CATEGORICAL EXCLUSION

Road Rehabilitation
East 236th Street
From Deming Road to 1,000 Feet East of Tollgate Road
Hamilton County, Indiana

Des. No. 1400788

Prepared for:

The Hamilton County Commissioners

February 25, 2016

Prepared by:

CHA

Indiana Department of Transportation

County Hamilton Route E 236th St Des. No. 1400788

FHWA-Indiana Environmental Document

CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM

GENERAL PROJECT INFORMATION

Road No./County:	**East 236th Street/ Hamilton County**
Designation Number:	**1400788**
Project Description/Termini:	**Road Rehabilitation and shared use path on East 236th Street: From 250 feet west of Deming Road to 1,000 feet east of Tollgate Road.**

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

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

Approval _____ _____ _____ _____

ESM Signature Date ES Signature Date

_____ _____

FHWA Signature Date

Release for Public Involvement

_____ _____ RSB 3-22-16

ESM Initials Date ES Initials Date

Certification of Public Involvement _____ _____

Office of Public Involvement Date

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

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

Name and Organization of CE/EA Preparer: Robert Winebrinner, CHA Consulting, Inc.

Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?		X
If No, then:		
Opportunity for a Public Hearing Required?	X	

**A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.*

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

Remarks:

Notice of Entry for Survey

Notice of Entry for Survey letters were mailed to all surrounding property owners on February 16, 2015, prior to the first field visit (Appendix G-1 to G-3).

Section 106

An opportunity for the public to comment on the "No Historic Properties Affected" determination issued by the Indiana Department of Transportation (INDOT), on behalf of the Federal Highway Administration (FHWA), was advertised in the Indianapolis Star on September 14, 2015 (Appendix D-71 to D-73). The original public comment period was to close 30 days after the publication date on October 14, 2015. On October 5, 2015, the Carmel Clay Historical Society responded to the invitation to act as a consulting party. As such, the determination and finding was mailed to the Carmel Clay Historical Society on October 5, 2015 and the organization was given an additional 30 day review period.

The 800.11 documentation supporting the "No Historic Properties Affected" finding that was developed as part of this project was made available for public inspection at the office of the Hamilton County Highway Department and the Indianapolis office of the project consultant, CHA Consulting, Inc. These documents can be found in Appendix D of this document. No dissenting comments were received regarding the "No Historic Properties Affected" determination.

Public Hearing

Since the permanent right-of-way necessary for completion of this project will exceed 0.5 acre, the proposed project meets the conditions described in the INDOT *Public Involvement Policies and Procedures Manual*, 2012, Section IV.C.4, which requires Hamilton County to offer the public an opportunity to request a public hearing. Therefore, an opportunity for a public hearing will be published in the local media once this document is released for public involvement. This environmental document will be revised after the public involvement requirements are fulfilled.

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

Remarks: The proposed project is not anticipated to be controversial due to human or natural environment impacts.

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

Sponsor of the Project: Hamilton County Board of County Commissioners INDOT District: Greenfield
Local Name of the Facility: East 236th Street

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

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

PURPOSE AND NEED:

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

The road currently exhibits substandard features, including narrow lane widths, a lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. Additionally, the East 236th Street corridor does not currently provide safe access for non-motorized traffic. The need for this project is due to the substandard features of the roadway and a lack of safe travel for non-motorized traffic along the corridor.

The purpose of the proposed project is to upgrade the roadway to current 3R standards and correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Hamilton Municipality: Cicero

Limits of Proposed Work: From 250 feet west of Deming Road to 1,000 feet east of Tollgate Road

Total Work Length: 3.49 Mile(s) Total Work Area: 32 Acre(s)

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

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

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

The proposed project is located in the northcentral portion of Hamilton County, Indiana, and extends along East 236th Street from 250 feet west of Deming Rd. to 1,000 feet east of Tollgate Rd., west of Cicero (Appendix B-1). The project is limited to this segment of the East 236th Street corridor based on project funding constraints. Drainage design also calls for open side ditches between Deming Road and Tollgate Road, which provide rational end points to the project. The current scope represents an addition of 750 feet east of Tollgate Road to the original scope, which was added to the project after initial early coordination efforts (see re-coordination efforts in Appendix C-21 to C-29). This additional scope is required to connect proposed drainage improvements with existing drainage conveyances to the east.

In addition, the project area will extend between 90 feet and 140 feet onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. Specifically, the project is located in Sections 2, 3, 4, and 5, Township 19 North, Range 4 East and Sections 32, 33, 34, and 35, Township 20 North, Range 4 East of Jackson Township in Hamilton County as shown on the 7.5 minute Arcadia U.S. Geological Survey (USGS) quadrangle map (Appendix B-2). The total project length would be approximately 18,440 feet (3.49 miles).

Existing Conditions

East 236th Street is functionally classified as a Rural Primary Arterial, according to the Hamilton County Thoroughfare Plan (2007). The existing road is an east-west two-lane rural roadway upon level terrain. The typical section includes one 10 foot wide travel lane in each direction with no shoulders and minimal to no ditches along either side of the roadway. The posted speed limit is 50 miles per hour (mph). Existing right-of-way is approximately 20 feet from the centerline on each side of East 236th Street.

Land Use

Land use in the project area predominately consists of agricultural row crop fields, with a number of residences and associated woodlots (Appendix B-3). There is an increased concentration of residences near Deming Road and Mill Creek Road.

Proposed Improvements

This proposed roadway rehabilitation project will correct the facility deficiencies by addressing narrow lane widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage (Appendix B-14 to B-42). The roadway will be widened to one 12 foot lane and 6 foot paved shoulder in each direction along East 236th Street. The existing road surface will receive an HMA overlay to provide an improved driving surface. Additionally, vertical sight corrections will be performed through portions of the project. A 10 foot shared used path will be constructed on the south side of the East 236th Street corridor. Drainage ditches and 3:1 or 4:1 side slopes will also be constructed. Two small structures will be utilized to carry drainage from north to south under East 236th Street. An 18 foot wide by 6 foot tall, by 111 foot long concrete box culvert will carry Bear Slide Creek and a 19 foot wide by 4 foot tall by 83 foot long concrete box culvert will carry surface drainage that is not conveyed by a defined channel. A number of smaller culverts and pipes will also be utilized to convey drainage under the roadway and parallel to the roadway.

Approximately 32 acres of right-of-way acquisition is anticipated, ranging from 40 feet to 80 feet from centerline. The right-of-way acquisition will be asymmetrical, with the majority occurring on the southern half of the project to provide for the proposed 10 foot wide HMA trail (Appendix B-20 to B-26). Additionally, minor temporary right-of-way will be required for drive construction and ditch grading. There are no residential relocations anticipated. The project will cost an estimated $ 10,750,500 (2015 dollars) to construct.

Based on the above noted information, the preferred alternative will meet the Purpose and Need of the project by upgrading the roadway to current 3R standards to correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor.

OTHER ALTERNATIVES CONSIDERED:

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

The Do-Nothing Alternative

The "Do Nothing" alternative was considered for the proposed project. This alternative proposed utilization of the existing roadway with no expenditure of capital funds or improvement. However, the "Do Nothing" alternative would not address the overall purpose of the project, which is to upgrade the roadway to current 3R standards and correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor. Therefore, for the stated reasons, the "Do Nothing" alternative was not considered further. No other alternatives were considered.

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

It would not correct existing capacity deficiencies;	
It would not correct existing safety hazards;	X
It would not correct the existing roadway geometric deficiencies;	X
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)	

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ROADWAY CHARACTER:

E 236th St:

Functional Classification: Rural Primary Arterial
Current ADT: 6,279 VPD (2015) Design Year ADT: 11,490 VPD (2038)
Design Hour Volume (DHV): 1,149 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. Travel Lanes		12 ft. Travel Lanes	
Pavement Width:	20	ft.	36	ft.
Shoulder Width:	0	ft.	6	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Deming Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. Travel Lanes		10 ft. Travel Lanes	
Pavement Width:	20	ft.	20	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Cal Carson Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. Travel Lanes		10 ft. Travel Lanes	
Pavement Width:	20	ft.	20	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Cammack Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	11 ft. Travel Lanes		11 ft. Travel Lanes	
Pavement Width:	22	ft.	22	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

De Vaney Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 55 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	11 ft. Travel Lanes		11 ft. Travel Lanes	
Pavement Width:	22	ft.	22	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Mill Creek Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	11 ft. Travel Lanes		11 ft. Travel Lanes	
Pavement Width:	22	ft.	22	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

Tollgate Rd:

Functional Classification: Local
Current ADT: <500 VPD (2015) Design Year ADT: <500 VPD (2038)
Design Hour Volume (DHV): <50 Truck Percentage (%) 5
Designed Speed (mph): 50 Legal Speed (mph): 50

	Existing		Proposed	
Number of Lanes:	2		2	
Type of Lanes:	10 ft. Travel Lanes		10 ft. Travel Lanes	
Pavement Width:	20	ft.	20	ft.
Shoulder Width:	0	ft.	0	ft.
Median Width:	N/A	ft.	N/A	ft.
Sidewalk Width:	N/A	ft.	N/A	ft.

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

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

DESIGN CRITERIA FOR BRIDGES:

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

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

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

Remarks: Although no bridges are included in the proposed project, it should be noted that a small structure will be utilized to carry East 236th Street over Bear Slide Creek. This structure will be an 18 foot wide by 6 foot tall (108 square feet), by 111 foot long concrete box culvert. A second small structure will be utilized to carry drainage under East 236th Street, approximately 175 feet west of Mill Creek road. This structure will be a 19 foot wide by 4 foot tall (76 square feet) by 83 foot long concrete box culvert. Additional smaller structures will be utilized to carry drainage throughout the project area. This includes culverts and small pipes which cross under the roadway and run parallel to the roadway. The small structures and pipes are identified on the plans found in Appendix B (B-29 to B-41). A tabular summary of these structures can be found on Appendix page B-42.

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

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

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

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

Remarks: Maintenance of traffic will involve a closure to thru traffic on East 236th Street, while access to residences and local traffic will be maintained. This closure might occur in non-concurrent segments. Traffic will be redirected to local roads north/south and east/west of the project segment currently under construction (Appendix B-27 to B-28). The longest detour anticipated will require non-local traffic to travel 10 miles along US 31, 256th Street, and SR 19.

All signs, lights, and barricades associated with the detour will be in accordance with the current INDOT standards and the Uniform Traffic Control Manual. It should be noted that access will be maintained to all properties during construction. Coordination with emergency services and the school district at least two weeks prior to the closure will be undertaken. This should alleviate any potential concerns regarding the closure and associated detour.

ESTIMATED PROJECT COST AND SCHEDULE:

Engineering: $ 290,000 (2015) Right-of-Way: $ 1,000,000 (2017/2018) Construction: $ 9,460,500 (2019)

Anticipated Start Date of Construction: Spring 2019

Date project incorporated into STIP July 1, 2015

	Yes	No
Is the project in an MPO Area?	X	

If yes,

Name of MPO Indianapolis Metropolitan Planning Organization

Location of Project in TIP 2016-2019 IRTIP, Pg 42

Date of incorporation by reference into the STIP July 1, 2015

RIGHT OF WAY:

	Amount (acres)	
Land Use Impacts	**Permanent**	**Temporary**
Residential	5.493	0.053
Commercial	0.367	0.000
Agricultural	25.882	0.411
Forest	0.000	0.000
Wetlands	0.066	0.000
TOTAL	**31.809**	**0.464**

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

Remarks:

The existing right-of-way width within the project area typically extends to the edge of the existing pavement. The required right-of-way will generally consist of a strip along East 236th Street varying from a minimum width of 40 feet to 80 feet, with a maximum width of 130 feet at adjoining roadways. As a result of the proposed construction activities, approximately 32 acres of new permanent right-of-way, and 0.5 acre of temporary right-of-way will be acquired throughout the project area (Appendix B-20 to B-26). The majority of the right-of-way acquisition will occur from agricultural fields, with a portion from rural residences and a small amount from wetlands. These impacts will be to the edges of each property along the roadway and will not split a property or limit access to the remaining portions of the property.

It should also be noted that the right-of-way acquisition is not anticipated to result in the displacement of people, businesses or farms.

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

SECTION A – ECOLOGICAL RESOURCES

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

Remarks:

The U.S. Fish and Wildlife Service (USFWS) Wetland Mapper, USGS map, and the IndianaMap, administered by the Indiana Geological Survey, were reviewed for the presence of potential streams, rivers, watercourses, and jurisdictional ditches within the project area (Appendix B-2, B-3 and E-12). One potential waterway was identified within or directly adjacent to the project area. Bear Slide Creek is mapped as an intermittent waterway that flows north to south under East 236th Street, east of Mill Creek Road. Bear Slide Creek flows into Morse Reservoir 1.5 miles south. To confirm this information a Wetland Delineation and Waters of the US investigation was conducted by CHA Consulting, Inc. on May 13, 2015 (Appendix F-1 to F-32).

The investigation confirmed that only one stream, river, watercourse or jurisdictional ditch was located within the project area (Appendix F-7). Bear Slide Creek was confirmed as an intermittent stream that exhibited an ordinary high water mark (OHWM), approximately 22 feet wide and 3 feet deep upstream of the existing culvert and 32 feet wide and 2 feet deep downstream. There are no roadside ditches adjacent to Bear Slide Creek. In addition to Bear Slide Creek, one unnamed tributary (UNT) is located outside of the project area. This UNT is located south of East 236th Street and flows west under Mill Creek Road, approximately 170 feet south of East 236th Street.

As part of the project, a new concrete box structure and scour protection below the OHWM will be placed in Bear Slide Creek. The concrete box structure will be 18 foot wide by 6 foot deep by 111 feet long. Scour protection impacts will include the installation of Class 1 riprap at each quadrant of the structure from the OHWM to the bottom of the slope (Appendix B-37). Total impacts to Bear Slide Creek are anticipated to be 130 linear feet. Temporary impacts will include dewatering and pump-around measures during the removal of the existing structure and installation of the new structure. Temporary impacts are anticipated to be an additional 20 linear feet. Impacts to this waterway will be permitted for in accordance with Sections 401 and 404 of the Clean Water Act.

The Federal Wild and Scenic Rivers listing, State Natural, Scenic, and Recreational Rivers listing, the Nationwide Rivers Inventory, Outstanding Rivers List for Indiana, and the US Army Corps of Engineers list of Navigable Waterways were reviewed by CHA Consulting, Inc. to determine possible presence in the proposed project area. No listed waterways were identified within or adjacent to the project area.

As for coordination with the resource agencies, an early coordination packet was submitted to the USFWS and IDNR on March 23, 2015. The USFWS and IDNR responded and provided a number of recommendations to help avoid and minimize impacts to fish, wildlife, and botanical resources (Appendix C-14 to C-16 and C-19 to C-20). These recommendations generally included tree clearing restrictions, waterway work restrictions, types of bank stabilization to be utilized, temporary erosion control techniques, permanent erosion control techniques, revegetation techniques and mitigation ratios. These recommendations have been included in the "Environmental Commitments" section of this document as "for consideration" and will be incorporated during the design process.

On May 22, 2015 a re-coordination packet was submitted to the USFWS and IDNR to notify the agencies of an additional 750 feet added along East 236th Street to the east of Tollgate Road (Appendix C-21 to C-29). In a response on May 28, 2015, the IDNR responded that the recommendation in their previous letter still applied (Appendix C-30). In a response on June 2, 2015, the USFWS responded they had no additional recommendations (Appendix C-31 to C-32).

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

Remarks: The USFWS Wetland Mapper, USGS map, and the IndianaMap, administered by the Indiana Geological Survey, were reviewed by CHA Consulting, Inc. for the presence of reservoirs, lakes, farm ponds, detention basins, and storm water management facilities within the project area (Appendix B-2, B-3 and E-12). Morse Reservoir is located outside of the project area to the east and within the boundaries of the town of Cicero. No other surface waters were identified within or directly adjacent to the project area. To confirm this information a Wetland Delineation and Waters of the US Investigation was conducted by CHA Consulting, Inc. on May 13, 2015 (Appendix F-1 to F-32). The investigation confirmed that no additional surface water resources are located within or directly adjacent to the project area.

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

Total wetland area: 0.12 acre(s) Total wetland area impacted: 0.071 acre(s)

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

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
A	Emergent	0.03	0.026	Located south of E 236th St, near Deming Rd.
B	Emergent	0.05	0.020	Located north of E 236th St, near Deming Rd.
C	Emergent	0.01	0.010	Located north of E 236th St, near Deming Rd.
D	Emergent	0.03	0.015	Located north of E 236th St, near Devaney Rd.

Wetlands (*Mark all that apply*)	**Documentation**	**ES Approval Dates**
Wetland Determination		
Wetland Delineation	X	N/A
USACE Isolated Waters Determination		
Mitigation Plan		

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

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

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

Remarks:

The USFWS Wetland Mapper and the IndianaMap, administered by the Indiana Geological Survey, were reviewed by CHA Consulting, Inc. for the presence of potential jurisdictional wetlands located within the project area (Appendix B-2, B-3 and E-12). The Red Flag Investigation identified one potential wetland located within or directly adjacent to the project area. Additional investigation for wetlands revealed two National Wetland Inventory (NWI) palustrine emergent wetlands in or adjacent to the project area near East 236th Street and Deming Road. To confirm this information, a routine wetland delineation was conducted by CHA Consulting, Inc. on May 13, 2015.

The wetland delineation was conducted per the *1987 U.S. Army Corps of Engineers Wetland Delineation Manual (Y-87-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual; Midwest Region* (Version 2.0). This includes utilizing a three-parameter approach looking at hydrophytic vegetation, hydric soils, and wetland hydrology. The investigation identified four wetlands located within or directly adjacent to the project area. This information was summarized in a Wetland Delineation and Waters of the U.S. Report dated July 2015 (Appendix F-1 to F-32). As this is a Local Public Agency (LPA) project the determination report was not submitted to INDOT for review. The determination report will be submitted to the US Army Corps of Engineers (USACE) with the 404 permit application.

As outlined in the above table, the investigation revealed the presence of four emergent wetlands along the project area corridor. The project will impact approximately 0.026 acre of Wetland A, 0.02 acre of Wetland B, 0.01 acre of Wetland C, and 0.015 acre of Wetland D. Impacts to these wetlands are due to fill from the side slope on the north side of East 236th Street and from ditch excavation, side slopes, and the trail on the south side of East 236th Street. As less than 0.10 acre of wetland was to be impacted, no mitigation was anticipated to be required. These impacts will be permitted for in accordance with Sections 401 and 404 of the Clean Water Act.

The wetlands identified by the investigation are located directly adjacent to the current roadway slopes. Wider lanes, the addition of shoulders, and wider slopes to support these additions are required to upgrade the roadway to current 3R standards and correct the facility deficiencies. Additionally, the trail along the south side of East 236th Street is necessary to provide a safe route for non-motorized traffic along the corridor. Therefore, avoidance and minimization of impacts to wetlands is not practicable, as the project would not meet the identified needs.

As for coordination with the resource agencies, an early coordination packet was submitted to the USFWS and IDNR on March 23, 2015. The USFWS and IDNR responded and provided a number of recommendations to help avoid and minimize impacts to fish, wildlife, and botanical resources (Appendix C-14 to C-16 and C-19 to C-20). These recommendations generally included tree clearing restrictions, waterway work restrictions, types of bank stabilization to be utilized, temporary erosion control techniques, permanent erosion control techniques, revegetation techniques and mitigation ratios. These recommendations have been included in the "Environmental Commitments" section of this document as "for consideration" and will be incorporated during the design process.

On May 22, 2015 a re-coordination packet was submitted to the USFWS and IDNR to notify the agencies of an additional 750 feet added along East 236th Street to the east of Tollgate Road (Appendix C-21 to C-29). As mentioned in the "Streams, Rivers, Watercourses & Jurisdictional Ditches" section above, the IDNR and USFWS responded that their previous letter still applied and that there are no additional recommendations (Appendix C-30 and C-31 to C-32).

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

Indiana Department of Transportation

County Hamilton Route E 236th St Des. No. 1400788

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

Remarks:

The proposed project is located in a generally flat rural area, predominately used for agricultural row crops. There are a number of residences and associated woodlots in the area, with an increased concentration of residences near Deming Road and Mill Creek Road. Specifically, as noted in the "Right-of-way" section of this document, the project would impact approximately 26 acres of agricultural land, and 5.5 acres of residential land. This habitat supports a variety of birds (passerines, waterfowl, and raptors), rodents, and mammals typical to a low density rural area. The flora of the area includes crops, trees, shrubs, grasses, and forbs.

As for coordination with the resource agencies, an early coordination packet was submitted to the USFWS and IDNR on March 23, 2015. The USFWS and IDNR responded and provided a number of recommendations to help avoid and minimize impacts to fish, wildlife, and botanical resources (Appendix C-14 to C-16 and C-19 to C-20). These recommendations generally included tree clearing restrictions, waterway work restrictions, types of bank stabilization to be utilized, temporary erosion control techniques, permanent erosion control techniques, revegetation techniques and mitigation ratios. These recommendations have been included in the "Environmental Commitments" section of this document as "for consideration" and will be incorporated during the design process.

On May 22, 2015 a re-coordination packet was submitted to the USFWS and IDNR to notify the agencies of an additional 750 feet added along East 236th Street to the east of Tollgate Road (Appendix C-21 to C-29). As mentioned in the "Streams, Rivers, Watercourses & Jurisdictional Ditches" and "Wetlands" sections above, the IDNR and USFWS responded that their previous letter still applied and that there are no additional recommendations (Appendix C-30 and C-31 to C-32).

Based on this correspondence, it is not anticipated that the proposed project will have a significant impact on the identified habitat.

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

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

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

Remarks:

The proposed project is located outside of the designated karst region of the state as identified in the October 13, 1993 Memorandum of Understanding (MOU) with the USFWS, Indiana Department of Environmental Management (IDEM), IDNR, and the INDOT. Additionally, no karst features are known to exist within or adjacent to the project area.

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

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

Remarks:

The proposed project is within the range of the federally endangered Indiana bat (Myotis sodalis) and federally threatened northern long-eared bat (Myotis septentrionalis) (NLEB). Therefore, the USFWS was contacted as part of early coordination.

On March 23, 2015, the USFWS responded by indicating that the entire state is within the known range of the federally threatened northern long-eared bat NLEB (*Myotis septentrionalis*; Appendix C-14 to C-16). The USFWS noted that

"based on the project description and information, [the USFWS does not] anticipate any adverse impacts to the NLEB. The USFWS also indicated that "This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended." As such, no additional endangered species investigations were required.

The IDNR was also contacted as part of early coordination and responded on April 22, 2015, that to date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the proposed project vicinity (Appendix C-19 to C-20).

On May 22, 2015 a re-coordination packet was submitted to the USFWS and IDNR to notify the agencies of an additional 750 feet added along East 236th Street to the east of Tollgate Road (Appendix C-21 to C-29). As mentioned in the sections above, the IDNR and USFWS responded that their previous letter still applied and that there are no additional recommendations (Appendix C-30 and C-31 to C-32). No additional correspondence regarding threatened or endangered species was received.

SECTION B – OTHER RESOURCES

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

If a SSA is present, answer the following:

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

Remarks:

Wellhead Protection Area

The IDEM, Wellhead Proximity Determinator Map (http://idemmaps.idem.in.gov/apps/whpa2), was accessed by environmental staff at CHA Consulting, Inc. on March 23, 2015 to determine if the proposed project is located within a Wellhead Protection Area. The required project location data was provided and it was determined that this project is not located within a Wellhead Protection Area.

Public Water System(s)

The IndianaMap, administered by the Indiana Geological Survey, was reviewed for the presence of public water systems. No public water system was identified within the project area. To confirm this information, environmental staff at CHA Consulting, Inc. visited the site on May 13, 2015 and found no public water systems within the project area.

Residential Well(s)

The IDNR, Water Wells Web Viewer (http://dnrmaps.dnr.in.gov/apps/dnrwaterwells_enh/) was reviewed for the presence of residential wells within the project area (Appendix F-33 to F-34). Nine residential wells were located within or adjacent to the project area. The closest residential well to the project is located approximately 80 feet south of the centerline of East 236th Street and was determined to be outside of the proposed project limits. Therefore, it was determined that residential wells will not be impacted by the proposed project.

Source Water Protection Area(s)

No Source Water Protection Area(s) were identified by Hamilton County, IDEM or the IDNR as part of the early

coordination process (Appendix C-5 to C-12 and C-19 to C-20 and C-30). Therefore, no source water protection areas are anticipated to be impacted by the proposed project.

Sole Source Aquifer

The project is not located within the boundaries of St. Joseph Aquifer System, the only legally designated sole source aquifer in the state of Indiana.

No other water resources were identified within or directly adjacent to the project area.

Flood Plains	**Presence**	**Impacts** Yes	**Impacts** No
Longitudinal Encroachment			
Transverse Encroachment	X	X	
Project located within a regulated floodplain	X	X	
Homes located in floodplain within 1,000' up/downstream from project			

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

Remarks:

The Flood Insurance Rate Map (FIRM) for the project area was reviewed (Appendix B-5). Though the project does not appear to encroach upon a mapped regulatory floodplain of Bear Slide Creek, a floodplain likely exists at this location.

The existing small structure over Bear Slide Creek will be replaced on essentially the same alignment. Therefore, as indicated in the INDOT Procedural Manual for Preparing Environmental Studies the project will fall under a Category 4 Action. There are no homes located within the base floodplain within 1,000 feet upstream nor within the base floodplain within 1,000 feet downstream. The proposed structure will have an effective capacity such that backwater surface elevations are not expected to substantially increase. As a result, there will be no substantial adverse impacts on natural and beneficial floodplain values; there will be no substantial change in flood risks; and there will be no substantial increase in potential for interruption or termination of emergency service or emergency evacuation routes; therefore, it has been determined that this encroachment is not substantial. A hydraulic design study that addresses various structure size alternates will be completed during the preliminary design phase. A summary of this study will be included with the Field Check Plans.

Additionally, the project does not meet the exemptions provided in the Flood Control Act (IC 14-28-1) and will therefore require formal approval by the Indiana Department of Natural Resources, Division of Water. It should be noted that the existing 72 inch corrugated metal pipe carrying East 236th Street over Bear Slide Creek has an area of 28.27 square feet and that the proposed 18 foot by 6 foot concrete box structure will increase the waterway opening to 108 square feet, which will have a positive impact on floodwater conveyance.

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

Total Points (from Section VII of CPA-106/AD-1006* **154**

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

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

Remarks:

As is required by the Farmland Protection Policy Act, the NRCS has been coordinated with and the Form NRCS-CPA-106 has been completed. Initial evaluation of this project (April 24, 2015) resulted in a total point value of 154 (Appendix C-18), which is less than the 160 points that would necessitate further evaluation.

On May 22, 2015 a re-coordination packet was submitted to the NRCS to notify the agency of an additional 750 feet added along East 236th Street to the east of Tollgate Road. The re-evaluation (09/28/2015) of the amended site resulted in the same score, which is less than the 160 points that would necessitate further evaluation (Appendix C-33).

No other alternatives, other than those already discussed in this document, would be considered without a re-evaluation

of the project's potential impacts upon farmland. This project will not have a significant impact to farmland.

