U.S. 50 STRUCTURE REPLACEMENTS

Jackson and Jennings Counties, Indiana

CATEGORICAL EXCLUSION DOCUMENTATION

FEBRUARY 2012

Prepared for:
Indiana Department of Transportation (INDOT)
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Mutton Creek Bridge - Des. 1005615
Storm Creek Bridge - Des. 1005614
Branch of Storm Creek Culvert - Des. 1005613

HNTB

Indiana Department of Transportation

County Jackson/Jennings Route U.S. 50 Des. No. 1005615 Project No. _____

FHWA-Indiana Environmental Document
CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

Road No./County:	U.S. 50 / Jackson and Jennings
Designation Number:	1005615, 1005614, 1005613
Project Description/Termini:	Structure Replacements on U.S. 50 in Jackson and Jennings County, Indiana.

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.
X	**Categorical Exclusion, Level 4** – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds (See **Appendix A**). 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.

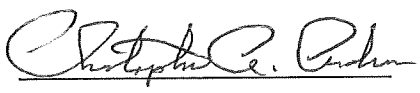
Approval _____ _____ _____ _____
ESM Signature Date ES Signature Date

_____ _____
FHWA Signature Date

Release for Public Involvement _____ _____ BTR 2-27-12
ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____
Manager, Public Hearings Signature Date

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

Reviewer Signature  Date 2-23-12

Name and organization of CE/EA Preparer: Tim Miller, CEP – HNTB Corporation

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.**

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

Remarks:

In May 2008, the Indiana Department of Transportation (INDOT), in cooperation with the Federal Highway Administration (FHWA), published the U.S.50 Corridor Planning Study and Preliminary Alternatives Screening Report. The report examined the deficiencies with the existing U.S. 50 roadway through Jennings County and the city of North Vernon. The report proposed several alternatives to meet current and future transportation needs. The report can be found on the project website, www.in.gov/indot/div/projects/us50/northvernon/index.html.\

Since completion of the Preliminary Alternatives Screening Report, the scope of the project has been refined in an effort to focus improvements in areas where they are most needed at this time. The objective of this element of the overall program is to improve traffic operation in and around North Vernon and increase accessibility to existing and potential growth areas. Three sections of Independent Utility were identified:

1) **New partial bypass of North Vernon:** This component will improve traffic operation in North Vernon by creating a new link from U.S. 50 on the west side of North Vernon to SR 3 on the north side of the city. This approach will address the principal transportation needs and still allow for the completion of a bypass around the east side of North Vernon as a separate project in the future. An Environmental Assessment of this project was published in October 2001, and FHWA issued a Finding of No Significant Impact on Dec. 16, 2011.

2) **Spot improvements on existing U.S. 50:** This component will address operational problems along U.S. 50 from U.S. 31 in Jackson County to CR 15 North on the west side of North Vernon by improving intersections and adding travel lanes to certain sections of existing U.S. 50. These improvements are expected to have very minor or no environmental impacts, which will be documented in a Categorical Exclusion environmental document.

3) **Structure replacements on existing U.S. 50:** This component of the project will replace the Mutton Creek and Storm Creek bridges and the culvert over Branch of Storm. These three improvements are covered under this Categorical Exclusion.

Although each of the three projects has independent utility, all three projects were discussed at many of the public involvement meetings.

The following is a summary of some public involvement activities:

Notice of Survey Letters

Notice of survey letters were mailed on Aug. 23, 2010, to property owners in the vicinity of the bridges. The letter indicated that project personnel may enter area properties to gather project-related information. A copy of the notice is included in **Appendix C**.

Early Agency Coordination Letters

Early agency coordination letters were sent on Nov. 9, 2010, to State and Federal Agencies. All

agency correspondence is located in **Appendices C and D.**

Section 106 Consulting Party Coordination

Surveys of historic architectural and archaeological properties were completed for this project. The findings were distributed to the Division of Historic Preservation and Archaeology of the Indiana Department of Natural Resources as well as consulting parties. The Finding of Effect was sent to Consulting Parties on December 27, 2011 for a 30-day comment period. The offices of the State Historic Preservation Officer, Indiana Landmarks, and the U.S. Fish and Wildlife Service responded, concurred with the Finding of Effect, and had no additional comments. The Finding of Effect will be published in local media for public comment along with the public comment period of this document. More information on the Section 106 process can be found in **Section C** (Cultural Resources) of this document and **Appendix D**.

Public Meetings

Information related to the structure replacement projects was discussed and addressed at two public open houses and three CAC meetings. The main purpose of the meetings was to discuss the new U.S. 50 North Vernon project, but associated spot improvements and the three structure replacement projects were addressed and open to public comment. A summary of the public meetings are included in **Appendix I.**

Public Hearing

A public hearing will be offered for this project. Notification of the opportunity of a public hearing will be advertised in the North Vernon Plain Dealer and the Seymour Tribune. Letters offering a public hearing will also be sent to property owners near the improvements. If a public hearing is held, the public will have 30 days to provide comments on the proposed improvements. All comments will be considered, summarized, and addressed in a subsequent version of this document. If the number of requests does not warrant a public hearing, the parties submitting the request for a public hearing will be contacted in order to answer questions or address concerns. Subsequent to the satisfaction of the public involvement requirements, the Categorical Exclusion will be revised accordingly and submitted to FHWA for their approval.

Project Website

The project team maintained web pages at www.in.gov/indot/div/projects/us50/northvernon/ to share project information. This website has been updated throughout the public involvement process with meeting materials and dates of upcoming meetings. The website also includes maps, handouts and documents that can be viewed or downloaded. Information is also available on the site about how to reach project staff and submit comments.

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts?

Yes	No
	X

Remarks: The Mutton and Storm Creek bridge replacements will require approximately 2.2 acres of right of way from the Muscatatuck National Wildlife Refuge (MNWR). A Memorandum of Understanding

(MOU) between the Federal Highway Administration, the Indiana Department of Transportation, and the U.S. Fish and Wildlife Service was signed in December 2011. The MOU confirmed the acquisition will not harm the refigure. Coordination with U.S. Fish and Wildlife Service can be found in **Section D** and in **Appendix G.**

Public Hearing	**Yes**	**No**
Opportunity for Public Hearing required?	**X**	

Remarks: Yes. An opportunity for the general public to request a public hearing is required to be offered according to the current FHWA-approved public hearing requirements because the project will require the acquisition of more than 0.5 acre of additional permanent right of way. In addition, due to the nature of the right-of-way impacts to the MNWR, it was determined that it is in the public's interest to offer the opportunity for a public hearing.

Part II – General Project Identification, Description and Design Information

Sponsor of the Project: INDOT INDOT District: Seymour
Local Name of the Facility: U.S. 50

Funding Source: **80%** Federal **20%** State [ ] Local [ ] Private

PURPOSE AND NEED:

Describe the problem that the project will address.

The following reasons comprise the need for the project:

1) The existing bridge structures do not meet current hydraulic design guidelines;

2) The existing bridge structures have undesirable geometrics;

3) The existing culvert is in very poor structural condition.

The purpose of the project is to provide adequate hydraulic capacity at the three water crossings and to improve the roadway geometry to meet current design standards. The need also will meet INDOT Seymour District's 2012-2015 Transportation Improvement Plan.

The Mutton Creek and Storm Creek bridges (see cover images) are being replaced because the existing hydraulic openings are not adequate for existing hydraulic data. Both the Mutton Creek and Storm Creek bridges were constructed in 1957, and both were reconstructed in 1984.

The Branch of Storm Creek culvert (see cover image) is in very poor structural condition and needs to be replaced.

The INDOT Seymour District identified the replacement of these three structures in the FY2012-2015 Statewide Transportation Improvement Program. The projects can be found on Page 11 of 15, in the Major Projects FY2012-2015 section. (www.in.gov/indot/files/STIP2012-2015Final.pdf)

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Jackson and Jennings

Municipality: Seymour

Limits of Proposed Work:

- The Mutton Creek Bridge along U.S. 50 is located 0.92 miles east of U.S. 31, in Section 14, T6N, R6E, Jackson Township, Jackson County, Indiana. Total project length is .174 miles.
- The Storm Creek Bridge along U.S. 50 is located 2.06 miles east of U.S. 31, in Section I3, T6N, R6E, Jackson Township, Jackson County, Indiana. Total project length is .123 miles.
- The Branch of Storm Creek culvert is located 3.6 miles east of U.S. 31, in Section 8, TGN, R7E, Spencer Township, Jennings County, Indiana. Total project length is .193 miles.

Total Work Length: .49 Miles

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

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

In the Remarks box below, describe 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.

Remarks:

The undertaking consists of the replacement of bridges over Mutton Creek and Storm Creek, and a culvert over a Branch of Storm Creek (Des. Nos. 1005615, 1005614, and 1005613). This undertaking is part of a larger project that consists of multiple roadway spot improvements along U.S. 50 and a new U.S. 50 roadway in Jackson and Jennings counties, Indiana. The bridge and culvert replacements have independent utility from the other improvements and can be constructed with or without future improvements.

The existing structure at Mutton Creek is a 136-foot, three-span (42 feet, 5 inches – 51 feet – 42 feet, 5 inches), continuous steel-beam bridge and will be replaced with a three-span bridge (72 feet – 72 feet – 80 feet) that is 224 feet long. In addition, 67 linear feet of stream will be stabilized with riprap material.

The existing structure at Storm Creek is a 102-foot (30 feet – 42 feet – 30 feet), reinforced concrete slab bridge. The new structure is a three-span, (57'- 57' - 66') 180-foot, continuous, composite, pre-stressed AASHTO Type II I-beam bridge with integral end bents. Riprap spill slopes will be utilized at each end bent. In addition, 62 linear feet of stream will be stabilized with riprap and geotextile material.

The existing structure at the Branch of Storm Creek is a 14-foot-wide reinforced slab culvert. The new structure is a 24-foot wide, three-sided structure. The existing structure is 52 feet in length whereas the new structure will be 64 feet in length.

This project involves bridge replacements along U.S. 50.

Table 1: Structure Replacement Locations

Bridge/Structure Location	DES Number	County	NBI #	Structure #
Mutton Creek	1005615	Jackson	18640	050-36-04081A
Storm Creek	1005614	Jackson	18650	050-36-04101A
Branch of Storm Creek	1005613	Jennings	N/A	N/A

OTHER ALTERNATIVES CONSIDERED:

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

The Do-Nothing Alternative

The Do-Nothing Alternative was considered for the bridge replacement projects. This alternative proposed utilization of the existing bridges with no expenditure of capital funds. The Do-Nothing Alternative would not have addressed the overall purpose of the project, which is to improve structural and hydraulic deficiencies of the bridges. Under this alternative, the deficiencies would remain, and the project would not satisfy the purpose and need. Routine maintenance would have continued under the Do-Nothing Alternative. Therefore, for the stated reasons, the Do-Nothing Alternative was not determined to be feasible or prudent and was not considered further.

Other Build Alternatives Considered:

Rehabilitating the existing bridge structures was considered but dismissed due to the age of the existing structures (built in 1957) and the amount of required sub-structure construction. In addition, rehabilitating the existing structures would not address the hydraulic deficiencies. Due to the poor condition of the culvert over the branch of Storm Creek, rehabilitation is not prudent.

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

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

Remarks: Hydraulic deficiencies would remain under the Do Nothing Alternative.

ROADWAY CHARACTER:

Functional Classification: Rural Arterial

Current ADT: 11,060 / VPD 20(10) Design Year ADT: 11,679 / VPD 20(32)

Current Year DHV: 609 Trucks (%) 17% Design Year DHV: 643 Trucks (%) 17%

Designed Speed (mph): 55 Legal Speed (mph): 55

	Existing	Proposed
Number of Lanes:	2	2
Type of Lanes:	Through-lanes	Through-lanes
Pavement Width:	24 feet	24 feet
Shoulder Width:	4 feet	4 feet
Median Width:	N/A feet	N/A feet
Sidewalk Width:	N/A feet	N/A feet

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

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

DESIGN CRITERIA FOR BRIDGES:

U.S. 50 Culvert over Branch of Storm Creek

Structure No.	N/A (culvert)
Sufficiency Rating	N/A (culvert)

	Existing	Proposed
Structure Type	Reinforced Slab Culvert	3-Sided Box Culvert
No. 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	3 feet, 0 inches	8 feet, 0 inches
Length of Channel Work	N/A	105 linear feet

	Yes	No
Will the branch of Storm Creek culvert be rehabilitated or replaced as part of the project?	X	

U.S. 50 Bridge over Mutton Creek

Structure No.	050-36-04081A
Sufficiency Rating	84.0

	Existing	Proposed
Bridge Type	3-span	3-span
No. of Spans	3	3
Weight Restrictions	22 tons	N/A
Height Restrictions	N/A	N/A
Curb to Curb Width	40 feet, 0 inches	39 feet, 4 inches
Outside to Outside Width	41 feet, 7 inches	42 feet, 4 inches
Shoulder Width	8 feet, 0 inches	7 feet, 8 inches
Length of Channel Work	N/A	110 linear feet

	Yes	No
Will the U.S. 50 Bridge over Mutton Creek be rehabilitated or replaced as part of the project?	X	

Remarks: The U.S. 50 Bridge over Mutton Creek is recommended for replacement due to the need of improving hydraulics. Longer span lengths that will improve hydraulics are not possible with rehabilitation.

U.S. 50 Bridge over Storm Creek

Structure No.	050-36-04101A
Sufficiency Rating	80.2

	Existing	Proposed
Bridge Type	3-span	3-span
No. of Spans	3	3
Weight Restrictions	28 tons	N/A
Height Restrictions	N/A	N/A
Curb to Curb Width	40 feet, 4 inches	39 feet, 4 inches
Outside to Outside Width	43 feet, 4 inches	42 feet, 4 inches
Shoulder Width	8 feet, 2 inches	7 feet, 8 inches
Length of Channel Work	N/A	106 linear feet

Will the U.S. 50 Bridge over Storm Creek be rehabilitated or replaced as part of the project?	**Yes**	**No**
	X	

Remarks: The U.S. 50 Bridge over Storm Creek is recommended for replacement due to the need of improving hydraulics. Longer span lengths that will improve hydraulics are not possible with rehabilitation.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION FOR
Mutton Creek, Storm Creek and Branch of Storm Creek Structures

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

Remarks:

The preferred MOT option for the bridge replacements maintains one-lane, one-way operation over the bridges and three-sided culvert. This requires that a temporary signal be placed on both sides of each bridge to alternate the one-way direction. This will require the placement of temporary signals and advanced warning devices.

By maintaining one lane over the existing bridges and culvert, the proposed structures can be constructed in halves. The bridge over Mutton Creek has a 40-foot clear width and is the narrowest of the three bridges. An 11-foot lane with 2-feet-shy distance and temporary barrier can be maintained on half the existing bridge while the other half of the bridge is removed and reconstructed. Once half of the proposed bridge is constructed, the one-lane operation would shift to it, and the other half of the bridge would be replaced. Oversize and wide loads will be able to utilize the bridges while under construction.

ESTIMATED PROJECT COST AND SCHEDULE

Engineering $ 292,800 (2011) **Right of Way** $ 46,000(2011-2012) **Construction** $ 3,928,602 (2012)

Anticipated Start Date of Construction: 2012

Date Project Incorporated into STIP: 7/2011 (See **Appendix I** for documentation)

If in an MPO area, location of project in TIP_____N/A_____which was incorporated into the STIP by reference on July 11, 2011.

NEW PROPOSED RIGHT OF WAY: 4.06 acres

	Acres		
Land Use Impacts	**Mutton Creek Bridge**	**Storm Creek Bridge**	**Branch of Storm Culvert**
Residential	0	0	0
Commercial	0	0	0
Ag	0.50	0	0.48
Forest	0.68	0.58	1.55
Wetlands	0	0	0.16
Other	––	0.11	––
Subtotal	1.18	0.69	2.19
Total Acres			**4.06**

Remarks: To provide for the two bridges and one structure replacement, approximately 4.06 acres of additional permanent right of way will be required. The Mutton Creek Bridge replacement will require .09 acre of temporary right of way. No other temporary right of way is required.

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

SECTION A – ECOLOGICAL RESOURCES

	Presence		Impacts	
	Yes	No	Yes	No
Streams, Rivers, Watercourses and Jurisdictional Ditches	X		X	
State Wild, Scenic or Recreational River		X		

Remarks:

The three structure replacements were originally part of a 17-spot improvement project for which there would be one Categorical Exclusion (CE). The 17 spot improvements were located between U.S. 31 in Jackson County and County Road 15 Jennings County. Field investigations and wetland delineations were performed in the 17 spot improvements and included the impacts at Mutton and Storm Creeks, as well as the Branch of Storm Creek culvert. The study area was approximately 200 feet wide and varied in length at each location. The Wetlands and Waters Report of the 17 spot improvements was submitted and accepted by INDOT in July 2011. In November 2011, INDOT decided to break out the three bridges as one project and determined that separate CEs should be prepared (one for the structures and a second CE will cover the remaining spot improvements). For the purposes of this CE, the impacts are related only to the three bridge structures.

The National Wetland Inventory (NWI) map and the IndianaMAP GIS database were reviewed for the project area to identify waterways that may be impacted by the proposed project. A total two (2) named creeks were located on the NWI and the Indiana GIS mapping. These streams were verified in the field and identified as Mutton Creek and Storm Creek. The field investigation located five (5) additional ephemeral and intermittent streams within the project study area. A total 735 linear feet of ephemeral streams; 1,633 linear feet of intermittent streams; and 772 linear feet of perennial streams were located within the study area (**Wetlands and Other Waters Delineation Report**, **Appendix F**).

A total 147 linear feet of ephemeral streams; 450 linear feet of intermittent streams; and 216 linear feet of perennial streams will be impacted by the proposed project. Descriptions of each are located in the **Wetlands and Other Waters Delineation Report** (**Appendix F**).

The Indiana Department of Environmental Management's 2008 list of impaired waterways and outstanding resource waters was researched, and neither classification of waterway was identified in the project area or determined to be affected either directly or indirectly by the proposed project.

	Presence		Impacts	
	Yes	No	Yes	No
Other Surface Waters		X		
Reservoirs		X		
Lakes		X		
Farm ponds		X		
Detention basins		X		
Storm water management facilities		X		
Other:				

Remarks: No other surface waters – including reservoirs, lakes, farm ponds, detention basins, and storm water management facilities – were located within the project area. No impacts are proposed to other surface waters.

	Presence		Impacts	
	Yes	No	Yes	No
Wetlands	X		X	

Total wetland area: **4.83** acre(s) Total wetlands impacted: **0.16** acre(s)

(If a determination has not been made for non-isolated/isolated wetlands, fill in the total wetland area impacted above.) For more detailed information on the wetlands within the project study area, please see the **Wetlands and Other Waters Delineation Report**, **Appendix F**).

Table 2: Wetland Impacts

Wetland Number	Classification	Size in Study Area (Acres)	Impacted Acres	Comments
T2-W10	PFO	2.04	None	Near Storm Creek
T2-W11	PFO	0.19	None	Near Storm Creek
T2-W12	PFO	2.60	0.16	Near Mutton Creek
	Total	**4.83**	**0.16**	

Wetlands	**Yes**	**No**	**ES Approval Dates**
Wetland Determination		X	
Wetland Delineation Report	X		July 13, 2011
USACE Isolated Waters Determination		X	
Mitigation Plan	X		Sept. 7, 2011

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):	**Individual Wetland Finding – Yes**	**Individual Wetland Finding – No**
Substantial adverse impacts to adjacent homes, business or other improved properties;		X
Substantially increased project costs;		X
Unique engineering, traffic, maintenance, or safety problems;	X	
Substantial adverse social, economic, or environmental impacts, or		X
The project not meeting the identified needs.	X	

Measures to avoid minimize and mitigate wetland impacts need to be discussed in the Remarks section.

Remarks:

The NWI map was reviewed to identify potential wetlands that may be impacted by the proposed project. Two wetland areas were located on the NWI map within the study area of the project; however three were observed during the field investigation. One wetland was delineated adjacent to Mutton Creek, and two were delineated adjacent to Storm Creek. All three wetlands were classified as forested wetlands and are described in the **Wetlands and Other Waters Delineation Report** (see **Appendix F**).

Two of the wetlands will be avoided by the proposed project by minimizing construction and right-of-way limits.

In an order to avoid and minimize impacts to wetlands, the original construction limits were adjusted to minimize wetland impacts. In addition, once the original wetland impacts were identified, a retaining wall was proposed and incorporated into the final U.S. 50 over Storm Creek bridge plans. The primary purpose of the retaining wall was to minimize wetland and right-of-way impacts. Finally, construction limits were refined to reduce wetland impacts.

In areas where wetland impacts could not be avoided, onsite mitigation for the two of the tributaries of Storm Creek will occur. In addition, offsite mitigation will occur as a mitigation measure.

Impacts resulting from the proposed project will be confined to the construction limits and will be mitigated by the measures identified in the **Section J** of this document, **Environmental Commitments**.

	Presence		Impacts	
	Yes	No	Yes	No
Terrestrial Habitat	X		X	

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

Remarks:

The following floral and faunal species were noted as dominating the project area.

Flora: Observed vegetation included black walnut, silver maple, shagbark hickory, pin oak, green ash, grease grass, tall fescue, bristle grass, and sweet flag.

Fauna: Animals observed by sightings, calls or tracks included raccoon, squirrel, rabbit, predatory birds, songbirds, and amphibians

The proposed project activities will be conducted in areas of existing and proposed right of way. Direct impacts to terrestrial habitat/land uses in the proposed right of way will be 1.99 acres (see **Appendix B**). The following impacts are categorized by land type and exclude areas containing wetlands:

Agricultural ..... 0.48 acres

Forest ..... 1.39 acres

Open field ..... 0.12 acres

Residential/lawn... 0.00 acres

Impacts resulting from the proposed project will be confined to the construction limits and will be mitigated by the measures identified in Section J of this document, 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.

	Presence		Impacts	
	Yes	No	Yes	No
Karst Does the proposed project involve the Karst Region of Indiana?		X		

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

Remarks:

This project is located outside of the designated karst area of the state as identified in the October 13, 1993 INDOT/Indiana Department of Natural Resources MOU. No karst features were observed or are known to exist within or adjacent to the proposed project area as shown in Appendix P of the Indiana Potential Karst Features Map in the 2011 INDOT Categorical Exclusion Manual. (http://www.in.gov/indot/files/2011_CE_Manual.pdf). In addition, the study area was compared to the KARST areas identified in the Statewide GIS database, IndianaMap.(http://inmap.indiana.edu/download.html)

County Jackson/Jennings Route U.S. 50 Des. No. 1005615 Project No.

Threatened or Endangered Species	Presence Yes	Presence No	Impacts Yes	Impacts No
Within the known range of any federal species?	X			X
Any critical habitat identified within project area?		X		
Federal species found in project area (based upon informal consultation)?		X		
State species found in project area (based upon consultation with IDNR)?		X		
Is Section 7 formal consultation required for this action?		X		

Remarks:

Correspondence has been received from IDNR, dated December. 9, 2010, stating that currently 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 C**).

Correspondence has been received from USFWS, dated December 8, 2010, stating that the project is within the range of the Indiana bat (*Myotis sodalis*). To avoid an incidental take the agency recommends no clearing from April 1 to Sept. 30. If this is implemented, the project is not likely to affect the Indiana bat (**Appendix C**). Additional correspondence took place with USFWS regarding tree clearing for the three structures. In January 2012, Mike Litwin of USFWS noted that "there are recent Indiana bat records within a mile of all three of these bridges. However, because all tree removal will be within 55' of a major highway, I will conclude that the likelihood of Indiana bat roosting in the affected area is discountably small. I still recommend the seasonal (prior to April 1) tree clearing measure but will concur with a "not likely to adverse affect" conclusion if it cannot be implemented due to logistics." (**See Appendix C.**)

In order to provide a safe wildlife crossing, the design of the U.S. 50 Mutton Creek bridge will include an 8-foot by 24-foot wildlife crossing.

SECTION B – OTHER RESOURCES

	Presence		Impacts	
Drinking Water Resources	**Yes**	**No**	**Yes**	**No**
Sole Source Aquifer (SSA)		X		
Is the Project in the St. Joseph Aquifer System?		X		
Is the FHWA/EPA SSA MOU Applicable?		X		
Initial Groundwater Assessment Required?		X		
Detailed Groundwater Assessment Required?		X		
Source Water Protection Area(s)		X		
Public Water System(s)	X			X
Residential Well(s)	X			X
Wellhead Protection Area		X		

Remarks:

The project is not located within the legally designated St. Joseph Aquifer System, the only sole source aquifer in the state of Indiana. The IDEM Groundwater Section was contacted on Nov. 9, 2010, to determine if the proposed project is located in a wellhead protection area. IDEM responded on Nov. 16, 2010, that the project is not located within a wellhead protection area (see **Appendix C**).

Hayden Water Association and Jennings Water, Inc., provide water services within the proposed project area. These companies receive their water from groundwater wells located outside of the proposed project area. The supply lines for these companies that are located in the project area are discussed in **Section G** of this document, **Community Impacts**.

	Presence		Impacts	
Flood Plains	**Yes**	**No**	**Yes**	**No**
Longitudinal Encroachment		X		
Transverse Encroachment	X		X	
Is the project located in a FEMA designated floodplain?	X		X	
Homes located in floodplain within 1,000' up/downstream from project?		X		

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

Remarks:

The floodplain impacts are associated with the bridge replacements located at Mutton Creek and Storm Creek. These bridge replacements are under Category 4 according to the classification system in the "Procedural Manual for Preparing Environmental Studies".

No homes are located within the base floodplain within 1,000 feet upstream or downstream of the structures. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to significantly increase. As a result, there will be no significant adverse impacts on natural and beneficial floodplain values; no significant change in flood risks; and no significant increase in the potential for interruption or termination of emergency service or emergency evacuation routes. Therefore, it has been determined that this encroachment is not significant. However, a Construction in a Floodway permit will be required.

	Presence		Impacts	
Farmland	**Yes**	**No**	**Yes**	**No**
Agricultural Lands	X		X	
Prime Farmland (per NRCS)	X		X	
NRCS Form AD-1006 scored ≥ 160?		X		

Provide the NRCS Form AD-1006 score and state whether there is a significant loss of farmland as a result of the project in the remarks section.

Remarks:

As is required by the Farmland Protection Policy Act, the NRCS has been coordinated with and the Form CPA-106 has been completed and located in **Appendix H**. Because the project received a total point value of less than 160, this area will receive no further consideration for farmland protection. No alternates, other than those previously discussed in this document, will be considered without a re-evaluation of its potential impacts upon farmland. This project will not have a significant impact to farmland.

SECTION C – CULTURAL RESOURCES

	Category	Type	INDOT Approval Dates
Minor Projects PA Clearance			

Eligible and/or Listed Resource Present

Results of Research	Yes	N/A
Archaeology		X
History/Architecture		X
NRHP Buildings/Site(s)		X
NRHP District(s)		X
NRHP Bridge(s)		X

Project Effect	Yes	N/A	SHPO/ES/FHWA Approval Dates
No Historic Properties Affected	X		January 10, 2012/December 27, 2011
No Adverse Effect		X	January 10, 2012/December 27, 2011
Adverse Effect		X	

Documentation Prepared

Documentation	Yes	N/A	SHPO/ES/FHWA Approval Dates
Historic Properties Short Report		X	
Historic Property Report	X		September 23, 2011 (SHPO)
Archaeological Records Check/ Review	X		Included with Phase 1a
Archaeological Phase Ia Survey Report	X		July 25, 2011 (SHPO)
Archaeological Phase Ic Survey Report		X	
Archaeological Phase II Investigation Report		X	
Archaeological Phase III Data Recovery		X	
APE, Eligibility and Effect Determination	X		December 27, 2011 (ES) January 10, 2012 (SHPO)
800.11 Documentation	X		
Memorandum of Agreement			

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:

Section 106 of the National Historic Preservation Act requires Federal agencies to consider the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2(c), consulting parties were invited to participate in identifying potentially affected historic properties, assess the undertaking's effects, and seek ways to avoid, minimize or mitigate adverse effects. Each organization was sent an early coordination packet and invited to become a consulting party. The following agencies were invited on Nov. 9, 2010, to participate as consulting parties. Organizations that responded are identified in bold print.

- **Federal Highway Administration**
- **INDOT**
- **State Historic Preservation Office (SHPO)**
- **Indiana Landmarks, Southern Regional Office**
- **United States Fish and Wildlife Service**
- Jennings County Historical Society
- Jennings County Historian
- Jackson County Historian
- City of North Vernon
- Jennings County Area Planning Commission

Determination of the Area of Potential Affect (APE)

Undertakings to replace the bridges over Mutton and Storm creeks each have an APE of 1,000 feet from the edge of the bridge north of U.S. 50, and 400 feet from the edge of the bridge south of U.S. 50. The undertaking to replace the U.S. 50 culvert at the Branch of Storm Creek has an APE of a 400-foot radius around the culvert.

Historic Resource Findings

No properties in the APEs of the Mutton Creek, Storm Creek, or Branch of Storm Creek bridge/culvert replacements are listed in, or have been determined eligible for inclusion in the National Register of Historic Places. INDOT, acting on FHWA's behalf, determined on Dec. 27, 2011, that a No Historic Properties Affected finding is appropriate for the undertaking. The SHPO concurred with this recommendation on Jan. 10, 2012. (The Jan. 10, 2012, letter was inadvertently dated Jan. 10, 2011.) See **Appendix D** for more information.

Archaeological Resources

Assessment of Effects

Shovel testing was conducted in the spring/summer 2011 for archeological deposits in the surrounding area. The results showed no evidence of archaeological deposits. No further archaeological testing was recommended to INDOT and the SHPO. On July 25, 2011, the SHPO concurred that no additional testing was required.

Signed Finding

The above APE, Eligibility Determinations, and Effect Finding were approved by INDOT on Dec. 27, 2011.

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

Section 4(f) Involvement

	Presence		Use		FHWA / ES
Parks and Other Recreational Land	**Yes**	**No**	**Yes**	**No**	**Approval/dates**
Publicly owned park		X			
Publicly owned recreation area		X			
Programmatic Section 4(f) Evaluation		X			
Individual Section 4(f)		X			
Other (school, state/national forest, bikeway, etc.)	X		X		
"*De minimis*" Impact	X		X		(Will occur as part of CE approval)

Discuss Programmatic Section 4 (f) and de minimis Section 4(f) impacts in the remarks section 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) documents please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

The Muscatatuck National Wildlife Refuge is located on U.S. 50, just three miles east of the I-65/U.S. 50 interchange at Seymour, Ind. The refuge was established in 1966 and includes over 7,800 acres, of which 60 percent are converted farmlands. Lakes, ponds and forests comprise 1,500 acres of the refuge. The public use of the refuge includes hiking, hunting and fishing, education, wildlife photography and a visitors' center.

The responsibility for Section 4(f) findings has been assigned to the FHWA Indiana Division under the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for User (SAFETEA-LU) Act of 2005. Section 6009 of SAFETEA-LU allows determinations that certain uses of 4(f) land will have a minor – *de minimis* – impact on the protected resource.

Under the provisions of Section 4(f), if the proposed project would result in adverse effects to a resource under the law, the transportation agency must conduct an evaluation to demonstrate that there is no prudent and feasible alternative to the use of the 4(f) property. Because this evaluation can be expensive and potentially result in project delays, an exemption is provided in cases where the official with jurisdiction over the park or recreation area concurs that the impacts are not adverse. This concurrence enables FHWA to make a *de minimis* (minimal impact) finding, which satisfies the requirements of Section 4(f), and precludes the need for a full Section 4(f) Evaluation.

Of the proposed bridge replacements, Mutton and Storm creeks' bridges will require approximately 2.2 acres of refuge property. To comply with Section 4(f) requirements regarding avoidance and minimization, INDOT has minimized to the extent practical the area required to construct and maintain the two bridges, and it has eliminated proposed improvements to the southeast quadrant of the U.S. 50/County Road 1225 E intersection. Combined, these efforts reduced the total impact to the MNWR from 4.7 acres to 2.2 acres.

Section 6009(a) requires that a public notice and opportunity for review and comment be provided for projects that are determined to have a *de minimis* impact. A 30-day public notice was advertised in the *Plain Dealer* on June 21, 2011, soliciting public comment on the intended *de minimis* finding (**Appendix G**). No public comments were received within the 30-day comment period. It was determined that the proposed improvements will not result in an adverse effect on the activities, features and attributes that qualify the refuge for protection under Section 4(f).

1. The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
2. The official(s) with jurisdiction over the property are informed of FHWA's or FTA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and

USFWS deemed that the proposed acquisition would not adversely affect the activities, features and attributes of the refuge. In a good faith measure, INDOT, FHWA and USFWS signed an MOU in December 2011. This MOU is considered documentation for the *de minimis* finding. (**See Appendix G**). By signature of this document, FHWA approves the de minimis determination that the project does not adversely affect the activities, features and attributes of the Section 4(f) resource.

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

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

Remarks: No Section 6(f) resources were identified by IDNR in their correspondence of Nov. 9, 2010 (See **Appendix C**), by site inspection, and review of the National Park Service Land and Water Conservation database. As such, the proposed project will not involve any properties acquired by or improved with the Land and Water Conservation Fund.

SECTION E – Air Quality

Conformity Status of the Project	**Yes**	**No**
Is the project in an air quality non-attainment or maintenance area?	X	
If YES, then:		
Is the project in the most current MPO TIP?	X	
Is the project exempt from conformity?	X	
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)?		X
Is an MSAT level 1a Analysis required?		X
Is an MSAT level 1b Analysis required?	X	
Is an MSAT level 2 Analysis required?		X
Is an MSAT level 3 Analysis required?		X
Is an MSAT level 4 Analysis required?		X
Is an MSAT level 5 Analysis required?		X

Remarks:

Jackson County is in maintenance for ozone and in attainment for all other NAAQS. Jennings County is in attainment for all NAAQS. This project will not result in any meaningful changes in traffic volumes, vehicle mix, location of the existing facility, or any other factor that would cause an increase in emissions relative to the no-build alternative. As such, FHWA has determined that this project will result in minimal air quality impacts for Clean Air Act criteria pollutants, and it has not been linked with any special Mobile Source Air Toxic concerns. Consequently, this effort is exempt from analysis for MSATs.

Moreover, EPA regulations for vehicle engines and fuels will cause overall MSATs to decline significantly over the next 20 years. Even after accounting for a 64 percent increase in VMT, FHWA predicts MSATs will decline in the range of 57 percent to 87 percent from 2000 to 2020, based on regulations now in effect. This will both reduce the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.

SECTION F - NOISE

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

	No	Yes/ Date
ES Approval of Noise Analysis		

Remarks: This project is not a Type 1 project. In accordance with 23 CFR 772 and the INDOT Traffic Noise Policy (FHA concurrence on Feb. 26, 2007), this action does not require formal noise analysis and is exempt from construction noise requirements.

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors	Yes	No
Will the proposed action comply with the local/regional development patterns for the area?	X	
Will the proposed action result in substantial impacts to community cohesion?		X
Will the proposed action result in substantial impacts to local tax base or property values?		X
Will construction activities impact community events (festivals, fairs, etc.)?		X

Remarks:

Social Effects

Temporary: Inconvenience associated with reduced speed limits in the construction zone, construction noise, and fugitive dust should be anticipated.

Permanent: Reduced risk associated with unanticipated road closures due to hydraulic conditions or structural failures.

Economic Effects (taxes)

Temporary: None

Permanent: The loss of 4.06 acres of right way will have a minor effect on the local tax base since the property will be removed from the local property tax assessment.

Consistency/Inconsistency with Local Land Use Policies

North Vernon Comprehensive Plan (2009): The North Vernon Comprehensive Plan incorporates the U.S. 50 North Vernon project into all elements of the plan, including future land uses and the overall transportation network. Although the Plan refers to the U.S. 50 new roadway portion of the improvements, improvements to existing U.S. 50 are included in improving the U.S. 50 corridor in Jackson and Jennings Counties. The plan sets implementation of the new roadway (also known as "bypass") as a top priority and states that the city should work closely with INDOT to ensure the final route is appropriate. However, the plan recognizes that this is a long-term goal. Spot improvements, including structure replacements, support the goals behind the U.S. 50 corridor improvement projects and the comprehensive plan. Spot improvements can alleviate some traffic congestion along U.S. 50. The plan also recognizes this project by indicating that INDOT had funded additional "travel lanes on U.S. 50 from US 31 in Jackson County to the west side of North Vernon." Overall, the spot improvements identified in this project are supported by and consistent with the North Vernon Comprehensive Plan. Upgrades to U.S. 50 are included in INDOT's Long Range Transportation Plan and were

first inserted in INDOT's Long Range Transportation Plan in 2002. The U.S. 50 improvement project is currently in the *2010-2035 Draft Long Range Transportation Plan*.

Jennings County Comprehensive Plan (1994): While this plan is slightly outdated (adopted in 1994), the overall goals and direction of the plan can be considered. The Jennings County Comprehensive Plan states that "Future growth in Jennings County will depend heavily upon the continued development of the transportation infrastructure of the county." It further maintains that the U.S. 50 corridor is the direct connection to I-65 and an important economic development tool in the future. At the time the plan was created (1994), local decision makers realized that the long term capacity of U.S. 50 would not be sufficient and would require major upgrading within 10-20 years (2004-2014 time frame). The plan further shows that projections for the local economy will consume all capacity of major thoroughfares, such as U.S. 50, and that "industrial truck traffic will complicate the traffic patterns." Finally, the comprehensive plan suggests that the long-term solution to limited capacity on U.S. 50 is to construct a U.S. 50 bypass on the north side of North Vernon. This bypass would reduce traffic problems in downtown North Vernon. Projections for industrial growth also show that the demand on U.S. 50 would be significant. Generally, the plan for spot improvements along U.S. 50 is supported by and consistent with the Jennings County Comprehensive Plan because it is updating a key piece of infrastructure that local officials predicted would become outdated.

Jackson County Comprehensive Plan (2006): The Jackson County Comprehensive Plan does not place a large focus on improvements to U.S. 50 in the project area; however, the comprehensive plan does state that the county should "work with Jennings County to improve the connection between CR 1300 and Hwy 50."

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

Remarks: The replacement of all three structures will not result in substantial indirect or cumulative impacts.

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

Remarks: The proposed project may have temporary inconveniences associated with construction such as increased travel times, possible utility interruptions, vehicular operating costs, construction noise and fugitive dust.

However, no substantial impacts on health and educational facilities, public utilities, fire, police, emergency services, religious institutions, public transportation or pedestrian and bicycle facilities are anticipated.

Any road closures and establishment of detours will be coordinated with the appropriate emergency services to ensure minimal disruption to response times.

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		**X**
Are any EJ populations located within the project area?	**X**	
Will the project result in adversely high or disproportionate impacts to the EJ population?		**X**

Remarks: This section addresses the issue of equality in all federally funded programs and activities in compliance with Title VI of the 1964 Civil Rights Act, and Environmental Justice (EJ) Executive Order (EO) 12898. Its purpose is to document the environmental and socioeconomic impacts of the project with regard to minority and low-income communities. The section describes how INDOT reviewed the regulations of Title VI and the EO, identified low-income and minority populations, and examined the potential adverse impacts associated with this proposed project.

The INDOT Categorical Exclusion Manual (July 2011) indicates that a full analysis to identify minority and low income populations and ultimately environmental justice populations, is warranted if a project involves 0.5 acre or more of right of way, or two or more relocations. This proposed project does not require any relocations, but will acquire 4.06 acres of permanent right of way and 0.01 acres of temporary right of way, which exceeds the 0.5 acre threshold. Therefore, in an attempt to identify minority and low-income populations in the project area, demographic data from the U.S. Census Bureau's 2000 Census was compiled. The detailed data and figures for the EJ analysis from the 2000 Census are contained in **Appendix H**.

To assess the data and determine the presence of environmental justice populations, the following criteria were applied. For the purposes of this project, the affected communities were defined as the block groups that contain the structure replacements (see Table 3 and **Appendix H**). Affected communities that are more than 50% minority or low income were designated as EJ populations. All other affected communities were designated an EJ population if the low-income or minority population was 25 percent higher than the population in the community of comparison (COC). In the case of this analysis, the COC is Jackson County, Indiana. A reference increment of 25% was calculated over the COC population to establish a threshold used to assess the presence of EJ populations. EJ populations were presumed to be present if the values exceeded the threshold. The results of this analysis appear in Table 3 below with further analysis and figures located in **Appendix H**.

Table 3: Summary of Environmental Justice Analysis

US Census Bureau Classification	Block Group 3, Census Tract 9675, Jackson County, Indiana	Block Group 4, Census Tract 9604, Jackson County, Indiana	Jackson County, Indiana (COC)	25 % Threshold, Jackson County (COC)	Environmental Justice Population Present **
Population (Race – Total)	2,270	1,013	41,335	--	--
White Alone	2,148	992	39,736	--	--
Non-White Alone*	122	21	1,599	--	--
Hispanic	74	3	1,112	--	--
Population (Race - %)					
White Alone	94.63%	97.93%	96.13%	--	--
Non-White Alone	5.37%	2.07%	3.87%	4.84%	Yes
Population (Poverty – Total)	2,270	965	40,562	--	--
Income in 1999 Below Poverty Level	335	100	3,428	--	--
Income in 1999 Above Poverty Level	1,935	865	37,134	--	--
Population (Poverty – %)					
Income in 1999 Below Poverty Level	14.8%	10.4%	8.5%	10.6%	Yes
Income in 1999 Above Poverty Level	85.2%	89.6%	91.5%	--	--

* - Non-White = African American, American Indian/Alaska Native, Asian, Native Hawaiian/Other Pacific Islander, Some Other Race and Two or More Races

** - Environmental justice population present if the low income or minority population of the affected community is higher than 25% of the Community of Comparison (COC)

Conclusion

As illustrated above, from analysis of the Census data, there is an EJ population with respect to low-income persons and minorities in the Study Area. As previously stated, there are no relocations associated with the replacement of the structure replacements; therefore, the project would not have a disproportionate effect on minority or low-income communities. The purpose of the project is to provide adequate hydraulic capacity at the three water crossings and to improve the roadway geometry to meet current design standards. This project would result in an overall net benefit to the EJ community as a whole by improving the overall safety at these three bridge crossings.

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

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

If a business information survey or Conceptual Stage Report is required, discuss the results in the Remarks section.

Remarks: There are no relocations associated with the replacement of the Mutton, Storm, or Branch of Storm bridges.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

	Documentation	
	Yes	**No**
Red Flag Investigation	**X**	
Hazardous Materials Site Assessment Form	**X**	
Phase I Initial Site Assessment (ISA)		**X**
Phase II Preliminary Site Investigation(PSI)		**X**
Design/Specifications for Remediation required?		**X**

	No	**Yes/ Date**
ES Review of Investigations	**X**	

Include a summary of findings for each investigation.

Remarks: The IndianaMap GIS database was reviewed and a field survey to complete the Hazardous Materials Site Visit Form to evaluate the spot improvement sites was conducted in February 2011. The results of the survey did not identify any treatment, storage or disposal facilities or sites (that might indicate illegal dumping of hazardous materials or wastes) within the project area and no parcels of concern were identified (see **Appendix E**). No further investigation for hazardous materials is required at this time.

SECTION I – PERMITS CHECKLIST

	Required	Not Required
Army Corps of Engineers (404/Section10 Permit)		
Individual Permit (IP)		X
Nationwide Permit (NWP)		X
Regional General Permit (RGP)	X	
Pre-Construction Notification (PCN)		X
Other		
Wetland Mitigation required	X	
IDEM		
Section 401 WQC	X	
Isolated Wetlands determination		X
Rule 5	X	
Other		
Wetland Mitigation required	X	
Stream Mitigation required	X	
IDNR		
Construction in a Floodway	X	
Navigable Waterway Permit		X
Lake Preservation Permit		X
Other		
Mitigation Required	X	
US Coast Guard Section 9 Bridge Permit		X
Others (Please discuss in the Remarks section below)		

Remarks: The Indiana Department of Transportation will obtain all of the required permits prior to the commencement of construction activities.

SECTION J – ENVIRONMENTAL COMMITMENTS

Information below must be included on Commitments Summary Form. List all commitments, indicating which are firm and which are optional.

Remarks:

The following mitigation measures <u>are firm</u> and will be included in the final construction specifications.

1) Any work in a wetland area within INDOT's right of way or borrow/waste areas is prohibited unless specifically allowed in the US Army Corps of Engineers or IDEM permit.
2) If permanent or temporary right of way amounts change, the INDOT Environmental Services (ES), should be contacted immediately.
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 Sept. 30.
5) If any potential hazardous materials or contaminated soils are discovered during construction the IDEM Office of Land Quality (317-308-3103) should be notified with details of the discovery within 24 hours.
6) INDOTEnvironmental Services and the INDOT Hazardous Materials Unit should be contacted to organize the proper handling of the material to be in accordance with the IDEM guidelines.
7) Open burning shall not be permitted unless the appropriate variance is obtained from IDEM.
8) Vegetative wastes shall be disposed of at a registered yard composting facility, or chipped or shredded with composting on site. The finished compost may be used as a mulch or soil amendment.
9) All solid wastes generated by the project, or removed from the project site, are to be taken to properly permitted solid waste processing or disposal facilities.
10) Any road closures and establishment of detours will be communicated to the appropriate emergency services to ensure minimal disruption to response times.

The following mitigation measures <u>are optional</u> and will be considered during the design phase of the project.

1) Bridge design plans should include a bridge opening sufficient to pass white-tailed deer under the bridge. This does not include the size of the opening over the channel; there should be an opening under the bridge with unsubmerged dry land for wildlife crossing passage with minimum dimensions of 8 feet tall by 24 feet wide (approximately 12 feet wide on both banks). If riprap is planned under the bridge, only dry land unarmored with riprap is considered in the open dimensions. Considerations can be made if alternative armoring materials are used. This recommendation applies to the bridge replacements over Mutton Creek and Storm Creek.
2) Impacts to non-wetland forest under 1 acre should be mitigated at a 1:1 ratio. Impacts to non-wetland forest over 1 acre should be mitigated at a minimum 2:1 ratio.
3) Where riprap will 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 erosion control blankets or turf reinforcement mats instead of riprap as these are compatible with vegetation growth and provide equal or better erosion control protection. The use of erosion control blankets, turf reinforcement mats, and other similar materials seeded with a native plant seed mix will allow a natural, vegetated stream bank to develop that is also protected from erosion problems.

4) Revegetate all bare and disturbed areas within the floodway 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 of construction.

5) Do not excavate in the low-flow area except for the placement of piers, foundations, riprap, or removal of the old structure.

6) Post "Do Not Mow or Spray" signs along right of way where native vegetation has been established.

7) Plant native hardwood trees along the top of the bank and right of way to replace the vegetation destroyed during construction within the floodway and other areas where appropriate.

8) 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.

9) Seed and protect all disturbed slopes that are 3:1 or steeper with heavy duty biodegradable erosion control blankets; seed and apply mulch on all other disturbed areas.

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.

Remarks: Early coordination was initiated on Nov. 9, 2010, with applicable federal, state, and local agencies. Review comments from those agencies that returned a reply have been incorporated into this study, as appropriate. The agencies contacted and the date on which they replied is identified below (See **Appendix C** for full agency coordination list, one early agency coordination letter, and agency response letters).

Agency	Response Received	Appendix
Indiana Department of Transportation, Cultural Resources Office	June 6, 2011	Appendix D
U.S. Fish and Wildlife Service	March 21, 2011	Appendix D
U.S. Department of Agriculture, Natural Resources Conservation Service	March 2, 2011	Appendix C
Indiana Department of Natural Resources, Division of Fish and Wildlife	Dec. 13, 2010	Appendix C
U.S. Fish and Wildlife Service	Dec. 10, 2010	Appendix C
Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology	Dec. 8, 2010	Appendix D
Indiana Landmarks, Southern Regional Office	Dec. 3, 2010	Appendix D
City of North Vernon	Dec. 3, 2010	Appendix C
U.S. Department of Agriculture, Natural Resources Conservation Service	Nov. 24, 2010	Appendix C
Indiana Department of Environmental Management	Nov. 19, 2010	Appendix C

Appendix A: INDOT Supporting Documents

Categorical Exclusion Level Thresholds

	Level 1	Level 2	Level 3	Level 4
Relocations	None	≤ 2	> 2	> 10
Right of way[1]	< 0.5 acres	< 10 acres	≥ 10 acres	≥ 10 acres
Length of added through lane	None	< 1 miles	≥ 1 mile	≥ 1 mile
Permanent Traffic pattern alteration	None	None	Yes	Yes
New alignment	None	None	< 1 mile	≥ 1 mile[2]
Wetlands	< 0.1 acres	< 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
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 2009 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.

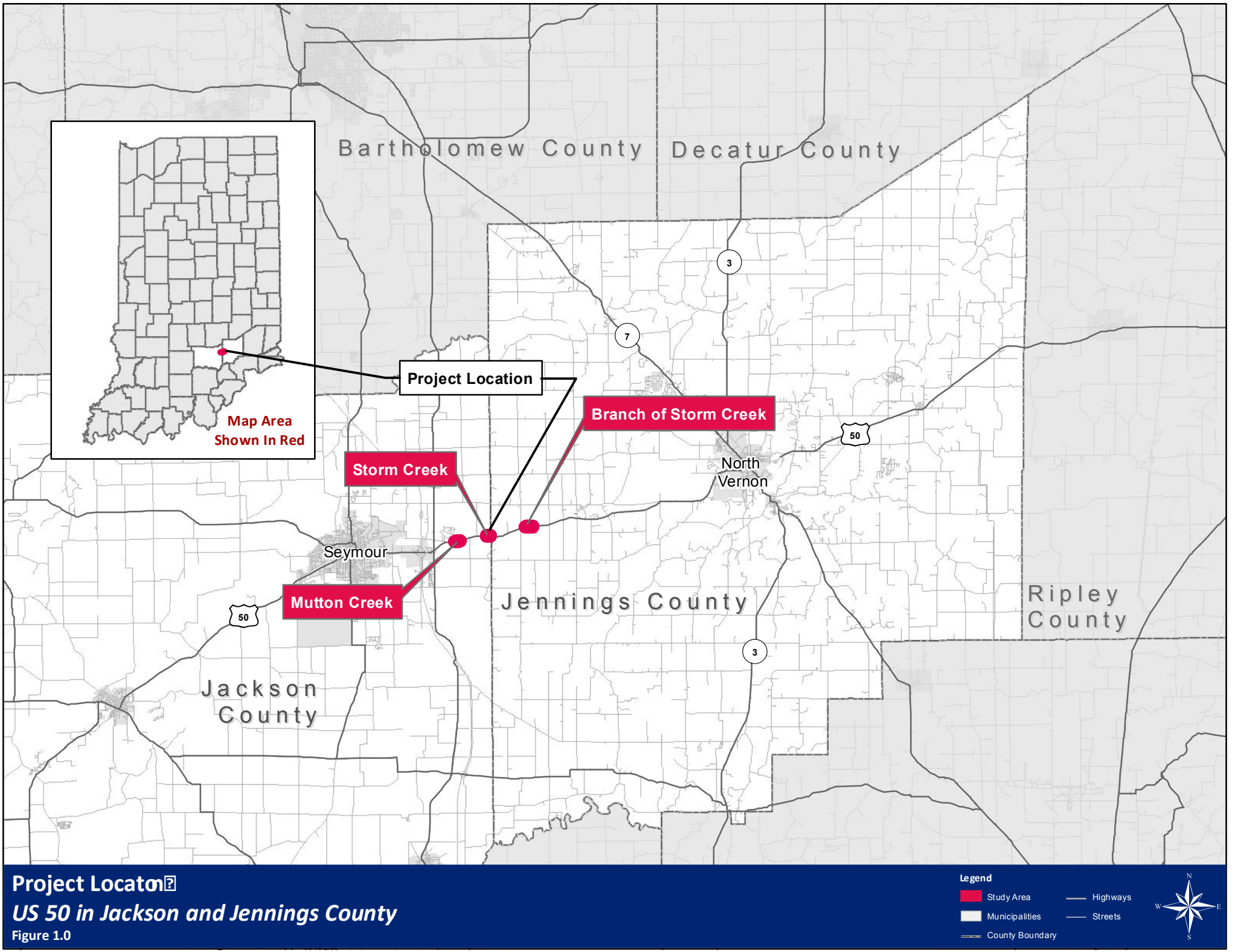
[4]If the project is considered Likely to Adversely Affect Threatened and/or Endangered Species, INDOT and the FHWA should be consulted to determine whether a higher class of document is warranted.

[5]Environmental Scoping Manager

[6]Environmental Services

If the environmental document is being prepared as an EA, then this CE threshold chart is not applicable and should be removed.

