527	12166 PACKERS AVE	Fishers	46037	Residential	B	67	1
R528	12824 PANTHERS WAY	Fishers	46037	Residential	B	67	1
R528(a)	12814 PANTHERS WAY	Fishers	46037	Residential	B	67	1
R529	12804 PANTHERS WAY	Fishers	46037	Residential	B	67	1
R530	11796 BENGALS DR	Fishers	46037	Residential	B	67	1
R531	11816 BENGALS DR	Fishers	46037	Residential	B	67	1
R532	11981 E 131ST ST	Fishers	46037	Residential	B	67	1
R533	12864 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R534	12884 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R535	12904 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R536	12924 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R536(a)	12925 CHEERLEADERS CT	Fishers	46037	Residential	B	67	1
R537	12012 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R538	12022 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R539	12032 RAIDERS BLVD	Fishers	46037	Residential	B	67	1
R549	12560 E 136TH ST	Noblesville	46060	Residential	B	67	1
R550	12602 E 136TH ST	Noblesville	46060	Residential	B	67	1
R551	12630 E 136TH ST	Noblesville	46060	Residential	B	67	1
R552	12698 E 136TH ST	Noblesville	46060	Residential	B	67	1
R552(a)	13735 Corporate Pky	Noblesville	46060	Trail	C	67	1
R553	13220 BROOKS SCHOOL RD	Fishers	46037	Residential	B	67	1
R554	13220 BROOKS SCHOOL RD	Fishers	46037	Residential	B	67	1
R555	13304 LOYALTY DR	Fishers	46037	Residential	B	67	1
R556	13314 LOYALTY DR	Fishers	46037	Residential	B	67	1
R557	13324 LOYALTY DR	Fishers	46037	Residential	B	67	1
R558	13334 LOYALTY DR	Fishers	46037	Residential	B	67	1
R559	13344 LOYALTY DR	Fishers	46037	Residential	B	67	1
R560	13354 LOYALTY DR	Fishers	46037	Residential	B	67	1
R561	13364 LOYALTY DR	Fishers	46037	Residential	B	67	1
R562	12570 LOYALTY DR	Fishers	46037	Residential	B	67	1
R563	12578 LOYALTY DR	Fishers	46037	Residential	B	67	1
R564	12586 LOYALTY DR	Fishers	46037	Residential	B	67	1
R565	12594 LOYALTY DR	Fishers	46037	Residential	B	67	1
R566	12602 LOYALTY DR	Fishers	46037	Residential	B	67	1
R567	12610 LOYALTY DR	Fishers	46037	Residential	B	67	1
R568	13350 HEROIC WAY	Fishers	46037	Residential	B	67	1
R569	13360 HEROIC WAY	Fishers	46037	Residential	B	67	1
R570	13370 HEROIC WAY	Fishers	46037	Residential	B	67	1
R571	12620 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R572	12626 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R573	12632 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R574	12638 REPUBLIC DR	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R575	12644 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R576	12650 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R577	12656 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R578	12662 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R579	12668 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R580	12674 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R581	12680 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R582	12686 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R583	12692 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R584	12698 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R585	13285 LOYALTY DR	Fishers	46037	Residential	B	67	1
R586	13295 LOYALTY DR	Fishers	46037	Residential	B	67	1
R587	13305 LOYALTY DR	Fishers	46037	Residential	B	67	1
R588	13315 LOYALTY DR	Fishers	46037	Residential	B	67	1
R589	13325 LOYALTY DR	Fishers	46037	Residential	B	67	1
R590	13335 LOYALTY DR	Fishers	46037	Residential	B	67	1
R591	12585 LOYALTY DR	Fishers	46037	Residential	B	67	1
R592	12593 LOYALTY DR	Fishers	46037	Residential	B	67	1
R593	12601 LOYALTY DR	Fishers	46037	Residential	B	67	1
R594	12609 LOYALTY DR	Fishers	46037	Residential	B	67	1
R595	13320 HEROIC WAY	Fishers	46037	Residential	B	67	1
R596	13310 HEROIC WAY	Fishers	46037	Residential	B	67	1
R597	13300 HEROIC WAY	Fishers	46037	Residential	B	67	1
R598	13290 HEROIC WAY	Fishers	46037	Residential	B	67	1
R599	13345 HEROIC WAY	Fishers	46037	Residential	B	67	1
R600	13355 HEROIC WAY	Fishers	46037	Residential	B	67	1
R601	13365 HEROIC WAY	Fishers	46037	Residential	B	67	1
R602	12631 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R603	12635 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R604	12639 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R605	12645 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R606	12649 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R607	12651 REPUBLIC DR	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R608	12657 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R609	12663 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R610	12667 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R611	12671 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R612	12675 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R613	12681 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R614	12691 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R615	12699 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R616	12648 LOYALTY DR	Fishers	46037	Residential	B	67	1
R617	12660 LOYALTY DR	Fishers	46037	Residential	B	67	1
R618	12666 LOYALTY DR	Fishers	46037	Residential	B	67	1
R619	12672 LOYALTY DR	Fishers	46037	Residential	B	67	1
R620	12678 LOYALTY DR	Fishers	46037	Residential	B	67	1
R621	12684 LOYALTY DR	Fishers	46037	Residential	B	67	1
R622	12690 LOYALTY DR	Fishers	46037	Residential	B	67	1
R623	12696 LOYALTY DR	Fishers	46037	Residential	B	67	1
R624	12702 LOYALTY DR	Fishers	46037	Residential	B	67	1
R625	12708 LOYALTY DR	Fishers	46037	Residential	B	67	1
R626	12714 LOYALTY DR	Fishers	46037	Residential	B	67	1
R627	12720 LOYALTY DR	Fishers	46037	Residential	B	67	1
R628	12726 LOYALTY DR	Fishers	46037	Residential	B	67	1
R629	12629 LOYALTY DR	Fishers	46037	Residential	B	67	1
R630	12635 LOYALTY DR	Fishers	46037	Residential	B	67	1
R631	12641 LOYALTY DR	Fishers	46037	Residential	B	67	1
R632	12647 LOYALTY DR	Fishers	46037	Residential	B	67	1
R633	12653 LOYALTY DR	Fishers	46037	Residential	B	67	1
R634	12659 LOYALTY DR	Fishers	46037	Residential	B	67	1
R635	12665 LOYALTY DR	Fishers	46037	Residential	B	67	1
R636	12671 LOYALTY DR	Fishers	46037	Residential	B	67	1
R637	12677 LOYALTY DR	Fishers	46037	Residential	B	67	1
R638	12683 LOYALTY DR	Fishers	46037	Residential	B	67	1
R639	12689 LOYALTY DR	Fishers	46037	Residential	B	67	1
R640	12695 LOYALTY DR	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R641	12701 LOYALTY DR	Fishers	46037	Residential	B	67	1
R642	12707 LOYALTY DR	Fishers	46037	Residential	B	67	1
R643	12713 LOYALTY DR	Fishers	46037	Residential	B	67	1
R644	12719 LOYALTY DR	Fishers	46037	Residential	B	67	1
R645	12725 LOYALTY DR	Fishers	46037	Residential	B	67	1
R646	12780 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R647	12790 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R648	12802 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R649	12812 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R650	12822 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R651	12832 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R652	12842 ANTHEM AVE	Fishers	46037	Residential	B	67	1
R653	12755 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R654	12761 REPUBLIC DR	Fishers	46037	Residential	B	67	1
R655	13445 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R656	13451 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R657	13457 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R658	13463 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R659	13471 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R660	13479 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R661	13487 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R662	13495 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R663	13503 ALL AMERICAN RD	Fishers	46037	Residential	B	67	1
R664	13450 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R665	13456 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R666	13486 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R667	13492 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R668	13506 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R669	13512 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R670	13516 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R671	13487 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R672	13497 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R673	13507 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R674	13517 ALLEGIANCE DR	Fishers	46037	Residential	B	67	1
R681	13782 CYNTHEANNE RD	Fishers	46037	Hospital	C	67	1
R690	8724 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R691	8716 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R692	8712 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R693	8702 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R694	8698 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R695	8678 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R696	8656 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R697	8652 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R698	8646 PIN OAK DR	Pendleton	46048	Residential	B	67	1
R699	8642 PIN OAK DR	Pendleton	46048	Residential	B	67	1
R700	8638 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R701	8634 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R702	8630 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R703	8616 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R704	8604 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R705	8594 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R706	8584 PIN OAK DR	Pendleton	46048	Residential	B	67	1
R707	8576 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R708	8564 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R709	8550 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R710	8546 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R711	8542 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R712	8538 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R713	8529 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R714	7701 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R715	7713 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R716	7721 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R717	7731 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R718	7704 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R719	7726 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R720	7742 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R721	7750 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R722	7760 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R723	7770 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R724	7776 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R725	7788 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R726	7798 S ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R727	8647 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R728	8603 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R729	8593 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R730	8533 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R731	8529 W PIN OAK DR	Pendleton	46048	Residential	B	67	1
R732	8661 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R733	8646 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R734	8638 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R735	8632 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R736	8622 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R737	8614 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R738	8608 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R739	8594 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R740	8584 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R741	7741 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R742	7733 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R743	7719 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R744	7715 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R745	7705 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R746	7693 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R747	8745 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R748	8727 W CAREFREE DR	Pendleton	46048	Residential	B	67	1
R749	8726 W CAREFREE DR	Pendleton	46048	Residential	B	67	1
R750	7716 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R751	7688 S LAKESIDE DR	Pendleton	46048	Residential	B	67	1
R752	8715 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R753	8709 W HOLLY DR	Pendleton	46048	Residential	B	67	1

Table B-1 – Identification of Receptors

Receptor ID	Address	City	Zip Code	Land Use	Activity Category	NAC level	Number of Dwelling Units
R754	8701 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R755	8693 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R756	7735 S PIN OAK DR	Pendleton	46048	Residential	B	67	1
R757	8698 CAREFREE DR	Pendleton	46048	Residential	B	67	1
R758	7753 S PIN OAK DR	Pendleton	46048	Residential	B	67	1
R759	BETWEEN 8726 AND 8698 CAREFREE DR	Pendleton	46048	Residential	B	67	1
R760	8663 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R761	8659 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R762	8649 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R763	8639 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R764	8635 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R765	8625 W HOLLY DR	Pendleton	46048	Residential	B	67	1
R766	7742 S PIN OAK DR	Pendleton	46048	Residential	B	67	1
R767	8676 W CAREFREE DR	Pendleton	46048	Residential	B	67	1
R768	8672 W CAREFREE DR	Pendleton	46048	Residential	B	67	1
R769	8660 W CAREFREE DR	Pendleton	46048	Residential	B	67	1
R770	7772 S ROSE BUD RD	Pendleton	46048	Residential	B	67	1
R771	BETWEEN 7772 S ROSE BUD DR AND 8595 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R772	8595 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R773	8589 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R774	8581 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R775	8569 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R776	8561 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R777	8549 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R778	8537 W ROSE BUD DR	Pendleton	46048	Residential	B	67	1
R780	8562 W 775 S	Pendleton	46064	Residential	B	67	1
R681	13782 CYNTHEANNE RD	Fishers	46037	Hospital	C	67	1

Appendix C
Predicted Noise Levels

Table C-1 – Predicted Noise Levels NSA 1

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R001	67	1	63.8	64.5	64.2	NB 00	59.3	4.9	Y	Y	None
R001 Second Floor	67	1	68.1	68.9	68.6	NB 00	62.8	5.8	Y	Y	A/E
R002	67	1	64.2	65.0	64.7	NB 00	59.5	5.2	Y	Y	None
R002 Second Floor	67	1	68.5	69.4	69.1	NB 00	62.9	6.2	Y	Y	A/E
R003	67	1	64.2	64.9	64.8	NB 00	59.4	5.4	Y	Y	None
R003 Second Floor	67	1	68.5	69.4	69.1	NB 00	62.7	6.4	Y	Y	A/E
R004	67	1	63.7	64.4	64.2	NB 00	58.8	5.4	Y	Y	None
R004 Second Floor	67	1	68.0	68.9	68.7	NB 00	62.4	6.3	Y	Y	A/E
R005	67	1	61.7	62.4	62.2	NB 00	58.0	4.2	N	N	None
R005 Second Floor	67	1	66.4	67.2	66.9	NB 00	61.8	5.1	N	Y	A/E
R006	67	1	61.3	62.0	61.7	NB 00	57.4	4.3	N	N	None
R006 Second Floor	67	1	65.9	66.7	66.5	NB 00	61.4	5.1	N	Y	A/E
R007	67	1	61.2	62.0	61.7	NB 00	57.4	4.3	N	N	None
R007 Second Floor	67	1	65.9	66.7	66.5	NB 00	61.2	5.3	N	Y	A/E
R008	67	1	61.6	62.4	62.1	NB 00	57.7	4.4	N	N	None
R008 Second Floor	67	1	66.3	67.1	66.8	NB 00	61.4	5.4	N	Y	A/E
R009	67	1	63.8	64.6	64.6	NB 00	58.9	5.7	Y	Y	None
R009 Second Floor	67	1	68.2	69.1	68.9	NB 00	62.2	6.7	Y	Y	A/E
R010	67	1	64.6	65.4	65.4	NB 00	59.3	6.1	Y	Y	None
R010 Second Floor	67	1	68.9	69.7	69.6	NB 00	62.5	7.1	Y	Y	A/E
R011	67	1	64.5	65.2	65.3	NB 00	59.1	6.2	Y	Y	None
R011 Second Floor	67	1	68.8	69.7	69.6	NB 00	62.4	7.2	Y	Y	A/E
R012	67	1	63.8	64.5	64.7	NB 00	58.8	5.9	Y	Y	None
R012 Second Floor	67	1	68.2	69.1	69.0	NB 00	62.1	6.9	Y	Y	A/E
R013	67	1	62.4	63.1	63.1	NB 00	57.9	5.2	N	Y	None
R013 Second Floor	67	1	67.0	67.8	67.6	NB 00	61.6	6.0	N	Y	A/E

Table C-1 – Predicted Noise Levels NSA 1

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R014	67	1	61.7	62.5	62.3	NB 00	57.5	4.8	N	N	None
R014 Second Floor	67	1	66.4	67.3	67.1	NB 00	61.2	5.9	N	Y	A/E
R015	67	1	61.9	62.6	62.4	NB 00	57.5	4.9	N	N	None
R015 Second Floor	67	1	66.5	67.3	67.2	NB 00	61.2	6.0	N	Y	A/E
R016	67	1	62.4	63.1	63.0	NB 00	57.8	5.2	N	Y	None
R016 Second Floor	67	1	66.9	67.8	67.7	NB 00	61.5	6.2	N	Y	A/E
R017	67	1	62.6	63.3	63.3	NB 00	58.0	5.3	N	Y	None
R017 Second Floor	67	1	67.1	68.0	67.9	NB 00	61.6	6.3	N	Y	A/E
R018	67	1	64.4	65.2	65.2	NB 00	59.1	6.1	N	Y	None
R018 Second Floor	67	1	68.7	69.5	69.5	NB 00	62.3	7.2	N	Y	A/E
R019	67	1	64.2	64.9	64.9	NB 00	59.0	5.9	N	Y	None
R019 Second Floor	67	1	68.5	69.3	69.3	NB 00	62.3	7.0	N	Y	A/E
R020	67	1	64.7	65.5	65.7	NB 00	59.5	6.2	N	Y	None
R020 Second Floor	67	1	69.0	69.9	69.9	NB 00	62.8	7.1	N	Y	A/E
R021	67	1	65.3	66.1	66.4	NB 00	60.0	6.4	N	Y	A/E
R021 Second Floor	67	1	69.7	70.6	70.6	NB 00	63.1	7.5	N	Y	A/E
R022	67	1	66.7	67.5	67.9	NB 00	60.8	7.1	Y	Y	A/E
R022 Second Floor	67	1	70.9	71.8	71.8	NB 00	63.6	8.2	Y	Y	A/E
R023	67	1	66.8	67.6	68.1	NB 00	60.7	7.4	Y	Y	A/E
R023 Second Floor	67	1	71.1	72.0	72.0	NB 00	63.5	8.5	Y	Y	A/E
R024	67	1	66.4	67.2	67.5	NB 00	60.4	7.1	Y	Y	A/E
R024 Second Floor	67	1	70.6	71.5	71.5	NB 00	63.2	8.3	Y	Y	A/E
R025	67	1	65.4	66.1	66.4	NB 00	59.8	6.6	Y	Y	A/E
R025 Second Floor	67	1	69.8	70.7	70.6	NB 00	62.8	7.8	Y	Y	A/E
R026	67	1	65.4	66.2	66.5	NB 00	60.6	5.9	N	Y	A/E
R026 Second Floor	67	1	69.8	70.7	70.8	NB 00	63.8	7.0	N	Y	A/E

Table C-1 – Predicted Noise Levels NSA 1

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R027	67	1	65.8	66.6	66.9	NB 00	60.7	6.2	N	Y	A/E
R027 Second Floor	67	1	70.1	71.0	71.0	NB 00	63.8	7.2	N	Y	A/E
R028	67	1	68.3	69.1	69.7	NB 00	61.9	7.8	Y	Y	A/E
R028 Second Floor	67	1	72.1	73.1	73.2	NB 00	64.6	8.6	Y	Y	A/E
R029	67	1	69.3	70.1	70.7	NB 00	62.4	8.3	Y	Y	A/E
R029 Second Floor	67	1	73.0	73.9	74.0	NB 00	65.0	9.0	Y	Y	A/E
R030	67	1	70.0	70.8	71.4	NB 00	63.1	8.3	Y	Y	A/E
R030 Second Floor	67	1	73.5	74.4	74.6	NB 00	65.7	8.9	Y	Y	A/E
R031	67	1	69.8	70.6	71.2	NB 00	63.3	7.9	Y	Y	A/E
R031 Second Floor	67	1	73.3	74.3	74.4	NB 00	65.9	8.5	Y	Y	A/E
R032	67	1	66.9	67.7	68.1	NB 00	62.0	6.1	N	Y	A/E
R032 Second Floor	67	1	71.0	71.9	72.0	NB 00	65.0	7.0	N	Y	A/E
R033	67	1	66.1	66.8	67.2	NB 00	61.4	5.8	N	Y	A/E
R033 Second Floor	67	1	70.4	71.3	71.4	NB 00	64.6	6.8	N	Y	A/E
R034	67	1	63.8	64.5	64.6	NB 00	59.4	5.2	N	Y	None
R034 Second Floor	67	1	68.1	69.0	69.0	NB 00	62.9	6.1	N	Y	A/E
R035	67	1	63.3	64.0	64.0	NB 00	59.0	5.0	N	Y	None
R035 Second Floor	67	1	67.7	68.5	68.5	NB 00	62.5	6.0	N	Y	A/E
R036	67	1	62.8	63.5	63.4	NB 00	58.6	4.8	N	N	None
R036 Second Floor	67	1	67.1	68.0	68.0	NB 00	62.2	5.8	N	Y	A/E
R037	67	1	62.2	62.9	62.8	NB 00	58.2	4.6	N	N	None
R037 Second Floor	67	1	66.6	67.5	67.4	NB 00	61.9	5.5	N	Y	A/E
R038	67	1	61.5	62.2	62.1	NB 00	57.6	4.5	N	N	None
R038 Second Floor	67	1	66.0	66.8	66.8	NB 00	61.5	5.3	N	Y	A/E
R039	67	1	60.6	61.3	61.2	NB 00	57.1	4.1	N	N	None
R039 Second Floor	67	1	65.3	66.1	66.0	NB 00	60.9	5.1	N	Y	A/E

Table C-1 – Predicted Noise Levels NSA 1

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R040	67	1	60.1	60.8	60.6	NB 00	56.8	3.8	N	N	None
R040 Second Floor	67	1	64.8	65.6	65.5	NB 00	60.6	4.9	N	N	None
R041	67	1	60.1	60.9	60.4	NB 00	56.7	3.7	N	N	None
R041 Second Floor	67	1	64.5	65.3	65.2	NB 00	60.6	4.6	N	N	None
R042	67	1	60.2	60.9	60.8	NB 00	57.1	3.7	N	N	None
R042 Second Floor	67	1	64.9	65.7	65.7	NB 00	61.0	4.7	N	N	None
R043	67	1	61.2	61.9	61.7	NB 00	57.6	4.1	N	N	None
R043 Second Floor	67	1	65.7	66.5	66.5	NB 00	61.5	5.0	N	Y	A/E
R044	67	1	62.0	62.7	62.5	NB 00	58.2	4.3	N	N	None
R044 Second Floor	67	1	66.4	67.2	67.2	NB 00	62.0	5.2	N	Y	A/E
R045	67	1	62.3	63.1	63.0	NB 00	58.6	4.4	N	N	None
R045 Second Floor	67	1	66.8	67.7	67.6	NB 00	62.3	5.3	N	Y	A/E
R046	67	1	62.9	63.6	63.4	NB 00	59.0	4.4	N	N	None
R046 Second Floor	67	1	67.2	68.0	68.0	NB 00	62.7	5.3	N	Y	A/E
R047	67	1	63.4	64.1	64.2	NB 00	59.5	4.7	N	N	None
R047 Second Floor	67	1	67.8	68.6	68.6	NB 00	63.0	5.6	N	Y	A/E

Table C-2 – Predicted Noise Levels NSA 2

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R050	67	1	65.5	66.3	66.4	N/A	-	-	Y	-	A/E
R060	67	1	62.8	63.5	63.5	N/A	-	-	N	-	None
R061	67	1	62.1	62.7	62.7	N/A	-	-	N	-	None
R062	67	1	61.4	62.1	62.0	N/A	-	-	N	-	None
R063	67	1	66.2	66.9	66.8	N/A	-	-	N	-	A/E
R064	67	1	64.9	65.6	65.6	N/A	-	-	N	-	None
R065	67	1	63.8	64.5	64.4	N/A	-	-	N	-	None
R066	67	1	63.0	63.6	63.6	N/A	-	-	N	-	None
R067	67	1	62.1	62.7	62.7	N/A	-	-	N	-	None
R068	67	1	61.4	62.1	62.0	N/A	-	-	N	-	None
R069	67	1	60.8	61.4	61.3	N/A	-	-	N	-	None
R070	67	1	59.9	60.6	60.5	N/A	-	-	N	-	None
R071	67	1	59.2	59.9	59.8	N/A	-	-	N	-	None
R072	67	1	66.2	66.9	67.0	N/A	-	-	N	-	A/E
R073	67	1	65.1	65.8	65.8	N/A	-	-	N	-	None
R074	67	1	64.0	64.7	64.7	N/A	-	-	N	-	None
R075	67	1	63.5	64.2	64.1	N/A	-	-	N	-	None
R076	67	1	63.0	63.7	63.6	N/A	-	-	N	-	None
R077	67	1	62.5	63.2	63.1	N/A	-	-	N	-	None
R078	67	1	61.5	62.2	62.1	N/A	-	-	N	-	None
R079	67	1	60.5	61.2	61.0	N/A	-	-	N	-	None
R080	67	1	59.7	60.4	60.3	N/A	-	-	N	-	None
R081	67	1	59.2	59.9	59.8	N/A	-	-	N	-	None
R082	67	1	58.5	59.2	59.1	N/A	-	-	N	-	None
R083	67	1	66.6	67.5	67.6	N/A	-	-	Y	-	A/E