SECTION C – CULTURAL RESOURCES

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

Results of Research

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

Project Effect

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

Documentation (mark all that apply)	Documentation Prepared	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report			
Historic Property Report	X	June 16, 2015	July 27, 2015
Archaeological Records Check/ Review	X	June 19, 2015	July 27, 2015
Archaeological Phase Ia Survey Report	X	June 19, 2015	July 27, 2015
Archaeological Phase Ic Survey Report			
Archaeological Phase II Investigation Report			
Archaeological Phase III Data Recovery			
APE, Eligibility and Effect Determination	X	September 1, 2015	October 15, 2015
800.11 Documentation	X	September 1, 2015	October 15, 2015

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

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

Remarks:

Area of Potential Effect (APE)

EFI Global, Inc., qualified professionals meeting the *Secretary of Interior's Professional Qualification Standards*, defined a preliminary Area of Potential Effect (APE). The APE is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking…" (36 CFR 800.16(d)). For the purposes of this undertaking the APE was roughly defined as 500 feet north and south of the centerline of East 236th Street and extended 500 feet beyond the western and eastern termini. A map of the APE has been included on Appendix pages D-11 to D-13.

Coordination with Consulting Parties

Section 106 of the National Historic Preservation Act requires Federal Agencies (or their representatives) to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR 800.2(c), the consulting parties were invited to participate in efforts to identify historic properties which could be potentially affected by the undertaking, assess these potential effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties. On June 22, 2015, an informational packet, the Historic Properties Report (HPR), and an invitation to join the Section 106 consultation on the project were sent to the organizations identified below (Appendix D-53 to D-56). In addition, the Indiana State Historic Preservation Officer (SHPO), Federal Highway Administration (FHWA), and the INDOT are automatically considered consulting parties and were sent the Section 106 consultation. The organizations were given 30-days to review the information and decide if they would like to serve as a consulting party for the proposed project.

Invited Organization	Reply	Date of Reply
Indiana Landmarks, Central Regional Office	None received	--
Hamilton County Historian	None received	--
Carmel Clay Historical Society	Yes	October 5, 2015
Fishers Historic Preservation Committee	None received	--
Noblesville Preservation Alliance	None received	--
Noblesville Main Street, Inc.	None received	--
Westfield Preservation Alliance	None received	--
Westfield-Washington Historical Society	None received	--
Hamilton County Genealogy Society	None received	--
Sheridan Historical Society	None received	--
Hamilton County Historical Society	Yes	July 15, 2015

Archaeology

Section 106 Consulting Services, Inc. conducted a Phase Ia archaeological field reconnaissance on April 3, 4, 6, 7, and 27, 2015. The information from these investigations was included in an archaeological report titled *Phase Ia Field Reconnaissance for the Proposed Rehabilitation of East 236th Street, Hamilton County, Indiana* (Appendix D-69 to D-70). The report indicated that no archaeological sites eligible for inclusion to the National Register of Historic Places were identified as a result of the Phase Ia archaeological reconnaissance and no further investigations were recommended. The INDOT, Cultural Resources Office (INDOT-CRO) approved the report, with minor revisions, on June 19, 2015. Therefore, the report was submitted to the SHPO for review and concurrence on July 1, 2015. The SHPO concurred with this finding in a letter dated July 27, 2015 (Appendix D-59 to D-60).

Historic Properties

EFI Global, Inc. conducted a historic properties investigation to identify and evaluate the historic significance of properties within the APE. The investigation included a literature review and field investigation. In conducting the literature review, the historians reviewed the National Register of Historic Places, Indiana Register of Historic Sites and Structures, the Hamilton County Interim Report, the SHAARD, the SHAARDGIS, and an analysis of the Arcadia, Indiana, USGS quadrangle map for previously identified properties. In addition, historians examined primary and secondary resources, including a review of county histories, historic plat maps and atlases, and online resources.

EFI Global, Inc. conducted field investigations on March 16, 2015 and June 2, 2015. The field investigations and the literature review were used to evaluate all above-ground resources within the APE for the project. As a result of this identification and evaluation effort, EFI Global, Inc. identified four historic resources considered or rated Contributing or higher within the APE. All four resources were previously identified in the IHSSI and the *Hamilton County Interim Report* (Farm [057-020-05067], Farm [057-020-05064], Farm [057-020-05062], and Farm [057-020-05060]). None of the properties were considered eligible for listing in the NRHP. This information was compiled and included in a HPR (Appendix D-65 to D-68).

The HPR was submitted to the INDOT-CRO and approved on June 16, 2015. Therefore, the HPR was submitted to the SHPO and the identified consulting parties on June 22, 2015. In a letter dated July 27, 2015 the SHPO concurred with the findings of the HPR and indicated "none of the above-ground properties identified … appears to be eligible for inclusion in the National Register of Historic Places" (Appendix D-59 to D-60). No other comments were received from the identified consulting parties.

Documentation, Findings

On September 1, 2015, the INDOT, acting on the FHWA's behalf, approved the APE and issued a "No Historic Properties Affected" determination for this project (Appendix D-1). Following this finding, the effect documentation (Appendix D-1 to D-70) was provided to the SHPO and Hamilton County Historical Society for a 30-day review on September 14, 2015. The effect documentation was later provided to Carmel Clay Historical Society on October 5, 2015, the same day the delayed invitation response was received (Appendix D-61). On October 15, 2015, the SHPO concurred with the determination (Appendix D-62 to D-63). To date, no comments were received regarding the "No Historic Properties Affected" determination.

Public Involvement

In accordance with 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4), the views of the public were sought regarding the effect of the proposed project. An advertisement was placed in the IndyStar on September 14, 2015 with an established deadline of October 14, 2015 to provide comments on the "No Historic Properties Affected" determination made by INDOT, on behalf of the FHWA. The public notice and a copy of the publisher's proof of publication appear on Appendix pages D-71 to D-73.

No comments were received regarding the "No Historic Properties Affected" finding during the original 30-day public comment period. Carmel Clay Historical Society was given an additional 30-day review in correspondence on October 5, 2015 (Appendix D-61). As no dissenting comments were received regarding the "No Historic Properties Affected" finding during the public comment period, the responsibilities of the FHWA under Section 106 were fulfilled.

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

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

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

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

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

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

Indiana Department of Transportation

County Hamilton Route E 236th St Des. No. 1400788

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

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

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

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

Remarks:

Public Parks & Recreation Areas

The IndianaMap, administered by the Indiana Geological Survey, was reviewed for the presence of publically owned or publically available parks or recreational areas. No publically owned or publically available parks or recreational areas were identified within the project area. To confirm this information, environmental staff at CHA Consulting, Inc. visited the site on May 13, 2015 and found no publically owned or publically available parks or recreational areas within the project area.

Wildlife and Waterfowl Refuges

The IndianaMap, administered by the Indiana Geological Survey, was reviewed for the presence of National Wildlife Refuges, State Fish & Wildlife Areas, or publically owned wildlife or waterfowl refuges. No wildlife or waterfowl refuges were identified within the project area. To confirm this information, environmental staff at CHA Consulting, Inc. visited the site on May 13, 2015 and found no National Wildlife Refuges, State Fish & Wildlife Areas, or publically owned wildlife or waterfowl refuges within the project area.

Historic Properties

As discussed in the "Cultural Resources" section of this document, the effects documentation developed by EFI Global, Inc. identified no NRHP eligible or listed properties within the APE. Therefore, on September 1, 2015 the INDOT, acting on FHWA's behalf, determined that the appropriate Section 106 finding was "No Historic Properties Affected" and no Section 4(f) evaluation was required (Appendix D-1).

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

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

Remarks:

To determine the presence of Section 6(f) properties within the project corridor, the United States Department of the Interior, National Parks Service, Land and Water Conservation Fund, Detailed Listing of Grants Grouped by County, dated August 25, 2015, was reviewed by CHA Consulting, Inc. (Appendix I-1). No properties were identified within a ½ mile radius of the project area. In addition, the IDNR website (http://dnrmaps.dnr.in.gov/find/indiana.html?app=whereto /recreation) was reviewed by CHA Consulting, Inc. to identify IDNR-owned properties which might be within or adjacent to the project area. There were no IDNR-owned properties identified. As such, it was determined that the project would not impact any properties acquired by or improved with the Land and Water Conservation Fund and no additional coordination with the IDNR was determined to be necessary.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project	**Yes**	**No**
Is the project in an air quality non-attainment or maintenance area?	X	
If YES, then:		
Is the project in the most current MPO TIP?	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)?		

Level of MSAT Analysis required?

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

Remarks:

The proposed project is located within Hamilton County, which is in attainment with a maintenance plan for particulate matter ($PM_{2.5}$) under the National Ambient Air Quality Standards (NAAQS). As required, the project is reflected in the 2016-2019 INDOT State Transportation Improvement Plan (STIP), approved on July 1, 2015 (Appendix H-1) and the Indianapolis Metropolitan Planning Organization (IMPO) 2016-2019 Transportation Improvement Program (IRTIP), approved on July 1, 2015 (Appendix H-2). Additionally, as the project proposes to reconstruct an existing transportation facility for safety reasons, it is considered exempt from air quality analysis in accordance with 40 CFR 93.126. Therefore, the project is not a project of air quality concern (40 CFR Part 93.123).

As the project is located in an attainment area with a maintenance plan for $PM_{2.5}$ and the project is not a project of air quality concern, a hot spot analysis is not required.

Mobile Source Air Toxics (MSAT)

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

SECTION F - NOISE

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

	No	**Yes/ Date**
ES Review of Noise Analysis		

Remarks:

This project is a Type III project. Therefore, in accordance with 23 CFR 772 and the *INDOT Traffic Noise Policy* (FHWA concurrence, effective July 13, 2011), this action does not require a formal noise analysis.

SECTION G – COMMUNITY IMPACTS

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

Remarks:

The proposed project will benefit the community through an improved transportation facility and safe route for non-motorized traffic along the corridor.

The *Hamilton County's Americans with Disabilities Act Transition Plan* was approved and considered effective in 2013. As required, the project has been designed in accordance with the plan and all applicable Americans with Disabilities Act (ADA) requirements.

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

Remarks:

No changes in land use or development are anticipated as a result of the proposed project. Additionally, no relocations are anticipated as a result of the proposed project. Therefore, the project is not likely to cause substantial indirect or cumulative impacts.

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

Remarks:

The proposed project may have temporary inconveniences associated with construction such as construction noise and fugitive dust. However, the proposed project will not alter existing transportation routes. Additionally, access will be maintained to all properties during construction. Therefore, 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.

As for coordination with the resource agencies, an early coordination packet was submitted to the INDOT Office of Aviation on March 23, 2015. In a response letter dated March 23, 2015, the INDOT, Office of Aviation noted that project will have no impact with the airspace (Appendix C-13).

Environmental Justice (EJ) (Presidential EO 12898)	**Yes**	**No**
During the development of the project were EJ issues identified?		X
Does the project require an EJ analysis?	X	
If YES, then:		
Are any EJ populations located within the project area?		X
Will the project result in adversely high or disproportionate impacts to EJ populations?		X

Remarks:

Under Title VI, any program receiving federal financial assistance is required to ensure that no person, on the grounds of race, color, or national origin, is excluded form participation in, denied the benefits of, or subjected to discrimination under this activity. Under Executive Order (EO) 12898, the Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human or

environmental effects on any known minority populations and low-income populations.

In an effort to satisfy these requirements, the *Indiana Categorical Exclusion Manual* (June 2013), prepared by INDOT, indicates that a full analysis to identify minority and low-income populations is warranted if a project involves 0.5 acre or more of right-of-way or two or more relocations. As proposed, this project meets the right-of-way threshold requirements for a full Environmental Justice (EJ) analysis. Therefore, in an attempt to identify minority and low-income populations in the project area, demographic data from the U.S. Bureau of Census, 2009-2013 American Community Survey 5-year Estimates, was reviewed and compiled on August 6, 2015 by Environmental staff at CHA Consulting, Inc. (Appendix I-2 to I-7).

To assess the data and determine the presence of EJ populations, the following criteria were applied per the *INDOT, Environmental Justice in NEPA Document Process Memo*, April 3, 2012. Affected communities (AC) that are more than 50% minority or low-income are designated as EJ populations. All other ACs are designated as an EJ population if the low-income or minority populations are 125% of the community of comparison (COC). In the case of this analysis, the project is wholly contained within Jackson Township and the township most accurately represents the geographic, social and economic environment of the project area (Appendix I-2). Therefore, Jackson Township was deemed the most appropriate COC. The AC were determined to be Block Group 4 of Census Tract 1102.01 and Block Groups 1 & 4 of Census Tract 1102.02.

A reference threshold of 25% over the COC population was calculated to establish a threshold which was used to assess the presence of EJ populations. EJ populations were presumed to be present if the AC values exceeded the threshold (Appendix I-3 to I-7). The results of this analysis appear in the following tables.

	Community of Comparison (COC)	**Affected Community (AC)**	**Affected Community (AC)**
	Jackson Township	Block Group 4 Census Tract 1102.01	Block Group 1 & 4 Census Tract 1102.02
Percent Minority	5.97%	0.61%	5.68%
125% of COC	7.47%		
Populations of EJ Concern?		**NO**	**NO**

In the absence of income data available at the Block Group level for the AC, the income data for the entire Census Tract (1102.01 and 1102.02) was evaluated. The results of that analysis appear below.

	Community of Comparison (COC)	**Affected Community (AC)**	**Affected Community (AC)**
	Jackson Township	Census Tract 1102.01	Census Tract 1102.02
Percent Low-Income	9.31%	9.02%	9.50%
125% of COC	11.63%		
Populations of EJ Concern?		**NO**	**NO**

As illustrated above, the analysis revealed no minority or low-income populations, which exceed 50% or exceed 125% of the COC. Therefore, there are no low-income or minority EJ impacts to this community (AC) as a result of the proposed project.

Relocation of People, Businesses or Farms

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

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

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

Remarks: No relocations or displacements of any residences, businesses, farms, or any other facilities will be required as a result of this project.

Notice was sent out to the following utility companies: Duke Energy, Frontier, AT&T, Comcast, and Buckeye Pipeline. Coordination with these utilities is ongoing at this time.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

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

	No	**Yes/ Date**
ES Review of Investigations		N/A – LPA Project

Include a summary of findings for each investigation.

Remarks: The IndianaMap, administered by the Indiana Geological Survey, was reviewed and a Red Flag Investigation was completed on April 29, 2015 (Appendix E-1 to E-18). The investigation identified petroleum wells within and adjacent to the proposed project. On March 23, 2015 an early coordination packet was sent to the IDNR Division of Oil and Gas (IDNR-O&G). Since wells were mapped within the project area and a response was not received from the initial coordination effort, a follow-up was sent to IDNR-O&G on December 22, 2015. They responded that four wells (Indiana Geological Survey# 139196, 139200, 139199, and 138831) are presumed to be plugged and may be encountered within the proposed project area (see maps in Appendix E-20 to E-21). The IDNR-O&G also responded that their office is available to provide onsite guidance for a plugging plan and to assist in hiring a contractor to carry out the plan (Appendix C-35 to C-36). The contractor should contact the IDNR-Division of Oil & Gas to determine whether a plugging plan and/or oversight is necessary at these four locations. This information is provided in the "Environmental Commitments" section of this document as "firm."

On May 13, 2015 a site inspection was conducted by Environmental staff at CHA Consulting, Inc., during which the Hazardous Materials Site Assessment Form was completed (Appendix E-19). The site assessment did not identify any additional hazardous material concerns which may impact the proposed project. Therefore, it was confirmed that additional hazardous materials investigations were not warranted.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)	**Likely Required**
Army Corps of Engineers (404/Section10 Permit)	
Individual Permit (IP)	
Nationwide Permit (NWP)	
Regional General Permit (RGP)	X
Pre-Construction Notification (PCN)	
Other	
Wetland Mitigation required	
Stream Mitigation required	

IDEM

Section 401 WQC	X
Isolated Wetlands determination	
Rule 5	X
Other	
Wetland Mitigation required	
Stream Mitigation required	

IDNR

Construction in a Floodway	X
Navigable Waterway Permit	
Lake Preservation Permit	
Other	
Mitigation Required	
US Coast Guard Section 9 Bridge Permit	
Others (Please discuss in the remarks box below)	

Remarks: It is the responsibility of the Hamilton County Commissioners or their agent (CHA Consulting, Inc.) to identify and obtain each of the required permits for the proposed project. The following permits would likely be required:

- An USACE 404 RGP will likely be required as the proposed project would impact less than 1.0 acre of wetlands and jurisdictional waterways
- An IDEM 401 WQC will likely be required as the proposed project would impact less than 0.1 acre of wetlands and jurisdictional waterways
- An IDEM Rule 5 Permit will likely be required as the proposed project would disturb more than one acre of total land area.
- An IDNR Construction in a Floodway permit will likely be required as the drainage area of Bear Slide Creek at the project is greater than 1.0 square miles and the proposed project does not meet any exemptions under the Flood Control Act.

SECTION J- ENVIRONMENTAL COMMITMENTS

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

Remarks: **Firm:**

1. If a spill occurs or contaminated soils or water are encountered during construction, appropriate personal protective equipment (PPE) should be utilized. Contaminated materials will need to be properly handled and disposed in accordance with current regulations. IDEM should be notified through the spill line at (888) 233-7745 within 24 hours of discovery of contamination. (INDOT, Environmental Services).
2. If any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (IC 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. (IDNR, Division of Historic Preservation and Archaeology).
3. If permanent or temporary right-of-way amounts increase beyond what is covered in the environmental document, the environmental section of the INDOT must be contacted immediately. (INDOT)

4. Any work in a wetland area within the INDOT right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers or Indiana Department of Environmental Management permits. (INDOT, Environmental Services)
5. Four abandoned oil and gas wells are located within the project area. The contractor should contact the IDNR-Division of Oil & Gas (Mary Estrada 317-450-6611 or John White 765-618-0766) to determine whether a plugging plan and/or oversight is necessary. (IDNR)

For Consideration:

1. Appropriate structures and techniques should be utilized both during the construction phase, and after completion of the project, to minimize the impacts associated with storm water runoff. (IDEM)
2. Reasonable precautions must be taken to minimize fugitive dust emissions from construction and demolition activities. Dirt tracked onto paved roads from unpaved areas should be minimized. (IDEM)
3. The use of cutback asphalt, or asphalt emulsion containing more than seven percent (7%) oil distillate, is prohibited during the months of April through October. (IDEM)
4. Install silt fence or other erosion control measures around the perimeter of any wetlands and/or other waterbodies to remain undisturbed at the project site. (IDEM)
5. Stabilize all disturbed areas upon completion of land disturbing activities. (IDEM)
6. Sediment-laden water which otherwise would flow from the project site shall be treated by erosion and sediment control measures appropriate to minimize sedimentation. (IDEM)
7. Wastes and unused building materials shall be managed and disposed of in accordance with all applicable statutes and regulations. (IDEM)
8. A stable construction site access shall be provided at all points of construction traffic ingress and egress to the project site. (IDEM)
9. Public or private roadways shall be kept cleared of accumulated sediment that is a result of run-off or tracking. (IDEM)
10. Do not clear trees or understory vegetation outside the construction zone boundaries. (USFWS)
11. Restrict below low-water work in streams to placement of culverts, piers, piling and/or footings, shaping of the spill slopes around the bridge abutments, and placement of riprap. (USFWS)
12. Culverts should span the active stream channel, should be embedded or a 3-sided or open-arch culvert, and be installed where practicable on an essentially flat slope. When an open-bottom culvert or arch is used, a natural bottom substrate of gravel, cobble, or boulders exist, the existing substrate should be left undisturbed beneath the culvert to provide natural habitat for the aquatic community. (USFWS)
13. Restrict channel work and vegetation clearing to the minimum necessary to install the stream crossing structure. (USFWS)
14. Minimize the extent of hard armor (riprap) in bank stabilization by using bioengineering techniques, whenever possible. If riprap is utilized, extend it below low-water elevation to provide aquatic habitat. (USFWS)
15. Avoid all work in the inundated part of the stream channel (in perennial and larger intermittent streams) during the fish spawning season (April 1 through June 30), except for work within sealed structures, such as caissons or cofferdams that were installed prior to the spawning season. No equipment shall be operated below the ordinary high water mark during this time, unless the machinery is within the structures. (USFWS)
16. Evaluate wildlife crossing under bridges/culverts in appropriate situations. Suitable crossings include flat areas below bridge abutments with suitable ground cover, high water shelves in culverts, amphibian tunnels and diversion fencing. (USFWS)
17. For the purposes of maintaining fish passage through the crossing, it is recommended that bridges rather than culverts and bottomless culverts rather than box or pipe culverts be installed. Additionally, wider culverts are preferred over narrow culverts and culverts with shorter lengths are preferred over longer lengths of culvert. (IDNR)
18. If box or pipe culverts are used, the bottoms should be buried a minimum of 6 inches (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2 feet) below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. (IDNR)
19. Crossings should: span the entire channel width (a minimum of 1.2 times the bankful width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width/ length) of 0.25; and have stream depth and water velocities during low-flow conditions that are approximate to those in the natural stream channel. (IDNR)

20. The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. (IDNR)
21. Minimize the use of riprap and use alterative erosion protection materials whenever possible. It is recommended that riprap be placed to provide stream bank toe protection (toe of the bank up to the ordinary high water mark). From the ordinary high water mark to top of the bank, it is recommended that bioengineered bank stabilization methods be used, instead of riprap. (IDNR)
22. Re-vegetate 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. (IDNR)
23. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized. (IDNR).
24. Seed and protect all streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas. (IDNR)

SECTION K- EARLY COORDINATION

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

Remarks:

Agency	Coordination Sent	Response Received	Appendix Page(s)
IDEM, Office of Planning and Assessment	March 23, 2015	March 23, 2015	C-5 to C-12
INDOT, Office of Aviation	March 23, 2015	March 23, 2015	C-13
US Fish Wildlife Service, Bloomington Field Office	March 23, 2015 & May 22, 2015	March 23, 2015 & June 2, 2015	C-14 to C-16 C-31 to C-32
Natural Resources Conservation Service	March 23, 2015 & May 22, 2015	April 1, 2015 & June 4, 2015	C-17 to C-18 C-33 to C-34
IDNR, Division of Fish and Wildlife	March 23, 2015 & May 22, 2015	April 22, 2015 & May 28, 2015	C-19 to C-20 C-30
Indiana Geological Survey, Environmental Geology Section	March 23, 2015	No Response	--
Department of the Army, Louisville District, Corps of Engineers	March 23, 2015	No Response	--
National Park Service, Midwest Regional Office	March 23, 2015	No Response	--
U.S. Department of Housing & Urban Development, Chicago Regional Office	March 23, 2015	No Response	--
INDOT, Office of Public Involvement	March 23, 2015	No Response	--
IDNR, Oil and Gas	March 23, 2015 & December 22, 2015	December 29, 2015	C-35 to C-36
Indianapolis Metropolitan Planning Organization	March 23, 2015	No Response	--
Hamilton County Commissioners	March 23, 2015	No Response	--
Hamilton County Surveyor	March 23, 2015	No Response	--
Hamilton County Highway Department	March 23, 2015	No Response	--

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Appendix E: Red Flag and Hazardous Materials
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Appendix F: Water Resources
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Environmental Justice Analysis Tables I-3

Appendix A

INDOT Supporting Documentation

Item	Appendix Page
Threshold Chart	A-1

Categorical Exclusion Level Thresholds

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

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

Appendix B

Graphics

Item	Appendix Page
Map of the Project Area	B-1 to B-5
Photographs of the Project Area	B-6 to B-13
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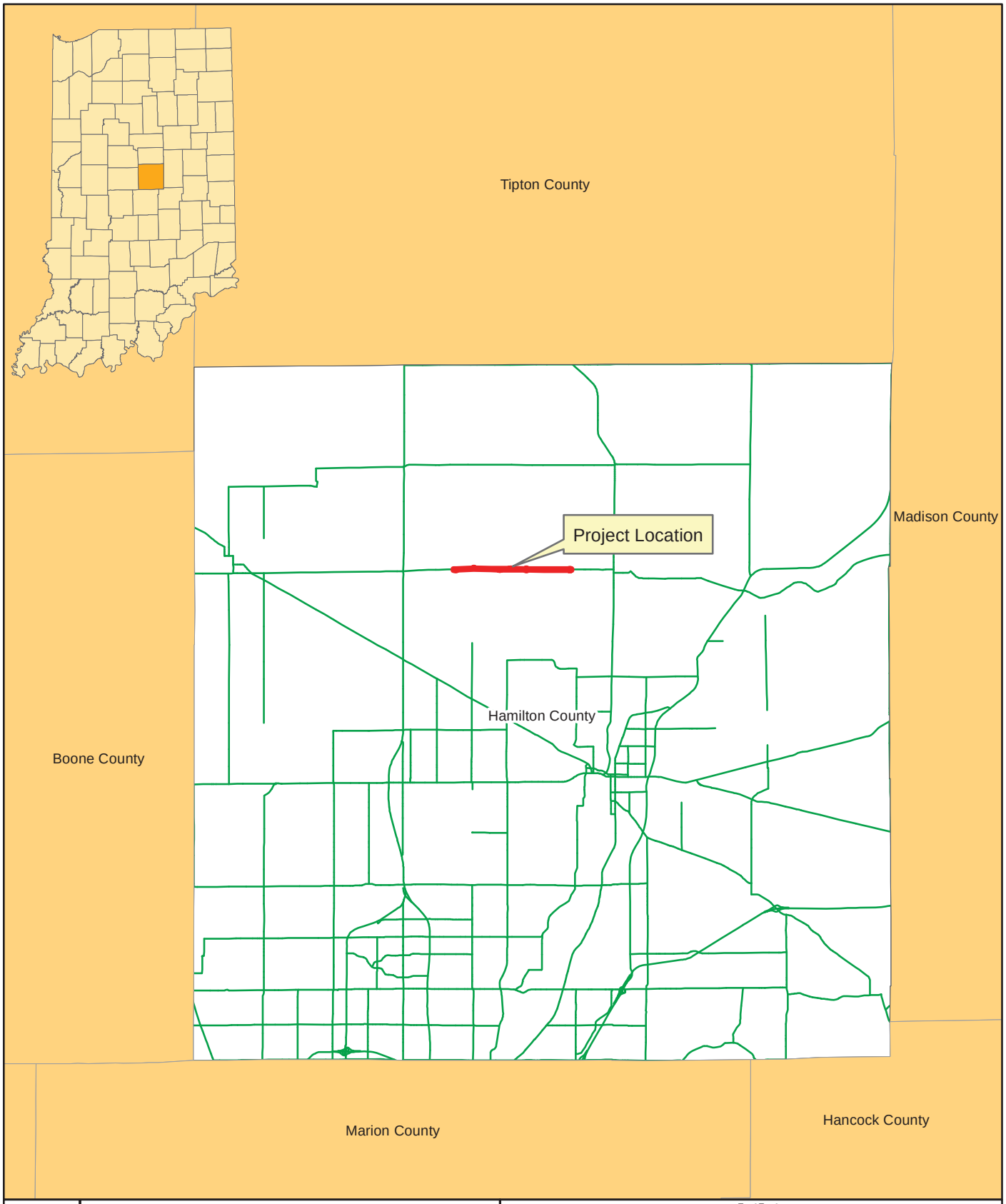