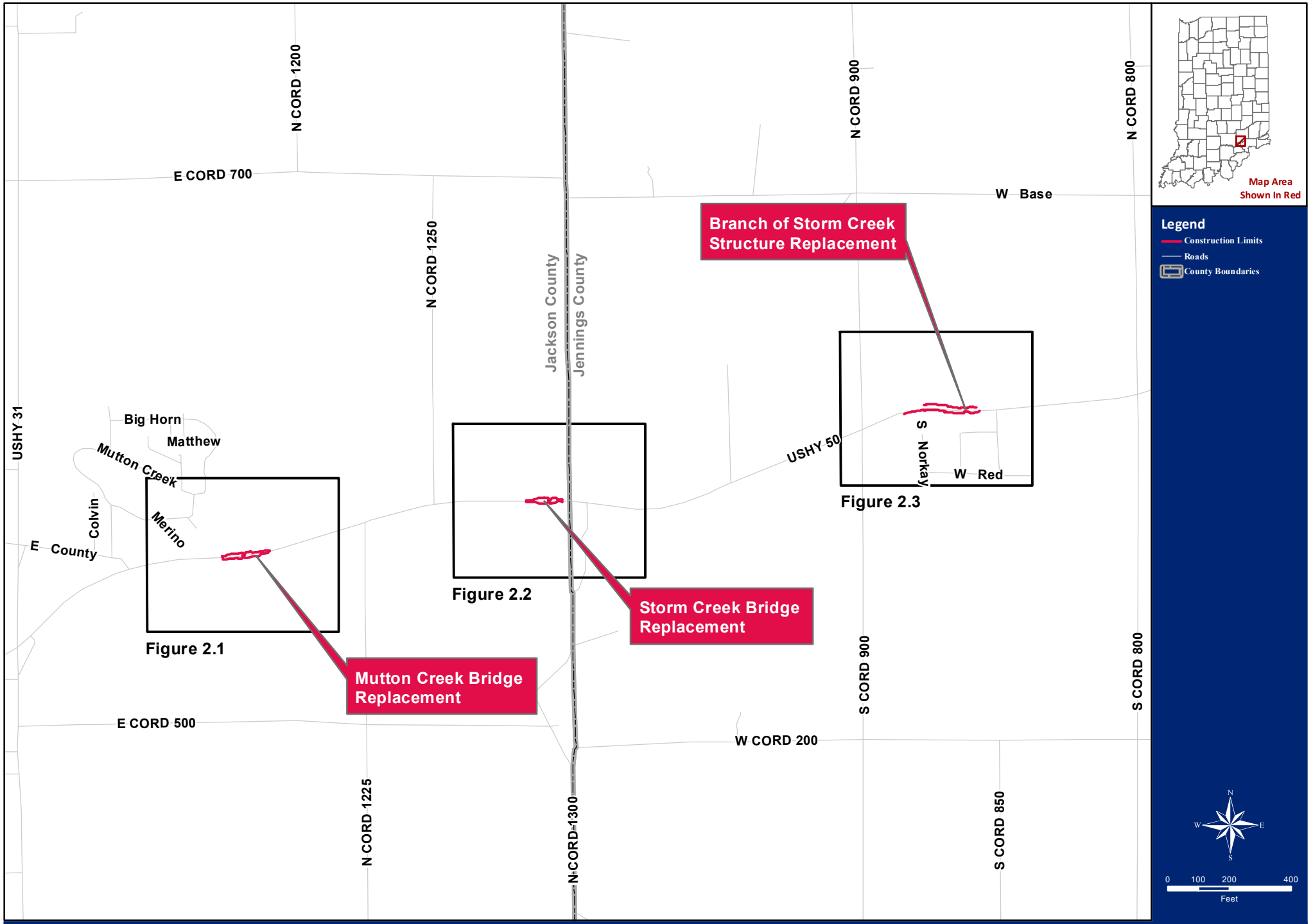
Appendix B: Graphics



Project Location

US 50 in Jackson and Jennings County

Figure 1.0



Water Resources Map Key

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.0

Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.1

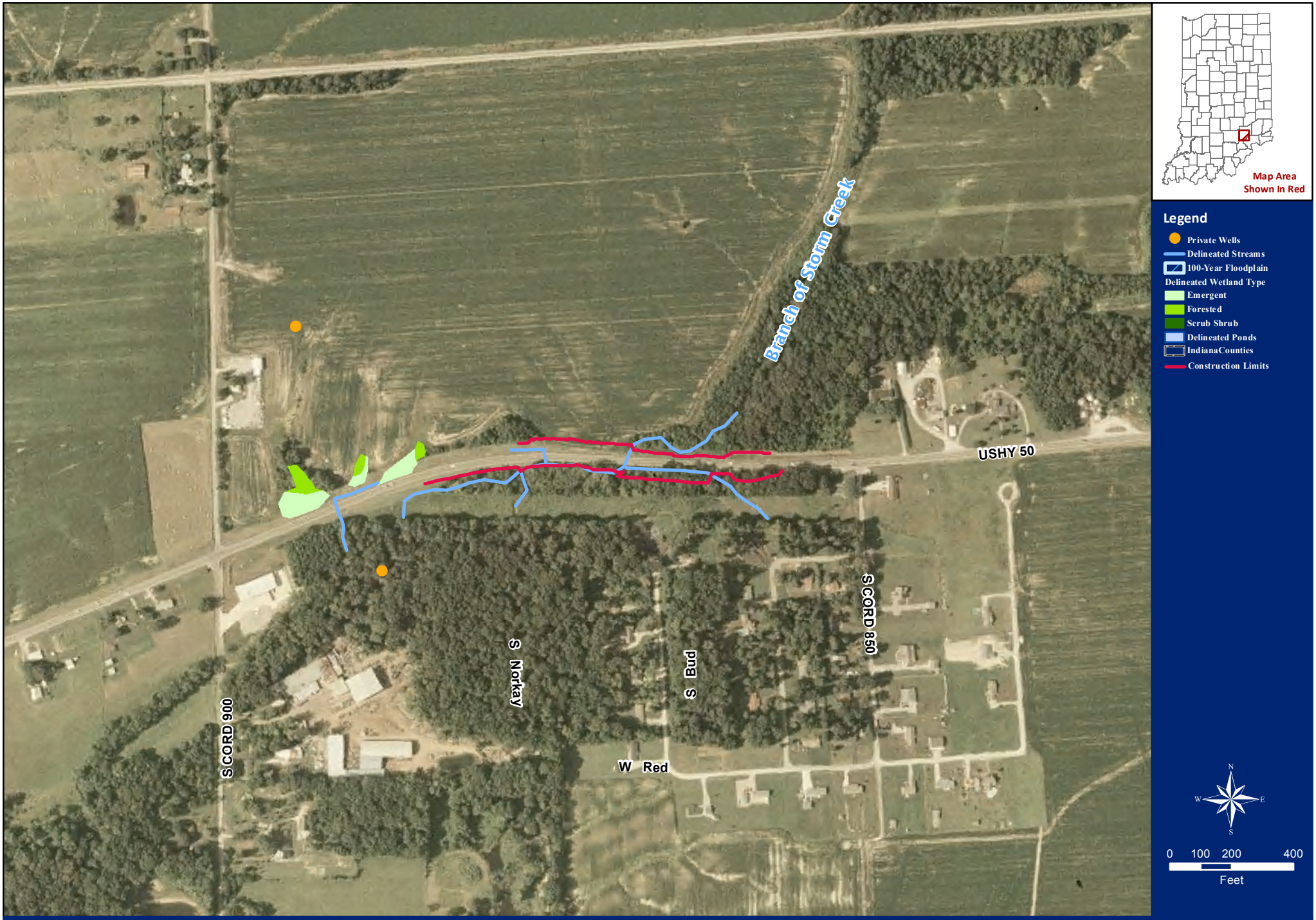
Bridge Replacement at Mutton Creek

Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.2

Bridge Replacement at Storm Creek

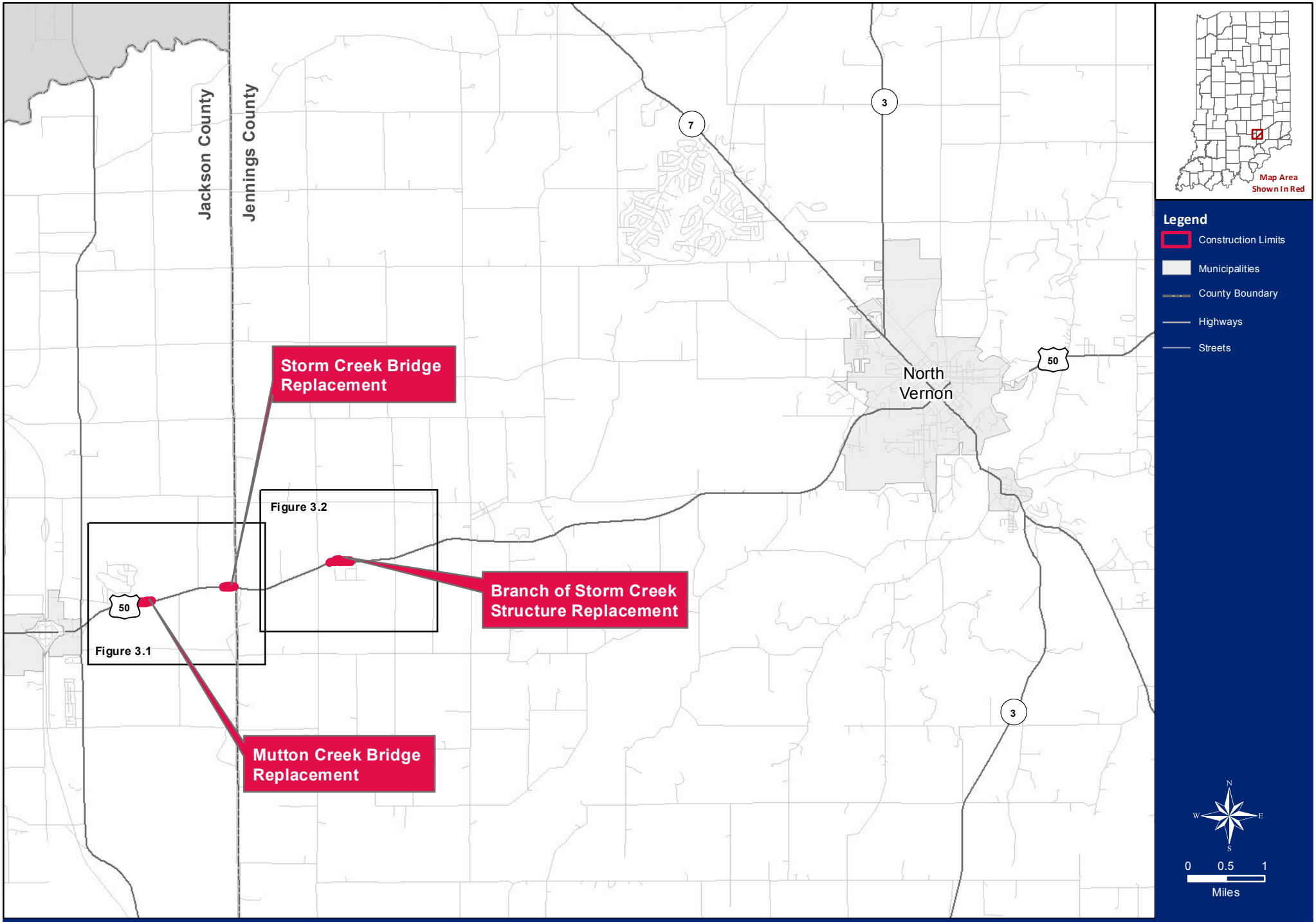


Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.3

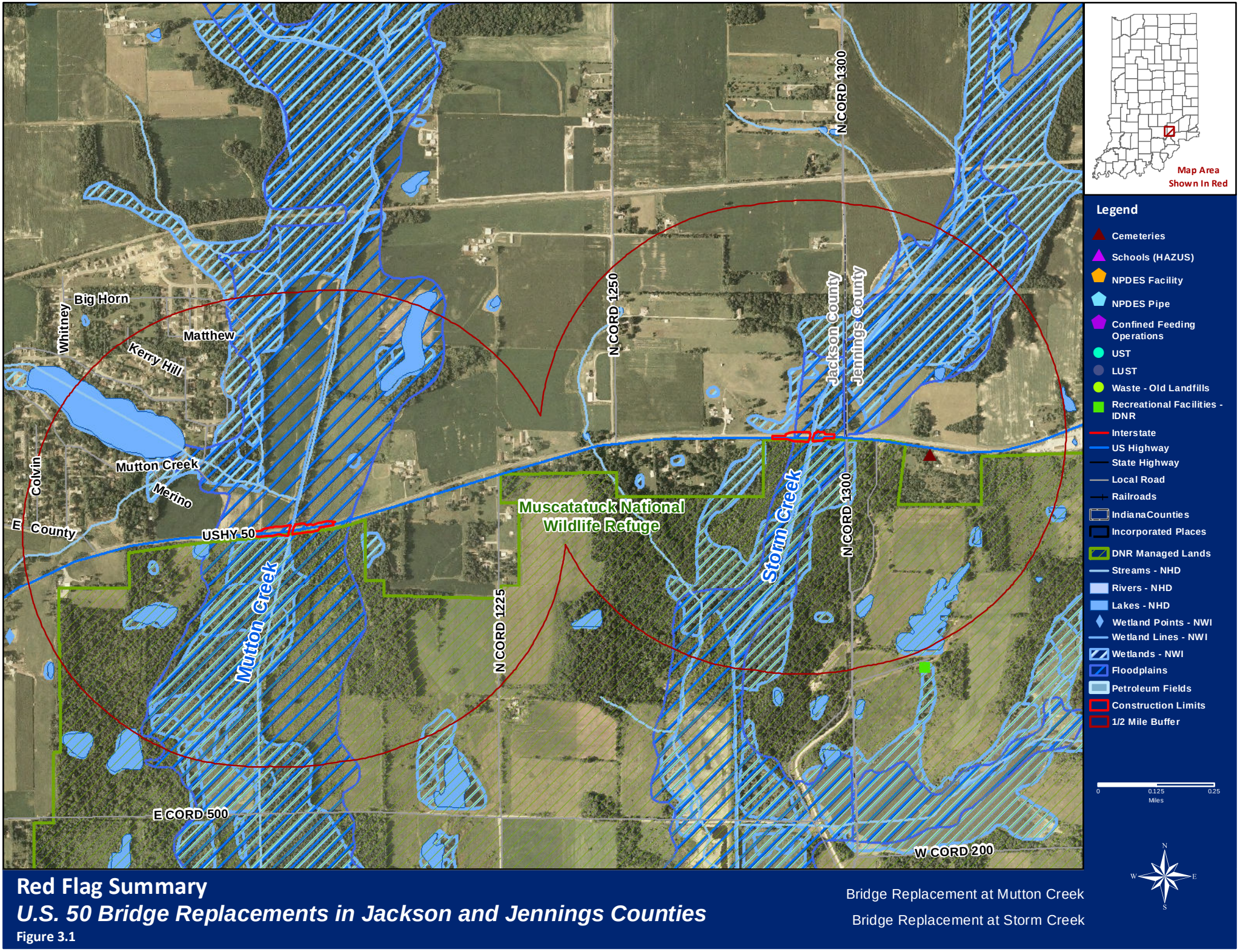
Structure Replacement at Branch of Storm Creek



Red Flag Summary Key

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 3.0



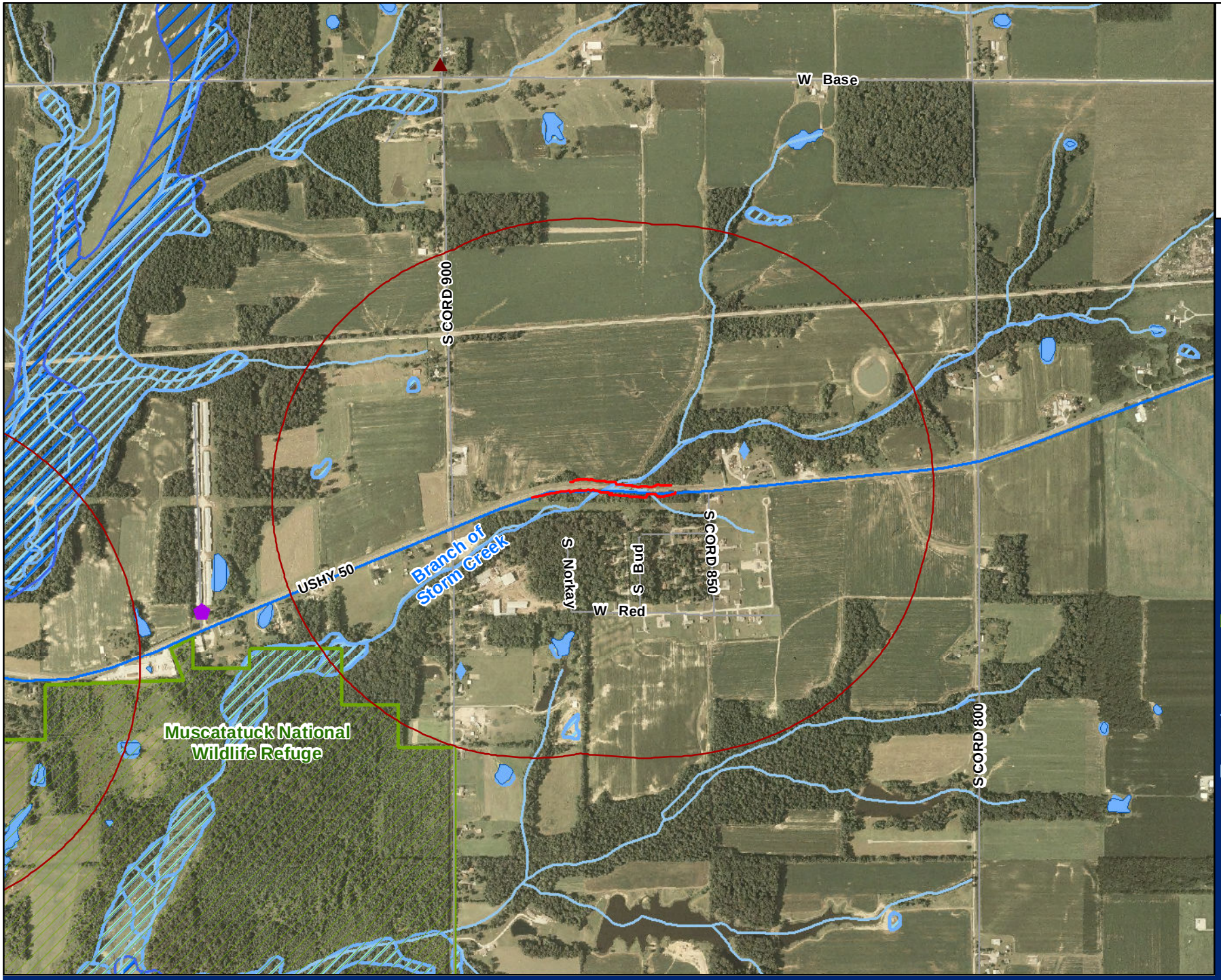
Red Flag Summary

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 3.1

Bridge Replacement at Mutton Creek

Bridge Replacement at Storm Creek



Legend

- Cemeteries
- Schools (HAZUS)
- NPDES Facility
- NPDES Pipe
- Confined Feeding Operations
- UST
- LUST
- Waste - Old Landfills
- Recreational Facilities - IDNR
- Interstate
- US Highway
- State Highway
- Local Road
- Railroads
- IndianaCounties
- Incorporated Places
- DNR Managed Lands
- Streams - NHD
- Rivers - NHD
- Lakes - NHD
- Wetland Points - NWI
- Wetland Lines - NWI
- Wetlands - NWI
- Floodplains
- Petroleum Fields
- Construction Limits
- 1/2 Mile Buffer

0 0.125 0.25
Miles

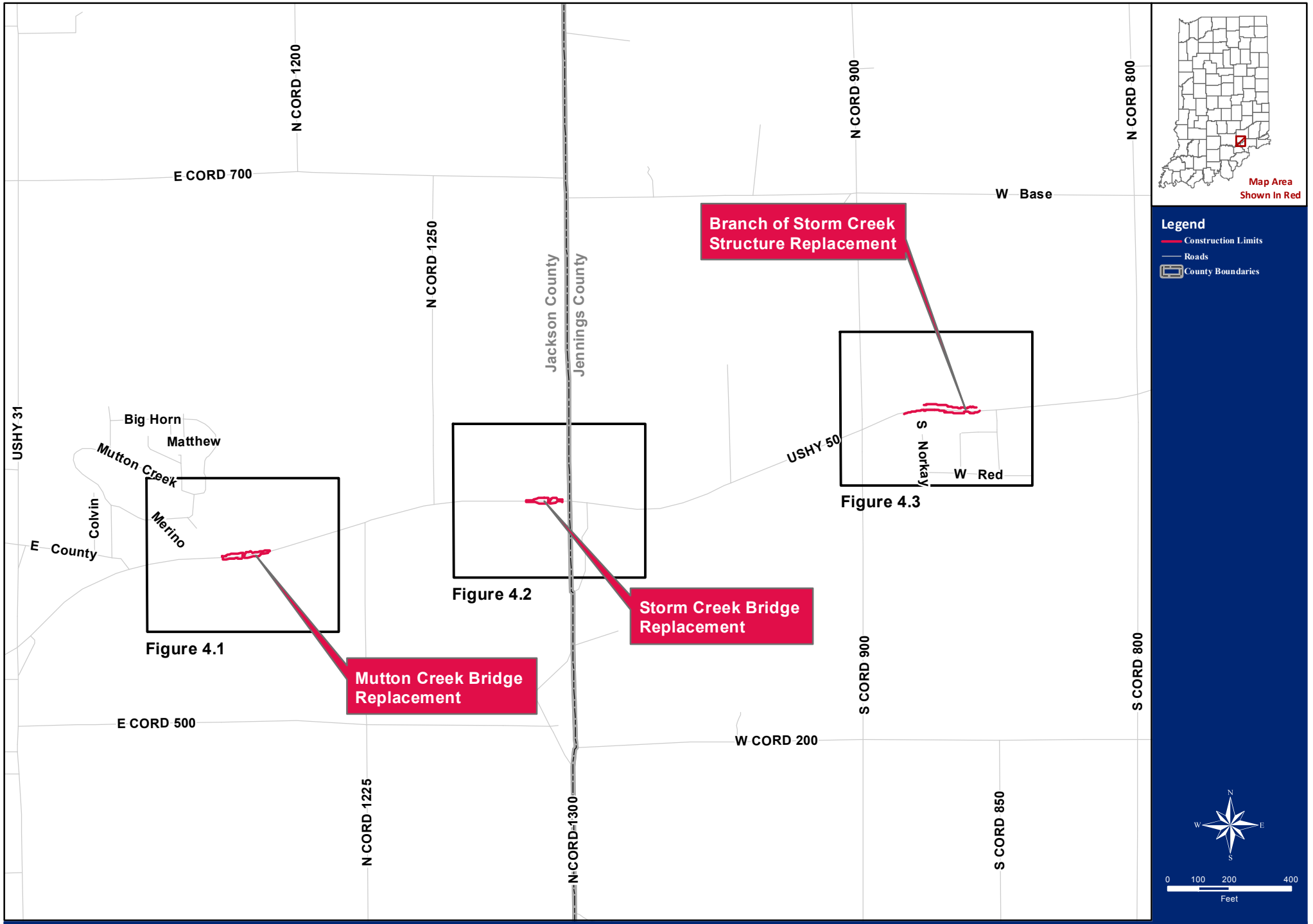
N
W E
S

Red Flag Summary

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Structure Replacement at Branch of Storm Creek

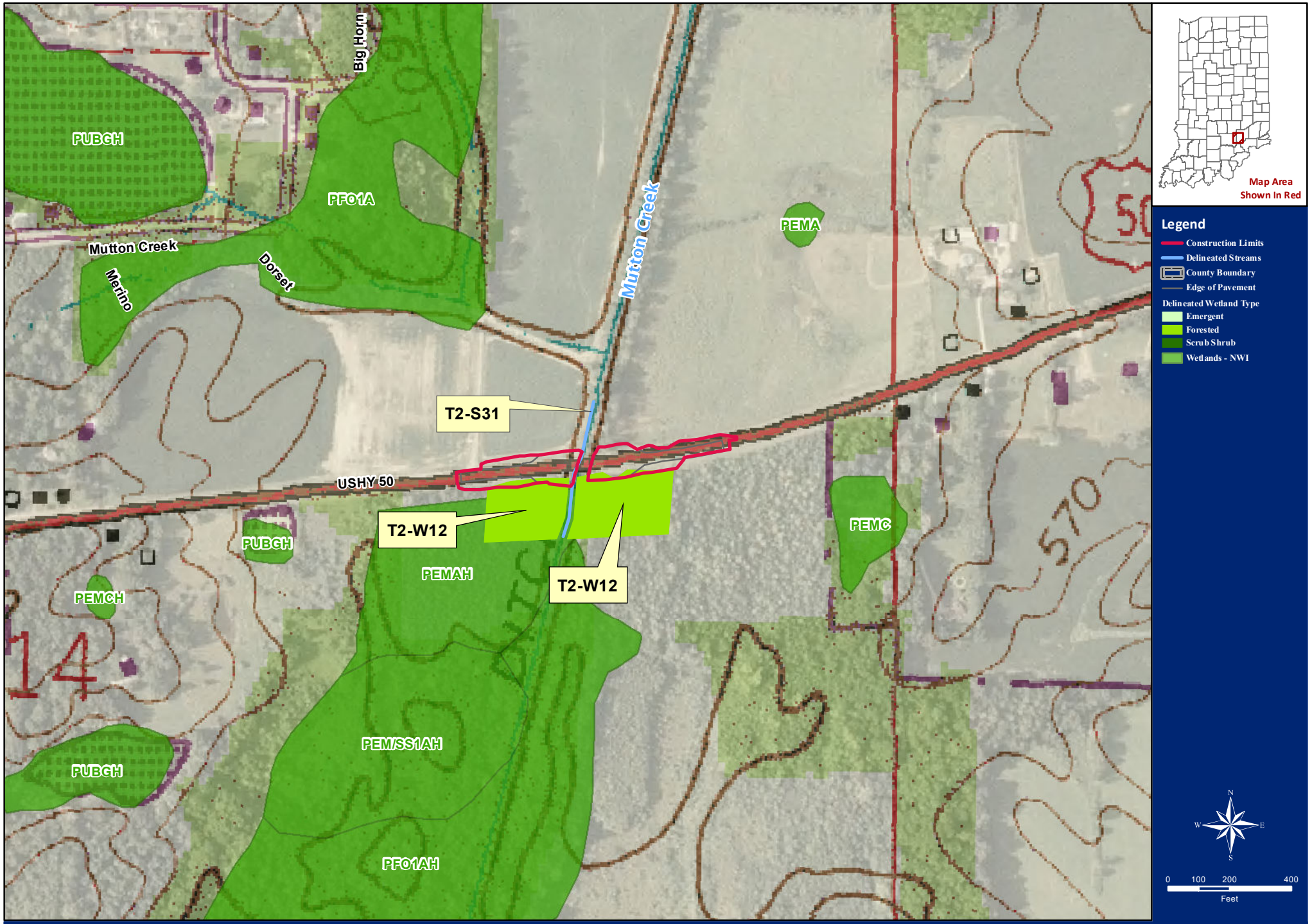
Figure 3.2



USGS Topographical / NWI Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 4.0

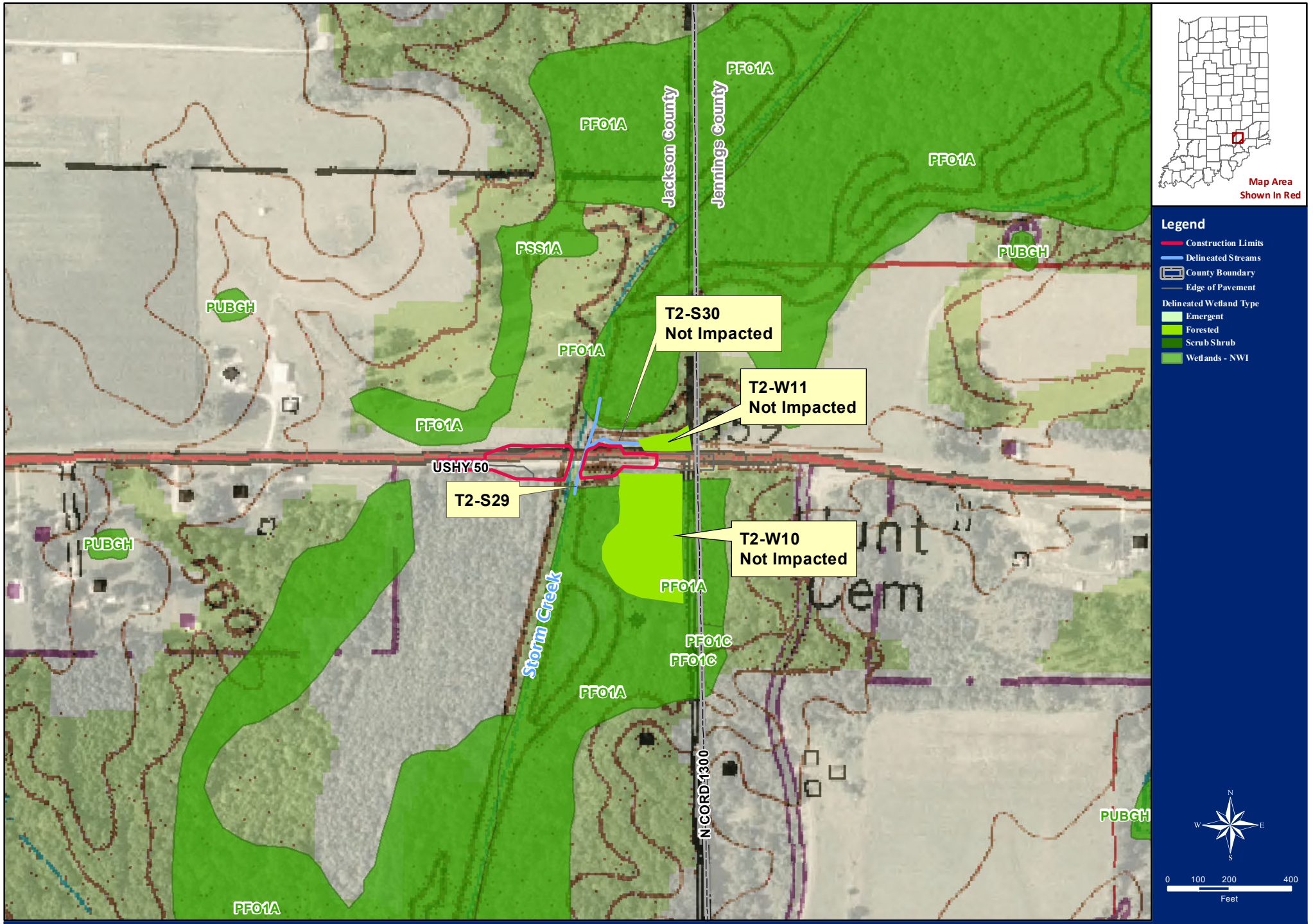


USGS Topographical / NWI Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 4.1

Bridge Replacement at Mutton Creek



USGS Topographical / NWI Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 4.2

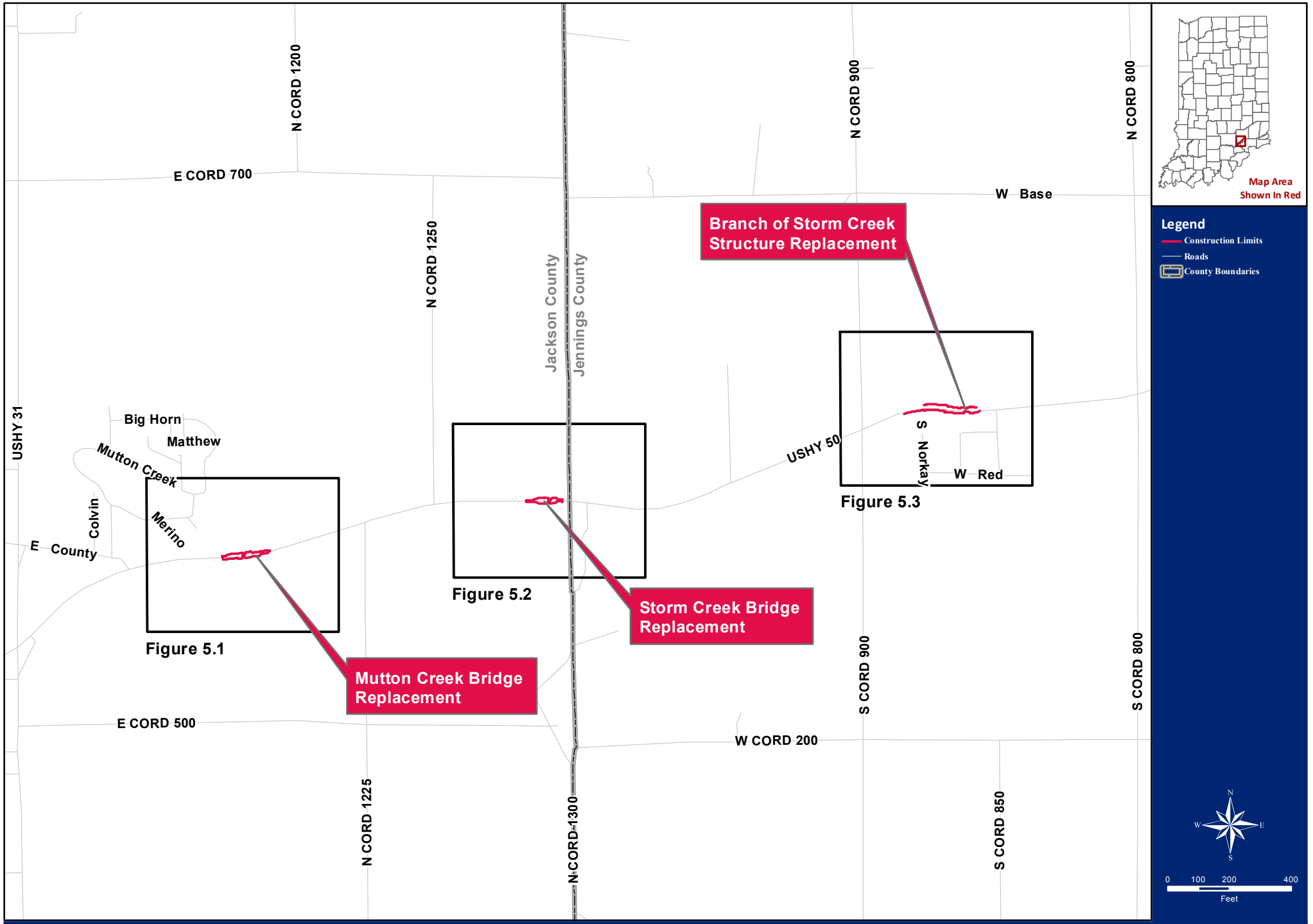
Bridge Replacement at Storm Creek

USGS Topographical / NWI Map

Structure Replacement at Branch of Storm Creek

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

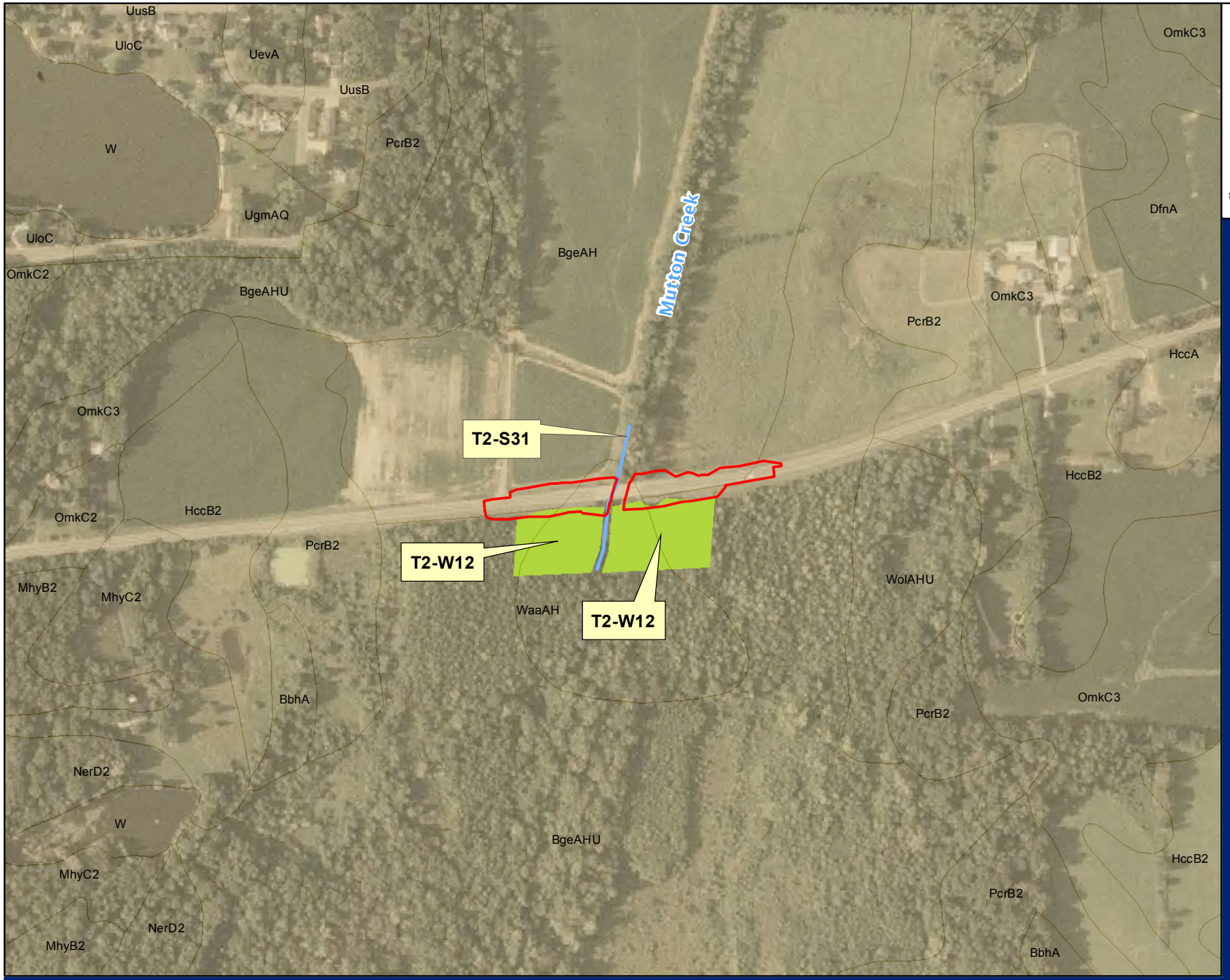
Figure 4.3



Soils Map Key

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 5.0

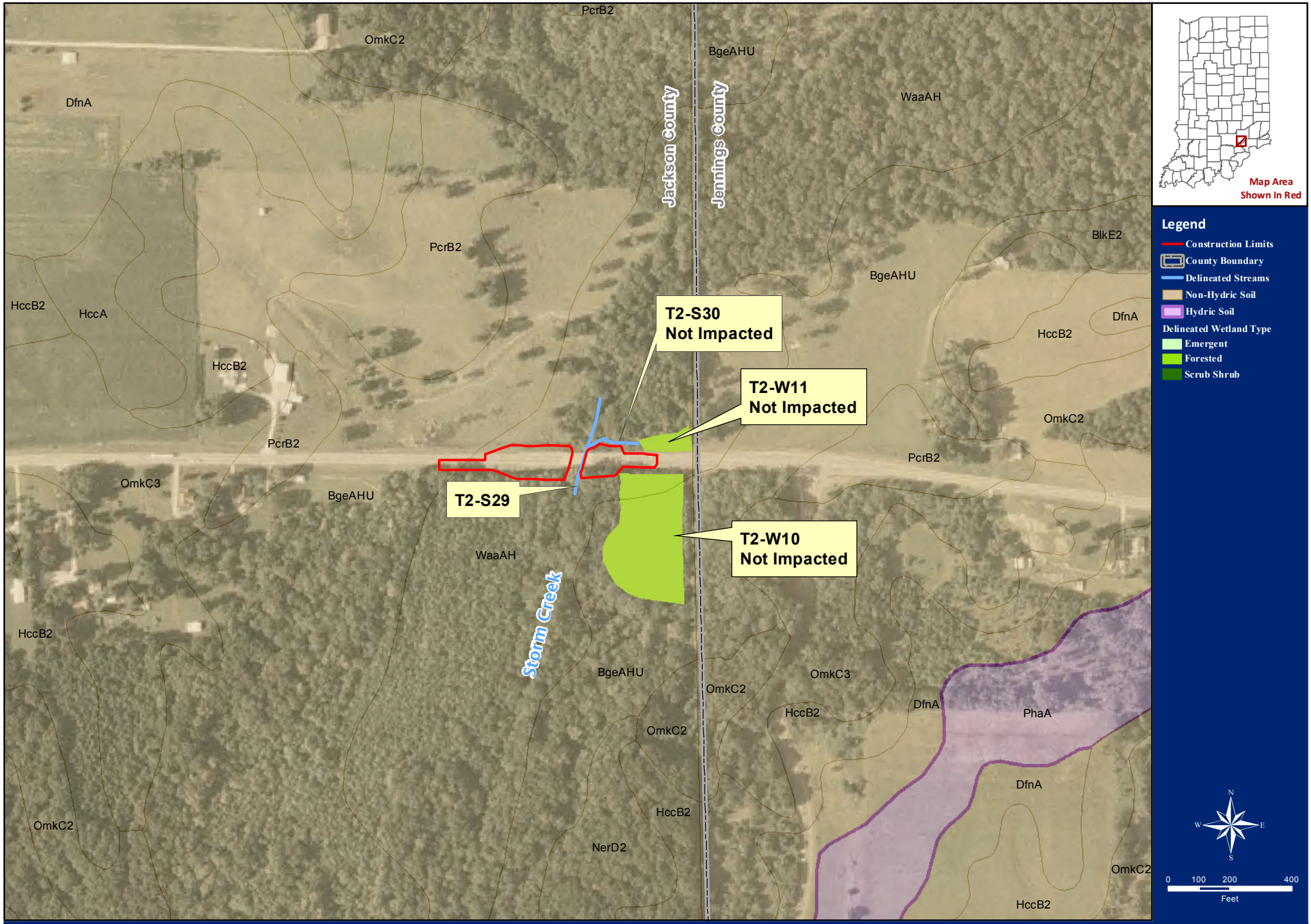


Hydric Soils

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 5.1

Bridge Replacement at Mutton Creek

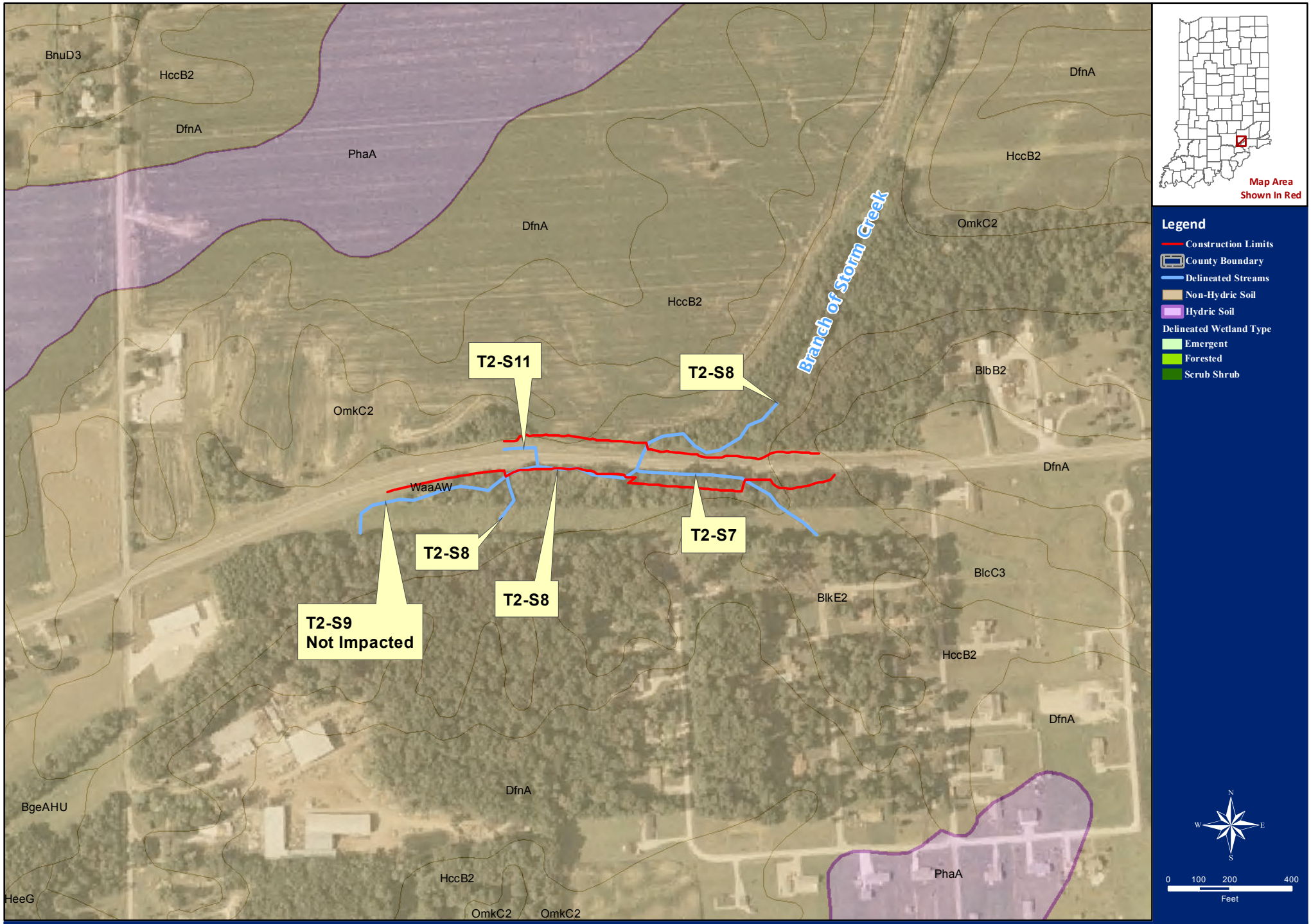


Hydric Soils

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 5.2

Bridge Replacement at Storm Creek

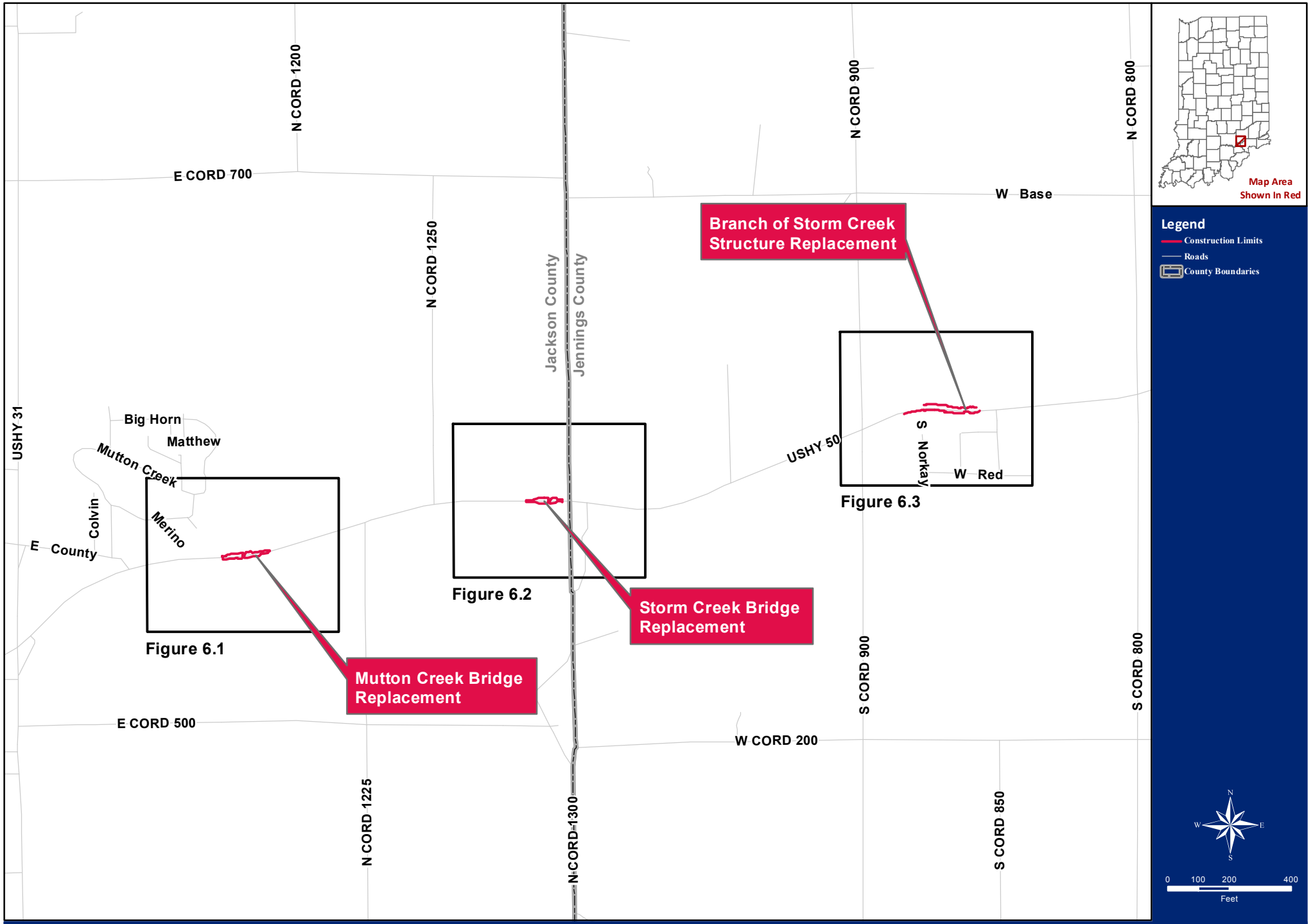


Hydric Soils

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 5.3

Structure Replacement at Branch of Storm Creek



Terrestrial Land Impacts Map Key

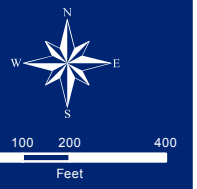
U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 6.0

Legend

Land Type

- AGRICULTURAL
- COMMERCIAL
- FOREST
- OPEN
- RESIDENTIAL
- RIGHT OF WAY
- RIGHT OF WAY - PAVEMENT
- DNR Managed Lands
- CONSTRUCTION LIMITS



Terrestrial Land Impacts Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

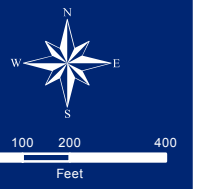
Figure 6.1

Bridge Replacement at Mutton Creek

Legend

Land Type

- AGRICULTURAL
- COMMERCIAL
- FOREST
- OPEN
- RESIDENTIAL
- RIGHT OF WAY
- RIGHT OF WAY - PAVEMENT
- DNR Managed Lands
- CONSTRUCTION LIMITS

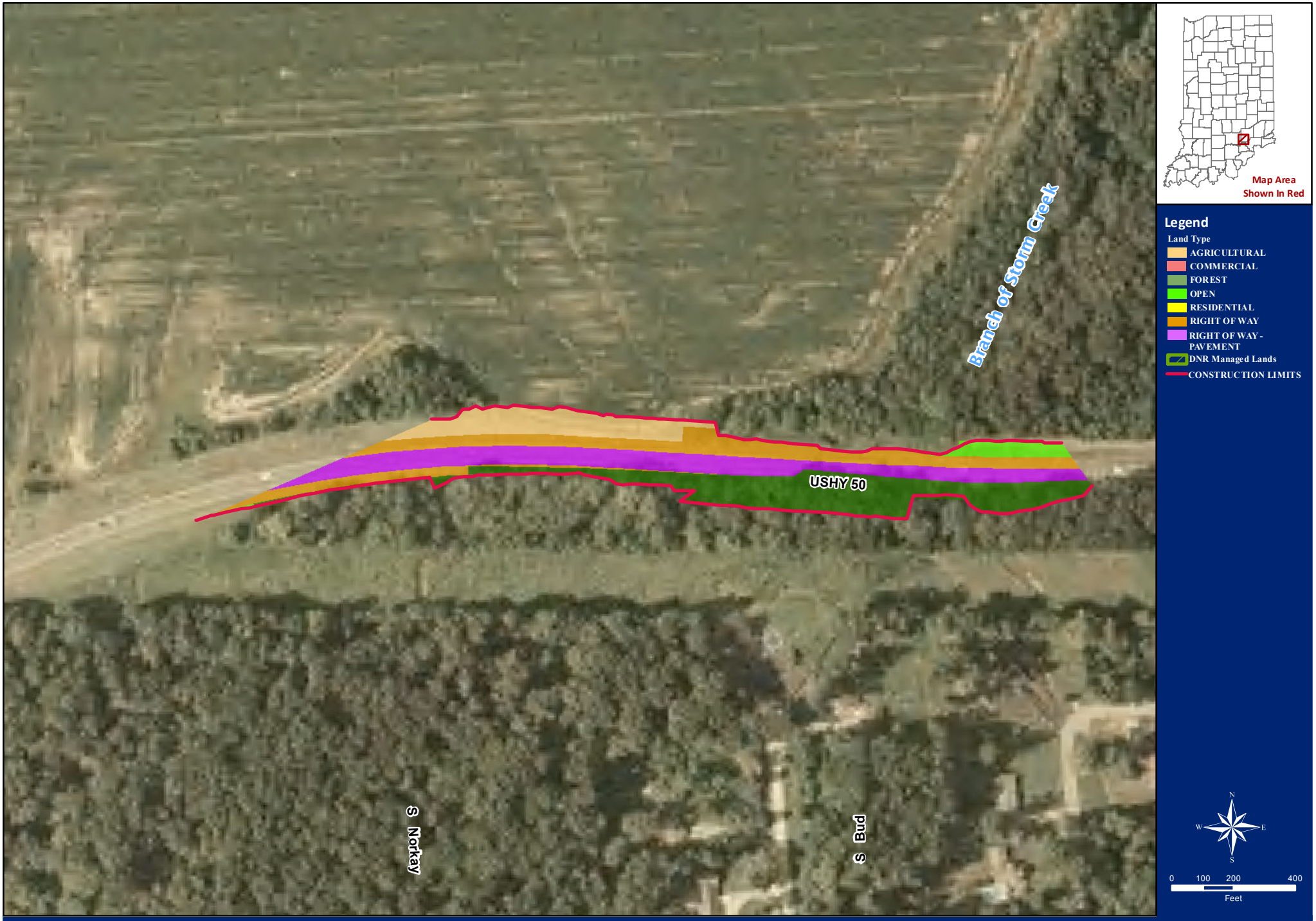


Terrestrial Land Impacts Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 6.2

Bridge Replacement at Storm Creek



Terrestrial Land Impacts Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 6.3

Structure Replacement at Branch of Storm Creek

Appendix C: Early Coordination

United States Department of Agriculture

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

February 23, 2011

Jennifer D. Vicich, PWS
HNTB
111 Monument Circle
Suite 1200
Indianapolis, IN 46204-5178

Dear Ms. Vicich:

The proposed project to make spot improvements on US 50 in Jackson and Jennings County, Indiana as stated in your letter received February 16, 2011, will cause a conversion of prime farmland.