Table C-2 – Predicted Noise Levels NSA 2

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R084	67	1	66.3	67.2	67.2	N/A	-	-	Y	-	A/E
R085	67	1	65.4	66.2	66.2	N/A	-	-	N	-	A/E
R086	67	1	64.6	65.4	65.3	N/A	-	-	N	-	None
R087	67	1	64.0	64.8	64.7	N/A	-	-	N	-	None
R088	67	1	62.5	63.3	63.2	N/A	-	-	N	-	None
R089	67	1	61.5	62.4	62.2	N/A	-	-	N	-	None
R090	67	1	60.8	61.6	61.5	N/A	-	-	N	-	None
R091	67	1	60.1	60.9	60.7	N/A	-	-	N	-	None
R092	67	1	65.6	66.5	66.5	N/A	-	-	Y	-	A/E
R093	67	1	64.4	65.3	65.4	N/A	-	-	Y	-	None
R094	67	1	63.1	63.9	63.9	N/A	-	-	N	-	None
R095	67	1	61.3	62.1	62.0	N/A	-	-	N	-	None
R096	67	1	62.4	63.3	63.3	N/A	-	-	N	-	None
R097	67	1	62.9	63.8	63.9	N/A	-	-	Y	-	None
R098	67	1	63.5	64.4	64.6	N/A	-	-	Y	-	None
R099	67	1	62.9	63.8	64.0	N/A	-	-	Y	-	None
R100	67	1	62.5	63.4	63.4	N/A	-	-	Y	-	None
R101	67	1	61.0	61.9	61.7	N/A	-	-	N	-	None
R102	67	1	60.4	61.3	61.1	N/A	-	-	N	-	None
R103	67	1	59.5	60.4	60.2	N/A	-	-	N	-	None
R104	67	1	58.8	59.6	59.4	N/A	-	-	N	-	None
R105	67	1	58.3	59.1	58.9	N/A	-	-	N	-	None
R106	67	1	57.8	58.6	58.3	N/A	-	-	N	-	None
R107	67	1	58.1	58.9	58.7	N/A	-	-	N	-	None
R108	67	1	58.8	59.6	59.4	N/A	-	-	N	-	None

Table C-2 – Predicted Noise Levels NSA 2

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R109	67	1	59.7	60.6	60.4	N/A	-	-	N	-	None
R110	67	1	60.8	61.7	61.5	N/A	-	-	N	-	None
R111	67	1	62.2	63.1	63.0	N/A	-	-	Y	-	None
R112	67	1	62.6	63.5	63.7	N/A	-	-	Y	-	None
R113	67	1	57.8	58.6	58.4	N/A	-	-	N	-	None
R114	67	1	58.9	59.7	59.5	N/A	-	-	N	-	None
R115	67	1	59.9	60.8	60.6	N/A	-	-	N	-	None
R116	67	1	61.8	62.7	62.5	N/A	-	-	N	-	None
R117	67	1	62.8	63.7	63.6	N/A	-	-	Y	-	None
R118	67	1	58.3	59.1	58.9	N/A	-	-	N	-	None
R119	67	1	61.5	62.4	62.6	N/A	-	-	N	-	None
R119(a)	72	1	65.6	66.4	65.9	N/A	-	-	N	-	None

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R130	67	1	63.3	64.6	64.5	N/A	-	N/A	Y	N	None
R131	67	1	61.9	63.2	63.6	N/A	-	N/A	Y	N	None
R132	67	1	65.6	66.9	67.2	NB 03	63.5	3.7	Y	N	A/E
R150	67	2	57.9	59.2	61.5	NB 01	56.8	4.7	N	N	None
R150 Second Floor	67	2	62.2	63.5	65.3	NB 01	60.9	4.4	N	N	None
R151	67	2	58.7	60.0	62.4	NB 01	57.4	5.0	N	Y	None
R151 Second Floor	67	2	63.1	64.4	66.1	NB 01	61.1	5.0	N	Y	A/E
R152	67	2	55.9	57.1	59.3	NB 01	53.7	5.6	N	Y	None
R152 Second Floor	67	2	59.7	60.9	62.7	NB 01	56.0	6.7	N	Y	None
R153	67	2	58.1	59.3	61.8	NB 01	57.1	4.7	N	N	None
R153 Second Floor	67	2	62.5	63.8	65.6	NB 01	61.0	4.6	N	N	None
R154	67	2	57.2	58.5	61.1	NB 01	56.8	4.3	N	N	None
R154 Second Floor	67	2	62.2	63.5	65.0	NB 01	61.0	4.0	N	N	None
R155	67	2	58.3	59.6	62.3	NB 01	57.5	4.8	N	N	None
R155 Second Floor	67	2	63.3	64.6	66.1	NB 01	61.7	4.4	N	N	A/E
R156	67	2	60.0	61.3	64.0	NB 01	58.5	5.5	N	Y	None
R156 Second Floor	67	2	64.9	66.2	67.6	NB 01	62.5	5.1	N	Y	A/E
R157	67	2	63.4	64.7	67.2	NB 01	60.1	7.1	N	Y	A/E
R157 Second Floor	67	2	67.9	69.2	70.6	NB 01	63.7	6.9	N	Y	A/E
R158	67	2	65.2	66.5	68.8	NB 01	60.7	8.1	N	Y	A/E
R158 Second Floor	67	2	69.5	70.8	72.1	NB 01	63.8	8.3	N	Y	A/E
R159	67	2	63.4	64.7	66.9	NB 01	58.8	8.1	N	Y	A/E
R159 Second Floor	67	2	67.8	69.1	70.4	NB 01	61.2	9.2	N	Y	A/E
R160	67	2	61.8	63.1	65.2	NB 01	57.5	7.7	N	Y	None
R160 Second Floor	67	2	66.3	67.5	68.8	NB 01	59.4	9.4	N	Y	A/E

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R161	67	2	60.4	61.7	63.8	NB 01	56.4	7.4	N	Y	None
R161 Second Floor	67	2	64.9	66.2	67.5	NB 01	58.3	9.2	N	Y	A/E
R162	67	2	60.0	61.3	63.6	NB 01	57.4	6.2	N	Y	None
R162 Second Floor	67	2	64.8	66.1	67.4	NB 01	60.8	6.6	N	Y	A/E
R163	67	2	61.5	62.7	65.1	NB 01	58.1	7.0	N	Y	None
R163 Second Floor	67	2	66.0	67.2	68.6	NB 01	61.4	7.2	N	Y	A/E
R164	67	2	63.4	64.7	66.9	NB 01	58.8	8.1	N	Y	A/E
R164 Second Floor	67	2	67.5	68.8	70.2	NB 01	62.1	8.1	N	Y	A/E
R165	67	2	66.8	68.1	70.1	NB 01	60.2	9.9	N	Y	A/E
R165 Second Floor	67	2	70.4	71.7	73.1	NB 01	63.2	9.9	N	Y	A/E
R166	67	2	70.0	71.3	72.9	NB 01	61.8	11.1	Y	Y	A/E
R166 Second Floor	67	2	73.2	74.5	76.0	NB 01	64.3	11.7	Y	Y	A/E
R167	67	2	68.1	69.4	71.2	NB 01	60.5	10.7	N	Y	A/E
R167 Second Floor	67	2	71.8	73.0	74.4	NB 01	62.6	11.8	N	Y	A/E
R168	67	2	66.4	67.6	69.4	NB 01	59.3	10.1	N	Y	A/E
R168 Second Floor	67	2	70.3	71.6	72.9	NB 01	61.2	11.7	N	Y	A/E
R169	67	2	64.9	66.1	67.9	NB 01	58.4	9.5	N	Y	A/E
R169 Second Floor	67	2	69.1	70.4	71.7	NB 01	60.2	11.5	N	Y	A/E
R170	67	2	71.9	73.2	74.8	NB 01	61.6	13.2	Y	Y	A/E
R170 Second Floor	67	2	74.7	76.0	77.5	NB 01	65.1	12.4	Y	Y	A/E
R171	67	2	71.4	72.7	74.5	NB 01	61.9	12.6	Y	Y	A/E
R171 Second Floor	67	2	74.4	75.7	77.2	NB 01	65.5	11.7	Y	Y	A/E
R172	67	2	71.0	72.3	74.2	NB 01	62.0	12.2	Y	Y	A/E
R172 Second Floor	67	2	74.1	75.4	77.0	NB 01	65.4	11.6	Y	Y	A/E
R173	67	2	70.6	71.9	73.9	NB 01	62.0	11.9	Y	Y	A/E

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R173 Second Floor	67	2	73.8	75.1	76.7	NB 01	65.2	11.5	Y	Y	A/E
R174	67	2	63.3	64.6	66.8	NB 01	58.4	8.4	N	Y	A/E
R174 Second Floor	67	2	67.9	69.2	70.6	NB 01	61.2	9.4	N	Y	A/E
R175	67	2	58.9	60.1	62.1	NB 01	55.9	6.2	N	Y	None
R175 Second Floor	67	2	63.5	64.8	66.2	NB 01	58.8	7.4	N	Y	A/E
R177	67	2	60.6	61.9	63.8	NB 01	56.5	7.3	N	Y	None
R177 Second Floor	67	2	64.7	66.0	67.4	NB 01	59.4	8.0	N	Y	A/E
R178	67	2	65.1	66.4	68.3	NB 01	58.6	9.7	N	Y	A/E
R178 Second Floor	67	2	68.8	70.1	71.5	NB 01	61.4	10.1	N	Y	A/E
R179	67	2	62.2	63.4	65.6	NB 01	57.8	7.8	N	Y	None
R179 Second Floor	67	2	67.0	68.3	69.5	NB 01	60.5	9.0	N	Y	A/E
R180	67	2	64.3	65.6	67.9	NB 01	58.9	9.0	N	Y	A/E
R180 Second Floor	67	2	68.5	69.7	71.1	NB 01	61.5	9.6	N	Y	A/E
R181	67	2	66.6	67.9	70.2	NB 01	60.0	10.2	N	Y	A/E
R181 Second Floor	67	2	70.3	71.5	73.0	NB 01	63.0	10.0	N	Y	A/E
R182	67	2	70.7	72.0	73.9	NB 01	62.2	11.7	Y	Y	A/E
R182 Second Floor	67	2	73.6	74.8	76.4	NB 01	65.5	10.9	Y	Y	A/E
R183	67	2	70.5	71.8	73.5	NB 01	61.8	11.7	Y	Y	A/E
R183 Second Floor	67	2	73.3	74.5	76.0	NB 01	64.9	11.1	Y	Y	A/E
R184	67	2	66.8	68.0	70.0	NB 01	58.9	11.1	N	Y	A/E
R184 Second Floor	67	2	70.3	71.6	73.0	NB 01	61.6	11.4	N	Y	A/E
R185	67	2	63.3	64.6	66.3	NB 01	57.0	9.3	N	Y	A/E
R185 Second Floor	67	2	67.7	69.0	70.3	NB 01	59.2	11.1	N	Y	A/E
R186	67	2	60.7	62.0	63.7	NB 01	55.5	8.2	N	Y	None
R186 Second Floor	67	2	65.7	67.0	68.2	NB 01	57.5	10.7	N	Y	A/E

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R187	67	2	60.8	62.0	63.8	NB 01	55.8	8.0	N	Y	None
R187 Second Floor	67	2	65.8	67.1	68.3	NB 01	57.7	10.6	N	Y	A/E
R188	67	2	62.9	64.2	66.0	NB 01	57.0	9.0	N	Y	A/E
R188 Second Floor	67	2	67.5	68.8	70.1	NB 01	59.3	10.8	N	Y	A/E
R189	67	2	66.1	67.3	69.2	NB 01	58.6	10.6	N	Y	A/E
R189 Second Floor	67	2	69.7	71.0	72.4	NB 01	61.1	11.3	N	Y	A/E
R190	67	2	69.8	71.1	72.8	NB 01	60.9	11.9	Y	Y	A/E
R190 Second Floor	67	2	72.9	74.2	75.6	NB 01	63.7	11.9	Y	Y	A/E
R191	67	2	70.1	71.4	73.0	NB 01	61.0	12.0	Y	Y	A/E
R191 Second Floor	67	2	73.2	74.5	75.9	NB 01	63.7	12.2	Y	Y	A/E
R192	67	2	66.4	67.6	69.3	NB 01	58.6	10.7	N	Y	A/E
R192 Second Floor	67	2	70.3	71.5	72.8	NB 01	60.7	12.1	N	Y	A/E
R193	67	2	63.1	64.3	65.8	NB 01	56.8	9.0	N	Y	None
R193 Second Floor	67	2	68.1	69.3	70.6	NB 01	58.8	11.8	N	Y	A/E
R194	67	2	60.6	61.9	63.5	NB 01	55.4	8.1	N	Y	None
R194 Second Floor	67	2	66.2	67.5	68.7	NB 01	57.1	11.6	N	Y	A/E
R195	67	0	62.7	64.0	65.7	NB 01	57.0	8.7	N	Y	None
R196	67	2	59.7	61.0	62.7	NB 01	54.8	7.9	N	Y	None
R196 Second Floor	67	2	65.7	66.9	68.1	NB 01	56.5	11.6	N	Y	A/E
R197	67	2	61.7	63.0	64.6	NB 01	56.2	8.4	N	Y	None
R197 Second Floor	67	2	67.6	68.8	70.1	NB 01	58.1	12.0	N	Y	A/E
R198	67	2	64.6	65.9	67.5	NB 01	57.9	9.6	N	Y	A/E
R198 Second Floor	67	2	69.8	71.1	72.4	NB 01	59.9	12.5	N	Y	A/E
R199	67	2	69.2	70.5	72.3	NB 01	61.3	11.0	Y	Y	A/E
R199 Second Floor	67	2	73.4	74.7	76.1	NB 01	63.4	12.7	Y	Y	A/E

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R200	67	2	68.8	70.1	71.7	NB 01	60.9	10.8	Y	Y	A/E
R200 Second Floor	67	2	73.1	74.4	75.7	NB 01	63.1	12.6	Y	Y	A/E
R201	67	2	64.0	65.3	66.9	NB 01	57.9	9.0	N	Y	A/E
R201 Second Floor	67	2	69.7	71.0	72.3	NB 01	59.9	12.4	N	Y	A/E
R202	67	2	61.6	62.9	64.6	NB 01	56.2	8.4	N	Y	None
R202 Second Floor	67	2	67.6	68.9	70.0	NB 01	58.2	11.8	N	Y	A/E
R203	67	2	59.8	61.0	62.7	NB 01	55.0	7.7	N	Y	None
R203 Second Floor	67	2	65.4	66.7	67.9	NB 01	56.8	11.1	N	Y	A/E
R204	67	2	59.7	61.0	62.6	NB 01	54.8	7.8	N	Y	None
R204 Second Floor	67	2	65.1	66.4	67.6	NB 01	56.4	11.2	N	Y	A/E
R205	67	2	61.5	62.8	64.4	NB 01	56.1	8.3	N	Y	None
R205 Second Floor	67	2	67.6	68.9	70.0	NB 01	57.9	12.1	N	Y	A/E
R206	67	2	63.9	65.2	66.8	NB 01	57.8	9.0	N	Y	A/E
R206 Second Floor	67	2	69.9	71.2	72.4	NB 01	59.9	12.5	N	Y	A/E
R207	67	2	67.7	69.0	70.5	NB 01	60.6	9.9	Y	Y	A/E
R207 Second Floor	67	2	72.9	74.2	75.5	NB 01	62.9	12.6	Y	Y	A/E
R208	67	2	67.8	69.1	70.5	NB 01	61.2	9.3	Y	Y	A/E
R208 Second Floor	67	2	73.2	74.5	75.8	NB 01	63.7	12.1	Y	Y	A/E
R209	67	2	64.7	65.9	67.5	NB 01	60.1	7.4	N	Y	A/E
R209 Second Floor	67	2	70.4	71.7	72.8	NB 01	62.1	10.7	N	Y	A/E
R210	67	2	62.6	63.9	65.5	NB 01	58.4	7.1	N	Y	None
R210 Second Floor	67	2	68.2	69.4	70.2	NB 01	60.8	9.4	N	Y	A/E
R211	67	2	61.0	62.3	63.9	NB 01	57.5	6.4	N	Y	None
R211 Second Floor	67	2	65.9	67.2	67.9	NB 01	59.9	8.0	N	Y	A/E
R212	67	2	58.8	60.1	62.2	NB 01	56.7	5.5	N	Y	None

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R212 Second Floor	67	2	63.6	64.9	66.4	NB 01	59.4	7.0	N	Y	A/E
R213	67	2	59.2	60.5	62.6	NB 01	56.4	6.2	N	Y	None
R213 Second Floor	67	2	64.1	65.4	66.8	NB 01	58.5	8.3	N	Y	A/E
R214	67	2	60.1	61.4	63.6	NB 01	56.9	6.7	N	Y	None
R214 Second Floor	67	2	65.2	66.5	67.8	NB 01	58.7	9.1	N	Y	A/E
R215	67	2	61.2	62.4	64.5	NB 01	57.7	6.8	N	Y	None
R215 Second Floor	67	2	66.4	67.6	68.9	NB 01	59.6	9.3	N	Y	A/E
R216	67	2	57.5	58.8	60.6	NB 01	53.9	6.7	N	Y	None
R216 Second Floor	67	2	62.5	63.8	65.2	NB 01	55.5	9.7	N	Y	None
R217	67	2	52.6	53.9	55.6	NB 01	50.7	4.9	N	N	None
R217 Second Floor	67	2	56.5	57.8	59.3	NB 01	53.1	6.2	N	Y	None
R218	67	2	51.5	52.7	54.4	NB 01	50.6	3.8	N	N	None
R218 Second Floor	67	2	56.0	57.2	58.7	NB 01	53.8	4.9	N	Y	None
R219	67	2	52.6	53.9	55.6	NB 01	52.9	2.7	N	N	None
R219 Second Floor	67	2	56.9	58.2	59.8	NB 01	56.9	2.9	N	N	None
R220	67	2	60.2	61.5	63.5	NB 01	56.9	6.6	N	Y	None
R220 Second Floor	67	2	65.4	66.7	67.9	NB 01	58.9	9.0	N	Y	A/E
R221	67	2	59.9	61.2	63.2	NB 01	56.7	6.5	N	Y	None
R221 Second Floor	67	2	65.0	66.3	67.6	NB 01	58.7	8.9	N	Y	A/E
R222	67	2	59.5	60.8	62.9	NB 01	56.5	6.4	N	Y	None
R222 Second Floor	67	2	64.7	66.0	67.3	NB 01	58.4	8.9	N	Y	A/E
R223	67	2	59.3	60.6	62.8	NB 01	56.3	6.5	N	Y	None
R223 Second Floor	67	2	64.6	65.9	67.2	NB 01	58.3	8.9	N	Y	A/E
R224	67	2	52.4	53.7	55.2	NB 01	51.4	3.8	N	N	None
R224 Second Floor	67	2	55.8	57.1	58.6	NB 01	54.1	4.5	N	N	None

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R225	67	2	51.1	52.3	54.0	NB 01	51.4	2.6	N	N	None
R225 Second Floor	67	2	55.3	56.5	58.1	NB 01	54.7	3.4	N	N	None
R226	67	2	52.1	53.4	55.4	NB 01	52.0	3.4	N	N	None
R226 Second Floor	67	2	56.9	58.2	59.8	NB 01	55.3	4.5	N	N	None
R227	67	2	56.8	58.1	60.4	NB 01	54.3	6.1	N	Y	None
R227 Second Floor	67	2	61.9	63.2	64.6	NB 01	56.9	7.7	N	Y	None
R228	67	1	55.5	56.8	58.8	NB 01	54.0	4.8	N	N	None
R229	67	1	57.2	58.5	60.6	NB 01	55.1	5.5	N	Y	None
R230	67	1	58.1	59.4	61.6	NB 01	55.6	6.0	N	Y	None
R231	67	1	58.6	59.8	62.1	NB 01	56.3	5.8	N	Y	None
R232	67	1	58.9	60.1	62.2	NB 01	56.4	5.8	N	Y	None
R233	67	1	58.5	59.8	61.8	NB 01	56.3	5.5	N	Y	None
R234	67	1	58.6	59.8	61.8	NB 01	56.2	5.6	N	Y	None
R235	67	1	58.8	60.0	61.9	NB 01	56.3	5.6	N	Y	None
R236	67	1	58.2	59.4	61.3	NB 01	56.0	5.3	N	Y	None
R237	67	1	57.4	58.7	60.4	NB 01	54.7	5.7	N	Y	None
R238	67	1	56.9	58.2	60.2	NB 01	55.5	4.7	N	N	None
R239	67	1	56.3	57.5	59.5	NB 01	55.1	4.4	N	N	None
R240	67	2	58.5	59.8	61.4	NB 01	56.4	5.0	N	Y	None
R240 Second Floor	67	2	62.6	63.9	65.2	NB 01	58.3	6.9	N	Y	None
R241	67	2	58.8	60.0	61.7	NB 01	56.8	4.9	N	Y	None
R241 Second Floor	67	2	62.8	64.1	65.3	NB 01	58.6	6.7	N	Y	None
R242	67	2	59.4	60.7	62.5	NB 01	57.3	5.2	N	Y	None
R242 Seconf Floor	67	2	63.5	64.8	66.0	NB 01	59.0	7.0	N	Y	A/E
R243	67	2	59.5	60.7	62.5	NB 01	57.5	5.0	N	Y	None

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R243 Second Floor	67	2	63.7	64.9	66.0	NB 01	59.2	6.8	N	Y	A/E
R244	67	2	53.1	54.3	55.9	NB 01	51.1	4.8	N	N	None
R244 Second Floor	67	2	56.2	57.5	58.9	NB 01	53.8	5.1	N	Y	None
R245	67	2	51.8	53.0	55.0	NB 01	52.8	2.2	N	N	None
R245 Second Floor	67	2	54.5	55.7	57.4	NB 01	55.0	2.4	N	N	None
R246	67	2	52.2	53.4	55.8	NB 01	54.4	1.4	N	N	None
R246 Second Floor	67	2	55.3	56.5	58.3	NB 01	56.7	1.6	N	N	None
R247	67	2	55.1	56.3	58.1	NB 01	55.7	2.4	N	N	None
R247 Second Floor	67	2	59.3	60.6	61.8	NB 01	57.8	4.0	N	N	None
R271	67	1	56.7	58.0	59.3	NB 01	56.2	3.1	N	N	None
R272	67	1	57.6	58.9	60.2	NB 01	56.7	3.5	N	N	None
R273	67	1	58.5	59.8	61.0	NB 01	57.0	4.0	N	N	None
R274	67	1	59.7	60.9	61.9	NB 01	57.3	4.6	N	N	None
R275	67	1	61.0	62.3	63.1	NB 01	57.6	5.5	N	Y	None
R276	67	1	62.6	63.8	64.5	NB 01	58.5	6.0	N	Y	None
R277	67	1	65.3	66.5	66.2	NB 01	60.0	6.2	Y	Y	A/E
R278	67	1	69.3	70.6	67.0	NB 01	61.1	5.9	Y	Y	A/E
R279	67	1	70.1	71.4	67.2	NB 01	61.4	5.8	Y	Y	A/E
R280	67	1	69.8	71.1	66.6	NB 01	60.9	5.7	Y	Y	A/E
R281	67	1	69.2	70.5	66.4	NB 01	60.9	5.5	Y	Y	A/E
R282	67	1	68.6	69.9	66.4	NB 01	61.8	4.6	Y	N	A/E
R283	67	1	68.2	69.5	66.2	NB 01	61.3	4.9	Y	Y	A/E
R284	67	1	67.4	68.6	66.1	NB 01	61.2	4.9	Y	N	A/E
R285	67	1	64.4	65.7	64.4	NB 01	60.5	3.9	Y	N	None
R286	67	1	65.2	66.5	66.0	NB 01	61.8	4.2	Y	N	A/E