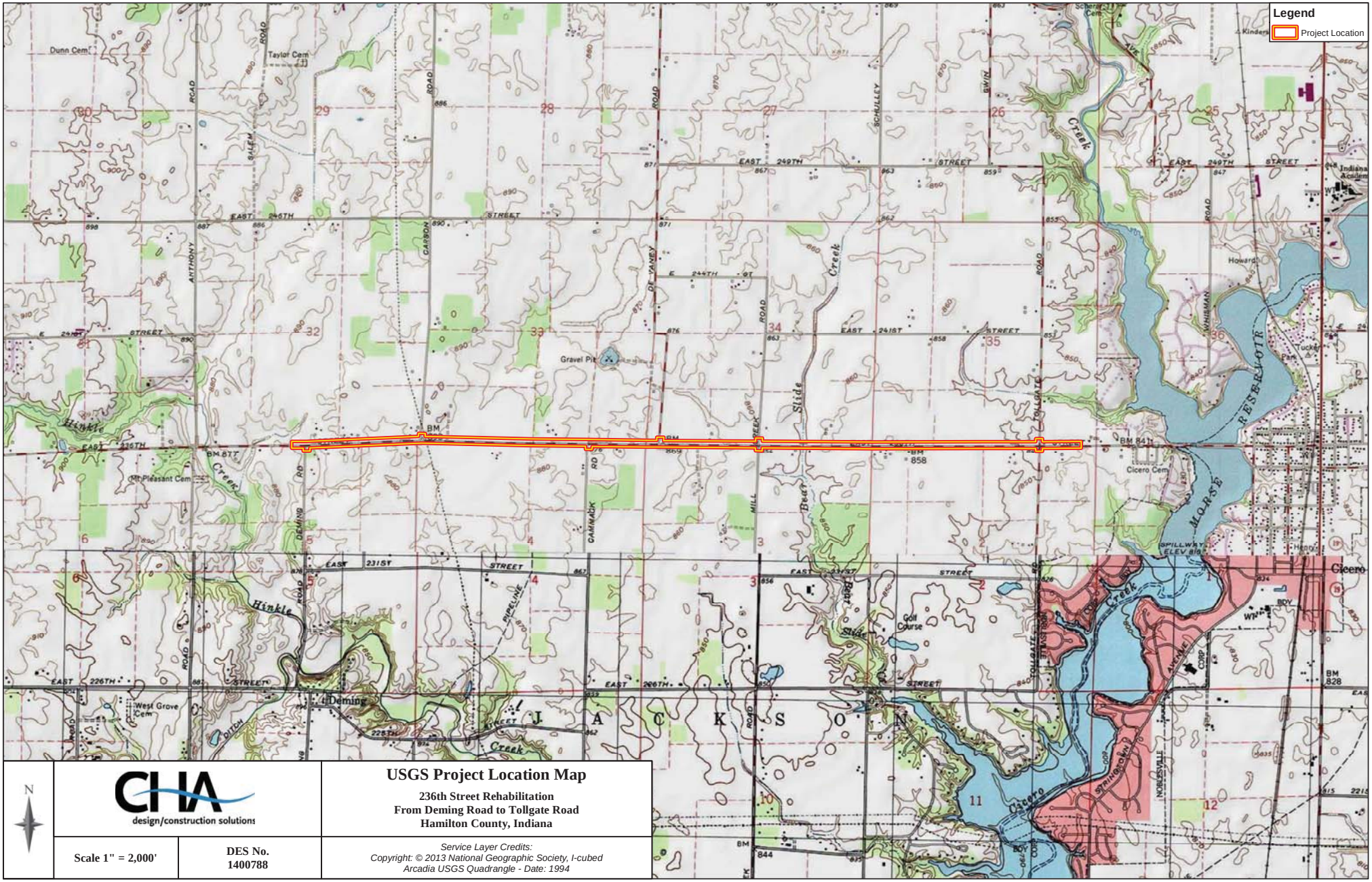
N

CHA
design/construction solutions

Exhibit 1
State Location Map
236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 20,000'	**DES No. 1400788**

County boundaries and transportation network courtesy of the Indiana Spatial Data Portal



CHA design/construction solutions

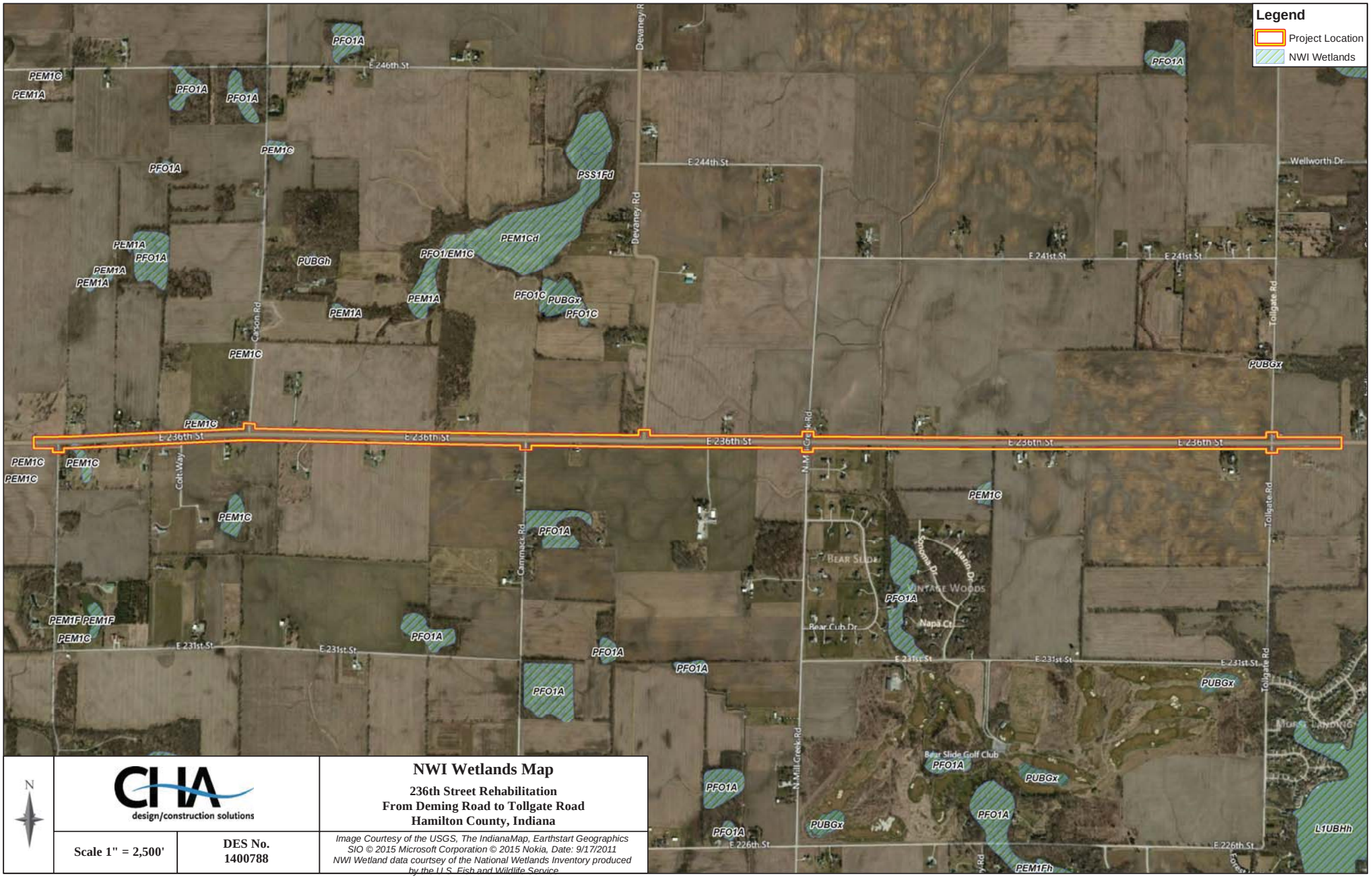
USGS Project Location Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 2,000'

DES No. 1400788

Service Layer Credits:
Copyright: © 2013 National Geographic Society, I-cubed
Arcadia USGS Quadrangle - Date: 1994



N

CHA design/construction solutions

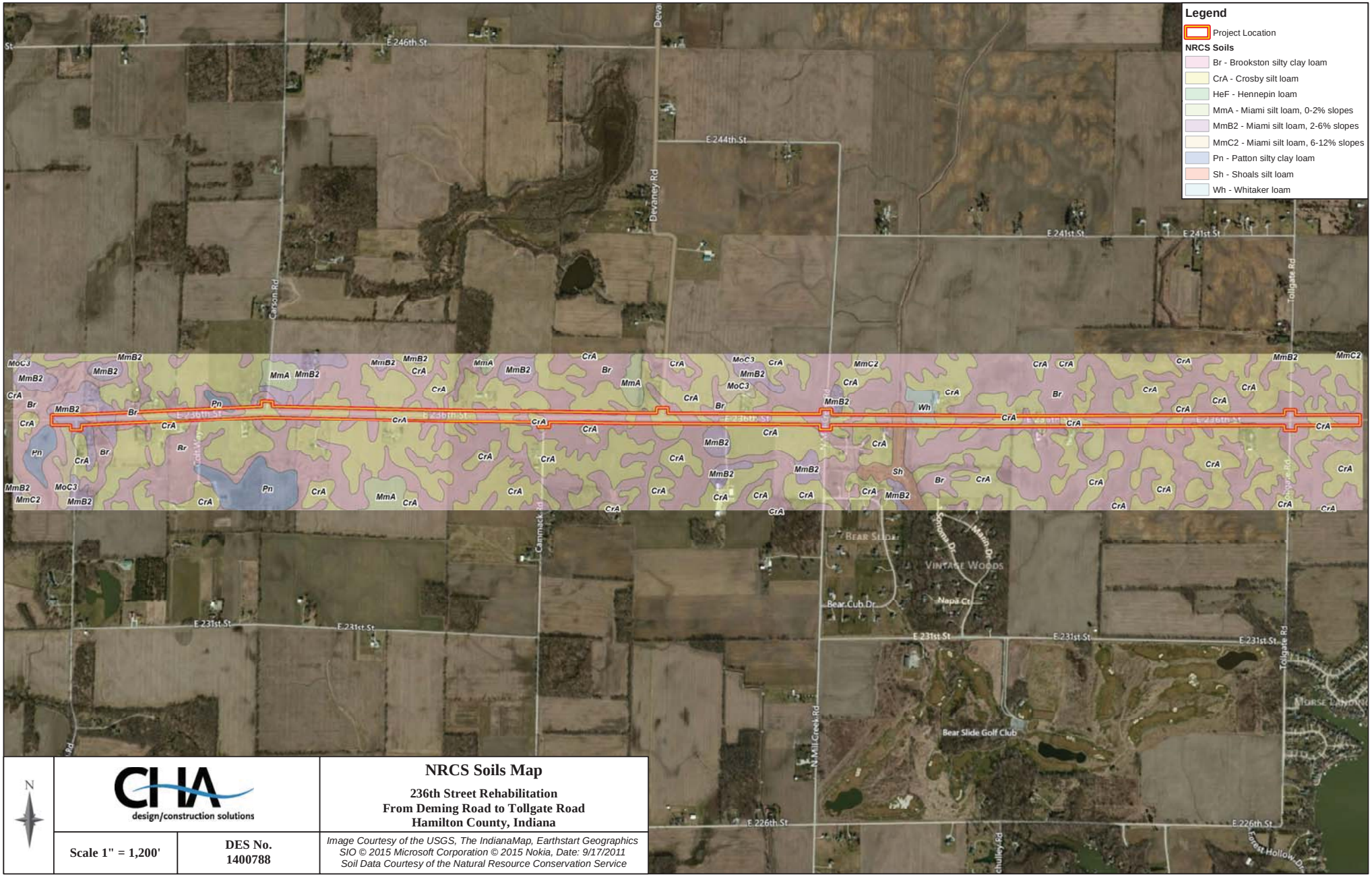
NWI Wetlands Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 2,500'

DES No. 1400788

Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
NWI Wetland data courtsey of the National Wetlands Inventory produced by the U.S. Fish and Wildlife Service



N

CHA
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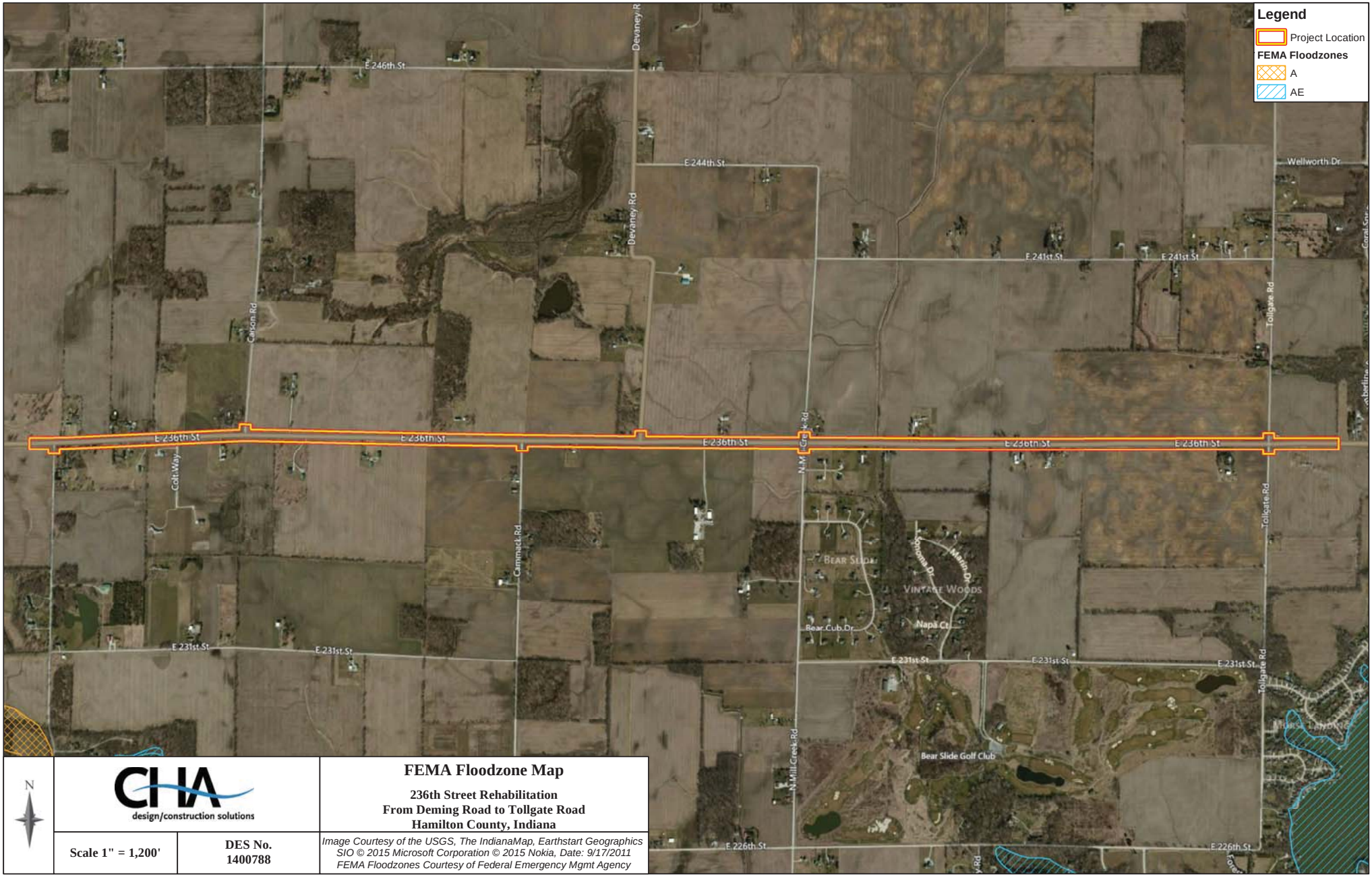
NRCS Soils Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 1,200'	DES No. 1400788	*Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011 Soil Data Courtesy of the Natural Resource Conservation Service*



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FEMA Floodzone Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 1,200'	DES No. 1400788	*Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011 FEMA Floodzones Courtesy of Federal Emergency Mgmt Agency*

Photo 1 – View northeast from 236th St. & Deming Rd., showing area mapped as potential NWI wetland. (taken 03-11-2015)

Photo 2 – View east from 236th St. & Deming Rd., showing 236th St. (taken 03-11-2015)

Photo 3 - View southeast from 236th St. & Deming Rd., showing area mapped as NWI wetland. (taken 03-11-2015)

Photo 4 - View south from 236th St. & Deming Rd., showing Deming Rd.. (taken 03-11-2015)

Photo 5 - View west from 236th St. & Deming Rd., showing 236th St. (taken 03-11-2015)

Photo 6 - View north from 236th St. & Carson Rd., showing Carson Rd. (taken 03-11-2015)

Photo 7 - View east from 236th St. & Carson Rd., showing 236th St. (taken 03-11-2015)

Photo 8 - View west from 236th St. & Carson Rd., showing 236th St. (taken 03-11-2015)

Photo 9 - View northwest from 236th St. & Carson Rd., showing potential mapped NWI wetland. (taken 03-11-2015)

Photo 10 - View north from 236th St. & Camack Rd., showing typical agricultural field setting. (taken 03-11-2015)

Photo 11 - View east from 236th St. & Camack Rd., showing 236th St. (taken 03-11-2015)

Photo 12 - View south from 236th St. & Camack Rd., showing Camack Rd. (taken 03-11-2015)

Photo 13 - View north from 236th St. & Devaney Rd., showing Devaney Rd. (taken 03-11-2015)

Photo 14 - View east from 236th St. & Devaney Rd., showing 236th St. (taken 03-11-2015)

Photo 15 - View west from 236th St. & Devaney Rd., showing 236th St. (taken 03-11-2015)

Photo 16 - View north from 236th St. & Mill Creek Rd., showing Mill Creek Rd. (taken 03-11-2015)

Photo 17 - View east from 236th St. & Mill Creek Rd., showing 236th St. (taken 03-11-2015)

Photo 18 - View south from 236th St. & Mill Creek Rd., showing Mill Creek Rd. (taken 03-11-2015)

Photo 19 - View west from 236th St. & Mill Creek Rd., showing 236th St. (taken 03-11-2015)

Photo 20 - View northwest from Mill Creek Rd. south of 236th St., showing an inlet to an unnamed tributary to Bear Slide Creek. (taken 03-11-2015)

Photo 21 - View north from 236th St., showing Bear Slide Creek. (taken 03-11-2015)

Photo 22 - View east from 236th St. at Bear Slide Creek, showing 236th St. (taken 03-11-2015)

Photo 23 - View south from 236th St., showing Bear Slide Creek. (taken 03-11-2015)

Photo 24 - View west from 236th St. at Bear Slide Creek, showing 236th St. (taken 03-11-2015)

Photo 25 - View north from 236th St. & Tollgate Rd., showing Tollgate Rd. (taken 03-11-2015)

Photo 26- View east from 236th St. & Tollgate Rd., showing 236th St. (taken 03-11-2015)

Photo 27 - View south from 236th St. & Tollgate Rd., showing Tollgate Rd. (taken 03-11-2015)

Photo 28 - View west from 236th St. & Tollgate Rd., showing 236th St. (taken 03-11-2015)

Photo 29 – View north from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 30 – View east from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 31 – View west from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 32 – View south from access drive east of Tollgate Rd., showing agricultural field. (taken 05-03-2015)

PROJECT	DESIGNATION
1400788	1400788
CONTRACT	BRIDGE FILE
R-37740	N/A

INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

PROJECT NO. 1400788 PE, R/W, CONST.

EAST 236TH STREET REHABILITATION
FROM DEMING ROAD TO TOLLGATE ROAD.

BEGINNING AT THE INTERSECTION OF DEMING ROAD & 236TH ST. IN SEC. 5, T-19-N, R-4-E, AND SEC. 32, T-20-N, R-4-E AND EXTENDING IN AN EASTERLY DIRECTION FOR A DISTANCE OF 17,500' TO THE INTERSECTION OF TOLLGATE ROAD AND 236th STREET IN SEC. 2, T-19-N, R-4-E, AND SEC. 35, T-20-N, R-4-E IN JACKSON TOWNSHIP, HAMILTON COUNTY, INDIANA

TRAFFIC DATA	236th STREET	
A.A.D.T. (2012)	5,761	V.P.D.
A.A.D.T. (2038)	11,490	V.P.D.
D.H.V. (2038)	1,149	V.P.H.
DIRECTIONAL DISTRIBUTION	50	%
TRUCKS	5	% D.H.V.
	5	% A.A.D.T.

DESIGN DATA	
DESIGN SPEED	50 M.P.H.
POSTED SPEED	50 M.P.H.
PROJECT DESIGN CRITERIA	3R (NON-FREEWAY)
FUNCTIONAL CLASSIFICATION	PRIMARY ARTERIAL (HAMILTON CO.) - CONTROLLING MAJOR COLLECTOR (INDOT)
RURAL/URBAN	RURAL
TERRAIN	LEVEL
ACCESS CONTROL	NONE

BOARD OF COMMISSIONERS

APPROVED : DATE

CHRISTINE ALTMAN COMMISSIONER

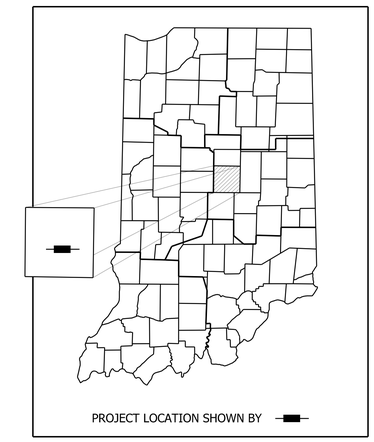
STEVEN C. DILLINGER COMMISSIONER

MARK HEIRBRANDT COMMISSIONER

ATTEST :

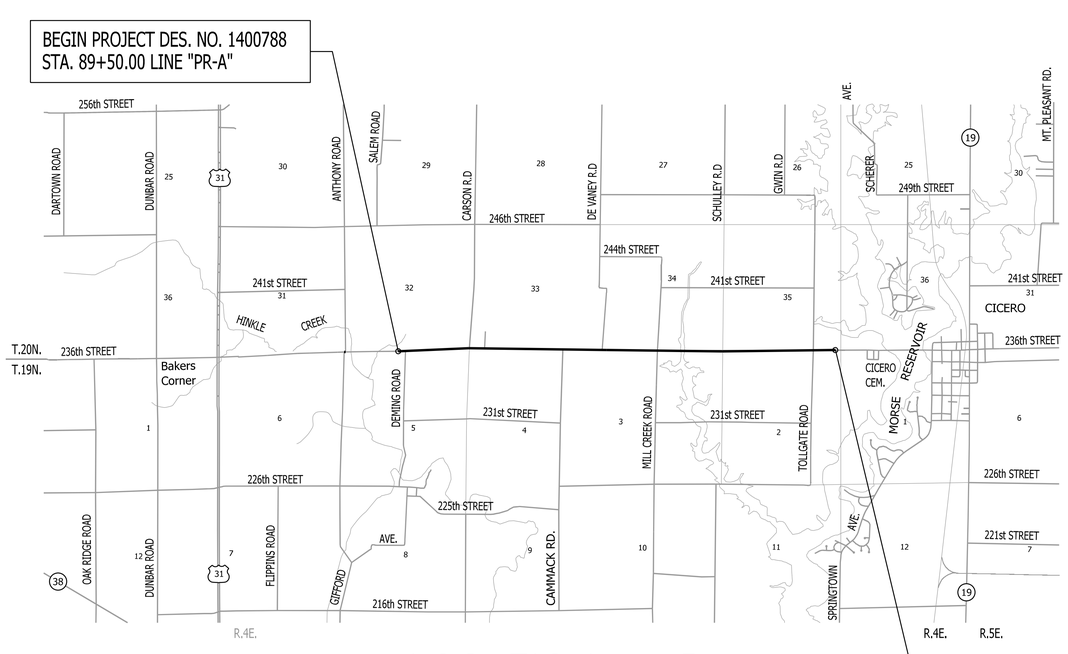
DAWN COVERDALE AUDITOR

JAMES W. NEAL, P.E. COUNTY HIGHWAY ENGINEER



Project Latitude : 40°07'56"
Project Longitude : 86°05'00"
Gross Length : 3.343 Miles
Net Length : 3.343 Miles
Max. Grade : 2.50%

BEGIN PROJECT DES. NO. 1400788
STA. 89+50.00 LINE "PR-A"



1" = 3000'

END PROJECT DES. NO. 1400788
STA. 266+00.00 LINE "PR-A"

LOCATION MAP
JACKSON TOWNSHIP
HAMILTON COUNTY

PRELIMINARY FIELD CHECK PLANS
JANUARY 29, 2016

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2016
TO BE USED WITH THESE PLANS

By: CHA_Legacy_RWA_V8i

Drawing Copyright © 2014

CHA
Union Station, 300 S. Meridian St.
Indianapolis, IN 46225
Main: (317) 786-0461 • www.chacompanies.com

PLANS PREPARED BY: CHA Consulting, Inc. 317.786.0461
PHONE NUMBER

CERTIFIED BY: DATE

SURVEY BOOK	SHEET		
	1	of	60
CONTRACT	PROJECT		
R-37740	1400788		

1/20/2016

Model: INDOT TITLE SHEET Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\20 Singles\R-TIT.dgn

UTILITIES

ELECTRIC	DUKE ENERGY Connie Maus 1619 W. Defenbaugh Street Kokomo, IN 46902 PH: 765-454-6180 FX: 765-454-6581 connie.maus@duke-energy.com	
COMMUNICATIONS	FRONTIER Steve Costlow 20905 Hague Road. Noblesville, IN 46062 PH: 317-984-9010 FX: 317-984-2381 steve.costlow@ftr.com	AT&T DISTRIBUTION Dewayne Bullock 5858 N. College Ave. Indianapolis, IN 46220 PH: 317-252-4426 FX: 317-252-4013 cb7916@att.com
PETROLEUM	BUCKEYE PIPELINE Dave Jones Five TEK Park 9999 Hamilton Blvd. Breinigsville, PA 18031 PH: 610-904-4409 FX: 610-904-4539 bauman@buckeye.com	

GENERAL NOTES

**	All Earth Shoulders, Median Area, Cut and Fill slopes shall be plain or mulched seeded except where Sodding is specified.
	The final Cross-Sections of the "Grading Contract" shall be the original cross-sections of the "Paving Contract" except that partial or complete cross-sections shall be taken if necessary to determine the actual quantities of Excavation.
	Paper Relocation is to be cross-sectioned by the Project Engineer before construction.
	Existing asphalt is located outside the construction limits, between Station _____ and Station _____, shall be removed as directed.
	The Quantity of Peat Excavation as shown on the plans has been estimated on the basis of theoretical cross-sections by using Method "A" where it applies and Method "B" where it applies.
**	A portion of this project is located within the 100 year floodplain of Hinkle Creek as scaled from Flood Insurance Rate Map (FIRM) Panels 18057C0025F, 18057C0050F, and 18057C0045F, effective February 19, 2003.
**	The topography information for this project was taken from an original survey performed in 2002 by Certified Engineering, Inc., and supplemented in 2008 by Recommended Land Surveying, Inc.
**	After the original survey was completed, 236th Street received an overlay which consisted of 1" surface mill and 1.5" HMA Surface. The existing ground profile elevations and existing ground cross-sections represent the original survey only. Prior to constructing the ends of the project, contractor is to verify the existing profile grade.
**	Contractor shall replace and maintain any disturbed drainage tile