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

If you need additional information, please contact Lisa Bolton at 317-290-3200, extension 342.

Sincerely,

Jane E. Hardisty

JANE E. HARDISTY
State Conservationist

Enclosure(s)

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO.
FILE
MAR 02 2011
ROUTE TO:

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

111 Monument Circle
Suite 1200
Indianapolis, IN 46204-5178

Telephone (317) 636-4682
Facsimile (317) 917-5211
www.hntb.com

February 16, 2011

Ms. Jane Hardisty, State Conservationist
Natural Resource Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

Re: Spot Improvements along U.S. 50 from US 31 to County Road 15 N
INDOT Des. No. 1005104

Dear Ms. Hardisty:

Since the February 2008 publication of the U.S. 50 North Vernon Corridor Planning and Environmental Assessment Study, the scope of the project has been scaled back to providing a connection between U.S. 50 and SR 3 (U.S. 50 North Vernon Bypass) and operational spot improvements along U.S. 50. This reduction is an effort by the Indiana Department of Transportation (INDOT) to focus on improvements in the areas in which they are most needed at this time.

Our initial request for comments dated November 9, 2010 from your agency did not include a specific right-of-way for the above referenced spot improvements along U.S. 50. Per your request for this information dated November 22, 2010, the specific right-of-way areas for each spot improvement are illustrated on the enclosed maps. Parts I and III of the Farmland Conversion Impact Rating form for "corridor type projects" (NRCS-CPA-106) have been completed for the spot improvements and await your determination of prime, unique, statewide, or local important farmland designation. The U.S. 50 Spot Improvements may convert farmland covered by the FPPA and, therefore, will require your completion of Parts II, IV, and V of form NRCS-CPA-106.

Due to our accelerated time schedule your prompt completion of this form would be greatly appreciated.

Please contact me at (317) 917-5220 if you have any questions or require additional information.

Regards,

Jennifer D. Vicich, PWS

cc: Gary Pence, INDOT
Dan Prevost, Parsons

Enclosures: 2 copies of NRCS-CPA-106 Form
2 copies of Project Area Maps

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife

Early Coordination/Environmental Assessment

DNR #: ER-15424 **Request Received:** November 10, 2010

Requestor:
HNTB Corporation
Brock A Hoegh
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

Project: US 50 spot improvements from US 31 to CR 15 North; Des. # 1005104

County/Site info: Jackson - Jennings

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.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile. Please submit more detailed plans to the Division of Water's Technical Services Section if you are unsure whether or not a permit will be required.

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 areas of concern to fish, wildlife, and botanical resources to the greatest extent possible. Be prepared to demonstrate avoidance, minimization, and mitigation of impacted resources. The following are recommendations for potential impacts identified in the proposed project area:

1) Stream Crossings
Single-span bridge designs are environmentally preferable to multi-span bridge designs with piers set in the channel. Bridge design plans should include a bridge opening sufficient to pass white-tailed deer under the bridge. This does not include the size of the opening over the channel; there should be an opening under the bridge with unsubmerged dry land for wildlife passage with minimum dimensions of 8' tall by 24' wide (approximately 12' wide on both banks). If riprap is planned under the bridge, only dry land unarmored with riprap is considered in the opening dimensions. Considerations can be made if alternative armoring materials are used. This recommendation applies to the bridge replacements over Mutton Creek (spot 1), Storm Creek (spot 3), Sixmile Creek (spot 11) and Indian Creek (spot 15).

2) Forest and Wetland Habitat
Forested floodway and wetland habitat are likely to be impacted by the proposed spot improvements due to the location of forested and/or wetland areas at or close to the existing road right-of-way. Impacts to non-wetland forest under 1 acre should be mitigated at a 1:1 ratio. Impacts to non-wetland forest over 1 acre should be mitigated at a minimum 2:1 ratio (see state wetlands and habitat mitigation guidelines at http://www.in.gov/legislative/register/20061213-IR-312060562NRA.xml.pdf).

The National Wetlands Inventory Maps indicate that wetlands exist along several of the bridge replacement areas. 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 United States Army Corps of Engineers (USACOE) 404 program.

A wetland determination/delineation of all sites where wetlands or potential wetlands are possibly located is recommended. Impacts to wetland and habitat should be mitigated at the appropriate ratio according to the USFWS/IDNR/INDOT Memorandum of Understanding.

3) Bank Stabilization
Minimize the use of riprap and use alternative erosion protection materials whenever possible. Where riprap will 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 erosion control blankets or turf reinforcement mats instead of riprap as these are compatible with vegetation growth and provide equal or better erosion control protection. The use of erosion control blankets, turf reinforcement mats, and other similar materials seeded with a native plant seed mix will allow a natural, vegetated stream bank to develop that is also protected from erosion problems.

To minimize wildlife passage impairment along the creek's banks and riparian corridor, bioengineered bank stabilization methods should be used on the bank slopes. The following is a link to a USDA / NRCS document that outlines many different bioengineering techniques for streambank stabilization:
http://directives.sc.egov.usda.gov/17553.wba (Choose Handbooks; Title 210 Engineering; National Engineering Handbook; Part 650 Engineering Field Handbook. Choose Chapter 16 from next window).

Fish, wildlife, and botanical resource losses can be expected to occur as a result of this project. These losses can be minimized through implementation of the following measures.
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.
Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
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.
Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
Do not construct any temporary runarounds or causeways.
Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
Plant native hardwood trees along the top of the bank and right-of-way to replace the vegetation destroyed during construction.
Post "Do Not Mow or Spray" signs along the right-of-way.
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.

Seed and protect all disturbed slopes that are 3:1 or steeper with heavy duty biodegradable erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife

Early Coordination/Environmental Assessment

Contact Staff: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please do not hesitate to contact the above staff member at (317) 232-4160 or 1-877-928-3755 (toll free) if we can be of further assistance.

Date: December 9, 2010

J. Matthew Buffington
Environmental Supervisor
Division of Fish and Wildlife

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO. _____
FILE _____

DEC 13 2010

ROUTE TO:

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

December 8, 2010

Mr. Brock Hoegh
HNTB
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204-5178

Project No.:	Des. #1005104
Road(s):	US 50
Waterway:	Multiple stream crossings
Work Type:	Spot improvements for traffic flow and safety
County(ies):	Jackson, Jennings

Dear Mr. Hoegh:

This responds to your letter dated November 9, 2010 requesting U.S. Fish and Wildlife Service (FWS) comments on the aforementioned project. The following comments represent the views of the FWS's Bloomington Field Office and Muscatatuck National Wildlife Refuge.

These comments are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

Your letter states that the proposed improvements consist of auxiliary lanes, passing blisters, signage improvements and road repairs at 17 locations between US 31 and Jennings County Road 15N. Design details were not provided. We were not able to inspect the project area, but based on a review of maps, aerial photographs and other information the issues related to wildlife conservation are as follows:

A. Spot improvements #1- 4 are located adjacent to the Muscatatuck National Wildlife Refuge (Refuge). Issues of concern for the Refuge include encroachment on federal land, degradation of water quality and direct adverse effects on wildlife habitat. These concerns should be considered in planning for both construction impacts and non-construction impacts such as equipment access, staging areas and spoil disposal. Three proposed bridge replacements (Mutton Creek, Storm Creek and unnamed tributary of Storm Creek) are on streams that flow to Moss Lake, the largest and most significant wetland on the Refuge for water birds and other wetland wildlife. Recent surveys have found several rare and/or sensitive fish species in streams on or near the

Refuge. As project plans progress please coordinate with the Refuge regarding the aforementioned issues.

Section 4(f) of the Transportation Act of 1966 requires that land from a publicly owned park, recreation area or wildlife or waterfowl refuge or any significant public or private historical site shall not be used by the Federal Highway Administration for highway right-of-way unless a determination is made that there is no feasible and prudent alternative to the use of land from such property. Further, the proposed action must include all possible planning to minimize harm to the property which results from such use. A Section 4(f) determination concerning project impacts on the Muscatatuck National Wildlife Refuge may be necessary as part of the environmental review process.

B. The project includes 5 bridge replacements, 4 of which are on perennial tributaries of the Muscatatuck River (Mutton Creek, Storm Creek, Sixmile Creek and Indian Creek). All of these streams can be expected to support resident fish assemblages and provide spawning and nursery habitat for some Muscatatuck River fish species. The project also crosses several small intermittent streams with culverts.

This office provided comments and recommendations for the original North Vernon/US 50 corridor study in a letter dated July 11, 2007 (copy attached). Many of those recommendations are appropriate for the current project. In addition, we recommend the following standard mitigation measures to be included in the final project plans to minimize adverse impacts on streams and riparian habitat:

1. Post DO NOT DISTURB signs at the construction zone boundaries in forested areas and do not clear trees or understory vegetation outside the boundaries.

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

3. Restrict channel work and vegetation clearing to the minimum necessary for bridge installation.

4. For culverted crossings, culverts should span the active stream channel, should be either embedded or a 3-sided or open-arch culvert, and 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.

5. Minimize the extent of artificial bank stabilization, using bioengineering methods where feasible.

6. If riprap is utilized for bank stabilization, extend it below low-water elevation to provide aquatic habitat.

7. Implement temporary erosion and siltation control devices such as placement of riprap check dams in drainage ways and ditches, installation of silt fences, covering exposed areas with erosion control materials, and grading slopes to retain runoff in basins.

8. Revegetate all disturbed soil areas immediately upon project completion, using native species of trees and shrubs wherever feasible in riparian areas.

9. Avoid channel work in perennial streams during the fish spawning season (April 1- June 30).

10. Evaluate the use of wildlife crossings 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.

C. The National Wetland Inventory maps indicate the presence of wetlands near the road corridor at several locations. The most significant wetlands are along the stream corridors within and near the Refuge, and there are forested wetlands near the Sixmile Creek crossing. A wetland delineation should be conducted prior to the design stage, and the design should incorporate measures to avoid or minimize wetland impacts. Compensatory mitigation may be required for unavoidable impacts.

D. The project corridor lies adjacent to upland forest at several locations. The project should be designed to minimize removal of mature, native woody vegetation.

Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*). Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Recent research has shown that they will inhabit fragmented landscapes with adequate forest for roosting and foraging. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Like all other bat species in Indiana, the Indiana bat diet consists exclusively of insects.

There is suitable summer habitat for this species present throughout the area surrounding the project corridor. There are recent records of Indiana bats at Muscatatuck National Wildlife Refuge and also at Big Oaks National Wildlife Refuge in eastern Jennings County. To our knowledge the remainder of the project corridor has not been surveyed. If all construction is confined to the existing US 50 corridor and to minor additional right-of-way the project will not eliminate enough habitat to affect this species. However, to avoid incidental take from removal of an occupied roost tree we recommend that tree-clearing be avoided during the period April 1 - September 30. If this measure is implemented we concur that the proposed project is not likely to adversely affect the Indiana bat.

Subject to the aforementioned conditions, this precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended.

However, should new information arise pertaining to project plans or if a revised species list is published, it will be necessary for the Federal agency to reinitiate consultation.

A permit under Section 404 of the Clean Water Act may be needed for the proposed project. Our recommendations to the U.S. Army Corps of engineers for permit conditions would be consistent with our comments here.

We appreciate the opportunity to comment at this early stage of project planning. As project plans develop please recoordinate with our office and the Refuge. If you have any questions about our recommendations, please call Mike Litwin at (812) 334-4261 (Ext. 205).

Sincerely yours,

Michael A. Litwin

for Scott E. Pruitt
Field Supervisor

cc: Federal Highway Administration, Indianapolis, IN

FILE COPY

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

July 11, 2007

Mr. Carl Camacho
Bernardin Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, Indiana 47715-4006

Project Des.#	0401401, 0401402
Road(s):	US 50
Waterway:	Vernon Fork of Muscatatuck River and numerous tributaries
Work Type:	Highway reconstruction, possible new route
County(ies):	Jennings, Jackson

Dear Mr. Camacho:

This responds to your letter dated July 8, 2007 requesting U.S. Fish and Wildlife Service (FWS) comments on the aforementioned project. The following comments are based on the information provided with that letter and on the discussion at the agency meeting of June 29, 2007, representing the FWS' Bloomington Field Office, Muscatatuck National Wildlife Refuge and Big Oaks National Wildlife Refuge.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

At this time the project is being considered as an Environmental Assessment for a corridor study, and the primary documents under agency review are the "Draft Identification of Existing and Future Conditions and Issues", and "Draft Definition of Purpose and Need and Identification of

Attachment

Preliminary Alternatives". We will comment on these 2 documents separately.

Identification of Existing and Future Conditions and Issues

This document discusses project future conditions in North Vernon and Jennings County. At the June 29 meeting a considerable amount of discussion was devoted to development of the Muscatatuck Urban Training Center (MUTC) by the Department of Homeland Security. The site is expected to become a significant traffic generator due to commuter traffic on a daily basis and weekly movements of military convoys, and may therefore influence which route alternative is selected. The MUTC is discussed only briefly in the document; we recommend that it's role in the project analysis be expanded.

The Issues section provides a good preliminary discussion of natural resources in the study area. The evaluation of these resources will need to become more detailed as project development progresses. The discussion of wildlife habitat focuses on plant communities and rare species, but will also need to address the resident native faunal communities of both terrestrial and aquatic habitats. With regard to wetlands it should be noted that portions of the study area contain large interfluvial expanses of Cobbsfork soils which typically support perched wetlands. These wetlands sometimes do not appear on the National Wetland Inventory, but must be considered when conducting wetland delineations in the study area.

Purpose and Need and Preliminary Alternatives

We have no specific comments regarding the purpose and need section. Natural resource issues were discussed briefly at the June 29 meeting. We do not have adequate information to do a thorough analysis of the preliminary alternatives within the current time frame for comments. The issues that should be considered are as follows:

1. Stream Impacts

All route alternatives should be designed to minimize stream/riparian impacts and to avoid the need to realign or relocate stream channels. The FWS would oppose realignments of perennial streams and good-quality intermittent streams. The environmental document should provide fish community information from existing data or, as appropriate, from site-specific stream surveys. Stream impacts for each alternative should be estimated in terms of number of crossings, quality of the stream at each crossing and extent of impacts at each crossing. Stream crossings on new alignments should be located to minimize riparian forest impacts and to avoid areas of high quality aquatic habitats such as rock riffles and mussel beds.

2. Terrestrial Wildlife Habitat

All route alternatives should be designed to minimize forest loss and avoid forest fragmentation. Walk-through bird surveys should be conducted during migration season and nesting season.

3. Wetlands

Extensive wetlands are present in the floodplains of the Muscatatuck River and its tributaries,

and on Cobbsfork soils in interfluvial areas. A preliminary wetland survey should be conducted for all routes, using all available mapping and orthophotography resources. A comprehensive wetland delineation of alternatives carried forward should be conducted as soon as access becomes available. Wetland impacts should be avoided to the extent possible, and unavoidable impacts should be mitigated in accordance with the MOU between INDOT, the FWS and the Indiana DNR.

4. Water Quality

The environmental document should include a discussion of best management practices to be used to avoid erosion and runoff of soil and other pollutants during construction, and to mitigate the effects of polluted road runoff from traffic on new routes.

5. Karst

A portion of the study area is underlain by karst geologic formations. A karst survey should be conducted in accordance with our karst MOU with INDOT. All route alternatives should be designed to avoid adverse physical and water quality/quantity impacts on significant karst resources (e.g. caves, springs, water supply wells).

6. Secondary Impacts

New route alternatives will generate the potential for extensive impacts from secondary development. Secondary impacts should be minimized by not locating new routes near good quality habitats and sensitive areas, and by implementing access control near such areas.

7. Executive Order #13186, issued on January 10, 2001, directs each federal agency taking actions having or likely to have a negative effect on migratory bird populations to work with the FWS to develop an agreement to conserve migratory birds. In addition to avoiding or minimizing impacts to migratory birds populations, agencies are expected to take reasonable steps to restore and enhance habitat and incorporate migratory bird conservation into agency planning processes whenever possible. The Environmental Document you are preparing will need to address this issue.

8. Muscatatuck National Wildlife Refuge and Big Oaks National Wildlife Refuge

These federal properties are managed by the FWS. Some of the above issues related to wildlife habitat, aquatic habitat and water quality may affect one or both Refuges. Additionally, widening of US 50 on the south side may directly impact the Muscatatuck Refuge. Attachment A highlights the most significant wildlife resources at the Muscatatuck Refuge, whose concerns were discussed at the agency meeting of April 20, 2007. In summary, the major issues are as follows:

i. Effects on visitation traffic flow and safety. The Refuge is opposed to the addition of a southern lane to US 50 and would like to see wider shoulders. Major safety issue include visitors exiting the Refuge to US 50 in either direction and those entering the refuge from US 50 from either direction.

ii. Water quality. Mutton Creek and Storm Creek are a significant water source for the Refuge wetland units. Water quality could be adversely affected by construction runoff, increased post-construction runoff of road pollutants, and potential hazmat spills from increased industrial/large carrier traffic.

iii. Aquatic habitat. Increases in pollutant loading or alteration in stream flow regimes could adversely affect the aquatic habitat of the stream faunal communities.

iv. The Refuge supports a reproducing population of the state-endangered copperbelly watesnake. This species is federally listed as threatened in the northern part of its range. Listing was precluded in southern Indiana through a conservation agreement, but the FWS still classifies the species as a Regional Resource Priority. It occupies wetlands and forested riparian areas associated with Storm Creek and Mutton Creek.

The current route alternatives would not directly affect the Big Oaks Refuge, however the aforementioned water quality issues are of concern for streams draining to the Refuge. In addition to surface drainage concerns, Big Oaks also has karst groundwater concerns. The following state-endangered species are known to occur at Big Oaks and may be present in the adjacent portion of the study area: 4-toed salamander, northern crawfish frog, Kirtland's snake, barn owl, sedge wren, yellow-crowned night heron, river otter, and bobcat.

Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened bald eagle (*Haliaeetus leucocephalus*). There are currently no bald eagle nests within the study area, however the Muscatatuck River and large reservoirs provide suitable nesting habitat, and bald eagles are rapidly expanding their nesting range in Indiana.

Indiana bats hibernate in caves, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Recent research has shown that they will inhabit fragmented landscapes with adequate forest for roosting and foraging. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. Like all other bat species in Indiana, the Indiana bat diet consists exclusively of insects.

There are no known Indiana bat hibernacula in the project study area, but it and the surrounding area contain extensive suitable summer habitat for this species. There are numerous recent summer records of Indiana bats from the Muscatatuck River watershed in Jennings, Ripley and Jefferson Counties, including both National Wildlife Refuges. Some of those records are very near the project corridor at both Refuges and in the eastern segment of Alternative D. Informal consultation for the US 50 project will be necessary pursuant to Section 7 of the Endangered

Species Act. As the project progresses we will address consultation in more detail. Depending upon the extent of habitat impacts we may recommend site-specific bat surveys for some or all route alternatives to determine whether the project may adversely affect the Indiana bat.

This endangered species information is provided for technical assistance only, and does not fulfill the requirements of Section 7 of the Endangered Species Act. Please coordinate with the Indiana Department of Natural Resources for comprehensive information on species listed as endangered or special concern by the State of Indiana.

For general coordination with the FWS please contact Mike Litwin at (812) 334-4261 ext. 205 (Bloomington Field Office). For Refuge issues please contact Susan Knowles at (812) 522-4352 (Muscatatuck NWR); or Joe Robb (812) 273-0783 .

Sincerely yours,

Michael A. Litwin

Scott E. Pruitt
Field Supervisor

cc: IDEM, Water Quality Standards Section, Indianapolis, IN
Christie Stanifer, Indiana Division of Fish and Wildlife, Indianapolis, IN
Federal Highway Administration, Indianapolis, IN
Virginia Laszewski, US EPA, Chicago, IL B-19J
USFWS, Muscatatuck NWR
USFWS, Big Oaks NWR

ES: MLitwin/332-4261/US 50 corridor-jennings county-jul

From: Michael_Litwin@fws.gov [mailto:Michael_Litwin@fws.gov]
Sent: Tuesday, January 10, 2012 3:40 PM
To: Prevost, Daniel
Subject: RE: US 50 North Vernon - Indiana Bat Habitat Review

There are recent Indiana bat records within a mile of all three of these bridges, however because all tree removal will be within 55' of a major highway I will conclude that the likelihood of Indiana bats roosting in the affected area is discountably small. I still recommend the seasonal (prior to April 1) tree clearing measure but I will concur with a "not likely to adversely affect" conclusion if it cannot be implemented due to logistics.

Michael Litwin
US Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 47403
(812) 334-4261 ext. 205

"Prevost, Daniel" <Daniel.Prevost@parsons.com>

01/10/2012 01:32 PM

To <Michael_Litwin@fws.gov>
cc
Subject RE: US 50 North Vernon - Indiana Bat Habitat Review

Mike –

Attached are tree clearing sheets for all three bridges (clean pdfs, previous were scans). Below is a summary of tree clearing extents and acreage for each bridge. The extents are measured from the edge of the existing bridges.

Bridge	Clearing Extent North (ft)	Clearing Extent South (ft)	Clearing Area North (ac)	Clearing Area South (ac)	Clearing Area Total (ac)
Mutton	N/A	41’	N/A	0.08	0.08
Storm	32’	43’	0.05	0.14	0.19
Branch of Storm	N/A	55’	N/A	0.34	0.34

Let me know if you need any additional information.

Thanks.

- Dan

From: Michael_Litwin@fws.gov [mailto:Michael_Litwin@fws.gov]
Sent: Tuesday, January 10, 2012 9:51 AM
To: Prevost, Daniel
Subject: RE: US 50 North Vernon - Indiana Bat Habitat Review

Dan

Your attachments included aerial photos for all 3 bridges but the plan view sheets with tree clearing limits did not include the branch of Storm Creek bridge, which appears on the aerials to have the most tree clearing of the three. Can you provide me with a plan view sheet of that one also?

To make sure I'm reading the plan views correctly: I interpret that the maximum distance of tree removal at Mutton and Storm Creeks is about 40' from the edge of the road, with 0.19 acre of trees removed at Storm Creek and 0.08 acre at Mutton Creek. Is that accurate?

Michael Litwin
US Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 47403
(812) 334-4261 ext. 205

To <Michael_Litwin@fws.gov>
cc "Pence, Gary" <GPENCE@indot.IN.gov>, "Tim N. Miller" <TNMiller@HNTB.com>, "Marc Woernle" <mwoernle@HNTB.com>
Subject RE: US 50 North Vernon - Indiana Bat Habitat Review

"**Prevost, Daniel**"
<**Daniel.Prevost@parsons.com**>

01/09/2012 07:47 PM

Mike –

A follow-up request. As you recall, our project also includes three bridge replacements (including the two that are adjacent to the Muscatatuck NWR). I'd like to ask for your review of these sites as well for potential bat habitat and, if appropriate, provide approval to clear these areas without seasonal restrictions.

Attached are an overview map and a series of maps from our draft CE document indicating the extent proposed clearing in this area. There have been no mist net surveys in this area to date. Also attached is an email sent by Tim Miller to Alejandro Galvan (MNWR Manager) seeking his concurrence for a right-of-entry to clear prior to issuance of the permit from USFWS.

Let me know if you need any additional information to make an assessment.

Thanks.

- Dan

From: Michael_Litwin@fws.gov [mailto:Michael_Litwin@fws.gov]
Sent: Friday, January 06, 2012 10:06 AM
To: Prevost, Daniel
Subject: Re: US 50 North Vernon - Indiana Bat Habitat Review

Dan

After reviewing your maps I agree that all the forested areas except one do not require a seasonal tree clearing restriction because of their proximity to bat survey sites. The one exception is the woodlots in an agricultural area at the north end of Sheet 2. Those wooded areas are equally close or closer to a much larger habitat block to the north (which was not surveyed), therefore they could be used by a potential bat colony centered in that area. I have attached a map that shows the bat survey sites, the wooded areas of concern outlined in yellow, and the large habitat block to the north outlined in green.

Michael Litwin
US Fish and Wildlife Service
620 South Walker Street
Bloomington, IN 47403
(812) 334-4261 ext. 205

"Prevost, Daniel"
<Daniel.Prevost@parsons.com>

01/04/2012 10:40 AM

To <michael_litwin@fws.gov>
cc "Pence, Gary" <GPENCE@indot.IN.gov>, "Saxe, Nathan" <nsaxe@indot.IN.gov>, "Randolph, Tobias" <Tobias.Randolph@parsons.com>, "Marc Woernle" <mwoernle@HNTB.com>
Subject US 50 North Vernon - Indiana Bat Habitat Review

Mike –

As discussed yesterday, I'm sending a set of maps showing forested areas that are to be cleared as part of the project. The overview map highlights forested areas throughout the corridor and also indicates where Indiana bat surveys were conducted in 2009 and 2011. No Indiana bats were found at any of the survey locations indicated. Based on that we have identified only two forested areas in the corridor that have not specifically been evaluated for Indiana bat habitat/presence.

As I mentioned, INDOT would like USFWS to review these areas and provide guidance on the potential for Indiana bat habitat and, if appropriate, provide approval to clear these areas without seasonal restrictions.

Let me know if you have any questions or need additional information.

Thanks.

- Dan

Dan Prevost, AICP CTP
Principal Planner
PARSONS
(317) 616-1017
Daniel.Prevost@parsons.com
www.parsons.com

DNR Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

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

December 7, 2010

Brock A. Hoegh, CEP
Environmental Project Manager
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204-5178

Federal Agency: Federal Highway Administration

Re: Early coordination information regarding spot improvements along US 50 from US 31 to Jennings Country Road 15 N (Des. No. 1005104; DHPA No. 10963)

Dear Mr. Hoegh:

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 and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer has reviewed the materials with your cover letter dated November 9, 2010 and received on November 10, 2010, for the above-indicated project in Jennings County, Indiana.

Thank you for notifying our office of the proposed project. At this time, a complete analysis of the project with respect to its effects on historic properties is not possible. Please provide the following information to facilitate the identification and evaluation of properties within the anticipated area or areas of potential effects (see 36 C.F.R. § 800.4[a]):

- Literature Review
- Historic Context
- Research Methodology
- Property Descriptions
- National Register of Historic Places eligibility evaluations and recommendations.

In regards to archaeology, please provide details and plans for the project, degree and types of disturbance of the project area, and archaeological information as stipulated in the Indiana Department of Transportation's ("INDOT's") "Indiana Cultural Resources Manual." Once this information is provided, the Indiana SHPO staff will resume identification and evaluation review of this project. Please keep in mind that additional information may be requested in the future.

For further guidance on the requested information, please refer to appendices X, AA, and BB of INDOT's "Indiana Cultural Resources Manual" (http://www.in.gov/indot/files/January_2008_Manual.pdf). Please keep in mind that additional information may be requested in the future. If you have questions regarding the manual, please contact Staffan Peterson at (317) 232-5161 or stpeterson@indot.IN.gov.

A copy of the revised 36 C.F.R. Part 800 regulations that took 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 Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. Additionally, in all future correspondence regarding this project, please refer to DHPA No. 10963.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JRJ:JLC:jlc

emc: Michelle Allen, Indiana Division, Federal Highway Administration
Staffan Peterson, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Ben Lawrence, P.E., Environmental Policy Section, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Patrick Carpenter, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Shaun Miller, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Brock Hoegh, CEP, HNTB Corporation

CITY OF NORTH VERNON

HAROLD "SOUP" CAMPBELL, MAYOR

December 2, 2010

Mr. Brock A. Hoegh, CEP
HNTB Corporation
Environmental Project Manager
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

RE: Spot Improvements along U.S. 50 from US31 to County Road 15 N.
INDOT Des. No. 1005104

Dear Mr. Hoegh,
In reference to this project, I know of no environmental issues that could have an impact on the project as it relates to the city.

My thoughts are to avoid as many buildings, and structures as possible in the projects path even though we do need right-of-ways and easements to accomplish the planned project.

Thank you,

Harold N. Campbell, Mayor
City of North Vernon

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO.
FILE
DEC 0 3 2010
ROUTE TO:

275 MAIN STREET, NORTH VERNON, IN 47265 PHONE: 812-346-3789 FAX: 812-346-8145 E-MAIL MAYOR@NORTHVERNON-IN.GOV

INDIANA LANDMARKS

Southern Regional Office
115 West Chestnut Street, Jeffersonville, IN 47130
812 284 4534 / 800 450 4534 / www.indianalandmarks.org

November 30, 2010

Mr. Brock Hoegh
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

RE: Spot Improvements along US 50 from US 31 to County Road 15N, Jackson and Jennings counties; INDOT Des. No. 1005104

Dear Mr. Hoegh:

Thank you for your letter of November 9 and the opportunity for Indiana Landmarks to act as a consulting party on the above project.

We have reviewed the materials provided, and look forward to receiving additional information as the project is further developed. At the outset, we want to be sure that you are aware that this portion of US 50 is part of Indiana's Historic Pathways, which is a nationally-designated scenic byway (*http://www.byways.org/explore/byways/76130/*). As plans are being developed for the bridge replacements and spot improvements, we would strongly encourage that the work is done in a way that maintains the scenic and historic character of the byway and its surroundings.

In regard to historic resources, the relevant pages of the Jackson and Jennings counties *Interim Reports* are enclosed. Please note that both of these surveys were completed more than twenty years ago and the data does need to be updated. The most significant resource that appears to potentially be impacted by the proposed work is identified as #33 in the Spencer Township survey, the Josiah Cobbs Farm. This property was rated "outstanding" and is likely eligible for listing in the National Register of Historic Places. Part of that property appears to be contained within the Area of Potential Effect (APE) for Spot Improvement Number 8. Any impacts to the property and its setting should be minimized. The bridge over Indian Creek, which would be replaced as Spot Improvement 15, has also been determined to be National Register-eligible.

I hope this information is of help. Please do not hesitate to contact this office should you have any questions or require any additional information.

Sincerely,

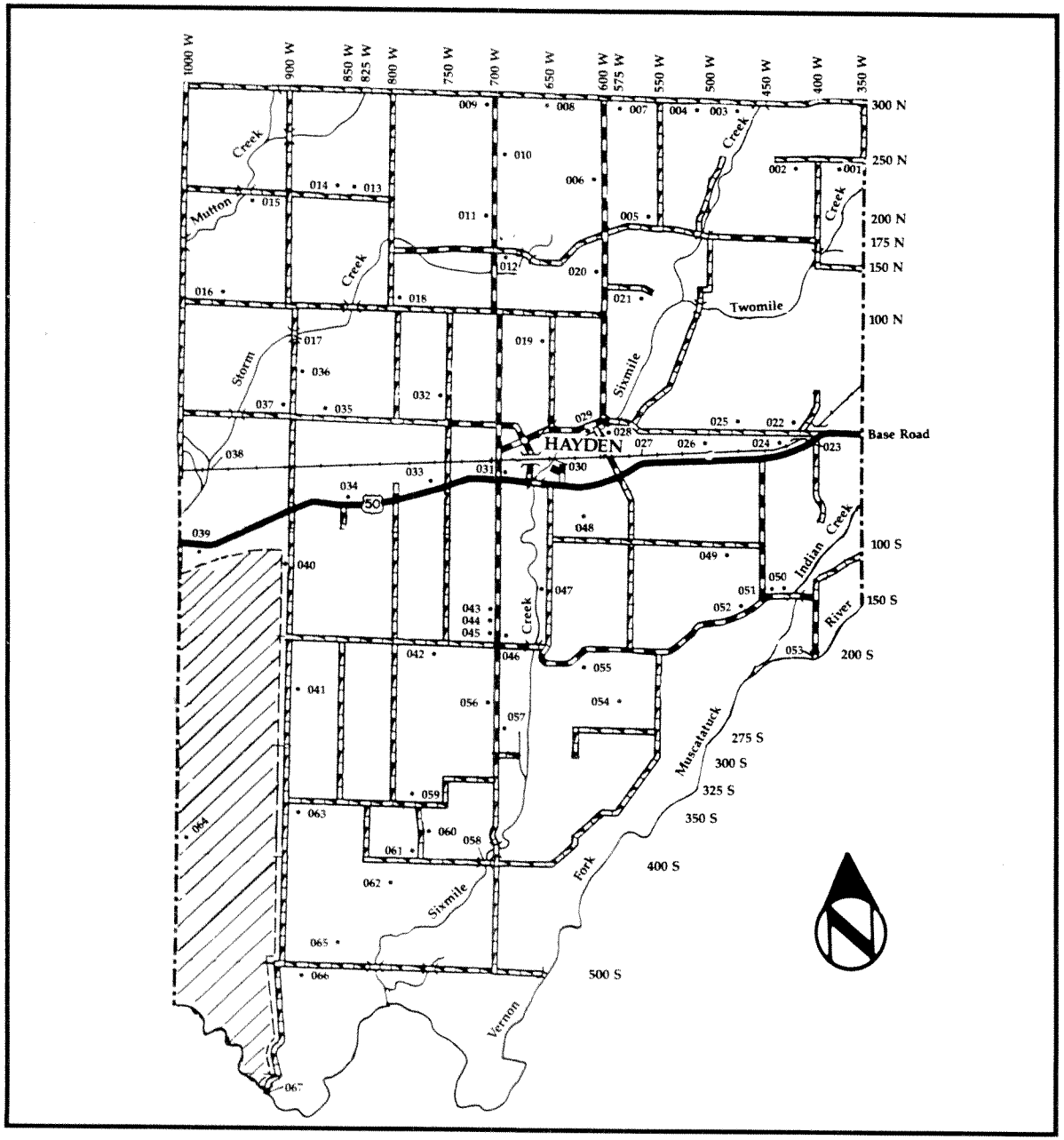
Laura Renwick
Community Preservation Specialist

Enclosures

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO. _____
FILE _____
DEC 0 3 2010
ROUTE TO:

Spencer Township (15001-067)

from Jennings Co. Interim Report (1989)



Spencer Township was organized on May 5, 1833 from a section of Vernon Township. The township's southern boundary was altered several times during the nineteenth century: in 1845 a small section was annexed to Vernon Township; and in 1881 a section was added to Lovett Township. The township was named for Colonel Amasa Spencer, an early settler who served as an officer in the Revolutionary War.

The first settlement, the Sullivan community, occurred along the township's southern boundary. A gristmill was built by Noah Sullivan and became the center of activity for the settlement. By 1817 Peleg Baker, Johnathan Davis, Nathaniel and Soloman Eastman and others had settled on the Six Mile Creek northwest of the community. The Six Mile settlement was established near the banks of the Six Mile Creek, a few miles west of the Sullivan community. The creek was named by John Vawter, founder of Vernon. The Six Mile settlement contained the Union Baptist Church, several blacksmith shops, a wagon shop, cooper shop and a store.

The Catholic community established a settlement south of the Six Mile area. A priest from Madison visited these German and Irish families until 1841 when a log church was erected. This church, replaced by a frame building in 1849, was named St. Catherine's. The church was abandoned years later when a second Catholic church, St. James, gained prominence in an area known as Buena Vista. A third church (15045), which stands today, was completed in 1892 and named St. Joseph's. This building, located across the road from the site of St. James, was constructed of brick in the Gothic Revival style. Damaged by a storm in the early 1900s, its original octagonal-shaped steeple has never been replaced. The complex also includes a rectory (15044) built about 1910 and a cemetery (15043) started in 1868. Cemeteries are all that remain to mark the sites of the St. Catherine (15050) and St. James (15046) churches.

The township was greatly affected by the construction of the Ohio and Mississippi Railroad which crossed the township from east to west. Completed by 1854, the railroad depot was built on Jacob Ewan's land. The village of Hardenburg developed near the depot and was named in honor of the railroad superintendent, Mr. Harden. Hardenburg's name was changed to Hayden on June 4, 1890. The township's only community which has survived into the twentieth century, Hayden contains a post office, store and several other businesses.

The architecture of Spencer Township includes several early log houses including the Goltry House (15015) and the Cox House (15016), both located in the township's far northwest corner.

Most of the township's architecture is vernacular in character. A notable example of the double-pen house is the Eastman House (15004), built about 1900 by Oliver Eastman. This property has remained in the family since 1838 when it was purchased from the government. The family cemetery (15003) is located adjacent to the farm.

Several good examples of the I-house with applied architectural details were built shortly after the Civil War. Allen Brown returned from the army and built his brick home (15035) in the Federal style. Another brick house, the Edward L. Downs House (15040), was built with Italianate details. An outstanding example of the Greek Revival style as applied to an I-house was the house of Josiah Cobb (15033) built in 1868.

The Queen Anne style is well represented in the southern half of the township. Two good examples are the Joseph Beaty House (15042), built about 1890 and the George Maschino House (15061), built in 1909.

While most of the township's older bridges have been replaced, several outstanding examples of metal-truss bridges cross the Muscatatuck River which forms the township's southern border. The Staples Ford Bridge (County Bridge No. 113) (15067), built in 1897, and the Euler's Ford Bridge (County Bridge No. 96) (15053) are both examples of Pratt Through Truss bridges.

No.	Rtg.	Description
001	C	**Smith Cemetery,** 250 N; 1830-1905; Exploration/Settlement, Religion (472)
002	C	**White House,** 250 N; House: Gabled-ell, c.1895, Barn: Transverse-frame; Agriculture, Vernacular/Construction (472)
003	C	**Eastman Cemetery,** 300 N; 1847-1934; Exploration/Settlement, Religion (472)
004	N	**Eastman Farm,** 300 N; House: Double-pen, c.1900, Builder: Oliver Eastman, Outbuildings: Livestock barn, smokehouse; Agriculture, Vernacular/ Construction (472)
005	C	**Charles Wilkins Farm,** 175 N; House: I-house, c.1870, Builder: Charles Wilkins, Outbuildings: Smokehouse, summer kitchen; Agriculture, Vernacular/Construction (472)
006	C	**D. Taylor House,** 600 W; Log I-house/ Gabled-ell, c.1845/c.1875; Vernacular/ Construction (472)
007	C	**House,** 300 N; Gabled-ell, c.1880; Vernacular/Construction (472)
008	C	**Krackenberger House,** 300 N; Bungalow, c.1920; Architecture (472)
009	C	**William Kehrt Farm,** 700 W; House: Gabled-ell, c.1890, Barn: Midwest three-portal; Agriculture, Vernacular/ Construction (472)
010	C	**John Haley Farm,** 700 W; House: Gabled-ell, c.1900, Outbuildings: English barn, smokehouse, privy, summer kitchen; Agriculture, Vernacular/Construction (472)
011	C	**William Bandeen Farm,** 700 W; House: Gabled-ell, c.1890, Outbuildings: English barn, summer kitchen; Agriculture, Vernacular/Construction (472)
012	C	**Gannon Farm,** 150 N; House: Cruciform/Queen Anne, c.1900, Outbuildings: English barn, chicken houses, summer kitchen; Agriculture, Architecture, Vernacular/Construction (472)
013	C	**Mike Ringer Farm,** 200 N; House: I-house, c.1890, Barns: English, transverse-frame; Agriculture, Vernacular/Construction (030)
014	C	**William Ringer House,** 200 N; I-house, c.1890; Vernacular/ Construction (030)
015	N	**Gehiel Goltry House,** 200 N; Log hall-and-parlor, c.1845, Builder: Gehiel Goltry; Exploration/ Settlement, Vernacular/Construction (030)
016	N	**Cox House,** 100 N; Log single-pen, c.1840; Vernacular/Construction (109)
017	N	**County Bridge No. 21,** 900 W; Pratt Pony Truss, c.1900; Engineering, Transportation (109)
018	C	**Perry House,** 100 N; House: Gabled-ell, c.1890, Builder: Hoyt Perry, Outbuilding: Corncrib; Vernacular/ Construction (109)
019	C	**Charles Carr Farm,** 650 W; House: I-house, c.1890, Barn: Livestock; Agriculture, Vernacular/Construction (268)
020	C	**House,** 600 W; Log single-pen, c.1840; Vernacular/Construction (472)
021	C	**Calvin Wilder Farm,** 600 W; House: Saltbox, c.1865, Outbuildings: Midwest three-portal barn, drive-in crib; Agriculture, Vernacular/ Construction (472)
022	C	**William H. Haines Farm,** Base Road; House: I-house, 1892, Builder: William H. Haines, Outbuildings: Chicken house, smokehouse, summer kitchen; Agriculture, Vernacular/Construction (268)

023 C **Haines Curve Railroad Trestle,** Base Road; c.1900; Engineering, Transportation (268)

024 C **W. O. Haines Farm,** off Base Road; House: Bungalow, 1923, Builder: W. O. Haines, Outbuildings: Midwest three-portal barn, English barn, woodshed, underpasses; Agriculture, Engineering, Transportation, Vernacular/Construction (268)

025 C **Judge J. O. Carson Farm,** Base Road; House: Bungaloid, 1928, Builder: Charley Barnhart and Charley Baker, Outbuildings: Livestock barns, garage; Agriculture, Architecture, Vernacular/Construction (268)

026 C **John Wrape House,** Base Road; Gabled-ell/Italianate, c.1870; Architecture, Vernacular/Construction (268)

027 C **Railroad Underpass,** U.S. 50; Barrel Vault, c.1910; Engineering, Transportation (268)

028 N **Six Mile Cemetery,** Base Road; 1822-1956; Exploration/Settlement, Religion (268)

029 C **Whitcomb Cemetery,** Base Road; 1851-1867; Exploration/Settlement, Religion (268)

030 C **B & O Railroad Trestle,** off 660 W; Plate Girder, c.1900; Engineering, Transportation (268)

031 C **Doud Service Station,** U.S. 50; Twentieth Century Functional, 1926, Builder: John Doud; Commerce, Vernacular/Construction (282)

032 N **Benjamin Downs House,** 750 W; Central-passage/Federal, c.1850; Architecture, Vernacular/Construction (109)

033 O **Josiah Cobbs Farm,** U.S. 50; House: I-house/Greek Revival, 1868, Outbuildings: Summer kitchen, Midwest three-portal barn; Agriculture, Architecture, Vernacular/Construction (109)

033

034 C **A. L. Newby Barn,** U.S. 50; Dairy, 1928; Agriculture, Vernacular/Construction (109)

035 O **Allen Brown House,** Base Road; I-house/Federal, c.1865; Architecture, Vernacular/Construction (109)

036 C **Elizabeth Childs Farm,** 900 W; House: I-house, 1873, Barn: Transverse-frame; Agriculture, Vernacular/Construction (109)

037 C **Wohrer Cemetery,** Base Road; 1839-1975; Exploration/Settlement, Religion (109)

038 C **B & O Railroad Trestle,** off 1000 W; Engineering, Transportation (109)

Allen Brown House (15035) *The house was built about 1865 for Allen Brown, a Civil War veteran. Brown sent money home to his wife during the war for the house's construction.*

040

039 C **Ed Vogel Farm,** U.S. 50; House: Bungalow, c.1935, Barn: Transverse-frame; Agriculture, Architecture, Vernacular/Construction (109)

040 O **Edward L. Downs Farm,** 900 W; House: I-house/Italianate, c.1865, Outbuildings: English barn, drive-in crib, summer kitchen; Agriculture, Architecture, Vernacular/Construction (109)

041 C **Henry Sandhage Farm,** 900 W; House: Hall-and-parlor, c.1875, Builder: Charley Barnhart, Outbuildings: Transverse-frame barn, English barn, summer kitchen, granary; Agriculture, Vernacular/Construction (109)

042 N **Joseph Beaty Farm,** 200 S; House: Queen Anne Cottage, c.1890, Outbuildings: English barn, silo, chicken house; Agriculture, Architecture, Vernacular/Construction (109)

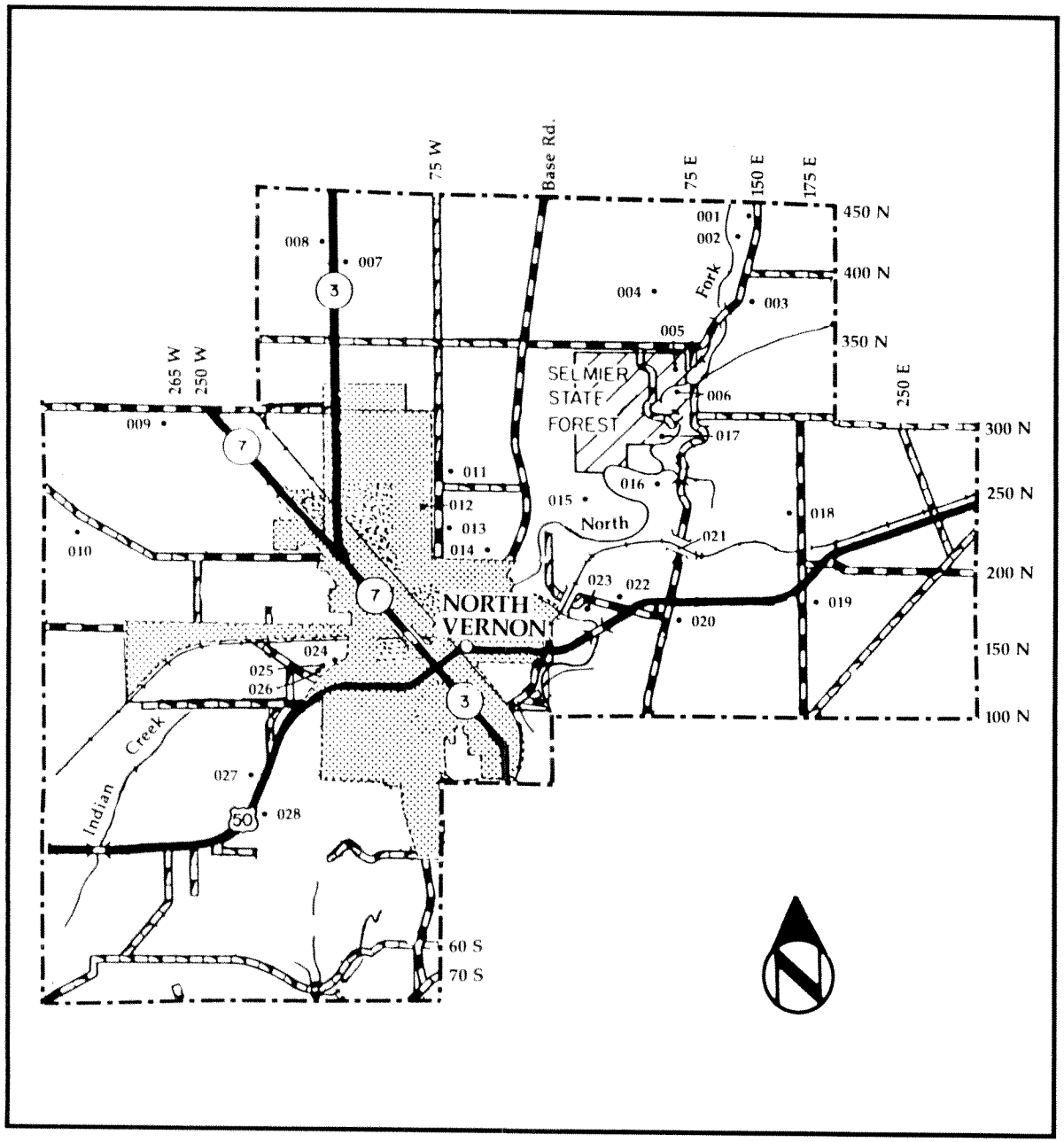
043 C **St. Joseph Catholic Cemetery,** 700 W; 1868-present; Religion (268)

044 C **St. Joseph Rectory,** 700 W; American Four-Square, c.1910; Architecture, Religion (268)

045 O **St. Joseph Catholic Church,** 700 W; Gothic Revival, 1892; Architecture, Religion (268)

Center Township (20001-028)

from Jennings Co. Interim Report (1989)



Prior to 1865, Center Township was included as a section of Vernon Township. Originally named North Vernon, it was later renamed Center Township. In the 1840s, a small settlement known as Lickskillet was established on the Madison and Indianapolis Railroad line. In 1852 the Ohio and Mississippi Railroad intersected this line and the settlement began to develop. This induced Colonel Hagerman Tripp, Hiram Prather, Langston Johnson and Ezra Peabody to purchase land surrounding the crossing. On June 24, 1854 Tripp platted and recorded the town as Trippton incorporating the village of Lickskillet. Over the next few years, several sub-divisions were platted and named North Vernon, and in 1867 the town's name was officially changed from Trippton to North Vernon.

Center Township contains several notable examples of early log houses. A two-story log saltbox house (20004) on 350 N was built about 1830. A later example of log construction is on the Lawrence Hock Farm (20002). Hock immigrated from Bavaria, Germany to New York on May 20, 1855 when he was 14 years old. He moved to Jennings County in the 1870s and built a gable-front log house where he raised 11 children.

Located approximately one mile from these log houses is an interesting twentieth-century structure. Frank Selmier, who owned a laundry service in North Vernon, had a Craftsman Bungalow house (20005) built of stone in several stages from 1921 to 1924. The property also has several other interesting features such as a small shelter built entirely of bottles, small stone guard houses and a stone bridge.

Several nineteenth-century brick houses can be found in Center Township. An outstanding example of Greek Revival elements applied to the central-passage house form is a house (20026) on Hayden Pike. The I-house is represented by a

house (20018) on 175 E. It features a decorative Queen Anne porch and was built about 1885.

Center Township has only one surviving one-room schoolhouse. The District No. 1 School (20010) was built around 1895 and is currently used as a private residence.

Perhaps the largest barn in the county can be seen east of town on U.S. 50. Built for Arthur Hutton in the 1930s, this transverse-frame barn (20027) was used as a sale barn for cattle.

Center Township also contains two noteworthy cemeteries. The Summerfield-Vawter Cemetery (20017) contains early markers of the Vawter family, who were among the county's first settlers. The earliest stone marks the grave of Philemon Vawter who died in 1814. The North Vernon City Cemetery (20014), later renamed Hillcrest Cemetery, contains a large monument marking the grave of Colonel Hagerman Tripp. Tripp sold the land to the city for use as a cemetery in the early 1860s. The lots were then sold for $10.00 each.