Table C-3 – Predicted Noise Levels NSA 3 and 4

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R287	67	1	65.8	67.1	66.0	NB 01	61.6	4.4	Y	N	A/E
R288	67	1	63.6	64.8	64.5	NB 01	60.4	4.1	Y	N	None
R289	67	1	62.4	63.7	66.1	NB 01	64.0	2.1	N	N	A/E
R290	67	1	61.4	62.6	64.5	NB 01	62.3	2.2	N	N	None
R291	67	1	60.6	61.8	63.9	NB 01	62.1	1.8	N	N	None
R292	67	1	59.7	61.0	62.1	NB 01	60.3	1.8	N	N	None
R293	67	1	58.5	59.7	61.1	NB 01	59.5	1.6	N	N	None
R294	67	1	58.0	59.3	60.4	NB 01	58.7	1.7	N	N	None
R295	67	1	57.2	58.5	60.1	NB 01	58.6	1.5	N	N	None
R296	67	1	57.6	58.8	59.9	NB 01	57.3	2.6	N	N	None
R297	67	1	58.5	59.8	60.7	NB 01	57.8	2.9	N	N	None
R298	67	1	59.5	60.8	61.4	NB 01	58.3	3.1	N	N	None
R299	67	1	60.8	62.1	62.7	NB 01	59.0	3.7	N	N	None
R300	67	1	61.0	62.3	62.7	NB 01	59.3	3.4	N	N	None
R301	67	1	60.3	61.6	62.0	NB 01	59.1	2.9	N	N	None
R302	67	1	59.7	61.0	61.4	NB 01	59.0	2.4	N	N	None
R303	67	1	60.2	61.5	61.7	NB 01	59.7	2.0	N	N	None
R304	67	1	59.0	60.2	60.8	NB 01	58.8	2.0	N	N	None
R305	67	1	58.0	59.3	60.2	NB 01	58.2	2.0	N	N	None
R306	67	1	57.3	58.5	59.5	NB 02	57.6	1.9	N	N	None
R310	67	1	58.9	60.1	61.1	N/A	-	-	N	N	None
R311	67	1	58.7	59.9	60.8	N/A	-	-	N	N	None
R449	67	1	64.6	65.5	65.6	N/A	-	-	N	N	None
R450	67	1	61.8	62.7	62.5	N/A	-	-	N	N	None

Table C-4 – Predicted Noise Levels NSA 5

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R307	67	1	59.5	60.7	60.5	NB 02	60.5	0.0	N	N	None
R320	67	1	58.9	60.2	61.5	NB 02	61.4	0.1	N	N	None
R321	67	1	66.9	68.2	69.9	NB 02	69.9	0.0	Y	N	A/E
R322	67	1	58.9	60.1	61.2	NB02	61.0	0.2	N	N	None
R323	67	1	59.8	61.0	62.1	NB 02	61.9	0.2	N	N	None
R324	67	1	60.9	62.2	63.2	NB 02	63.1	0.1	N	N	None
R325	67	1	62.3	63.6	64.7	NB 02	64.6	0.1	N	N	None
R326	67	1	63.3	64.6	65.7	NB 02	65.6	0.1	Y	N	None
R327	67	1	64.1	65.4	66.2	NB 02	66.1	0.1	Y	N	A/E
R328	67	1	64.4	65.7	65.8	NB 02	65.8	0.0	Y	N	None
R329	67	1	63.5	64.8	64.8	NB 02	64.5	0.3	Y	N	None
R330	67	1	62.6	63.9	63.9	NB 02	63.6	0.3	Y	N	None
R331	67	1	61.9	63.2	63.3	NB 02	62.9	0.4	Y	N	None
R332	67	1	61.2	62.5	62.6	NB 02	62.1	0.5	Y	N	None
R333	67	1	60.6	61.9	62.2	NB 02	61.6	0.6	N	N	None
R334	67	1	60.3	61.6	61.7	NB 02	61.0	0.7	N	N	None
R335	67	1	62.0	63.2	63.4	NB 02	62.8	0.6	N	N	None
R336	67	1	63.2	64.5	64.4	NB 02	63.9	0.5	N	N	None
R337	67	1	64.9	66.2	65.9	NB 02	65.4	0.5	N	N	None
R338	67	1	67.8	69.1	68.8	NB 02	68.3	0.5	Y	N	A/E
R339	67	1	70.2	71.5	71.7	NB 02	71.3	0.4	Y	N	A/E
R340	67	1	67.5	68.8	68.8	NB 02	67.3	1.5	Y	N	A/E
R341	67	1	64.9	66.2	66.1	NB 02	63.8	2.3	Y	N	A/E
R342	67	1	63.2	64.5	64.5	NB 02	62.3	2.2	N	N	None
R343	67	1	62.0	63.3	63.3	NB 02	61.5	1.8	N	N	None
R344	67	1	60.9	62.2	62.1	NB 02	60.6	1.5	N	N	None

Table C-4 – Predicted Noise Levels NSA 5

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R345	67	1	59.9	61.2	60.9	NB 02	59.8	1.1	N	N	None
R346	67	1	59.5	60.8	60.8	NB 02	59.4	1.4	N	N	None
R347	67	1	59.7	61.0	61.0	NB 02	59.0	2.0	N	N	None
R348	67	1	59.7	61.0	61.0	NB 02	58.6	2.4	N	N	None
R349	67	1	59.2	60.4	60.5	NB 02	58.1	2.4	N	N	None
R350	67	1	59.1	60.3	60.9	NB 02	60.7	0.2	N	N	None
R351	67	1	59.3	60.6	61.1	NB 02	60.8	0.3	N	N	None
R352	67	1	59.8	61.1	61.5	NB 02	61.2	0.3	N	N	None
R353	67	1	59.1	60.4	60.8	NB 02	60.5	0.3	N	N	None
R356	67	1	56.7	58.0	58.3	NB 02	56.4	1.9	N	N	None
R357	67	1	58.2	59.5	59.9	NB 02	57.8	2.1	N	N	None
R358	67	1	59.2	60.5	60.8	NB 02	58.5	2.3	N	N	None
R359	67	1	60.9	62.2	62.5	NB 02	59.8	2.7	N	N	None
R360	67	1	62.5	63.7	64.1	NB 02	61.0	3.1	N	N	None
R361	67	1	63.9	65.2	65.5	NB 02	61.9	3.6	N	N	None
R362	67	1	64.7	65.9	66.5	NB 02	61.5	5.0	Y	Y	A/E
R363	67	1	66.3	67.6	68.2	NB 02	61.9	6.3	Y	Y	A/E
R364	67	1	66.4	67.7	68.1	NB 02	61.6	6.5	Y	Y	A/E
R365	67	1	66.1	67.4	67.7	NB 02	61.3	6.4	Y	Y	A/E
R366	67	1	66.0	67.3	67.4	NB 02	61.3	6.1	Y	Y	A/E
R367	67	1	66.4	67.7	68.2	NB 02	61.7	6.5	Y	Y	A/E
R368	67	1	66.8	68.1	68.7	NB 02	62.1	6.6	Y	Y	A/E
R369	67	1	66.8	68.0	68.5	NB 02	62.2	6.3	Y	Y	A/E
R370	67	1	67.0	68.2	68.8	NB 02	62.4	6.4	Y	Y	A/E
R371	67	1	66.8	68.0	68.5	NB 02	62.4	6.1	Y	Y	A/E
R372	67	1	66.2	67.4	67.8	NB 02	62.2	5.6	Y	Y	A/E

Table C-4 – Predicted Noise Levels NSA 5

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R373	67	1	66.3	67.6	68.0	NB 02	62.5	5.5	Y	Y	A/E
R374	67	1	66.9	68.1	68.6	NB 02	62.9	5.7	Y	Y	A/E
R375	67	1	66.9	68.2	68.6	NB 02	62.8	5.8	Y	Y	A/E
R376	67	1	67.2	68.5	69.0	NB 02	63.2	5.8	Y	Y	A/E
R377	67	1	67.0	68.3	68.8	NB 02	62.9	5.9	Y	Y	A/E
R378	67	1	67.1	68.4	68.9	NB 02	63.0	5.9	Y	Y	A/E
R379	67	1	66.8	68.1	68.7	NB 02	63.1	5.6	Y	Y	A/E
R380	67	1	66.4	67.7	68.2	NB 02	62.4	5.8	Y	Y	A/E
R381	67	1	66.4	67.7	68.2	NB 02	62.3	5.9	Y	Y	A/E
R382	67	1	66.2	67.4	67.6	NB 02	61.8	5.8	Y	Y	A/E
R383	67	1	66.1	67.3	67.5	NB 02	61.5	6.0	Y	Y	A/E
R384	67	1	66.1	67.3	67.8	NB 02	61.4	6.4	Y	Y	A/E
R385	67	1	65.3	66.5	67.1	NB 02	61.4	5.7	Y	Y	A/E
R386	67	1	64.2	65.5	66.3	NB 02	61.3	5.0	Y	Y	A/E
R387	67	1	63.3	64.6	65.4	NB 02	61.2	4.2	Y	N	None
R388	67	1	63.1	64.4	65.3	NB 02	61.6	3.7	N	N	None
R389	67	1	61.3	62.6	63.5	NB 02	60.3	3.2	N	N	None
R390	67	1	63.8	65.1	66.1	NB 02	62.3	3.8	Y	N	A/E
R391	67	1	61.9	63.2	64.0	NB 02	62.3	1.7	Y	N	None
R392	67	1	62.7	64.0	64.4	NB 02	63.1	1.3	Y	N	None
R393	67	1	61.0	62.3	63.0	NB 02	61.7	1.3	Y	N	None
R394	67	1	60.0	61.3	62.0	NB 02	60.6	1.4	N	N	None
R395	67	1	59.4	60.7	61.5	NB 02	59.9	1.6	N	N	None
R396	67	1	58.9	60.2	61.0	NB 02	59.4	1.6	N	N	None
R397	67	1	58.4	59.7	60.5	NB 02	58.9	1.6	N	N	None
R398	67	1	57.7	59.0	59.7	NB 02	58.0	1.7	N	N	None

Table C-4 – Predicted Noise Levels NSA 5

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R399	67	1	57.2	58.5	59.1	NB 02	57.4	1.7	N	N	None
R400	67	1	56.9	58.2	58.6	NB 02	57.0	1.6	N	N	None
R401	67	1	57.3	58.6	59.0	NB 02	56.4	2.6	N	N	None
R403	67	1	59.6	60.9	61.4	NB 02	58.5	2.9	N	N	None
R404	67	1	60.6	61.9	62.4	NB 02	59.4	3.0	N	N	None
R405	67	1	55.3	56.5	56.7	NB 02	54.8	1.9	N	N	None
R406	67	1	56.0	57.2	57.3	NB 02	55.2	2.1	N	N	None
R407	67	1	56.3	57.6	58.0	NB 02	55.8	2.2	N	N	None
R408	67	1	56.9	58.2	58.7	NB 02	56.3	2.4	N	N	None
R409	67	1	57.9	59.2	59.7	NB 02	57.2	2.5	N	N	None
R410	67	1	59.1	60.4	60.8	NB 02	58.0	2.8	N	N	None
R411	67	1	61.1	62.4	62.7	NB 02	59.3	3.4	N	N	None
R412	67	1	57.0	58.3	58.7	NB 02	56.4	2.3	N	N	None
R413	67	1	57.6	58.9	59.2	NB 02	56.7	2.5	N	N	None
R414	67	1	58.2	59.5	59.9	NB 02	57.2	2.7	N	N	None
R415	67	1	58.9	60.2	60.5	NB 02	57.6	2.9	N	N	None
R416	67	1	61.0	62.2	62.5	NB 02	59.4	3.1	N	N	None
R417	67	1	56.9	58.2	58.4	NB 02	55.4	3.0	N	N	None
R418	67	1	56.6	57.8	58.0	NB 02	55.0	3.0	N	N	None
R419	67	1	56.6	57.9	58.1	NB 02	55.0	0.0	N	N	None
R420	67	1	56.5	57.8	57.9	NB 02	54.9	0.0	N	N	None
R421	67	1	56.7	58.0	58.1	NB 02	55.1	3.0	N	N	None
R422	67	1	56.8	58.1	58.3	NB 02	55.3	0.0	N	N	None
R423	67	1	56.5	57.8	57.9	NB 02	55.1	0.0	N	N	None
R424	67	1	56.2	57.4	57.5	NB 02	54.7	2.8	N	N	None
R425	67	1	56.5	57.8	57.9	NB 02	55.1	2.8	N	N	None

Table C-4 – Predicted Noise Levels NSA 5

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R426	67	1	57.0	58.2	58.4	NB 02	55.6	2.8	N	N	None
R427	67	1	56.9	58.2	58.3	NB 02	55.3	3.0	N	N	None
R428	67	1	56.9	58.1	58.2	NB 02	55.2	3.0	N	N	None
R429	67	1	57.4	58.6	58.7	NB 02	56.2	2.5	N	N	None
R430	67	1	59.8	61.1	61.5	NB 02	58.2	3.3	N	N	None
R431	67	1	58.7	60.0	60.4	NB 02	57.4	3.0	N	N	None
R432	67	1	57.9	59.2	59.5	NB 02	56.9	2.6	N	N	None
R433	67	1	57.0	58.3	58.6	NB 02	56.3	2.3	N	N	None
R434	67	1	56.6	57.9	58.2	NB 02	56.2	2.0	N	N	None
R435	67	1	57.1	58.4	58.7	NB 02	56.7	2.0	N	N	None
R436	67	1	57.6	58.9	59.2	NB 02	57.1	2.1	N	N	None
R437	67	1	58.2	59.5	59.8	NB 02	57.5	2.3	N	N	None
R438	67	1	59.0	60.3	60.6	NB 02	58.2	2.4	N	N	None
R439	67	1	59.7	61.0	61.3	NB 02	58.8	2.5	N	N	None
R440	67	1	60.5	61.8	62.1	NB 02	59.5	2.6	N	N	None
R441	67	1	57.5	58.8	59.1	NB 02	57.1	2.0	N	N	None
R442	67	1	57.9	59.2	59.5	NB 02	57.4	2.1	N	N	None
R443	67	1	58.6	59.9	60.3	NB 02	58.1	2.2	N	N	None
R444	67	1	59.4	60.6	61.0	NB 02	58.7	2.3	N	N	None
R445	67	1	60.2	61.5	61.9	NB 02	59.4	2.5	N	N	None
R446	67	1	59.7	61.0	62.3	N/A	59.2	3.1	N	N	None

Table C-5 – Predicted Noise Levels NSA 6

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R451	67	1	61.9	63.0	63.8	N/A	-	-	Y	-	None
R452	67	1	62.6	63.9	64.6	N/A	-	-	Y	-	None
R453	67	1	60.8	62.0	63.0	N/A	-	-	N	-	None
R454	67	1	61.7	62.9	63.7	N/A	-	-	Y	-	None
R455	67	1	61.8	63.1	64.1	N/A	-	-	Y	-	None
R456	67	1	62.7	63.9	64.8	N/A	-	-	Y	-	None
R457	67	1	60.7	61.9	63.1	N/A	-	-	N	-	None
R458	67	1	61.6	62.8	63.9	N/A	-	-	Y	-	None
R459	67	1	60.2	61.4	62.4	N/A	-	-	Y	-	None
R460	67	1	63.0	64.3	64.8	N/A	-	-	Y	-	None
R462	67	1	63.5	64.7	65.5	N/A	-	-	Y	-	None
R463	67	1	60.2	61.3	63.3	N/A	-	-	N	-	None
R464	67	1	61.2	62.5	64.0	N/A	-	-	N	-	None
R465	67	2	68.5	69.7	70.5	NB 08	65.4	5.1	Y	Y	A/E
R466	67	1	59.6	60.8	62.6	N/A	-	-	N	-	None
R467	67	1	60.1	61.4	63.1	N/A	-	-	N	-	None
R540	67	6	61.9	63.2	64.3	NB 09	62.9	1.4	Y	N	None
R540(a)	67	6	60.4	61.7	62.9	NB 09	61.5	1.4	N	N	None
R540(b)	67	6	59.7	61.0	62.0	NB 09	60.6	1.4	N	N	None
R541	67	6	62.1	63.4	64.6	NB 09	61.5	3.1	Y	N	None
R541(a)	67	6	60.6	61.8	63.1	NB 09	60.6	2.5	N	N	None
R541(b)	67	6	59.8	61.1	62.4	NB 09	60.1	2.3	N	N	None
R542	67	6	64.8	66.1	67.6	NB 09	61.8	5.8	Y	Y	A/E
R542(a)	67	6	63.3	64.5	65.9	NB 09	61.5	4.4	N	N	None
R543	67	6	62.1	63.4	64.7	NB 09	61.1	3.6	N	N	None

Table C-5 – Predicted Noise Levels NSA 6

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R543(a)	67	6	60.8	62.1	63.4	NB 09	60.5	2.9	N	N	None
R544	67	6	59.9	61.1	62.5	NB 09	60.2	2.3	N	N	None
R545	67	6	61.0	62.3	63.7	NB 09	61.8	1.9	N	N	None
R545(a)	67	6	60.4	61.7	63.1	NB 09	61.1	2.0	N	N	None
R546	67	6	62.6	63.8	65.3	NB 09	64.0	1.3	Y	N	None
R546(a)	67	6	61.5	62.7	64.2	NB 09	62.4	1.8	N	N	None
R547	67	1	59.9	61.1	62.5	NB 09	61.7	0.8	N	N	None
R548	67	1	58.8	60.1	61.6	N/A	-	-	N	-	None

Table C-6 – Predicted Noise Levels NSA 7

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R470	67	2	61.7	62.9	63.3	N/A	N/A	-	N	-	None
R471	67	2	61.0	62.3	62.9	N/A	N/A	-	N	-	None
R472	67	2	60.6	61.8	62.4	N/A	N/A	-	N	-	None
R473	67	2	59.9	61.2	62.2	N/A	N/A	-	N	-	None
R474	67	2	59.3	60.6	61.5	N/A	N/A	-	N	-	None
R475	67	2	58.6	59.9	60.6	N/A	N/A	-	N	-	None
R476	67	2	58.0	59.3	60.0	N/A	N/A	-	N	-	None
R477	67	2	65.3	66.6	66.6	NB 04	61.6	5.0	Y	Y	A/E
R478	67	2	63.1	64.4	64.8	N/A	N/A	-	Y	-	None
R479	67	2	62.8	64.0	64.6	N/A	N/A	-	Y	-	None
R480	67	2	62.9	64.2	64.8	N/A	N/A	-	Y	-	None
R481	67	2	62.7	64.0	64.8	N/A	N/A	-	Y	-	None
R482	67	2	62.0	63.3	64.1	N/A	N/A	-	Y	-	None
R483	67	2	61.3	62.5	63.5	N/A	N/A	-	Y	-	None
R484	67	2	60.6	61.9	63.0	N/A	N/A	-	N	-	None
R485	67	2	59.9	61.1	62.1	N/A	N/A	-	N	-	None
R486	67	2	58.7	60.0	61.0	N/A	N/A	-	N	-	None
R487	67	2	58.0	59.3	60.3	N/A	N/A	-	N	-	None
R488	67	2	59.0	60.2	61.2	N/A	N/A	-	N	-	None
R489	67	2	60.2	61.4	62.4	N/A	N/A	-	N	-	None
R490	67	2	60.7	62.0	62.9	N/A	N/A	-	N	-	None
R491	67	2	61.5	62.8	63.4	N/A	N/A	-	N	-	None
R492	67	2	61.9	63.2	64.0	N/A	N/A	-	N	-	None
R493	67	2	64.4	65.7	66.1	NB 05	61.1	5.0	Y	Y	A/E
R494	67	2	63.0	64.3	65.0	NB 05	60.5	4.5	Y	N	None

Table C-6 – Predicted Noise Levels NSA 7

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R495	67	2	60.4	61.7	62.9	N/A	N/A	-	N	-	None
R496	67	2	59.3	60.6	61.7	N/A	N/A	-	N	-	None
R497	67	1	61.1	62.4	63.5	N/A	N/A	-	Y	-	None
R498	67	1	59.8	61.1	62.5	N/A	N/A	-	N	-	None
R499	67	1	58.9	60.1	61.6	N/A	N/A	-	N	-	None
R500	67	1	59.9	61.2	62.5	N/A	N/A	-	Y	-	None
R501	67	1	59.8	61.0	62.3	N/A	N/A	-	Y	-	None
R502	67	1	60.0	61.3	63.0	N/A	N/A	-	Y	-	None
R510	67	1	58.7	60.0	61.7	N/A	N/A	-	N	-	None
R511	67	1	59.4	60.6	62.4	N/A	N/A	-	N	-	None
R512	67	1	60.5	61.8	63.4	N/A	N/A	-	Y	-	None
R513	67	1	61.6	62.9	64.3	N/A	N/A	-	Y	-	None
R514	67	1	60.7	62.0	63.7	N/A	N/A	-	Y	-	None
R515	67	1	59.4	60.7	62.5	N/A	N/A	-	N	-	None
R516	67	1	59.5	60.8	62.4	N/A	N/A	-	N	-	None
R517	67	1	59.2	60.5	62.2	N/A	N/A	-	N	-	None
R518	67	1	59.2	60.5	62.2	N/A	N/A	-	N	-	None
R519	67	1	59.1	60.4	62.2	N/A	N/A	-	N	-	None
R520	67	1	58.9	60.2	62.0	N/A	N/A	-	N	-	None
R521	67	1	58.7	59.9	61.8	N/A	N/A	-	N	-	None
R522	67	1	58.3	59.6	61.4	N/A	N/A	-	N	-	None
R523	67	1	64.2	65.5	66.5	NB 06	61.5	5.0	Y	Y	A/E
R524	67	1	64.1	65.4	66.4	NB 06	60.7	5.7	Y	Y	A/E
R525	67	1	63.9	65.1	66.1	NB 06	60.2	5.9	Y	Y	A/E
R526	67	1	64.1	65.4	66.5	NB 06	60.6	5.9	Y	Y	A/E

Table C-6 – Predicted Noise Levels NSA 7

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R527	67	1	65.1	66.4	67.3	NB 06	62.3	5.0	Y	Y	A/E
R528	67	1	58.1	59.3	61.0	N/A	N/A	-	Y	-	None
R528(a)	67	1	58.2	59.4	61.1	N/A	N/A	-	Y	-	None
R529	67	1	58.2	59.5	61.1	N/A	N/A	-	Y	-	None
R530	67	1	58.2	59.5	61.1	N/A	N/A	-	Y	-	None
R531	67	1	58.4	59.7	61.2	N/A	N/A	-	Y	-	None
R532	67	1	58.4	59.7	61.2	N/A	N/A	-	Y	-	None
R533	67	1	58.5	59.7	61.2	N/A	N/A	-	Y	-	None
R534	67	1	58.5	59.7	61.2	N/A	N/A	-	Y	-	None
R535	67	1	61.8	63.1	64.2	N/A	N/A	-	Y	-	None
R536	67	1	62.3	63.6	64.6	NB 07	62.7	1.9	Y	N	None
R536(a)	67	1	60.7	62.0	63.3	NB 07	61.5	1.8	N	N	None
R537	67	1	69.9	71.2	71.1	NB 07	64.4	6.7	Y	Y	A/E
R538	67	1	67.4	68.7	69.1	NB 07	64.1	5.0	Y	Y	A/E
R539	67	1	60.6	61.9	63.3	NB 07	61.8	1.5	Y	N	None