** Note Applies

INDEX

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REVISIONS

SHEET NO.	DATE	REVISED

By: CHA_Legacy_PWA_V8i

12/22/2015

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CS DRAWN: CS

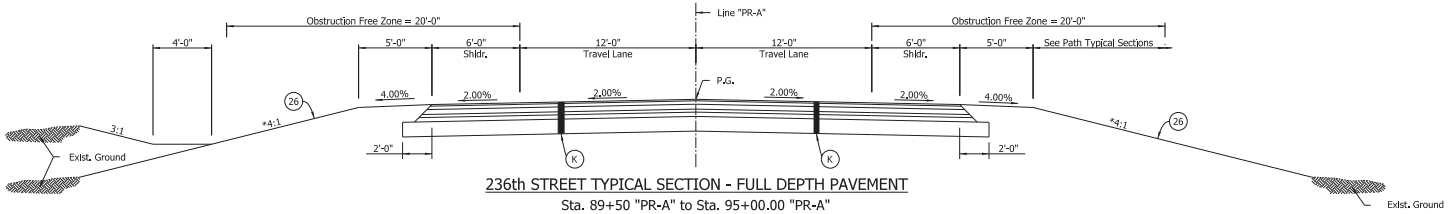
CHECKED: AD CHECKED: AD

INDIANA DEPARTMENT OF TRANSPORTATION

INDEX & GENERAL NOTES

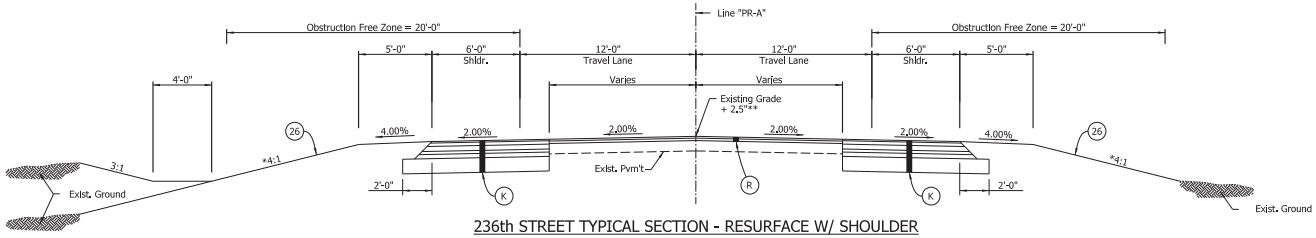
HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION 1400788
SURVEY BOOK	SHEET 2 of 58
CONTRACT R-37740	PROJECT 1400788

Model: eModel2dInch Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\20 Single\R-IND.dgn



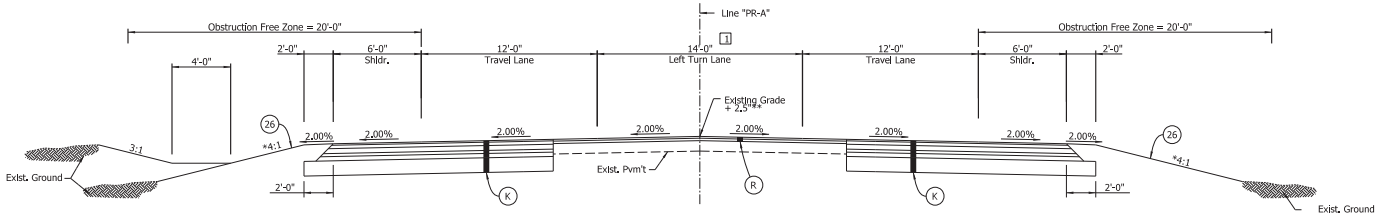
236th STREET TYPICAL SECTION - FULL DEPTH PAVEMENT

Sta. 89+50 "PR-A" to Sta. 95+00.00 "PR-A"
Sta. 116+00.00 "PR-A" to Sta. 119+00.00 "PR-A"
Sta. 143+80.00 "PR-A" to Sta. 147+00.00 "PR-A"
Sta. 173+85.00 "PR-A" to Sta. 176+65.00 "PR-A"



236th STREET TYPICAL SECTION - RESURFACE W/ SHOULDER

Sta. 95+00.00 "PR-A" to Sta. 116+00.00 "PR-A"
Sta. 119+00.00 "PR-A" to Sta. 143+80.00 "PR-A"
Sta. 147+00.00 "PR-A" to Sta. 173+85.00 "PR-A"
Sta. 176+65.00 "PR-A" to Sta. 259+00.00 "PR-A"



236th STREET TYPICAL SECTION - RESURFACE W/ LEFT TURN LANE AND SHOULDER

Sta. 259+00.00 "PR-A" to Sta. 266+00.00 "PR-A"

1 Varies 0'-0" to 14'-0" From Sta. 259+00 to Sta. 262+50
Varies 14'-0" to 0'-0" From Sta. 264+70 to Sta. 266+00

* Unless Noted Otherwise on Cross Sections

(K) Preliminary
Full Depth Section :
165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
220 #/Syd QC/QA-HMA, 3, 70, Intermediate, 12.5mm, on
1045 #/Syd QC/QA-HMA, 3, 64, Base, 25.0mm, on
Subgrade Treatment Type I

(R) Preliminary
Overlay Section :
165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
220 #/Syd (Min.) QC/QA-HMA. 3. 70 Intermediate, 12.5mm, on
Milling, Asphalt, 1 IN

(U) 6" Underdrain

(26) Seed Mixture, R, unless noted otherwise in Sodding Summary Table

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

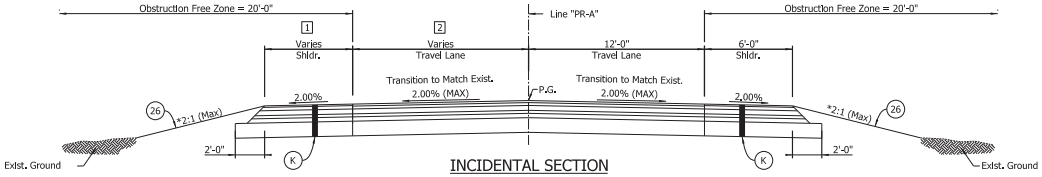
DESIGNED: CS DRAWN: CS
CHECKED: AD CHECKED: AD

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'	
VERTICAL SCALE	DESIGNATION
N/A	1400788
SURVEY BOOK	SHEET
	3 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_v04
12/22/2015
Model: sheet 2
Drawing: P:\Transportation\20015430 236th Street\30 Sheet\Drawings\20 Skyline\R-TYP.dgn



INCIDENTAL SECTION

Sta. 88+00.00 "PR-A" to Sta. 89+50.00 "PR-A"

Transition crown to match existing crown

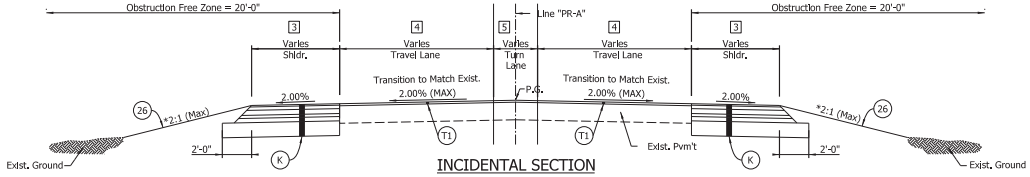
1 Varies From 9'-6" to 12'-0"
From Sta. 88+00.00 to Sta. 88+65.00

2 Varies From 0' to 6'-0"
From Sta. 88+00.00 to Sta. 89+50.00

3 Varies From 6'-0" to 2'-0"
From Sta. 266+00 to Sta. 267+00.00

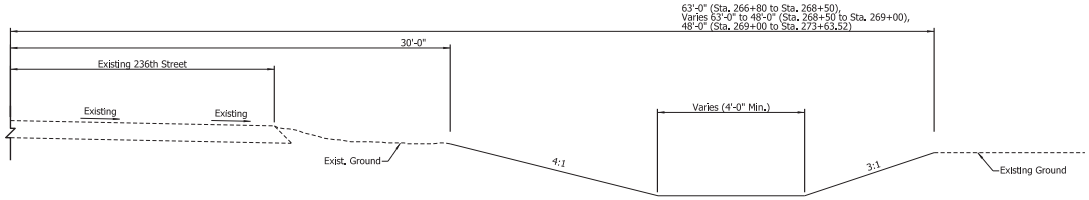
4 Varies From 12'-0" to 10'-1.5"
From Sta. 266+50.00 to Sta. 267+00.00

5 Varies From 4'-0" to 0'
From Sta. 266+00.00 to Sta. 266+50.00



INCIDENTAL SECTION

Sta. 266+00.00 "PR-A" to Sta. 267+50.00 "PR-A"



DITCH INCIDENTAL SECTION

Station Ranges along "PR-A"
Sta. 266+80 to Sta. 273+63.52

* Unless Noted Otherwise on Cross Sections

Note: After the original survey was completed, 236th Street received an overlay which consisted of 1" surface mill and 1.5" HMA Surface. The existing ground profile elevations and existing ground cross-sections represent the original survey only.

K Preliminary
Full Depth Section :
165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
220 #/Syd QC/QA-HMA, 3, 70, Intermediate, 12.5mm, on
1045 #/Syd QC/QA-HMA, 3, 64, Base, 25.0mm, on
Subgrade Treatment Type IC

R Preliminary
Overlay Section :
165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
220 #/Syd (Min.) QC/QA-HMA, 3, 70 Intermediate, 12.5mm, on
Milling, Asphalt, 1 IN

T1 165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
165 #/Syd (Min.) QC/QA-HMA, 3, 70 Intermediate, 9.5mm, on
Transition Milling

26 Seed Mixture, R, unless noted otherwise in Sodding Summary Table

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER DATE

DESIGNED: CS DRAWN: CS
CHECKED: AD CHECKED: AD

INDIANA
DEPARTMENT OF TRANSPORTATION

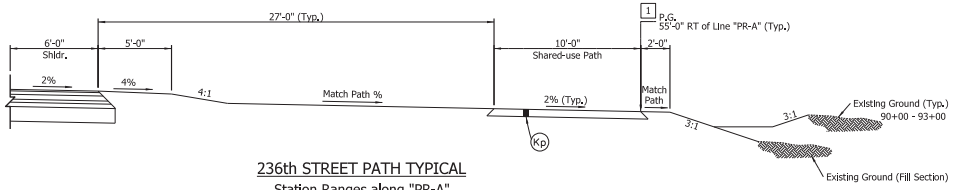
TYPICAL SECTION

HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'	
VERTICAL SCALE	DESIGNATION
N/A	1400788
SURVEY BOOK	SHEET
	4 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_v24

12/22/2015

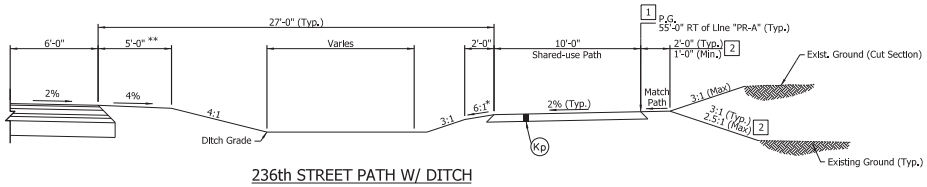
Model: sheet 3 Drawing: P:\Transportation\20015430 236th Street\30 Sheet\Drawings\20 Shig\ker\R-TYP.dgn



236th STREET PATH TYPICAL

Station Ranges along "PR-A"
Sta. - Sta. (Path Cross Slope)

90+00 - 98+00
115+50 - 129+00
139+00 - 166+00
194+00 - 200+50
206+50 - 209+00



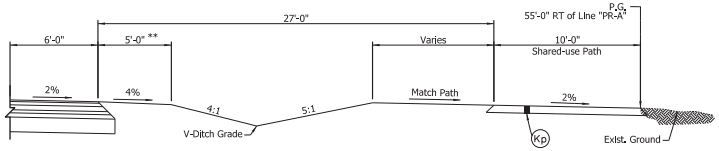
236th STREET PATH W/ DITCH

Station Ranges along "PR-A"
Sta. - Sta. (Path Cross Slope)

98+00 - 104+50 (1% LT)
104+50 - 111+00 (2% RT)
111+50 - 115+50 (1% LT)
129+00 - 139+00 (2% RT)

166+00 - 183+00 (2% RT)
185+00 - 189+00 (2% LT)
189+00 - 194+00 (2% RT)
209+00 - 263+80 (2% LT)

* Match Path slope when Path slopes Rt.
** 2'-0" From 260+00 - 263+50



236th STREET V-DITCH

Station Ranges along "PR-A"

183+00 - 185+00

1

52' From 90+00 - 92+50
Varies 52' - 38' From 92+50 - 93+50
38' From 93+50 - 95+50
Varies 38' - 55' From 95+50 - 96+50

55' From Line "A" From
P.C. 114+46.67 "PR-A" - P.T. 120+09.60 "PR-A"

Varies 55' - 38' From 162+00 - 163+00
38' From 163+20 - 165+00
Varies 38' - 55' From 165+00 - 166+00
Varies 55' - 34' From 194+00 - 195+00
34' From 195+00 - 196+00
Varies 34' - 55' From 196+00 - 197+00
Varies 55' - 34' From 206+50 - 207+50
34' From 207+50 - 208+00
Varies 34' - 55' From 208+00 - 209+00
Varies 55' - 60' From 241+00 - 242+00
60' From 242+00 - 244+00
Varies 60' - 55' From 244+00 - 245+25
Varies 55' - 60' From 245+25 - 246+50
60' From 246+50 - 255+00
Varies 60' - 55' From 255+00 - 256+00
Varies 55' - 65' From 260+50 - 262+50

2

1' Rt. Shoulder & 2.5:1 Rt. Foreslope from:
177+00 - 182+50
201+00 - 202+00

PATH SLOPE TRANSITION TABLE

FROM STATION	SLOPE	TO STATION	SLOPE
Line "PR-A"			
97+50.00	2% Rt	98+00.00	1% Lt
104+50.00	1% Lt	105+00.00	2% Rt
111+00.00	2% Rt	111+50.00	1% Lt
115+50.00	1% Lt	116+00.00	2% Rt
174+00.00	2% Rt	174+50.00	2% Lt
176+00.00	2% Lt	176+50.00	2% Rt
184+50.00	2% Rt	185+00.00	2% Lt
189+00.00	2% Lt	189+50.00	2% Rt
200+50.00	2% Rt	201+00.00	2% Lt
206+50.00	2% Lt	207+00.00	2% Rt
208+50.00	2% Rt	209+00.00	2% Lt
263+00.00	2% Lt	263+50.00	1.2% Rt

Kp Preliminary
HMA For Sidewalks, Consisting of:
140 #/Syd HMA Surface, Type A, on
220 #/Syd HMA Intermediate, Type A, on
6 in. of Compacted Aggregate, No. 53, Base, on
Subgrade Treatment Type III

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

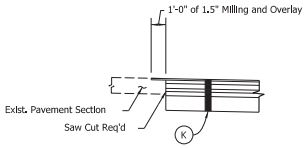
DESIGNED: CS DRAWN: CS
CHECKED: AD CHECKED: AD

INDIANA
DEPARTMENT OF TRANSPORTATION

TYPICAL SECTION

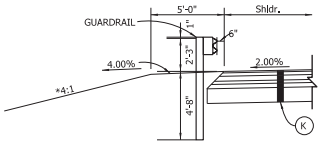
HORIZONTAL SCALE	BRIDGE FILE
1/4" = 1'	
VERTICAL SCALE	DESIGNATION
N/A	1400788
SURVEY BOOK	SHEET
	5 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_V8
12/22/2015
Model: Sheet 1
Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\20 Shoulder\R-TYP.dgn



TYPICAL PAVEMENT TIE-IN DETAIL

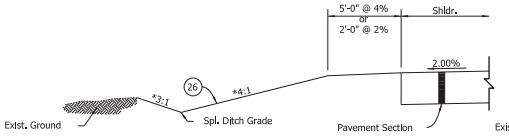
Sta. 88+00.00 "PR-A"



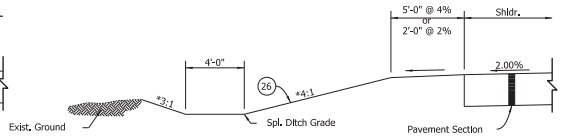
236th STREET GUARDRAIL TYPICAL WITH SHOULDER

LINE PR-A

Sta. 194+23.75 to Sta. 197+22.39 Lt
Sta. 206+50.52 to Sta. 210+56.77 Lt
Sta. 263+99.91 to Sta. 264+70.88 Lt
Sta. 265+04.83 to Sta. 265+80.00 Lt



236th STREET SPECIAL V DITCH TYPICAL WITH SHOULDER



236th STREET SPECIAL 4' BOTTOM DITCH TYPICAL WITH SHOULDER

* Unless Noted Otherwise on Cross Sections

(K) Preliminary
Full Depth Section :
165 #/Syd QC/QA-HMA, 3, 70, Surface, 9.5mm, on
220 #/Syd QC/QA-HMA, 3, 70, Intermediate, 12.5mm, on
1045 #/Syd QC/QA-HMA, 3, 64, Base, 25.0mm, on
Subgrade Treatment Type IC

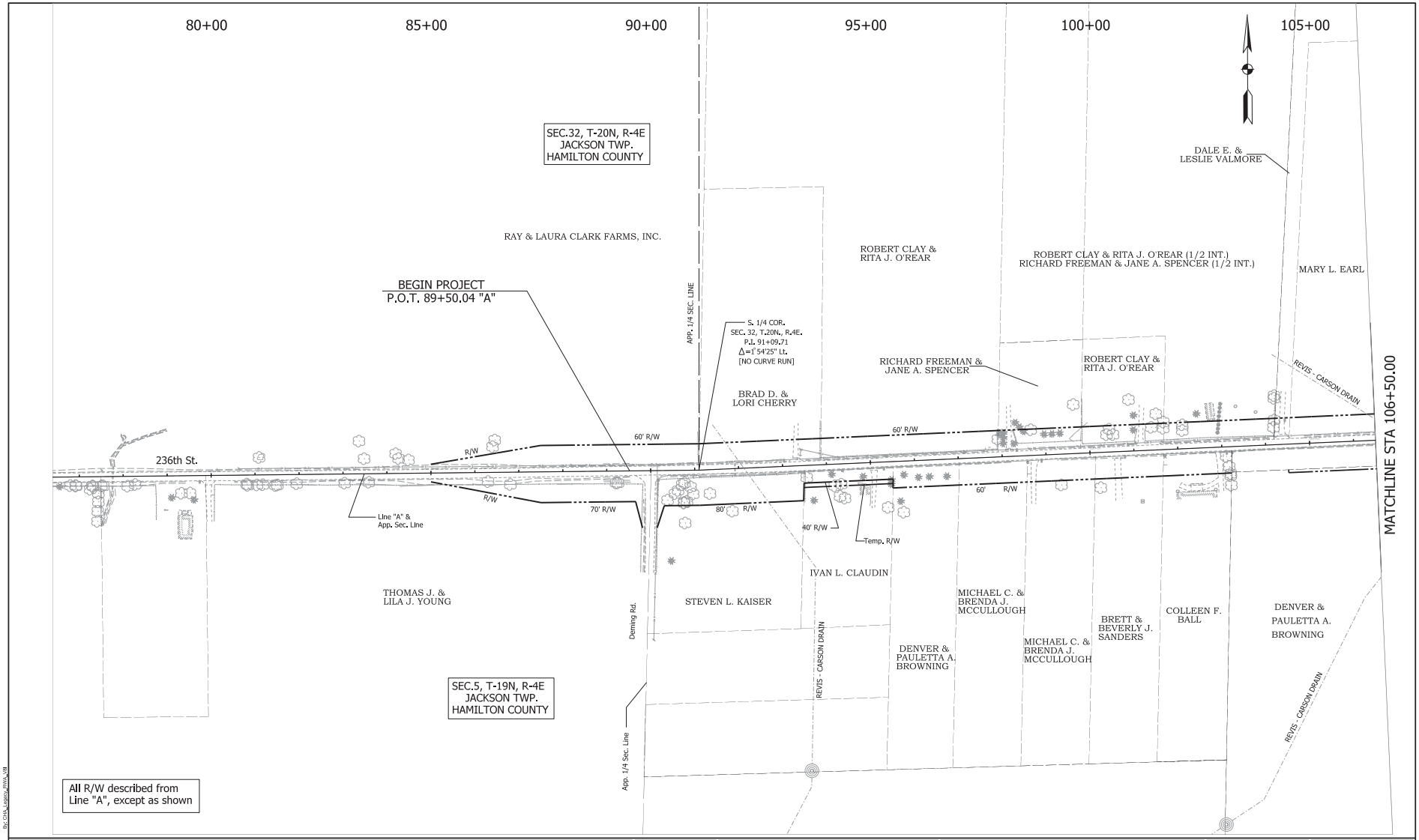
(26) Seed Mixture, R, unless noted otherwise in Sodding Summary Table

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1/4" = 1'	BRIDGE FILE
		VERTICAL SCALE N/A	DESIGNATION 1400788
DESIGNED: CS / DRAWN: CS	TYPICAL SECTION	SURVEY BOOK	SHEET 6 of 58
CHECKED: AD / CHECKED: AD		CONTRACT R-37740	PROJECT 1400788

By: CHA_Legacy_RWA_V8

12/22/2015

Model: sheet 5 Drawing: P:\Transportation\200154\30 236th Street\30 Sheet Drawings\20 Shoulder\R-TYP.dgn

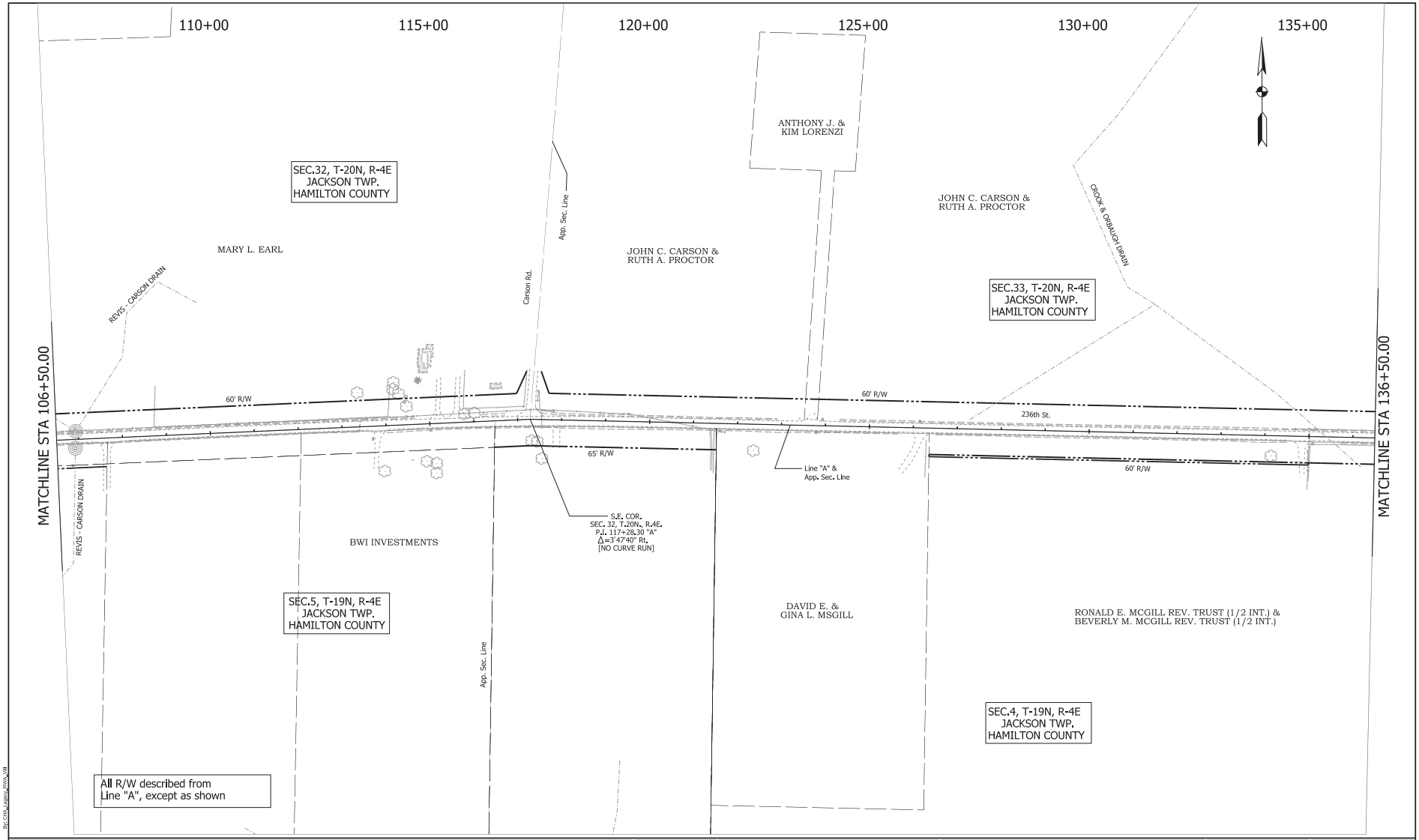


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE
		VERTICAL SCALE N/A	DESIGNATION 1400788
DESIGNED: CS DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 13 of 58
CHECKED: AD CHECKED: AD		CONTRACT R-37740	PROJECT 1400788

By: CHA_Legacy_ANNA_V8

12/22/2015

Model: R-PLAT1-1 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

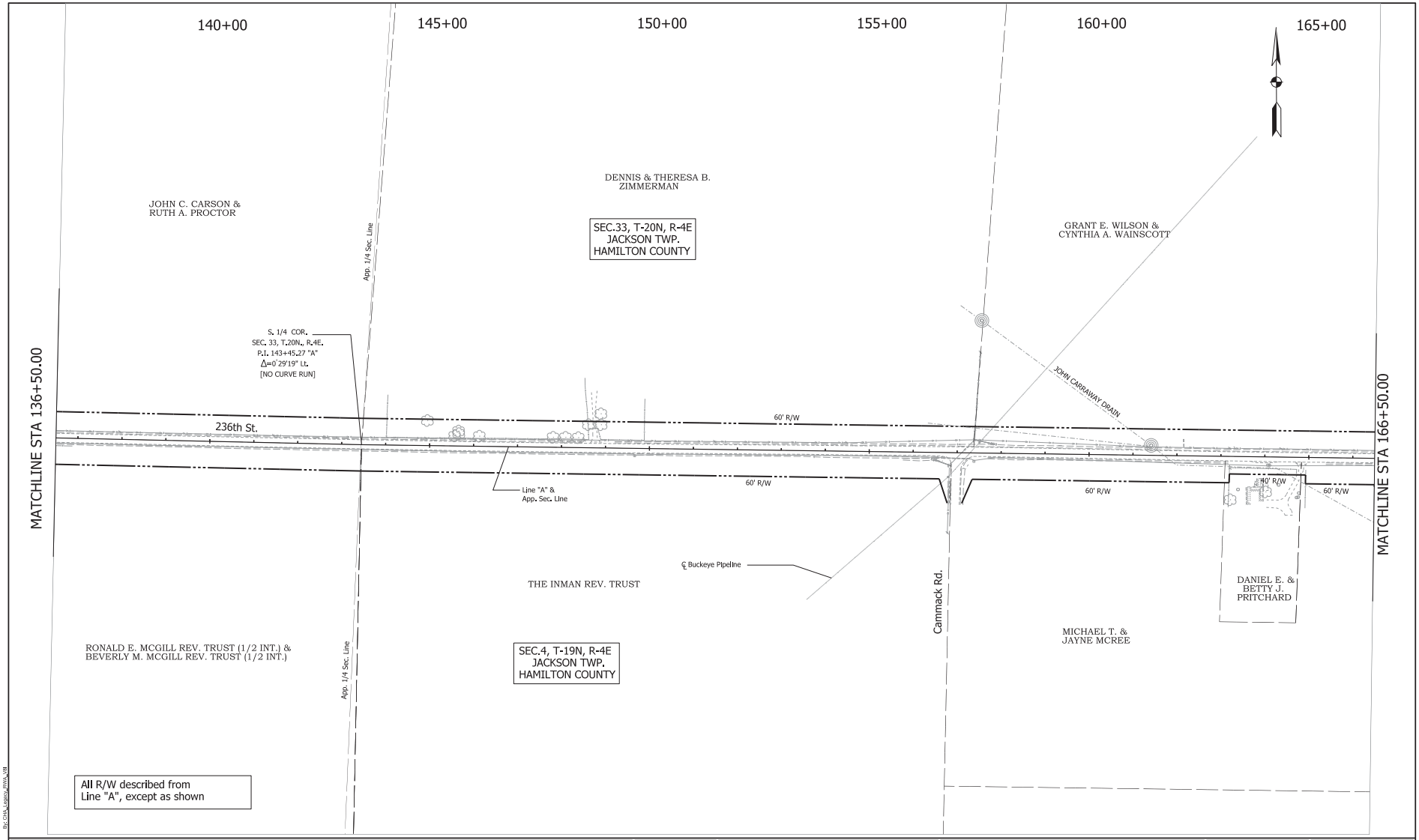


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE
		VERTICAL SCALE N/A	DESIGNATION 1400788
DESIGNED: CS DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 14 of 58
CHECKED: AD CHECKED: AD		CONTRACT R-37740	PROJECT 1400788