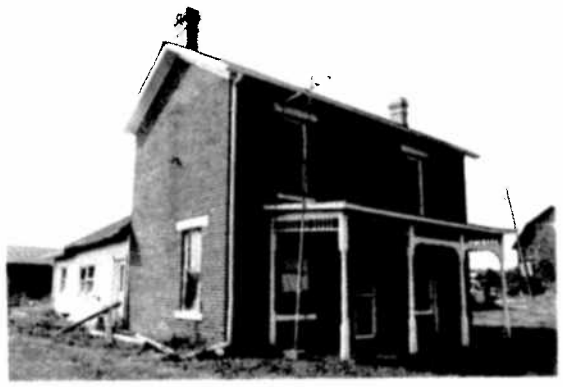
No.	Rtg.	Description
001	C	**House,** 150 E; Gabled-ell/Queen Anne, c.1895; Architecture, Vernacular/Construction (087)
002	N	**Lawrence Hock Farm,** 150 E; House: Log gable-front, 1875, Builder: Lawrence Hock, Barn: English; Agriculture, Vernacular/Construction (087)
003	C	**Farm,** 150 E; House: I-house, c.1880, Outbuildings: Transverse-frame barn, wood shed; Agriculture, Vernacular/Construction (087)
004	N	**Farm,** 350 N; House: Log saltbox, c.1830, Outbuildings: English barn, smokehouse, summer kitchen; Agriculture, Vernacular/Construction (087)

005

005	N	**Frank Selmier House,** Selmier State Forest; House: Craftsman Bungalow, 1921-24, Outbuildings: Guard houses, shelter houses, bridge; Architecture, Vernacular/Construction (087)
006	N	**Farm,** 100 E; Gabled-ell/Log I-house, c.1840/c.1920, Barn: English; Agriculture, Vernacular/Construction (087)
007	C	**Farm,** State Road 3; House: Queen Anne, c.1890, Barn: Dairy; Agriculture, Architecture, Vernacular/Construction (472)
008	C	**House,** State Road 3; Central-passage, c.1885; Vernacular/Construction (472)
009	C	**House,** 300 N; Saltbox, c.1860; Vernacular/Construction (472)

010

010	N	**School No. 1,** 225 N; Gable-front, c.1895; Education, Vernacular/Construction (472)
011	C	**House,** 75 W; Pyramidal-roof, c.1915; Vernacular/Construction (472)
012	C	**Farm,** 75 W; House: Gabled-ell, c.1890, Barn: English; Agriculture, Vernacular/Construction (472)
013	C	**House,** 75 W; Bungalow, c.1925; Architecture (472)
014	C	**Hillcrest Cemetery,** 75 W; c.1860-present; Exploration/Settlement, Religion (087)
015	C	**Farm,** 20 W; House: Hall-and-parlor, c.1850, Barn: English; Agriculture, Vernacular/Construction (087)
016	C	**House,** 90 E; Log single-pen, c.1850; Vernacular/Construction (087)
017	C	**Summerfield-Vawter Cemetery,** 350 N, Selmier State Forest; c.1814-1941; Exploration/Settlement, Religion (087)
018	N	**Farm,** 175 E; House: I-house, c.1885, Outbuildings: Transverse-frame barn, stable, corncrib; Agriculture, Vernacular/Construction (087)
019	C	**House,** 175 E; American Four-Square, c.1915; Architecture (087)



018

020 C **Farm,** 175 N; House: Gabled-ell, c.1870, Barn: Basement; Agriculture, Vernacular/Construction (087)

021 N **B & O Railroad Bridge,** 75 E; c.1855/ c.1900, Builder: Bethlehem Steel Company; Engineering, Transportation (087)

022 C **House,** 175 N; Hall-and-parlor, c.1860; Vernacular/Construction (087)

023 C **House,** 175 N; Queen Anne, c.1900; Architecture (087)

024 C **Farm,** Hayden Pike; House: Queen Anne Cottage, c.1890, Outbuildings: Transverse-frame barn, corncrib, woodshed, privy; Agriculture, Architecture, Vernacular/Construction (472)

025 C **House,** Hayden Pike; Queen Anne Cottage, c.1890; Architecture (472)

026 O **House,** Hayden Pike; Central-passage/ Greek Revival, c.1840; Architecture, Vernacular/Construction (472)

027 C **Arthur Hutton Barn,** U.S. 50; Transverse-frame, c.1930; Agriculture, Vernacular/Construction (268)

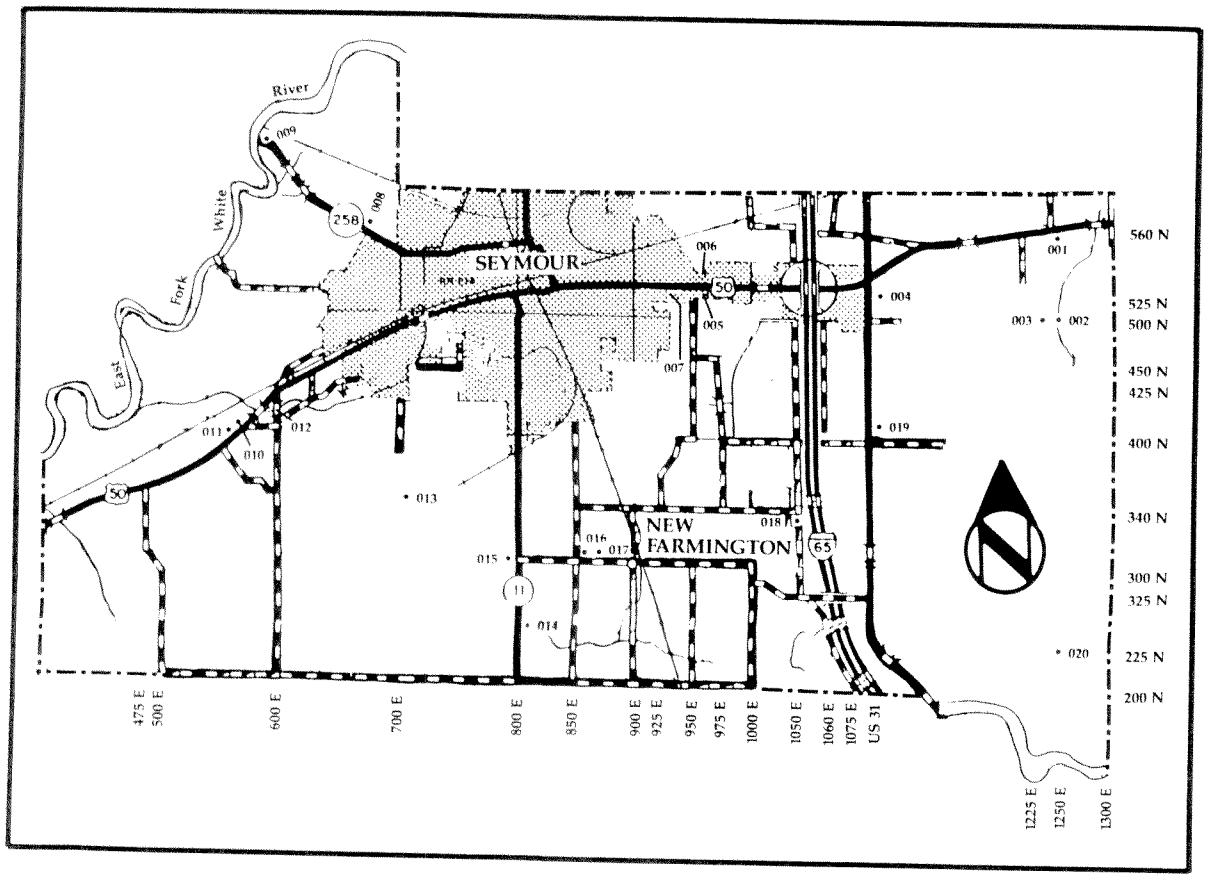
028 C **House,** U.S. 50; I-house, c.1860, Builder: Alexander Bain; Vernacular/ Construction (268)

026

School No. 5, Hayden. Source: Rodger Ruddick.

from Jackson Co. Interim Report (1988)

Jackson Township (30001-020)



Jackson Township is on the east side of Jackson County and is comprised of flat farmland in the south and marshy or swampy land in the north and east. The Driftwood or East Fork of the White River forms the northwest border of the township and Mutton Creek flows through the eastern half. Jackson Township was formed in 1821.

Early settlers concentrated primarily in the southern and central sections of the township because of the swampland to the north. Quaker families were among the first settlers. A Quaker church and school were located west of New Farmington but were abandoned by the 1890s. Two Quaker or Friends cemeteries (30018,019) are all that remain of this religious community. There are many stories of the Quaker families' involvement with the Underground Railroad helping to transport escaped slaves to Canada through Indiana.

The Jeffersonville, Madison and Indianapolis Railroad arrived in Jackson County in 1852. The tracks passed through what is now the city of Seymour, laid out in 1852, and the town of New Farmington which was platted in the same year by William O. Lancaster. New Farmington consisted of 20 lots and the town had a store, gristmill and sawmill. Its prosperity as a station of the JM&I railroad was eclipsed in 1854 when the east/west Ohio and Mississippi Railroad line crossed the north/south line in Seymour. From that day forward, Seymour prospered as a manufacturing and transportation center.

The White River restricted transportation between Jackson Township and townships to the west. In 1869 it was determined that a bridge was needed between Jackson and Hamilton Townships at a point in the White River called Bell's Ford. The area was named for the Bell family who owned a farm at a shallow place in the river where it was possible to cross the water. A $20,000 covered bridge (30009) was constructed by Robert Patterson and is the only known Post Truss Bridge in existence. The bridge, at first a toll bridge, was used until 1967 when two floor beams were discovered to be broken. The bridge was temporarily repaired but was bypassed by a modern bridge.

The history of Jackson Township from the 1850s to the 1950s is a history of Seymour's expansion. Not only has the city physically grown, taking more acreage from the township in the form of additions to the city plat, but Seymour is also the site of the crossing of U.S. 50 and U.S. 31 constructed during the 1910s. In addition, when Interstate 65 was created during the 1960s, Seymour gained an entrance and exit ramp to that route. These transportation advances have focused attention on Seymour and Jackson Township as a whole.

Although small schoolhouses and churches were located throughout the township in the early 1800s, most of these institutions moved to Seymour. An exception is the Clara D. Carter School (30020) located east of Seymour on U.S. 31. It was constructed in 1927 and served the

township as an elementary school until it was closed after World War II.

The Second World War affected Jackson Township directly when in 1942 the United States purchased over 2,500 acres of land southwest of Seymour for an Air Force Training Base. The land had previously been fertile farm, pasture and timberland. Twenty-six homesteads located on that land were destroyed with the exception of Ernest Kasting's house (30016) which was used as an military police office because there was a road leading to the compound from his land. By December 1942, Freeman Field was open. The $15 million complex included four runways and over 400 military buildings. It was open to the public for the first time in the fall of 1945. The army closed the base in 1947 for lack of storage space and room for expansion, and in 1947 the city of Seymour acquired the property to use as an airport and industrial park. Some warehouses and administrative buildings (30014) remain and are used for Freeman Field and corporation offices.

The federal government again greatly impacted Jackson Township when it created the National Wildlife Refuge at the east end of the township extending into neighboring Jennings County. Approximately 7,000 acres of land were purchased starting in 1966. The Muscatatuck Wildlife Refuge contains approximately 3,000 acres of forest, 1,300 acres of water, 1,000 acres of grasslands and fields and 2,400 acres of old farmland reverting back to forests. All of the homesteads in Jackson Township which were on the land when it was purchased were destroyed except for the log Myers House (30021) constructed about 1870.

Jackson Township has a variety of architectural styles, dating primarily from the 1880s to the present. The brick Italianate style Stahl Farm (30017) was constructed about 1895 on the site of the old Quaker church. More common to the township are Bungalows such as two on U.S. 50 (30005,006) which also have a Craftsman influence.

There are three Pony Truss Bridges which remain in the township. Two are located in the Muscatatuck Wildlife Refuge (30002,003), but one of the bridges (30013), a Warren Pony Truss, is located in a dense residential area on the west side of Seymour.

Today, Jackson Township is commercially active and competitive and many farms are still productive in the southern and western parts of the township.

No.	Rtg.	Description
001	C	**House,** U.S. 50; Double-pen, c.1900; Architecture (109)
002	C	**County Bridge,** 500 N; Warren Pony Truss, c.1920; Engineering, Transportation (109)
003	N	**County Bridge,** 500 N; Pratt Pony Truss, c.1890; Engineering, Transportation (109)
004	N	**Trimpe's DX Service Station,** U.S. 31; Twentieth Century Functional, 1931; Builder: Herb Zumhingst; Architecture, Commerce (109)
005	N	**Farm,** U.S. 50; House: Craftsman Bungalow, c.1920, Barn: Dairy; Agriculture, Architecture (109)
006	N	**Farm,** U.S. 50; House: Craftsman Bungalow, c.1930, Barn: Transverse-frame; Agriculture, Architecture (109)
007	C	**House,** 1516 East Tipton Street; Craftsman, c.1930; Architecture (581)
008	O	**Schneck House,** State Road 258; American Four-Square/Spanish Eclectic, c.1920; Architecture (581)
009	O	**Bell's Ford Covered Bridge,** off State Route 258; Post Through Truss, 1869; Builder: Robert Patterson; Engineering, Transportation (581)
010	C	**Crane Cemetery,** U.S. 50; c.1841-1914; Exploration/Settlement, Religion (581)
011	N	**Indian Treaty Corner Historical Marker,** U.S. 50; Marker recognizes the 10 o'clock Indian Treaty line, 1809; Indian, Exploration/Settlement (581)
012	O	**House,** off U.S. 50; House: I-house/ Italianate, c.1880, Outbuilding: Log-pen, c.1840; Architecture, Exploration/Settlement, Vernacular/ Construction (581)
013	C	**County Bridge No. 106,** 600 E; Warren Pony Truss, c.1920; Engineering, Transportation (581)
014	C	**Freeman Field Training Buildings,** off 700 E; Twentieth Century Functional, c.1942-43; Architecture, Military (581)
015	C	**Farm,** State Road 11; House: Bungalow, c.1920, Barn: Transverse-frame; Agriculture, Architecture (581)
016	N	**Ernest Kasting House,** State Road 11; I-house, c.1900; Architecture (581)
017	N	**Stahl Farm,** 300 N; House: Italianate, c.1895, Barn: English; Agriculture, Architecture (581)
018	C	**Friends Cemetery,** 300 N; c.1861-c.1915; Religion (581)
019	C	**Driftwood Cemetery,** 1050 E; c.1843-c.1950; Exploration/Settlement, Religion (109)
020	O	**Clara D. Carter School,** U.S. 31; Twentieth Century Functional, 1927; Architecture, Education (109)
021	O	**Myers House,** 225 N; Log-pen, c.1870; Exploration/Settlement, Vernacular/ Construction (581)

United States Department of Agriculture

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

November 22, 2010

Brock Hoegh, CEP
Environmental Project Manager
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

Dear Mr. Hoegh:

Please resubmit your request regarding the project to make spot improvements along US 50 in Jennings County, Indiana, as stated in your letter received November 10, 2010, when specific right-of-way has been determined.

If you need more information, please contact Lisa Bolton at 317-290-3200, extension 342.

Sincerely,

Jane E. Hardisty

JANE E. HARDISTY
State Conservationist

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO.
FILE
NOV 24 2010
ROUTE TO:

Helping People Help the Land

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

November 16, 2010

Brock Hoegh
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204

RE: Wellhead Protection Area Proximity Determination
US 50 North Vernon Bypass Project, Jennings County

Upon review of the above referenced site, it has been determined that the site **is not** located within a Wellhead Protection Area.

This information is accurate to the best of our knowledge. However, there are in some cases, a few factors that could impact the accuracy of this determination. For example, some Wellhead Protection Area Delineations have not been submitted or may not have been approved by this office. In these cases, we use a 3,000 foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's Wellhead Protection Area Delineation, please visit our tracking database at http://www.in.gov/idem/4289.htm.

If you have any additional questions, please feel free to contact me at the address above or at (317) 234-7476.

Sincerely,

James Sullivan, Chief
Ground Water Section
Drinking Water Branch
Office of Water Quality

JS:gml

HNTB Corporation
The HNTB Companies
Engineers Architects Planners

111 Monument Circle
Suite 1200
Indianapolis, IN 46204-5178

Telephone (317) 636-4682
Facsimile (317) 917-5211
www.hntb.com

HNTB

November 9, 2010

Ms. Christie Stanifer, Environmental Coordinator
Division of Fish and Wildlife
Indiana Department of Natural Resources
402 West Washington Street Room W264, IGC South
Indianapolis, IN 46204

Re: Spot Improvements along U.S. 50 from US 31 to County Road 15 N
INDOT Des. No. 1005104

Dear Ms. Stanifer:

Since the February 2008 publication of the U.S. 50 North Vernon Corridor Planning and Environmental Assessment Study, the scope of the project has been scaled back to providing a connection between U.S. 50 and SR 3 (U.S. 50 North Vernon Bypass) and operational spot improvements along U.S. 50. This reduction is an effort by the Indiana Department of Transportation (INDOT) to focus on improvements in the areas in which they are most needed at this time.

The U.S. 50 North Vernon Bypass project is being developed concurrently with this spot improvement project, however, it addresses different needs and is being developed independently under a separate designation number. Separate letters requesting your agency's input on the bypass study will be sent, and comments on that project should be provided under Des. 0401402. **Please use the above designation number (1005104) and description in your reply to this project.**

The objective of this element of the overall program is to improve traffic operation and safety along U.S. 50 from US 31 to County Road 15 N. Therefore, this project will address notable operational problems along the existing U.S. 50 from US 31 to County Road 15 N on the west side of North Vernon (see **Enclosures**). These needs will be provided for through a variety of localized improvements such as auxiliary lanes, intersection passing blisters, and improved signage at select locations along U.S. 50.

We are requesting comments from your agency, within your area of expertise, regarding any possible effects to the environment that may result from this project. The location and views of the project area are shown in the enclosed figures for your reference. Questionnaires have also been attached as appropriate. Comments from your agency will be included in the environmental documentation that will be submitted to INDOT for approval.

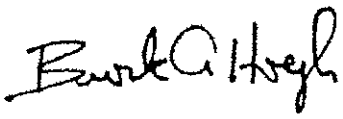
Please submit your response to my attention by **December 9, 2010.** If no response has been received within thirty days from the date of this letter, it will be assumed that your agency believes no significant environmental impact will result from this project. However, should you find that an extension to the response time is necessary, a reasonable amount shall be granted upon request.

If you have any questions about this project, please contact me at 317-636-4682 or by email at bahoegh@hntb.com.

Thank you for your consideration and evaluation of this project.

Sincerely,

HNTB Corporation



Brock A. Hoegh, CEP
Environmental Project Manager

cc: Gary Pence, INDOT Project Manager
Dan Prevost, Parsons

Enclosures

Title	Last Name	First Name	Organizational Title	Organization
Mr.	Campbell	Harold	Mayor	City of North Vernon
Mr.	Day	Jeff	President	County Comissioner
			Chief, Environmental Resources ATTN: CEPMP-P-E	Department of the Army Louisville District, Corps of Engineers
Mr.	Talley, Jr.	Robert	Division Administrator	Federal Highway Administration
Mr.	Magner, S.E.T.	Michael J.	Jennings Co. Highway Engineer/Director	FPBH, Inc
Mr.	Carter	Rob	Director	IDNR
Mr.	Carr	John	Historic Structures Review	IDNR-DHPA
			Chief, Groundwater Section	Indiana Department of Environmental Management
Mr.	Stanifer	Christie	Environmental Coordinator Division of Fish and Wildli	Indiana Department of Natural Resources
Mr.	Rector	Kevin	Manager Aviation Section	Indiana Department of Transportation
Ms.	Hasenmueller	Nancy	Section Head Environmental Geology Section	Indiana Geological Survey
Ms.	Renwick	Laura	Community Preservation Specialist	Indiana Landmarks
Mr.	Peterson	Steffan		INDOT - Cultural Resources Section
Mr.	McClain	Nick	Acting Manager	INDOT Aeronautics
Ms.	Trisler	Cheryl		Jennings County Area Plan
Mr.	Schneider	Richard	President	Jennings County Board of Commissioners
Ms.	Evans	Michelle	Director	Jennings County E.M.A.
Ms.	Asher	Chris		Jennings County Historical Society
Mr.	Bushong	Michael	Superintendent	Jennings County School Corporation
Mr.	Hoppock	Steve	Sheriff	Jennings County Sheriff's Department
Mr.	Fish	Jeff	Plant Manager	Jennings NW Regional Utility
Mr.	Giaquinta	Earnest	Regional Environmental Coordinator	Midwest Regional Office National Park Service
Ms.	Knowles	Susan	Private Lands Biologist	Muscatatuck National Wildlife Refuge
Mr.	Webber	Marc	Manager	Muscatatuck National Wildlife Refuge
Ms.	Hardisty	Jane	State Conservationist	Natural Resource Conservation Service
Ms.	Dennis	Lynn	Director of Government and Community Relations	Nature Conservancy
Mr.	McGill	Rick	Chief	North Vernon Fire Department
Mr.	Webster	James	Chief	North Vernon Police
Mr.	Pruitt	Scott	Field Supervisor	U.S. Fish and Wildlife Service Bloomington Field Office
			Regional Environmental Officer Chicago Regional Office	US Department of Housing & Urban Development Metcalfe Fed. Bldg.
Mr.	Caldwell	Brett	Jennings County Historian	

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204-2216 (317) 232-5533 FAX: (317) 232-0238

Mitchell E. Daniels, Jr., Governor
Michael W. Reed, Commissioner

August 23, 2010

NOTICE OF SURVEY

Dear Property Owner:

Our information indicates that you own or occupy property near the subject proposed highway project. Our employees will be performing a survey of the project area in the near future. It may be necessary for them to come onto your property to complete this work. This is permitted by law per Indiana Code IC 8-23-7-26. They will show you their identification, if you are available, before coming onto your property. If you have sold this property, or it is occupied by someone else, please let us know the name and address of the new owner or current occupant so we can contact them about the survey.

At this stage, we generally do not know what effect, if any, our project can eventually have on your property. If we determine later that your property is involved, we will contact you with additional information.

The survey work will include mapping the location of features such as trees, buildings, fences and drives, and obtaining ground elevations. The survey is needed for the proper planning and design of this highway project. Please be assured of our sincere desire to cause you as little inconvenience as possible during this survey. If any problems do occur, please contact myself at (317) 837-9900, Steve Davidson of Parsons Transportation Group (Project Manager) at (317) 616-1000, or Gary Pence of INDOT at (317) 232-5198.

Sincerely yours,

Grant Niemeyer, PLS
Project Manager (PCS Engineers) 317-837-9900

Appendix D: Section 106 of the NHPA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Bishop Henry Whipple Federal Building
1 Federal Drive
Fort Snelling, MN 55111-4056

IN REPLY REFER TO:

FWS/NWRS-VSO

MAR 2 1 2011

Mr. James Snyder
ASC Group, Inc.
6330 East 75th Street
Suite 100
Indianapolis, Indiana 46250

Dear Mr. Snyder:

Enclosed please find the Federal Archaeological Resources Protection Act (ARPA) Permit No. **2011-IN/3-1** as requested on your application for survey and recordation on lands owned by the Federal Government and administered by the Muscatatuck National Wildlife Refuge. Please use this number on all correspondence with this office pertaining to this permit. Also, please put this number on the cover of the final report. Historic Preservation activities are exempt from compatibility reviews.

This archaeological permit is between you as the archaeologist and the U.S. Fish and Wildlife Service as the authorizing agency. Additionally, you must request from the Refuge Manager a special use permit prior to commencement of field work. Also inform the Regional Historic Preservation Officer (RHPO) by e-mail (james_myster@fws.gov) of actual field work dates so that he can observe the work in the field if the opportunity becomes available. Neither this permit nor the special use permit constitutes any approval for construction or any other project or activity by any person or organization.

Materials derived from this archaeological investigation are to be deposited with, and prepared in accordance with the requirements of the Indiana State Museum.

Completion of the project under this ARPA permit requires, unless other arrangements are made, an acceptable final report by no later than the end of the permit date. The permit requires you to submit a draft report to the RHPO for 30 day review and two (2) copies of the final report to the Regional Director after corrections.

Initiate no contacts with the media, the SHPO, nor any other organization or person for the purpose of disseminating information relating to the investigation until the final report is approved. Questions from the media shall be referred to the RHPO. Make no independent distribution of interim, letter, draft, or final reports until the final report is approved by the RHPO.

If human remains, funerary objects, or items of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act are found, your archaeologists must cease work immediately and notify the Refuge Manager at 812-522-4352 and the RHPO at 612-713-5439.

Sincerely,

Charles M. Wooley
Acting Regional Director

Enclosure: Signed permit

Please use this number
when referring to this permit

No.: **2011-IN/3-1**

DI Form 1991 (Rev Sept 2004)
OMB No. 1024-0037
Exp. Date (01/31/2009)

United States Department of the Interior

PERMIT FOR ARCHAEOLOGICAL INVESTIGATIONS

To conduct archeological work on Department of the Interior lands and Indian lands under the authority of:

- X The Archaeological Resources Protection Act of 1979 (16 U.S.C. 470aa-mm) and its regulations (43 CFR 7).
- X The Antiquities Act of 1906 (P.L. 59-209; 34 Stat. 225, 16 U.S.C. 431-433) and its regulations (43 CFR 3).
- ☐ Supplemental regulations (25 CFR 262) pertaining to Indian lands.
- ☐ Bureau-specific statutory and/or regulatory authority: Sec. 302(b) of P.L. 94-579, October 21, 1976, 43 U.S.C. 1732

1. Permit issued to
James Snyder

2. Under application dated
March 15, 2011

3. Address
ASC Group, Inc.
6330 East 75th Street, Suite 100
Indianapolis, Indiana 46250

4. Telephone number(s)
(317) 915-9300 x 102

5. E-mail address(es):
jsnyder@ascgroup.net

6. Name of Permit Administrator
Shaune Skinner

Telephone number(s):
(614) 310-3540
Email address(es):
sskinner@ascgroup.net

7. Name of Principal Investigator(s)
James Snyder

Telephone number(s):
(317) 915-9300 x 102
Email address(es):
jsnyder@ascgroup.net

8. Name of Field Director(s) authorized to carry out field projects
Sam Snell

Telephone number(s):
(317) 915-9300 x 102
Email address(es): ssnell@ascgroup.net

9. Activity authorized
XX Survey and Recordation
Limited Testing and/or Collection
Excavation and/or Removal

10. On lands described as follows: Nine spot improvement areas, T6N, R6E, Sections 13 and 14; Muscatatuck National Wildlife Refuge, Jackson and Jennings Counties, Indiana.

11. During the duration of the project From March 17, 2011 To September 30, 2011

12. Name and address of the curatorial facility in which collections, records, data, photographs, and other documents resulting from work under this permit shall be deposited for permanent preservation on behalf of the United States Government.
Indiana State Museum and Historic Sites, 650 W. Washington Street, Indianapolis, IN 46204

13. Permittee is required to observe the listed standard permit conditions and the special permit conditions attached to this permit.

14. Signature and title of approving official: Regional Director, U.S. Fish and Wildlife Service

Charles M. Wooley
Acting Regional Director

15. Date
3/21/11

15. Standard Permit Conditions

a. This permit is subject to all applicable provisions of 43 CFR Part 3, 43 CFR 7, and 25 CFR 262, and applicable departmental and bureau policies and procedures, which are made a part hereof.

b. The permittee and this permit are subject to all other Federal, State, and local laws and regulations applicable to the public lands and resources.

c. This permit shall not be exclusive in character, and shall not affect the ability of the land managing bureau to use, lease or permit the use of lands subject to this permit for any purpose.

d. This permit may not be assigned.

e. This permit may be suspended or terminated for breach of any condition or for management purposes at the discretion of the approving official, upon written notice.

f. This permit is issued for the term specified in 11 above.

g. Archeological project design, literature review, development of the regional historic context framework, site evaluation, and recommendations for subsequent investigations must be developed with direct involvement of an archeologist who meets the Secretary of the Interior's Standards for Archeology and Historic Preservation; fieldwork must be generally overseen by an individual who meets the Secretary of the Interior's Standards for Archeology and Historic Preservation.

h. Permittee shall immediately request that the approving official (14. above) make a modification to accommodate any change in an essential condition of the permit, including individuals named and the nature, location, purpose, and time of authorized work, and shall without delay notify the approving official of any other changes affecting the permit or regarding information submitted as part of the application for the permit. Failure to do so may result in permit suspension or revocation.

i. Permittee may request permit extension, in writing, at any time prior to expiration of the term of the permit, specifying a limited, definite amount of time required to complete permitted work.

j. Any correspondence about this permit or work conducted under its authority must cite the permit number. Any publication of results of work conducted under the authority of this permit must cite the approving bureau and the permit number.

k. Permittee shall submit a copy of any published journal article and any published or unpublished report, paper, and manuscript resulting from the permitted work (apart from those required in items o. and p., below), to the approving official and the appropriate official of the approved curatorial facility (item 12 above).

l. Prior to beginning any fieldwork under the authority of this permit, the permittee, following the affected bureau's policies and procedures, shall contact the field office manager responsible for administering the lands involved to obtain further instructions.

m. Permittee may request a review, in writing to the official concerned, of any disputed decision regarding inclusion of specific terms and conditions or the modification, suspension, or revocation of this permit, setting out reasons for believing that the decision should be reconsidered.

n. Permittee shall not be released from requirements of this permit until all outstanding obligations have been satisfied, whether or not the term of the permit has expired. Permittee may be subject to civil penalties for violation of any term or condition of this permit.

o. Permittee shall submit a clean, edited draft final report to the agency official for review to insure conformance with standards, guidelines, regulations, and all stipulations of the permit. The schedule for submitting the draft shall be determined by the agency official.

15. Standard Permit Conditions (continued)

p. Permittee shall submit a final report to the approving official not later than 120 days after completion of fieldwork. If the size or nature of fieldwork merits, the approving official may authorize a longer timeframe for the submission of the final report as specified in Special Permit Condition q.

q. The permittee agrees to keep the specific location of sensitive resources confidential. Sensitive resources include threatened species, endangered species, and rare species, archeological sites, caves, fossil sites, minerals, commercially valuable resources, and sacred ceremonial sites.

r. Permittee shall deposit all artifacts, samples and collections, as applicable, and original or clear copies of all records, data, photographs, and other documents, resulting from work conducted under this permit, with the curatorial facility named in item 12, above, not later than 90 days after the date the final report is submitted to the approving official. Not later than 120 days after the final report is submitted, permittee shall provide the approving official with a catalog and evaluation of all materials deposited with the curatorial facility, including the facility's accession and/or catalog numbers.

s. Permittee shall provide the approving official with a confirmation that artifacts and samples collected under this permit were deposited with the approved curatorial facility, signed by an authorized curatorial facility official, stating the date materials were deposited, and the type, number and condition of the collected museum objects deposited at the facility. For permits issued by the Bureau of Land Management's Arizona State Office, the permittee shall complete a "Confirmation of Museum Collections' Deposition Statement" for all museum collections curated and shall submit this statement to the Arizona State Director within 10 days after the collections are accepted by the curatorial facility.

t. Permittee shall not disclose archaeological site locational information, collected under the authority of this permit, to any other entity, public or private, at any time, except with the specific approval of the Federal permitting agency. The permittee shall not publish, in printed format, on the internet, on film, or though other methods, without the approving official's prior permission, any locational or other identifying archeological site information that could compromise the Government's protection and management of archeological sites.

u. For excavations, permittee shall consult the OSHA excavation standards which are contained in 29 CFR §1926.650, §1926.651 and §1926.652. For questions regarding these standards contact the local area OSHA office, OSHA at 1-800-321-OSHA, or the OSHA website at http://www.osha.gov.

v. Special Permit Conditions attached to this permit are made a part hereof.

16. Special Permit Conditions

1. Archaeological Resources Protection Act (ARPA) – prohibits unauthorized disturbance of archeological resources on Federal and Indian land; and other matters. Permittee Principal Investigator shall control the action personnel (employees, subcontractors, and volunteers) to ensure archeological sites are not damaged.
2. Native American Graves and Repatriation Act (NAGPRA) – provides for the protection of Native American graves, and for other purposes. In event of discovery of human remains, funerary objects, or objects of cultural patrimony, activity in the vicinity of the discovery shall immediately cease; Permittee Principal Investigator shall immediately secure and protect these remains and notify the District Manager.
3. Prework Conference - Permittee Principal Investigator will arrange with the District Manager, a time to meet on the Refuge prior to the start of work; to ensure a clear understanding of the scope of the investigation, documentation requirements, inspection schedules; to obtain the telephone numbers (during and after office hours) to contact in event of discovery of human remains; and to request a special use permit from the Manager.
4. Permittee shall not initiate nor allow personnel to contact the media, the SHPO, nor any other organization or person for the purpose of disseminating information relating to the study until the final report is approved. Questions from the media shall be referred to the RHPO. Permittee shall make no independent distribution of interim, letter, draft, or final reports until the final report is approved by the Regional Historic Preservation Officer.
5. Maps will be from the relevant USGS 7.5 minute quadrangle map printed or reproduced at a scale of 1 mile equals 2.62 or 2&5/8 inches (1:24,000).
6. Archeological materials from U.S. Fish and Wildlife Service lands shall be collected and limited to those of archeological interest as defined in 43 CFR 7.3.
7. Tested areas will be restored to pre-survey conditions.
8. The collection including artifacts, ecofacts, photographs and negatives, field notebooks, field maps, and site survey forms is the property of the U.S. Government and shall be prepared for long-term storage. Permittee will clean, identify, and catalog archeological materials collected from FWS land, in a manner acceptable to the institution accepting the materials for curation and storage.
9. Permittee will provide the FWS with a draft and a final report.
10. Environmental and cultural background (if required by State SHPO) must be limited to the county or adjacent counties of the area being investigated. General or "boiler plate" descriptions will not be accepted.
11. **Number of acres investigated** on FWS land will be included in the report.
12. Maps, drawings, and other visual representations are to be clean, clear, and easily reproducible. Maps and sketches will be north-oriented to the top of the page and will contain appropriate scale and identification symbols. With rare and justified exception and approved by the RHPO, maps will be based on the USGS 7.5 minute quadrangle map(s).
13. Each cultural resource site and isolated find shall be located to at least the nearest 1/4 1/4 1/4 section and according to the Universal Transverse Mercator Grid System measured to the nearest 10 meters, and located on a map. Boundaries will be defined as described in National Register Bulletin 12. For new sites, obtain the official state site numbers and complete and include the state site forms. State site numbers will be used in the final report.
14. A list and **number of artifacts collected** from each site will be included in the report.
15. Recommendations by Permittee Principal Investigator for additional investigation (e.g., a phase 2 or evaluation study) will be provided to the RHPO as a research design proposal, not in the final report of this investigation.
16. If the investigation authorized under this permit is not accomplished, permittee shall notify the Regional Director in writing no later than the expiration date of this permit.

DNR Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

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

December 7, 2010

Brock A. Hoegh, CEP
Environmental Project Manager
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204-5178

Federal Agency: Federal Highway Administration

Re: Early coordination information regarding spot improvements along US 50 from US 31 to Jennings Country Road 15 N (Des. No. 1005104; DHPA No. 10963)

Dear Mr. Hoegh:

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 and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer has reviewed the materials with your cover letter dated November 9, 2010 and received on November 10, 2010, for the above-indicated project in Jennings County, Indiana.

Thank you for notifying our office of the proposed project. At this time, a complete analysis of the project with respect to its effects on historic properties is not possible. Please provide the following information to facilitate the identification and evaluation of properties within the anticipated area or areas of potential effects (see 36 C.F.R. § 800.4[a]):

- Literature Review
- Historic Context
- Research Methodology
- Property Descriptions
- National Register of Historic Places eligibility evaluations and recommendations.

In regards to archaeology, please provide details and plans for the project, degree and types of disturbance of the project area, and archaeological information as stipulated in the Indiana Department of Transportation's ("INDOT's") "Indiana Cultural Resources Manual." Once this information is provided, the Indiana SHPO staff will resume identification and evaluation review of this project. Please keep in mind that additional information may be requested in the future.

For further guidance on the requested information, please refer to appendices X, AA, and BB of INDOT's "Indiana Cultural Resources Manual" (http://www.in.gov/indot/files/January_2008_Manual.pdf). Please keep in mind that additional information may be requested in the future. If you have questions regarding the manual, please contact Staffan Peterson at (317) 232-5161 or stpeterson@indot.IN.gov.

A copy of the revised 36 C.F.R. Part 800 regulations that took 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 Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. Additionally, in all future correspondence regarding this project, please refer to DHPA No. 10963.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JRJ:JLC:jlc

emc: Michelle Allen, Indiana Division, Federal Highway Administration
Staffan Peterson, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Ben Lawrence, P.E., Environmental Policy Section, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Patrick Carpenter, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Shaun Miller, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Brock Hoegh, CEP, HNTB Corporation

INDIANA LANDMARKS

Southern Regional Office
115 West Chestnut Street, Jeffersonville, IN 47130
812 284 4534 / 800 450 4534 / www.indianalandmarks.org

November 30, 2010

Mr. Brock Hoegh
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

RE: Spot Improvements along US 50 from US 31 to County Road 15N, Jackson and Jennings counties; INDOT Des. No. 1005104

Dear Mr. Hoegh:

Thank you for your letter of November 9 and the opportunity for Indiana Landmarks to act as a consulting party on the above project.

We have reviewed the materials provided, and look forward to receiving additional information as the project is further developed. At the outset, we want to be sure that you are aware that this portion of US 50 is part of Indiana's Historic Pathways, which is a nationally-designated scenic byway (*http://www.byways.org/explore/byways/76130/*). As plans are being developed for the bridge replacements and spot improvements, we would strongly encourage that the work is done in a way that maintains the scenic and historic character of the byway and its surroundings.

In regard to historic resources, the relevant pages of the Jackson and Jennings counties *Interim Reports* are enclosed. Please note that both of these surveys were completed more than twenty years ago and the data does need to be updated. The most significant resource that appears to potentially be impacted by the proposed work is identified as #33 in the Spencer Township survey, the Josiah Cobbs Farm. This property was rated "outstanding" and is likely eligible for listing in the National Register of Historic Places. Part of that property appears to be contained within the Area of Potential Effect (APE) for Spot Improvement Number 8. Any impacts to the property and its setting should be minimized. The bridge over Indian Creek, which would be replaced as Spot Improvement 15, has also been determined to be National Register-eligible.

I hope this information is of help. Please do not hesitate to contact this office should you have any questions or require any additional information.

Sincerely,

Laura Renwick
Community Preservation Specialist

Enclosures

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO. _____
FILE _____
DEC 0 3 2010
ROUTE TO:

DNR Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

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

January 10, 2011

Staffan D. Peterson, Ph.D.
Manager, Cultural Resources Office
Environmental Services
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204

Federal Agency: Federal Highway Administration ("FHWA")

Re: Indiana Department of Transportation's ("INDOT's") December 11, 2011 finding and supporting documentation, on behalf of the Federal Highway Administration ("FHWA"), of No Historic Properties Affected concerning Bridge/Culvert Replacements over Mutton Creek, Storm Creek, and Branch of Storm Creek along the US 50 Corridor, Jackson Township, Jackson County, and Spencer Township, Jennings County, Indiana, Des. Nos.: 1005613, 1005614, 1005615 (DHPA No. 12835)

Dear Dr. Peterson:

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 and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer has reviewed the materials submitted under ASC Group's cover letter dated December 27, 2011and received on December 28, 2011, for the aforementioned project in Jackson and Jennings counties in Indiana. We are commenting as soon as possible, in light of your request that we expedite our review of this submission.

We have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places within the above three proposed project areas.

The documentation submitted here in support of the December 27, 2011 finding seems to imply that the areas of potential effects for the replacements of the culvert over a branch of Storm Creek (Des. No. 1005613), the bridge over Storm Creek (Des. No. 1005614), and the bridge over Mutton Creek (Des. No. 1005615) all fall within one or more of the four areas of potential effects ("APEs") that were proposed in the "Historic Property Report, Multiple Roadway Improvements along the U.S. 50 Corridor (Des. No. 1005104), Jackson Township, Jackson County, and Spencer and Center Townships, Jennings County, Indiana" (Chanchani, 6/1/11; "June 1, 2011 HPR"). It seems further to have been implied that no above-ground properties that are listed in or eligible for inclusion in the National Register of Historic Places, *including* the culvert and two bridges, were identified within the June 1, 2011 HPR as lying within any of the three specific APEs for this project, as it has been described in the documentation for the review of the December 27, 2011 finding. We are unable to find dates of construction or National Bridge Inventory numbers for the culvert over the branch of Storm Creek or for the bridges over Storm Creek and Mutton Creek, but presumably those structures are less than 50 years of age, have no obvious significance, do not display good integrity, or have been evaluated and found to be non-historic in INDOT's Historic Bridge Inventory.

The APEs proposed in the June 1, 2011 HPR extended a maximum of 400 feet to either side of the centerline of US 50. On the other hand, the APEs for the bridge over Storm Creek and the bridge over Mutton Creek, as described in the documentation for the December 27, 2011 finding, extend as much as 1,000 feet to the north of US 50. To visualize the situation as we perceive it, please compare Figure 2, Sheet 1 and Figure 3, sheets 1 and 2 in the June 1, 2011 HPR with Appendix A, Map 2 and Map 3, sheets 1 and 2 in the documentation for the December 27, 2011 finding.

Nevertheless, having examined the relevant aerial photographs and excerpts of USGS quadrangle maps included in the June 1, 2011 HPR and in the documentation for the December 27, 2011 finding, we have not spotted any above-ground properties within the parts of the APEs for the two bridges in question that extend beyond 400 feet from the US 50 centerline.

Under the circumstances with which we have been presented in this review, we do not object to INDOT's December 27, 2011 finding, on behalf of FHWA, of No Historic Properties Affected concerning Bridge/Culvert Replacements over Mutton Creek, Storm Creek, and Branch of Storm Creek along the US 50 Corridor, Jackson Township, Jackson County, and Spencer Township, Jennings County, Indiana, Des. Nos.: 1005613, 1005614, 1005615.

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.

If you have questions about archaeological issues, please contact Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. If you have questions about buildings or structures, please contact John Carr at (317) 233-1949 or jcarr@dnr.IN.gov.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JRJ:JLC:jlc

cc: Luella Beth Hillen, ASC Group, Inc.

emc: Staffan Peterson, Ph.D., Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Melany Prather, Indiana Department of Transportation
Luella Beth Hillen, ASC Group, Inc.
Douglas Terpstra, ASC Group, Inc.
Daniel Prevost, Parsons Transportation Group, Inc.

FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECT
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
BRIDGE/CULVERT REPLACEMENTS OVER MUTTON CREEK, STORM CREEK, AND BRANCH OF STORM CREEK ALONG THE US 50 CORRIDOR, JACKSON TOWNSHIP, JACKSON COUNTY, AND SPENCER TOWNSHIP, JENNINGS COUNTY, INDIANA
DES. NOS.: 1005613, 1005614, 1005615

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

The undertakings to replace the US 50 bridge over Mutton Creek (Des. No. 1005615) and the US 50 bridge over Storm Creek (Des. No. 1005614) each have an Area of Potential Effect (APE) of 1,000 ft from the edge of the bridge north of US 50 and 400 ft from the edge of the bridge south of US 50. The undertaking to replace the US 50 culvert at the branch of Storm Creek (Des. No. 1005613) has an APE of a 400 ft radius around the culvert.

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

No properties in the APEs of the Mutton Creek, Storm Creek, or branch of Storm Creek bridge/culvert replacements (Des. Nos. 1005613, 1005614, 1005615) are listed in or have been determined eligible for inclusion in the National Register of Historic Places (NRHP).

EFFECT FINDING

Because no properties in the APEs of the Mutton Creek, Storm Creek, or branch of Storm Creek bridge/culvert replacements (Des. Nos. 1005613, 1005614, 1005615) are listed in or have been determined eligible for inclusion in the NRHP, INDOT, acting on FHWA's behalf, has determined a No Historic Properties Affected finding is appropriate for this undertaking.

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

The undertakings will not convert property from any Section 4(f) historic property to a transportation use; the INDOT, acting on FHWA's behalf, has determined the appropriate Section 106 finding is No Historic Properties Affected; therefore, no Section 4(f) evaluation is required. INDOT respectfully requests the Indiana State Historic Preservation Officer (IN SHPO) provide written concurrence with the Section 106 determination of No Historic Properties Affected.

Staffan Peterson, for FHWA, Manager
INDOT Cultural Resources

12/27/2011

Approved Date

FEDERAL HIGHWAY ADMINISTRATION
DOCUMENTATION OF SECTION 106 FINDING OF
NO HISTORIC PROPERTIES AFFECTED
SUBMITTED TO THE STATE HISTORIC PRESERVATION OFFICER
PURSUANT TO 36 CFR Section 800.4(d)(1)
BRIDGE/CULVERT REPLACEMENTS OVER MUTTON CREEK, STORM CREEK, AND BRANCH OF STORM CREEK ALONG THE US 50 CORRIDOR, JACKSON TOWNSHIP, JACKSON COUNTY, AND SPENCER TOWNSHIP, JENNINGS COUNTY, INDIANA
DES. NOS.: 1005613, 1005614, 1005615
FEDERAL PROJECT NO.: Not yet assigned

1. DESCRIPTION OF THE UNDERTAKING

The undertaking consists of the replacement of bridges over Mutton Creek and Storm Creek and a culvert over a branch of Storm Creek (Des. Nos. 1005613, 1005614, 1005615) in Jackson Township, Jackson County, and Spencer Township, Jennings County (Appendix A). The bridges/culvert have inadequate hydraulic openings and structural deficiencies. This undertaking is part of a larger project that consists of multiple roadway improvements along US 50 in Jackson and Jennings counties, Indiana (Appendix B). The bridge/culvert replacements have independent utility from the other improvements. This finding applies only to the replacement of the bridges over Mutton Creek and Storm Creek and the culvert over a branch of Storm Creek (Des. Nos. 1005613, 1005614, 1005615). The remaining improvements will be included in a separate finding.

The existing structure at Mutton Creek is a 136-ft three-span (42'5"–51'–42'5") continuous steel beam bridge. Forty-three linear feet (lin ft) of the existing bridge will be replaced with 43 lin ft of new bridge. In addition, 67 lin ft of stream will be stabilized with riprap material. The existing structure at Storm Creek is a 102-ft (30'–42'–30') reinforced concrete slab bridge. The new structure consists of a three-span, 57'-0", 66'-0", and 57'-0" continuous, composite, prestressed AASHTO Type II I-beam bridge with integral end bents. Riprap spill slopes will be utilized at each end bent. In addition, 62 lin ft of stream will be stabilized with riprap and geotextile material. The existing structure at the Branch of Storm Creek is a 14-ft reinforced slab culvert. The new structure is a 24-ft three sided structure. Fifty-two lin ft of the existing structure will be replaced with 64 lin ft of new structure; an additional 41 lin ft of stream will integrate scour protection measures consisting of riprap and geotextile materials.

Each bridge/culvert has an Area of Potential Effect (APE) consisting of a circle 400 ft in radius centered on the center of the bridge/culvert (Appendix A). The APEs are generally rural in character (Appendix C). The west end of the project corridor is adjacent to the Muscatatuck Wildlife Refuge, which provides a great deal of wooded land along the road. Other land use includes agriculture and residential lawns. Some commercial properties also are found at locations along the corridor. Although uncommon, a few modern residential subdivisions are located adjacent to US 50.

Per Federal Highway Administration–Indiana Division (FHWA-IN) Procedures, Federal-aid highway construction projects qualify as "undertakings" as defined in 36 CFR 800.16(y) and are subject to review under FHWA-IN/Indiana Department of Transportation (INDOT) Section 106 Procedures. Federal-aid funds would be used for planning and/or construction of the proposed improvements. Section 106 is thus applicable.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

Efforts to identify historic properties in the APE included a check of records available at the Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology (DHPA), historical/architectural and archaeological fieldwork, and communication with consulting parties. DHPA serves as Indiana's State Historic Preservation Office (SHPO). The efforts to identify historic properties were conducted for the entire US 50 project corridor.

Sources of information examined at DHPA included National Register of Historic Places (NRHP) listings, Indiana Register of Historic Sites and Structures listings, the *Jackson County Interim Report*, the *Jennings County Interim Report*, the Indiana Historic Bridges Inventory, cultural resource management reports, archaeological inventory forms in the SHAARD, Geographic Information System (GIS) archaeological inventory maps, and cemetery maps and registry forms

in the SHAARD. No properties listed in the NRHP are located in the APEs. The records check identified nine previously recorded history/architecture properties in the APEs in Jennings County and one in Jackson County. Fieldwork subsequently found that two of these resources have been removed. 079-109-15033, the Josiah Cobbs Farm, is rated Outstanding, and the remaining previously inventoried resources are rated Contributing. The latter include houses, farmsteads, a railroad trestle, a railroad culvert, and a gas station. The US 50 bridge over Indian Creek (Bridge No. 050-40-00854; NBI No. 18670) was identified in the Indiana Historic Bridge Inventory as eligible for the NRHP under Criterion A for its association with the Indiana State Highway Commission's early development of the US Highway system. No previously identified archaeological sites or cemeteries are located in the archaeological survey areas. No previously recorded resources were identified in the APEs of the bridges/culvert over Mutton Creek, Storm Creek, and a branch of Storm Creek.

The results of the field surveys were reported in a Historic Property Report (HPR) and a Phase Ia Archaeological Field Reconnaissance Report (Appendix D). The HPR recommended that 079-109-15033 (the Josiah Cobbs Farm; AL012) is eligible for listing in the NRHP under Criterion C as an excellent example of the Greek Revival style of architecture. The US 50 bridge over Indian Creek (Bridge No. 050-40-00854; AL021) has been determined eligible for listing in the NRHP under Criterion A through the Indiana Historic Bridge Inventory. The archaeological survey identified one site, which was recommended as not eligible for listing in the NRHP. The Phase Ia archaeological report recommended Phase Ic deep testing in the Six Mile Creek floodplain unless the proposed construction remains in the existing disturbed road right-of-way. INDOT, on behalf of FHWA, has reviewed these reports. Neither of the identified historic resources are located adjacent to any of the bridge replacement projects covered under this finding. No aboveground resources, apart from the bridges/culvert, were found in any of the three APEs.

The SHPO, INDOT, and FHWA are entitled to participate in the Section 106 process as a consulting party. The following other individuals and organizations have been invited, in writing, to be consulting parties (Appendix E).

- Indiana Landmarks – Southern Regional Office
- Jennings County Historical Society
- Jennings County Historian
- US Fish & Wildlife Service
- Jennings County Preservation Association
- Mayor of North Vernon
- Jennings County Commissioners
- Jennings County Highway Engineer
- Jennings County Area Plan
- Jackson County Historian
- Jackson County History Center
- Jackson County Commissioners

Indiana Landmarks and the US Fish & Wildlife Service are consulting parties. Laura Renwick of Indiana Landmarks – Southern Regional Office responded with a letter dated November 30, 2010 (Appendix F). The letter pointed out that the portion of US 50 in the area of the undertaking is part of Indiana's Historic Pathways, a nationally designated scenic byway. The letter urges that the work be done in such a way that it maintains the scenic and historic character of the byway and its surroundings. Ms. Renwick enclosed with the letter relevant pages from the Jackson County and Jennings County interim reports, and, in particular, called out the Josiah Cobbs Farm and Indian Creek Bridge as resources eligible for or likely to be eligible for listing in the NRHP. Apart from DHPA, no other responses were received.

DHPA responded with a letter dated July 25, 2011 (Appendix F). DHPA concurred that 079-109-15033 (the Josiah Cobbs Farm; AL012) and the US 50 bridge over Indian Creek (Bridge No. 050-40-00854; AL021) appear to be eligible for inclusion in the NRHP. The letter also called attention to two resources in apparent close proximity to the APE that DHPA became aware of in relation to previous consultation for the US 50 North Vernon Bypass project, one being a cattle underpass under US 50 and the other being a former gasoline station. The cattle underpass subsequently was identified and evaluated in the HPR for the US 50 North Vernon Bypass (Des. No. 0401402), the APE for which overlapped with the relevant APE of the US 50 roadway improvements. The underpass was recommended as not eligible for inclusion in the NRHP, to which DHPA concurred in a letter dated September 23, 2011 (Appendix F). No building matching the former gasoline station was identified in any of the APEs for the US 50 roadway improvements. The July

25, 2011, letter commented in regard to archaeology that DHPA concurred with the recommendation that the floodplain of Six Mile Creek has the potential to contain buried archaeological resources. The letter recommended that any portions of the project in the floodplain where soils have not been substantially disturbed by previous disturbance of a recent and non-historical nature must either be avoided by all project activities, or, if this is not feasible, subjected to Phase Ic archaeological subsurface investigation. DHPA concurred that the areas outside of the Six Mile Creek floodplain do not appear to contain currently known archaeological resources listed in or eligible for inclusion in the NRHP, and no further archaeological investigations appear necessary in these areas (Appendix F). The undertaking will not impact undisturbed soils in the Six Mile Creek floodplain, so a Phase Ic archaeological investigation has not been conducted.

No resources listed in or eligible for listing in the NRHP were identified in the APEs of the bridges/culvert over Mutton Creek, Storm Creek, or a branch of Storm Creek.

3. BASIS FOR FINDING

No historic resources listed in or eligible for inclusion in the NRHP were identified in the APEs of the bridges/culvert over Mutton Creek, Storm Creek, or a branch of Storm Creek (Des. Nos. 1005613, 1005614, 1005615). Therefore, no historic resources will be affected by this undertaking.

A public notice regarding the APE and No Historic Properties Affected finding will be issued for this project in a local newspaper concurrently with the issuance of these findings to the consulting parties. A 30-day comment period will be given. This document will be revised, if necessary, after the public notice to reflect any comments received.