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R549	67	1	59.4	60.5	61.7	N/A	-	-	Y	N	None
R550	67	1	60.3	61.4	62.6	N/A	-	-	Y	N	None
R551	67	1	61.0	62.2	63.4	N/A	-	-	Y	N	None
R552	67	1	62.4	63.6	64.9	N/A	-	-	Y	N	None
R552(a)	67	1	69.3	70.5	71.6	NB 11	66.5	5.1	Y	Y	A/E
R553	67	1	58.2	59.5	61.2	NB 10	59.9	1.3	N	N	None
R554	67	1	60.7	62.0	62.3	NB 10	60.9	1.4	N	N	None
R555	67	1	60.1	61.4	61.9	NB 10	59.9	2.0	N	N	None
R556	67	1	60.2	61.5	62.1	NB 10	59.5	2.6	N	N	None
R557	67	1	60.1	61.3	62.2	NB 10	58.4	3.8	N	N	None
R558	67	1	60.4	61.7	62.6	NB 10	57.5	5.1	N	Y	None
R559	67	1	62.0	63.2	64.3	NB 10	58.8	5.5	N	Y	None
R560	67	1	63.9	65.2	66.4	NB 10	60.4	6.0	N	Y	A/E
R561	67	1	66.4	67.7	69.0	NB 10	62.4	6.6	Y	Y	A/E
R562	67	1	68.8	70.1	71.2	NB 10	63.5	7.7	Y	Y	A/E
R563	67	1	68.5	69.8	71.3	NB 10	62.9	8.4	Y	Y	A/E
R564	67	1	67.0	68.3	69.8	NB 10	61.7	8.1	Y	Y	A/E
R565	67	1	65.9	67.2	68.7	NB 10	60.9	7.8	Y	Y	A/E
R566	67	1	64.9	66.2	67.6	NB 10	60.1	7.5	Y	Y	A/E
R567	67	1	64.0	65.2	66.4	NB 10	59.3	7.1	Y	Y	A/E
R568	67	1	62.6	63.9	65.0	NB 10	58.5	6.5	N	Y	None
R569	67	1	63.7	65.0	66.2	NB 10	59.1	7.1	Y	Y	A/E
R570	67	1	65.2	66.4	67.6	NB 10	59.8	7.8	Y	Y	A/E
R571	67	1	65.8	67.1	68.0	NB 10	60.2	7.8	Y	Y	A/E
R572	67	1	65.5	66.7	67.0	NB 10	60.0	7.0	Y	Y	A/E

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R573	67	1	65.4	66.7	66.9	NB 10	60.0	6.9	Y	Y	A/E
R574	67	1	65.4	66.6	66.8	NB 10	59.9	6.9	Y	Y	A/E
R575	67	1	65.6	66.9	67.1	NB 10	59.9	7.2	Y	Y	A/E
R576	67	1	65.6	66.9	67.0	NB 10	60.0	7.0	Y	Y	A/E
R577	67	1	65.7	67.0	67.1	NB 10	60.0	7.1	Y	Y	A/E
R578	67	1	65.6	66.9	67.0	NB 10	60.2	6.8	Y	Y	A/E
R579	67	1	65.6	66.9	66.9	NB 10	60.3	6.6	Y	Y	A/E
R580	67	1	64.2	65.5	66.9	NB 10	60.6	6.3	Y	Y	A/E
R581	67	1	65.0	66.3	66.7	NB 10	60.9	5.8	Y	Y	A/E
R582	67	1	65.7	67.0	66.7	NB 10	60.9	5.8	Y	Y	A/E
R583	67	1	62.6	63.8	66.3	NB 10	61.0	5.3	Y	Y	A/E
R584	67	1	64.5	65.8	66.1	NB 10	61.0	5.1	Y	Y	A/E
R585	67	1	57.1	58.3	59.5	NB 10	57.2	2.3	N	N	None
R586	67	1	57.3	58.5	59.6	NB 10	56.8	2.8	N	N	None
R587	67	1	58.3	59.5	60.4	NB 10	57.2	3.2	N	N	None
R588	67	1	58.9	60.2	61.1	NB 10	57.6	3.5	N	N	None
R589	67	1	59.8	61.0	62.0	NB 10	58.1	3.9	N	N	None
R590	67	1	60.2	61.4	62.4	NB 10	57.8	4.6	N	N	None
R591	67	1	61.4	62.6	63.4	NB 10	58.2	5.2	N	Y	None
R592	67	1	60.6	61.9	63.0	NB 10	57.6	5.4	N	Y	None
R593	67	1	60.2	61.4	62.5	NB 10	57.3	5.2	N	Y	None
R594	67	1	59.9	61.2	62.3	NB 10	57.1	5.2	N	Y	None
R595	67	1	60.1	61.4	62.5	NB 10	57.0	5.5	N	Y	None
R596	67	1	59.3	60.5	61.9	NB 10	56.6	5.3	N	Y	None
R597	67	1	59.1	60.3	61.4	NB 10	57.0	4.4	N	N	None

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R598	67	1	58.8	60.1	61.0	NB 10	57.0	4.0	N	N	None
R599	67	1	60.4	61.6	62.6	NB 10	56.9	5.7	N	Y	None
R600	67	1	61.0	62.2	63.2	NB 10	57.4	5.8	N	Y	None
R601	67	1	62.0	63.3	63.9	NB 10	58.1	5.8	N	Y	None
R602	67	1	62.0	63.2	63.8	NB 10	58.1	5.7	N	Y	None
R603	67	1	61.9	63.2	63.7	NB 10	58.1	5.6	N	Y	None
R604	67	1	61.8	63.1	63.5	NB 10	58.1	5.4	N	Y	None
R605	67	1	61.8	63.1	63.5	NB 10	58.1	5.4	N	Y	None
R606	67	1	61.8	63.0	63.5	NB 10	58.2	5.3	N	Y	None
R607	67	1	61.8	63.1	63.5	NB 10	58.3	5.2	N	Y	None
R608	67	1	61.8	63.1	63.4	NB 10	58.3	5.1	N	Y	None
R609	67	1	61.9	63.2	63.5	NB 10	58.5	5.0	N	Y	None
R610	67	1	61.9	63.1	63.4	NB 10	58.5	4.9	N	N	None
R611	67	1	61.7	63.0	63.3	NB 10	58.6	4.7	N	N	None
R612	67	1	61.7	63.0	63.2	NB 10	58.7	4.5	N	N	None
R613	67	1	61.7	62.9	63.2	NB 10	58.8	4.4	N	N	None
R614	67	1	61.7	62.9	63.1	NB 10	58.9	4.2	N	N	None
R615	67	1	61.1	62.3	62.6	NB 10	58.7	3.9	N	N	None
R616	67	1	59.1	60.3	61.1	NB 10	56.2	4.9	N	N	None
R617	67	1	59.1	60.3	61.1	NB 10	56.2	4.9	N	N	None
R618	67	1	59.1	60.3	61.0	NB 10	56.3	4.7	N	N	None
R619	67	1	58.9	60.2	60.8	NB 10	56.1	4.7	N	N	None
R620	67	1	58.9	60.1	60.8	NB 10	56.2	4.6	N	N	None
R621	67	1	58.8	60.1	60.7	NB 10	56.2	4.5	N	N	None
R622	67	1	58.8	60.1	60.7	NB 10	56.2	4.5	N	N	None

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R623	67	1	58.7	60.0	60.6	NB 10	56.2	4.4	N	N	None
R624	67	1	58.6	59.9	60.5	NB 10	56.2	4.3	N	N	None
R625	67	1	58.8	60.1	60.7	NB 10	56.4	4.3	N	N	None
R626	67	1	58.6	59.9	60.6	NB 10	56.4	4.2	N	N	None
R627	67	1	58.8	60.0	60.7	NB 10	56.5	4.2	N	N	None
R628	67	1	58.5	59.8	60.6	NB 10	56.4	4.2	N	N	None
R629	67	1	59.1	60.4	61.4	NB 10	56.3	5.1	N	Y	None
R630	67	1	58.7	60.0	60.9	NB 10	56.1	4.8	N	N	None
R631	67	1	58.5	59.8	60.6	NB 10	56.0	4.6	N	N	None
R632	67	1	58.3	59.6	60.4	NB 10	55.9	4.5	N	N	None
R633	67	1	58.3	59.5	60.3	NB 10	55.9	4.4	N	N	None
R634	67	1	58.2	59.5	60.3	NB 10	55.9	4.4	N	N	None
R635	67	1	58.1	59.4	60.2	NB 10	55.7	4.5	N	N	None
R636	67	1	58.1	59.3	60.1	NB 10	55.7	4.4	N	N	None
R637	67	1	58.0	59.3	59.9	NB 10	55.6	4.3	N	N	None
R638	67	1	57.9	59.2	59.8	NB 10	55.6	4.2	N	N	None
R639	67	1	57.9	59.1	59.8	NB 10	55.6	4.2	N	N	None
R640	67	1	57.8	59.1	59.8	NB 10	55.6	4.2	N	N	None
R641	67	1	57.8	59.1	59.8	NB 10	55.6	4.2	N	N	None
R642	67	1	57.9	59.1	59.9	NB 10	55.7	4.2	N	N	None
R643	67	1	57.8	59.1	59.9	NB 10	55.7	4.2	N	N	None
R644	67	1	57.9	59.1	60.0	NB 10	55.8	4.2	N	N	None
R645	67	1	57.9	59.2	60.1	NB 10	55.8	4.3	N	N	None
R646	67	1	68.9	70.2	71.9	NB 10	63.0	8.9	Y	Y	A/E
R647	67	1	68.6	69.9	71.6	NB 10	63.0	8.6	Y	Y	A/E

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R648	67	1	67.7	69.0	70.6	NB 10	62.6	8.0	Y	Y	A/E
R649	67	1	66.4	67.7	69.3	NB 10	62.1	7.2	Y	Y	A/E
R650	67	1	65.7	66.9	68.4	NB 10	61.9	6.5	Y	Y	A/E
R651	67	1	64.7	66.0	67.4	NB 10	61.6	5.8	Y	Y	A/E
R652	67	1	64.1	65.4	66.6	NB 10	61.4	5.2	Y	Y	A/E
R653	67	1	60.6	61.9	62.8	NB 10	57.5	5.3	N	Y	None
R654	67	1	60.3	61.6	62.7	NB 10	57.3	5.4	N	Y	None
R655	67	1	59.4	60.7	61.8	NB 10	56.8	5.0	N	Y	None
R656	67	1	60.4	61.7	62.8	NB 10	57.5	5.3	N	Y	None
R657	67	1	60.8	62.1	63.2	NB 10	57.8	5.4	N	Y	None
R658	67	1	61.4	62.6	64.0	NB 10	58.4	5.6	N	Y	None
R659	67	1	61.8	63.1	64.2	NB 10	58.8	5.4	N	Y	None
R660	67	1	62.5	63.8	64.9	NB 10	59.3	5.6	N	Y	None
R661	67	1	63.0	64.2	65.3	NB 10	59.6	5.7	N	Y	None
R662	67	1	63.7	64.9	66.1	NB 10	60.1	6.0	N	Y	A/E
R663	67	1	64.1	65.4	66.4	NB 10	60.4	6.0	N	Y	A/E
R664	67	1	59.2	60.4	62.0	NB 10	57.1	4.9	N	N	None
R665	67	1	59.6	60.8	62.5	NB 10	57.4	5.1	N	Y	None
R666	67	1	60.0	61.3	62.9	NB 10	57.8	5.1	N	Y	None
R667	67	1	60.4	61.7	63.4	NB 10	58.2	5.2	N	Y	None
R668	67	1	60.9	62.2	63.9	NB 10	58.6	5.3	N	Y	None
R669	67	1	61.3	62.5	64.2	NB 10	58.9	5.3	N	Y	None
R670	67	1	62.1	63.4	64.8	NB 10	59.5	5.3	N	Y	None
R671	67	1	58.8	60.1	61.6	NB 10	57.3	4.3	N	N	None
R672	67	1	59.5	60.7	62.3	NB 10	57.8	4.5	N	N	None

Table C-6 – Predicted Noise Levels NSA 8 and 9

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R673	67	1	60.0	61.3	62.8	NB 10	58.3	4.5	N	N	None
R674	67	1	60.6	61.9	63.4	NB 10	58.9	4.5	N	N	None

Table C-8 – Predicted Noise Levels NSA 11,12 and 13

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R680	67	1	58.4	57.2	60.0	N/A	-	-	Y	-	None
R681	67	1	62.8	63.3	64.3	N/A	-	-	Y	-	None
R690	67	1	67.9	68.5	69.8	NB 12	63.5	6.3	Y	Y	A/E
R691	67	1	66.6	67.2	68.7	NB 12	62.8	5.9	Y	Y	A/E
R692	67	1	65.9	66.5	68.5	NB 12	62.5	6.0	Y	Y	A/E
R693	67	1	64.5	65.1	67.5	NB 12	62.0	5.5	Y	Y	A/E
R694	67	1	63.9	64.5	66.6	NB 12	61.4	5.2	Y	Y	A/E
R695	67	1	63.2	63.8	66.2	NB 12	61.1	5.1	N	Y	A/E
R696	67	1	62.2	62.8	65.2	NB 12	60.5	4.7	N	N	None
R697	67	1	63.5	64.1	66.5	NB 12	61.3	5.2	N	Y	A/E
R698	67	1	65.1	65.8	68.2	NB 12	62.2	6.0	Y	Y	A/E
R699	67	1	67.1	67.8	69.8	NB 12	63.1	6.7	Y	Y	A/E
R700	67	1	69.0	69.6	71.3	NB 12	63.8	7.5	Y	Y	A/E
R701	67	1	71.0	71.6	72.9	NB 12	64.6	8.3	Y	Y	A/E
R702	67	1	72.5	73.2	74.0	NB 12	65.0	9.0	Y	Y	A/E
R703	67	1	71.2	71.8	73.0	NB 12	64.6	8.4	Y	Y	A/E
R704	67	1	71.4	72.0	73.3	NB 12	64.9	8.4	Y	Y	A/E
R705	67	1	71.1	71.7	73.0	NB 12	64.5	8.5	Y	Y	A/E
R706	67	1	70.9	71.5	72.9	NB 12	64.4	8.5	Y	Y	A/E
R707	67	1	70.6	71.2	72.8	NB 12	64.3	8.5	Y	Y	A/E
R708	67	1	70.0	70.6	72.4	NB 12	64.2	8.2	Y	Y	A/E
R709	67	1	69.2	69.9	71.8	NB 12	63.9	7.9	Y	Y	A/E
R710	67	1	68.1	68.8	70.8	NB 12	63.3	7.5	Y	Y	A/E
R711	67	1	65.9	66.5	68.7	NB 12	62.5	6.2	N	Y	A/E
R712	67	1	64.2	64.9	67.2	NB 12	61.7	5.5	N	Y	A/E

Table C-8 – Predicted Noise Levels NSA 11,12 and 13

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R713	67	1	63.1	63.7	66.0	NB 12	60.9	5.1	N	Y	A/E
R714	67	1	70.1	70.8	72.6	NB 12	64.3	8.3	Y	Y	A/E
R715	67	1	68.1	68.7	70.9	NB 12	63.9	7.0	N	Y	A/E
R716	67	1	65.8	66.5	68.8	NB 12	62.8	6.0	N	Y	A/E
R717	67	1	63.9	64.6	66.9	NB 12	61.7	5.2	N	Y	A/E
R718	67	1	69.1	69.8	71.8	NB 12	64.6	7.2	Y	Y	A/E
R719	67	1	65.0	65.6	68.0	NB 12	62.8	5.2	Y	Y	A/E
R720	67	1	62.2	62.9	65.3	NB 12	61.0	4.3	N	N	None
R721	67	1	60.8	61.4	63.9	NB 12	60.0	3.9	N	N	None
R722	67	1	59.3	59.9	62.7	NB 12	58.8	3.9	N	N	None
R723	67	1	58.4	59.1	61.8	NB 12	57.8	4.0	N	N	None
R724	67	1	57.6	58.3	61.1	NB 12	57.2	3.9	N	N	None
R725	67	1	56.9	57.5	60.4	NB 12	56.2	4.2	N	N	None
R726	67	1	56.3	57.0	59.8	NB 12	55.6	4.2	N	N	None
R727	67	1	65.0	65.6	68.1	NB 12	62.2	5.9	N	Y	A/E
R728	67	1	65.0	65.7	68.1	NB 12	62.0	6.1	N	Y	A/E
R729	67	1	64.5	65.2	67.7	NB 12	61.8	5.9	N	Y	A/E
R730	67	1	64.4	65.1	67.5	NB 12	61.7	5.8	N	Y	A/E
R731	67	1	63.0	63.6	65.9	NB 12	60.7	5.2	N	Y	None
R732	67	1	61.5	62.2	64.7	NB 12	60.1	4.6	N	N	None
R733	67	1	61.0	61.7	64.2	NB 12	59.7	4.5	N	N	None
R734	67	1	60.3	61.0	63.7	NB 12	59.1	4.6	N	N	None
R735	67	1	60.2	60.8	63.5	NB 12	58.9	4.6	N	N	None
R736	67	1	59.7	60.3	63.1	NB 12	58.5	4.6	N	N	None
R737	67	1	59.5	60.2	62.9	NB 12	58.3	4.6	N	N	None

Table C-8 – Predicted Noise Levels NSA 11,12 and 13

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R738	67	1	59.8	60.4	63.1	NB 12	58.5	4.6	N	N	None
R739	67	1	60.7	61.4	63.9	NB 12	59.3	4.6	N	N	None
R740	67	1	61.6	62.3	64.7	NB 12	59.9	4.8	N	N	None
R741	67	1	58.3	58.9	61.1	NB 12	57.6	3.5	N	N	None
R742	67	1	58.8	59.4	61.8	NB 12	58.1	3.7	N	N	None
R743	67	1	59.5	60.1	62.6	NB 12	58.8	3.8	N	N	None
R744	67	1	60.2	60.8	63.2	NB 12	59.5	3.7	N	N	None
R745	67	1	61.2	61.9	64.0	NB 12	60.2	3.8	N	N	None
R746	67	1	63.2	63.9	65.7	NB 12	61.3	4.4	N	N	None
R747	67	1	64.9	65.6	67.8	NB 12	62.8	5.0	N	Y	A/E
R748	67	1	57.7	58.3	61.1	NB 12	56.9	4.2	N	N	None
R749	67	1	58.9	59.5	62.7	NB 12	58.3	4.4	N	N	None
R750	67	1	59.6	60.2	62.9	NB 12	58.8	4.1	N	N	None
R751	67	1	61.4	62.0	64.4	NB 12	60.1	4.3	N	N	None
R752	67	1	61.0	61.7	64.5	NB 12	60.1	4.4	N	N	None
R753	67	1	60.5	61.1	64.0	NB 12	59.6	4.4	N	N	None
R754	67	1	60.0	60.6	63.5	NB 12	59.2	4.3	N	N	None
R755	67	1	59.4	60.0	63.0	NB 12	58.7	4.3	N	N	None
R756	67	1	58.5	59.1	62.2	NB 12	58.0	4.2	N	N	None
R757	67	1	58.0	58.6	61.7	NB 12	57.4	4.3	N	N	None
R758	67	1	57.3	57.9	60.7	NB 12	56.6	4.1	N	N	None
R759	67	1	58.9	59.5	62.4	NB 12	58.1	4.3	N	N	None
R760	67	1	58.7	59.3	62.3	NB 12	58.0	4.3	N	N	None
R761	67	1	58.6	59.2	62.2	NB 12	57.8	4.4	N	N	None
R762	67	1	58.2	58.9	61.9	NB 12	57.5	4.4	N	N	None

Table C-8 – Predicted Noise Levels NSA 11,12 and 13

Receptor ID	Noise Abatement Criteria	Representative Dwelling Units	Existing Noise Level	No-Build Noise Level	Build Alternative Level w/o Barrier	Barrier ID	Build Alternative Level with Barrier	Noise Barrier Reduction	First Row Receptor (Y/N)	Benefitted Receptor (Y/N)	Impact Type A/E=Approaching or Exceeding
R763	67	1	57.8	58.4	61.5	NB 12	57.0	4.5	N	N	None
R764	67	1	57.6	58.2	61.3	NB 12	56.7	4.6	N	N	None
R765	67	1	57.4	58.0	61.0	NB 12	56.4	4.6	N	N	None
R766	67	1	57.6	58.2	61.2	NB 12	56.8	4.4	N	N	None
R767	67	1	57.5	58.1	61.2	NB 12	56.8	4.4	N	N	None
R768	67	1	57.2	57.8	60.8	NB 12	56.3	4.5	N	N	None
R769	67	1	57.0	57.6	60.5	NB 12	56.0	4.5	N	N	None
R770	67	1	56.8	57.4	60.4	NB 12	55.7	4.7	N	N	None
R771	67	1	57.3	58.0	61.0	NB 12	56.3	4.7	N	N	None
R772	67	1	57.9	58.5	61.6	NB 12	56.9	4.7	N	N	None
R773	67	1	58.5	59.1	62.1	NB 12	57.5	4.6	N	N	None
R774	67	1	59.1	59.8	62.7	NB 12	58.1	4.6	N	N	None
R775	67	1	59.6	60.3	63.0	NB 12	58.5	4.5	N	N	None
R776	67	1	59.4	60.0	62.8	NB 12	58.3	4.5	N	N	None
R777	67	1	59.7	60.3	63.0	NB 12	58.5	4.5	N	N	None
R778	67	1	59.9	60.5	63.2	NB 12	58.8	4.4	N	N	None

Appendix D

Noise Barrier Reasonableness Analysis Worksheet

Table D Noise Barrier Reasonableness Analysis Worksheet

Barrier #	Percentage of First Row Receptors which Receive 7dBA or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5dBA or Greater Noise Reduction (%)	Existing Noise Levels Leq(H) dBA	Range of Future Noise Levels		Barrier Characteristics							# of D/Us Attenuated (Min 5dBA)	Cost/Unit	Noise Barrier Effectiveness			Feasible and Cost Effective
				W/O Barriers Leq(dBA)	Barrier Leq(dBA)	Noise Reduction (dBA) *	Length (ft)	Beginning and End Point (Station)	Height (range)	Height (ft Average)	Total Barrier Area(sw ft)	Cost[1]			Design Goal Achieved[2]	Acoustic Feasibility Achieved [3]	Cost Effective Achieved [4]	
00	53	100	60.1-73.5	60.4-74.4	58.8-65.9	3.7-9.0	1,700	226 to 250 lt	6-18	14.7	25,050	$751,500	73	$10,300	Y	Y	Y	Y
1	68	84	50.9-74.7	54.0-77.5	50.6-65.5	1.4-13.2	3,900	361 to 389	10-20	18.8	73,420	$2,202,600	307	$7,200	Y	Y	Y	Y
2	0	78	55.3-70.2	56.5-71.5	54.7-71.3	0.0-6.6	1,900	395 to 423	8-20	15.4	29,210	$876,300	25	$35,100	Y	Y	N	N
3	0	100	65.6	68.8	56.8	5.1	1,160	380 to 392	6-20	13.9	16,090	$482,700	1	$482,700	N	Y	N	N
4	0	100	65.4	66.7	61.6	5.1	750	438 to 446	12-16	14.9	11,2000	$336,000	2	$168,000	N	Y	N	N
5	0	100	63.6-65.0	64.9-66.3	60.5-61.1	5.3-6.0	1,200	448 to 455	6-16	12.1	14,550	$436,500	5	$87,300	N	Y	N	N