By: CHA_Legacy_AWA_V8

12/22/2015

Model: R-PLAT1-2 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

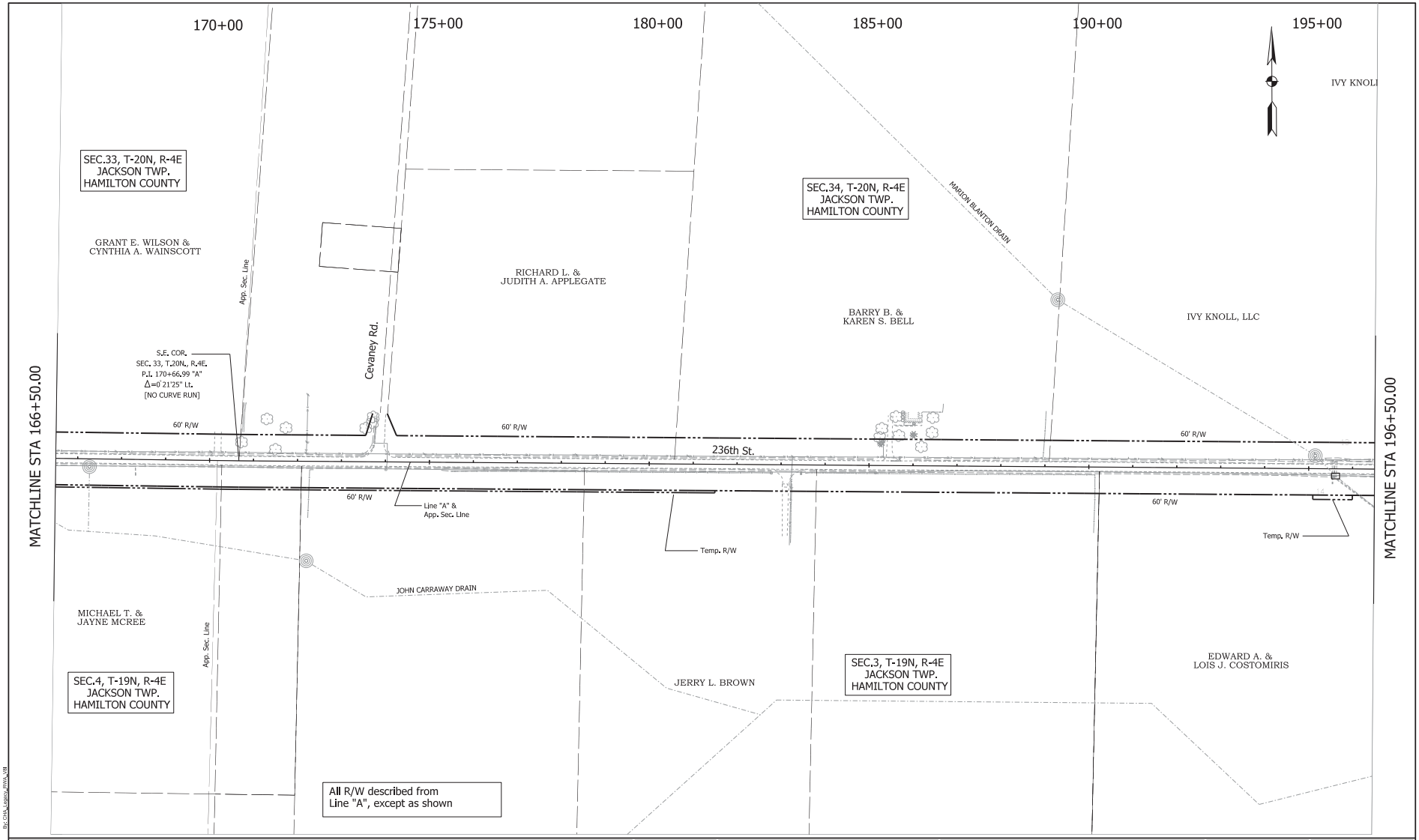


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE	
			VERTICAL SCALE N/A	DESIGNATION 1400788	
DESIGNED: CS	DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 15 of 58	
CHECKED: AD	CHECKED: AD		CONTRACT R-37740	PROJECT 1400788	

By: CHA_Legacy_ANNA_V8

12/22/2015

Model: R-PLAT1-3 Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

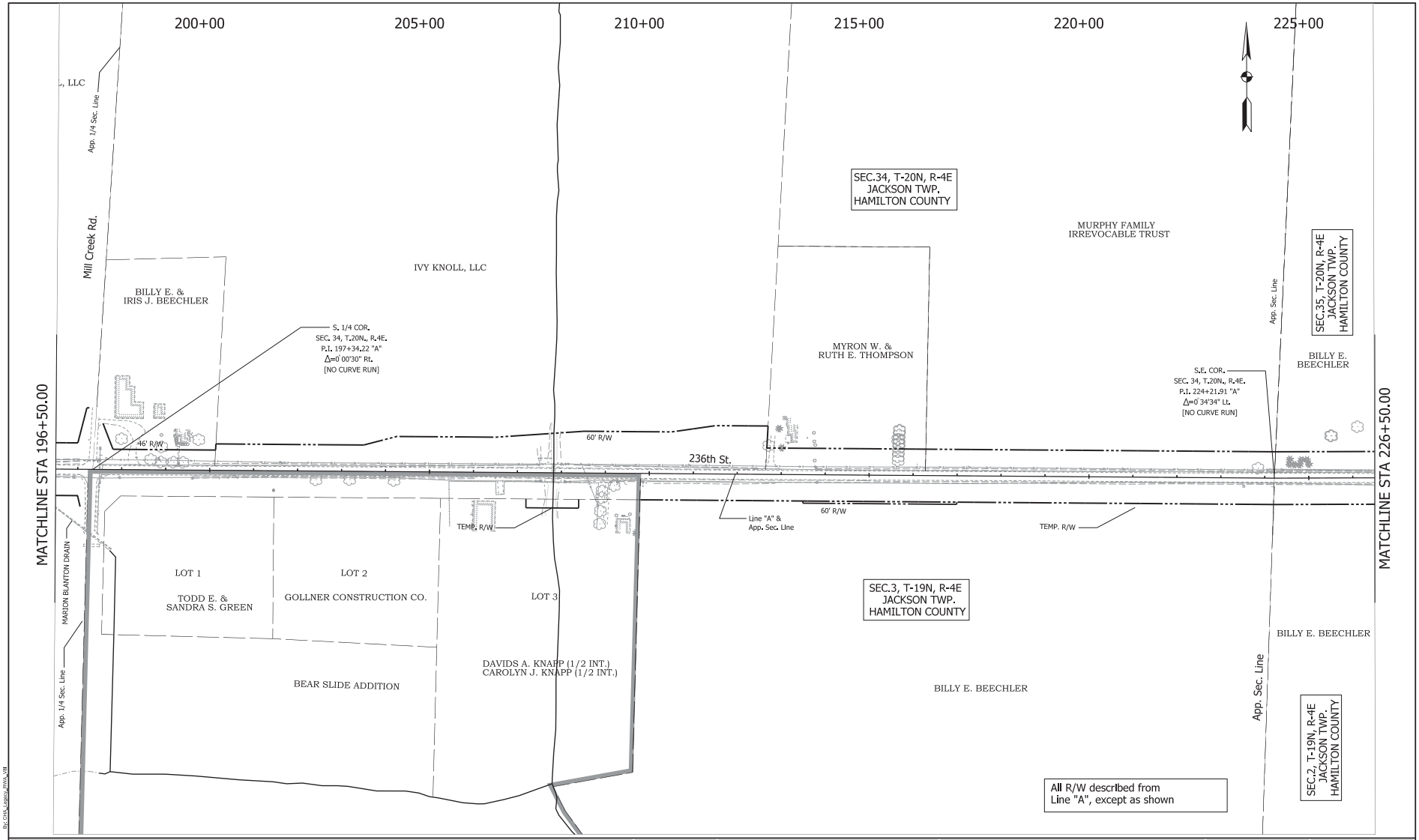


By: CHA_Legacy_ARWA_V8

12/22/2015

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE
		VERTICAL SCALE N/A	DESIGNATION 1400788
DESIGNED: CS / DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 16 of 58
CHECKED: AD / CHECKED: AD		CONTRACT R-37740	PROJECT 1400788

Model: R-PLAT1-4 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

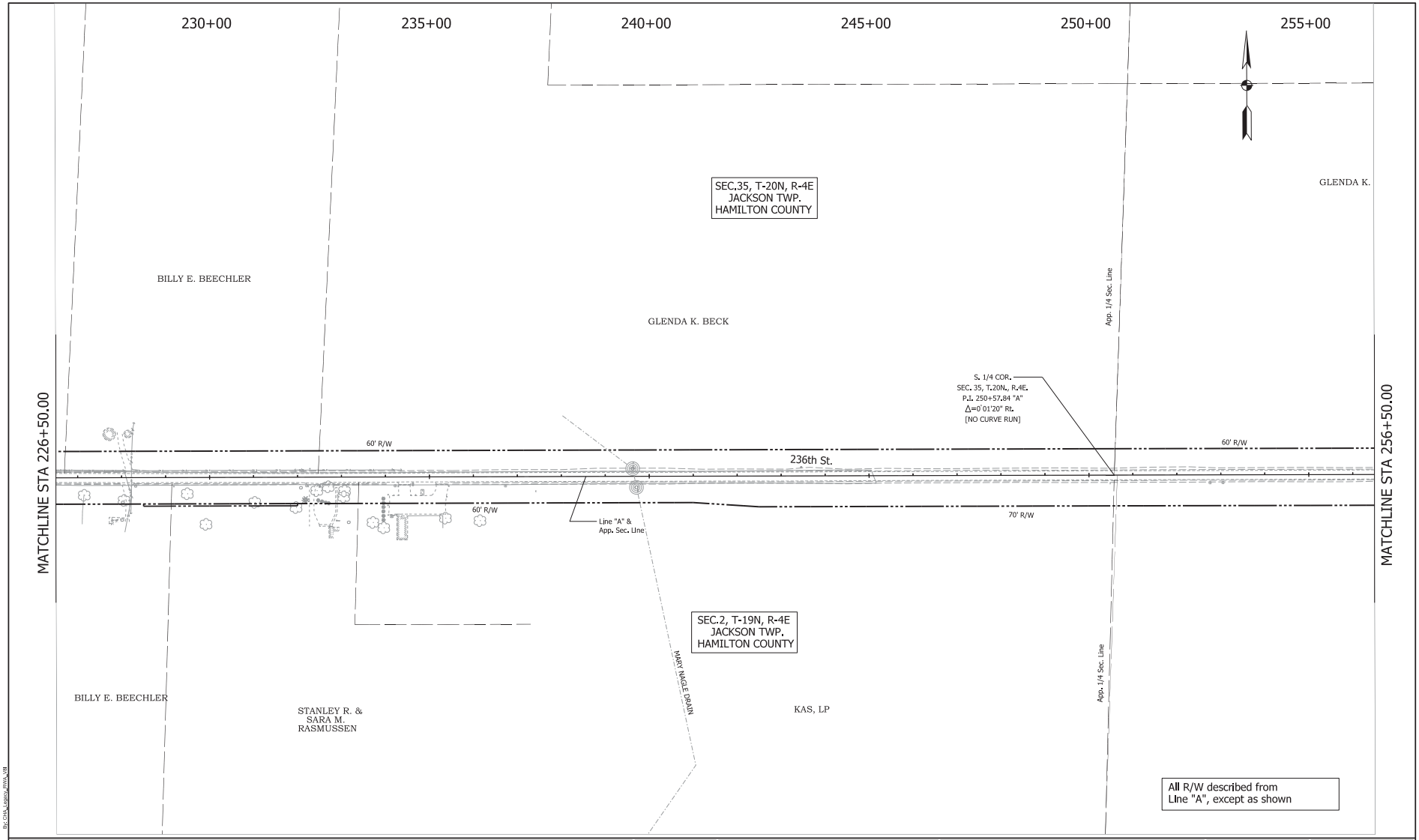


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE
		VERTICAL SCALE N/A	DESIGNATION 1400788
DESIGNED: CS DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 17 of 58
CHECKED: AD CHECKED: AD		CONTRACT R-37740	PROJECT 1400788

By: CHA_Legacy_RWA_V8

12/22/2015

Model: R-PLAT1-5 Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

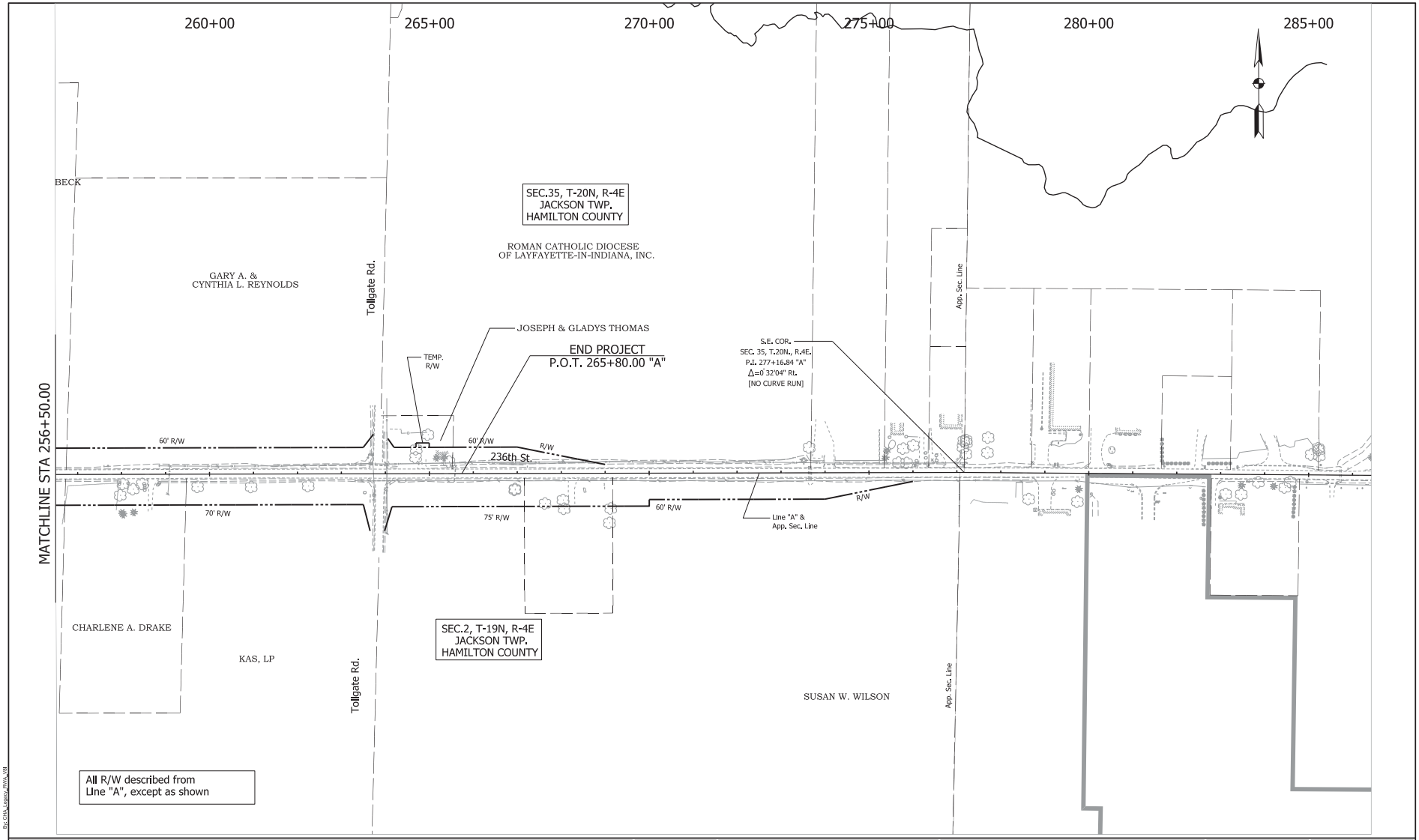


RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE	
		VERTICAL SCALE N/A	DESIGNATION 1400788	
DESIGNED: CS DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 18 of 58	
CHECKED: AD CHECKED: AD		CONTRACT R-37740	PROJECT 1400788	

Model: R-PLAT1-8 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn

By: CHA_Legacy_RWA_V8

12/22/2015

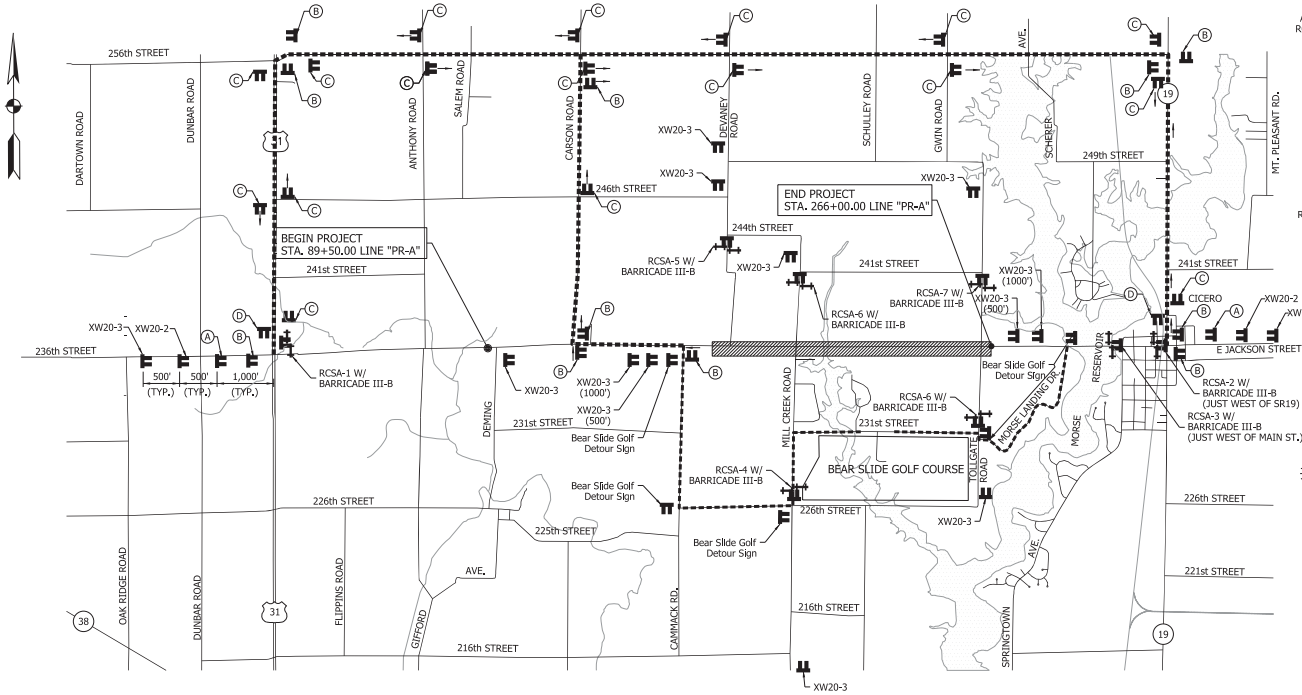


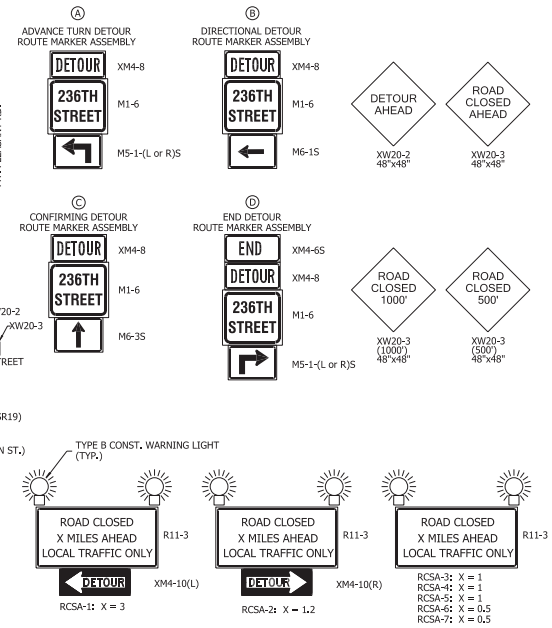
RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE		INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 100'	BRIDGE FILE	
			VERTICAL SCALE N/A	DESIGNATION 1400788	
DESIGNED: CS	DRAWN: CS	PLAT 1	SURVEY BOOK	SHEET 19 of 58	
CHECKED: AD	CHECKED: AD		CONTRACT R-37740	PROJECT 1400788	

By: CHA_Legacy_RWA_V8

12/22/2015

Model: R-PLAT1-7 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PLAT1.dgn





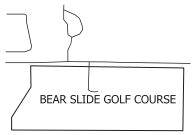
MAINTENANCE OF TRAFFIC SEQUENCE

PHASE 1: 1.80 Miles

Close 236th Street to thru traffic from Cammack Road to Tollgate Road.

Construct widening, HMA overlay, and place permanent pavement markings for 236th Street.

Access to residential properties within the project shall be maintained at all times.



LEGEND

- DETOUR ROUTE
- BARRICADE, TYPE III-B
- CONSTRUCTION SIGN / DETOUR ROUTE MARKER ASSEMBLY
- CONSTRUCTION ZONE

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CS DRAWN: CS

CHECKED: AD CHECKED: AD

INDIANA
DEPARTMENT OF TRANSPORTATION

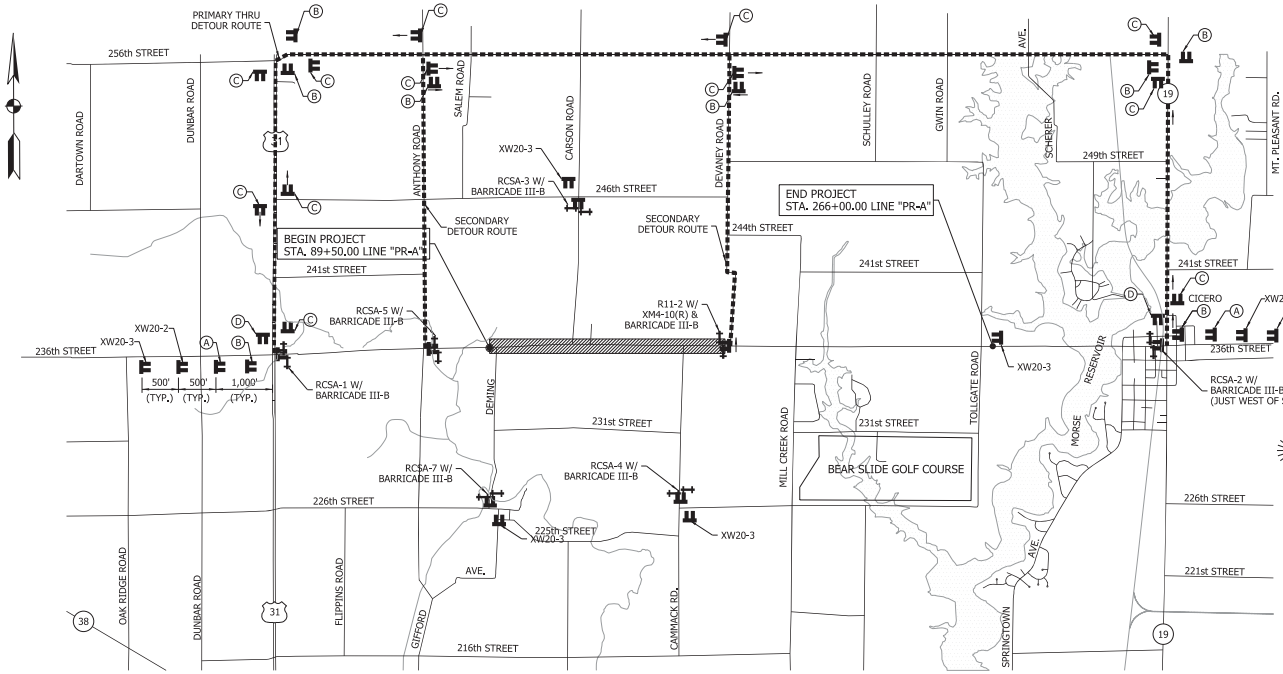
236TH STREET
DETOUR ROUTE - PHASE 1

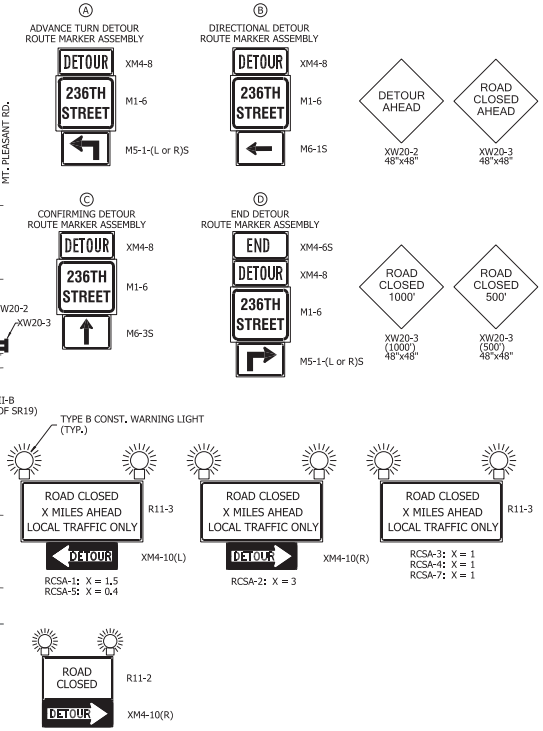
HORIZONTAL SCALE	BRIDGE FILE
1" = 2000'	
VERTICAL SCALE	DESIGNATION
N/A	1400788
SURVEY BOOK	SHEET
	21 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_AWA_v8

12/22/2015

Model: R-MOT-DETOUR1 Drawing: P:\Transportation\200154\30 236th Street\30 Sheet\Drawings\10 BaseSets\R-MOT-DETOURS.dgn





MAINTENANCE OF TRAFFIC SEQUENCE

PHASE 2: 1.54 Miles

Open 236th Street from Phase 1. Close 236th Street to thru traffic from Deming Road to Cammack Road.