APPENDIX

A. MAPS

B. PHOTOGRAPHS

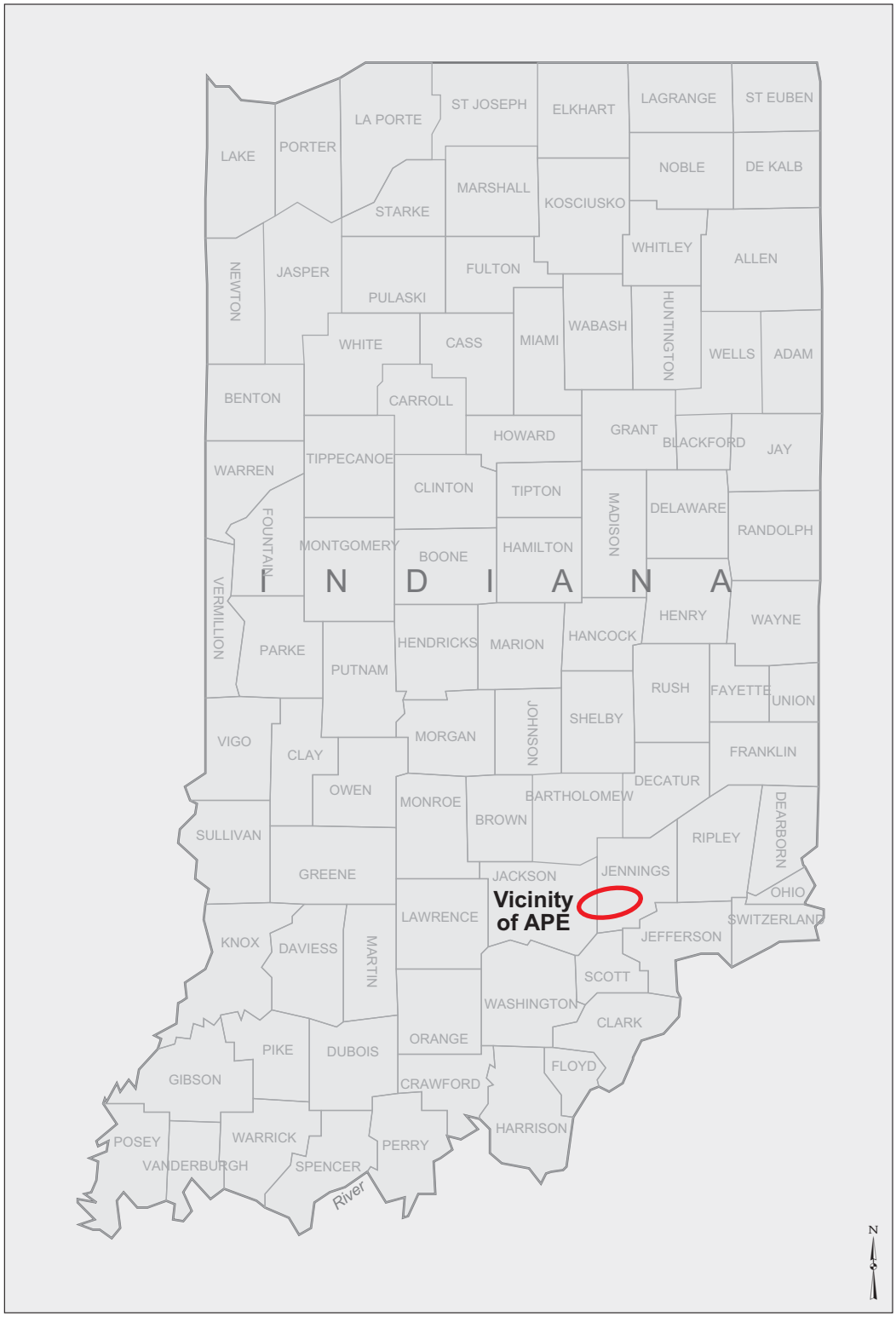
C. ABSTRACTS AND SUMMARIES FROM THE HISTORIC PROPERTY REPORT AND PHASE IA ARCHAEOLOGICAL FIELD RECONNAISSANCE REPORT

D. LIST OF CONSULTING PARTIES

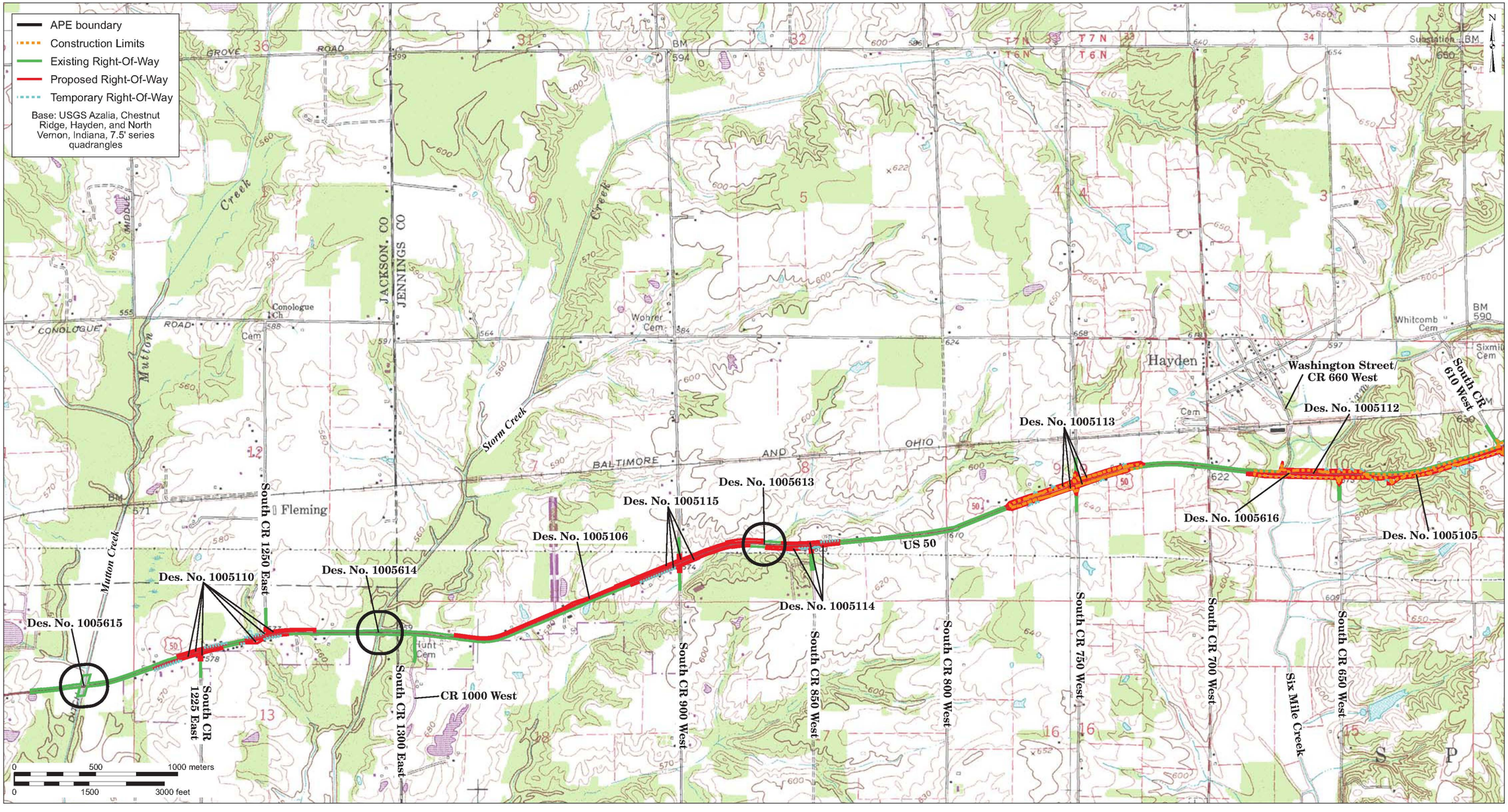
E. CORRESPONDENCE OF CONSULTING PARTIES

APPENDIX A

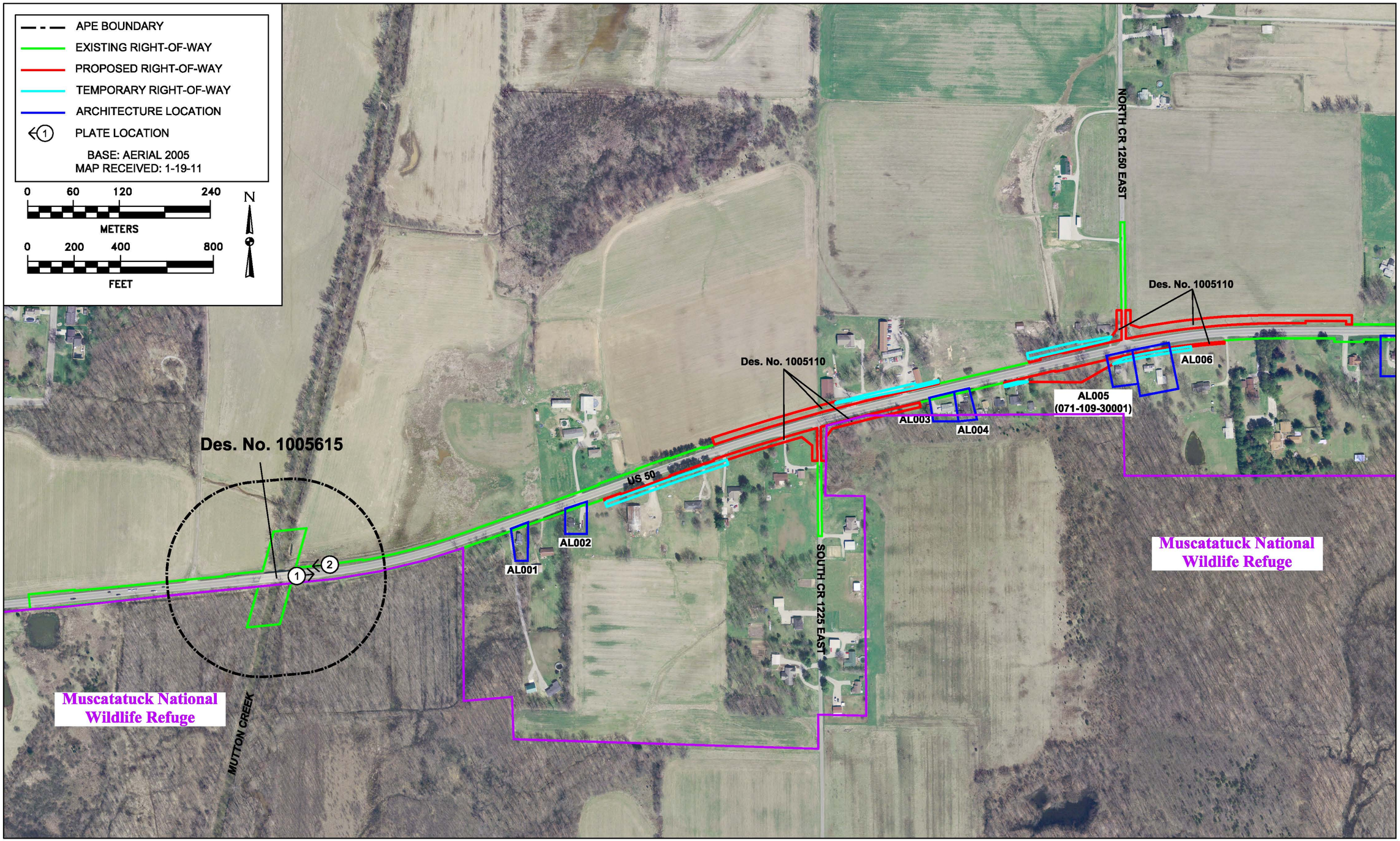
MAPS



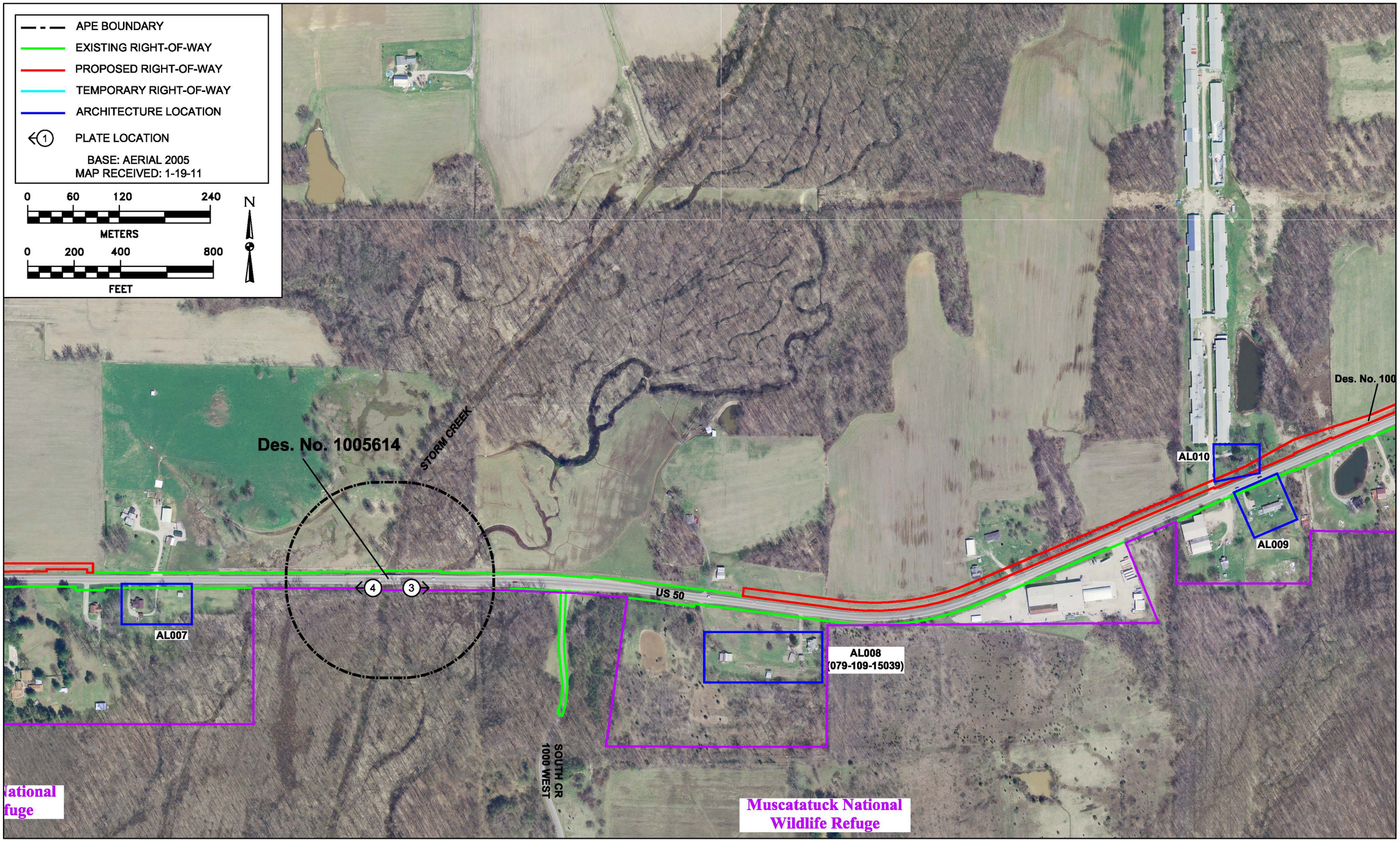
Appendix A, Map 1. Map of Indiana showing the vicinity of the APEs.



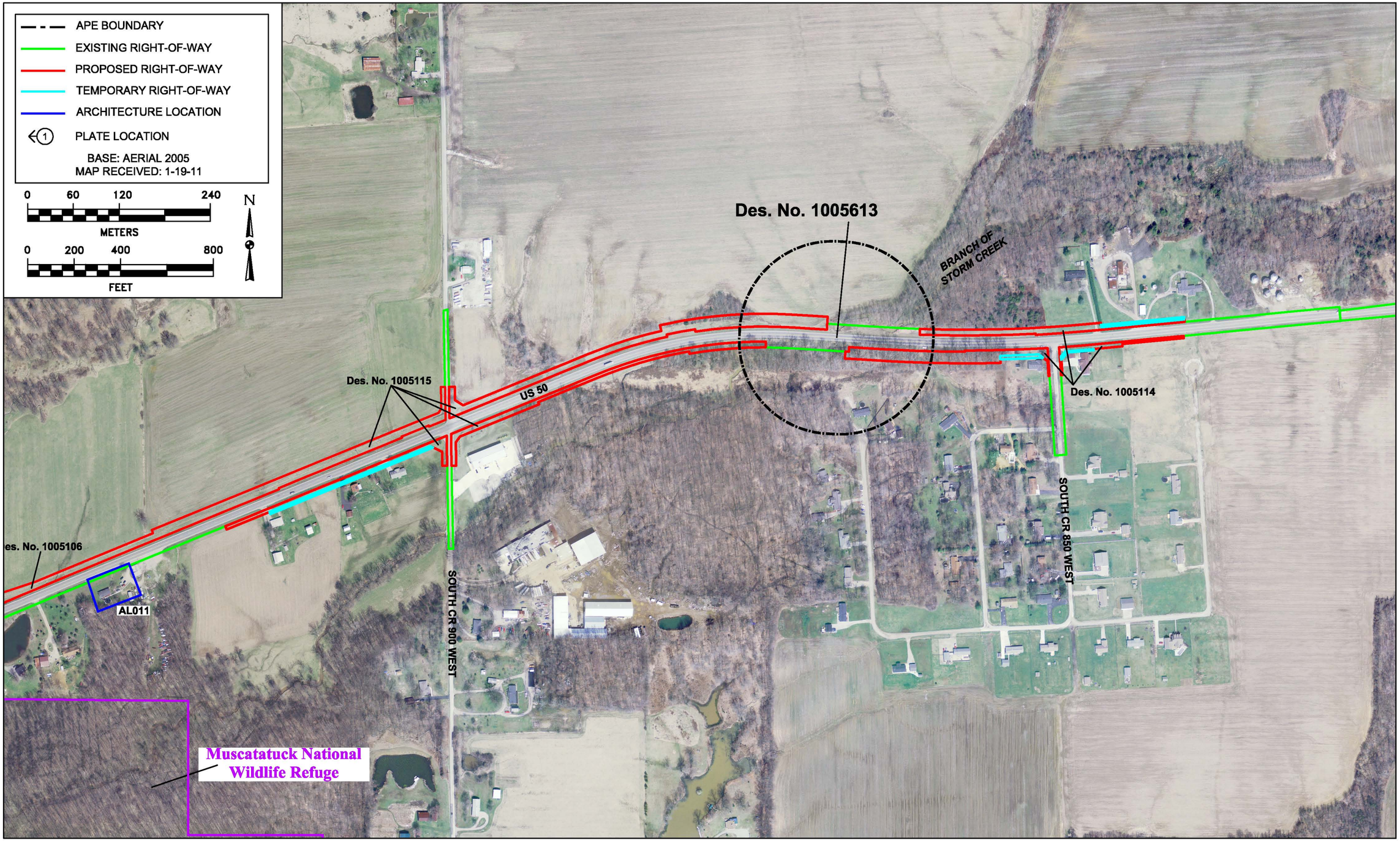
Appendix A, Map 2. Portions of the 1993 Azalia, 1980 Chestnut Ridge, 1993 Hayden, and 1993 North Vernon quadrangles (USGS 7.5' topographic maps) showing the project areas and APEs.



Appendix A, Map 3. Aerial photo showing APE, architectural locations, and plate locations. (3 Sheets)



Appendix A, Map 3. Aerial photo showing APE, architectural locations, and plate locations. (3 Sheets)



Appendix A, Map 3. Aerial photo showing APE, architectural locations, and plate locations. (3 Sheets)

APPENDIX B

PHOTOGRAPHS

Plate 1. View east from the US 50 bridge over Mutton Creek.

Plate 2. View west from east of the US 50 bridge over Mutton Creek.

Plate 3. View east along US 50 from east of the US 50 bridge over Storm Creek.

Plate 4. View west along US 50 from the US 50 bridge over Storm Creek.

APPENDIX C

ABSTRACTS AND SUMMARIES FROM THE HISTORIC PROPERTY REPORT AND PHASE IA ARCHAEOLOGICAL FIELD RECONNAISSANCE REPORT

Phase Ia Archaeological Survey for the Proposed US 50 Spot Improvements (Des. No. 1005104 and ARPA Permit 2011-IN/3-1) Jackson Township in Jackson County, and Center and Spencer Townships in Jennings County, Indiana

By

Jim Snyder, MA; Samuel Snell, MS, RPA; and Samiran Chanchani, PhD

Submitted By:

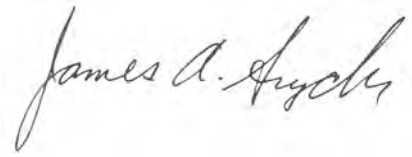
Luella Beth Hillen
Project Manager
ASC Group, Inc.
6330 East 75th Street, Suite 100
Indianapolis, Indiana 46250
bhillen@ascgroup.net
317.915.9300

Submitted To:

Parsons Transportation Group
2443 Crowne Point Drive
Cincinnati, Ohio 45241
513.326.3040

Lead Agency: Indiana Department of Transportation

June 16, 2011



James A. Snyder, MA, Principal Investigator

ABSTRACT

Under contract with Parsons Transportation Group, ASC Group, Inc., has completed a Phase Ia archaeological survey for the proposed US 50 spot improvements (Des. No. 1005104) [each location has a specific Des. No. but they will be subsumed under 1005104] in Jackson Township in Jackson County, and Center and Spencer townships in Jennings County, Indiana. The various project areas were separated into nine separate survey areas (Areas 501–509) along US 50. The total area surveyed for the entire project is 67.7 ha (167.4 ac). The project areas/survey areas are located between Section 14, Township 6N, Range 6E on the 1983 Chestnut Ridge quadrangle (USGS 7.5' topographic map) and Section 5, Township 6N, Range 8E on the 1959 Hayden quadrangle (USGS 7.5' topographic map). They occupy agricultural, wooded, and residential areas between I-65 in Seymour and the western side of North Vernon. Two of the project areas/survey areas, at Storm Creek and Mutton Creek, fall into the Muscatatuck National Wildlife Refuge (MNWR).

A total of 179 shovel probes and 35 soil cores were placed across the project areas/survey areas during the investigation. One archaeological site, 12Jn524, a prehistoric isolated find was recorded by the investigation. 12Jn524 is recommended not eligible for listing on the National Register of Historic Places. Mutton and Storm creeks show floodplains that are very poorly to poorly drained and soil cores advanced in each do not indicate buried A horizons. It is unlikely archaeological deposits would be deeply buried in either of these two locations and no deep testing is recommended for either creek. Sixmile Creek has a large floodplain that is better drained based on shovel probes. Soil cores could not be advanced into the floodplain of Sixmile Creek. It is recommended that deep testing be conducted in the Sixmile Creek project area/survey area (Area 504) unless the proposed construction remains in the existing disturbed road ROW. No additional Phase Ia work is recommended for the project areas/survey areas.

In the event that archaeological deposits or human remains are encountered during the construction phase of the project, all work will cease and archaeologists from the Indiana Department of Natural Resource-Division of Historic Preservation and Archaeology (DHPA) and the Indiana Department of Transportation-Cultural Resources Office (INDOT-CRO) will be notified.

SUMMARY AND INTERPRETATIONS OF FINDINGS

Under contract with Parsons, ASC Group, Inc., has completed a Phase Ia archaeological survey for the proposed US 50 spot improvements (Des. No. 1005104) in Center and Spencer townships, Jennings County and Jackson Township, Jackson County, Indiana. All of the spot improvements have been assigned an overall Des. No. of 1005104. The Des. No. for each specific spot improvement can be seen in Table 1. The project areas/survey areas are located between Section 14, Township 6N, Range 6E on the 1983 Chestnut Ridge quadrangle (USGS 7.5' topographic map) and Section 5, Township 6N, Range 8E on the 1959 Hayden quadrangle (USGS 7.5' topographic map). They occupy agricultural, woodland, and residential areas

between I-65 in Seymour and the western side of North Vernon. The total area surveyed for the entire project is 67.7 ha (167.4 ac). A total of 157 shovel probes and 18 soil cores were placed across the project areas/survey areas during the investigation. Two of the project areas/survey areas, at Storm Creek and Mutton Creek, fall into the MNWR. The areas within the MNWR were surveyed under ARPA permit 2011-IN/3-1 and special use permit 31530-11-003**.**

One archaeological site, 12Jn524, was recorded by the investigation. The site is a prehistoric isolated find. This site shows no evidence of features or in situ materials and is disturbed by recent drainage work and the installation of rip-rap along a small creek adjacent to the site location. Further investigation of this site likely would not produce significant information. Consequently, the site is recommended not eligible for listing on the NRHP and no further work is warranted.

Mutton and Storm creeks show floodplains that are very poorly to poorly drained and soil cores advanced in each do not indicate buried A horizons. It is unlikely archaeological deposits would be deeply buried in either of these two locations and no deep testing is recommended for either creek. Sixmile Creek has a large better drained floodplain. Soil cores could not be advanced into the floodplain of Sixmile Creek. It is recommended that deep testing be conducted in the Sixmile Creek project area/survey area (Area 504) unless the proposed construction remains in the existing disturbed road ROW. No additional Phase Ia work is recommended for the project area/survey area. In the unlikely event that archaeological deposits or human remains are encountered during the construction phase of the project, all work will cease and archaeologists from the DHPA and the INDOT-CRO must be notified.

Historic Property Report, Multiple Roadway Improvements along the U.S. 50 Corridor (Des. No. 1005104), Jackson Township, Jackson County, and Spencer and Center Townships, Jennings County, Indiana

By

Samiran Chanchani, PhD

Submitted By:
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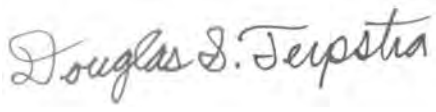
Lead Agency:
Indiana Department of Transportation



Douglas S. Terpstra, MS, Principal Investigator

June 1, 2011

Printed on Recycled Paper

ABSTRACT

ASC Group, Inc., under contract with Parsons Transportation Group, has completed a historic property report for various proposed roadway improvements along U.S. 50 west of North Vernon (Des. No. 1005104) in Jackson Township of Jackson County and Spencer and Center townships of Jennings County. Des. No. 1005104 is being used as an umbrella number for the project, which also includes 17 other improvements, each with its own designation number. The purpose of this investigation is to provide information for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended. The improvements were grouped into four Areas of Potential Effect: 1) from 400 feet west of the center of the U.S. 50 bridge over Mutton Creek to approximately 1,600 feet west of CR 800 West, with a width of 400 feet on either side of the centerline of U.S. 50; 2) from approximately 700 feet east of CR 800 West to 2,000 feet east of CR 580 West, with a width of 400 feet on either side of the centerline of U.S. 50; 3) from approximately 1,500 feet west of CR 450 West to approximately 1,500 feet east of CR 400 West, generally with a width of 400 feet on either side of the centerline of U.S. 50; and 4) from 400 feet west of the center of the U.S. 50 bridge over Indian Creek to approximately 1,400 feet north of CR 15 North, with a width of 400 feet on either side of the U.S. 50 centerline.

A literature review identified the U.S. 50 bridge over Indian Creek, located in the easternmost Area of Potential Effect, as having been determined eligible for listing in the National Register of Historic Places through the Indiana Historic Bridge Inventory. The literature review also identified one resource in Jackson County and nine resources in Jennings County as having been recorded in the Indiana Historic Sites and Structures Inventory. One of these resources, 079-109-15033, is rated Outstanding in the Jennings County interim report.

Field investigation and the use of the Jennings County Assessor's GIS website were used to identify resources 50 years of age or older in the Areas of Potential Effect. Any such resource of sufficient integrity to warrant a rating of Contributing according to the standards of the Indiana Historic Sites and Structures Inventory was photographed and recorded on maps. Twenty-seven such resources were identified. AL012 (079-109-15033) is recommended as eligible for listing in the National Register of Historic Places under Criterion C as an excellent example of the Greek Revival style of architecture. AL021 (the U.S. 50 bridge over Indian Creek) has been determined eligible for listing in the National Register of Historic Places under Criterion A through the Indiana Historic Bridge Inventory. The remaining properties lack significance and/or integrity and are recommended as not eligible for the National Register of Historic Places. No portion of any of the Areas of Potential Effect retain sufficient integrity to be eligible as part of a rural historic district.

CONCLUSIONS

ASC has completed a history/architecture investigation toward compliance with Section 106 of the National Historic Preservation Act of 1966, as amended, for the U.S. 50 roadway improvements in Jackson Township, Jackson County, and Spencer and Center Townships, Jennings County. A total of 27 properties 50 years in age and older that warrant at least a Contributing rating were identified. One property, AL012 (079-109-15033), which is a nineteenth century Greek Revival-style house and associated outbuildings, is recommended as eligible for NRHP listing under Criterion C as an excellent example of the Greek Revival style of architecture. AL021 (the U.S. 50 bridge over Indian Creek) has been determined eligible for listing in the NRHP under Criterion A through the Indiana Historic Bridge Inventory. The remaining properties lack significance and/or integrity and are recommended as not eligible for the NRHP. Although much of the area surrounding the U.S. 50 corridor remains rural and agricultural in character, the nature of U.S. 50 as a main through route has led to substantial modern residential and commercial development along the road. As a result, the U.S. 50 corridor lacks sufficient integrity to constitute or be encompassed within a rural historic district.

APPENDIX D

LIST OF CONSULTING PARTIES

Consulting Parties for Des. No. 1005104
Multiple Roadway Improvements along the US 50 Corridor
Jackson Township, Jackson County, and Spencer and Center Townships, Jennings County, Indiana

First Name	Last Name	Agency/Organization	Address	City	State	Zip Code	Accepted/Declined Consulting party status
James	Glass	Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology	402 W. Washington St., Room W274	Indianapolis	IN	46204-2739	Accepted
James	Myster	US Fish and Wildlife Service	Bishop Henry Whipple Federal Building 1 Federal Drive	Fort Snelling	Minnesota	55111-4056	Accepted
Greg	Sekula	Indiana Landmarks – Southern Regional Office	115 West Chestnut Street	Jeffersonville	IN	47130	Accepted (by Laura Renwick)
Lilian	Cramer	Jennings County Preservation Association	P.O. Box 412	Vernon	IN	47282	No Response
Charlotte A.	Sellers	Jackson County Historian	439 E. 100 S.	Brownstown	IN	47220-9587	No Response
Richard	Rumph	Jackson County History Center	P.O. Box 215	Brownstown	IN	47220-0215	No Response
John	Schafstall	Jackson County Commissioners	1133 East CR 877 N	Seymour	IN	47274	No Response
Brett	Caldwell	Jennings County Historian	134 E. Brown Street	Vernon	IN	47282	No Response
Harold	Campbell	Mayor of North Vernon	275 Main Street	North Vernon	IN	47265	No Response
Jeff	Day	Jennings County Commissioners	3355 State Hwy. 7	North Vernon	IN	47266	No Response
Michael J.	Magner	Jennings County Highway Engineer/ Director	72 Henry Street, P.O. Box 47	North Vernon	IN	47265	No Response
Cheryl	Trisler	Jennings County Area Plan	P.O. Box 400	Vernon	IN	47282	No Response
Richard	Schneider	Jennings County Commissioners	P.O. Box 383	Vernon	IN	47282	No Response
Chris	Asher	Jennings County Historical Society	135 E. Brown Street	Vernon	IN	47283	No Response

APPENDIX E

CORRESPONDENCE OF CONSULTING PARTIES

INDIANA LANDMARKS

Southern Regional Office
115 West Chestnut Street, Jeffersonville, IN 47130
812 284 4534 / 800 450 4534 / www.indianalandmarks.org

November 30, 2010

Mr. Brock Hoegh
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, IN 46204-5178

RE: Spot Improvements along US 50 from US 31 to County Road 15N, Jackson and Jennings counties; INDOT Des. No. 1005104

Dear Mr. Hoegh:

Thank you for your letter of November 9 and the opportunity for Indiana Landmarks to act as a consulting party on the above project.

We have reviewed the materials provided, and look forward to receiving additional information as the project is further developed. At the outset, we want to be sure that you are aware that this portion of US 50 is part of Indiana's Historic Pathways, which is a nationally-designated scenic byway (*http://www.byways.org/explore/byways/76130/*). As plans are being developed for the bridge replacements and spot improvements, we would strongly encourage that the work is done in a way that maintains the scenic and historic character of the byway and its surroundings.

In regard to historic resources, the relevant pages of the Jackson and Jennings counties *Interim Reports* are enclosed. Please note that both of these surveys were completed more than twenty years ago and the data does need to be updated. The most significant resource that appears to potentially be impacted by the proposed work is identified as #33 in the Spencer Township survey, the Josiah Cobbs Farm. This property was rated "outstanding" and is likely eligible for listing in the National Register of Historic Places. Part of that property appears to be contained within the Area of Potential Effect (APE) for Spot Improvement Number 8. Any impacts to the property and its setting should be minimized. The bridge over Indian Creek, which would be replaced as Spot Improvement 15, has also been determined to be National Register-eligible.

I hope this information is of help. Please do not hesitate to contact this office should you have any questions or require any additional information.

Sincerely,

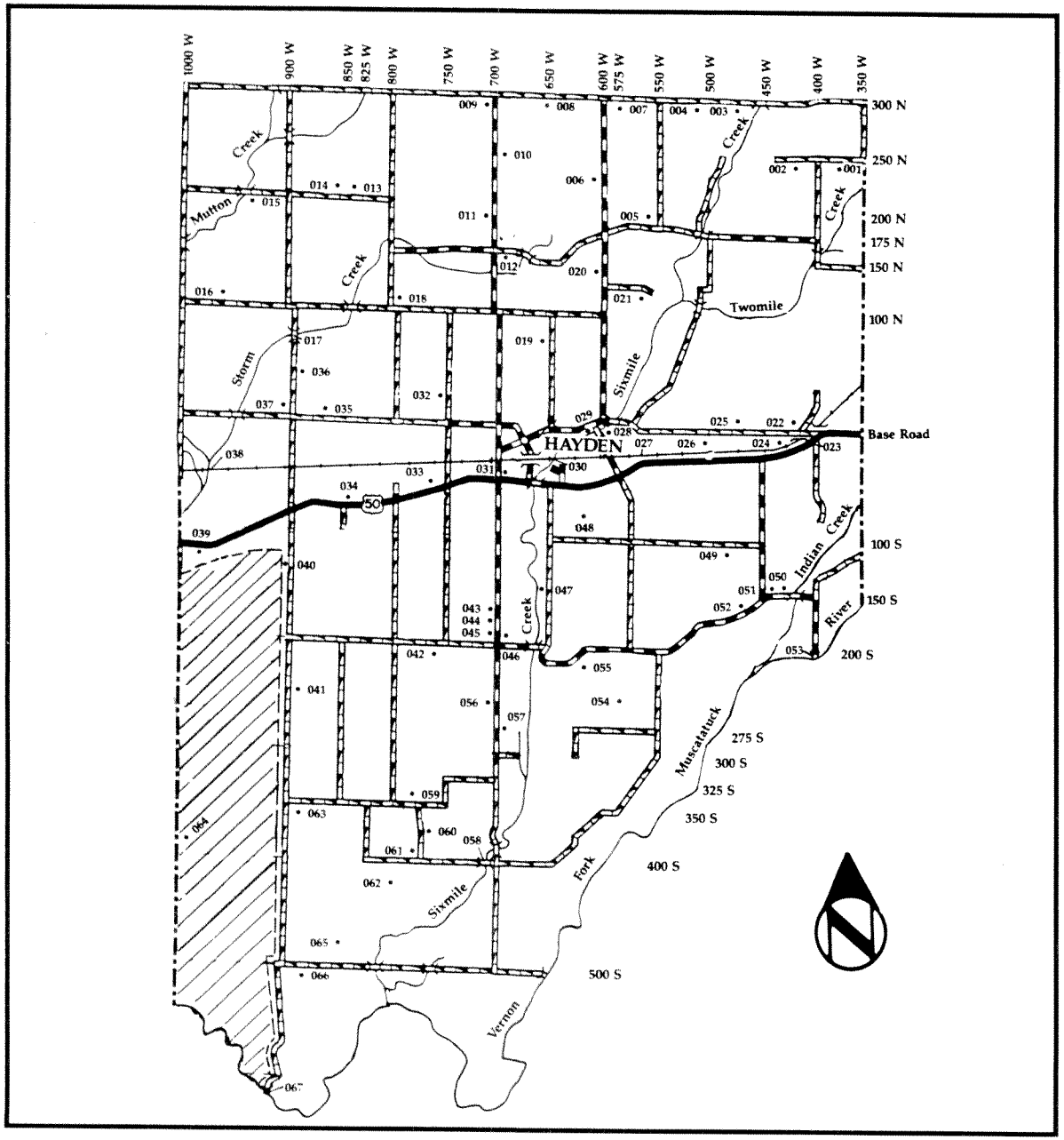
Laura Renwick
Community Preservation Specialist

Enclosures

DATE RECEIVED
HNTB INDIANAPOLIS
JOB NO. _____
FILE _____
DEC 0 3 2010
ROUTE TO:

Spencer Township (15001-067)

from Jennings Co. Interim Report (1989)



Spencer Township was organized on May 5, 1833 from a section of Vernon Township. The township's southern boundary was altered several times during the nineteenth century: in 1845 a small section was annexed to Vernon Township; and in 1881 a section was added to Lovett Township. The township was named for Colonel Amasa Spencer, an early settler who served as an officer in the Revolutionary War.

The first settlement, the Sullivan community, occurred along the township's southern boundary. A gristmill was built by Noah Sullivan and became the center of activity for the settlement. By 1817 Peleg Baker, Johnathan Davis, Nathaniel and Soloman Eastman and others had settled on the Six Mile Creek northwest of the community. The Six Mile settlement was established near the banks of the Six Mile Creek, a few miles west of the Sullivan community. The creek was named by John Vawter, founder of Vernon. The Six Mile settlement contained the Union Baptist Church, several blacksmith shops, a wagon shop, cooper shop and a store.

The Catholic community established a settlement south of the Six Mile area. A priest from Madison visited these German and Irish families until 1841 when a log church was erected. This church, replaced by a frame building in 1849, was named St. Catherine's. The church was abandoned years later when a second Catholic church, St. James, gained prominence in an area known as Buena Vista. A third church (15045), which stands today, was completed in 1892 and named St. Joseph's. This building, located across the road from the site of St. James, was constructed of brick in the Gothic Revival style. Damaged by a storm in the early 1900s, its original octagonal-shaped steeple has never been replaced. The complex also includes a rectory (15044) built about 1910 and a cemetery (15043) started in 1868. Cemeteries are all that remain to mark the sites of the St. Catherine (15050) and St. James (15046) churches.

The township was greatly affected by the construction of the Ohio and Mississippi Railroad which crossed the township from east to west. Completed by 1854, the railroad depot was built on Jacob Ewan's land. The village of Hardenburg developed near the depot and was named in honor of the railroad superintendent, Mr. Harden. Hardenburg's name was changed to Hayden on June 4, 1890. The township's only community which has survived into the twentieth century, Hayden contains a post office, store and several other businesses.

The architecture of Spencer Township includes several early log houses including the Goltry House (15015) and the Cox House (15016), both located in the township's far northwest corner.

Most of the township's architecture is vernacular in character. A notable example of the double-pen house is the Eastman House (15004), built about 1900 by Oliver Eastman. This property has remained in the family since 1838 when it was purchased from the government. The family cemetery (15003) is located adjacent to the farm.

Several good examples of the I-house with applied architectural details were built shortly after the Civil War. Allen Brown returned from the army and built his brick home (15035) in the Federal style. Another brick house, the Edward L. Downs House (15040), was built with Italianate details. An outstanding example of the Greek Revival style as applied to an I-house was the house of Josiah Cobb (15033) built in 1868.

The Queen Anne style is well represented in the southern half of the township. Two good examples are the Joseph Beaty House (15042), built about 1890 and the George Maschino House (15061), built in 1909.

While most of the township's older bridges have been replaced, several outstanding examples of metal-truss bridges cross the Muscatatuck River which forms the township's southern border. The Staples Ford Bridge (County Bridge No. 113) (15067), built in 1897, and the Euler's Ford Bridge (County Bridge No. 96) (15053) are both examples of Pratt Through Truss bridges.

No.	Rtg.	Description
001	C	**Smith Cemetery,** 250 N; 1830-1905; Exploration/Settlement, Religion (472)
002	C	**White House,** 250 N; House: Gabled-ell, c.1895, Barn: Transverse-frame; Agriculture, Vernacular/Construction (472)
003	C	**Eastman Cemetery,** 300 N; 1847-1934; Exploration/Settlement, Religion (472)
004	N	**Eastman Farm,** 300 N; House: Double-pen, c.1900, Builder: Oliver Eastman, Outbuildings: Livestock barn, smokehouse; Agriculture, Vernacular/ Construction (472)
005	C	**Charles Wilkins Farm,** 175 N; House: I-house, c.1870, Builder: Charles Wilkins, Outbuildings: Smokehouse, summer kitchen; Agriculture, Vernacular/Construction (472)
006	C	**D. Taylor House,** 600 W; Log I-house/ Gabled-ell, c.1845/c.1875; Vernacular/ Construction (472)
007	C	**House,** 300 N; Gabled-ell, c.1880; Vernacular/Construction (472)
008	C	**Krackenberger House,** 300 N; Bungalow, c.1920; Architecture (472)
009	C	**William Kehrt Farm,** 700 W; House: Gabled-ell, c.1890, Barn: Midwest three-portal; Agriculture, Vernacular/ Construction (472)
010	C	**John Haley Farm,** 700 W; House: Gabled-ell, c.1900, Outbuildings: English barn, smokehouse, privy, summer kitchen; Agriculture, Vernacular/Construction (472)
011	C	**William Bandeen Farm,** 700 W; House: Gabled-ell, c.1890, Outbuildings: English barn, summer kitchen; Agriculture, Vernacular/Construction (472)
012	C	**Gannon Farm,** 150 N; House: Cruciform/Queen Anne, c.1900, Outbuildings: English barn, chicken houses, summer kitchen; Agriculture, Architecture, Vernacular/Construction (472)
013	C	**Mike Ringer Farm,** 200 N; House: I-house, c.1890, Barns: English, transverse-frame; Agriculture, Vernacular/Construction (030)
014	C	**William Ringer House,** 200 N; I-house, c.1890; Vernacular/ Construction (030)
015	N	**Gehiel Goltry House,** 200 N; Log hall-and-parlor, c.1845, Builder: Gehiel Goltry; Exploration/ Settlement, Vernacular/Construction (030)
016	N	**Cox House,** 100 N; Log single-pen, c.1840; Vernacular/Construction (109)
017	N	**County Bridge No. 21,** 900 W; Pratt Pony Truss, c.1900; Engineering, Transportation (109)
018	C	**Perry House,** 100 N; House: Gabled-ell, c.1890, Builder: Hoyt Perry, Outbuilding: Corncrib; Vernacular/ Construction (109)
019	C	**Charles Carr Farm,** 650 W; House: I-house, c.1890, Barn: Livestock; Agriculture, Vernacular/Construction (268)
020	C	**House,** 600 W; Log single-pen, c.1840; Vernacular/Construction (472)
021	C	**Calvin Wilder Farm,** 600 W; House: Saltbox, c.1865, Outbuildings: Midwest three-portal barn, drive-in crib; Agriculture, Vernacular/ Construction (472)
022	C	**William H. Haines Farm,** Base Road; House: I-house, 1892, Builder: William H. Haines, Outbuildings: Chicken house, smokehouse, summer kitchen; Agriculture, Vernacular/Construction (268)

023 C **Haines Curve Railroad Trestle,** Base Road; c.1900; Engineering, Transportation (268)

024 C **W. O. Haines Farm,** off Base Road; House: Bungalow, 1923, Builder: W. O. Haines, Outbuildings: Midwest three-portal barn, English barn, woodshed, underpasses; Agriculture, Engineering, Transportation, Vernacular/Construction (268)

025 C **Judge J. O. Carson Farm,** Base Road; House: Bungaloid, 1928, Builder: Charley Barnhart and Charley Baker, Outbuildings: Livestock barns, garage; Agriculture, Architecture, Vernacular/Construction (268)

026 C **John Wrape House,** Base Road; Gabled-ell/Italianate, c.1870; Architecture, Vernacular/Construction (268)

027 C **Railroad Underpass,** U.S. 50; Barrel Vault, c.1910; Engineering, Transportation (268)

028 N **Six Mile Cemetery,** Base Road; 1822-1956; Exploration/Settlement, Religion (268)

029 C **Whitcomb Cemetery,** Base Road; 1851-1867; Exploration/Settlement, Religion (268)

030 C **B & O Railroad Trestle,** off 660 W; Plate Girder, c.1900; Engineering, Transportation (268)

031 C **Doud Service Station,** U.S. 50; Twentieth Century Functional, 1926, Builder: John Doud; Commerce, Vernacular/Construction (282)

032 N **Benjamin Downs House,** 750 W; Central-passage/Federal, c.1850; Architecture, Vernacular/Construction (109)

033 O **Josiah Cobbs Farm,** U.S. 50; House: I-house/Greek Revival, 1868, Outbuildings: Summer kitchen, Midwest three-portal barn; Agriculture, Architecture, Vernacular/Construction (109)

033

034 C **A. L. Newby Barn,** U.S. 50; Dairy, 1928; Agriculture, Vernacular/Construction (109)

035 O **Allen Brown House,** Base Road; I-house/Federal, c.1865; Architecture, Vernacular/Construction (109)

036 C **Elizabeth Childs Farm,** 900 W; House: I-house, 1873, Barn: Transverse-frame; Agriculture, Vernacular/Construction (109)

037 C **Wohrer Cemetery,** Base Road; 1839-1975; Exploration/Settlement, Religion (109)

038 C **B & O Railroad Trestle,** off 1000 W; Engineering, Transportation (109)

Allen Brown House (15035) *The house was built about 1865 for Allen Brown, a Civil War veteran. Brown sent money home to his wife during the war for the house's construction.*

040

039 C **Ed Vogel Farm,** U.S. 50; House: Bungalow, c.1935, Barn: Transverse-frame; Agriculture, Architecture, Vernacular/Construction (109)

040 O **Edward L. Downs Farm,** 900 W; House: I-house/Italianate, c.1865, Outbuildings: English barn, drive-in crib, summer kitchen; Agriculture, Architecture, Vernacular/Construction (109)

041 C **Henry Sandhage Farm,** 900 W; House: Hall-and-parlor, c.1875, Builder: Charley Barnhart, Outbuildings: Transverse-frame barn, English barn, summer kitchen, granary; Agriculture, Vernacular/Construction (109)

042 N **Joseph Beaty Farm,** 200 S; House: Queen Anne Cottage, c.1890, Outbuildings: English barn, silo, chicken house; Agriculture, Architecture, Vernacular/Construction (109)

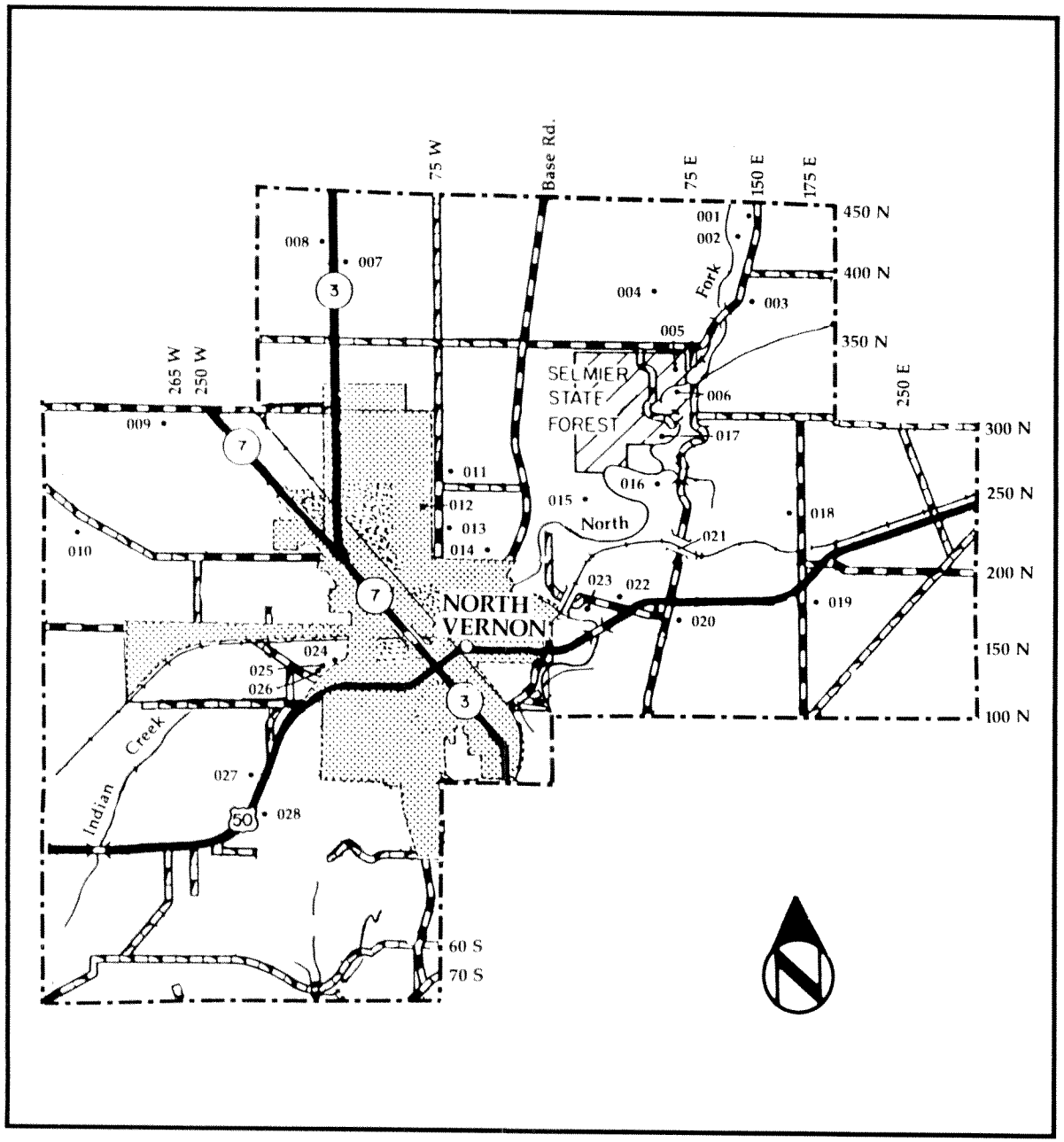
043 C **St. Joseph Catholic Cemetery,** 700 W; 1868-present; Religion (268)

044 C **St. Joseph Rectory,** 700 W; American Four-Square, c.1910; Architecture, Religion (268)

045 O **St. Joseph Catholic Church,** 700 W; Gothic Revival, 1892; Architecture, Religion (268)

Center Township (20001-028)

from Jennings Co. Interim Report (1989)



Prior to 1865, Center Township was included as a section of Vernon Township. Originally named North Vernon, it was later renamed Center Township. In the 1840s, a small settlement known as Lickskillet was established on the Madison and Indianapolis Railroad line. In 1852 the Ohio and Mississippi Railroad intersected this line and the settlement began to develop. This induced Colonel Hagerman Tripp, Hiram Prather, Langston Johnson and Ezra Peabody to purchase land surrounding the crossing. On June 24, 1854 Tripp platted and recorded the town as Trippton incorporating the village of Lickskillet. Over the next few years, several sub-divisions were platted and named North Vernon, and in 1867 the town's name was officially changed from Trippton to North Vernon.

Center Township contains several notable examples of early log houses. A two-story log saltbox house (20004) on 350 N was built about 1830. A later example of log construction is on the Lawrence Hock Farm (20002). Hock immigrated from Bavaria, Germany to New York on May 20, 1855 when he was 14 years old. He moved to Jennings County in the 1870s and built a gable-front log house where he raised 11 children.

Located approximately one mile from these log houses is an interesting twentieth-century structure. Frank Selmier, who owned a laundry service in North Vernon, had a Craftsman Bungalow house (20005) built of stone in several stages from 1921 to 1924. The property also has several other interesting features such as a small shelter built entirely of bottles, small stone guard houses and a stone bridge.

Several nineteenth-century brick houses can be found in Center Township. An outstanding example of Greek Revival elements applied to the central-passage house form is a house (20026) on Hayden Pike. The I-house is represented by a

house (20018) on 175 E. It features a decorative Queen Anne porch and was built about 1885.

Center Township has only one surviving one-room schoolhouse. The District No. 1 School (20010) was built around 1895 and is currently used as a private residence.

Perhaps the largest barn in the county can be seen east of town on U.S. 50. Built for Arthur Hutton in the 1930s, this transverse-frame barn (20027) was used as a sale barn for cattle.

Center Township also contains two noteworthy cemeteries. The Summerfield-Vawter Cemetery (20017) contains early markers of the Vawter family, who were among the county's first settlers. The earliest stone marks the grave of Philemon Vawter who died in 1814. The North Vernon City Cemetery (20014), later renamed Hillcrest Cemetery, contains a large monument marking the grave of Colonel Hagerman Tripp. Tripp sold the land to the city for use as a cemetery in the early 1860s. The lots were then sold for $10.00 each.