Table D Noise Barrier Reasonableness Analysis Worksheet

Barrier #	Percentage of First Row Receptors which Receive 7dBA or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5dBA or Greater Noise Reduction (%)	Existing Noise Levels Leq(H) dBA	Range of Future Noise Levels		Barrier Characteristics							# of D/Us Attenuated (Min 5dBA)	Cost/Unit	Noise Barrier Effectiveness			Feasible and Cost Effective
				W/O Barriers Leq(dBA)	Barrier Leq(dBA)	Noise Reduction (dBA) *	Length (ft)	Beginning and End Point	Height (range)	Height (ft Average)	Total Barrier Area(sw ft)	Cost[1]			Design Goal Achieved[2]	Acoustic Feasibility Achieved [3]	Cost Effective Achieved [4]	
6	0	100	63.9-65.1	66.1-67.3	60.0-62.0	5.2-6.1	2,100	461 to 477	4-14	11.7	24,560	$736,800	5	$147,400	N	Y	N	N
7	0	100	60.6-69.9	63.3-71.2	61.9 - 65.6	1.3-5.6	1,100	486 to 499	2-14	10.2	11,200	$336,000	2	$168,000	N	Y	N	N
8	0	100	68.5	70.5	65.4	5.1	600	459 to 469	8-12	11.0	6,600	$198,000	2	$99,000	N	Y	N	N
9	0	100	59.4-64.4	61.3-66.5	59.8-64.0	0.8-5.1	900	472 to 492	8-20	17.1	15,400	$462,000	6	$77,000	N	Y	N	N
10	57	100	57.1-69.3	59.5-71.9	55.6-66.5	1.3-8.9	2,400	503 to 527	6-20	16.3	39,400	$1,182,000	69	$17,100	Y	Y	Y	Y

Table D Noise Barrier Reasonableness Analysis Worksheet

Barrier #	Percentage of First Row Receptors which Receive 7dBA or Greater Noise Reduction (%)	Percentage of Impacted Receptors which Receive 5dBA or Greater Noise Reduction (%)	Existing Noise Levels Leq(H) dBA	Range of Future Noise Levels		Barrier Characteristics							# of D/Us Attenuated (Min 5dBA)	Cost/Unit	Noise Barrier Effectiveness			Feasible and Cost Effective
				W/O Barriers Leq(dBA)	Barrier Leq(dBA)	Noise Reduction (dBA) *	Length (ft)	Beginning and End Point	Height (range)	Height (ft Average)	Total Barrier Area(sw ft)	Cost[1]			Design Goal Achieved[2]	Acoustic Feasibility Achieved [3]	Cost Effective Achieved [4]	
11	0	100	69.3	71.6	66.5	5.1	900	525 to 534	4-12	8.7	7,800	$234,000	1	$234,000	N	Y	N	N
12	61	100	56.3-72.5	59.8-74.0	55.6-65.0	3.5-9.0	2,020	795 to 821	4-12	9.0	18,300	$549,000	35	$15,700	Y	Y	Y	Y
13	0	100	67.2	84.4	63.4	5.0	800	807 to 820	4-10	7.25	5,800	$174,000	1	$174,000	N	Y	N	N

Notes:

[1] Estimated cost of the barriers is based on the surface area cost of $30 per square foot of barrier wall.

[2] The INDOT design goal is 7 dBA noise reduction for a majority (greater than 50%) of benefitted first row receptors.

[3] Acoustic effectiveness of a barrier was judged by providing a noise reduction of 5 dBA or greater at 50 percent or more of the impacted receptors

[4] Cost effectiveness was based on INDOT unit cost of $25,000 per benefiting receptor. For developments where a majority (greater than 50% of receptors) were in place prior to initial construction of the roadway a cost effective criteria of $30,000 per benefitted receptor was used.

Appendix E
Traffic Data

Table E Traffic Data for Existing No-Build and Proposed Conditions

Segment	Number of Lanes	Loudest Hour Volume(DHV)	Auto(per lane)		Heavy Trucks (per lane)		Speed* (AT/HT)
			%	Volume	%	Volume	
Existing							
Start of Project to 116th Street	5	9306	82	1,263	18	66	68/59
116th Street to SR 37	4	4,406	86	947	14	154	68/59
SR 37 to SR 238/Campus Parkway	4	4,369	86	939	14	153	68/59
SR 238/Campus Parkway to SR 13	4	4,451	95	1,057	5	56	73/60
SR 13 to End of Project	4	5,781	99	1,431	1	58	73/60
No-Build							
Start of Project to 116th Street	5	13064	82	1,773	18	93	68/59
116th Street to SR 37	4	6,186	86	1,330	14	216	68/59
SR 37 to SR 238/Campus Parkway	4	5,870	86	1,262	14	205	68/59
SR 238/Campus Parkway to SR 13	4	5,295	95	1,258	5	66	73/60
SR 13 to End of Project	4	6,705	99	1,659	1	11	73/60
Build							
Start of Project to 116th Street		13064	82	1,551	18	82	68/59
116th Street to SR 37	6	6,186	86	841	14	137	68/59
SR 37 to SR 238/Campus Parkway	6	5,870	86	841	14	137	68/59
SR 238/Campus Parkway to SR 13	6	5,295	95	838	5	44	73/60
SR 13 to End of Project	6	6,705	99	1,106	1	11	73/60

*Speeds used were observed based on an average of three drive through of the corridor while maintaining the average speed of the flow of traffic.

Appendix F

Public Involvement Materials

Appendix G

TNM Data Tables

*TNM Data Tables were omitted as they are summarized in Appendix C.

Appendix H

Sound Level Meter Calibration Records

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2014-187391

Instrument Model CAL200, Serial Number 11087, was calibrated on 7 Mar 2014. The instrument meets factory specifications per Procedure D0001.8190, IEC 60942:2003.

New Instrument
Date Calibrated: 7 Mar 2014
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	2900	0661	12 Months	8 Apr 2014	2013-172252
Larson Davis	2559	2506	12 Months	13 Jun 2014	29027
Larson Davis	MTS1000/2201	0111	12 Months	22 Aug 2014	SM082213
Larson Davis	PRM902	0480	12 Months	23 Aug 2014	2013-178669
Hewlett Packard	34401A	3146A10352	12 Months	3 Sep 2014	6214490
PCB	1502C02FJ15PSIA	1429	12 Months	2 Oct 2014	3463562806
Larson Davis	PRM915	0112	12 Months	9 Oct 2014	2013-180644

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Environmental test conditions as shown on calibration report.

Affirmations

This Certificate attests that this Instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

Signed: Scott Montgomery
Technician: Scott Montgomery

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2008 Certified

LARSON DAVIS
A PCB PIEZOTRONICS DIV.

Larson Davis CAL200 Acoustic Calibrator, SN: 11087
Certificate of Measured Output

Performance at Reference Conditions

Nominal Level (dB SPL):	94	114
Measured Level (dB SPL):	**94.01**	**114.01**
Expanded Uncertainty (dB):	0.137	0.135
Level Error Limit (dB):	±0.34	±0.33
Nominal Frequency (Hz):	1000	1000
Measured Frequency (Hz):	**1000.1**	**1000.1**
Expanded Uncertainty (Hz):	0.2	0.2
Frequency Error Limit (Hz):	±10.0	±10.0
Measured Distortion (%):	0.35	0.29
Expanded Uncertainty (%):	0.25	0.25
Distortion Limit (%):	2.0	2.0

The data is aquired by the insert voltage calibration method using the reference microphone's open circuit sensitivity.

Environmental Conditions

Temperature (°C):	25	25
Relative Humidity (%):	36	34
Static Pressure (kPa):	101.3	101.3

Reference Microphone

Model: Larson Davis 2559
Serial Number: 2506
Open Circuit Sensitivity: 12.230 mV/Pascal
Uncertainty: 0.110 dB

Influence of Static Pressure

Nominal Level (dB SPL): 114

Nominal Pressure (kPa)	Pressure (kPa)	Level Change (dB)	Frequency Change (Hz)	Distortion (%)
108.0	107.9	-0.03	0.00	0.29
101.3	101.2	0.00	0.00	0.29
92.0	91.9	0.04	0.01	0.30
83.0	83.1	0.04	-0.00	0.31
74.0	74.0	0.01	-0.00	0.34
65.0	65.0	-0.09	-0.01	0.37
Expanded Uncertainty:	1.0	0.04	0.20	0.25
Limit:		±0.30	±10.0	2.0

Reference microphone corrections applied.

Environmental Conditions

Temperature (°C):	23
Relative Humidity (%):	40

Reference Microphone

Model: Larson Davis 2559
Serial Number: 2506

Static pressure was measured with a calibrated Motorola pressure sensor MPX2100AP.
Temperature and humidity was measured with a calibrated Fluke 1620A sensor.
Expanded uncertainty of environmental measurements: 0.3 °C, 3 %RH, 1.0 kPa
Uncertainty values are given at 95% confidence level (k = 2).

A Sound Level Meter can be calibrated to a level (L) defined as: L = measured level + pressure sensitivity
or if a Sound Level Meter is calibrated using the nominal level, the adjustments to data (X) are defined as:
X = measured level - nominal level - pressure sensitivity

Scott Montgomery | Larson Davis Calibrator Calibration System | 03 / 07 / 2014

PCB PIEZOTRONICS
A PCB GROUP COMPANY

Certificate of Calibration and Conformance

Certificate Number 2014-190584

Instrument Model 820, Serial Number 1501, was calibrated on 7 May 2014. The instrument meets factory specifications per Procedure D0001.8160, ANSI S1.4 1983, IEC 651-Type 1 1979, and IEC 804-Type 1 1985.

Instrument found to be in calibration as received: NO
Date Calibrated: 7 May 2014
Calibration due:

Calibration Standards Used

MANUFACTURER	MODEL	SERIAL NUMBER	INTERVAL	CAL. DUE	TRACEABILITY NO.
Larson Davis	LDSigGn/2239	0653 / 0101	12 Months	14 Apr 2015	2014-189483

Reference Standards are traceable to the National Institute of Standards and Technology (NIST)

Calibration Environmental Conditions

Temperature: 22 ° Centigrade

Relative Humidity: 35 %

Affirmations

This Certificate attests that this instrument has been calibrated under the stated conditions with Measurement and Test Equipment (M&TE) Standards traceable to the U.S. National Institute of Standards and Technology (NIST). All of the Measurement Standards have been calibrated to their manufacturers' specified accuracy / uncertainty. Evidence of traceability and accuracy is on file at Provo Engineering & Manufacturing Center. An acceptable accuracy ratio between the Standard(s) and the item calibrated has been maintained. This instrument meets or exceeds the manufacturer's published specification unless noted.

The collective uncertainty of the Measurement Standard used does not exceed 25% of the applicable tolerance for each characteristic calibrated unless otherwise noted.

The results documented in this certificate relate only to the item(s) calibrated or tested. A one year calibration is recommended, however calibration interval assignment and adjustment are the responsibility of the end user. This certificate may not be reproduced, except in full, without the written approval of the issuer.

"AS RECEIVED" data unavailable due to unit failure.

Signed: _____
Technician: Eric Olson

Provo Engineering and Manufacturing Center, 1681 West 820 North, Provo, Utah 84601
Toll Free: 888.258.3222 Telephone: 716.926.8243 Fax: 716.926.8215
ISO 9001-2008 Certified

THE MODAL SHOP INC
A PCB GROUP CO.

3149 East Kemper Rd.
Cincinnati, OH 45241
Ph: 513-351-9919
Fax: 513-458-2172
www.modalshop.com

~ Certificate of Conformance ~

Manufacturer:	Larson Davis	Asset ID:	
Model:	PRM828	Calibration Date:	Jul 17, 2014 09:37:34
Serial Number:	2636	Due Date:	
Description:	Microphone Pre-Amplifier	Technician:	Ed Devlin
Customer:	TMS Rental	Approval:	

Calibration Result:
Frequency Response within ±0.2 dB with 18 pF loading
20.0 Hz - 20000.0 Hz

Temperature: 21 °C (70 °F)
Humidity: 43.5 %
Pressure: 998 mbar

Upon receipt for calibration, the instrument was found to be:
WITHIN the stated tolerance of the manufacturer's specification.

Note: As Found / As Left: In Tolerance.

Notes:
The subject instrument was tested under operating procedures intended to implement the requirements of ISO 9001, ISO 17025 and ANSI Z540. This document certifies that the instrument met the following specification upon its return to the customer. Unless otherwise noted, the reported value is both "as found" and "as left" data. Results relate only to the items calibrated. This certificate may not be reproduced, except in full, without written permission.

Frequency Response with reference to level at 250 Hz

Frequency (Hz)	Response (dB)	Frequency (Hz)	Response (dB)	Frequency (Hz)	Response (dB)	Frequency (Hz)	Response (dB)
20.0	-0.027	**1000.0**	0.014	**7100.0**	-0.019		
25.0	-0.023	**1120.0**	0.014	**8000.0**	-0.027		
31.5	0.009	**1250.0**	0.014	**9000.0**	-0.029		
40.0	0.024	**1400.0**	0.014	**10000.0**	-0.034		
50.0	0.014	**1600.0**	0.017	**11200.0**	-0.044		
63.0	0.015	**1800.0**	0.012	**12500.0**	-0.053		
80.0	0.020	**2000.0**	-0.012	**14000.0**	-0.065		
100.0	0.014	**2240.0**	-0.017	**16000.0**	-0.083		
125.0	0.014	**2500.0**	-0.012	**18000.0**	-0.094		
160.0	0.017	**2800.0**	-0.008	**20000.0**	-0.109		
200.0	0.016	**3150.0**	0.003				
250.0	0.001	**3550.0**	0.013				
315.0	0.006	**4000.0**	0.020				
400.0	0.007	**4500.0**	0.009				
500.0	0.011	**5000.0**	-0.001				
630.0	0.014	**5600.0**	-0.008				
800.0	0.013	**6300.0**	-0.014				

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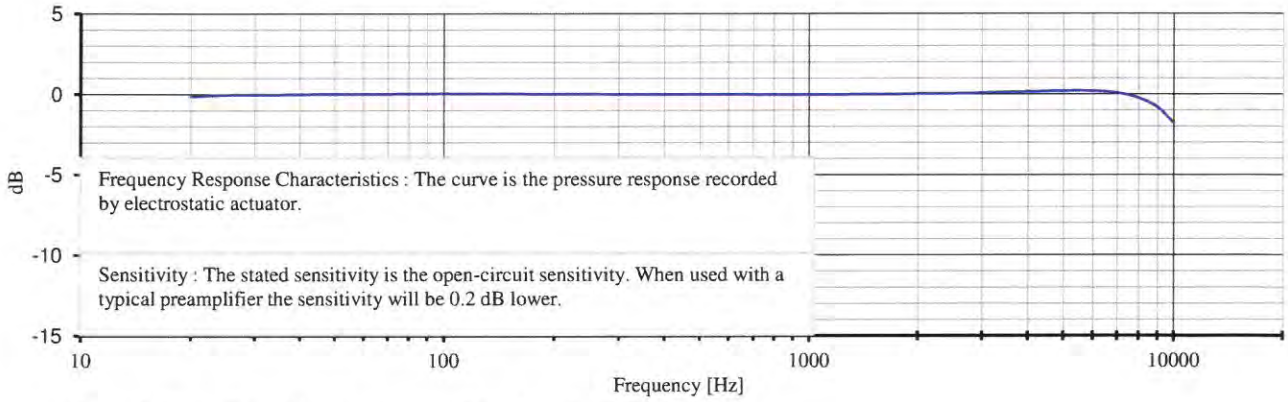
www.modalshop.com

~Certificate of Calibration~

Manufacturer:	Larson Davis	**Asset ID:**	
Model Number:	2560	**Customer:**	TMS Rental
Serial Number:	3384	**Calibration Date:**	Aug 22, 2013 15:35:42
Description:	Pressure Microphone	**Due Date:**	

Sensitivity:	**250 Hz**	**1 kHz**		**Temperature:**	73 (23)	°F (°C)
	-25.94	-25.96	dB re. 1V/Pa	**Humidity:**	48	%
	50.45	50.32	mV/Pa	**Ambient Pressure:**	996.1	mbar
Cal. Results:	In Tolerance			**Polarization Voltage:**	200	VDC



Traceability: The calibration is traceable through 681/280411-11.

Notes: Calibration results relate only to the items calibrated.
This certificate may not be reproduced, except in full, without written permission.
This calibration is performed in compliance with ISO 9001, ISO 17025 and ANSI Z540.
Measurement uncertainty (250 Hz sensitivity calibration) at 95% confidence level: 0.30 dB.
Calibrated per procedure PRD-P204.

User Note : As Found / As Left: In Tolerance.

Frequency Response with reference to level at 250 Hz

Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)	Frequency (Hz)	Upper (dB)
20	-0.14	**630**	-0.02	**4500**	0.17		
25	-0.05	**800**	-0.02	**5000**	0.18		
31.5	-0.03	**1000**	-0.02	**5600**	0.20		
40	-0.01	**1120**	-0.02	**6300**	0.16		
50	0.02	**1250**	-0.02	**7100**	0.04		
63	0.01	**1400**	-0.02	**8000**	-0.25		
80	0.02	**1600**	-0.01	**9000**	-0.83		
100	0.04	**1800**	0.00	**10000**	-1.83		
125	0.03	**2000**	0.02				
160	0.02	**2240**	0.02				
200	0.01	**2500**	0.03				
250	0.00	**2800**	0.05				
315	-0.01	**3150**	0.08				
400	-0.01	**3550**	0.11				
500	-0.01	**4000**	0.14				

ACCREDITED

Technician: Ed Devlin

Approval: Edward A. Devlin

Reference Equipment Used:

Manuf.	*Model*	*Serial*	*Cal. Date*	*Due Date*
GRAS	40AG	77606	9/21/2012	9/21/2013

CALIBRATION CERT 2649.01

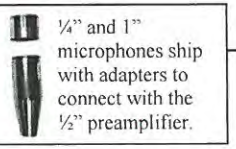
820 and NMS002 Kits

TMS THE MODAL SHOP, INC.
A PCB GROUP CO.

This shipment contains 1 820 kits.

Each kit includes one each of items shown

Windscreen, 3.5" diameter



¼" and 1" microphones ship with adapters to connect with the ½" preamplifier.

2560

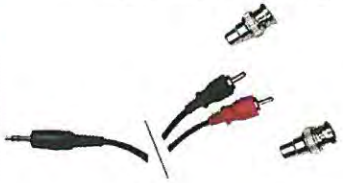
Microphones ship in a case with a guideline sheet, an o-ring, and active (blue) dessicant.

828 Preamplifiers ship in a protective case with a removable cap on the preamplifier end.

EXC series cable, 5 pin Switchcraft extension connector, used as (optional) extender cable between meter and preamp.

820 SLM, includes new 9V battery installed

CBL042 provides AC/DC output for external recording. 3.5mm to RCA ends, plus (2) BNC adapters. More info from the 820 manual, Page 4-8.



Also included are ____ NMS002 components:

EPS2106 subkit, includes clear enclosure, windscreen with birdspikes, dessicant cartridges and manual detailing installation instructions.

____ **PSA004** battery charger(s)

ADP034 adapter

Additional **EXC series cable**, if required

TRP003 tripod

EPS023 case and kit, includes BAT006 battery and connection cables (CBL102 and CBL116) in foam. Installation picture attached.

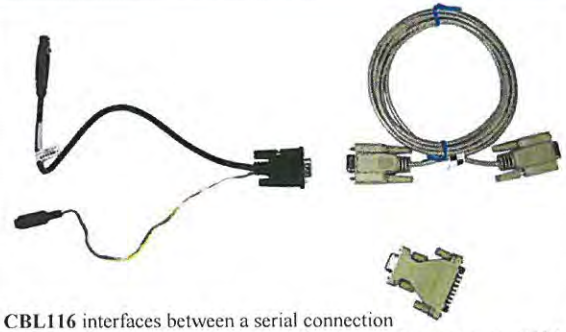
Also included are the following standard accessories:

Paperwork, including:

- This sheet as a reference
- 820 Reference Manual (Rev B or higher)
- 820 Users Quick Start Guide
- SLM Util Software (Rev. 1.39 or higher) + manual
- Calibration certs for each meter and microphone, and calibrator
- Rental Tracking Sheet, includes serial numbers of units shipped

Please note that Util software and 820 manual are also available for download from www.larsondavis.com in the "Support" section.
Feel free to call us if you have any questions! 513-351-9919

PD XXX Rev D 2 March 2007



CBL116 interfaces between a serial connection or external power in NMS systems (For more information, see SLM Connectivity Kit sheet or NMS Connectivity sheet)

ADP073 Use this adapter if computer has USB and no serial port. Includes driver/install CD and quick start guide.