Construct widening, HMA overlay, and place permanent pavement markings for 236th Street.

LEGEND

- DETOUR ROUTE
- BARRICADE, TYPE III-B
- CONSTRUCTION SIGN / DETOUR ROUTE MARKER ASSEMBLY
- CONSTRUCTION ZONE

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CS DRAWN: CS

CHECKED: AD CHECKED: AD

INDIANA DEPARTMENT OF TRANSPORTATION

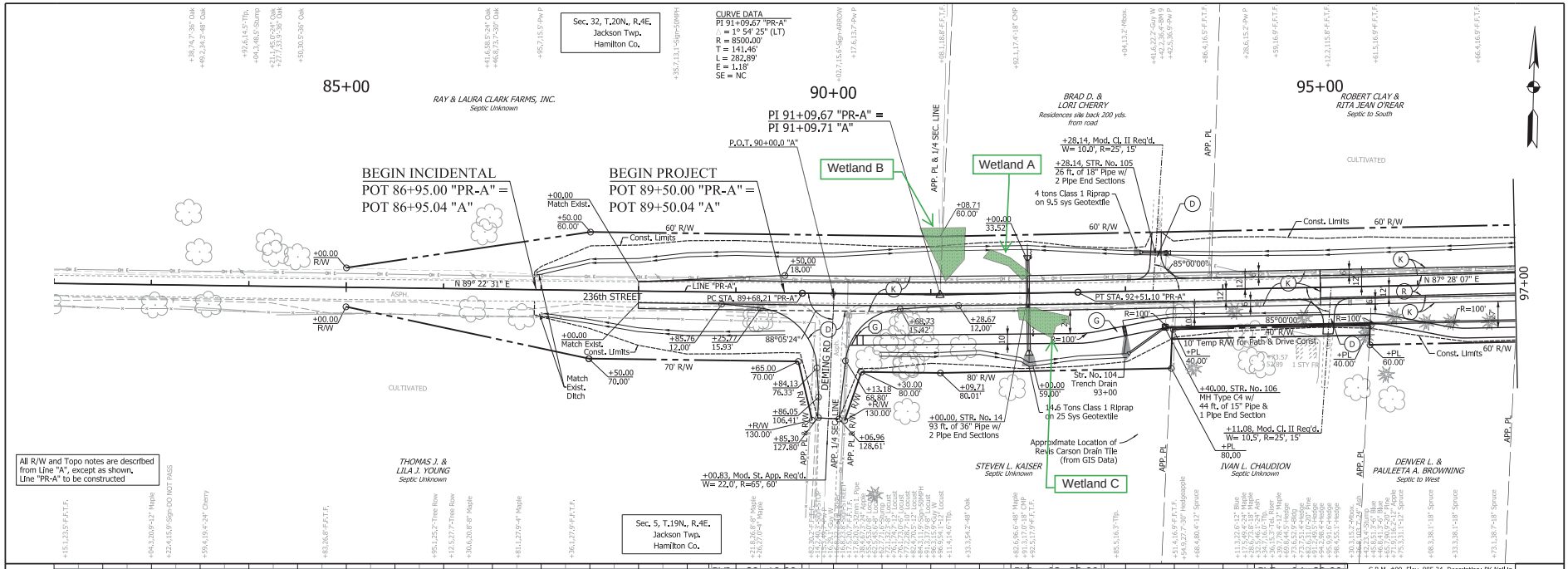
236TH STREET DETOUR ROUTE - PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 2000'	
VERTICAL SCALE	DESIGNATION
N/A	1400788
SURVEY BOOK	SHEET
	23 of 58
CONTRACT	PROJECT
R-37740	1400788

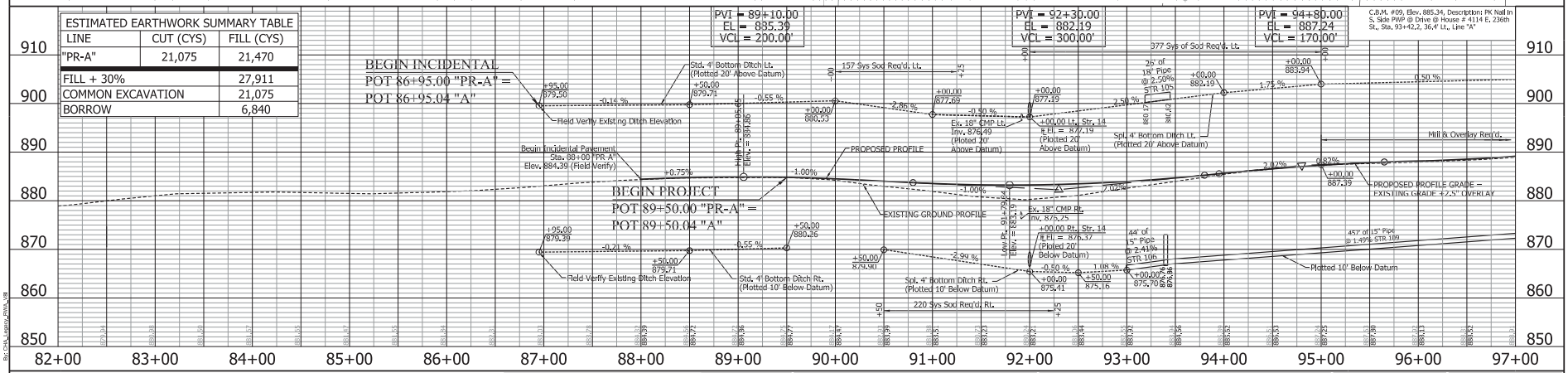
By: CHA_Legacy_AWA_V8

12/22/2015

Model: R-MOT-DETOUR2 Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-MOT-DETOURS.dgn



ESTIMATED EARTHWORK SUMMARY TABLE		
LINE	CUT (CYS)	FILL (CYS)
"PR-A"	21,075	21,470
FILL + 30%		27,911
COMMON EXCAVATION		21,075
BORROW		6,840



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH
CURB RAMP TYPE __
WETLANDS

Note:
After the original survey was completed, 236th Street received an overlay which consists of 1" surface mill and 1.5" HMA Surface. The existing ground profile elevations represent the original survey only.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

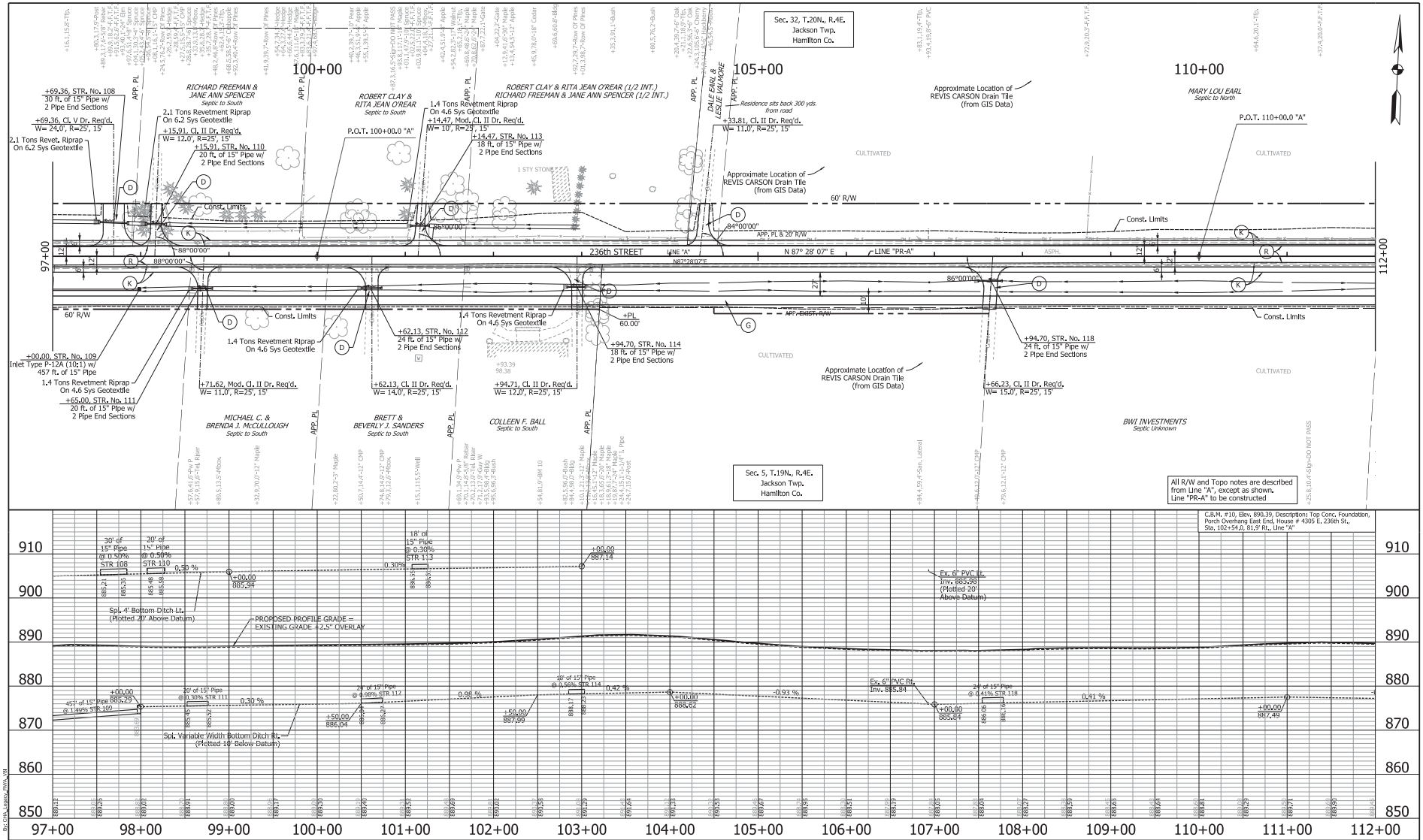
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	25 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chik_Vasiov_Alvin_Vill
12/22/2015
Model: R-PNP-6
Drawing: R:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-1.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION

(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION

(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION

(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"

(26) SODDING

(G) HMA PATH

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ML DRAWN: JH

CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

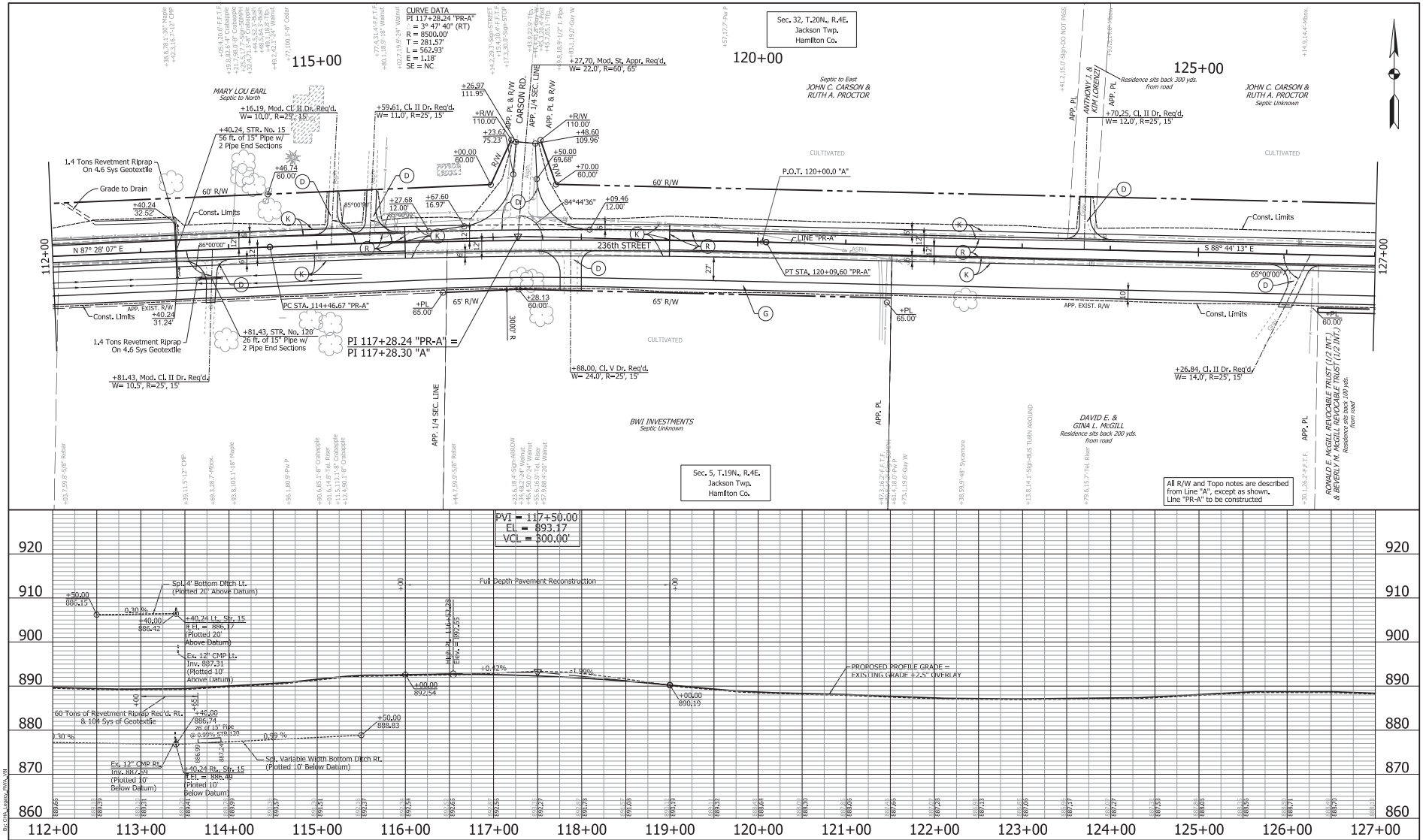
PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	26 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chik_Vasoria_Atkins_v24

12/22/2015

Model: R-PNP-7 Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-1.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

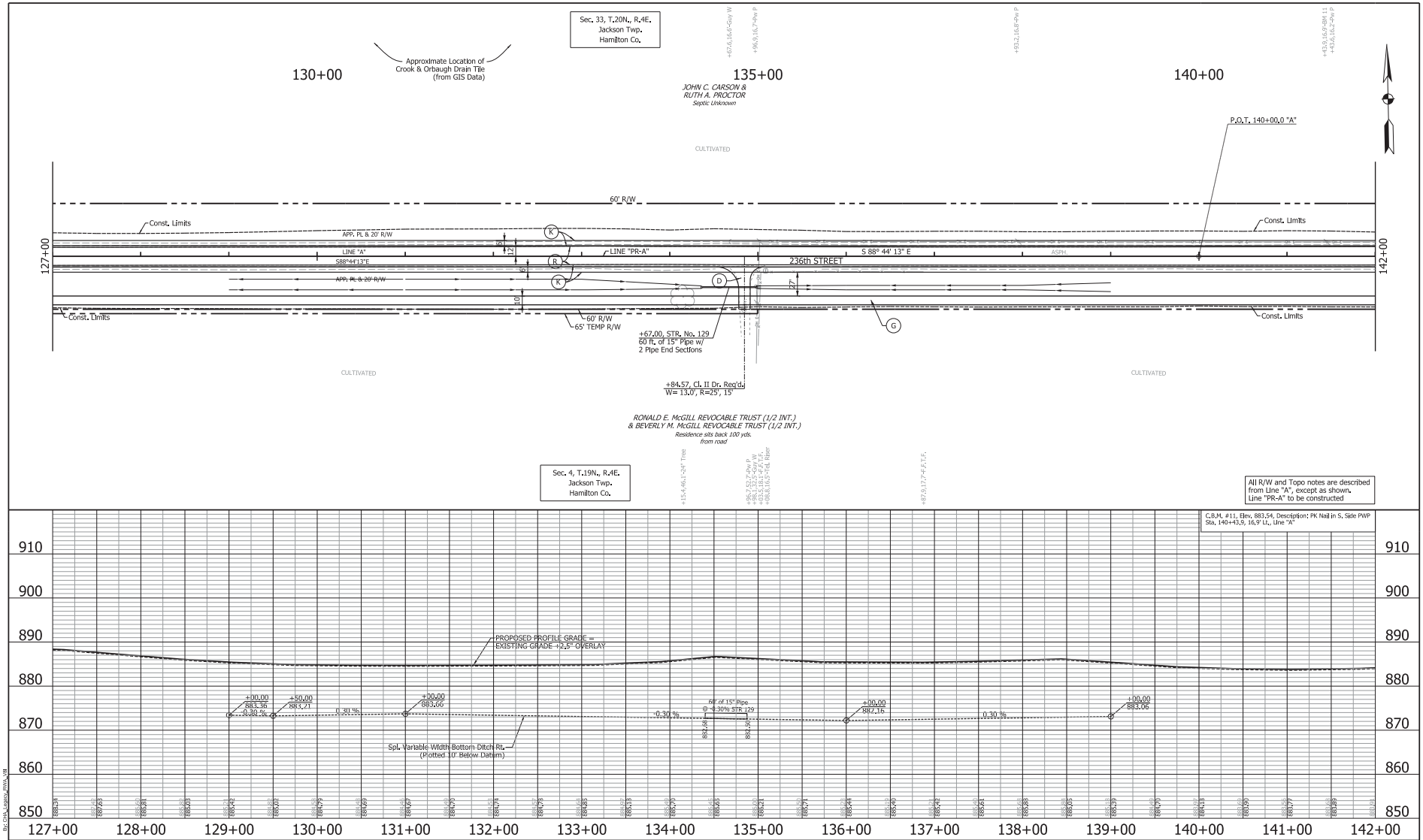
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	27 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chik_Vasiny_RWA_08
12/22/2015
Model: R-PNP-8
Drawing: e:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-1.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

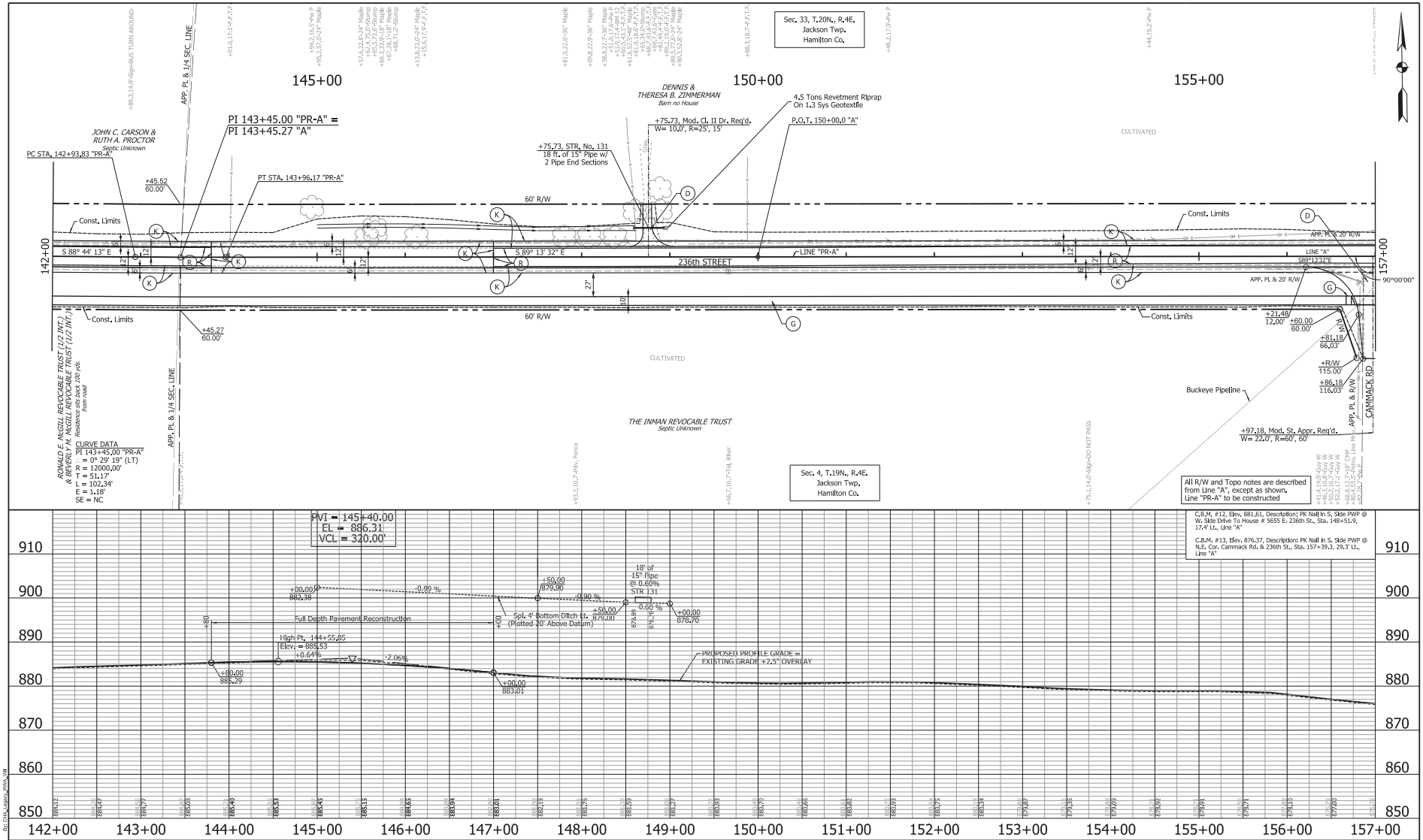
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	28 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chris_Lasley_RWA_v8i
12/22/2015
Model: R-PNP-9
Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-1.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH
(__) CURB RAMP TYPE __

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

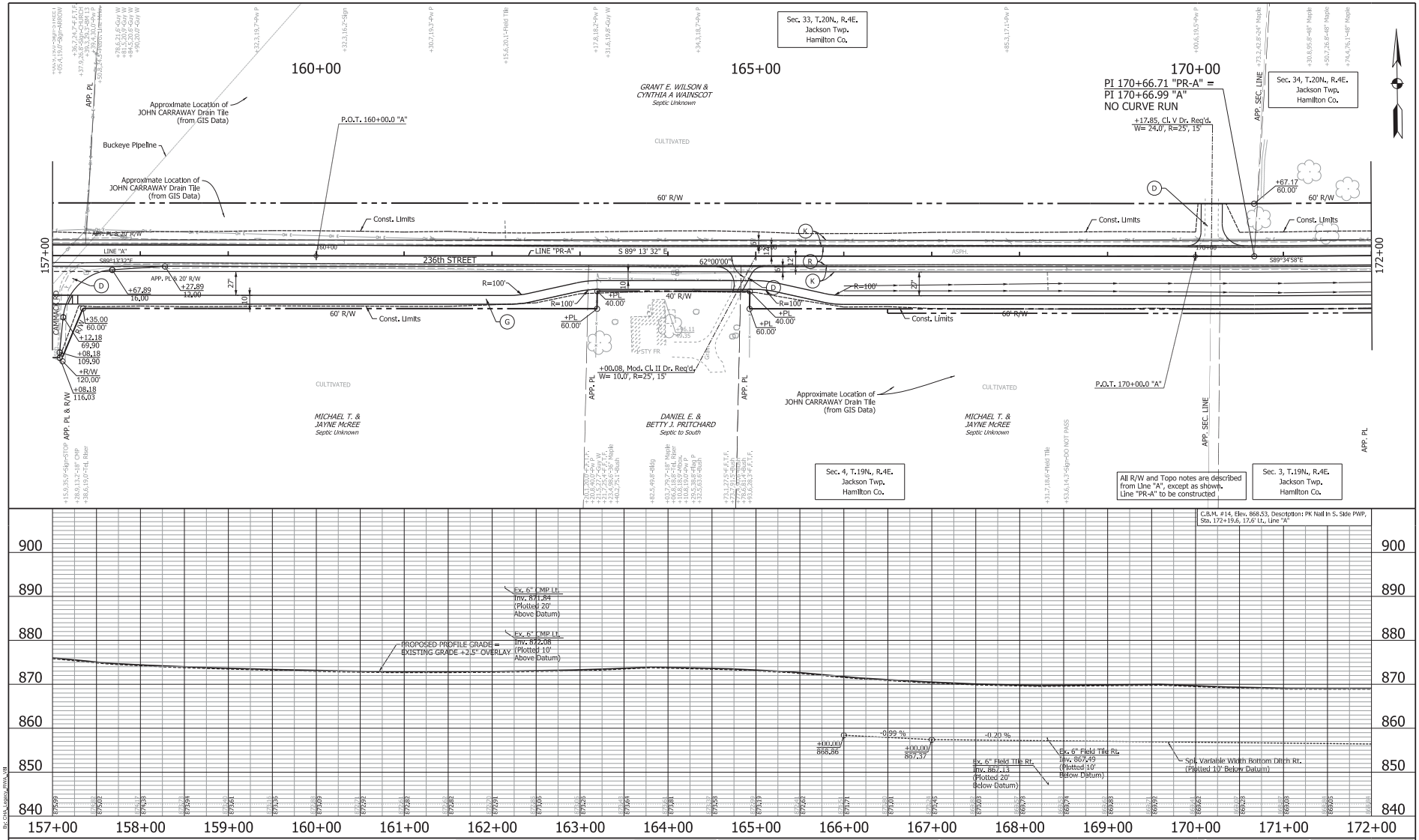
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	29 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_08
12/22/2015
Model: R-PNP-10
Drawing: R:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-1.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
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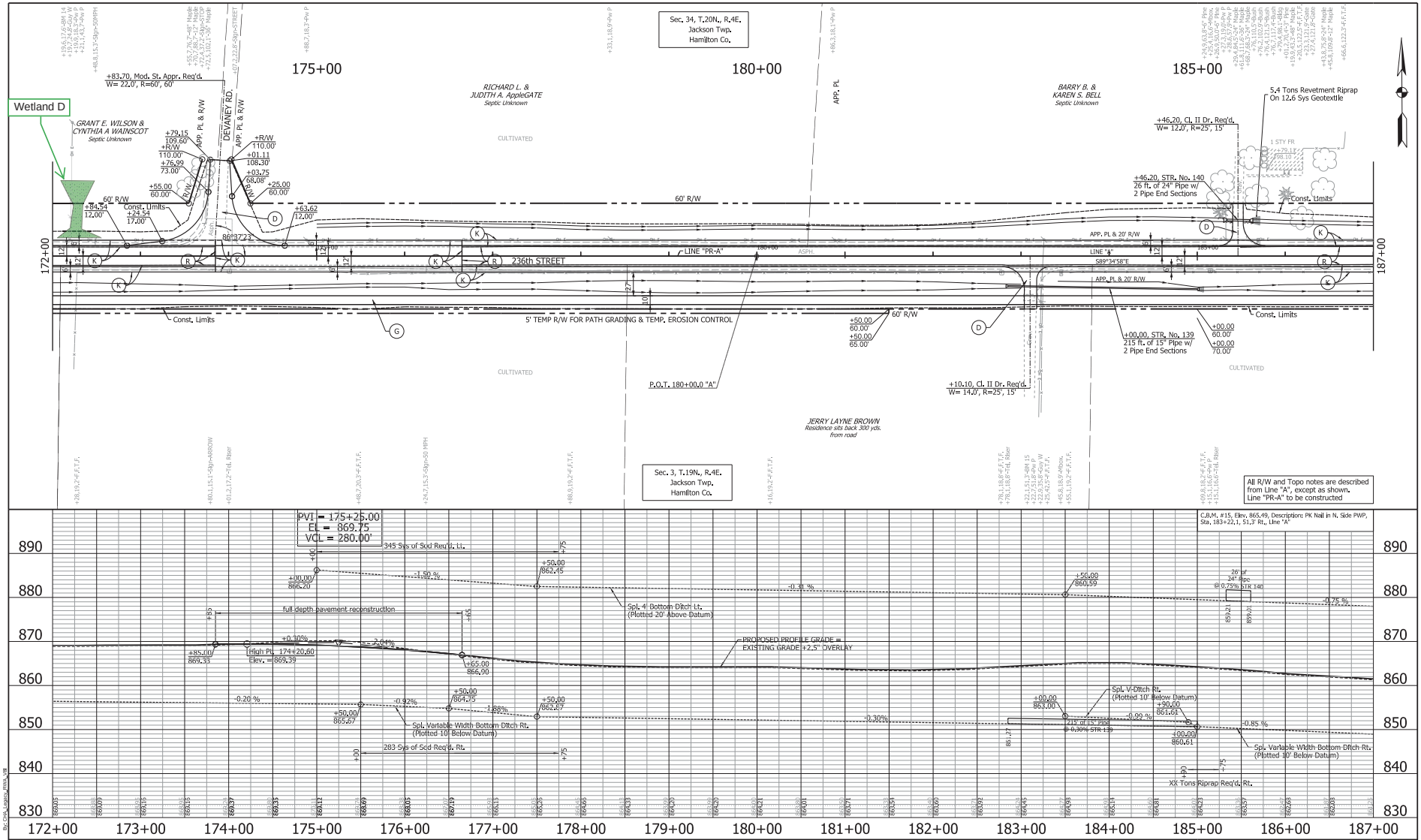
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	30 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chris_Lasley_RWA_v04
12/22/2015
Model: R-PNP-11 Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH
WETLANDS