No.	Rtg.	Description
001	C	**House,** 150 E; Gabled-ell/Queen Anne, c.1895; Architecture, Vernacular/Construction (087)
002	N	**Lawrence Hock Farm,** 150 E; House: Log gable-front, 1875, Builder: Lawrence Hock, Barn: English; Agriculture, Vernacular/Construction (087)
003	C	**Farm,** 150 E; House: I-house, c.1880, Outbuildings: Transverse-frame barn, wood shed; Agriculture, Vernacular/Construction (087)
004	N	**Farm,** 350 N; House: Log saltbox, c.1830, Outbuildings: English barn, smokehouse, summer kitchen; Agriculture, Vernacular/Construction (087)

005

005	N	**Frank Selmier House,** Selmier State Forest; House: Craftsman Bungalow, 1921-24, Outbuildings: Guard houses, shelter houses, bridge; Architecture, Vernacular/Construction (087)
006	N	**Farm,** 100 E; Gabled-ell/Log I-house, c.1840/c.1920, Barn: English; Agriculture, Vernacular/Construction (087)
007	C	**Farm,** State Road 3; House: Queen Anne, c.1890, Barn: Dairy; Agriculture, Architecture, Vernacular/Construction (472)
008	C	**House,** State Road 3; Central-passage, c.1885; Vernacular/Construction (472)
009	C	**House,** 300 N; Saltbox, c.1860; Vernacular/Construction (472)

010

010	N	**School No. 1,** 225 N; Gable-front, c.1895; Education, Vernacular/Construction (472)
011	C	**House,** 75 W; Pyramidal-roof, c.1915; Vernacular/Construction (472)
012	C	**Farm,** 75 W; House: Gabled-ell, c.1890, Barn: English; Agriculture, Vernacular/Construction (472)
013	C	**House,** 75 W; Bungalow, c.1925; Architecture (472)
014	C	**Hillcrest Cemetery,** 75 W; c.1860-present; Exploration/Settlement, Religion (087)
015	C	**Farm,** 20 W; House: Hall-and-parlor, c.1850, Barn: English; Agriculture, Vernacular/Construction (087)
016	C	**House,** 90 E; Log single-pen, c.1850; Vernacular/Construction (087)
017	C	**Summerfield-Vawter Cemetery,** 350 N, Selmier State Forest; c.1814-1941; Exploration/Settlement, Religion (087)
018	N	**Farm,** 175 E; House: I-house, c.1885, Outbuildings: Transverse-frame barn, stable, corncrib; Agriculture, Vernacular/Construction (087)
019	C	**House,** 175 E; American Four-Square, c.1915; Architecture (087)

018

020 C **Farm,** 175 N; House: Gabled-ell, c.1870, Barn: Basement; Agriculture, Vernacular/Construction (087)

021 N **B & O Railroad Bridge,** 75 E; c.1855/ c.1900, Builder: Bethlehem Steel Company; Engineering, Transportation (087)

022 C **House,** 175 N; Hall-and-parlor, c.1860; Vernacular/Construction (087)

023 C **House,** 175 N; Queen Anne, c.1900; Architecture (087)

024 C **Farm,** Hayden Pike; House: Queen Anne Cottage, c.1890, Outbuildings: Transverse-frame barn, corncrib, woodshed, privy; Agriculture, Architecture, Vernacular/Construction (472)

025 C **House,** Hayden Pike; Queen Anne Cottage, c.1890; Architecture (472)

026 O **House,** Hayden Pike; Central-passage/ Greek Revival, c.1840; Architecture, Vernacular/Construction (472)

027 C **Arthur Hutton Barn,** U.S. 50; Transverse-frame, c.1930; Agriculture, Vernacular/Construction (268)

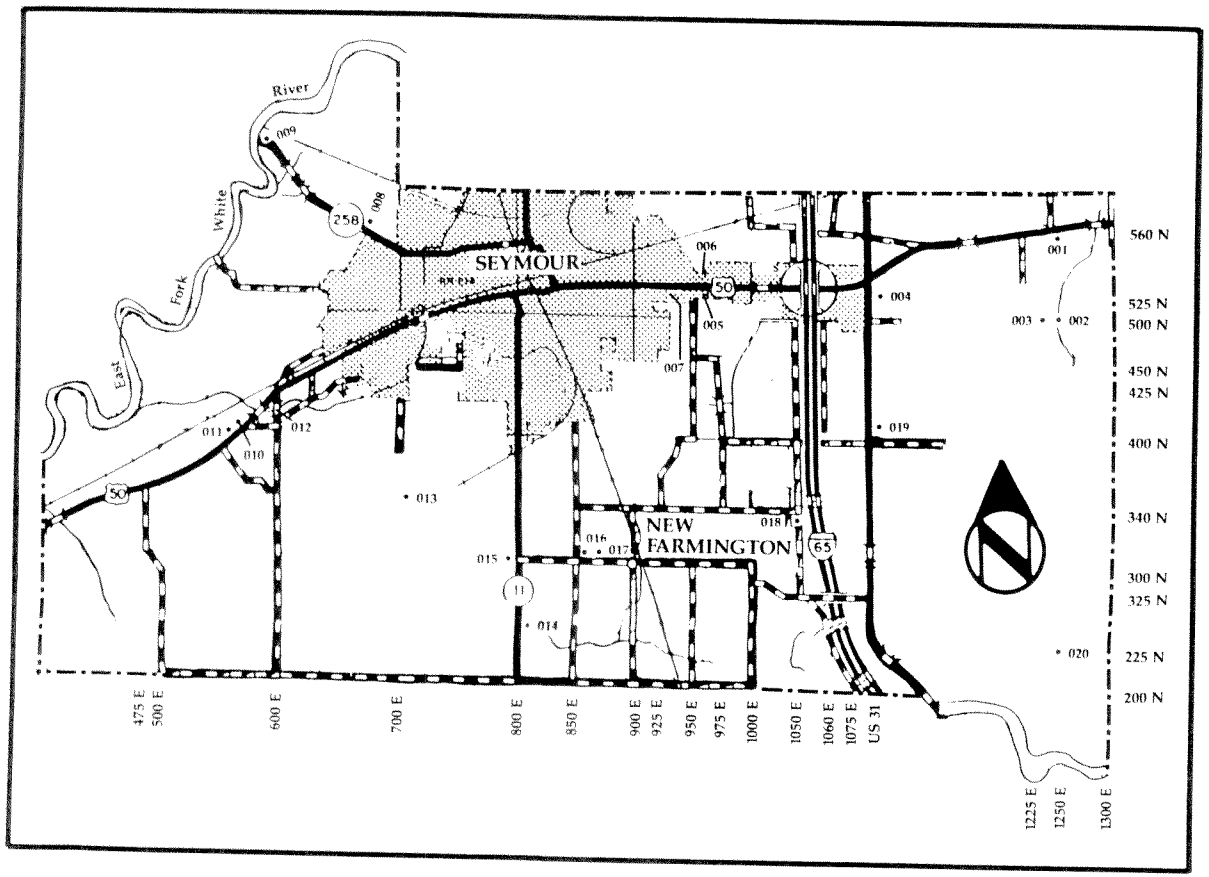
028 C **House,** U.S. 50; I-house, c.1860, Builder: Alexander Bain; Vernacular/ Construction (268)

026

School No. 5, Hayden. Source: Rodger Ruddick.

from Jackson Co. Interim Report (1988)

Jackson Township (30001-020)



Jackson Township is on the east side of Jackson County and is comprised of flat farmland in the south and marshy or swampy land in the north and east. The Driftwood or East Fork of the White River forms the northwest border of the township and Mutton Creek flows through the eastern half. Jackson Township was formed in 1821.

Early settlers concentrated primarily in the southern and central sections of the township because of the swampland to the north. Quaker families were among the first settlers. A Quaker church and school were located west of New Farmington but were abandoned by the 1890s. Two Quaker or Friends cemeteries (30018,019) are all that remain of this religious community. There are many stories of the Quaker families' involvement with the Underground Railroad helping to transport escaped slaves to Canada through Indiana.

The Jeffersonville, Madison and Indianapolis Railroad arrived in Jackson County in 1852. The tracks passed through what is now the city of Seymour, laid out in 1852, and the town of New Farmington which was platted in the same year by William O. Lancaster. New Farmington consisted of 20 lots and the town had a store, gristmill and sawmill. Its prosperity as a station of the JM&I railroad was eclipsed in 1854 when the east/west Ohio and Mississippi Railroad line crossed the north/south line in Seymour. From that day forward, Seymour prospered as a manufacturing and transportation center.

The White River restricted transportation between Jackson Township and townships to the west. In 1869 it was determined that a bridge was needed between Jackson and Hamilton Townships at a point in the White River called Bell's Ford. The area was named for the Bell family who owned a farm at a shallow place in the river where it was possible to cross the water. A $20,000 covered bridge (30009) was constructed by Robert Patterson and is the only known Post Truss Bridge in existence. The bridge, at first a toll bridge, was used until 1967 when two floor beams were discovered to be broken. The bridge was temporarily repaired but was bypassed by a modern bridge.

The history of Jackson Township from the 1850s to the 1950s is a history of Seymour's expansion. Not only has the city physically grown, taking more acreage from the township in the form of additions to the city plat, but Seymour is also the site of the crossing of U.S. 50 and U.S. 31 constructed during the 1910s. In addition, when Interstate 65 was created during the 1960s, Seymour gained an entrance and exit ramp to that route. These transportation advances have focused attention on Seymour and Jackson Township as a whole.

Although small schoolhouses and churches were located throughout the township in the early 1800s, most of these institutions moved to Seymour. An exception is the Clara D. Carter School (30020) located east of Seymour on U.S. 31. It was constructed in 1927 and served the

township as an elementary school until it was closed after World War II.

The Second World War affected Jackson Township directly when in 1942 the United States purchased over 2,500 acres of land southwest of Seymour for an Air Force Training Base. The land had previously been fertile farm, pasture and timberland. Twenty-six homesteads located on that land were destroyed with the exception of Ernest Kasting's house (30016) which was used as an military police office because there was a road leading to the compound from his land. By December 1942, Freeman Field was open. The $15 million complex included four runways and over 400 military buildings. It was open to the public for the first time in the fall of 1945. The army closed the base in 1947 for lack of storage space and room for expansion, and in 1947 the city of Seymour acquired the property to use as an airport and industrial park. Some warehouses and administrative buildings (30014) remain and are used for Freeman Field and corporation offices.

The federal government again greatly impacted Jackson Township when it created the National Wildlife Refuge at the east end of the township extending into neighboring Jennings County. Approximately 7,000 acres of land were purchased starting in 1966. The Muscatatuck Wildlife Refuge contains approximately 3,000 acres of forest, 1,300 acres of water, 1,000 acres of grasslands and fields and 2,400 acres of old farmland reverting back to forests. All of the homesteads in Jackson Township which were on the land when it was purchased were destroyed except for the log Myers House (30021) constructed about 1870.

Jackson Township has a variety of architectural styles, dating primarily from the 1880s to the present. The brick Italianate style Stahl Farm (30017) was constructed about 1895 on the site of the old Quaker church. More common to the township are Bungalows such as two on U.S. 50 (30005,006) which also have a Craftsman influence.

There are three Pony Truss Bridges which remain in the township. Two are located in the Muscatatuck Wildlife Refuge (30002,003), but one of the bridges (30013), a Warren Pony Truss, is located in a dense residential area on the west side of Seymour.

Today, Jackson Township is commercially active and competitive and many farms are still productive in the southern and western parts of the township.

No.	Rtg.	Description
001	C	**House,** U.S. 50; Double-pen, c.1900; Architecture (109)
002	C	**County Bridge,** 500 N; Warren Pony Truss, c.1920; Engineering, Transportation (109)
003	N	**County Bridge,** 500 N; Pratt Pony Truss, c.1890; Engineering, Transportation (109)
004	N	**Trimpe's DX Service Station,** U.S. 31; Twentieth Century Functional, 1931; Builder: Herb Zumhingst; Architecture, Commerce (109)
005	N	**Farm,** U.S. 50; House: Craftsman Bungalow, c.1920, Barn: Dairy; Agriculture, Architecture (109)
006	N	**Farm,** U.S. 50; House: Craftsman Bungalow, c.1930, Barn: Transverse-frame; Agriculture, Architecture (109)
007	C	**House,** 1516 East Tipton Street; Craftsman, c.1930; Architecture (581)
008	O	**Schneck House,** State Road 258; American Four-Square/Spanish Eclectic, c.1920; Architecture (581)
009	O	**Bell's Ford Covered Bridge,** off State Route 258; Post Through Truss, 1869; Builder: Robert Patterson; Engineering, Transportation (581)
010	C	**Crane Cemetery,** U.S. 50; c.1841-1914; Exploration/Settlement, Religion (581)
011	N	**Indian Treaty Corner Historical Marker,** U.S. 50; Marker recognizes the 10 o'clock Indian Treaty line, 1809; Indian, Exploration/Settlement (581)
012	O	**House,** off U.S. 50; House: I-house/ Italianate, c.1880, Outbuilding: Log-pen, c.1840; Architecture, Exploration/Settlement, Vernacular/ Construction (581)
013	C	**County Bridge No. 106,** 600 E; Warren Pony Truss, c.1920; Engineering, Transportation (581)
014	C	**Freeman Field Training Buildings,** off 700 E; Twentieth Century Functional, c.1942-43; Architecture, Military (581)
015	C	**Farm,** State Road 11; House: Bungalow, c.1920, Barn: Transverse-frame; Agriculture, Architecture (581)
016	N	**Ernest Kasting House,** State Road 11; I-house, c.1900; Architecture (581)
017	N	**Stahl Farm,** 300 N; House: Italianate, c.1895, Barn: English; Agriculture, Architecture (581)
018	C	**Friends Cemetery,** 300 N; c.1861-c.1915; Religion (581)
019	C	**Driftwood Cemetery,** 1050 E; c.1843-c.1950; Exploration/Settlement, Religion (109)
020	O	**Clara D. Carter School,** U.S. 31; Twentieth Century Functional, 1927; Architecture, Education (109)
021	O	**Myers House,** 225 N; Log-pen, c.1870; Exploration/Settlement, Vernacular/ Construction (581)

DNR Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

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

December 7, 2010

Brock A. Hoegh, CEP
Environmental Project Manager
HNTB Corporation
111 Monument Circle, Suite 1200
Indianapolis, Indiana 46204-5178

Federal Agency: Federal Highway Administration

Re: Early coordination information regarding spot improvements along US 50 from US 31 to Jennings Country Road 15 N (Des. No. 1005104; DHPA No. 10963)

Dear Mr. Hoegh:

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 and the Indiana State Historic Preservation Officer Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer has reviewed the materials with your cover letter dated November 9, 2010 and received on November 10, 2010, for the above-indicated project in Jennings County, Indiana.

Thank you for notifying our office of the proposed project. At this time, a complete analysis of the project with respect to its effects on historic properties is not possible. Please provide the following information to facilitate the identification and evaluation of properties within the anticipated area or areas of potential effects (see 36 C.F.R. § 800.4[a]):

- Literature Review
- Historic Context
- Research Methodology
- Property Descriptions
- National Register of Historic Places eligibility evaluations and recommendations.

In regards to archaeology, please provide details and plans for the project, degree and types of disturbance of the project area, and archaeological information as stipulated in the Indiana Department of Transportation's ("INDOT's") "Indiana Cultural Resources Manual." Once this information is provided, the Indiana SHPO staff will resume identification and evaluation review of this project. Please keep in mind that additional information may be requested in the future.

For further guidance on the requested information, please refer to appendices X, AA, and BB of INDOT's "Indiana Cultural Resources Manual" (http://www.in.gov/indot/files/January_2008_Manual.pdf). Please keep in mind that additional information may be requested in the future. If you have questions regarding the manual, please contact Staffan Peterson at (317) 232-5161 or stpeterson@indot.IN.gov.

A copy of the revised 36 C.F.R. Part 800 regulations that took 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 Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. Additionally, in all future correspondence regarding this project, please refer to DHPA No. 10963.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JRJ:JLC:jlc

emc: Michelle Allen, Indiana Division, Federal Highway Administration
Staffan Peterson, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Ben Lawrence, P.E., Environmental Policy Section, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Patrick Carpenter, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Shaun Miller, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Brock Hoegh, CEP, HNTB Corporation

DNR Indiana Department of Natural Resources

Mitchell E. Daniels, Jr., Governor
Robert E. Carter, Jr., Director

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

July 25, 2011

Luella Beth Hillen
Indiana Regional Manager
ASC Group, Inc.
6330 East 75th Street, Suite 100
Indianapolis, Indiana 46250

Federal Agency: Federal Highway Administration

Re: Historic property report (Chanchani, 6/1/11) and phase Ia archaeological report (Snyder, Snell, and Chanchani, 6/16/11) regarding US 50 Spot Improvements in Jackson Township, Jackson County and Spencer and Center townships, Jennings County (Des. No. 1005104; DHPA No. 10963)

Dear Ms. Hillen:

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 considered the materials under your cover letters dated June 14 and 23, 2011 and received on June 15 and 24, respectively, for the above-indicated project in Jennings and Jackson counties, Indiana.

Based on the information provided in the historic property report ("HPR"), we agree that, of the properties identified there, only the AL012 (Greek Revival house at7660 US 50; IHSSI No. 079-109015033) and AL021 (Indian Creek Bridge; NBI No. 18670; Non-Select) appear to be eligible for inclusion in the National Register of Historic Places.

In the course of reviewing another project (Des. No. 0401402) a few years ago, we commented informally on some of the above-ground properties that appeared to have some significance and that were mentioned in a combined community advisory committee and consulting parties meeting (see enclosed copy of our March 30, 2007 e-mail message). We would draw your attention to what had been described as a "cattle bridge" (or, perhaps somewhat more accurately, an underpass) beneath US 50, which we think would be in the vicinity of AL018 (IHSSI No. 079-268-15024). This structure may be a large culvert, rather than a true bridge. However, it was mentioned by a sub-consultant on that project because of its unusual function, and we would recommend its being evaluated. The structure would likely fall within one of the areas of potential effects for this project (see Figure 3, Sheet 7 of 9, in the HPR).

In that same comment, we also mentioned a wood frame, former gasoline station on the south side of US 50. However, we are uncertain of its location, except that it was closer to North Vernon than is AL012, or whether it is still standing. If that former gasoline station still exists and is within one of the areas of potential effects, then we would recommend its being evaluated, as well.

In regards to archaeology, based upon the documentation provided, we concur with the archaeological report that the floodplain of Sixmile Creek in Area 504 has the potential to contain buried archaeological resources. The portions of the project in Area 504 within the Sixmile Creek floodplain where soils have not been substantially disturbed by previous disturbance of a recent and non-historical nature must either be avoided by all project activities, or if this is not feasible, subjected to Phase Ic archaeological subsurface investigations. A plan for the Phase Ic subsurface reconnaissance must be submitted to the Division of Historic Preservation and Archaeology ("DHPA") for review and comment prior to further field investigations. Further archaeological investigations must be conducted in accordance with the "Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation" (48 F.R. 44716). A description of the Phase Ic subsurface reconnaissance methods and results must be submitted to the Division of Historic Preservation and Archaeology for review before we can comment

further (see list of qualified professional archaeologists at the DHPA website link http://www.in.gov/dnr/historic/bin/qp/qp_archeo.pdf).

Based on the information provided in the archaeological report, the other areas (501-503, 505-509) do not appear to contain currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places, and no further archaeological investigations appear necessary in these proposed project areas.

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 Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. If you have questions about buildings or structures please contact John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA No. 10963.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JRJ:JLC:jlc

Enclosure

emc: Michelle Allen, Indiana Division, Federal Highway Administration
Staffan Peterson, Cultural Resources Office, Environmental Services, Indiana Department of Transportation
Mary Kennedy, Cultural Resources Office, Environmental Services, Indiana Department of Transportation
Shaun Miller, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation
Patrick Carpenter, Cultural Resources Office, Environmental Services, Indiana Department of Transportation
Melany Prather, Cultural Resources Section, Office of Environmental Services, Indiana Department of Transportation

DNR Indiana Department of Natural Resources

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September 23, 2011

Luella Beth Hillen
Project Manager
ASC Group, Inc.
6330 East 7th Street, Suite 100
Indianapolis, Indiana 46250

Federal Agency: Federal Highway Administration ("FHWA")

Re: Historic property report (Chanchani and Terpstra, 8/9/11) and addendum to the phase Ia archaeological report (Snyder, 8/19/11) for the US 50 Corridor Bypass of North Vernon (Des. No. 0401402; DHPA No. 1882)

Dear Ms. Hillen:

Pursuant to the National Environmental Policy Act of 1969 (42 U.S.C. § 4321, *et seq.*), Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. § 470f), 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 has reviewed the materials under ASC Group's cover letters dated August 12, 2011 and August 23, 2011 and received on August 15 and August 24, respectively, for the aforementioned project at North Vernon in Jennings County, Indiana.

We are not aware of any other parties who should be invited to become consulting parties for the purposes of the Section 106 review of this project, beyond those you already have invited. If it becomes apparent later in the review process that a historic property possibly could be affected adversely by the project, however, it might be appropriate at that time to invite the owner of that property to join in the consultation.

We have considered your firm's explanation of how it delineated the proposed area of potential effects ("APE") for above-ground properties. Generally speaking, in cases where we have been asked for our opinion before an APE is delineated (see 36 C.F.R. § 800.4[a][1]) and before a historic properties report ("HPR") is prepared, we have tended to recommend that an APE of somewhat more than a minimum of 1,000 feet on either side of the centerline be used for new terrain routes (except where terrain or foliage suggests that a narrower APE is warranted). We think that, across an open field or pasture, it often is possible to see a new highway and vehicles traveling on it in some detail from considerably more than one-fifth of a mile away, especially where the grade of the new highway is somewhat higher than that of the surrounding ground. However, given that there are numerous wooded areas adjacent to, or otherwise within the viewshed of, the two alternative alignments under consideration, and given that the APE is wide enough to include both alignments, we think that the APE proposed here could be adequate to encompass the areas in which effects might occur. We will accept the proposed APE for now, with the caveat that if it appears later in this review that an area outside the proposed APE could incur effects, we might recommend a modification of the APE at that time.

Another possible consideration related to the APE for this project is the likely location of an extension of the bypass, if it were to be decided in the future to connect the bypass with existing US 50 east of North Vernon. Although we realize that such an extension would be considered a separate project, the eastern terminus of the current project to some extent would determine where the extension would run, and, consequently, which properties might be affected, especially in the first mile or two of the extension. The location of the proposed eastern terminus of build alternatives S1 and S2, at the current intersection of CR 350 North and CR 75 West, would seem to suggest that a future extension of the bypass likely would run due east, passing through a narrow corridor between the south end of St. Anne's Golf Course and Selmier State Forest (which would be Preliminary Alternative A from the 2008 final report for the US 50 North Vernon Corridor Planning and Environmental Assessment Study). Conceivably, the extension could run southeastward, passing to the

west and south of Selmier State Forest and intersecting North Base Road somewhere between CR 250 North and CR 350 North (which would be a variation on Preliminary Alternative B). We recommend that consideration be given to expanding the APE for this project somewhat farther to the east or southeast, or both, to take into consideration properties that unavoidably might be affected by any such extension in a future phase of the bypass. There is precedent in the I-69 Evansville to Indianapolis projects for expanding the APE outward from the terminus of a project that is likely to be extended in a future phase.

Thank you for examining AL022, the two culverts or cattle underpasses beneath the CSX Railroad and US 50 that are related to a nearby farm, AL018 (IHSSI No. 079-268-15024). Having considered the HPR's evaluation, we agree that neither culvert or cattle underpass is eligible for inclusion in the National Register.

We also agree with the overall conclusion of the HPR that there are no above-ground properties within the APE, as currently proposed, that are listed in or eligible for inclusion in the National Register of Historic Places.

Based on 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 of Historic Places within the proposed project areas surveyed for the above addendum Phase Ia archaeological report. Please note also our comments in our previous letter of August 11, 2011. It is our understanding that Phase Ia archaeological investigations will be conducted in an area recently reported to contain burial mounds on the west edge of the alignment, just north of Area 5 and west of Area 4. Once the report on this investigation is received, the Indiana SHPO will resume identification and evaluation procedures for this project. Please keep in mind that additional information may be requested in the future.

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 above-ground properties, then please contact John Carr at (317) 233-1949 or jcarr@dnr.IN.gov. Questions about archaeological issues should be directed to Dr. Rick Jones at (317) 233-0953 or rjones@dnr.IN.gov. In all future correspondence regarding the US 50 Corridor Bypass at North Vernon, please refer to DHPA No. 1882.

Very truly yours,

James A. Glass, Ph.D.
Deputy State Historic Preservation Officer

JAG:JLC:JRJ:jlc

emc: Staffan Peterson, Ph.D., Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Patrick Carpenter, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Melany Prather, Indiana Department of Transportation
Dan Prevost, Parsons Transportation Group, Inc.
Luella Beth Hillen, ASC Group, Inc.

ASC GROUP, INC.
ARCHAEOLOGY | ARCHITECTURE HISTORY | ENVIRONMENT
CULTURAL AND ENVIRONMENTAL CONSULTANTS

December 27, 2011

Dr. James A. Glass
Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street
Indianapolis, IN 46204

Re: Proposed Bridge/Culvert Replacements Over Mutton Creek, Storm Creek, and Branch of Storm Creek Along The US 50 Corridor (Des. Nos.: 1005613, 1005614, 1005615), Jackson Township, Jackson County, and Spencer Township, Jennings County, Indiana

Dear Dr. Glass:

Enclosed please find a copy of the findings and determinations of Area of Potential Effect, Eligibility, and Effect along with the supporting documentation as required in 36 CFR 800.11(d) for the above referenced project. INDOT has reviewed and approved the findings and supporting documentation.

You are invited to review the findings and documentation and provide your comments within 30 days of the date of this letter. Please provide your comments to: Luella Beth Hillen, ASC Group, Inc., bhillen@ascgroup.net (9376 Castlegate Drive, Indianapolis, Indiana 46256).

Thank you for your attention to this request.

Sincerely,

Douglas S. Terpstra
Principal Investigator
ASC Group, Inc.

Enclosures

cc: Dan Prevost, Parsons Transportation Group, Inc.
Patrick Carpenter, INDOT

LBH/clc

ASC GROUP, INC.
ARCHAEOLOGY ARCHITECTURE HISTORY ENVIRONMENT
CULTURAL AND ENVIRONMENTAL CONSULTANTS

December 27, 2011

James Myster
US Fish and Wildlife Service, Region 3
5600 American Boulevard West
Suite 990
Bloomington, Minnesota 55437

Re: Proposed Bridge/Culvert Replacements Over Mutton Creek, Storm Creek, and Branch of Storm Creek Along The US 50 Corridor (Des. Nos.: 1005613, 1005614, 1005615), Jackson Township, Jackson County, and Spencer Township, Jennings County, Indiana

Dear Mr. Myster:

Enclosed please find a copy of the findings and determinations of Area of Potential Effect, Eligibility, and Effect along with the supporting documentation as required in 36 CFR 800.11(d) for the above referenced project. INDOT has reviewed and approved the findings and supporting documentation. Please coordinate with Matt Sprenger of your office as well. He has been contacted by our client, Parsons, regarding the project.

You are invited to review the findings and documentation and provide your comments within 30 days of the date of this letter. Please provide your comments to: Luella Beth Hillen, ASC Group, Inc., bhillen@ascgroup.net (9376 Castlegate Drive, Indianapolis, Indiana 46256).

Thank you for your attention to this request.

Sincerely,

Douglas S. Terpstra
Principal Investigator
ASC Group, Inc.

Enclosures

cc: Dan Prevost, Parsons Transportation Group, Inc.
Patrick Carpenter, INDOT

LBH/clc

ASC GROUP, INC.
ARCHAEOLOGY
ARCHITECTURE HISTORY
ENVIRONMENT
CULTURAL AND ENVIRONMENTAL CONSULTANTS

December 27, 2011

Greg Sekula
Indiana Landmarks-Southern Regional Office
Willey-Allhands House
115 West Chestnut Street
Jeffersonville, IN 47130

Re: Proposed Bridge/Culvert Replacements Over Mutton Creek, Storm Creek, and Branch of Storm Creek Along The US 50 Corridor (Des. Nos.: 1005613, 1005614, 1005615), Jackson Township, Jackson County, and Spencer Township, Jennings County, Indiana

Dear Mr. Sekula:

Enclosed please find a copy of the findings and determinations of Area of Potential Effect, Eligibility, and Effect along with the supporting documentation as required in 36 CFR 800.11(d) for the above referenced project. INDOT has reviewed and approved the findings and supporting documentation.

You are invited to review the findings and documentation and provide your comments within 30 days of the date of this letter. Please provide your comments to: Luella Beth Hillen, ASC Group, Inc., bhillen@ascgroup.net (9376 Castlegate Drive, Indianapolis, Indiana 46256).

Thank you for your attention to this request.

Sincerely,

Douglas S. Terpstra
Principal Investigator
ASC Group, Inc.

Enclosures

cc: Dan Prevost, Parsons Transportation Group, Inc.
Patrick Carpenter, INDOT

LBH/clc

INDIANA LANDMARKS

Southern Regional Office
115 West Chestnut Street, Jeffersonville, IN 47130
812 284 4534 / 800 450 4534 / *www.indianalandmarks.org*

January 12, 2012

Ms. Luella Beth Hillen
ASC Group, Inc.
9376 Castlegate Drive
Indianapolis, IN 46256

RE: Proposed Bridge/Culvert Replacements over Mutton Creek, Storm Creek and Branch of Storm Creek along the US 50 Corridor (Des. Nos. 1005613, 1005614, 1005615), Jackson Township, Jackson County and Spencer Township, Jennings County, Indiana

Dear Ms. Hillen:

Thank you for your letter of December 27 and the opportunity for Indiana Landmarks to comment on the above project.

Based upon the information provided, we concur with the Area of Potential Effects (APE) for the projects, and with the findings of 'No Historic Properties Affected.'

Please do not hesitate to contact this office should you have any questions or require any additional information.

Sincerely,

Laura Renwick

Laura Renwick
Community Preservation Specialist

From: James_Myster@fws.gov [mailto:James_Myster@fws.gov]
Sent: Friday, January 06, 2012 5:03 PM
To: Beth Hillen
Cc: Prevost, Daniel
Subject: RE: Response to proposed road improvements, US 50

Beth:

The comment I sent below on December 9th reflects our thoughts about that site. Since no other historic properties were found on our lands, we agree with any "No Effect" finding as it relates to our lands.

James E. Myster
Regional Historic Preservation Officer / Archaeologist
Midwest Region (Region 3)
U.S. Fish and Wildlife Service
5600 American Boulevard West, Suite 1049
Bloomington, Minnesota 55437
612-713-5439 (phone)
612-713-5287 (fax)

Beth Hillen <Beth_Hillen@ascgroup.comcastbiz.net>

James,

We sent the Finding of Effects documentation to you for the US 50 Improvements project in Jackson and Jennings Counties, Indiana on 12/27/2011. I know you have 30 days to review and comment, however, because of a tight timeline for this project, I would like to ask if you could please review it before next Wednesday, if at all possible.

Your assistance is greatly appreciated!

Beth

Luella Beth Hillen
Indiana Regional Manager
ASC Group, Inc.

Note: As of October 14, 2011, ASC Group, Inc. relocated their Indianapolis office to a new, larger facility!

New address:
9376 Castlegate Drive
Indianapolis, Indiana 46256

Phone numbers remain the same:
317-915-9300 phone
317-915-9301 fax
317-965-7313 Beth's cell

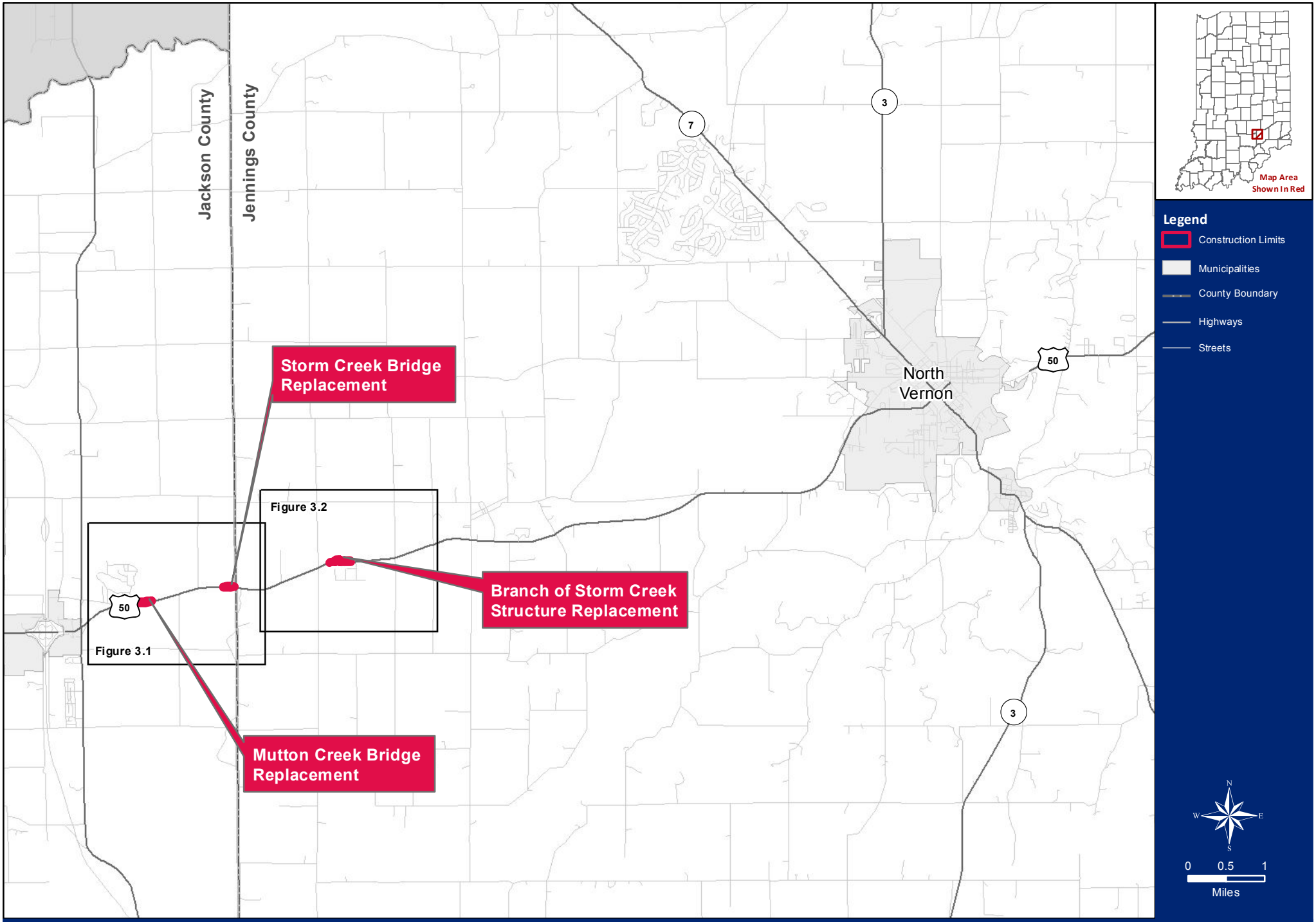
From: James_Myster@fws.gov [mailto:James_Myster@fws.gov]
Sent: Friday, December 09, 2011 12:06 PM
To: bhillen@ascgroup.net
Subject: Response to proposed road improvements, US 50

Beth:

We have one comment related to the proposed road improvements in relation to the NRHP-eligible property, the Josiah Cobbs Farm, near the junction of CR750 and US50. As proposed, it will not affect our Muscatatuck NWR lands.

James E. Myster
Regional Historic Preservation Officer / Archaeologist
Midwest Region (Region 3)
U.S. Fish and Wildlife Service
5600 American Boulevard West, Suite 1049
Bloomington, Minnesota 55437
612-713-5439 (phone)
612-713-5287 (fax)

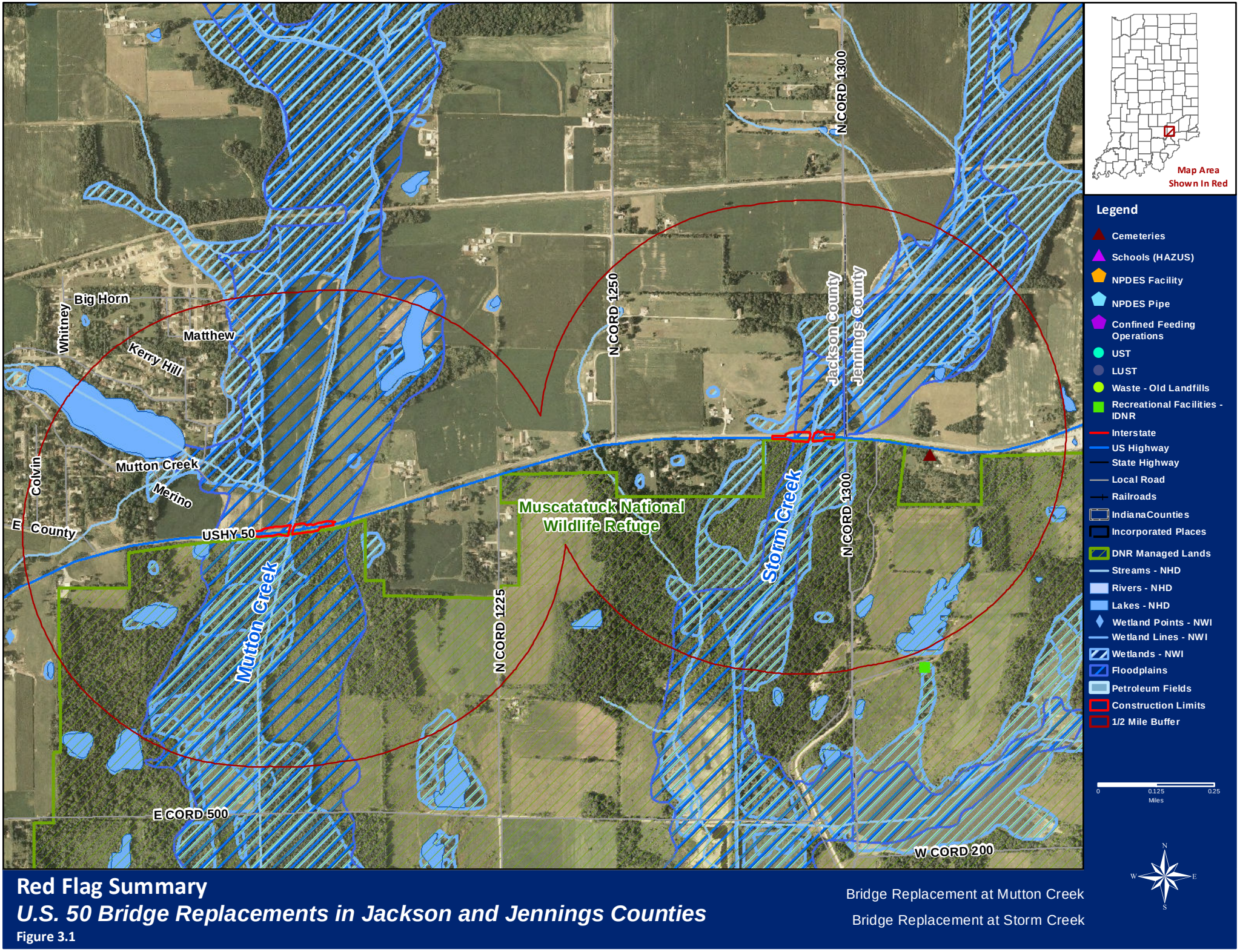
Appendix E: Red Flag and Hazardous Materials



Red Flag Summary Key

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 3.0



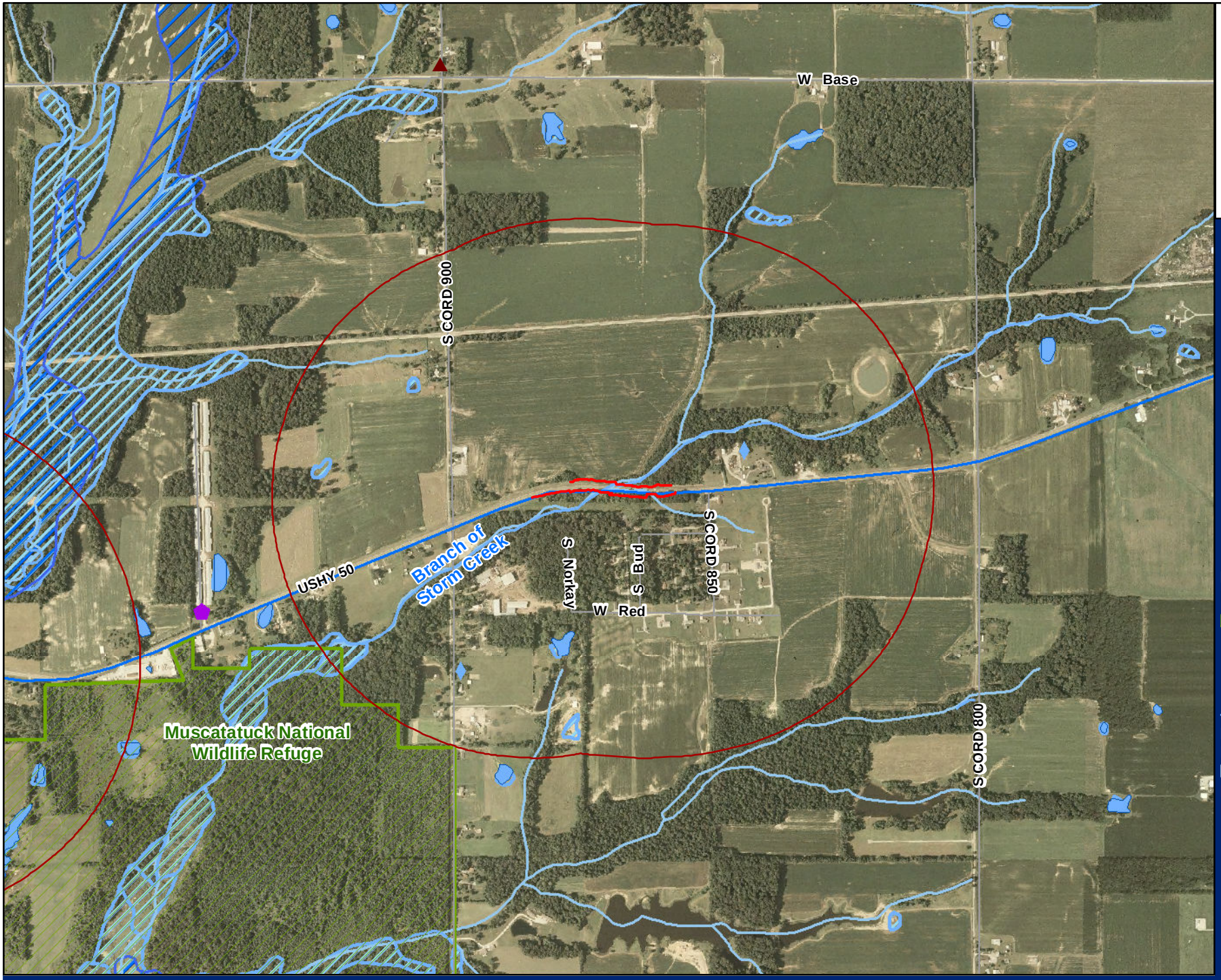
Red Flag Summary

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 3.1

Bridge Replacement at Mutton Creek

Bridge Replacement at Storm Creek



Legend

- Cemeteries
- Schools (HAZUS)
- NPDES Facility
- NPDES Pipe
- Confined Feeding Operations
- UST
- LUST
- Waste - Old Landfills
- Recreational Facilities - IDNR
- Interstate
- US Highway
- State Highway
- Local Road
- Railroads
- IndianaCounties
- Incorporated Places
- DNR Managed Lands
- Streams - NHD
- Rivers - NHD
- Lakes - NHD
- Wetland Points - NWI
- Wetland Lines - NWI
- Wetlands - NWI
- Floodplains
- Petroleum Fields
- Construction Limits
- 1/2 Mile Buffer

0 0.125 0.25
Miles

N
W E
S

Red Flag Summary

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Structure Replacement at Branch of Storm Creek

Figure 3.2

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____

Road # _____ Type of Road Project US 50 - SPOT IMP'T

Description of area (either general location or exact location of parcel) BRIDGE OF US 50 OVER MUTTON CREEK

Person completing this Field Check MWW

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
   ☐ No New ROW ☐ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☑ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

   Setting (rural or urban):

   Current Land Uses: US 50

   Previous Land Uses: US 50

   Adjacent Land Uses: AG TO NORTH / FOREST TO SOUTH

   Describe any structures on the property:

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks		
Surface Tanks		
Transformers		
Sumps		
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard		
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 - Spot Improvement 2
Description of area (either general location or exact location of parcel) proposed passing lanes at CR 1225 + CR 1250
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, + Ag. and residential in proposed ROW

Previous Land Uses: US 50, Ag

Adjacent Land Uses: Ag + forest to the north and residential + forest to the south

Describe any structures on the property: NO structures in the proposed ROW

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks	No	
Transformers	Yes	
Sumps	No	
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____

Road # _____ Type of Road Project US 50 - Spot imp #3

Description of area (either general location or exact location of parcel) Bridge crossing of US 50 over Storm Creek

Person completing this Field Check MWW

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
   ☐ No New ROW ☐ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☑ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

   Setting (rural or urban): RURAL

   Current Land Uses: US 50 HWY

   Previous Land Uses: SAME

   Adjacent Land Uses: AG TO NORTH W/ STREAM, FOREST/WETLAND/STREAM TO SOUTH

   Describe any structures on the property:

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	N	N
Surface Tanks		
Transformers		
Sumps		
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	N	N
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 - Spot Improvement 4
Description of area (either general location or exact location of parcel) proposed passing lanes .88 mi west of CR 900 W + .13 mi west of 800 W
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50 with Ag., residential and commercial in proposed LA

Previous Land Uses: US 50 Ag.

Adjacent Land Uses: Ag., residential + commercial including confined feeding operation

Describe any structures on the property: no structures on proposed ROW

4. **Visual Inspection:**

	Property	Adjoining Property		Property	Adjoining Property
Storage Structures:			**Evidence of Contamination:**		
Underground Tanks	No	No	Junkyard	No	No
Surface Tanks	No		Auto Graveyard		
Transformers	Yes		Surface Staining		
Sumps	No		Oil Sheen		
Ponds/Lagoons			Odors		
Drums			Vegetation Damage		
Basins			Dumps		
Landfills			Fill Dirt Evidence		
Other	↓	↓	Vent pipes or fill pipes		
			Other	↓	↓

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 - Spot Improvement 5
Description of area (either general location or exact location of parcel) proposed turn lanes at CR 90W

Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50 + Ag.

Previous Land Uses: US 50, Ag.

Adjacent Land Uses: Ag., commercial, residential

Describe any structures on the property: No structures in the proposed ROW

4. **Visual Inspection:**

	Property	Adjoining Property		Property	Adjoining Property
Storage Structures:			**Evidence of Contamination:**		
Underground Tanks	No	No	Junkyard	No	No
Surface Tanks			Auto Graveyard		
Transformers			Surface Staining		
Sumps			Oil Sheen		
Ponds/Lagoons			Odors		
Drums			Vegetation Damage		
Basins			Dumps		
Landfills			Fill Dirt Evidence		
Other			Vent pipes or fill pipes		
			Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 - Spot Improvement &
Description of area (either general location or exact location of parcel) Bridge replacement on US 50 over branch of Storm Creek
Person completing this Field Check _____

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☐ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☑ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, Forest + Ag.

Previous Land Uses: US 50, Ag., Forest

Adjacent Land Uses: Ag. + forest

Describe any structures on the property: No structures in proposed ROW

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		
Transformers		
Sumps		
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement 7
Description of area (either general location or exact location of parcel) proposed passing lanes at CR 850 W
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, forest + Ag.

Previous Land Uses: US 50, forest + Ag.

Adjacent Land Uses: forest, Ag., Residential

Describe any structures on the property: No structures in proposed ROW

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks	No	
Transformers	Yes	
Sumps	No	
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement &
Description of area (either general location or exact location of parcel) proposed turning lanes at CR 750 W
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes: residential take

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, Ag.

Previous Land Uses: US 50, Ag., residential

Adjacent Land Uses: Ag., residential, forest

Describe any structures on the property: 1 house, 1 barn

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks	No	
Transformers	Yes	
Sumps	No	
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 spot Improvement
Description of area (either general location or exact location of parcel) proposed lanes for passing just east of CR 61D
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes: 3-4 residential takes

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, Ag., Residential, forest

Previous Land Uses: US 50, Ag. forest

Adjacent Land Uses: forest, Residential, Ag.

Describe any structures on the property: 3-4 houses

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		No
Transformers		Yes
Sumps		No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	Yes
Auto Graveyard		No
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____

Road # _____ Type of Road Project US 50 Spot Improvement 10

Description of area (either general location or exact location of parcel) proposed lanes for passing at CR 1000 W

Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
   ☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

   Setting (rural or urban):

   Current Land Uses: US 50, Ag. forest

   Previous Land Uses: US 50, Ag. forest

   Adjacent Land Uses: Ag. forest, residential

   Describe any structures on the property: NONE

4. **Visual Inspection:**

	Property	Adjoining Property		Property	Adjoining Property
Storage Structures:			**Evidence of Contamination:**		
Underground Tanks	No	No	Junkyard	No	No
Surface Tanks	No	No	Auto Graveyard		
Transformers	Yes	Yes	Surface Staining		
Sumps	No	No	Oil Sheen		
Ponds/Lagoons			Odors		
Drums			Vegetation Damage		
Basins			Dumps		
Landfills			Fill Dirt Evidence		
Other			Vent pipes or fill pipes		
			Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US50 Spot Improvement II
Description of area (either general location or exact location of parcel) bridge replacement at Sixmile Creek on US 50
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US50

Previous Land Uses: US50

Adjacent Land Uses: forest, Ag.

Describe any structures on the property: NONE

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		No
Transformers		Yes
Sumps		No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____

Road # _____ Type of Road Project US 50 Spot Improvement 12

Description of area (either general location or exact location of parcel) proposed added turn lanes at CR 580

Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
   ☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

   Setting (rural or urban):

   Current Land Uses: US50, Commercial, Residential, Ag., forest

   Previous Land Uses: US50, Ag., forest, residential

   Adjacent Land Uses: forest, commercial, Ag.

   Describe any structures on the property: house, 2 commercial bldgs.

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		No
Transformers		Yes
Sumps		No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	Yes
Auto Graveyard		No
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement 13
Description of area (either general location or exact location of parcel) proposed lanes for passing at S CR 450
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50, Ag., forest

Previous Land Uses: US 50, Ag., forest

Adjacent Land Uses: Ag., forest

Describe any structures on the property: NONE

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		No
Transformers		Yes
Sumps		No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement 14
Description of area (either general location or exact location of parcel) Signage improvements in the vicinity of SCR 400
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☑ No New ROW ☐ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50

Previous Land Uses: US 50

Adjacent Land Uses: Ag., residential

Describe any structures on the property: NONE

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		No
Transformers		Yes
Sumps		No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 SPOT IMP #15
Description of area (either general location or exact location of parcel) BRIDGE OF US 50 OVER INDIAN CREEK
Person completing this Field Check MWW

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☐ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☑ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US 50 HWY

Previous Land Uses: SAME

Adjacent Land Uses: FOREST TO NORTH / LAWN W/ TREES ALONG CREEK TO THE SOUTH

Describe any structures on the property:

4. **Visual Inspection:**

Storage Structures:	Property	Adjoining Property
Underground Tanks		
Surface Tanks		
Transformers		
Sumps		
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

Evidence of Contamination:	Property	Adjoining Property
Junkyard		
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement
Description of area (either general location or exact location of parcel) proposed turn lanes at CR 265W, CR 250W, CR 240W
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes: residential take

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):

Current Land Uses: US50, forest, Ag., Residential

Previous Land Uses: same as current

Adjacent Land Uses: forest, Ag., Residential, commercial

Describe any structures on the property: house

4. **Visual Inspection:**

	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks	No	No
Transformers	Yes	Yes
Sumps	No	No
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

HAZARDOUS MATERIALS SITE VISIT FORM

Des # _____ Project # _____
Road # _____ Type of Road Project US 50 Spot Improvement 17
Description of area (either general location or exact location of parcel) proposed passing lane at CR 151
_____
Person completing this Field Check JDV

1. **Has a Red Flag Investigation been completed?** ☑ Yes ☐ No

Notes:

2. **Right-of-Way Requirements:**
☐ No New ROW ☑ Strip ROW ☐ Minor Take ☐ Whole Parcel Take ☐ Information Not Available

Notes:

3. **Land Use History and Development:** (Industrial, Light Industry, Commercial, Agricultural, Residential, Other – also, indicate source of data: visual inspection, aerial photos, U.S.G.S. topo maps, etc.)