Calibrator with adapters (if necessary), manual or instruction sheet. Chapter 3 of the 820 manual is short and covers calibration

Appendix I

Field Survey Forms and Photo Log

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/23
MEASUREMENT ADDRESS: 10589 Clay Prairie Parkway	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☐ Recreational ☒ Commercial — SITE NO.: ST-01

SOUND LEVEL METER:	MICROPHONE:	PRE AMP:
☐ LD-870 ☒ LD-820	☒ WIND SCREEN	☐ LD-900
☐ LD-824 ☐ LD-812	☐ NON-POLAR ☐ POLARIZED	☒ LD-828
☐ B&K-2250 ☐ _____	☒ 1/2-INCH ☐ FREEFIELD	☐ _____
	☐ 1-INCH ☐ RANDOM	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.: ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 93.8 / 8.1 / 11:27
After 94.0 / 93.9 / 8.1 / 11:52

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations at start of measurement)
TEMP: 72 °F R.H.: 89.3 %
WIND SPEED: 0.8 MPH
TOWARD (DIR): E
SKIES: overcast
CAMERA —
PHOTO NOs. —

NOTES:
- Military helicopter set peak
- undeveloped commercial parcel

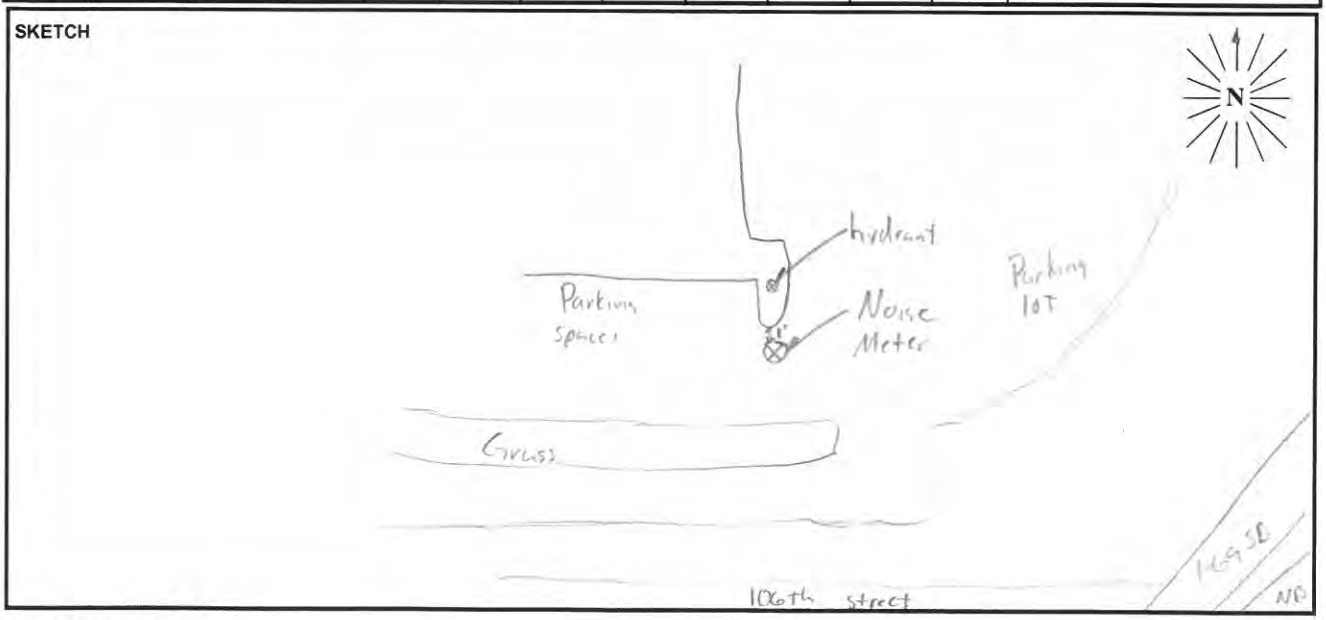
Dist. to Center of Nearest Lane 465
☐ Video
☐ Radar

Counts (20 min)	AT	MT	HT
NB	939	23	114
SB	1216	16	119

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/23	11:29	11:49	55.0	57.5	58.8	59.7	60.7	62.0	64.2	82.2	62.5	20min counts

SKETCH



PARSONS

Photo 1: 10589 Clay Prairie Parkway, Site No. ST-01, Facing North

Photo 2: 10589 Clay Prairie Parkway, Site No. ST-01, Facing East

Photo 3: 10589 Clay Prairie Parkway, Site No. ST-01, Facing West

Photo 4: 10589 Clay Prairie Parkway, Site No. ST-01, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/23
MEASUREMENT ADDRESS: 8610 106th Street Arch. Block and Tile	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☐ Recreational ☒ Commercial — SITE NO.: ST-02

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.
☐ 250
☒ 1000
☐ _____

CALIBRATION RECORD:
Input, dB / Reading, dB / Offset, dB / Time

	Input	Reading	Offset	Time
Before	94.0	93.8	8.1	12:19
After	94.0	94.1	8.1	12:44

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations at start of measurement)
TEMP: 73 °F R.H.: 82.1 %
WIND SPEED: 0.9 MPH
TOWARD (DIR): E
SKIES: Overcast
CAMERA —
PHOTO NOs. —

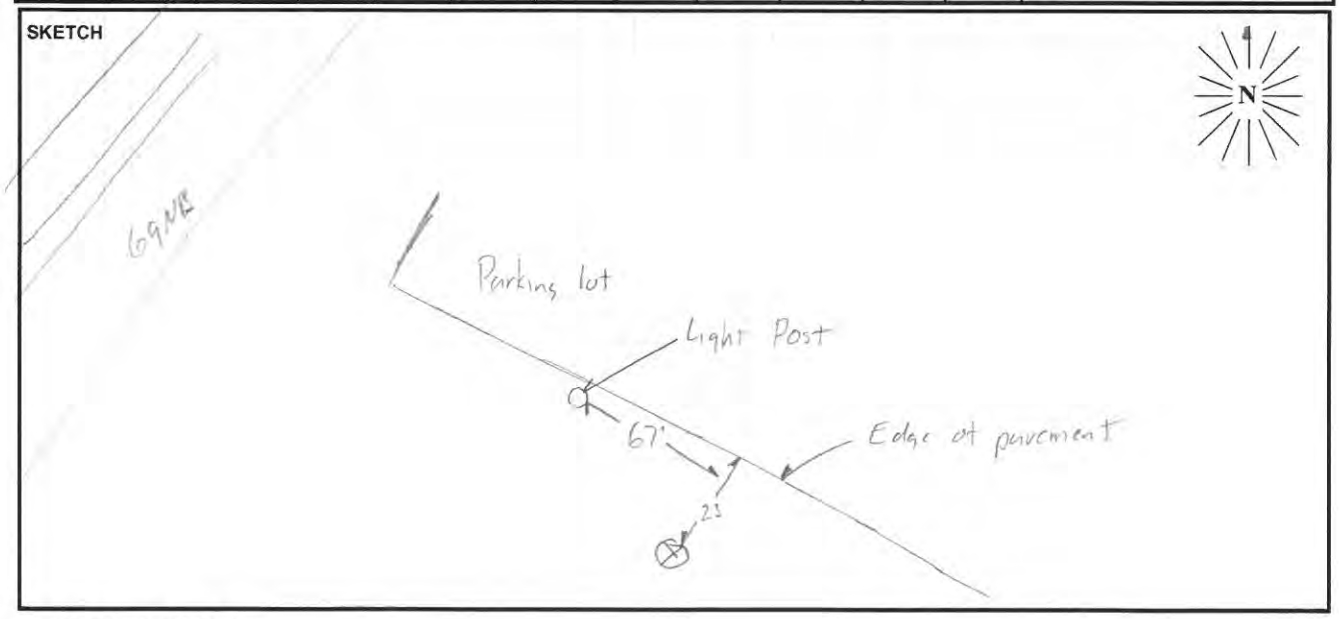
NOTES:
Dist. to Center of Nearest Lane 289
☐ Video
☐ Radar

	AT	MT	HT
SB	1173	17	122
NB	919	24	133

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}^{67}	L_{50}	L_{25}^{33}	L_{10}	$L_{01}^{0.5}$	L_{MAX}	L_{EQ}	NOTES:
7/23	12:20	12:40	60.6	62.0	64.3	65.2	66.1	67.7	68.3	70.0	65.6	

SKETCH



PARSONS

Photo 5: 8610 106th St Arch. Block and Tile, Site No. ST-02, Facing North

Photo 6: 8610 106th St Arch. Block and Tile, Site No. ST-02, Facing East

Photo 7: 8610 106th St Arch. Block and Tile, Site No. ST-02, Facing West

Photo 8: 8610 106th St Arch. Block and Tile, Site No. ST-02, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/23
MEASUREMENT ADDRESS: 11144 Lantern Road	CITY: Fishers IN	☒ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST 03

SOUND LEVEL METER: ☐ LD-870 ☒ LD-820 ☐ LD-824 ☐ LD-812 ☐ B&K-2250 ☐ _____
SERIAL #: 1501

MICROPHONE: ☒ WIND SCREEN ☐ NON-POLAR ☐ POLARIZED ☒ 1/2-INCH ☐ FREEFIELD ☐ 1-INCH ☐ RANDOM
SERIAL #: 3384

PRE AMP: ☐ LD-900 ☒ LD-828 ☐ _____
SERIAL #: 2636

CALIBRATOR: Cal 200 ☐ LD CA250 ☐ B&K 4231 S/N 11087
Freq, Hz. ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.0 / 8.1 / 10:19
After 94.0 / 94.1 / 8.1 / 10:42

METER SETTINGS: ☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☐ BAT ☒ AC
(observations at start of measurement)
TEMP: 68 °F R.H.: 87.1 %
WIND SPEED: 2.2 MPH
TOWARD (DIR): E
SKIES: Overcast
CAMERA —
PHOTO NOs. —

NOTES:
Periodic braking on SB
No engine braking
Wet pavement

Dist. to Center of Nearest Lane ~88'
☐ Video ☐ Radar

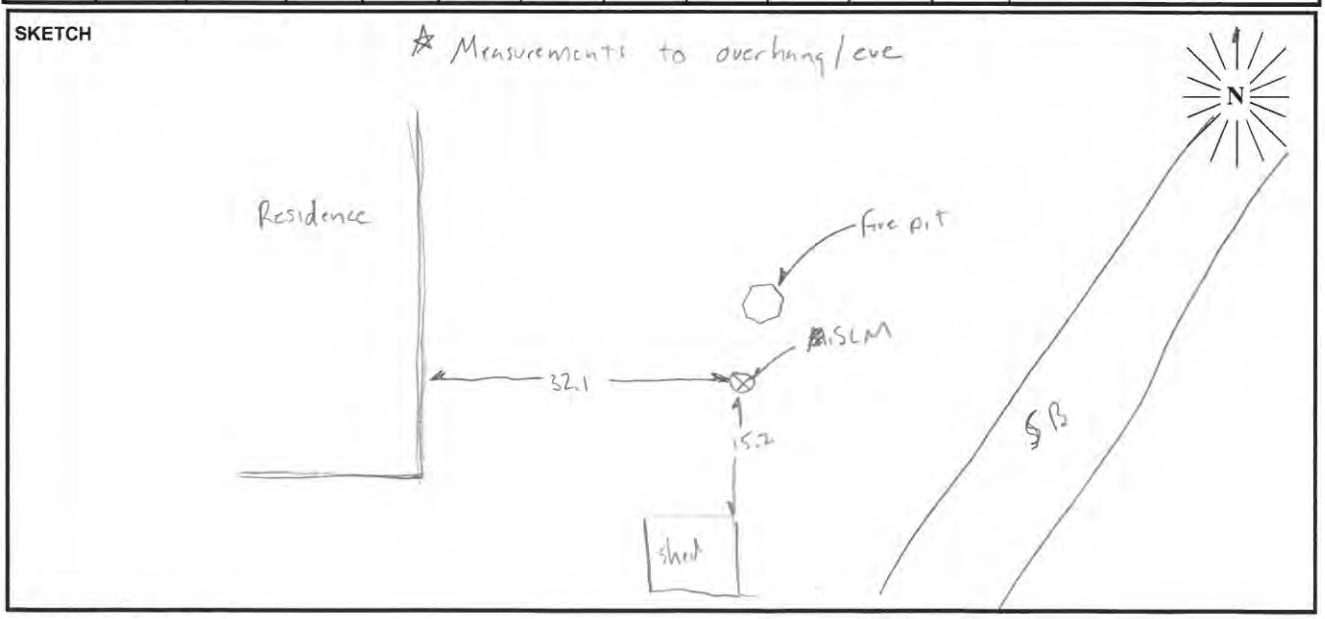
Counts 20 min

	AT	MT	HT
SB	1128	24	129
NB	819	27	131

MEAS. TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/23	10:21	10:41	65.4	72.0	73.8	75.1	76.1	78.0	78.7	88.2	75.7	

SKETCH



PARSONS

Photo 9: 11144 Lantern Rd, Site No. ST-03, Facing North

Photo 10: 11144 Lantern Rd, Site No. ST-03, Facing East

Photo 11: 11144 Lantern Rd, Site No. ST-03, Facing West

Photo 12: 11144 Lantern Rd, Site No. ST-03, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL		ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 11442 Lantern Road Fishers Elementary	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☒ School ☐ Recreational ☐ Commercial	SITE NO.: ST 04

SOUND LEVEL METER:	MICROPHONE:	PRE AMP:
☐ LD-870 ☒ LD-820	☒ WIND SCREEN	☐ LD-900
☐ LD-824 ☐ LD-812	☐ NON-POLAR ☐ POLARIZED	☒ LD-828
☐ B&K-2250 ☐ _____	☒ 1/2-INCH ☐ FREEFIELD	☐ _____
SERIAL #: 1501	☐ 1-INCH ☐ RANDOM	SERIAL #: 2636
	SERIAL #: 3384	

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.: ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time

Before 94.0 / 93.9 / 8.1 / 15:22
After 94.0 / 94.1 / 8.1 / 15:46

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations at start of measurement)
TEMP: 84 °F R.H.: 52 %
WIND SPEED: 1.8 MPH
TOWARD (DIR): E
SKIES: clear/sunny
CAMERA —
PHOTO NOs. —

NOTES: Video traffic

Dist. to Center of Nearest Lane 122'
18 min
3.3

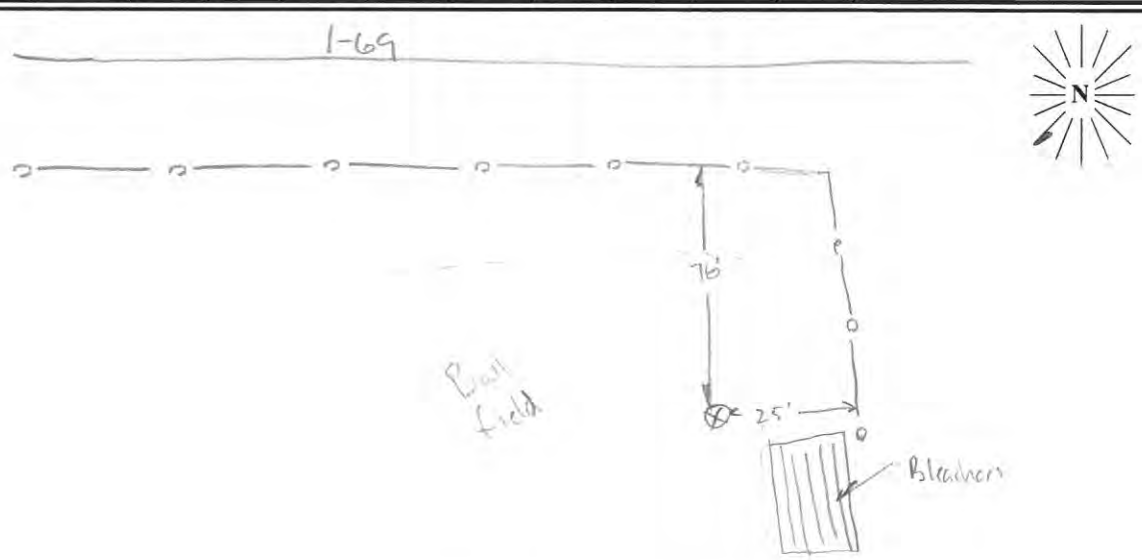
☐ Video
☐ Radar

	AT	MT	HT
NB exit	746	9	20
NB	599	10	81
SB	843	43	98
SB on ramp	262	6	3

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	15:25	15:45	52.9	57.8	59.2	60.3	61.2	63.0	62.8	75.1	61.4	

SKETCH



PARSONS

Photo 13: 11442 Lantern Rd, Fishers Elementary, Site No. ST-04, Facing North

Photo 14: 11442 Lantern Rd, Fishers Elementary, Site No. ST-04, Facing East

Photo 15: 11442 Lantern Rd, Fishers Elementary, Site No. ST-04, Facing West

Photo 16: 11442 Lantern Rd, Fishers Elementary, Site No. ST-04, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: Cumberland Crossing Apartments, 10225 Stage Coach Trail	CITY: Fishers IN	☐ Single-Family ☒ Multi-Family ☐ Recreational ☐ Commercial — SITE NO.: ST 05

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.: ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.1 / 8.1 / 8.47
After 94.0 / 94.0 / 8.1 / 9:17

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations at start of measurement)
TEMP: 81 °F R.H.: 58 %
WIND SPEED: 2.0 MPH
TOWARD (DIR): E
SKIES: Mostly Sunny
CAMERA —
PHOTO NOs. —

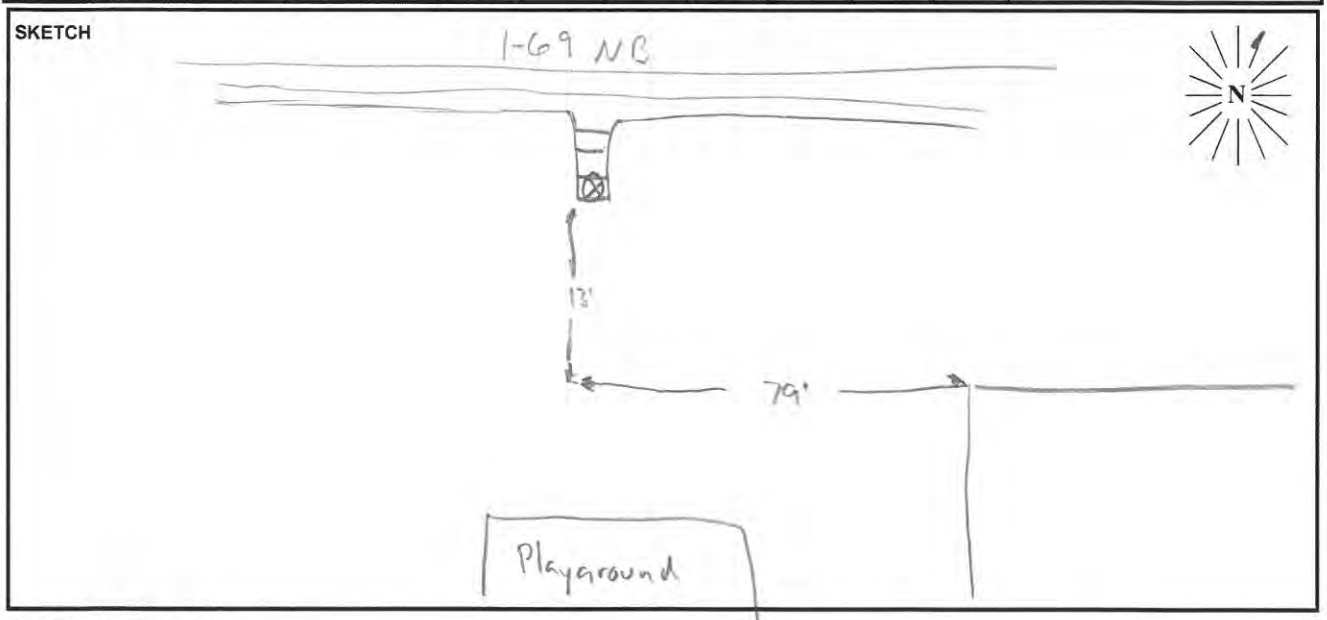
NOTES:
Dist. to Center of Nearest Lane 129'
☐ Video
☐ Radar

Counts	AT	MT	HT
NB	359	16	107
SB	583	6	105

MEAS. TYPE:
☐ Long Term
☐ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	8:55	9:15	52.7	63.6	67.0	68.5	69.7	72.1	73.0	77.2	69.3	4 pedestrians

SKETCH



PARSONS

Photo 17: 10225 Stage Coach Trail, Cumberland Crossing Apt, Site No. ST- 05, Facing North

Photo 18: 10225 Stage Coach Trail, Cumberland Crossing Apt, Site No. ST- 05, Facing East

Photo 19: 10225 Stage Coach Trail, Cumberland Crossing Apt, Site No. ST- 05, Facing West

Photo 20: 10225 Stage Coach Trail, Cumberland Crossing Apt, Site No. ST- 05, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 10526 Blue Springs Lane	CITY: Fishers IN	☒ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST06

SOUND LEVEL METER: ☐ LD-870 ☒ LD-820 ☐ LD-824 ☐ LD-812 ☐ B&K-2250 ☐ _____
SERIAL #: 1501

MICROPHONE: ☒ WIND SCREEN ☐ NON-POLAR ☐ POLARIZED ☒ 1/2-INCH ☐ FREEFIELD ☐ 1-INCH ☐ RANDOM
SERIAL #: 3384

PRE AMP: ☐ LD-900 ☒ LD-828 ☐ _____
SERIAL #: 2636

CALIBRATOR: Cal 200 ☐ LD CA250 ☐ B&K 4231 S/N 11087
Freq, Hz.: ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.1 / 8.1 / 9:40
After 94.0 / 94.0 / 8.1 / _____

METER SETTINGS: ☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☒ BAT ☐ AC
(observations at start of measurement)
TEMP: 81.5 °F R.H.: 59 %
WIND SPEED: 1.7 MPH
TOWARD (DIR): E
SKIES: Clear / Sunny
CAMERA —
PHOTO NOs. —

NOTES: Earthen Berm with 6' wooden fence

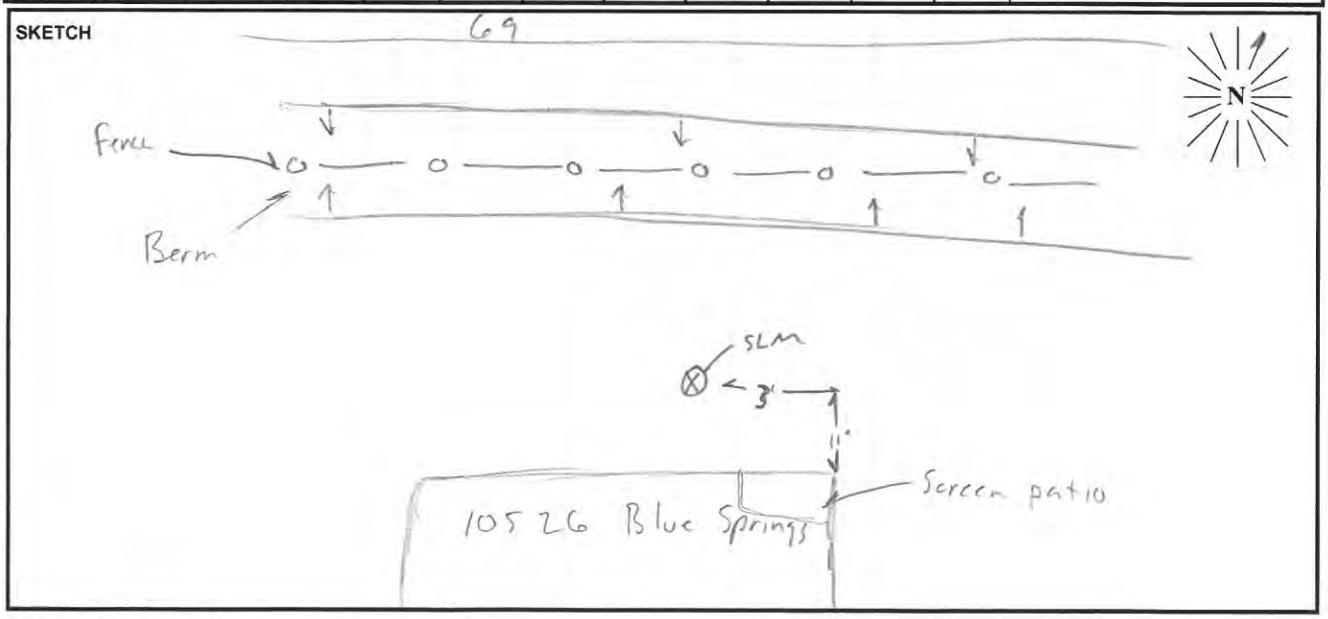
Dist. to Center of Nearest Lane 169 ☐ Video ☐ Radar