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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

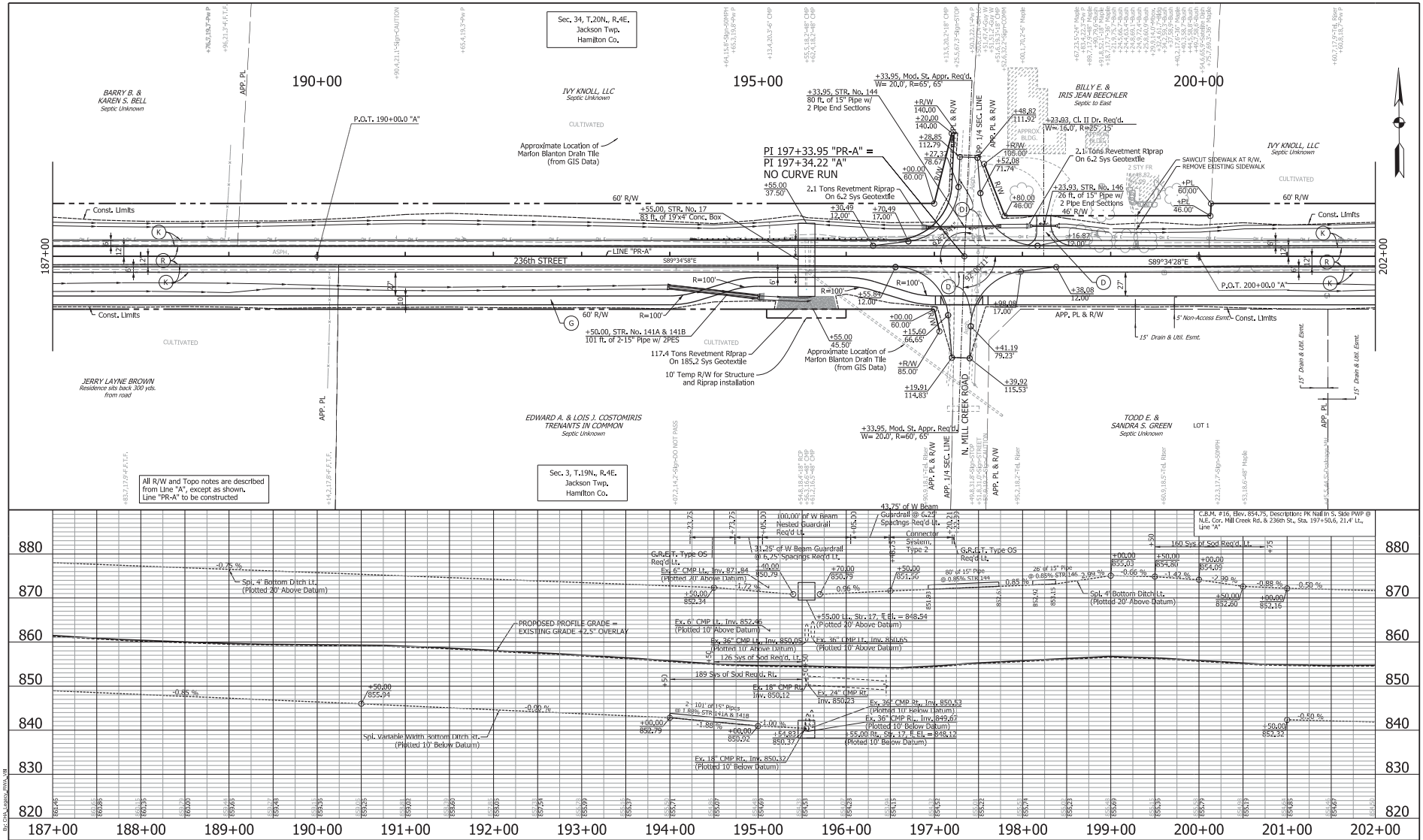
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	31 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chris_Lasley_RWA_v04
12/22/2015
Model: R-PNP-12
Drawing: R:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

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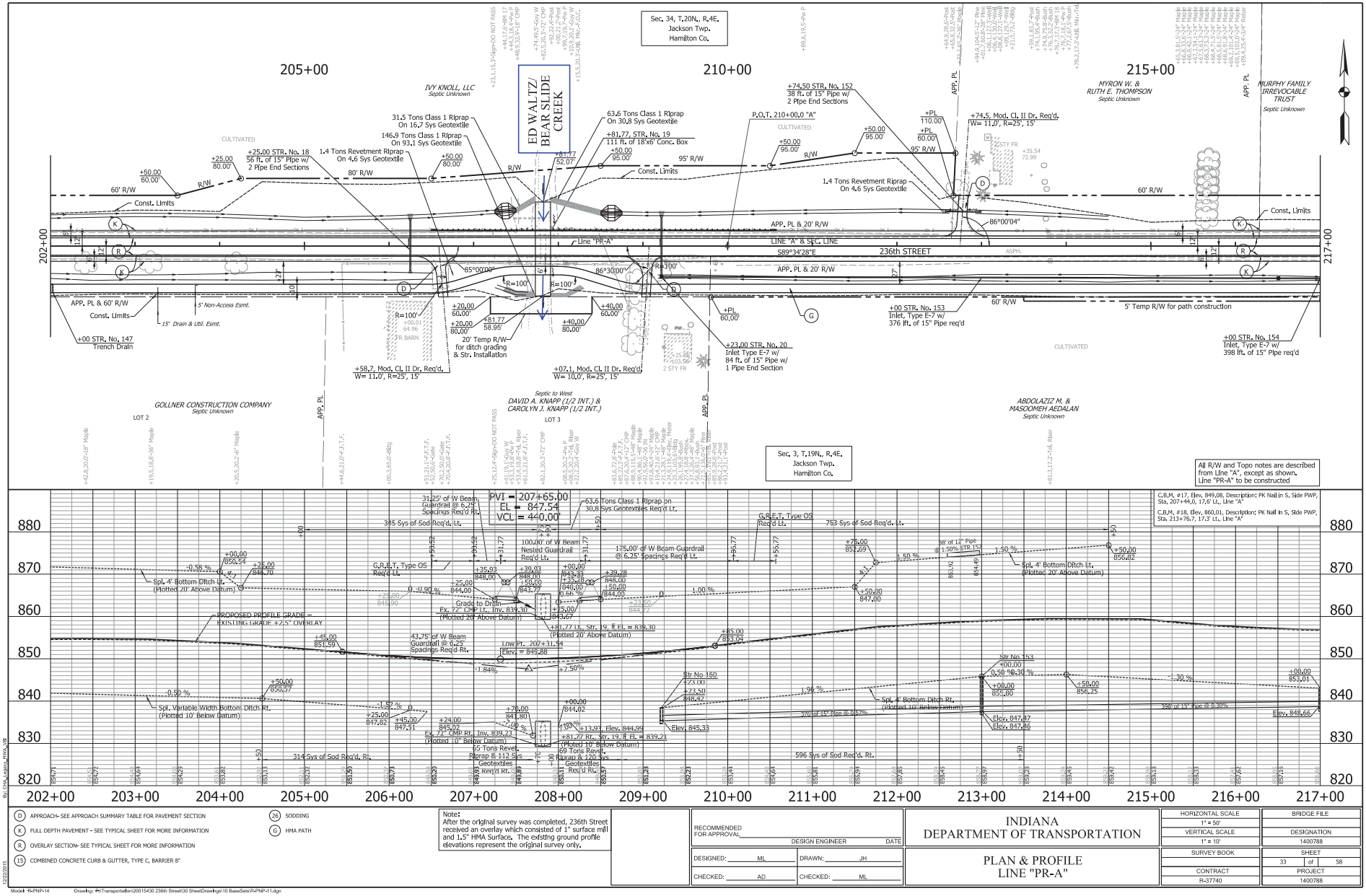
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	32 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chris_Lopez_RWA_v8
12/22/2015
Model: R-PNP-13
Drawing: P:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION

(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION

(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION

(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"

(26) SODDING

(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ML DRAWN: JH

CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

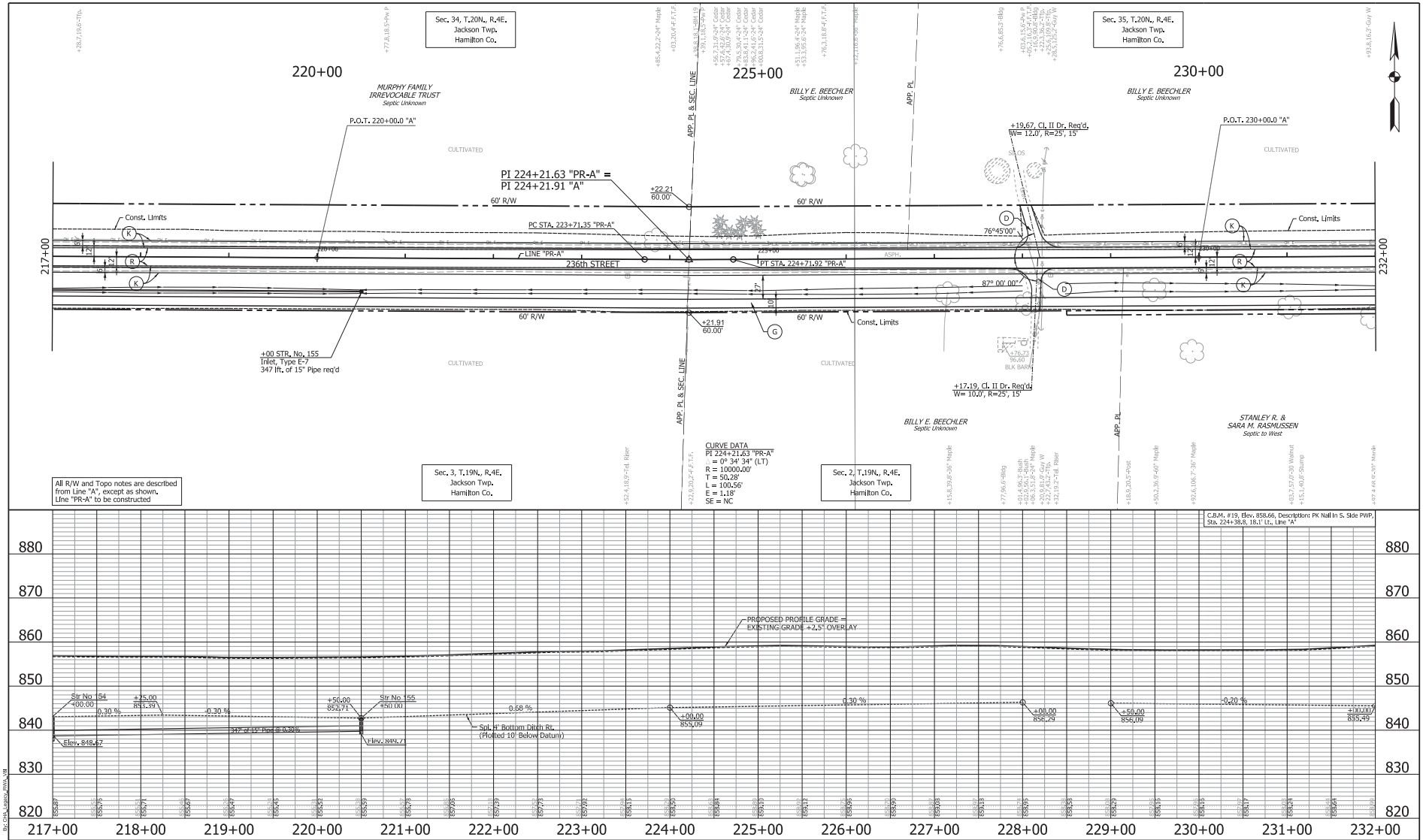
PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	33 of 58
CONTRACT	PROJECT
R-37740	1400788

12/22/2015

By: Chris_Lapsley_RWA_v04

Model: R-PNP-14 Drawing: R:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

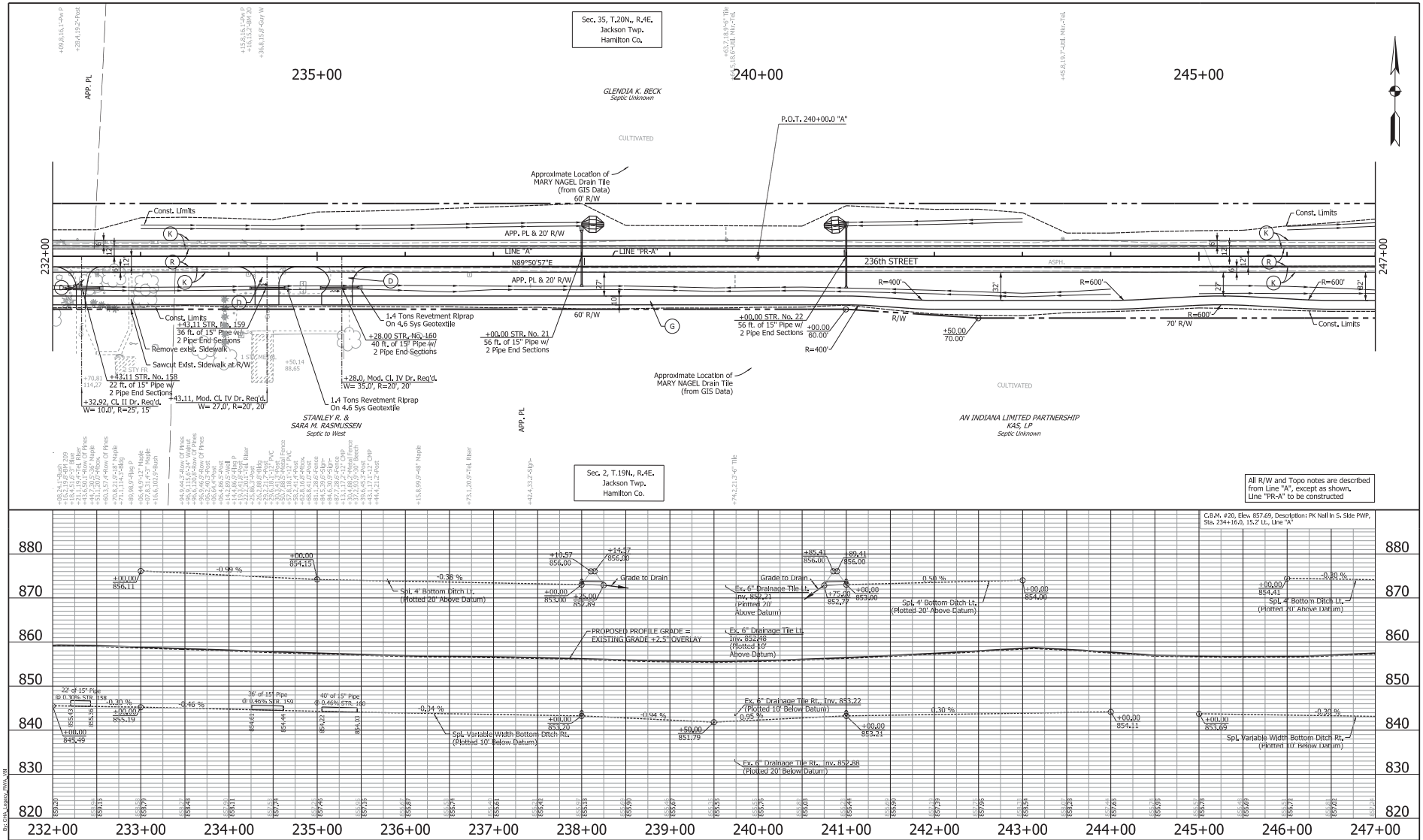
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	34 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_v8
12/22/2015
Model: R-PNP-15
Drawing: P:\Transportation\200154\30 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION

(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION

(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION

(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"

(26) SODDING

(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ML DRAWN: JH

CHECKED: AD CHECKED: ML

INDIANA DEPARTMENT OF TRANSPORTATION

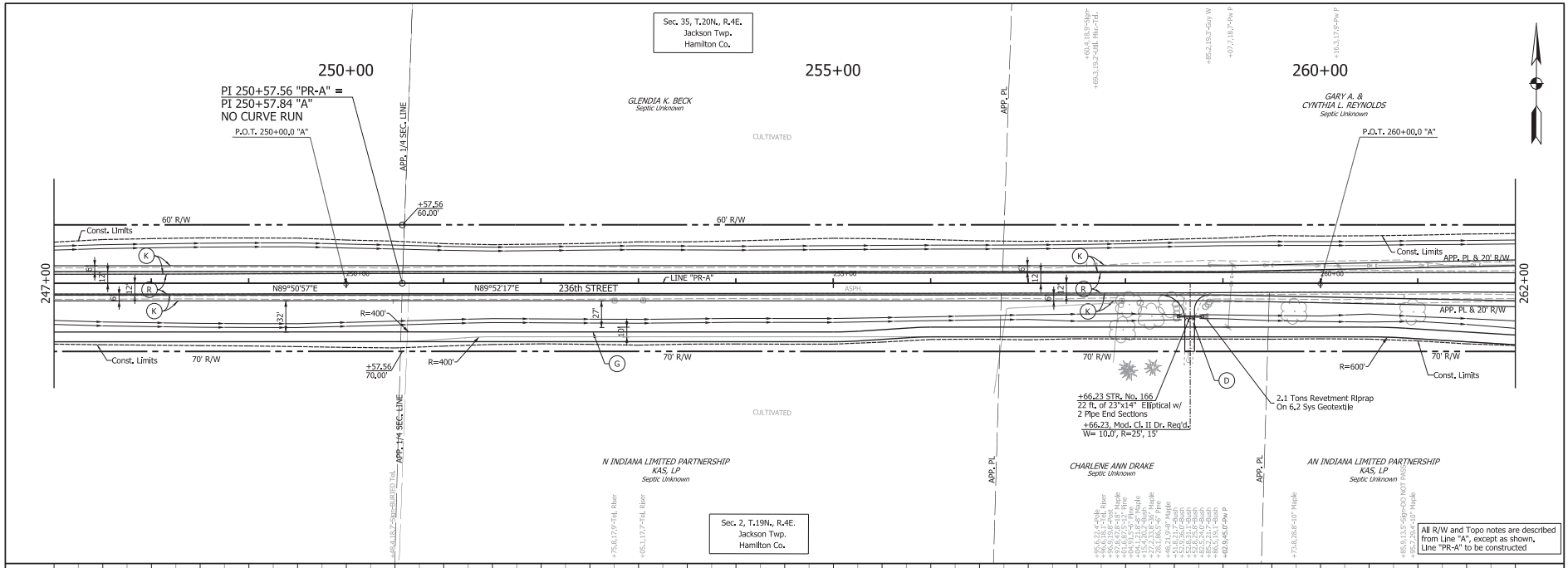
PLAN & PROFILE
LINE "PR-A"

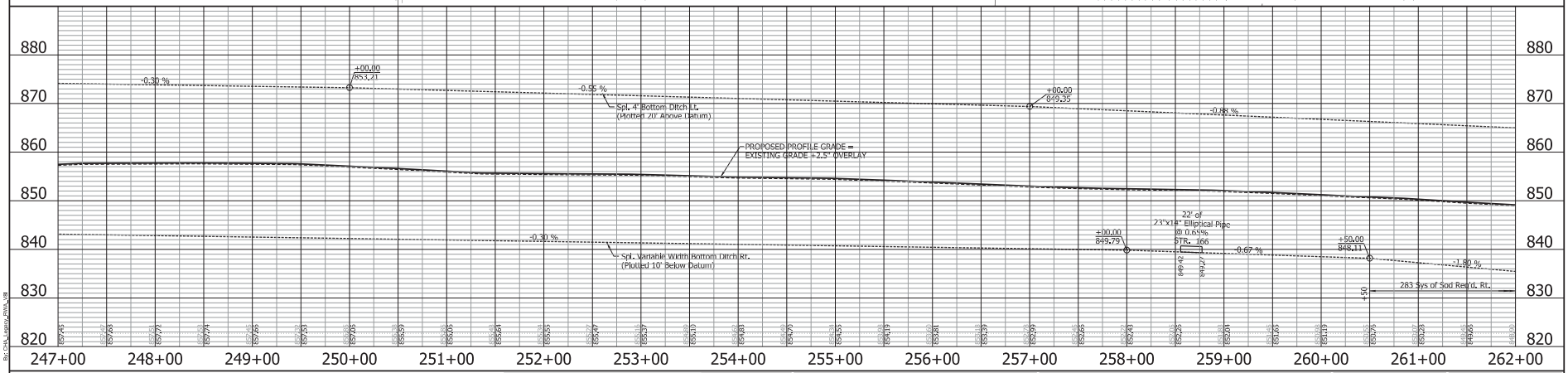
HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	35 of 58
CONTRACT	PROJECT
R-37740	1400788

By: Chris_Lepsky_RWA_v04

12/22/2015

Model: R-PNP-16 Drawing: R:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-11.dgn





(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

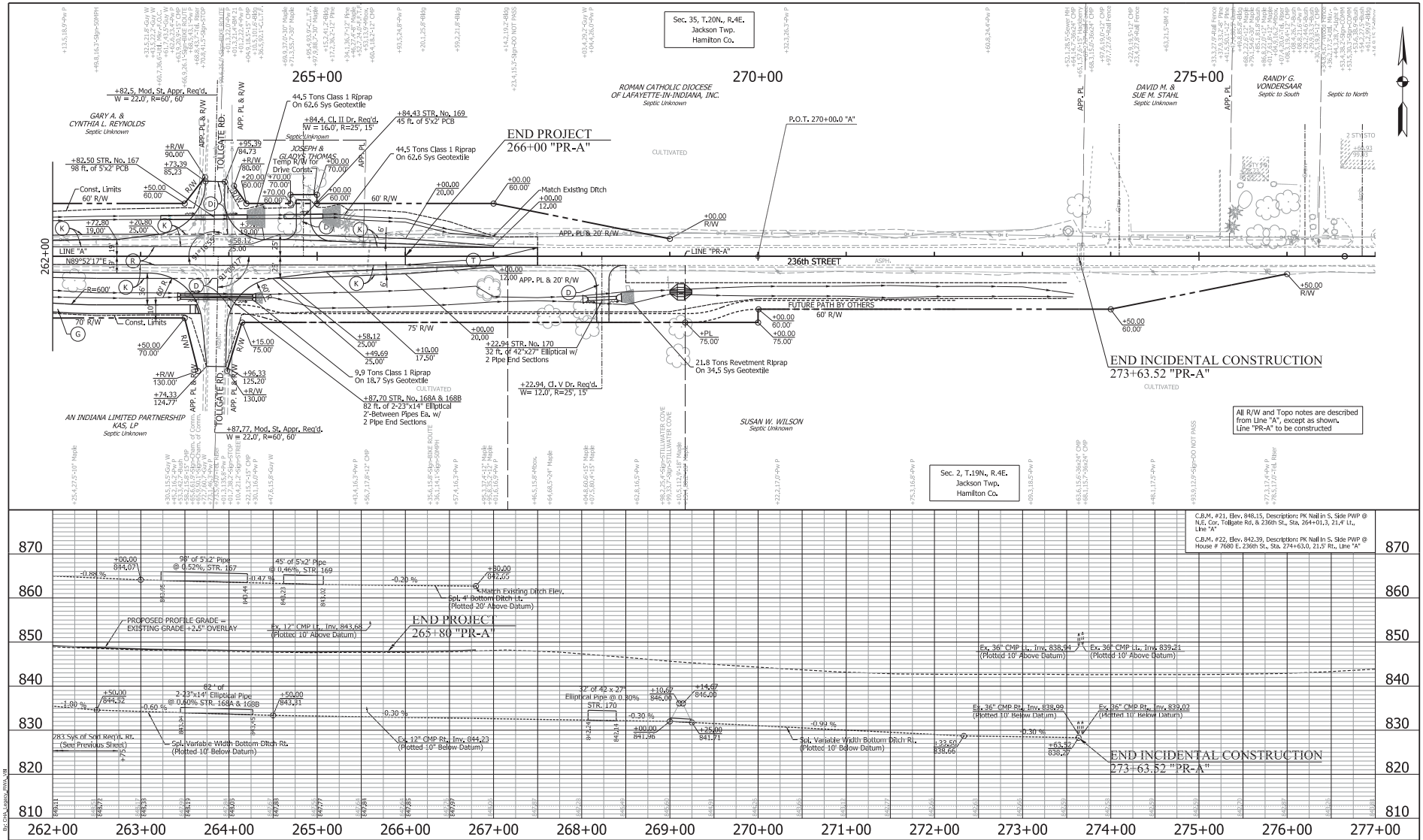
DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	36 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Legacy_RWA_v8
12/22/2015
Model: R-PNP-17
Drawing: P:\Transportation\20015430 236th Street\30 SheetDrawings\10 BaseSets\R-PNP-11.dgn



(D) APPROACH- SEE APPROACH SUMMARY TABLE FOR PAVEMENT SECTION
(K) FULL DEPTH PAVEMENT - SEE TYPICAL SHEET FOR MORE INFORMATION
(R) OVERLAY SECTION- SEE TYPICAL SHEET FOR MORE INFORMATION
(15) COMBINED CONCRETE CURB & GUTTER, TYPE C, BARRIER 8"
(26) SODDING
(G) HMA PATH

Note:
After the original survey was completed, 236th Street recefved an overlay which consisted of 1" surface mill and 1.5" HMA Surface. The existing ground profile elevations represent the original survey only.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: ML DRAWN: JH
CHECKED: AD CHECKED: ML

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN & PROFILE
LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 10'	1400788
SURVEY BOOK	SHEET
	37 of 58
CONTRACT	PROJECT
R-37740	1400788