Setting (rural or urban):
Current Land Uses: US50, residential, forest
Previous Land Uses: US50, forest, Ag.
Adjacent Land Uses: forest, residential
Describe any structures on the property: None

4. **Visual Inspection:**

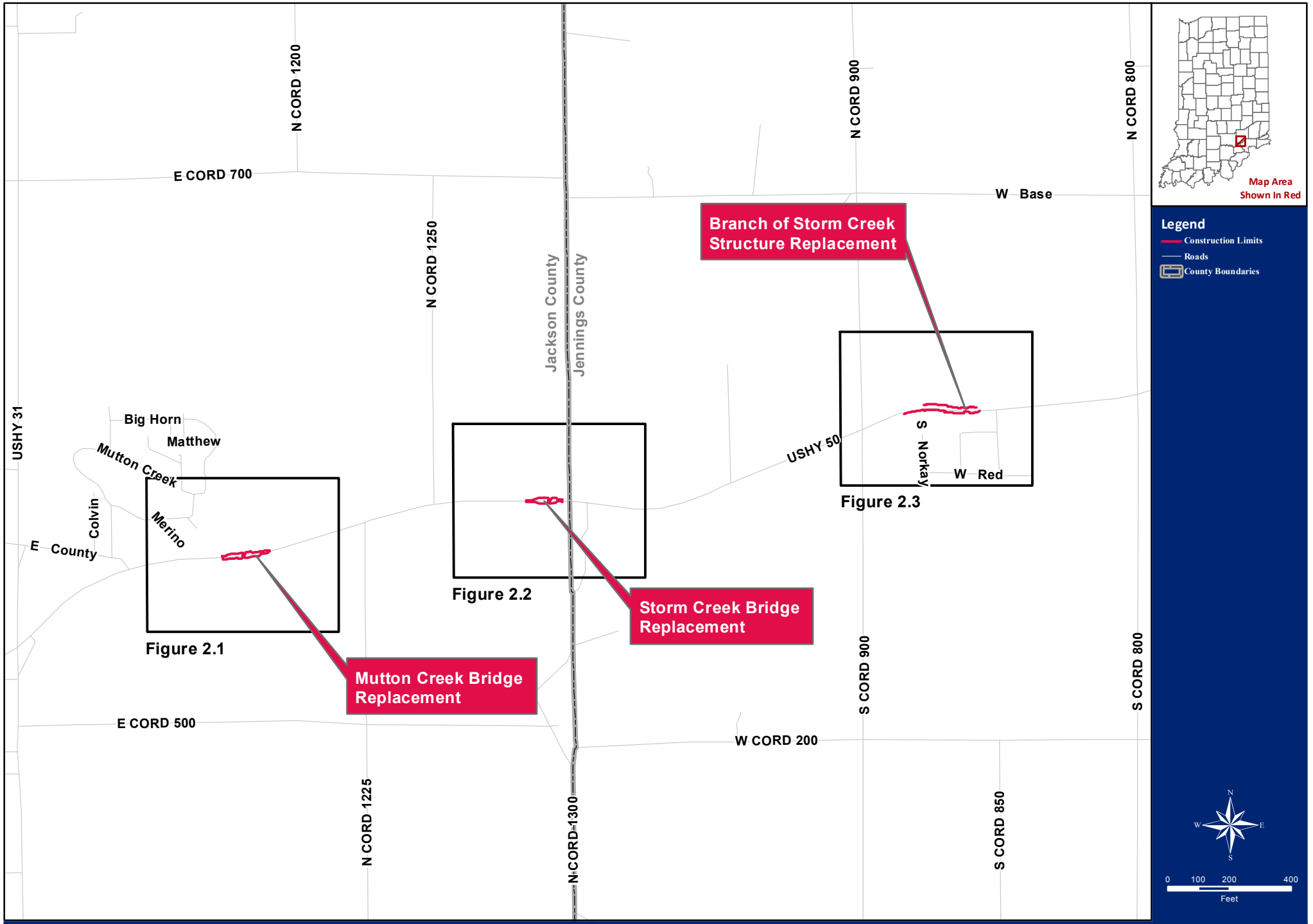
	Property	Adjoining Property
Storage Structures:		
Underground Tanks	No	No
Surface Tanks		
Transformers		
Sumps		
Ponds/Lagoons		
Drums		
Basins		
Landfills		
Other		

	Property	Adjoining Property
Evidence of Contamination:		
Junkyard	No	No
Auto Graveyard		
Surface Staining		
Oil Sheen		
Odors		
Vegetation Damage		
Dumps		
Fill Dirt Evidence		
Vent pipes or fill pipes		
Other		

5. **Is a Phase I, Initial Site Assessment required?** ☐ Yes ☑ No

(Write additional notes on back)

Appendix F: Water Resources



Water Resources Map Key

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.0

Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.1

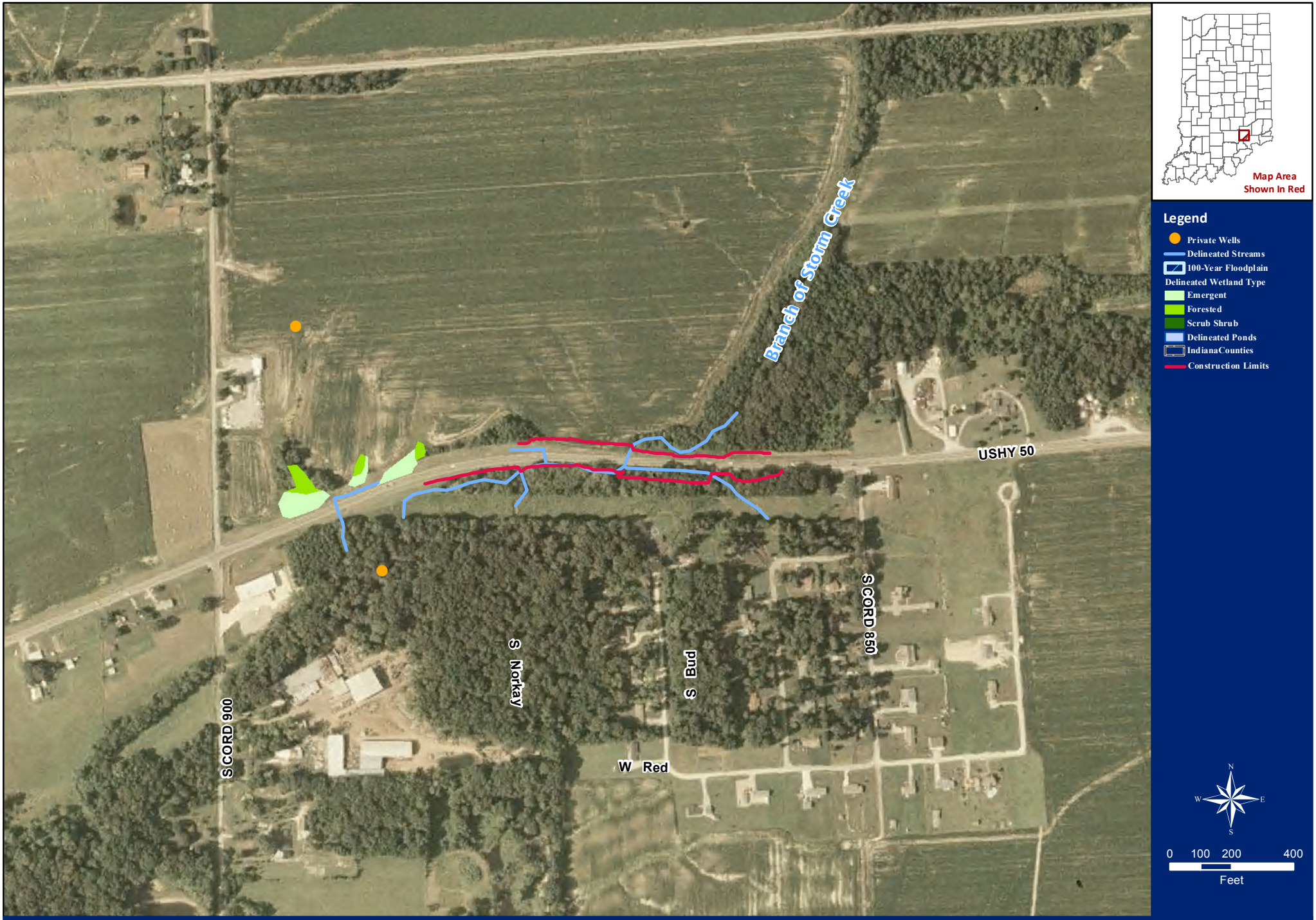
Bridge Replacement at Mutton Creek

Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.2

Bridge Replacement at Storm Creek

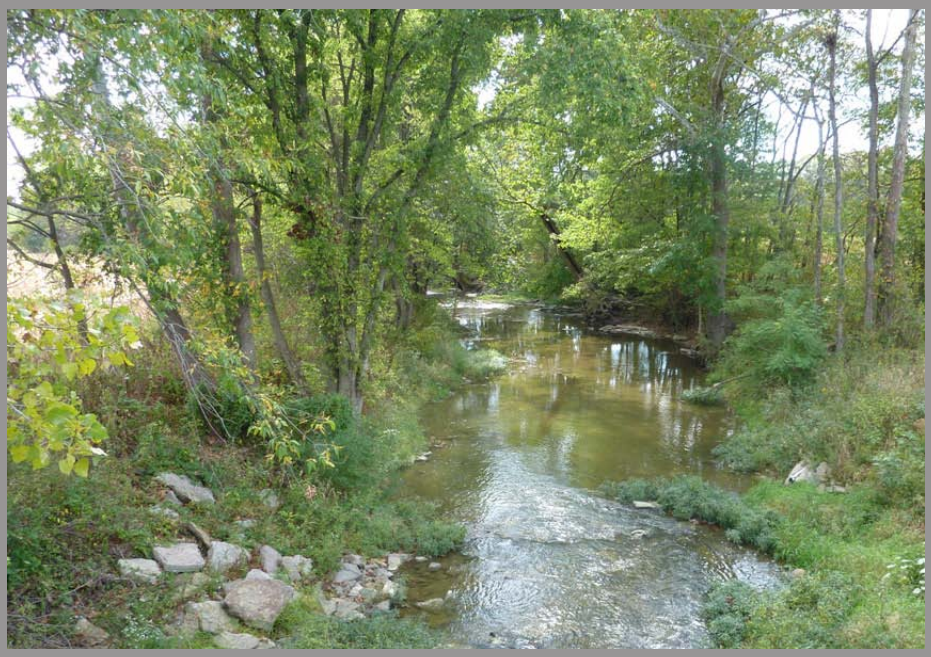


Water Resource Map

U.S. 50 Bridge Replacements in Jackson and Jennings Counties

Figure 2.3

Structure Replacement at Branch of Storm Creek



U.S. 50 Spot Improvements

Des. No. 1005104
&
Des. No. 1005105

Jackson & Jennings Counties, Indiana

Wetlands and Other Waters Delineation Report

July 2011

Prepared for:

Indiana Department of Transportation (INDOT)

Prepared by:

HNTB Corporation

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1.0 INTRODUCTION

1.1 Project Background

The Study Area consisted of 17 spot improvements along 9 miles of United States Highway 50 (US 50) and was approximately 200-foot wide with varying lengths at each location. These spot improvements are located between United States Highway 31 (US 31) and County Road 15 North (CR 15 N) in Jackson and Jennings Counties, Indiana. These improvements involve bridge replacements, addition of auxiliary lanes, passing blisters, turning lanes and updated signage along US 50. Wetlands, streams and ponds were located within the Study Area on September 27, 28 and 29, 2010, February 17, 2011 and the proposed work may result in impacts to these features. Consequently, the Indiana Department of Transportation (INDOT) anticipates the need to obtain verification from the U.S. Army Corps of Engineers (Corps) regarding the jurisdictional status of wetlands and stream located within the Study Area; and that authorization from the Corps and the Indiana Department of Environmental Management (IDEM) to discharge fill in these features is necessary.

1.1.1 Project Area Description

1.1.1.1 Location

The US 50 Spot Improvements project (Project) is located along US 50 from US 31 in Jackson County, Indiana to CR 15 N in Jennings County, Indiana (Figure 1).

1.1.1.2 Ecoregion

The U. S. Environmental Protection Agency (EPA) has delineated ecoregions throughout the United States and classified them as Levels I, II, III and IV. The ecoregions are defined on the basis of climate, elevation, land use, land cover, land form, potential natural vegetation, soil and geology (EPA, 1999). Level I ecoregions have a much broader range, with elements based on general characteristics; Level IV ecoregions have the smallest areas developed according to more specific criteria.

The Study Area is located within the Eastern Corn Belt Plains, specifically Number 55d, the Pre-Wisconsinan Drift Plains ecoregion. This Level IV ecoregion is described as deeply-leached, acidic, pre-Wisconsinan till and thin loess. This ecoregion also has widespread, nearly flat areas of very poorly-drained soils with fragipans (dense, hard soil). Beech forests and elm-ash forested swamps once dominated this area (EPA, 1999).

1.1.1.3 General Land Use

This ecoregion is currently dominated by agriculture consisting of corn, soybean, and tobacco, and livestock farming. Other land uses include surface coal mining, and now scattered timbered woodlands (EPA, 1999). Trees including black walnut (*Juglans nigra*), silver maple (*Acer saccharinum*), sweetgum (*Liquidambar styraciflua*), sycamore (*Platanus occidentalis*), and green ash (*Fraxinus pennsylvanica*) are commonly found in this ecoregion; scrambling bushes including black raspberry *(Rubus occidentalis*) and swamp rose (*Rosa palustris*) are located on the edges of farm fields and woodlands, while nuisance exotic bushes including bush honeysuckle (*Lonicera Maackii*) dominate the understory of some disturbed woodlands; and vines including Japanese honeysuckle (*Lonicera japonica*) and poison ivy (*Toxicodendron radicans)*. The Study Area and immediate vicinity has remained mostly rural with little development until recently.

1.1.1.4 Topography and Drainage

The aspect of the Study Area is predominantly southwesterly and is on a relatively flat to gently rolling agricultural land and forested area. The elevation of the 9-miles along US 50 typically ranges from about 560 to 700 feet Mean Sea Level (MSL).

The major streams crossing US 50 within the Study Area are Mutton Creek, Storm Creek, Branch of Storm Creek, Sixmile Creek and Indian Creek, all draining to the southwest eventually into Vernon Fork of Muscatatuck River. The watershed areas located within the Study Area are identified by a 14-digit Hydrological Unit Code (HUC) (Figure 3). In addition, 100-year floodplain is associated with the larger stream systems located within the Study Area (Figure 4).

1.1.1.5 National Wetland Inventory Mapped Wetlands

National Wetland Inventory (NWI) mapping of the Study Area identified four wetlands in within the Study Area (Figure 2). Wetlands are located adjacent to Mutton Creek (PEMAH), Storm Creek (PFO1A) and Sixmile Creek (PFO1A). The fourth wetland (PUBGH) is located just east of CR 610. The wetland adjacent to Sixmile Creek and the wetland east of CR 610 were not identified in the field during the site visits. The wetland observed adjacent to Mutton Creek was classified as a PFO1A and not a PEMAH as indicated on the NWI mapping.

The NWI maps identify potential wetlands. The NWI maps were prepared from high-altitude photography and were not field-checked in most cases. Because of this, wetlands are sometimes identified incorrectly or missed. Additionally, the criteria used in identifying these wetlands were different from the criteria currently used by the U.S. Army Corps of Engineers. The Corps does not accept the use of the NWI maps to make a wetland determination.

1.1.1.6 Soil Associations and Series Types

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey identifies thirty-five (35) different soil types within the Study Area (Figure 5). The dominant soil series located in the Study Area are Nabb silt loam (NaaB2) and Avonburg silt loam (AddA). Three soil units mapped within the Study Area including Cobbsfork silt loam (ClfA), Peoga silt loam (PhaA), and Piopolis silty clay loam, 0 to 1 percent slopes, frequently flooded, brief duration (PlpAH) are designated as hydric (USDA, 2010). All other soil units within the site are designated as non-hydric (see Table 1).

Hydric soils are soils that have formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper layer of the soil. Hydric soils are a strong indication that wetlands currently exist or recently existed within the mapped soil unit. Hydric soil units alone are not sufficient to classify an area as wetland and must be verified during a wetland field determination.

Table 1: Soils in Study Area

Symbol	Description	Hydric Rating
AddA	Avonburg silt loam, 0 to 2 percent slopes	Not Hydric
BgeAH	Birds silt loam, 0 to 1 percent slopes, frequently flooded, brief duration	Not Hydric
BgeAHU	Birds silt loam, undrained, 0 to 1 percent slopes, frequently flooded, brief duration	Not Hydric
BlbB2	Blocher, soft black shale substratum-Jennings silt loams, 2 to 6 percent slopes, eroded	Not Hydric
BlcC2	Blocher, soft black shale substratum-Jennings-Deputy silt loams, 6 to 12 percent slopes, eroded	Not Hydric
BlgC2	Blocher-Cincinnati silt loams, 6 to 12 percent slopes, eroded	Not Hydric
BlgC3	Blocher-Cincinnati silt loams, 6 to 12 percent slopes, severely eroded	Not Hydric
BlkE2	Bonnell-Blocher-Hickory silt loams, 12 to 25 percent slopes, eroded	Not Hydric

Symbol	Description	Hydric Rating
BnuD3	Bonnell-Hickory-Blocher complex, 12 to 25 percent slopes, severely eroded	Not Hydric
ClfA	Cobbsfork silt loam, 0 to 1 percent slopes	Hydric
DfnA	Dubois silt loam, 0 to 2 percent slopes	Not Hydric
DtwC2	Deputy silt loam, 6 to 15 percent slopes, eroded	Not Hydric
DtzC3	Deputy-Trappist silty clay loams, 6 to 15 percent slopes, severely eroded	Not Hydric
HccA	Haubstadt silt loam, 0 to 2 percent slopes	Not Hydric
HccB2	Haubstadt silt loam, 2 to 6 percent slopes, eroded	Not Hydric
HcgAH	Haymond silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Not Hydric
NaaB2	Nabb silt loam, 2 to 6 percent slopes, eroded	Not Hydric
OfaAW	Oldenburg silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	Not Hydric
OmkC2	Otwell silt loam, 6 to 12 percent slopes, eroded	Not Hydric
OmkC3	Otwell silt loam, 6 to 12 percent slopes, severely eroded	Not Hydric
PcrB2	Pekin silt loam, 2 to 6 percent slopes, eroded	Not Hydric
PhaA	Peoga silt loam, 0 to 1 percent slopes	Hydric
PlpAH	Piopolis silty clay loam, 0 to 1 percent slopes, frequently flooded, brief duration	Hydric
ScfB2	Scottsburg-Deputy silt loams, 2 to 6 percent slopes, eroded	Not Hydric
StaAH	Steff silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Not Hydric
StdAQ	Stendal silt loam, 0 to 2 percent slopes, rarely flooded	Not Hydric
ThdD2	Trappist-Rohan silt loams, 12 to 25 percent slopes, eroded	Not Hydric
Uby	Udorthents, loamy	Not Hydric
UdaB	Urban land-Deputy-Scottsburg complex, 2 to 15 percent slopes	Not Hydric
UfcB	Urban land-Cincinnati-Nabb complex, 2 to 12 percent slopes	Not Hydric
UfdA	Urban land-Cobbsfork-Avonburg complex, 0 to 2 percent slopes	Not Hydric
WaaAH	Wakeland silt loam, 0 to 2 percent slopes, frequently flooded, brief duration	Not Hydric
WaaAW	Wakeland silt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	Not Hydric
WprAW	Wirt loam, 0 to 2 percent slopes, occasionally flooded, very brief duration	Not Hydric

1.2 Jurisdictional Guidance

The Corps and IDEM regulate impacts to surface water resources within the State of Indiana. Jurisdictional waters of the United States are protected under Sections 401 and 404 of the Clean Water Act (CWA) and Executive Order 11990 (Protection of Wetlands). The Corps has the primary regulatory authority for enforcing Section 404 requirements for waters of the United States, including wetlands. Indiana also has a state program protecting surface waters for both isolated and non-isolated wetlands and other "waters of the State".

1.2.1 Federal Jurisdiction

Waters of the United States are defined by the Corps, 33 Code of Federal Regulations (CFR) 328.3.

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) that are used or could be used for industrial purpose by industries in interstate commerce;
- All impoundments of waters otherwise defined as waters of the United States under the definition;
- Tributaries of waters of the United States identified above;
- The territorial seas;
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified above. The term adjacent means bordering, contiguous or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes and the like are "adjacent wetlands."

Wetlands are a category of waters of the United States, and they are defined by the Corps as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." (33 CFR 328.3, Corps; Section 8b) Typical wetlands include bogs, marshes, swamps and other similar areas. Temporarily or seasonally flooded depressions that receive overland storm-water runoff or overbank floodwaters can meet the criteria for wetlands. This is often due to the prevalence of clay soils that hold water or have a high water table that causes soils to remain saturated for long periods.

In 1987 The Corps of Engineers published a document to assist in determining the boundaries of a wetland (Environmental Laboratory, 1987). This document, referred to as the Corps 1987 Manual, contains information related to soils, hydrology and plants. Section 2 further describes the methodologies for determining a wetland boundary.

1.2.1.1 Rapanos Guidance

Based upon current guidance by the EPA, only those wetlands that are adjacent to traditional navigable waters or wetlands that directly abut non-navigable tributaries having a seasonal (three-month minimum) flow are now considered jurisdictional under the CWA (June 5, 2007, EPA/Corps memo regarding Clean Water Act Jurisdiction

following the U.S. Supreme Court's Decision in Rapanos v. United States and Carabell v. United States). Following are key points from the EPA/Corps memo and are at times referred to as "Rapanos Guidance."

"The agencies will assert jurisdiction over the following waters:

- Traditional navigable waters;
- Wetlands adjacent to traditional navigable waters;
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months);
- Wetlands that directly abut such tributaries.

The agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with traditional navigable water:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to but do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow);
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters;
- Significant nexus includes consideration of hydrologic and ecologic factors."

1.2.1.2 JD Guidebook

The document entitled, *The U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook*, was created by the Corps and EPA as a joint effort to aid field staff in preparing the *Approved Jurisdictional Determination Form* ("JD Form"). The JD Form is a seven page "key" that assists one in determining the jurisdictional status of a given wetland, stream, pond or other type of water body. The JD Guidebook was determined to be necessary following the issuance of the Rapanos Guidance.

This guide book helps clarify the Corps's expectation for documentation of waters of the United States. The document helps with clarifying the difference between Traditional Navigable Waters (TNWs), Relatively Permanent Waters (RPWs), and Non-Relatively Waters (Non-RPWs). It also contains helpful information related to wetland adjacency, wetlands directly abutting other waters, impoundments, isolated wetlands, pipes, ditches, swales, and erosional features. The JD Guidebook also assists one in determining significant nexus.

1.2.2 State Jurisdiction

"Waters" within the State of Indiana are defined as surface and underground waterbodies; natural and artificial; public or private, which are partially or wholly within, flow through or border upon Indiana. The term includes all waters of the United States, as defined in Section 502(7) of the federal Clean Water Act (33 U.S.C. 1362(7)), that are located in Indiana. (*As added by P.L.1-1996, SEC.1. Amended by P.L.183-2002, SEC.1; P.L.282-2003, SEC.31; P.L.52-2004, SEC.4.)*

Although not specifically mentioned within the Indiana Code's definition of state "waters", Indiana "waters" do include and are not limited to streams and wetlands (both isolated and non-isolated). State of Indiana "waters" do not include exempt isolated wetlands, private ponds, or off-stream ponds, reservoirs, wetlands, or other facilities ***built for*** reduction or control of pollution or cooling of water before discharge (IC 13-11-2-265).

The State of Indiana relies on the Corps' decision regarding wetland determinations and delineations including whether or not a wetland is isolated or non-isolated.

2.0 Methods

Delineation methodology for wetlands, ponds and streams located in the Study Area are described in this section as well as criteria for assessing the functions and values of these resources.

2.1 Wetlands

Wetlands are identified using the guidance provided in the Corps 1987 Manual. The presence of potentially jurisdictional wetlands is determined by the positive indication of three criteria in accordance to the Corps 1987 Manual; the presence of greater than 50% hydrophytic (wetland) vegetation, a minimum of one primary or two secondary indicators for hydrology, and one positive hydric soil indicator. In addition, the Corps recently issued a Regional Supplement (RS) for this area of the United States (Midwest Region). Methodologies are utilized in accordance to the RS.

A dominance of hydrophytic vegetation is the first indicator used during the Field Determination Effort to identify wetlands within the Study Area. Although the presence of wetland vegetation is the first indicator used to identify wetlands, topographic signatures such as depressional features, and areas exhibiting signs of wetland hydrology, such as saturated soils, water marks, algal mats, etc., if observed, are also investigated as potential wetlands. A soil pit is dug in various areas to evaluate soil characteristics and assist in determining if indicators of wetland hydrology are present. Evidence of wetland hydrology is assessed within the soil pit by observing saturated soils within the upper 12 inches and/or documenting the presence of water within the upper 12 inches of the pit. Other signs of hydrology may include but are not limited to drainage patterns, surface water, rafted debris, and crayfish chimneys.

Once it is determined that the wetland vegetation, soil, and hydrology criteria are met, notes pertaining to flora, soil, and hydrology are recorded on a "Wetland Determination Data Form" following guidance provided in the DIRS. Data is collected from one wetland and one upland data point for each wetland system. A photo point is taken, usually in proximity to each data point, but on occasion, a better vantage point away from the data point may be used to better depict the characteristics of a wetland.

Each wetland is delineated using a sub-meter GPS unit (Trimble Geo-XH). If the wetland consisted of a littoral shelf on the edge of a pond, then the outer limit of the shelf (the wetland / upland boundary) is delineated with the GPS unit. The boundary of the wetland formed by open water is created using GIS software based on field notes, photos, and aerial photography. Other notes pertaining to significant nexus and the potential for Corps jurisdiction are also recorded at each wetland. Wetlands are identified as isolated waters if they f not directly connect to, are not adjacent

to; or abutting a jurisdictional channel, i.e. those exhibiting a continuous OHWM, or lack a significant ecological nexus.

Wetlands are classified utilizing the Cowardin Classification System (Cowardin 1979), which identifies three principal classes of wetland and open water habitats: Palustrine, Riverine, and Lacustrine. Palustrine wetland communities can be classified into eight types. Three of these types are typically encountered including Palustrine Emergent (PEM), Palustrine Scrub-Shrub (PSS), and Palustrine Forested (PFO). Palustrine Emergent (PEM) wetlands are defined by a vegetation pattern that is dominated by herbaceous species such as wildflowers and grasses and lack a shrub or tree stratum. Palustrine Scrub-Shrub wetlands are defined as areas where woody vegetation such as smaller trees and shrubs (<20 ft./6 m) dominate the area. Palustrine Forested wetlands are defined as areas where woody vegetation such as large trees (>20 ft./6 m) dominate the area.

Unconsolidated shore and bottom classes of Palustrine wetland systems (PUS and PUB) are typically associated with ponds. The littoral edges meeting the criteria of a wetland according to the Corps 1987 Manual and are treated as wetlands, while the open water portion of these systems are included under the ponds section.

Riverine systems (rivers and creeks) are confined by the channel bank or by adjacent wetlands having trees, shrubs, or persistent emergent (palustrine wetland). For braided streams, the boundary of the system is defined as the area between the outermost bank of one side to the outermost bank of the other side of the depressional area within which the braided channels occur (Cowardin, 1979). Although riverine systems may contain wetland vegetation within the channel, they are typically considered as open water systems and usually identified as stream systems instead of wetlands.

Lacustrine systems (LUB, etc.) are permanently flooded depressional areas (lakes and ponds) greater than 20 acres in size and may be comprised of a limnetic (open water) area, where there is no vegetation, surrounded by a littoral (shoreline) edge which has less than 30% areal cover of wetland vegetation. Lacustrine systems are bounded by either upland areas or palustrine wetlands (Cowardin, 1979). Furthermore, lacustrine systems are typically open water areas, and for this reason they are typically identified as ponds and not wetlands.

2.1.1 Function and Value Assessment of Wetlands

The methodology used in assessing the functions and values of wetlands located within the Study Area is The Indiana Wetland Rapid Assessment Protocol (InWRAP). InWRAP was developed by Taylor University Environmental Research Group (TERG) to develop an efficient way of quickly and with a confident level of accuracy assess the quality of a wetland (TERG 2005). The InWRAP utilizes three (3) tiers of assessment in evaluating wetlands.

Tier 1: Assessment Overview. This tier examines the size and landscape position of the wetland and if it is located on a NWI map. This tier also examines the wetland's connectivity to other wetlands and the type and intensity of the surrounding land use.

Tier 2: Preliminary Assessment. This tier documents the geomorphic position, hydrology, soil and the wetland community type. This tier also documents disturbances to hydrology and observations of invasive plant species and the presence of federal or state rare, threatened or endangered species.

Tier 3: Rapid Indicators. This tier examines water quality, flood and storm water storage, animal habitat and plant species located within the wetland. Each documented plant species has a corresponding Coefficient of Conservatism (C) that ranges from 1 to 10 (Rothrock 2004). The concept is that plants with a higher C value are more likely to be found in communities with less habitat disturbance. The following C value ranges provide descriptions of the plant species and their tolerance to disturbance:

- 0-3 species that provide little or no confidence that its inhabitance signifies remnant conditions.
- 4-6 species that are typically associated with remnant plant community, but tolerate significant to moderate disturbance.
- 7-8 species found in high-quality remnant plant communities but appear to endure, from time to time, some disturbance.
- 9-10 species restricted to remnant landscapes that appear to have suffered very little disturbance.

For each wetland identified in the Study Area, an InWRAP form was completed during the site visit. A table was prepared with a list of plant species and their corresponding C values for each wetland. Based on this information an InWRAP Summary was prepared for each wetland to determine the overall quality of the wetland system. As part of this summary a Floristic Quality Assessment (FQA) was performed documenting the average C value and number of dominant plant species located in each wetland (Rothrock 2004).

2.2 Ponds

Open water systems such as lakes, aesthetic ponds, farm ponds, damned streams, retention ponds, reservoirs, borrow pits and similar are open water systems, and the limits are defined by the OHWM near the shoreline or the edge of its littoral fringe (if one is present and meets the Corps 1987 Manual criteria for a wetland).

Ponds encountered during the field determination effort were identified as bodies of open water if no emergent vegetation was visible above the surface of the water. These areas were designated as ponds, not wetlands. Those ponds which developed naturally by fluvial erosion processes were considered jurisdictional if they were connected via a channel containing a continuous OHWM and met the significant nexus criteria.

2.3 Streams

Potential boundaries for these water resources were delineated in the field at the ordinary high water mark (OHWM). The OHWM is the line on the shore or bank established by flowing and/or standing water, marked by characteristics such as a clear, natural line impressed on the bank, erosion shelving, changes in the character of soil, destruction of terrestrial vegetation, presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas [(33 CFR Part 328.3 (e)].

Typically, waterways with an OHWM are identified as perennial, intermittent or ephemeral. As defined in the Federal Register, an ephemeral stream has flowing water only during, and for a short duration after, precipitation events in a typical year. Ephemeral streambeds are located above the water table year-round. Furthermore, groundwater is not a source of water for the stream. Runoff from rainfall is the primary source of water for ephemeral stream flow, while an intermittent stream is one that has flowing water during certain times of the year, when groundwater provides water for stream flow. During dry periods, intermittent streams may not have flowing water, and where runoff from rainfall is a supplemental source of water for stream flow (Federal Register, July 21, 1999). Perennial streams have flow throughout the year except during drought conditions.

The USGS quadrangle maps provide limited assistance in locating stream types as they depict solid blue lines to indicate perennial flow and dashed lines to indicate intermittent flow. Ephemeral drainages are not identified on these maps.

All streams, regardless of potential connectivity to other “waters”, were delineated. Assumptions were made as to whether or not the stream system eventually drained into another “waters of the U.S.” as the limit of study did not allow for a full investigation of connectivity. Aerial photography and topographic maps were utilized as aides in supporting decisions regarding connectivity with other “waters”.

2.3.1 Function and Value Assessment for Streams

Two different function and value assessment methodologies were used, which were dependent on the size of the streams immediate watershed (drainage area). These methodologies include the Qualitative Habitat Evaluation Index (QHEI) for larger streams and the Headwater Habitat Evaluation Index (HHEI) for smaller streams. Each of these assessment methodologies are described in more detail below.

HHEI

As described in detail in the Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (OEPA, 2002), a primary headwater habitat stream is "a surface water of the state, having a defined bed and bank, with either continuous or periodical flowing water, with watershed area less than or equal to 1.0 square mile (259 hectares), and a maximum depth of water pools less than or equal to 40 cm." Primary headwater habitat streams are defined based on substrate type, quality, maximum pool depth and bank full width.

Substrate Type and Quality

The type and variety of substrate found in a stream channel is likely the most important feature that determines biological potential. For the HHEI, channel substrate is examined along 200 linear feet of stream. All major (dominant) and minor substrate types are recorded on a percentage basis along the length of the channel segment. Substrate types fall into nine major categories including bedrock, boulder (boulder slab or boulder), cobble, gravel, sand, silt, clay or hardpan, muck, and detritus (leaf pack/woody debris or fine detritus). Substrate type and quality receives a maximum 40 points.

Maximum Pool Depth

The maximum pool depth is another key indicator for stream habitat as it determines whether the stream can support a well-balanced fish community. Maximum pool depth determines the type of biotic community (such as fish, salamanders, frogs and macroinvertebrates) that inhabits a stream. Additionally, it relates to the type of flow present in a stream channel (such as continuous, intermittent or interstitial). A total 30 points is available for this metric.

Bank Full Width

Bank full width is a morphological characteristic of streams that directly relates to energy dynamics that can affect biotic communities. Bank full width is described as the total width of the stream at the boundary line of terrestrial vegetation. A total 30 points is available for this metric.

Assessment Protocol

The HHEI method of stream habitat assessment classifies streams as Class I, II or III, and it also categorizes them according to whether their channels have been modified. Class I streams are the lowest quality stream habitats, meaning that they have the lowest potential to support a diverse array of flora and fauna typically found in stream environments while Class III have the highest quality stream habitats.

For natural channels (denoted as None or Recovered on the field data sheet), HHEI scores typical of higher quality Class III streams score 50 or greater (out of 100 maximum points and lower quality Class I streams will score below 30. For modified channels (indicated as Recovering or Recent or No Recovery on the field data sheet), HHEI scores for Modified Class III streams are greater than or equal to 70 and Modified Class I streams score below 30.

- Natural Channels (None or Recovered)
    - Class III = 50 and greater
    - Class II = 30 to 49
    - Class I = Below 30

- Modified Channels (Recovering or Recent/No Recovery)
    - Class III = 70 and greater
    - Class II = 30 to 69
    - Class I = Below 30

QHEI

The QHEI was developed by the Ohio EPA to assess available habitat for fish communities, invertebrates and other aquatic organisms by visually assessing the bed, bank and riparian areas of free-flowing streams. The QHEI is similar to the HHEI in that a score is given to a particular stream segment based on the sum of metrics. The composite score of the six metrics include 1) substrate, 2) in-stream cover, 3) channel morphology, 4) bank erosion and riparian zone, 5) pool/glide and riffle/run quality, and 6) gradient (OEPA, 2006). Each of these categories is subdivided into specific attributes that are assigned a point value reflective of the attribute's impact on the aquatic life. Highest scores are assigned to the attributes correlated to streams with high biological diversity and integrity and lower scores are progressively assigned to less desirable habitat features. The QHEI is typically utilized for streams with either continuous or periodical flowing water, with watershed area greater than 1 square mile (259 hectares). The following briefly describes each metric.

Substrate

This metric includes two components, substrate type such as sand, gravel, and cobble; and substrate quality that includes the origin of stream bed material and how embedded it is. "Embeddedness" refers to how much the substrate is covered with fine materials. The more embedded a stream is, the lower the score. Possible maximum metric score is 20 points.

Instream Cover

This metric refers to the type and percent coverage of stream characteristics that may provide shade and/or refuge for stream inhabitants, especially fish. Measured characteristics include undercut banks, overhanging vegetation, slow-water shallows, deep pools, tree root wads, boulders, oxbows, rooted aquatic vegetation and logs or other woody debris. The possible maximum score for this metric is 20 points.

Channel Morphology

This metric is a measure of the original, undisturbed nature of the stream, especially as it pertains to habitat suitability. Sinuosity, development, channelization and stability are the four subcategories that are measured. Sinuosity is the degree to which a stream meanders. Stream development is a measure of the number and arrangement of riffle/run/pool regions. Channelization is the degree of human alteration in the form of straightening or otherwise manipulating the original course of the stream channel. Stability is a measure of the likelihood of the stream to remain intact, that is, to what degree the banks are eroded, and the amount of bedload within the channel. The total possible score for this metric is 20.

Bank erosion and riparian zone

This metric is a measure of the quality of the riparian zone as it pertains to flood plain width and quality, and degree of bank erosion. All measurements for this metric are taken as a composite score of right and left banks averaged together and include floodplain width, floodplain quality (as determined largely by watershed use and vegetative cover), and bank erosion. The maximum possible score for this metric is 10 points.

Pool/glide and Riffle-run Quality

This metric is a measurement of the functionality of the stream's pool/glide, and riffle/run zones, and are broken up accordingly as two subcategories. The pool/glide subcategory considers maximum depth, channel width, and current

velocity. The riffle/run subcategory takes into account the riffle depth, run depth, riffle/run substrate, and riffle/run embeddedness. The maximum possible score for this metric is 20 points.

Map Gradient

This metric is calculated utilizing USGS 7.5 min topographic maps as a function of elevational drop. The distance from the nearest contour line above the QHEI segment to the nearest one below the QHEI segment is measured. This drop in elevation (which is typically 10 feet on USGS maps) is divided by the distance to obtain the stream gradient. The score is determined by knowing either the stream width or its drainage area and referring to Table 2 within the QHEI Manual, which takes the width (or drainage area) and the stream gradient in feet per mile into consideration. The maximum possible score for this metric is 10 points (OEPA, 2006).

Assessment Protocol

The QHEI method of stream habitat assessment does not classify streams as the HHEI method does (Class I, II, and III) but rather rates the habitat characteristics based on an overall score. The QHEI is intended to help fill a gap between completely subjective habitat descriptions and more labor intensive Habitat Suitability Indices developed for each species in a fish community (Rankin, 1989). Generally, streams with QHEI scores 70 and above suggest they have qualities that meet Exceptional Warmwater Habitat (EWH) criteria, streams with scores ranging from 60 to 69 indicate they are capable of supporting a well balanced warm water habitat (WWH), scores ranging from 45 to 59 suggest either WWH or Modified Warmwater Habitat (MWH), scores ranging from 31 to 44 suggest MWH, and scores below 33 suggest Limited Resource Waters (LRW), where fish and macroinvertebrates are severely limited by physical habitat (Rankin, 1991).

Table 2: Classification of QHEI Streams by Aquatic Life Use (ALU)

Score	ALU	Habitat Characteristic
70 and above	EWH	Excellent
60 to 69	WWH	Good
45 to 59	WWH/MWH	Good/Fair
31 to 44	MWH	Fair
30 and below	LRW	Poor

3.0 RESULTS

3.1 Wetlands

In this section a general description of each wetland is provided along with the three criteria used to delineate the wetland in the field. The completed Wetland Determination Forms are located in Appendix I. In addition, a brief summary of the InWRAP and FQA results are discussed. For more detailed information and a complete list of plant species, the InWRAP Summary form and the FQA table for each wetland can be found in Appendix II and III respectively.

As identified in Table 3, there are no isolated wetlands within the Study Area (Figure 6). These wetlands are adjacent to or directly abutting non-Relatively Permanent Waters (non-RPW) or Relatively Permanent Waters (RPW) which eventually drain to a Traditional Navigable Water (TNW) and are therefore “waters of the U.S.” (both Corps and State of Indiana jurisdictional). Jurisdictional Determination forms and a Waters Upload Sheet are located in Appendix IV and V respectively.

Table 3: Wetlands Located within the Study Area

				Location (dd nad83)	
Wetland ID	**Cowardin Classification[1]**	**Delineation Size (acres)**	**Isolated**	**Latitude**	**Longitude**
T2-W1	PFO	0.0974	N	38.96667500	-85.80777222
T2-W2	PEM	0.0188	N	38.96868333	-85.78457778
T2-W2A	PFO	0.1604	N	38.96878333	-85.78470833
T2-W3	PEM	0.3142	N	38.97139167	-85.77615278
T2-W3A	PFO	0.0410	N	38.97153056	-85.77620000
T2-W4	PEM	0.0668	N	38.97161389	-85.77545000
T2-W4A	PFO	0.0208	N	38.97173056	-85.77544444
T2-W5	PEM	0.1914	N	38.97172222	-85.77484167
T2-W5A	PFO	0.0420	N	38.97186667	-85.77463611
T2-W6	PEM	0.1366	N	38.97505278	-85.74915833
T2-W7	PEM	0.0337	N	38.97659444	-85.72277222
T2-W8	PEM	0.2796	N	38.98463611	-85.68420556
T2-W9	PSS	0.1256	N	38.98771111	-85.65373333
T2-W10	PFO	2.0472	N	38.96663056	-85.79774444
T2-W11	PFO	0.1998	N	38.96712778	-85.79746111
T2-W12	PFO	2.6094	N	38.96362222	-85.81921944
	Total Acres	**6.3844**			

* PEM = Palustrine Emergent, PFO = Palustrine Forested, PSS = Palustrine Scrub-Shrub

Wetland T2-W1

This wetland is located just west of N CR 1250 along the north side of US 50 within the Study Area and has a Cowardin Classification of a palustrine forested habitat (PFO). This system occurs in the soil series Otwell silt loam (OmkC2). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of geomorphic position and FAC-neutral test, meeting the hydrology criterion. The dominant plant species in this wetland were documented as silver maple (*Acer saccharinum*, FACW), green ash (*Fraxinus pennsylvanica*, FACW), panicled aster (*Aster simplex*, FACW), great blue lobelia (*Lobelia siphilitica*, FACW) and reed canary grass (*Phalaris arundinacea*, FACW), meeting the hydrophytic (water adapted) plant criterion.

The area contains a dominance of wetland vegetation, at least two secondary indicators of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland directly abuts to a tributary of Storm Creek beyond the limits of the Study Area.

Based on the InWrap Summary, the Indiana community type is Floodplain Forest with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor. The FQA average for the dominant plant speices in the wetland is 1.33. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 1).

Wetland T2-W2 and W2A

These two wetlands are part of the same system with T2-W2 having a Cowardin Classification of a palustrine emergent habitat (PEM) and T2-W2A classified as PFO. This system occurs in the soil series Birds silt loam (BgeAHU). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of drainage patterns, and FAC-neutral test, meeting the hydrology criterion. The dominant plant species in T2-W2 were documented as spotted touch-me-not (*Impatiens*

capensis, FACW), and sweet flag (*Acorus calamus*, OBL), meeting the hydrophytic plant criterion. The dominant plant species in T2-W2A were documented as box elder (*Acer negundo*, FACW), elderberry (*Sambucus canadensis*, FACW) and green ash (*Fraxinus pennsylvanica*, FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, at least two secondary indicators of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland system directly abuts an ephemeral stream (T2-S5) that is a tributary to Branch of Storm Creek.

Based on the InWrap Summary, the Indiana community type for T2-W2 is Wet Meadow with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium. The FQA average for the dominant plant speices in the wetland is 2.2. On a scale of good, medium or poor, the FQA average is poor (under 3.0).

The Indiana community type for T2-W2A is Swamp Forest with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 1.33. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 2&3).

Wetland T2-W3 and W3A

These two wetlands are part of the same system with T2-W3 having a Cowardin Classification of a palustrine PEM and T2-W3A classified as PFO. This system occurs in the soil series Otwell silt loam (OmkC2) and Wakeland silt loam (WaaAW). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of oxidized rhizospheres, surface soil cracks and geomorphic position, meeting the hydrology criterion. The dominant plant species in T2-W3 were documented as soft rush (*Juncus effusus*, OBL), sweet flag (*Acorus calamus*, OBL) and a sedge species (*Carex* sp., FACW), meeting the hydrophytic plant criterion. The dominant plant species in T2-W3A were documented as silver maple (*Acer saccharinum*, FACW), green ash (*Fraxinus pennsylvanica*, FACW) and giant goldenrod (*Solidago gigantea*, FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, a primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland system is adjacent to an ephemeral stream (T2-S10) that is a tributary to Branch of Storm Creek.

Based on the InWrap Summary, the Indiana community type for T2-W3 is Wet Meadow with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 2.0. On a scale of good, medium or poor, the FQA average is poor (under 3.0).

The Indiana community type for T2-W3A is Floodplain Forest with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 3.8. On a scale of good, medium or poor, the FQA average is medium (3.0-5.0) (Appendix VI-Photo 4&5).

Wetland T2-W4 and W4A

These two wetlands are part of the same system with T2-W4 having a Cowardin Classification of a palustrine PEM and T2-W4A classified as PFO. This system occurs in the soil series Otwell silt loam (OmkC2) and Wakeland silt loam (WaaAW). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of oxidized rhizospheres, surface soil cracks and geomorphic position, meeting the hydrology criterion. The dominant plant species in T2-W4 was documented as sweet flag (*Acorus calamus*, OBL), meeting the hydrophytic plant criterion. The dominant plant species in T2-W4A were documented as black willow (S*alix nigra*, OBL), sycamore (*Platanus occidentalis*, FACW), swamp rose (*Rosa palustris*, OBL) and giant goldenrod (*Solidago gigantea*, FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, a primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland system is adjacent to an ephemeral stream (T2-S10) that is a tributary to Branch of Storm Creek.

Based on the InWrap Summary, the Indiana community type for T2-W4 is Wet Meadow with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 1.0. On a scale of good, medium or poor, the FQA average is poor (under 3.0).

The Indiana community type for T2-W4A is Floodplain Forest with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium. The FQA average for the dominant plant speices in the wetland is 2.8. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 6&7).

Wetland T2-W5 and W5A

These two wetlands are part of the same system with T2-W5 having a Cowardin Classification of a palustrine PEM and T2-W5A classified as PFO. This system occurs in the soil series Otwell silt loam (OmkC2) and Wakeland silt loam (WaaAW). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of oxidized rhizospheres, surface soil cracks, crayfish burrows and geomorphic position, meeting the hydrology criterion. The dominant plant species in T2-W5 were documented as sweet flag (*Acorus calamus*, OBL), barnyard grass (*Echinochloa crusgalli*, FACW) and soft rush (*Juncus effusus*, OBL), meeting the hydrophytic plant criterion. The dominant plant species in T2-W5A were documented as black willow (S*alix nigra*, OBL), sycamore (*Platanus occidentalis*, FACW), and black ash (*Fraxinus nigra*, FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, a primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland system dirctly abuts an ephemeral stream (T2-S10) that is a tributary to Branch of Storm Creek.

Based on the InWrap Summary, the Indiana community type for T2-W5 is Wet Meadow with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor. The FQA average for the dominant plant speices in the wetland is 1.0. On a scale of good, medium or poor, the FQA average is poor (under 3.0).

The Indiana community type for T2-W5A is Floodplain Forest with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium. The FQA average for the dominant plant speices in the wetland is 3.25. On a scale of good, medium or poor, the FQA average is medium (3.0-5.0) (Appendix VI-Photo 8&9).

Wetland T2-W6

This wetland is located just east of S CR 750 along the side of US 50 within the Study Area and has a Cowardin Classification of a PEM. This system occurs in the soil series Blocher-Cincinnati silt loams (BlgC2). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of oxidized rhizospheres, drainage patterns and crayfish burrows, meeting the hydrology criterion. The dominant plant species in this wetland were documented as barnyard grass (*Echinochloa crusgalli*, FACW), curly dock (*Rumex crispus*, FACW), and a sedge species (*Carex* sp., FACW), meeting the hydrophytic (water adapted) plant criterion.

The area contains a dominance of wetland vegetation, a primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland directly abuts to an ephemeral stream (T2-S12) that is a tributary to Branch of Storm Creek.

Based on the InWrap Summary, the Indiana community type is Seep with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor. The FQA average for the dominant plant speices in the wetland is 2.2. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 10).

Wetland T2-W7

This wetland is located west of S CR 610 adjacent to a junk yard on the north side of US 50 within the Study Area and has a Cowardin Classification of a PEM. This system occurs in the soil series Urban land-Deputy-Scottsburg complex (UdaB). Due to a fence, access to this area was not available. Based on the observance of 100 percent cover of hydrophytic (water adapted) plants, hydric soil was assumed. Hydrologic indicators were observed and consisted of drainage patterns, geomorphic position and FAC-neutral, meeting the hydrology criterion. The dominant plant species in this wetland were documented as narrow-leaf cattail (*Typha angustifolia*, OBL) and barnyard grass (*Echinochloa crusgalli*, FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, at least two secondary indicators of wetland hydrology, and assumed hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland is adjacent to a tributary of Sixmile Creek beyond the limits of the Study Area.

Based on the InWrap Summary, the Indiana community type is Shallow Marsh with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor. The FQA average for the dominant plant speices in the wetland is 2.2. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 11).

Wetland T2-W8

This wetland is located just east of S CR 400 on the south side of US 50 within the Study Area and has a Cowardin Classification of a PEM. This system occurs in the soil series Avonburg silt loam (AddA). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of oxidized rhizospheres, surface soil cracks and drainage patterns, meeting the hydrology criterion. The dominant plant species in this wetland were documented as rush (*Juncus effusus*, OBL), straw-color flat sedge (*Cyperus strigosus*, FACW) and a sedge species (*Carex* sp., FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, a primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland is adjacent to a tributary (T2-S24) of Indian Creek.

Based on the InWrap Summary, the Indiana community type is Sedge Meadow with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 2.25. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 12).

Wetland T2-W9

This wetland is located just east of S CR 400 on the south side of US 50 within the Study Area and has a Cowardin Classification of a palustrine scrub shrub habitat (PSS). This system occurs in the soil series Nabb silt loam (NaaB2). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and consisted of drainage patterns, geomorphic position and FAC-neutral test, meeting the hydrology criterion. The dominant plant species in this wetland were documented as rush (*Juncus effusus*, OBL), straw-color flat sedge (*Cyperus strigosus*, FACW) and a sedge species (*Carex* sp., FACW), meeting the hydrophytic plant criterion.

The area contains a dominance of wetland vegetation, at least two secondary indicators of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland is adjacent to a tributary (T2-S28) of Indian Creek.

Based on the InWrap Summary, the Indiana community type is Shallow Marsh with a more favorable value for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is poor to medium. The FQA average for the dominant plant speices in the wetland is 1.43. On a scale of good, medium or poor, the FQA average is poor (under 3.0) (Appendix VI-Photo 13).

Wetland T2-W10

This wetland is located west of N CR 1300 adjacent to Storm Creek (T2-S29) on the south side of US 50 within the Study Area and has a Cowardin Classification of a PFO. This system occurs in the soil series Birds silt loam (BgeAHU). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and included surface water, water marks and water-stained leaves, meeting the hydrology criterion. The dominant plant species in this wetland were documented as red maple (*Acer rubrum*, FAC), eastern cottonwood (*Populus deltoides*, FAC), sycamore (*Platanus occidentalis*, FACW), and spicebush (*Lindera benzoin*, FACW), meeting the hydrophytic (water adapted) plant criterion.

The area contains a dominance of wetland vegetation, at least one primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland extends beyond the limits of the Study Area.

Based on the InWrap Summary, the Indiana community type is Floodplain Forest with a valuable rating for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium to good. The FQA average for the dominant plant speices in the wetland is 4.0. On a scale of good, medium or poor, the FQA average is medium (3.0-5.0) (Appendix VI-Photo 77).

Wetland T2-W11

This wetland is located west of N CR 1300 directly abutting a tributary to Storm Creek (T2-S30) on the north side of US 50 within the Study Area and has a Cowardin Classification of a PFO. This system occurs in the soil series Wakeland silt loam (WaaAH). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicators were observed and included surface water, water marks and water-stained leaves, meeting the hydrology criterion. The dominant plant species in this wetland were documented as box elder (*Acer negundo*, FACW), green ash (*Fraxinus pennsylvanica*, FACW), black willow (*Salix nigra*, OBL), buttonbush (*Cephalanthus occidentalis*, OBL), spicebush (*Lindera benzoin*, FACW) and spotted touch-me-not (*Impatiens capensis*, FACW), meeting the hydrophytic (water adapted) plant criterion.

The area contains a dominance of wetland vegetation, at least one primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland extends beyond the limits of the Study Area.

Based on the InWrap Summary, the Indiana community type is Floodplain Forest with a valuable rating for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium to good. The FQA average for the dominant plant speices in the wetland is 2.5. On a scale of good, medium or poor, the FQA average is poor (below 3.0) (Appendix VI-Photo 78).

Wetland T2-W12

This wetland is located approximately 0.5 mile west of N CR 1225 directly abutting Mutton Creek (T2-S31) on the south side of US 50 within the Study Area and has a Cowardin Classification of a PFO. This system occurs in the soil

series Wakeland silt loam (WaaAH). The soil in this wetland was observed to contain a low chroma with a depleted matrix meeting the hydric soil criterion. Hydrologic indicator observed was saturation, meeting the hydrology criterion. The dominant plant species in this wetland were documented as red maple (*Acer rubrum*, FAC), sycamore (*Platanus occidentalis*, FACW), multiflora rose (*Rosa multiflora*, FACU), sedge (*Carex sp.*, FACW) and stout wood reedgrass (*Cinna arudinacea*, FACW), meeting the hydrophytic (water adapted) plant criterion.