Counts	AT	MT	HT
NB	359	16	107
SB	583	6	105

MEAS. TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	9:42	10:02	52.8	56.7	59.5	60.7	62.0	64.2	65.3	68.6	61.5	

SKETCH



PARSONS

Photo 21: 1526 Blue Springs Lane, Site No. ST- 06, Facing North

Photo 22: 1526 Blue Springs Lane, Site No. ST- 06, Facing East

Photo 23: 1526 Blue Springs Lane, Site No. ST- 06, Facing West

Photo 24: 1526 Blue Springs Lane, Site No. ST- 06, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 11025 Cool Winds Way	CITY: Fishers IN	☑ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST07

SOUND LEVEL METER: ☐ LD-870 ☒ LD-820 ☐ LD-824 ☐ LD-812 ☐ B&K-2250 ☐ _____
SERIAL #: 1501

MICROPHONE: ☒ WIND SCREEN ☐ NON-POLAR ☐ POLARIZED ☒ 1/2-INCH ☐ FREEFIELD ☐ 1-INCH ☐ RANDOM
SERIAL #: 3384

PRE AMP: ☐ LD-900 ☒ LD-828 ☐ _____
SERIAL #: 2636

CALIBRATOR: Cal 200 ☐ LD CA250 ☐ B&K 4231
S/N 11087
Freq, Hz. ☐ 250 ☒ 1000 ☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.0 / 8.1 / 11:20
After 94.0 / 93.9 / 8.1 / 11:42

METER SETTINGS: ☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☐ BAT ☐ AC
(observations at start of measurement)
TEMP: 83 °F R.H.: 58 %
WIND SPEED: 23 MPH
TOWARD (DIR): E
SKIES: Sunny
CAMERA —
PHOTO NOs. —

NOTES: Video 2

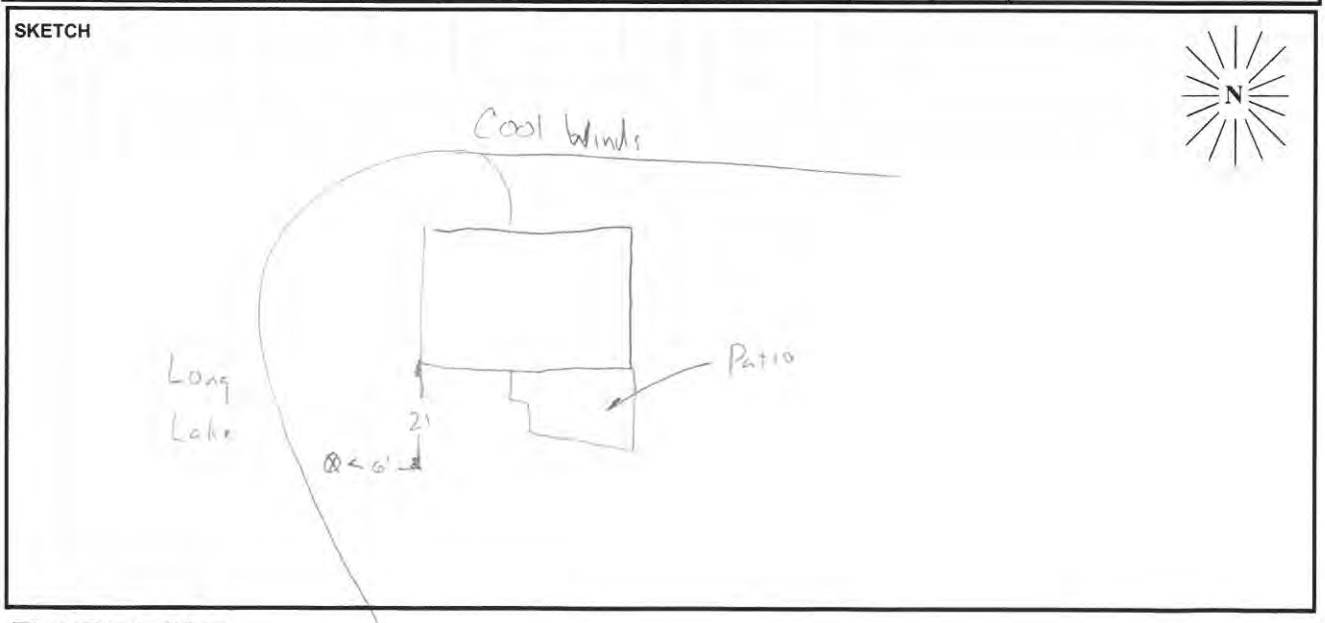
Dist. to Center of Nearest Lane 284 ☐ Video ☐ Radar

Counts	AT	MT	HT
NB	419	9	118
SB	564	8	100

MEAS. TYPE: ☐ Long Term ☑ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	11:22	11:42	44.8	48.5	50.3	51.5	52.6	54.8	55.8	61.9	52.3	

SKETCH



PARSONS

Photo 25: 11025 Cool Winds Way, Site No. ST- 07, Facing North

Photo 26: 11025 Cool Winds Way, Site No. ST- 07, Facing East

Photo 27: 11025 Cool Winds Way, Site No. ST- 07, Facing West

Photo 28: 11025 Cool Winds Way, Site No. ST- 07, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 11066 Cool Winds Way	CITY: Fishers IN	☒ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial — SITE NO.: St08

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:	NOTES:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900	SYSTEM PWR: ☐ BAT ☐ AC
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828	(observations at start of measurement)
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636	TEMP: 84 °F R.H.: 55.9 %

CALIBRATOR:	Freq, Hz.	CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time	
Cal 200			WIND SPEED: 2.6 MPH
☐ LD CA250	☐ 250	Before 94.0 / 94.1 / 8.1 / 10:42	TOWARD (DIR): E
☐ B&K 4231	☒ 1000		
S/N 11087	☐ _____	After 94.0 / 94.0 / 8.1 / 11:05	SKIES: E

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

CAMERA Sunny

PHOTO NOs. _____

NOTES: Video, 1st segment

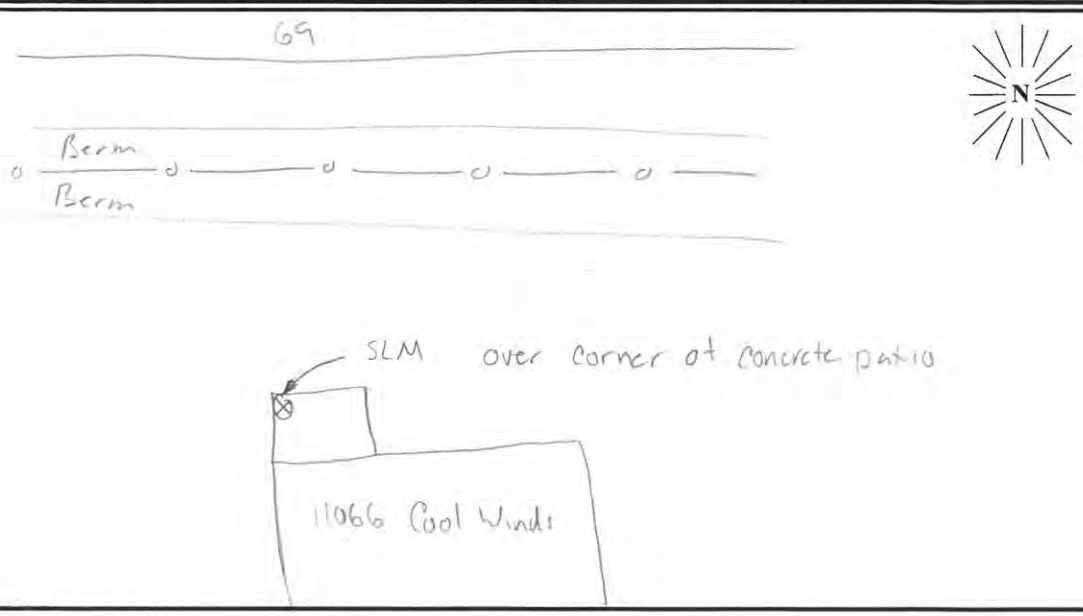
Dist. to Center of Nearest Lane 165 ☐ Video ☐ Radar

Counts	AT	MT	HT
NB	354	12	97
SB	497	13	102

MEAS. TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	10:43	11:03	51.1	59.1	61.8	63.2	64.7	66.7	67.7	72.0	64.1	

SKETCH



PARSONS

Photo 29: 11066 Cool Winds Way, Site No. ST- 08, Facing North

Photo 30: 11066 Cool Winds Way, Site No. ST- 08, Facing East

Photo 31: 11066 Cool Winds Way, Site No. ST- 08, Facing West

Photo 32: 11066 Cool Winds Way, Site No. ST- 08, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/21
MEASUREMENT ADDRESS: Billericay Park 12690 Promise Rd	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☒ Recreational ☐ Commercial	SITE NO.: 5+09

SOUND LEVEL METER:	MICROPHONE:	PRE AMP:
☐ LD-870 ☒ LD-820	☒ WIND SCREEN	☐ LD-900
☐ LD-824 ☐ LD-812	☐ NON-POLAR ☐ POLARIZED	☒ LD-828
☐ B&K-2250 ☐ _____	☒ 1/2-INCH ☐ FREEFIELD	☐ _____
	☐ 1-INCH ☐ RANDOM	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.
☐ 250
☒ 1000
☐ _____

CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time

Before 94.0 / 94.0 / 8.1 / 11:54

After 94.0 / 92.9 / 8.1 / 12:18

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☐ BAT ☐ AC
(observations at start of measurement)
TEMP: 88 °F R.H.: 43.7 %
WIND SPEED: 2 MPH
TOWARD (DIR): E
SKIES: Sunny
CAMERA _____
PHOTO NOs. _____

NOTES: SB on video

Dist. to Center of Nearest Lane ~280

☐ Video
☐ Radar

Counts 20 min

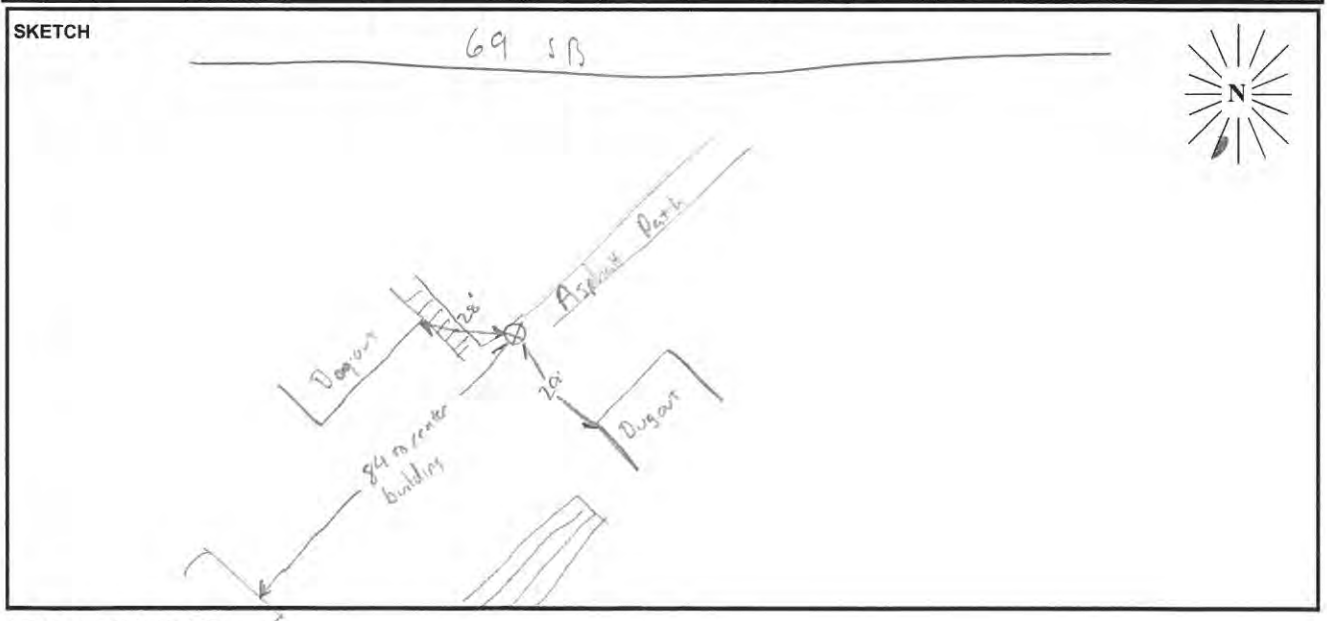
	AT	MT	HT
NB	423	29	87
SB	518	24	114

3 lanes on frontage road

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/21	11:56	12:16	54.1	62.2	64.2	65.2	66.6	68.2	68.7	72.1	65.8	

SKETCH



PARSONS

Photo 33: 12690 Promise Rd, Billericay Park, Site No. ST- 09, Facing North

Photo 34: 12690 Promise Rd, Billericay Park, Site No. ST- 09, Facing East

Photo 35: 12690 Promise Rd, Billericay Park, Site No. ST-09, Facing West

Photo 36: 12690 Promise Rd, Billericay Park, Site No. ST-09, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 12160 Packers Ave Mudsock Football fields	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☒ Recreational ☐ Commercial	SITE NO.: St-10

SOUND LEVEL METER:	MICROPHONE:	PRE AMP:
☐ LD-870 ☒ LD-820	☒ WIND SCREEN	☐ LD-900
☐ LD-824 ☐ LD-812	☐ NON-POLAR ☐ POLARIZED	☒ LD-828
☐ B&K-2250 ☐ _____	☒ 1/2-INCH ☐ FREEFIELD	☐ _____
	☐ 1-INCH ☐ RANDOM	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.
☐ 250
☒ 1000
☐ _____

CALIBRATION RECORD:
Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.0 / 8.1 / 12:45
After 94.0 / 93.9 / 8.1 / 13:03

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☐ BAT ☐ AC
(observations at start of measurement)
TEMP: 84 °F R.H.: 55 %
WIND SPEED: 3.0 MPH
TOWARD (DIR): E
SKIES: Sunny
CAMERA —
PHOTO NOs. —

NOTES: 15 Min due to children playing

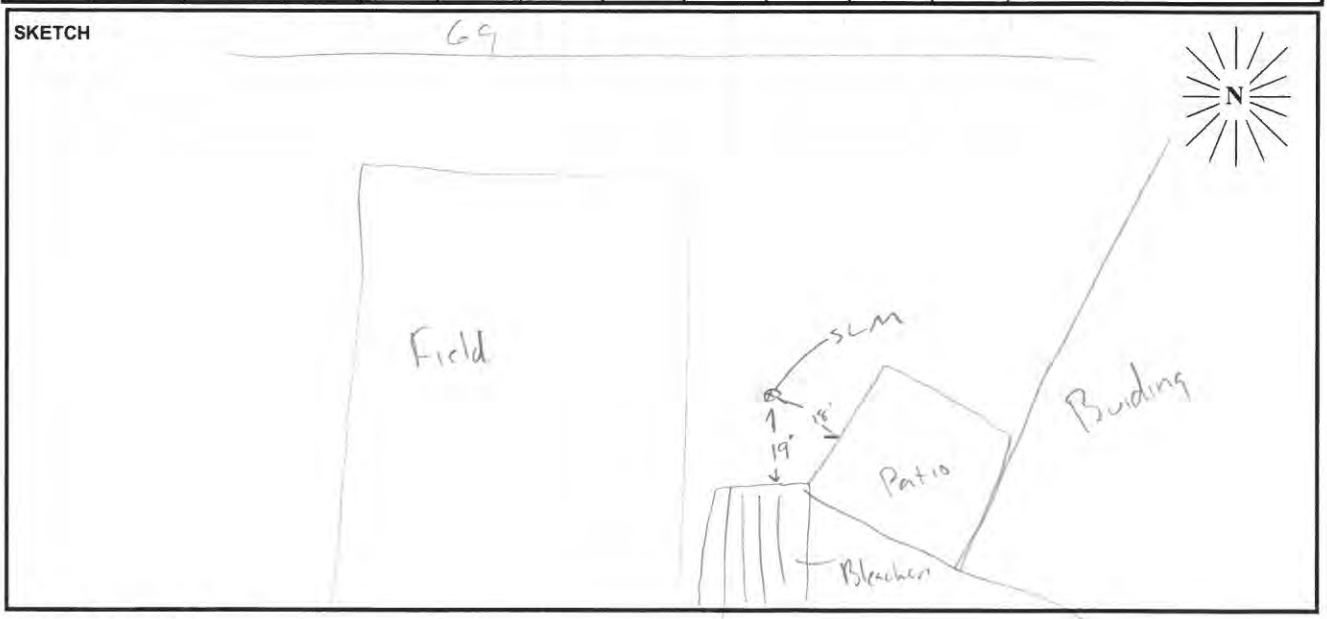
Dist. to Center of Nearest Lane _____ ☐ Video ☐ Radar

Counts	AT	MT	HT
NB	336	7	67
SB	406	4	90

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	12:47	13:02	54.9	59.6	61.5	62.8	64.3	67.7	69.2	77.8	64.7	15 Min

SKETCH



PARSONS

Photo 37: 12160 Packers Ave, Mudsock football Fields, Site No. ST- 10, Facing North

Photo 38: 12160 Packers Ave, Mudsock football Fields, Site No. ST- 10, Facing East

Photo 39: 12160 Packers Ave, Mudsock football Fields, Site No. ST- 10, Facing West

Photo 40: 12160 Packers Ave, Mudsock football Fields, Site No. ST- 10, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/23
MEASUREMENT ADDRESS: 4440 Scoria Drive Limestone Springs Condos	CITY: Fishers IN	☐ Single-Family ☒ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST 11

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:	NOTES:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900	SYSTEM PWR: ☒ BAT ☐ AC
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828	(observations at start of measurement)
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636	TEMP: 67 °F R.H.: 78 %

CALIBRATOR:	Freq, Hz.	CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time	
Cal 200			WIND SPEED: 2.1 MPH
☐ LD CA250	☐ 250		
☐ B&K 4231	☒ 1000	Before 94.0 / 94.0 / 8.1 / 9:09	TOWARD (DIR): E
S/N 11087	☐ _____	After 94.0 / 94.2 / 8.1 / 9:32	SKIES: overcast

METER SETTINGS:					
☐ A-WTD	☐ LINEAR	☒ SLOW	☐ 1/1 OCT	☐ INTERVALS _____ - MINUTE	CAMERA —
☐ C-WTD	☐ IMPULSE	☐ FAST	☐ 1/3 OCT	☒ L_N PERCENTILE VALUES	PHOTO NOs. —

NOTES: Traffic Taken for both directions
10 min count
Measurement stopped due to trash truck

Dist. to Center of Nearest Lane 276

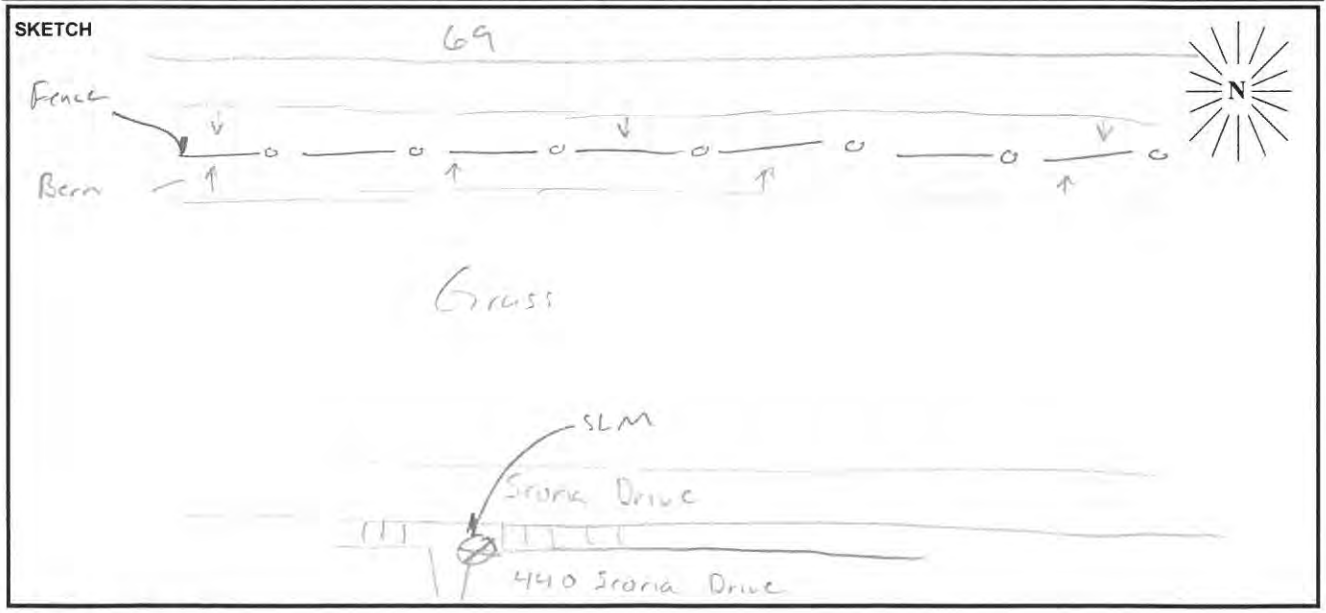
☐ Video
☐ Radar

Counts	AT	MT	HT
Both	592	19	116

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/23	9:10	9:20	52.9	58.8	61.3	62.8	64.3	67.2	68.2	75.1	64.1	

SKETCH



PARSONS

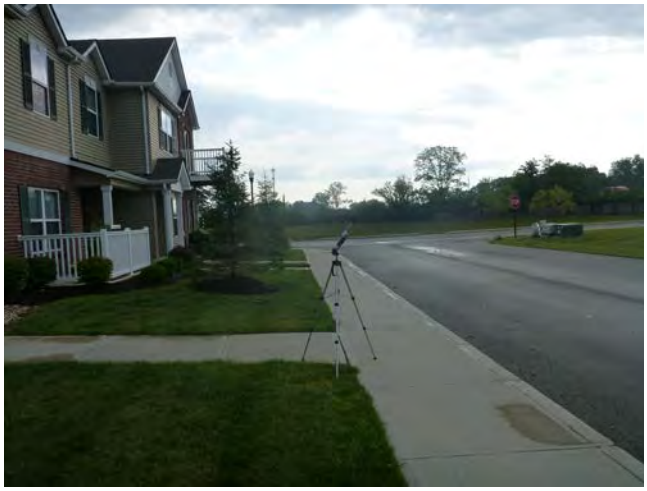


Photo 41: 440 Scoria Dr, Limestone Springs Condos, Site No. ST- 11, Facing North

Photo 42: 440 Scoria Dr, Limestone Springs Condos, Site No. ST- 11, Facing East

Photo 43: 440 Scoria Dr, Limestone Springs Condos, Site No. ST- 11, Facing West

Photo 44: 440 Scoria Dr, Limestone Springs Condos, Site No. ST- 11, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/22
MEASUREMENT ADDRESS: 12578 Loyalty Drive	CITY: Fishers IN	☒ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST 12

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

NOTES:

SYSTEM PWR: ☒ BAT ☐ AC

(observations at start of measurement)

TEMP: 86 °F R.H.: 52 %

WIND SPEED: 1.3 MPH

TOWARD (DIR): E

SKIES: clear

CAMERA —

PHOTO NOs. —

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.
☐ 250
☒ 1000
☐ _____

CALIBRATION RECORD:
Input, dB / Reading, dB / Offset, dB / Time

Before 94.0 / 94.1 / 8.1 / 13:47

After ____ / ____ / ____ / ____

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES: ~8' high wooden fence

Dist. to Center of Nearest Lane 195

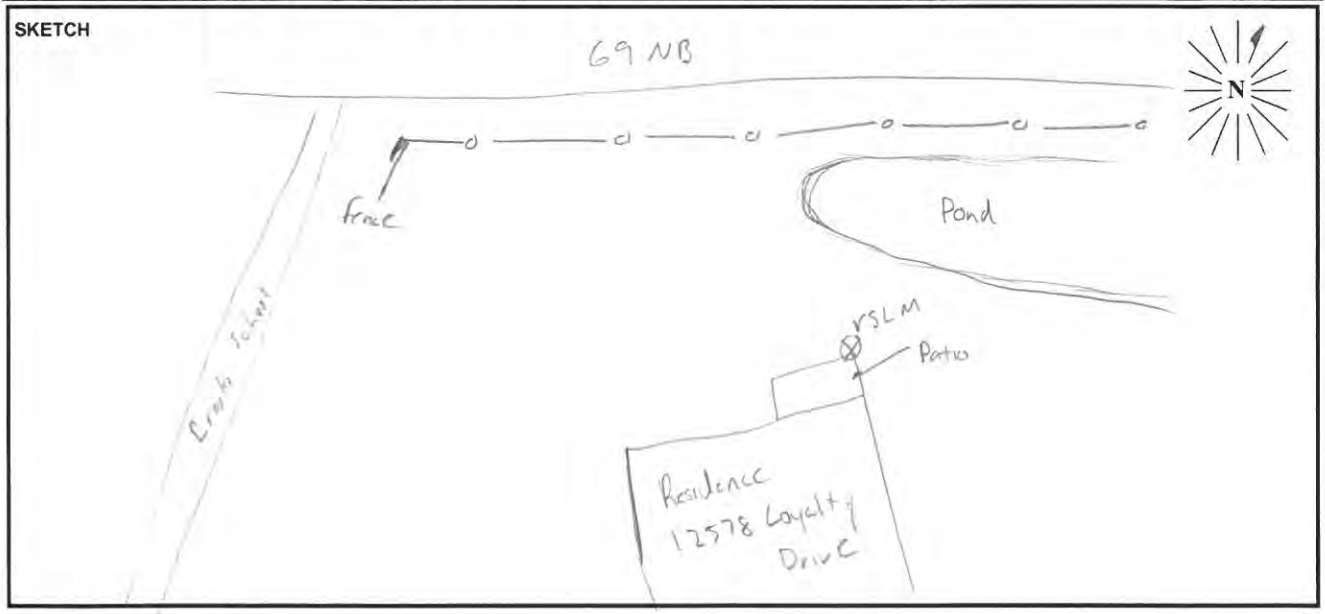
☐ Video
☐ Radar

	Counts AT	MT	HT
NB	485	6	102
SB	477	18	93

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/22	13:49	14:09	54.7	62.0	64.7	66.1	67.6	70.1	71.2	75.4	67.2	

SKETCH



PARSONS

Photo 45: 12578 Loyalty Dr, Site No. ST-12, Facing North

Photo 46: 12578 Loyalty Dr, Site No. ST-12, Facing East

Photo 47: 12578 Loyalty Dr, Site No. ST-12, Facing West

Photo 48: 12578 Loyalty Dr, Site No. ST-12, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL		ENGINEER: RJC	DATE: 7/21
MEASUREMENT ADDRESS: 12547 136th Street Maintinance Building	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family ☐ Recreational ☒ Commercial	SITE NO.: ST13

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:	NOTES:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900	SYSTEM PWR: ☒ BAT ☐ AC
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828	(observations at start of measurement)
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636	TEMP: 82 °F R.H.: 43.5 %

CALIBRATOR:	Freq, Hz.	CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time	
Cal 200			WIND SPEED: 3.3 MPH
☐ LD CA250	☐ 250	Before 94.0 / 94.0 / 8.1 / 15:35	TOWARD (DIR): E
☐ B&K 4231	☒ 1000		
S/N 11087	☐ _____	After 94.0 / 93.8 / 8.1 / 16:05	SKIES: Sunny

METER SETTINGS:					
☐ A-WTD	☐ LINEAR	☒ SLOW	☐ 1/1 OCT	☐ INTERVALS _____- MINUTE	CAMERA _____
☐ C-WTD	☐ IMPULSE	☐ FAST	☐ 1/3 OCT	☒ L_N PERCENTILE VALUES	PHOTO NOs. _____

NOTES: Noone home location made to closer access to recievers Development Not 136th

Dist. to Center of Nearest Lane _____

☐ Video ☐ Radar

Counts 20 min

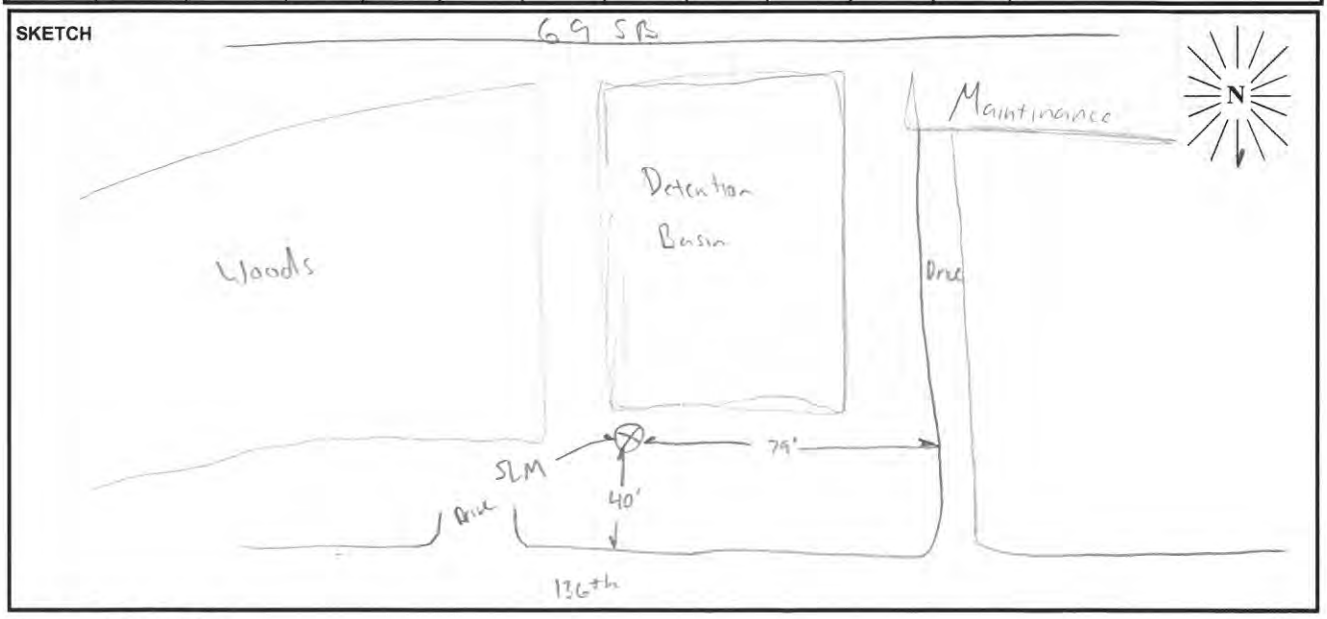
	AT	MT	HT
NB	829	19	108
SB	589	16	122

128 cars on 136th street

MEAS. TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/21	15:38	15:58	54.8	58.0	59.8	60.8	61.7	64.1	65.2	73.7	61.8	

SKETCH



PARSONS

Photo 49: 12547 136th St, Maintenance Building, Site No. ST- 13, Facing North

Photo 50: 12547 136th St, Maintenance Building, Site No. ST- 13 Facing East

Photo 51: 12547 136th St, Maintenance Building, Site No. ST- 13 Facing West

Photo 52: 12547 136th St, Maintenance Building, Site No. ST- 13 Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL	ENGINEER: RJC	DATE: 7/21
MEASUREMENT ADDRESS: 13916 Southeastern Parkway St. Vincent Fishers Hospital	CITY: Fishers IN	☐ Single-Family ☐ Multi-Family Hospital ☐ Recreational ☐ Commercial — SITE NO.: ST 14

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636

CALIBRATOR: Cal 200
☐ LD CA250
☐ B&K 4231
S/N 11087

Freq, Hz.
☐ 250
☒ 1000
☐ _____

CALIBRATION RECORD:
Input, dB / Reading, dB / Offset, dB / Time
Before 94.0 / 94.0 / 8.1 / 14:49
After 94.0 / 93.9 / 8.1 / 15:16

METER SETTINGS:
☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES

NOTES:
SYSTEM PWR: ☐ BAT ☐ AC
(observations at start of measurement)
TEMP: 85 °F R.H.: 50.5 %
WIND SPEED: 2.9 MPH
TOWARD (DIR): E
SKIES: Sunny
CAMERA —
PHOTO NOs. —

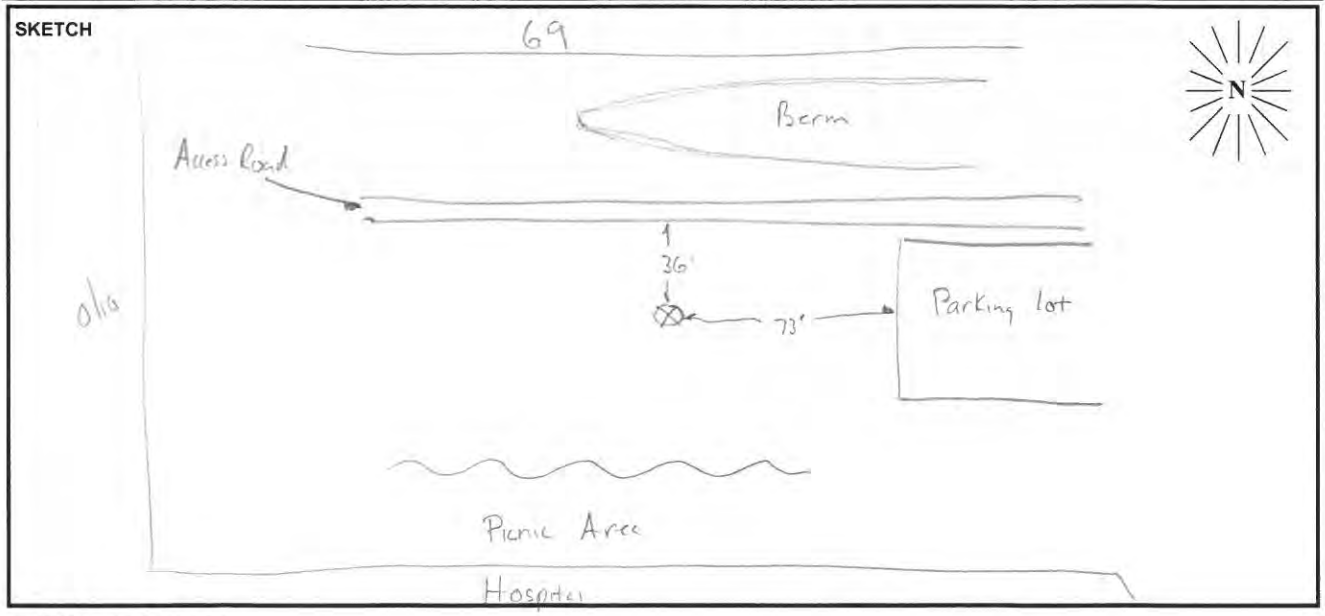
NOTES:
Dist. to Center of Nearest Lane 212
☐ Video
☐ Radar

	Counts AT	MT	HT
NB	593	20	79
SB	456	13	98

MEAS. TYPE:
☐ Long Term
☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/21	14:54	15:14	55.2	59.2	62.6	64.1	65.3	67.7	68.7	74.6	64.9	

SKETCH



PARSONS

Photo 53: 13916 Southeastern Parkway, St. Vincent Fishers Hospital, Site No. ST- 14, Facing North

Photo 54: 13916 Southeastern Parkway, St. Vincent Fishers Hospital, Site No. ST- 14, Facing East

Photo 55: 13916 Southeastern Parkway, St. Vincent Fishers Hospital, Site No. ST- 14, Facing West

Photo 56: 13916 Southeastern Parkway, St. Vincent Fishers Hospital, Site No. ST- 14, Facing South

FIELD SURVEY FORM

PROJECT: I-69 Hamilton County ATL		ENGINEER: RJC	DATE: 7/21
MEASUREMENT ADDRESS: 8620 Pin Oak Care Fre Mobil Homes	CITY: Fishers IN	☒ Single-Family ☐ Multi-Family ☐ Recreational ☐ Commercial	SITE NO.: ST-15

SOUND LEVEL METER:	MICROPHONE: ☒ WIND SCREEN	PRE AMP:	NOTES:
☐ LD-870 ☒ LD-820	☐ NON-POLAR ☐ POLARIZED	☐ LD-900	SYSTEM PWR: ☒ BAT ☐ AC
☐ LD-824 ☐ LD-812	☒ 1/2-INCH ☐ FREEFIELD	☒ LD-828	(observations at start of measurement)
☐ B&K-2250 ☐ _____	☐ 1-INCH ☐ RANDOM	☐ _____	
SERIAL #: 1501	SERIAL #: 3384	SERIAL #: 2636	TEMP: 85 °F R.H.: 50.7 %

CALIBRATOR:	Freq, Hz.	CALIBRATION RECORD: Input, dB / Reading, dB / Offset, dB / Time	
Cal 200			WIND SPEED: 0.7 MPH
☐ LD CA250	☐ 250		TOWARD (DIR): E
☐ B&K 4231	☒ 1000	Before 94.0 / 94.1 / 8.1 / 13:47	SKIES: Sunny
S/N 11087	☐ _____	After 94.0 / 93.9 / 8.1 / 14:14	CAMERA —
METER SETTINGS: ☐ A-WTD ☐ LINEAR ☒ SLOW ☐ 1/1 OCT ☐ INTERVALS _____ - MINUTE			PHOTO NOs. —
☐ C-WTD ☐ IMPULSE ☐ FAST ☐ 1/3 OCT ☒ L_N PERCENTILE VALUES			

NOTES: Adjacent Home may be blocking noise

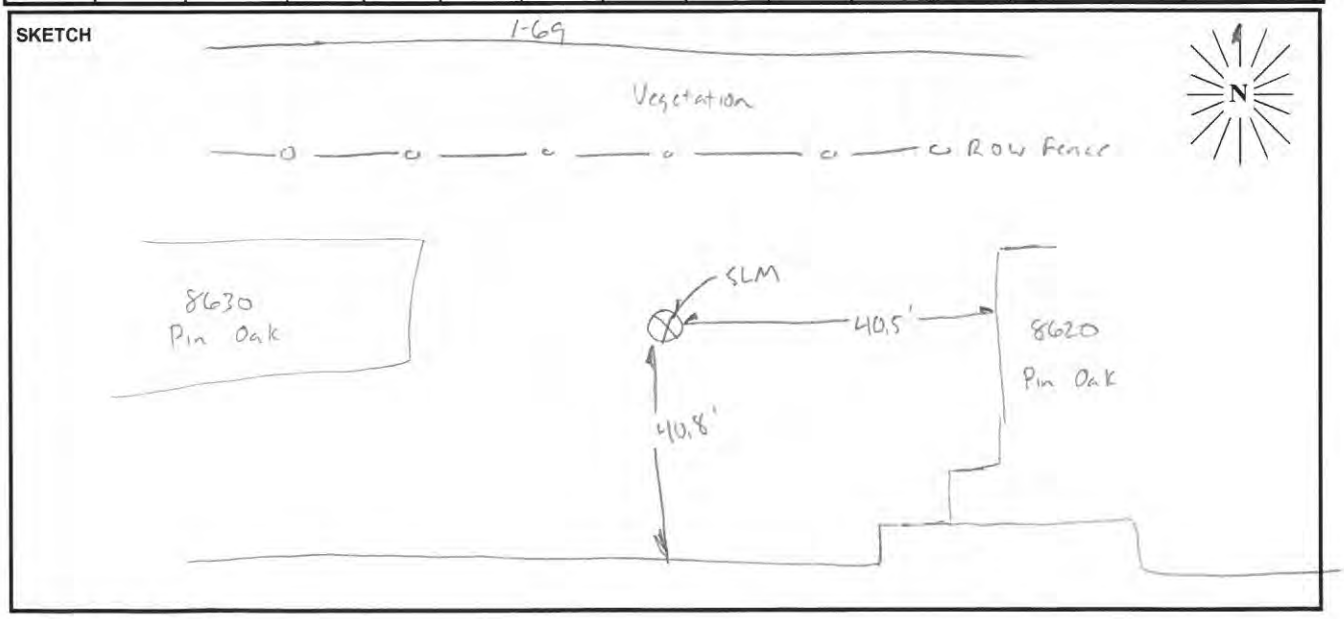
Dist. to Center of Nearest Lane 119 ☐ Video ☐ Radar

Counts	AT	MT	HT
SB	451	36	97
NB	396	18	98

MEAS. TYPE: ☐ Long Term ☒ Short Term

DATE	START TIME	STOP TIME	L_{MIN}	L_{99}	L_{90}	L_{50}	L_{25}	L_{10}	L_{01}	L_{MAX}	L_{EQ}	NOTES:
7/21	13:32	14:12	53.1	62.8	66.8	68.6	70.2	73.1	74.0	78.3	69.8	

SKETCH



PARSONS

Photo 57: 8620 Pin oak, Care Free Mobil Homes, Site No. ST- 15, Facing North

Photo 58: 8620 Pin oak, Care Free Mobil Homes, Site No. ST- 15, Facing East

Photo 59: 8620 Pin oak, Care Free Mobil Homes, Site No. ST- 15, Facing West

Photo 60: 8620 Pin oak, Care Free Mobil Homes, Site No. ST- 15, Facing South

Miller, Daniel J

From: Connolly, Richard
Sent: Monday, October 27, 2014 12:37 PM
To: Miller, Daniel J
Cc: Prevost, Daniel
Subject: FW: INDOT Des no. 1383332; I-69 Expansion Project; Draft Traffic Noise Impact Analysis

Follow Up Flag: Follow up
Flag Status: Flagged

From: Bales, Ronald [mailto:rbales@indot.IN.gov]
Sent: Monday, October 27, 2014 12:35 PM
To: Jones, Tony W
Cc: Connolly, Richard; Carnahan, Ben
Subject: RE: INDOT Des no. 1383332; I-69 Expansion Project; Draft Traffic Noise Impact Analysis

INDOT-Environmental Services Division has reviewed the noise study for the above referenced project. The consultant has addressed all previous comments. The noise analysis is technically sufficient and the project may advance with the mailing of surveys. Please provide INDOT-ES and INDOT-Office of Public Involvement the packet that is to be sent to benefited residents prior to them being sent for a quick review. Currently, there are four (4) noise barriers that are feasible and reasonable.

Thank you.

Ron Bales
Senior Environmental Manager
100 North Senate Ave., Room 642
Indianapolis, IN 46204
Office: (317) 234-4916
Email: rbales@indot.in.gov

From: Connolly, Richard [mailto:Richard.Connolly@parsons.com]
Sent: Friday, October 24, 2014 8:30 AM
To: Bales, Ronald
Cc: Jones, Tony W; Carnahan, Ben
Subject: RE: INDOT Des no. 1383332; I-69 Expansion Project; Draft Traffic Noise Impact Analysis

Ron,

Parsons has incorporated your comments to the Draft Traffic Noise Impact Analysis and uploaded the revised document to the same folder in projectwise (Draft ENV Noise 1383332 for Roadway Services_v2). Please let me know if you have any questions.

Thanks
Rich

Appendix J: Public Involvement

Page(s)
Sample Notice of Entry Letter…… 1-3

PARSONS

101 West Ohio Street, Suite 2121 • Indianapolis, Indiana 46204 • (317) 616-1000 • Fax: (317) 616-1033 • www.parsons.com

«Owner_name»
«Address»
«City», «State» «Zip»

RE: Des. Nos. 1383332, 1383336, & 1383489
I-69 Interstate Expansion
Added Travel Lanes from 106th St to 0.5 mi East of SR 13, and Interchange Modification at Exit 210 (Campus Parkway); Hamilton & Madison Counties, Indiana

Notice of Entry for Survey or Investigations

March 14, 2014

Dear Property Owner,

Our information indicates that you own property near the above proposed transportation project. Representatives of the Indiana Department of Transportation will be conducting engineering and/or environmental surveys of the project area in the near future. It may be necessary for the INDOT Representatives to enter onto your property to complete this work. This is permitted by Indiana Code § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else (i.e. rental, sharecrop), please let us know the name of the new owner or occupant so that we can contact them about the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey or Investigation" means. The design and environmental surveys are needed for the proper planning and design of this highway project. Engineering survey work would include mapping the location of features such as trees, buildings, fences, drives, ground elevations, etc. Environmental survey work may include the identification and mapping of wetlands, architectural surveys, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), and various other environmental studies. It is our sincere desire to cause you as little inconvenience as possible during this survey.

At this stage we generally do not know what effect, if any, our project may eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

If any problems occur, please contact the field crew or one of the following:

Ben Carnahan, PE	Daniel J. Miller	Linda Weintraut, Ph.D.
Project Manager (Parsons)	Sr. Environmental Planner (Parsons)	Weintraut & Associates, Inc.
101 West Ohio Street, Suite 2121	101 West Ohio Street, Suite 2121	P.O. Box 5034
Indianapolis, IN 46204	Indianapolis, IN 46204	Zionsville, IN 46077
(317) 616-1016	(317) 616-4663	(317) 733-9770
ben.carnahan@parsons.com	daniel.j.miller@parsons.com	linda@weintrautinc.com

Please be aware that IC 8-23-7-27 and 28 provides that you may seek compensation from INDOT for damages occurring to your property (land or water) that result from INDOT's entry for the purposes mentioned above in IC 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or an INDOT employee or representative to present an account of the damages to one of the above named INDOT staff. They will check

the information and forward it to the appropriate person at INDOT who will contact you to discuss the situation and compensation.

In the event that property damage occurs as a result of work performed during survey, the Greenfield District Real Estate Manager can provide you with a form to request compensation for damages. You may contact:

Ronald Raney
Greenfield District Real Estate Manager
32 South Broadway
Greenfield, IN 46160
(317) 467-3499
rraney@indot.in.gov

After filling out the form, you can return it to the District Real Estate Manager for consideration. Please contact the District Real Estate Manager if you have questions regarding the matter, rights, and procedures.

If you are not satisfied with the compensation that INDOT determines is owed to you, Indiana Code 8-23-7-8 provides the following:

> The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

Thank you in advance for your cooperation in this matter.

Sincerely,

Daniel J. Miller
Parsons, Senior Environmental Planner
101 W. Ohio St., Suite 2121
Indianapolis, IN 46204
daniel.j.miller@parsons.com

Attachment

INDIANA DEPARTMENT OF TRANSPORTATION
Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, IN 46204

Michael R. Pence, Governor
Karl B. Browning, 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.