The area contains a dominance of wetland vegetation, at least one primary indicator of wetland hydrology, and at least one indicator of hydric soils, thus meeting the three criteria to be classified as a wetland. This wetland extends beyond the limits of the Study Area.

Based on the InWrap Summary, the Indiana community type is Floodplain Forest with a valuable rating for animal habitat using a valuable, more favorable, favorable, or poor rating. On a scale of good, medium, or poor, the overall water quality and flood storage of this wetland is medium to good. The FQA average for the dominant plant speices in the wetland is 3.2. On a scale of good, medium or poor, the FQA average is medium (3.0-3.5) (Appendix VI-Photo 79).

3.2 Ponds

One pond, T2-P1, (0.037 acre) was observed within the Study Area (Fig 6.6). This pond appears to have an outlet to a tributary (T2-S12) of Branch of Storm Creek. This pond is not isolated and has a significant nexus with a "waters of the U.S." (Appendix VI-Photo 14).

3.3 Streams

A total of thirty-three streams were identified within the Study Area (Figures 6.0-6.12 and Appendix VI-Photos 15-84). Stream lengths in the Study Area totaled 11,037 linear feet, while total area of the streams within the Study Area is approximately 1.47 acres. The major stream systems identified within the Study Area are associated with Mutton Creek, Storm Creek, Sixmile Creek and Indian Creek. Table 4 lists the streams located within the Study Area. In addition, HHEI/QHEI forms were completed for each stream within the Study Area (Appendix VII).

Table 4: Streams Located within the Study Area

Stream ID	Waterbody Name	Stream Type[2]	Rapanos Type[3]	Average height of OHWM (feet)	Average Width at OHWM (feet)	Linear Feet	Acres	HHEI/ QHEI	Jurisdictional
T2-S1	Roadside ditch with connection to Tributary to Storm Creek	EPH	Non-RPW	0.5	3.0	887	0.061	10	Y
T2-S2	Roadside ditch with connection to Tributary to Storm Creek	EPH	Non-RPW	0.5	3.0	1,005	0.069	10	Y
T2-S3	Tributary to Storm Creek	EPH	Non-RPW	1.0	3.0	86	0.006	17	Y
T2-S4	Tributary to Storm Creek	EPH	Non-RPW	0.5	2.0	128	0.006	17	Y
T2-S5	Roadside ditch with connection to Tributary to Storm Creek	EPH	Non-RPW	1.0	3.0	294	0.020	17	Y
T2-S6	Tributary to Storm Creek	EPH	Non-RPW	1.0	1.0	184	0.004	17	Y
T2-S7	Tributary to Storm Creek	INT	RPW	2.0	5.0	485	0.056	32	Y
T2-S8	Tributary to Storm Creek	INT	RPW	3.0	8.0	969	0.178	60.5	Y

Stream ID	Waterbody Name	Stream Type[2]	Rapanos Type[3]	Average height of OHWM (feet)	Average Width at OHWM (feet)	Linear Feet	Acres	HHEI/ QHEI	Jurisdictional
T2-S9	Tributary to Storm Creek	EPH	Non-RPW	1.0	2.0	543	0.025	17	Y
T2-S10	Tributary to Storm Creek	EPH	Non-RPW	0.5	2.0	339	0.016	21	Y
T2-S11	Roadside ditch with connection to Tributary to Storm Creek	EPH	Non-RPW	1.0	1.0	192	0.004	10	Y
T2-S12	Tributary to Storm Creek	EPH	Non-RPW	1.0	2.0	282	0.013	9	Y
T2-S13	Tributary to Storm Creek	EPH	Non-RPW	1.0	2.0	211	0.010	18	Y
T2-S14	Tributary to Storm Creek	INT	RPW	2.0	5.0	251	0.029	32	Y
T2-S15	Roadside ditch that flows into Sixmile Creek	EPH	Non-RPW	1.5	3.0	478	0.033	16	Y
T2-S16	Sixmile Creek	PER	RPW	3.5	30.0	341	0.235	83.5	Y
T2-S17	Tributary to Sixmile Creek	EPH	Non-RPW	1.0	2.0	75	0.004	14	Y
T2-S18	Tributary to Sixmile Creek	INT	RPW	0.5	4.0	245	0.023	39	Y
T2-S19	Tributary to Sixmile Creek	EPH	Non-RPW	1.0	3.0	81	0.006	22	Y
T2-S20	Tributary to Sixmile Creek	EPH	Non-RPW	1.5	2.0	69	0.003	23	Y
T2-S21	Tributary to Sixmile Creek	EPH	Non-RPW	1.5	4.0	304	0.028	29	Y
T2-S22	Tributary to Sixmile Creek	EPH	Non-RPW	1.0	2.0	239	0.011	17	Y
T2-S23	Railroad ditch with connection to a tributary to Sixmile Creek	EPH	Non-RPW	1.0	2.0	1,305	0.060	17	Y
T2-S24	Tributary to Indian Creek	EPH	Non-RPW	0.5	2.0	197	0.009	16	Y
T2-S25	Roadside ditch with connection to a tributary to Indian Creek	EPH	Non-RPW	0.5	1.0	414	0.010	17	Y
T2-S26	Tributary to Indian Creek	INT	RPW	1.5	7.0	366	0.059	32	Y
T2-S27	Tributary to Indian Creek	EPH	Non-RPW	0.5	2.0	50	0.002	17	Y
T2-S28	Tributary to Indian Creek	EPH	Non-RPW	2.5	3.0	66	0.005	17	Y
T2-S29	Storm Creek	PER	RPW	5.0	22.0	322	0.163	52	Y
T2-S30	Tributary to Storm Creek	INT	RPW	2.5	3.0	179	0.012	39	Y
T2-S31	Mutton Creek	PER	RPW	5.5	30.0	450	0.310	58	Y
T2-S32	Indian Creek	INT	RPW	2.5	18.0	109	0.430	55	Y
T2-S33	Tributary to Indian Creek	EPH	Non-RPW	1.0	3.0	11	0.007	38	Y
					Total	**11,157**	**1.905**		

Storm Creek was located in the Study Area and 11 ephemeral and 4 intermittent streams eventually draining to Storm Creek were present. Four of the ephemeral streams are roadside drainage ways (T2-S1, S3, S5 and S11). The remaining ephemeral streams are generally located in forested or fragmented forested areas adjacent to agricultural fields north and south of US 50. Stream T2-S8 is an intermittent tributary crossing under US 50 that flows directly to Storm Creek. This stream and an additional intermittent stream (T2-S7) has been manipulated at the crossing location and adjacent to US 50 on the north and south side of the roadway. The intermittent stream (T2-S14) drains from an agricultural, commercial area to a forested area on the north side of US 50. The remaining intermittent stream (T2-S30) is located in a forested area adjacent to US 50 and flows directly into Storm Creek.

Sixmile Creek (T2-S16) is located within the Study Area along with 7 ephemeral streams and one intermittent stream that drain to Sixmile Creek. Ephemeral stream T2-S15 is a roadside drainage way that flows directly to Sixmile Creek. Stream T2-S23 is an ephemeral drainage way located adjacent to a railroad that eventually flows to Sixmile Creek. The remaining ephemeral streams and one intermittent stream are mainly located in forested areas north and south of US 50 that eventually flow to Sixmile Creek.

Indian Creek (T2-S32) is located within the Study Area along with 4 ephemeral streams and one intermittent stream.

Mutton Creek (T2-S31) was located on the western edge of the study area with no associated tributaries.

4.0 SUMMARY

A total of 16 wetland systems with three classification types totaling 6.38 acres, 1 Pond (0.037 acre) and 33 jurisdictional streams totaling 11,157 linear feet were delineated within the Study Area. The Corps has the authority to determine that this report is accurate and meets the requirements for a wetland delineation.

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6.0 ACRONYMS

AMSL	above mean sea level
CFR	Code of Federal Regulations
CO2	carbon dioxide
CR	County Road
CWA	Clean Water Act
EPA	Environmental Protection Agency
FAC	Facultative
FACW	Facultative Wet
FEMA	NWI National Wetland Inventory
FR	Federal Register
GIS	Geographic Information System
GPS	Geographic Position System
HUC	Hydrologic Unit Code
"JD Form"	*Approved Jurisdictional Determination Form*
JD	Jurisdictional Determination
LF	linear (or lineal) feet
MSL	Mean Sea Level
Non-RPWs	Non-Relatively Permanent Waters
NRCS	Natural Resource Conservation Service
OBL	Obligate
OHWM	Ordinary High Water Mark
PEM	Palustrine emergent
PEMEf	Palustrine emergent, seasonally flooded/saturated, farmed
PEMFx	Palustrine emergent, seasonally flooded/saturated, excavated
PSSFx	Palustrine scrub-shrub, semipermanently flooded, excavated
PFOEx	Palustrine Forested , seasonally flooded/saturated, excavated
RPWs	Relatively Permanent Waters
SR	State road
TNWs	Traditional Navigable Waters
UPL	Upland
USDA	U.S. Department of Agriculture
USGS	United States Geological Survey

Due to size limitations, the Appendix of the Report has been omitted from this report. The Appendix can be viewed by contacting the Office of Environmental Services at the Indiana Department of Transportation.

Appendix G: Section 4(f) Documentation

Prescribed by State Board of Accounts

General Form No. 99P (Rev. 2009A)

RE Indiana Dept. of Transportation (Governmental Unit)

To NORTH VERNON SUN

JENNINGS County, Indiana

P.O. BOX 988, NORTH VERNON, IN 47265

PUBLISHER'S CLAIM

Federal ID#: 35-1123650

Indiana Tax #: 001944967

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umber of lines ---------- 8

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l number of lines in notice ---------- 72

N OF CHARGES

es, 1 columns wide equals 72 equivalent lines at 4097

s per line ---------- $ 29.50

charges for notices containing rule or tabular work (50 per cent ove amount) ----------

r extra proofs of publication ($1.00 for each proof in excess o) ----------

OTAL AMOUNT OF CLAIM ---------- $ 29.50

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to the provisions and penalties of IC 5-11-10-1, I hereby certify that the foregoing account is t, that the amount claimed is legally due, after allowing all just credits, and that no part of the same

tify that the printed matter attached hereto is a true copy, of the same column width and type size, published in said paper 1 times. The dates of publication being as follows:

June 21, 2011

, the statement checked below is true and correct:

paper does not have a Web site.

paper has a Web site and this public notice was posted on the same day as it was published in the newspaper.

..... Newspaper has a Web site, but due to technical problem or error, public notice was posted on .....

..... Newspaper has a Web site but refuses to post the public notice.

Dana Skellon

Date October 17, 20 11

Title LEGAL ADVERTISING MANAGER

PUBLIC NOTICE

NOTICE OF INTENT TO ADOPT A U.S. DEPARTMENT OF TRANSPORTATION ACT SECTION 4(F) DE MINIMIS FINDING FOR IMPACTS TO MUSCATATUCK NATIONAL WILDLIFE REFUGE

The Indiana Department of Transportation, in coordination with the Federal Highway Administration, has continued moving forward with environmental and engineering documentation for the proposed spot improvements along U.S. 50. The purpose of the spot improvements is to improve traffic operation and safety along U.S. 50 from U.S. 31 to County Road 15 N with roadway improvements aimed at maximizing existing highway capacity and allowing efficient travel and safety for other users.

The proposed project is an action that is subject to the U.S. Department of Transportation Act of 1966 (49 U.S.C. 303 and 23 U.S.C. 138 [PL 110-17], [PL 97-449], [PL 86-670]). Section 4(f) of this legislation seeks to protect publicly owned public parklands, recreation areas, waterfowl and wildlife refuges, and significant historic sites from impacts - the "use" of these resources - by U.S. Department of Transportation actions. After an evaluation of the impacts of the action upon Section 4(f) resources, the proposed project would require converting approximately 2.2 acres of refuge property to transportation right-of-way; therefore, a finding must be made.

The responsibility for Section 4(f) findings has been assigned to the Federal Highway administration under the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for User (SAFETEA-LU) Act of 2005. Section 6009 of SAFETEA-LU allows determinations that certain uses of 4(f) land will have a minor - de minimis - impact on the protected resource. Section 6009(a) requires that a public notice and opportunity for review and comment be provided for projects that are determined to have a de minimis impact.

Copies of the proposed project plans are available for review at the INDOT project website located at http://www.in.gov/indot/div/projects/us50/northvernon/about.html and available for review at the INDOT Seymour District office located at 185 Agrico Lane, Seymour, Indiana. Please contact Jim Ude, Director of Planning and Production, at (812) 524-3729 to make arrangements.

Public comments on the 4(f) de minimis finding will be accepted until July 20, 2011. Responses or replies to the public comments may not be required, depending on the substantive nature of the comments; however, all comments and responses will be considered and documented in the administrative record for the proposed project.

For more information about the project, please contact Brock Hoegh, Environmental Project Manager, HNTB, at)317) 636-4682 or by email at bahoegh@hntb.com.

-SUN, June 21; 1tc

MEMORANDUM OF UNDERSTANDING

AN UNDERSTANDING REGARDING PUBLIC LAND MITIGATIONFOR U.S. 50 HIGHWAY SPOT IMPROVEMENT PROJECT (DES. NO. 1005104) IN JACKSON COUNTY, INDIANA

PURPOSE

This Memorandum of Understanding (MOU) is entered into between Federal Highway Administration, Indiana Division Office (FHWA), Indiana Department of Transportation (INDOT), and U.S. Fish and Wildlife Service (USFWS) to address mitigation requirements for FHWA and INDOT's U.S. 50 spot improvement projects (Project), including replacement of two bridges located adjacent to the Muscatatuck National Wildlife Refuge (MNWR).

BACKGROUND

Construction of the Project will require approximately 2.2 acres of right-of-way easement for highway purposes from lands owned by USFWS as part of the MNWR. INDOT has minimized to the extent practical the area required to construct and maintain the two bridges and eliminated proposed improvements to the southeast quadrant of the U.S. 50/County Road 1225 E intersection specifically to avoid further impacts to the MNWR. **(Figure 1)** These efforts reduced the total impact to the MNWR from 4.7 acres to 2.2 acres. It is anticipated that this permanent physical impact on the refuge at these two locations will not diminish the overall function of the refuge nor interfere with the activities or purpose of the refuge at this location.

The MNWR land will be replaced via a land purchase within the USFWS Region 3 Division of Realty in accordance with legislation governing the National Wildlife Refuge System[1]. The required mitigation for the MNWR right-of-way areas will be in accordance with Indiana laws and regulations.

FHWA determined that the MNWR is protected as a wildlife and waterfowl refuge and the improvements may qualify as a *de minimis* Section 4(f) impact finding for the MNWR, based on the ongoing efforts to avoid, minimize and mitigate impacts. Coordination with agencies will continue during final design.

INDOT project team staff actively worked with staff of the USFWS, MNWR, and the USFWS Region 3 Division of Realty to provide adequate design information and to coordinate an acceptable land purchase for the USFWS Refuge System. In regard to MNWR ROW areas, INDOT will compensate USFWS for the use of the stated property. The USFWS will place the compensation in escrow for up to 10 years, for USFWS to purchase approximately 2.2 acres of land for future expansion at the Patoka River National Wildlife Refuge (See **Figure 1**). The USFWS will provide the Indiana Department of Transportation and the Federal Highway Administration-Indiana Division, proof of purchase once complete.

---

[1] National Wildlife Refuge System Administration Act of 1966 - 16 U.S.C. §§ 668dd-668ee.

IMPLEMENTATION

The undersigned acknowledge that this MOU represents a framework for proceeding forward and it is fully understood by all agencies that further agreements and actions will be necessary.

1. The FHWA and INDOT will construct the proposed Project replacing two bridges located on U.S. 50 in accordance with plans provided to USFWS, minor alterations notwithstanding.

2. The USFWS will grant the State of Indiana a right-of-way easement for highway purposes on the grounds of Muscatatuck National Wildlife Refuge for the purposes of the easement (see Figure 2). The easement will consist of approximately 2.2 acres.

3. For lands being used and occupied as part of the right-of-way easement for highway purposes, INDOT will compensate USFWS $2,710/acre for a total of compensable amount of $5,962. USFWS will place compensation amount in escrow with the purpose of purchasing approximately 2.2 acres of land at the Patoka River National Wildlife Refuge and Wildlife Management Area.

4. INDOT will provide payment within 90 days of the last signature of this MOU and prior to the issuance of the easement. Once payment is made, the mitigation requirements of the National Wildlife Refuge System will be satisfied and all obligations between INDOT, FHWA, and USFWS will be satisfied.

MEMORANDUM OF UNDERSTANDING

U.S. 50 SPOT IMPROVEMENT PROJECT

Signature Page

INDIANA DEPARTMENT OF TRANSPORTATION

By: DAVID B. HOLTZ — 06 Dec 2011

Commissioner, Indiana Department of Transportation — Date

For

UNITED STATES FISH AND WILDLIFE SERVICE

By: Charles M. Wooley Acting Regional Director — 11/23/11

For Regional Director, U.S. Fish and Wildlife Service — Date

FEDERAL HIGHWAY ADMINISTRATION

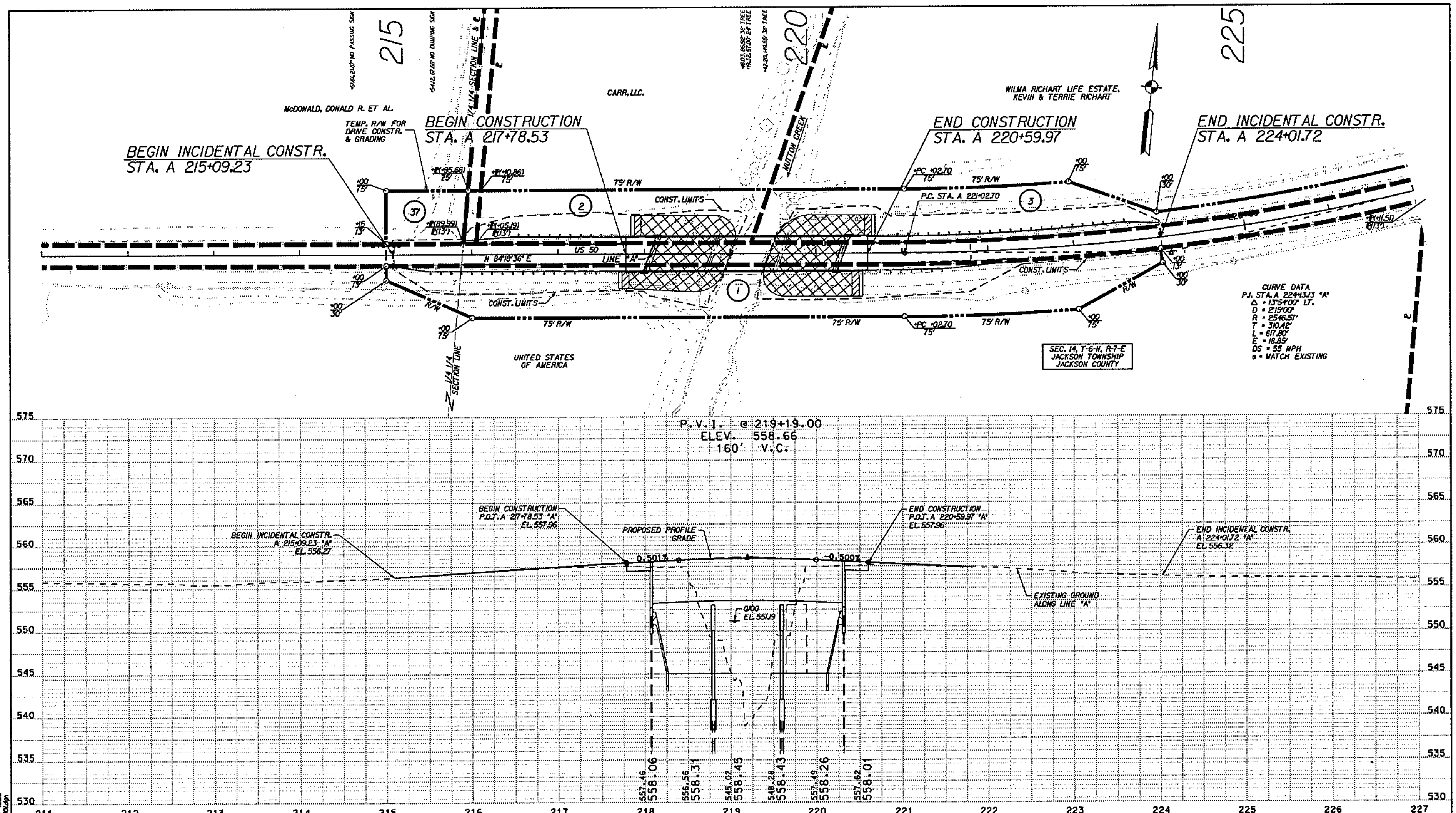
By: — 12-16-2011

Indiana Division Administrator — Date

FOR ROBERT TALLY

Figure 1: Plan and Profile Sheets U.S. 50 over Mutton Creek and Storm Creek

R/W CODE: 5328



RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER ____ DATE

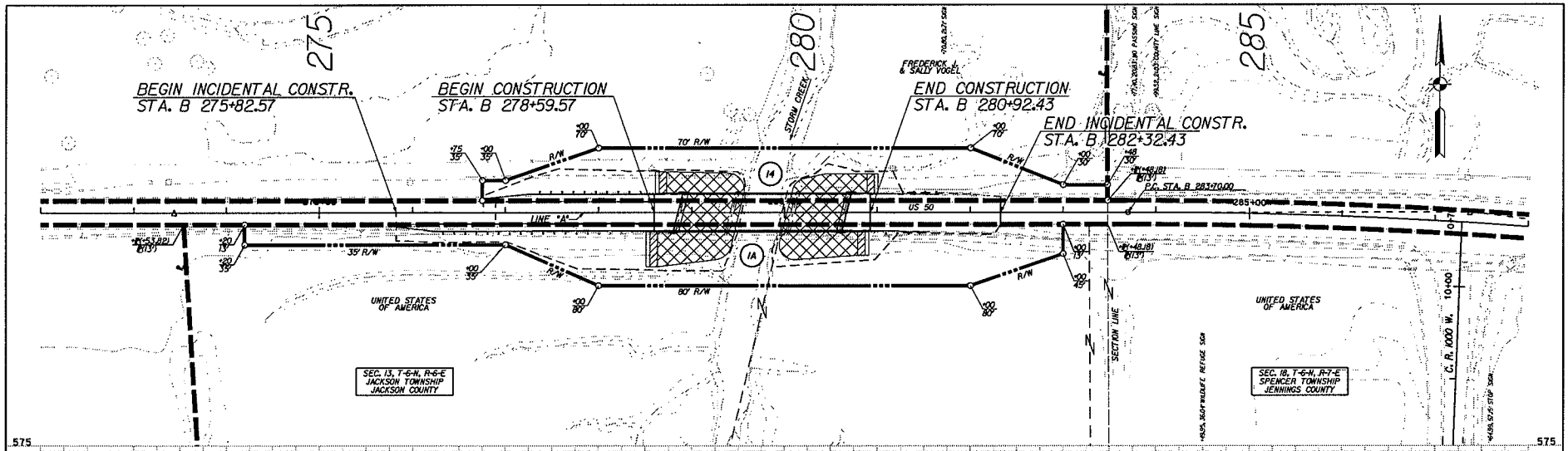
DESIGNED: TAH | DRAWN: DH
CHECKED: NOH | CHECKED: TJH

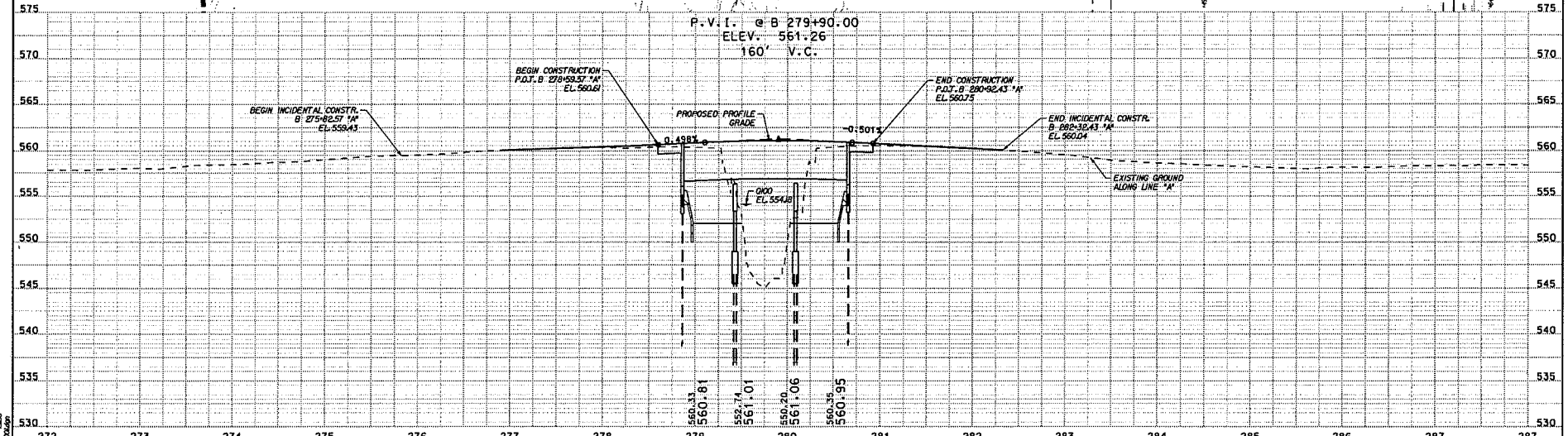
INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
US 50 OVER MUTTON CREEK

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'		
VERTICAL SCALE	DESIGNATION	
1" = 5'		
SURVEY BOOK	DWG. NO.	SHEET NO.
	BR-01	of
CONTRACT	PROJECT	

R/W CODE: 5328





RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50' / BRIDGE FILE
			VERTICAL SCALE 1" = 5' / DESIGNATION
DESIGNED TAH	DRAWN DH	PLAN & PROFILE US 50 OVER STORM CREEK	SURVEY BOOK / DWG. NO. BR-02 / SHEET NO. of
CHECKED TJH	CHECKED NOH		CONTRACT / PROJECT

Appendix H: Additional Studies

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 2/14/11	4. Sheet 1 of _____
1. Name of Project **U.S. 50 Spot Improvements**	5. Federal Agency Involved	
2. Type of Project **Highway improvements**	6. County and State **Jackson and ~~Jennings~~, Indiana**	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 2-16-11	2. Person Completing Lisa Bolton
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES [X] NO [ ]	4. Acres Irrigated	Average Farm Size 201
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 255,159 % 78	7. Amount of Farmland As Defined in FPPA Acres: 190,548 % 58
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment _____ Proposed ROW	Corridor B	Corridor C	Corridor D
A. Total Acres To Be Converted Directly	~~37~~			
B. Total Acres To Be Converted Indirectly, Or To Receive Services				
C. Total Acres In Corridor	~~37~~	0	0	0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	1.01			
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	<0.0017			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	81			
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	71			
PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))* — Maximum Points				
1. Area in Nonurban Use — 15	15			
2. Perimeter in Nonurban Use — 10	10			
3. Percent Of Corridor Being Farmed — 20	9			
4. Protection Provided By State And Local Government — 20	20			
5. Size of Present Farm Unit Compared To Average — 10	0			
6. Creation Of Nonfarmable Farmland — 25	0			
7. Availablility Of Farm Support Services — 5	5			
8. On-Farm Investments — 20	10			
9. Effects Of Conversion On Farm Support Services — 25	0			
10. Compatibility With Existing Agricultural Use — 10	5			
TOTAL CORRIDOR ASSESSMENT POINTS — 160	074	0	0	0
PART VII *(To be completed by Federal Agency)*				
Relative Value Of Farmland (From Part V) — 100	71			
Total Corridor Assessment (From Part VI above or a local site assessment) — 160	074	0	0	0
TOTAL POINTS *(Total of above 2 lines)* — 260	0145	0	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:

Signature of Person Completing this Part: | DATE

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

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request	
Name Of Project	US 50 Spot Improvements	Federal Agency Involved	
Proposed Land Use		County And State	Jennings Co, IN
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	2-16-11

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).*	Yes ☒	No ☐	Acres Irrigated	Average Farm Size
				226

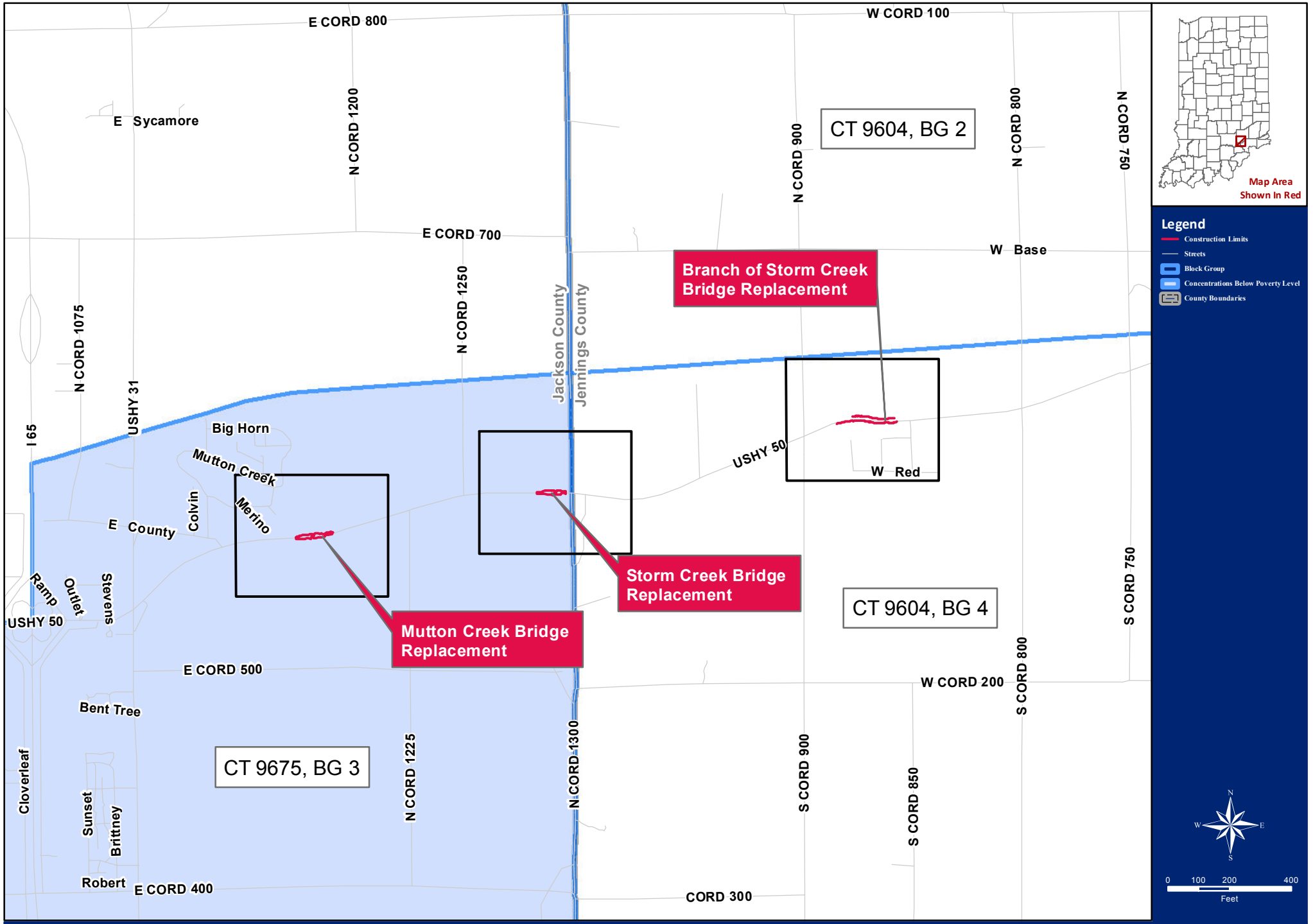
Major Crop(s)	Farmable Land In Govt. Jurisdiction	Amount Of Farmland As Defined in FPPA
Corn	Acres: 195,701 % 81	Acres: 154,374 % 64
Name Of Land Evaluation System Used: LESA	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS: 2-23-11

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	16.37			
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.012			
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	86			
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	058	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use		15			
2. Perimeter In Nonurban Use		10			
3. Percent Of Site Being Farmed		9			
4. Protection Provided By State And Local Government		20			
5. Distance From Urban Builtup Area		5			
6. Distance To Urban Support Services		0			
7. Size Of Present Farm Unit Compared To Average		0			
8. Creation Of Nonfarmable Farmland		0			
9. Availability Of Farm Support Services		5			
10. On-Farm Investments		10			
11. Effects Of Conversion On Farm Support Services		0			
12. Compatibility With Existing Agricultural Use		5			
TOTAL SITE ASSESSMENT POINTS	160	079	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	058	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	079	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	137	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ☐

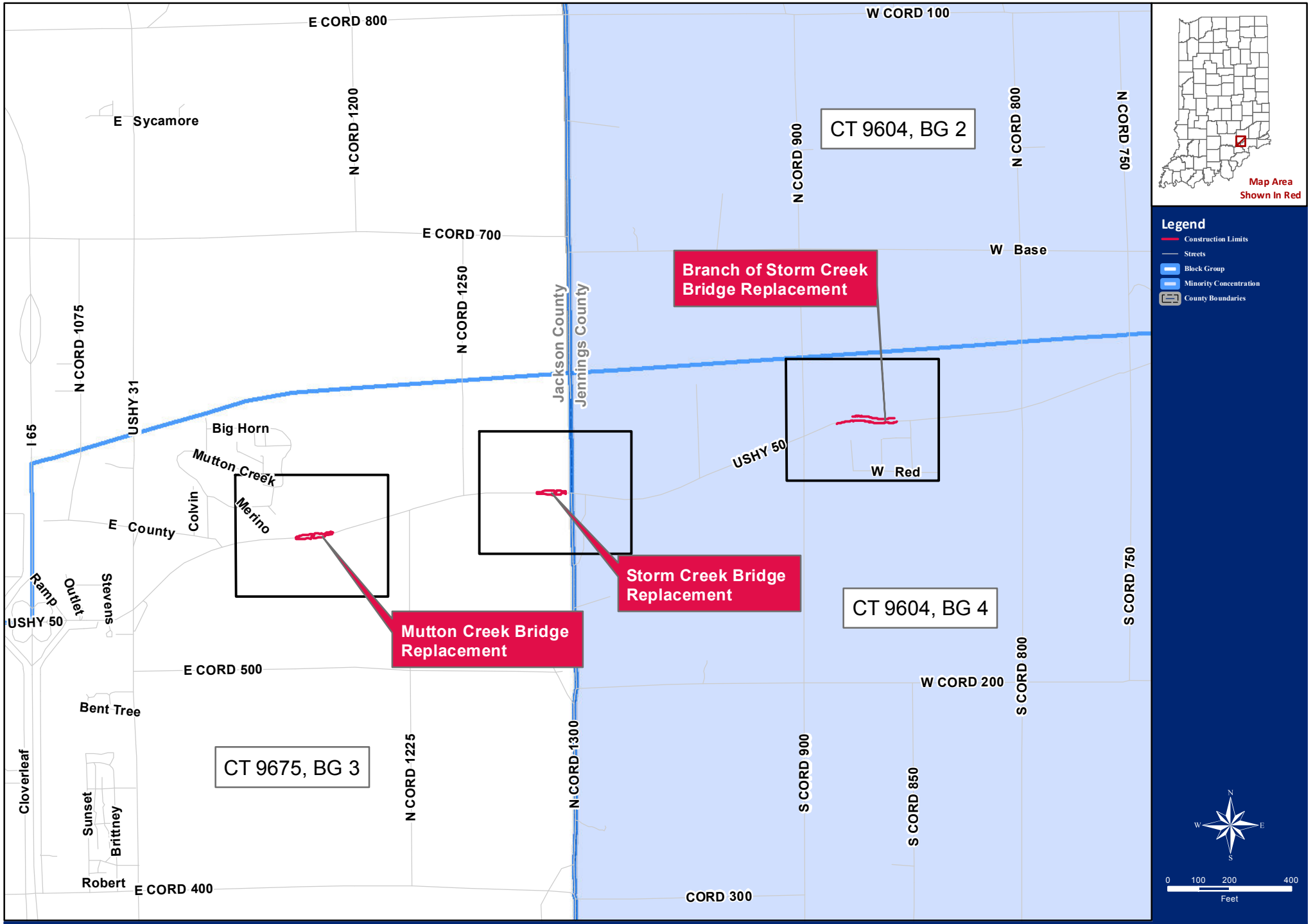
Reason For Selection:



Areas with Concentrations below Poverty Level

US 50 in Jackson and Jennings County

Source - US Census, 2000, SF 3 (P87)



Areas with Minority Concentrations

US 50 in Jackson and Jennings County

Source - US Census, 2000, SF 1 (P7, P8)

Table 1: Population Characteristics: Race

Geography	Total population		Total population: White alone		Total population: Black or African American alone		Total population: American Indian and Alaska Native alone		Total population: Asian alone		Total population: Native Hawaiian and Other Pacific Islander alone		Total population: Some other race alone		Total population: Two or more races		Hispanic	
			#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
United States	281,421,906		211,460,626	75.14%	34,658,190	12.32%	2,475,956	0.88%	10,242,998	3.64%	398,835	0.14%	15,359,073	5.46%	6,826,228	2.43%	35,305,818	12.55%
Indiana	6,080,485		5,320,022	87.49%	510,034	8.39%	15,815	0.26%	59,126	0.97%	2,005	0.03%	97,811	1.61%	75,672	1.24%	214,536	3.53%
Jackson County, Indiana	41,335		39,736	96.13%	227	0.55%	101	0.24%	323	0.78%	23	0.06%	637	1.54%	288	0.70%	1,112	2.69%
Jennings County, Indiana	27,554		26,852	97.45%	206	0.75%	58	0.21%	72	0.26%	1	0.00%	59	0.21%	306	1.11%	193	0.70%
STUDY AREA																		
Census Tract 9675, Jackson County, Indiana	6,342		6,109	96.33%	23	0.36%	13	0.20%	76	1.20%	2	0.03%	78	1.23%	41	0.65%	112	1.77%
Census Tract 9604, Jennings County, Indiana	6,146		5,981	97.32%	60	0.98%	7	0.11%	24	0.39%	0	0.00%	13	0.21%	61	0.99%	47	0.76%
Census Tract 9606, Jennings County, Indiana	4,633		4,557	98.36%	11	0.24%	1	0.02%	3	0.06%	1	0.02%	13	0.28%	47	1.01%	26	0.56%
Block Group 3, Census Tract 9675, Jackson County, Indiana	2,270		2,148	94.63%	12	0.53%	7	0.31%	15	0.66%	1	0.04%	63	2.78%	24	1.06%	74	3.26%
Block Group 2, Census Tract 9604, Jennings County, Indiana	1,107		1,092	98.64%	2	0.18%	0	0.00%	2	0.18%	0	0.00%	5	0.45%	6	0.54%	7	0.63%
Block Group 3, Census Tract 9604, Jennings County, Indiana	2,049		1,972	96.24%	21	1.02%	1	0.05%	13	0.63%	0	0.00%	3	0.15%	39	1.90%	19	0.93%
Block Group 4, Census Tract 9604, Jennings County, Indiana	1,013		992	97.93%	10	0.99%	1	0.10%	2	0.20%	0	0.00%	2	0.20%	6	0.59%	3	0.30%
Block Group 2, Census Tract 9606, Jennings County, Indiana	852		821	96.36%	0	0.00%	0	0.00%	0	0.00%	1	0.12%	8	0.94%	22	2.58%	8	0.94%

		Reference Community	Study Area - Block Groups
Percent Non-White		6.8%	5.4%
Elevated at 125% of Reference Community			8.5%
EJ Population			No

Table 2: Population Characteristics: Poverty Level

Geography	Total Population	Income in 1999 below poverty level	
		#	%
United States	273,882,232	33,899,812	12.4%
Indiana	5,894,295	559,484	9.5%
Jackson County, Indiana	40,562	3,428	8.5%
Jennings County, Indiana	27,200	2,511	9.2%
STUDY AREA			
Census Tract 9675, Jackson County, Indiana	6210	513	8.3%
Census Tract 9604, Jennings County, Indiana	5969	725	12.1%
Census Tract 9606, Jennings County, Indiana	4608	352	7.6%
Block Group 3, Census Tract 9675, Jackson County, Indiana	2270	335	14.8%
Block Group 2, Census Tract 9604, Jennings County, Indiana	1059	89	8.4%
Block Group 3, Census Tract 9604, Jennings County, Indiana	2031	160	7.9%
Block Group 4, Census Tract 9604, Jennings County, Indiana	965	100	10.4%
Block Group 2, Census Tract 9606, Jennings County, Indiana	825	87	10.5%
		Reference Community	**Study Area - Block Groups**
Percent in Poverty		8.5%	0.0%
Elevated at 125% of Reference Community			10.6%
EJ Population			No

Source: U.S. Census Bureau 2000, Table P87, Census Data Set: Census 2000 Summary File 3 (SF 3)

Appendix I: Public Involvement

U.S. 50 North Vernon Public Involvement Summary

Public Open House No. 1
On Sept. 30, 2010, INDOT hosted a public open house to re-introduce the public to the U.S. 50 North Vernon Improvements. During this meeting, the public was informed of INDOT's plan to divide the recommendations of the 2008 *Preliminary Alternatives Screening Report* into two separate projects. One project is a series of spot improvements on existing U.S. 50, including the replacement of Mutton and Storm Creeks, and Branch of Storm Creek structures. A second project is the construction of a new U.S. 50 from CR400 in to S.R. 3 in Jennings County. Attendees received handouts that summarized the spot improvements and new roadway projects.

CAC Meeting No. 1
The first meeting of the Community Advisory Committee (CAC) was on Dec. 13, 2010. This meeting summarized the first public meeting, focusing primarily on the new terrain alignment of U.S. 50 and addressed any spot/structure replacement questions.

CAC Meeting No. 2
The second CAC was held on Feb. 17, 2011. The purpose of this second CAC meeting was to provide a brief update on development of the spot improvements, structure replacements, and to discuss several new U.S. 50 alternatives developed since the previous CAC meeting.

Public Open House No. 2
The second public meeting was held on April 5, 2011, at Jennings County High School in North Vernon, Indiana. One hundred five (105) people signed the meeting attendance roster. Materials presented in this meeting covered the bypass portion of the project and the potential spot improvements. The project team highlighted changes to the project alternatives since the September 30, 2010 meeting, and showed project information on display boards. This public meeting allowed community members to visit with project officials, view project information and ask questions of the project team. Interested persons could express their views and concerns on provided comment forms.

CAC Meeting No. 3
The final meeting of the CAC was held on April 28, 2011. The materials and comments from the second open house were discussed. Like the two previous CAC meetings, although the spot improvements were available for discussion, the focus of the meeting was the U.S. 50 North Vernon project.

Project Website
The project team maintained web pages at www.in.gov/indot/div/projects/us50/northvernon/ to share project information. This website has been updated throughout the public involvement process with meeting materials and dates of upcoming meetings. The website also includes maps, handouts and documents that can be viewed or downloaded. Information is also available on the site about how to reach project staff and submit comments.

INDIANA DEPARTMENT OF TRANSPORTATION

FY 2012-2015

U.S. Department
of Transportation

Federal Transit Administration
Region V
200 West Adams St., Suite 320
Chicago, IL 60606-5253

Federal Highway Administration
Indiana Division
575 N. Pennsylvania St., Rm 254
Indianapolis, IN 46204-1576

July 11, 2011

Mr. Michael Cline, Commissioner
Indiana Department of Transportation
100 North Senate Avenue
Indianapolis, IN 46204

Dear Commissioner. Cline:

On June 20, 2011, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) received the Indiana Department of Transportation's (INDOT's) FY 2012-2015 Statewide Transportation Improvement Program (STIP). The INDOT is proposing to incorporate the following Metropolitan Planning Organizations' (MPOs') Transportation Improvement Programs (TIPs) into the new STIP:

Metropolitan Planning Organization	**TIP COVERAGE**
Madison County Council of Governments *	2012-2015
Bloomington/Monroe County Metropolitan Planning Organization	2010-2013
Columbus Area Metropolitan Planning Commission	2012-2016**
Evansville Metropolitan Planning Commission *	2010-2013
Northeastern Indiana Regional Coordinating Council *	2012-2015
Indianapolis Metropolitan Planning Organization *	2012-2015
Kokomo-Howard County Governmental Coordinating Council	2011-2014
Area Plan Commission of Tippecanoe County	2012-2015
Kentuckiana Regional Planning and Development Agency *	2011-2015
Delaware-Muncie Metropolitan Plan Commission *	2012-2015
Northwestern Indiana Regional Planning Commission *	2009-2013
Michiana Area Council of Governments *	2012-2015
West Central Indiana Economic Development District *	2012-2015
Ohio-Kentucky-Indiana Regional Council of Governments *	2012-2015

* *FHWA-FTA conformity findings have been issued for these TIPs per 40 CFR 93*

** *FY 2016 projects shown in the Columbus Area's TIP are beyond the timeframe of the FY 2012-2015 STIP and therefore are not included.*

Air quality conformity has been found to be acceptable and funding targets used for financial constraint were reviewed in advance of the STIP being submitted for approval. The federal agencies appreciate the opportunity to have this advanced review. In the area of public involvement, INDOT continued to use its web-site to be a primary method to collect public comments on the STIP. INDOT continues to receive more comments than in previous years. These comments are being summarized and included in the final STIP document.

This year, INDOT also approved many of the MPOs' TIPs on the same State fiscal years as the STIP. This helps to communicate fiscal constraint and helps to manage public expectations. However, new TIPs for the Bloomington Monroe County Metropolitan Planning Organization and the Northwest Indiana Regional Planning Commission areas have recently been adopted by their respective policy boards. These are not yet included in the FY 2012-2015 STIP. INDOT is reminded to take action on these documents within a reasonable time.

As you know, FHWA and FTA are both required to certify the State is in substantial compliance with all federal planning requirements when taking action to approve a STIP document. The last time the STIP document was approved, the federal agencies conditionally approved the FY 2010-2013 STIP document pending a corrective action. That corrective action was for effective planning procedures and agreements between the MPOs, transit operators, and the INDOT offices to clearly identify how key planning tasks are to be coordinated and completed, and who internally at INDOT is responsible for these activities.

INDOT provided a status of its efforts to update its planning procedures. However, FHWA notified INDOT on March 10, 2011 that steps taken to date were incomplete and the corrective action would remain until the following final documents are provided:

- New State/MPO/Transit Planning Agreements;
- INDOT's "MPO Manual" or handbook that describes how key products (i.e. Metropolitan Transportation Plans, Transportation Improvement Programs, Annual Listings of Obligated Projects, etc.) are developed in cooperation with INDOT, and which identifies with whom these documents are prepared and when they will be approved by the State;
- Revisions to the Local Public Agencies Manual to address the role of MPOs in the LPA project development process.

Until final procedures are completed, FHWA and FTA are conditionally approving the FY 2012-2015 STIP with this pending corrective action. Please contact Joyce Newland, Planning Program Manager, at 317-226-5353/ joyce.newland@dot.gov, to schedule a meeting no later

than the end of this month to discuss the timeline of the remaining corrective actions.

Sincerely,

Robert F. Tally Jr., P.E.
Division Administrator

cc: transmitted by e-mail
Marisol Simón, FTA Region 5
Robert Zier, INDOT
Jim Stark, INDOT

SPONSOR	CORRIDOR	ROUTE	WORK_TYPE	LOCATION	COUNTY	MILES	FEDERAL_ PROJECT	PHASE	IMPROVEMENT_TYPE	2012	2013	2014	2015	Estimated Costs left to Complete Project*
			Bridge Deck Overlay	SB bridge over Yellow Creek	Marshall	0	BR	CN	New Road Construction Project		$ 100,000			
			Bridge Deck Overlay	SB bridge over Elmer Seltenright Ditch	Marshall	0	BR	CN	New Road Construction Project		$ 100,000			
			New Bridge, Other	SB US 31 bridge over US 6	St. Joseph	0	BR	CN	New Road Construction Project	$ 1,300,000				
			Road Reconstruction (3R/4R Standards)	New alignment, from station 229+00 to 407+90	St. Joseph	0	NHS	CN	New Road Construction Project	$ 5,000,000				
INDOT	**249A**	**US 41**	Interchange Modification	US 41 interchange with SR 62/SR 66 (Lloyd Expressway)	Vanderburgh	0.39	NHS	PE	Interchange Modification Project	$ 60,000				
				US 41 interchange with SR 62/SR 66 (Lloyd Expressway)	Vanderburgh	0.39	NHS	CN	Interchange Modification Project	$ 17,650,000				
			Signs, Lighting, Signals And Markings	At SR 66	Vanderburgh	0	NHS	CN	Interchange Modification Project	$ 200,000				
			Bridge Replacement	Bridge over SR 66 /SR 62 (SBL)	Vanderburgh	0	BR	CN	Interchange Modification Project	$ 2,380,000				
				Bridge over SR 66/ SR 62 (NBL)	Vanderburgh	0	BR	CN	Interchange Modification Project	$ 2,380,000				
			Other Type Project (Miscellaneous)	Pedestrian bridge over Lloyd Expressway, 0.5 mi E of US 41	Vanderburgh	0.2	NHS	CN	Interchange Modification Project	$ 2,700,000				
INDOT	**259**	**US 50**	New Road Construction	From W UAB of North Vernon to SR 3	Jennings	3.69	NHS	PE	New Road Construction Project	$ 90,000				
				From W UAB of North Vernon to SR 3	Jennings	3.69	NHS	CN	New Road Construction Project	$ 1,240,000				
				From W UAB of North Vernon to SR 3	Jennings	3.69	NHS	CN	New Road Construction Project	$ 13,285,000				
				From W UAB of North Vernon to SR 3	Jennings	3.69	NHS	PE	New Road Construction Project	$ 250,000				
				From W UAB of North Vernon to SR 3	Jennings	3.69	NHS	RW	New Road Construction Project	$ 1,200,000				
			Signs, Lighting, Signals And Markings	Various locations	Jennings	0	NHS	CN	New Road Construction Project	$ 750,000				
			Added Travel Lanes	US 50 at 0.15 miles E of Wash. St to CR 610	Jennings	0.001	NHS	CN	New Road Construction Project	$ 1,500,000				

* 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 infromation puruposes.

SPONSOR	CORRIDOR	ROUTE	WORK_TYPE	LOCATION	COUNTY	MILES	FEDERAL_ PROJECT	PHASE	IMPROVEMENT_TYPE	2012	2013	2014	2015	Estimated Costs left to Complete Project*
				US 50 from .88 miles W of CR 900W to .13 mi W CR 900 W Chestnut	Jennings	0.001	NHS	CN	New Road Construction Project	$ 1,500,000				
			Intersect. Improv. W/ Added Turn Lanes	US 50 at CR 1225 E and 1250 E	Jennings	0	NHS	CN	New Road Construction Project	$ 900,000				
			Intersect. Improv. W/ Added Turn Lanes	US 50 at CR 750 W	Jennings	0	NHS	CN	New Road Construction Project	$ 750,000				
			New Bridge, Other	US 50 over CSX Railroad	Jennings	0	BR	CN	New Road Construction Project	$ 3,750,000				
			Bridge Replacement, Other Construction	US 50 over Indian Creek	Jennings	0	BR	CN	New Road Construction Project	$ 675,000				
			Bridge Replacement, Other Construction	US 50 over Branch of Storm Creek	Jennings	0	BR	CN	New Road Construction Project	$ 900,000				
				US 50 over Storm Creek	Jennings	0	BR	CN	New Road Construction Project	$ 975,000				
				US 50 over Mutter Creek	Jennings	0	BR	CN	New Road Construction Project	$ 2,100,000				
				US 50 over Six Mile Creek	Jennings	0	BR	CN	New Road Construction Project	$ 975,000				
INDOT	**266**	**US 52**	Intersect. Improv. W/ Added Turn Lanes	CR 700 W	Hancock	0	NHS	CN	Intersection Improvement Project	$ 300,000				
				CR 700 W	Hancock	0	NHS	CN	Intersection Improvement Project	$ 658,000				
				CR 700 W	Hancock	0	NHS	RW	Intersection Improvement Project	$ 220,000				
				CR 700 W	Hancock	0	NHS	CN	Intersection Improvement Project	$ 100,000				
				Bade Davis	Marion	0	NHS	CN	Intersection Improvement Project	$ 854,000				
INDOT	**292**	**I 70**	Pavement Replacement, New PCC	From 0.5 mile E of Mt Comfort Rd to 0.8 mile E of SR 9	Hancock	8.55	Interstate	CN	Major Pavement Project (Interstate)	$ 20,000,000				
				From 0.5 mile E of Mt Comfort Rd to 0.8 mile E of SR 9	Hancock	8.55	Interstate	PE	Major Pavement Project (Interstate)	$ 500,000				
				0.6 mile E of Post Rd to 2 miles E of Post Rd	Marion	1.4	Interstate	CN	Added Travel Lanes Project	$ 2,000,000				

* 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 infromation puruposes.