By: CHA_Vaprov_RWA_X8

12/22/2015

Model: R-PNP-18 Drawing: R:\Transportation\20015430 236th Street\30 Sheet\Drawings\10 BaseSets\R-PNP-11.dgn

STRUCTURE NUMBER	LOCATION STATION	LOCATION LEFT	LOCATION RIGHT	LOCATION CROSS	SIZE	PIPE TYPE	MANHOLE, CATCH BASIN, INLET, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOWLINE UP STREAM	FLOWLINE DOWN STREAM	* CASTING	SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL	STRUCTURE BACKFILL TYPE	RIPRAP	GEOTEXTILES	PIPE END SECTION	CONCRETE ANCHOR	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EACH	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EACH	CONNECT TO STR.	REMARKS
					In			ft	DEG.	ft	ELEV.	ELEV.	ELEV.	yr				yd3		Ton	yd2	EACH	EACH	TYPE	SLOPE	EACH	SLOPE	EACH		
Line "PR-A"																															
14	92+00.00			x	36	1	Cross Culvert	93		1.0	877.19	876.37		50	NA	7.0	1	66.7	1	14.6	25	2								
15	113+40.24			x	15	1	Cross Culvert	56		1.3	886.49	886.17		50	NA	7.0	1	17.0	1	1.4	4.6	2								
17	195+55.00			x	19'X4' Mega PCB	1	Cross Culvert	83		1.0	848.54	848.12					1	41.0	1	117	185.2									
19	207+81.77			x	18'x6'Box	1	Cross Culvert	111		3.3	839.30	839.21		50	NA	7.0	1	241.0	1	137	238.3									

STRUCTURE NUMBER	LOCATION STATION	LOCATION LEFT	LOCATION RIGHT	LOCATION CROSS	SIZE	PIPE TYPE	MANHOLE, CATCH BASIN, INLET, OR SPECIALTY STRUCTURE	LENGTH	SKEW	COVER	FLOWLINE UP STREAM	FLOWLINE DOWN STREAM	* CASTING	SERVICE LIFE	SITE DESIGNATION	pH	BACKFILL METHOD	STRUCTURE BACKFILL	STRUCTURE BACKFILL TYPE	RIPRAP	GEOTEXTILES	PIPE END SECTION	CONCRETE ANCHOR	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION SLOPE	GRATED BOX END SECTION EACH	SAFETY METAL END SECTION SLOPE	SAFETY METAL END SECTION EACH	CONNECT TO STR.	REMARKS
					In			ft	DEG.	ft	ELEV.	ELEV.	ELEV.	yr				yd3		Ton	yd2	EACH	EACH	TYPE	SLOPE	EACH	SLOPE	EACH		
104	93+00.00			x			Trench Drain							50	NA	7.0														
105	93+28.14	x			18	3	Drive Culvert	26		3.3	880.82	880.17		50	NA	7.0	2	2.6	1	4	9.5	2								
106	93+40.00			x	15	2	Manhole C-4	44		3.8	876.76	875.70		50	NA	7.0	2	3.9	1	1.4	4.6	1								
108	97+69.36	x			15	3	Drive Culvert	30		2.0	885.36	885.21		50	NA	7.0	2	2.6	1	2.1	6.2	2								
109	98+00.00			x	15	2	Inlet C-12	457		2.7	883.69	876.86		50	NA	7.0	2	30.1	1											
110	98+15.91	x			15	3	Drive Culvert	20		2.1	885.58	885.48		50	NA	7.0	2	1.3	1	2.1	6.2	2								
111	98+65.00			x	15	3	Drive Culvert	20		1.5	885.52	885.45		50	NA	7.0	2	1.3	1	1.4	4.6	2								
112	100+62.13			x	15	3	Drive Culvert	24		3.4	886.27	886.04		50	NA	7.0	2	2.6	1	1.4	4.6	2								
113	101+14.47	x			15	3	Drive Culvert	18		1.9	886.61	886.55		50	NA	7.0	2	1.3	1	1.4	4.6	2								
114	102+94.70			x	15	3	Drive Culvert	18		1.9	888.23	888.17		50	NA	7.0	2	1.3	1	1.4	4.6	2								
118	107+94.70			x	15		Drive Culvert	24			886.16	886.06										2								
120	113+81.43			x	15	3	Drive Culvert	26		2.4	887.24	886.99		50	NA	7.0	2	2.6	1	1.4	4.6	2								
129	134+67.00			x	15		Drive Culvert	60			882.68	882.50										2								
131	147+75.73	x			15	3	Drive Culvert	18		1.1	878.89	878.78		50	NA	7.0	2	1.3	1	1.3	4.5	2								
139	184+00.00			x	15	3	Drive Culvert	215		1.0	861.27	860.61		50	NA	7.0	2	14.4	1	1.4	4.6	2								
140	185+46.20	x			24	3	Drive Culvert	26		3.5	859.21	859.01		50	NA	7.0	2	3.9	1	5.4	12.6	2								
141A	194+50.00			x	15	3	Path Culvert	101		1.0	852.79	850.92		50	NA	7.0	2	6.5	1	1.4	4.6	2								
141B	194+50.00			x	15	3	Path Culvert	101		1.0	852.79	850.92		50	NA	7.0	2	6.5	1	1.4	4.6	2								
144	197+33.95	x			15	3	Drive Culvert	80		2.3	852.61	851.93		50	NA	7.0	2	5.2	1	2.1	6.2	2								
146	198+23.93	x			15	3	Drive Culvert	26		2.4	853.15	852.92		50	NA	7.0	2	2.6	1	2.1	6.2	2								
147	202+00.00			x			Trench Drain																							
148	206+58.73			x	15	3	Drive Culvert	80		2.0	847.51	845.02		50	NA	7.0	2	5.2	1	1.4	4.6	2								
150	209+23.00			x	15	3	Inlet Type E-7	86		2.1	845.31	844.99		50	NA	7.0	2	6.5	1	1.4	4.6	2								
152	212+74.50	x			15	3	Drive Culvert	38		4.2	854.49	853.92		50	NA	7.0	2	2.6	1	1.4	4.6	2								
153	213+00.00			x	15		Inlet Type E-7	376			847.46	845.33																		
154	217+00.00			x	15		Inlet Type E-7	398			848.66	847.47																		
155	220+50.00			x	15		Inlet Type E-7	347			849.71	848.67																		
158	232+43.11			x	15		Drive Culvert	22			855.43	855.36										2								
159	234+43.11			x	15	3	Drive Culvert	36		1.0	854.61	854.44		50	NA	7.0	2	2.6	1	1.4	4.6	2								
160	235+28.00			x	15	3	Drive Culvert	40		1.0	854.22	854.03		50	NA	7.0	2	2.6	1	1.4	4.6	2								
166	258+66.23			x	23"x14" Ellipse	3	Drive Culvert	22		1.5	849.42	849.27		50	NA	7.0	2	2.6	1	2.1	6.2	2								
167	263+82.50	x			5'x2' PCB	1	Approach Culvert	98		2.5	843.95	843.44					2	28.8	1	44.5	62.6									
168A	263+87.70			x	23"x14" Ellipse		Approach Culvert	82			843.94	843.45										2								
168B	263+87.70			x	23"x14" Ellipse		Approach Culvert	82			843.94	843.45										2								
169	264+84.43	x			5'x2' PCB	3	Drive Culvert	45		2.6	843.23	843.02					2	18.3	1	44.5	62.6									
170	268+22.94			x	42"x27" Ellipse	3	Drive Culvert	32		1.1	842.24	842.14		50	NA	7.0	2	7.8	1.0	21.8	34.5	2								

* CONTRACTOR SHALL FIELD VERIFY TOP OF CASTING ELEVATIONS PRIOR TO CONSTRUCTION.

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER DATE

DESIGNED: CS DRAWN: CS

CHECKED: AD CHECKED: AD

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
VERTICAL SCALE	DESIGNATION 1400788
SURVEY BOOK	SHEET 1 of 1
CONTRACT R-37740	PROJECT 1400788

By: CHA_Legacy_AWIA_V04

12/29/2015

Model: Sheet 1 Drawing: P:\Transportation\20015430 236th Street\30 Sheet\Drawings\30 Tables\R-TSD.dgn

Appendix C

Early Coordination

Item	Appendix Page
Early Coordination Example Letter	C-1 to C-4
Response – IDEM	C-5 to C-12
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Early Coordination Example Letter

March 23, 2015

{See Attached List}

Re: Des. Nos. 1400788
Road Rehabilitation, East 236th Street
From Deming Road to Tollgate Road
Hamilton County, Indiana

Dear Sir or Madam:

The Hamilton County Commissioners are proposing to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. This letter is part of the early coordination phase of the environmental review process. We are requesting comments from your area of expertise regarding any possible environmental effects associated with this project. Please use the above designation number and description in your reply. We will incorporate your comments into a study of the project's environmental impacts. Your cooperation in this endeavor is appreciated.

The complete project on East 236th Street, from US 31 to the Town of Cicero, has been divided into three phases due to funding restrictions. The first phase, between Deming Road and Tollgate Road, is the focus of this coordination.

PROJECT LOCATION

The proposed project is located in the northcentral portion of Hamilton County, Indiana, and extends along East 236th Street from Deming Rd. to Tollgate Rd., west of Cicero. In addition, the area for this phase would extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. Specifically, the project is located in Sections 2, 3, 4, and 5, Township 19 North, Range 4 East and Sections 32, 33, 34, and 35, Township 20 North, Range 4 East of Jackson Township in Hamilton County as shown on the attached 7.5 minute Arcadia USGS quadrangle map. The total project length would be approximately 17,500 ft. (3.32 miles).

EXISTING CONDITIONS

East 236th Street is functionally classified as a Rural Primary Arterial, according to the Hamilton County Thoroughfare Plan (2007). The existing road is an east-west two-lane rural roadway upon level terrain. The typical section includes one 10 ft. wide travel lane in each direction with no shoulders and minimal to no ditches along either side of the roadway. The posted speed limit is 50 miles per hour (mph). Existing right-of-way is approximately 20 ft. from the centerline on each side of East 236th Street. A number of utilities were noted throughout the project area, including aerial cables and underground facilities. Please see the attached location maps, plans, and ground level photographs.

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Land use in the project area predominately consists of agricultural row crop fields, with a number of residences and associated woodlots. There is an increased concentration of residences near Deming Road and Mill Creek Road.

The National Wetland Inventory (NWI) map, Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) maps, and the Indiana Geographic Information System (GIS) Atlas administered by the Indiana Geological Survey were reviewed for the presence of water features in the project area (see attached maps). Bear Slide Creek flows north to south under East 236th Street, east of Mill Creek Road. The USGS topographic map and Stream Stats-Indiana indicated that the watershed of Bear Slide Creek at this location is approximately 2.0 square miles. The NWI map and the Indiana GIS Atlas identified two potential wetland areas along East 236th Street, between Deming Road and Cal Carson Road. Field investigations will be conducted to verify this information and determine the appropriate level of permitting required by the governing agencies.

TRAFFIC VOLUME

Existing traffic counts show an annual average daily traffic (AADT) of 5,378 vehicles per day (vpd), including 5% trucks on East 236th Street. According to the traffic forecast developed for this project, the AADT is expected to increase to 9,397 vpd in design year 2038.

PROJECT NEED AND PURPOSE

The road currently exhibits substandard features, including narrow lane widths, a lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. Additionally, the East 236th Street corridor does not currently provide safe access for non-motorized traffic. The need for this project is due to the substandard features of the roadway and a lack of safe travel for non-motorized traffic along the corridor. The purpose of the proposed project is to upgrade the roadway to current 3R standards and correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor.

PROPOSED IMPROVEMENTS

This proposed roadway rehabilitation project would correct the facility deficiencies by addressing narrow lane widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. The roadway would be widened to one 12 ft. lane and 6 ft. paved shoulder in each direction along East 236th Street. Additionally, vertical sight corrections would be performed through portions of the project. A 10 ft. shared used path would be constructed on the south side of the East 236th Street corridor. Drainage ditches and 3 or 4:1 side slopes would also be constructed. The existing road surface would receive an HMA overlay to provide an improved driving surface.

Approximately 45 acres of right-of-way acquisition is anticipated, ranging from 25 ft. to 80 ft. from centerline. The right-of-way acquisition would be asymmetrical, with the majority occurring on the southern half of the project to provide for the proposed trail. Additionally, minor temporary right-of-way would be required for drive construction and yard grading. The exact amount of right-of-way required for the project will be developed as the design phase advances. At this time, there are two residential relocations anticipated.

Maintenance of traffic would involve a closure to thru traffic on East 236th Street, while access to residences and local traffic would be maintained. This closure might occur in non-concurrent segments. Traffic would be redirected to local roads north/south and east/west of the project segment currently under construction.

The longest detour anticipated would require non-local traffic to travel 10 miles along US 31, 256th Street, and SR 19.

HISTORIC RESOURCES

The project area will be surveyed by individuals satisfying the *Secretary of Interior Professional Qualification Standards* to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the Indiana Department of Natural Resources (IDNR) Department of Historic Preservation & Archaeology (DHPA) and the identified consulting parties will be ongoing for the duration of the Section 106 process.

EARLY COORDINATION

As part of our early coordination effort for the proposed project, please study the enclosed information and provide a written evaluation of the potential impacts upon resources that are under your jurisdiction. It is requested, that you return a reply within 30-days of receipt of this packet. If no reply has been received within 30-days, it would be indicated in the environmental document, which is to be prepared for the referenced project, that your agency has no comment on the project.

Your cooperation in expediting the development of the referenced project is appreciated. If you have any questions, or if we can be of any further assistance, please do not hesitate to contact this office.

Very truly yours,

CHA Consulting, Inc.

Robert Winebrinner
Environmental Planner

cc: File #25895
Jim Neal, Hamilton County Highway Department
Angela DeWees, CHA Consulting, Inc.
Charlie Starling, CHA Consulting, Inc.

Please Note - The maps and photographs attached to the original letter have been removed and included in Appendix A of this document.

E. 236th St. Rehabilitation, from Deming Rd. to Tollgate Rd.
Hamilton County, Indiana
Des. No. 1400788 Distributed on March 23, 2015

Agencies Receiving Early Coordination Packet:

Mr. Scott Pruitt, Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Field Office
620 South Walker St
Bloomington, IN 47403
Attn: Ms. Robin McWilliams-Munson
robin_mcwilliams@fws.gov
(Electronic Submittal)

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

Ms. Nancy Hasenmueller, Section Head
Indiana Geological Survey, Environmental Geology
611 North Walnut Grove
Bloomington, IN 47405
IGSenvir@indiana.edu
(Electronic Submittal)

Mr. James Kinder, Program Director
IN Dept. of Transportation, Aviation Division
100 North Senate Avenue, Rm N955, IGCN
Indianapolis, IN 46204
Jkinder2@indot.in.gov
(Electronic Submittal)

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

Mr. Rick Marquis, Administrator
Federal Highway Administration, Indiana Division
575 North Pennsylvania Street, Rm 254
Federal Office Bldg.
Indianapolis, IN 46204
Attn: Ms. Michelle Allen

Ms. Christie Stanifer, Environmental Coordinator
IN Dept. of Natural Resources
Division of Water, Fish & Wildlife Unit
402 West Washington Street, Rm W273, IGCS
Indianapolis, IN 46204
environmentalreview@dnr.in.gov
(Electronic Submittal)

Field Environmental Officer
U.S. Dept. of Housing & Urban Development, Chicago
Regional Office, Metcalf Fed. Bldg.
77 West Jackson Boulevard, Room 2401
Chicago, IL 60604

Mr. Rickie Clark, Public Involvement Manager
IN Dept. of Transportation, Office of Public Involvement
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
rclark@indot.in.gov
(Electronic Submittal)

Mr. Doug Shelton, Chief, Environmental Resources
Department of the Army
Corps of Engineers, Louisville District
P.O. Box 59,
Louisville, KY 40201
Attn: CEMP-P-E

Ms. Mary Estrada, Assistant Director
IN Dept. of Natural Resources, Oil and Gas
402 W Washington St, Rm 293
Indianapolis, IN 46204

Mr. Thomas Easterly, Commissioner
IN Dept. of Environmental Management
Office of Planning and Assessment
(Website Submittal)

Wellhead Proximity Determinator
(Website Investigation)

Environmental Scoping Manager
IN Dept. of Transportation
Greenfield District
32 S. Broadway,
Greenfield, IN 46140

Ms. Anna Gremling, Executive Director
Indianapolis Metropolitan Planning Organization
200 East Washington Street, Rm 1922
Indianapolis, IN 46204

Hamilton County Commissioners
1 Hamilton County Square, Rm 157
Noblesville, IN 46060

Hamilton County Surveyor
1 Hamilton County Square, Rm 188
Noblesville, IN 46060

Hamilton County Highway Department
1700 South 10th Street
Noblesville, IN 46060

Indiana Department of Environmental Management

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Governor

Thomas W. Easterly
Commissioner

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Hamilton County Commissioners
Jim Neal
1700 South 10th Street
Noblesville , IN 46060

CHA Consulting, Inc.
Robert Winebrinner
300 S. Meridian St.
Union Station
Indianapolis , IN 46225

Date

To Engineers and Consultants Proposing Roadway Construction Projects:

RE: The Hamilton County Commissioners are proposing to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The first phase, between Deming Road and Tollgate Road, is the focus of this coordination. The project area for this phase would also extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. This proposed project would correct the facility deficiencies by addressing narrow lane widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. A 10 ft. shared used path would be constructed on the south side.

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

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

http://www.in.gov/idem/5283.htm.

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

WATER AND BIOTIC QUALITY

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

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

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

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

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

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

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

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

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

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

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

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

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

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

   If your project is located in an IDEM-approved MS4 area, please contact the local MS4 program abou

meeting their storm water requirements. Once the MS4 approves the plan, the NOI can be submitted to IDEM.

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

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

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

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

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

AIR QUALITY

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

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

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

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

   Additionally, if construction or demolition is conducted in a wooded area where blackbirds have roosted or abandoned buildings or building sections in which pigeons or bats have roosted for 3-5 years precautionary measures should be taken to avoid an outbreak of histoplasmosis. This disease is caused by the fungus Histoplasma capsulatum, which stems from bird or bat droppings that have

accumulated in one area for 3-5 years. The spores from this fungus become airborne when the area is disturbed and can cause infections over an entire community downwind of the site. The area should be wetted down prior to cleanup or demolition of the project site. For more detailed information on histoplasmosis prevention and control, please contact the Acute Disease Control Division of the Indiana State Department of Health at (317) 233-7272.

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

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

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

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

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

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

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

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

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

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

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

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

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

LAND QUALITY

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

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

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

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

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

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

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

FINAL REMARKS

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

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

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

Sincerely,

Thomas W. Easterly
Commissioner

Signature(s) of the Applicant

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

Project Description

The Hamilton County Commissioners are proposing to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The first phase, between Deming Road and Tollgate Road, is the focus of this coordination. The project area for this phase would alsc extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. This proposed project would correct the facility deficiencies by addressing narrow lan widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. A 10 ft. shared used path would be constructed on the south side.

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

Date: 9/28/2015

Signature of the INDOT
Project Engineer or Other Responsible Agent _____
Jim Neal

Date: 03/23/2015

Signature of the
For Hire Consultant _____
Robert Winebrinner

Winebrinner, Robert

From: Kinder, James <JKinder@indot.IN.gov>
Sent: Monday, March 23, 2015 1:03 PM
To: Winebrinner, Robert
Subject: RE: Hamilton County Road Rehabilitation Project - E 236th St., Phase I- from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Coordination

Robert,

I have reviewed these projects and I have determined that there is No Impact with the airspace.

Thank You,

James W. Kinder
Chief Airport Inspector
Department of Aviation INDOT
Room Number 955 IGCN
100 N. Senate Ave.
Indianapolis, IN 46204
Jkinder2@indot.in.gov

From: Winebrinner, Robert [mailto:RWinebrinner@chacompanies.com]
Sent: Monday, March 23, 2015 10:05 AM
To: Kinder, James
Subject: Hamilton County Road Rehabilitation Project - E 236th St., Phase I- from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Mr. Kinder,

Our firm was selected by the Hamilton County Commissioners to prepare the environmental documentation to advance the following road rehabilitation project:

Des. No. 1400788, Road Rehabilitation, East 236th Street, Phase 1 – From Deming Rd. to Tollgate Rd., Hamilton County, Indiana

The attached coordination letter is written to describe the project and to seek your comments regarding the resources under your jurisdiction. Please review the letter and let me know if you have any questions or comments.

Thanks,

Robert Winebrinner
Environmental Planner

Winebrinner, Robert

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Monday, March 23, 2015 1:30 PM
To: Winebrinner, Robert
Subject: Re: Hamilton County Road Rehabilitation Project - E 236th St., Phase I- from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Coordination

Dear Robert,

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

Standard Recommendations:

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

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

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

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

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

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

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

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

The northern long-eared bat (*Myotis septentrionalis*) (NLEB) is currently proposed for listing under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). The final listing decision for the NLEB is expected in April 2015. At this time, no critical habitat has been proposed for the NLEB. The state of Indiana is within the known range of the NLEB. During the summer, NLEBs typically roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically ≥3 inches dbh). Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using

tree species based on presence of cavities or crevices or presence of peeling bark. It has also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). They forage for insects in upland and lowland woodlots and tree lined corridors. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. Additional habitat types may be identified as new information is obtained.

Pursuant to Section 7(a)(4) of the ESA, federal action agencies are required to confer with the Service if their proposed action is likely to **jeopardize** the continued existence of the NLEB (50 CFR 402.10(a)). Action agencies may also voluntarily confer with the Service if the proposed action may affect a proposed species. Species proposed for listing are not afforded protection under the ESA; however as soon as a listing becomes effective, the prohibition against jeopardizing its continued existence and "take" applies **regardless of an action's stage of completion**. If the agency retains any discretionary involvement or control over on-the-ground actions that may affect the species after listing, section 7 applies.

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

Sincerely,

Robin

Robin McWilliams Munson

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

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

On Mon, Mar 23, 2015 at 10:04 AM, Winebrinner, Robert <RWinebrinner@chacompanies.com> wrote:

> Ms. McWilliams-Munson,
>
> Our firm was selected by the Hamilton County Commissioners to prepare the environmental documentation to advance the following road rehabilitation project:

Des. No. 1400788, Road Rehabilitation, East 236th Street, Phase 1 – From Deming Rd. to Tollgate Rd., Hamilton County, Indiana

The attached coordination letter is written to describe the project and to seek your comments regarding the resources under your jurisdiction. Please review the letter and let me know if you have any questions or comments.

Thanks,

Robert Winebrinner

Environmental Planner

CHA *~ design/construction solutions*

Phone: 317.780.7146

Cell: 317.910.9705

rwinebrinner@chacompanies.com

www.chacompanies.com

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Please consider the environment before you print this email.

USDA
United States Department of Agriculture

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

April 1, 2015

Robert Winebrinner
Environmental Planner
CHA
Union Station
300 South Meridian Street
Indianapolis, Indiana 46225

Dear Mr. Winebrinner:

The proposed project to rehabilitate East 236th Street from US 31 to the Town of Cicero, Hamilton County, Indiana, as referred to in your letter received March 25, 2015, 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 Rick Neilson at 317-295-5875.

Sincerely,

Jane E. Hardisty

JANE E. HARDISTY
State Conservationist

Enclosures

Helping People Help the Land.

USDA is an equal opportunity provider and employer.

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 Road Rehabilitation, East 236th St	Federal Agency Involved
Proposed Land Use	County and State Hamilton County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 3-25-15 / Person Completing Form: DP

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 194 AC
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 247370 % 96	Amount of Farmland As Defined in FPPA Acres: 236374 % 92	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 4-1-15	

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				
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	33.52			
B. Total Acres Statewide Important or Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.00			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	28			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	92			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	11			
2. Perimeter In Non-urban Use	(10)	8			
3. Percent Of Site Being Farmed	(20)	15			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	2			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	3			
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*		62			
Relative Value Of Farmland *(From Part V)*	100	92	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	62	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	154	0	0	0

Site Selected: A	Date Of Selection 08/25/2015	Was A Local Site Assessment Used? YES ☐ NO ☒

Reason For Selection:

This site meets the purpose and need without significant impact to farmland.

Name of Federal agency representative completing this form:	Date:

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

THIS IS NOT A PERMIT

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

DNR #: ER-18216 **Request Received:** March 23, 2015

Requestor: CHA Consulting Inc
Robert Winebrinner
Union Station, 300 South Meridian Street
Indianapolis, IN 46225-1193

Project: East 236th Street rehabilitation for a distance of 3.32 miles, from Deming Road to Tollgate Road, Cicero; Des. #1400788

County/Site info: Hamilton

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

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

Regulatory Assessment: This proposal 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, unless it qualifies for a bridge exemption (see enclosure). 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 and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The information submitted did not indicate if any work would take place on the bridge over Bear Slide Creek or within the creek itself. The following are recommendations that address potential impacts identified in the proposed project area:

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

2) Bank Stabilization and Wildlife Passage:
The new, replacement, or rehabbed structure, and any bank stabilization under the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to current conditions. A level area of natural ground under the

Attachments: A - Bridge Exemption Criteria

structure is ideal for wildlife passage. If channel clearing will result in a flat bench area above the normal water level under the structure, this area should allow wildlife passage and should remain free of riprap and other similar materials that can impair wildlife passage. If hard armoring is needed, wildlife passage can be facilitated by using a smooth-surfaced armoring material instead or riprap, such as articulated concrete block mats, fabric-formed concrete mats, or other similar smooth-surfaced material.

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

3) Wetland Habitat:
Due to the presence or potential presence of wetlands on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetlands should be mitigated at the appropriate ratio (see http://www.in.gov/legislative/iac/20120801-IR-312120434NRA.xml.pdf).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.
2. 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.
3. Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

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

Christie L. Stanifer

Date: April 22, 2015

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

Attachments: A - Bridge Exemption Criteria

May 22, 2015

{See Attached List}

Re: Des. Nos. 1400788
Road Rehabilitation, East 236th Street
From Deming Road to Tollgate Road
Hamilton County, Indiana

Dear Sir or Madam:

The above referenced project has been revised along East 236th Street at Tollgate Road. Phase 1 of the proposed project originally included East 236th Street from Deming Rd. to Tollgate Rd., with work occurring approximately 250 ft. on either side of Deming Rd. and Tollgate Rd.

In addition to the boundaries discussed above, Phase 1 has been modified to extend east 1000 ft. from Tollgate Rd., or 750 ft. of additional work. The proposed improvements discussed in the original coordination, dated March 23, 2015, would be continued for this length. Right-of-way for this additional area would total 2.001 acres. This extension was deemed necessary, as it provides a more applicable eastern terminus for roadway and drainage improvements in Phase 1.

Please see the attached maps showing the original and revised boundaries of the proposed project.

Please review this information and provide a written evaluation of the potential impacts upon resources that are under your jurisdiction. It is requested that you return a reply within 30-days of receipt of this letter. If no reply has been received within 30-days, it will be indicated in the environmental document, which is to be prepared for this phase of the project, that your agency has no additional comments regarding this project. If you have any questions, or if we can be of any further assistance, please don't hesitate to contact me at rwinebrinner@chacompanies.com or (317) 780-7146.

Very truly yours,

CHA Consulting, Inc.–

Robert Winebrinner
Environmental Planner

cc: File #25895
Jim Neal, Hamilton County Highway Department
Angela DeWees, CHA Consulting, Inc.
Charlie Starling, CHA Consulting, Inc.

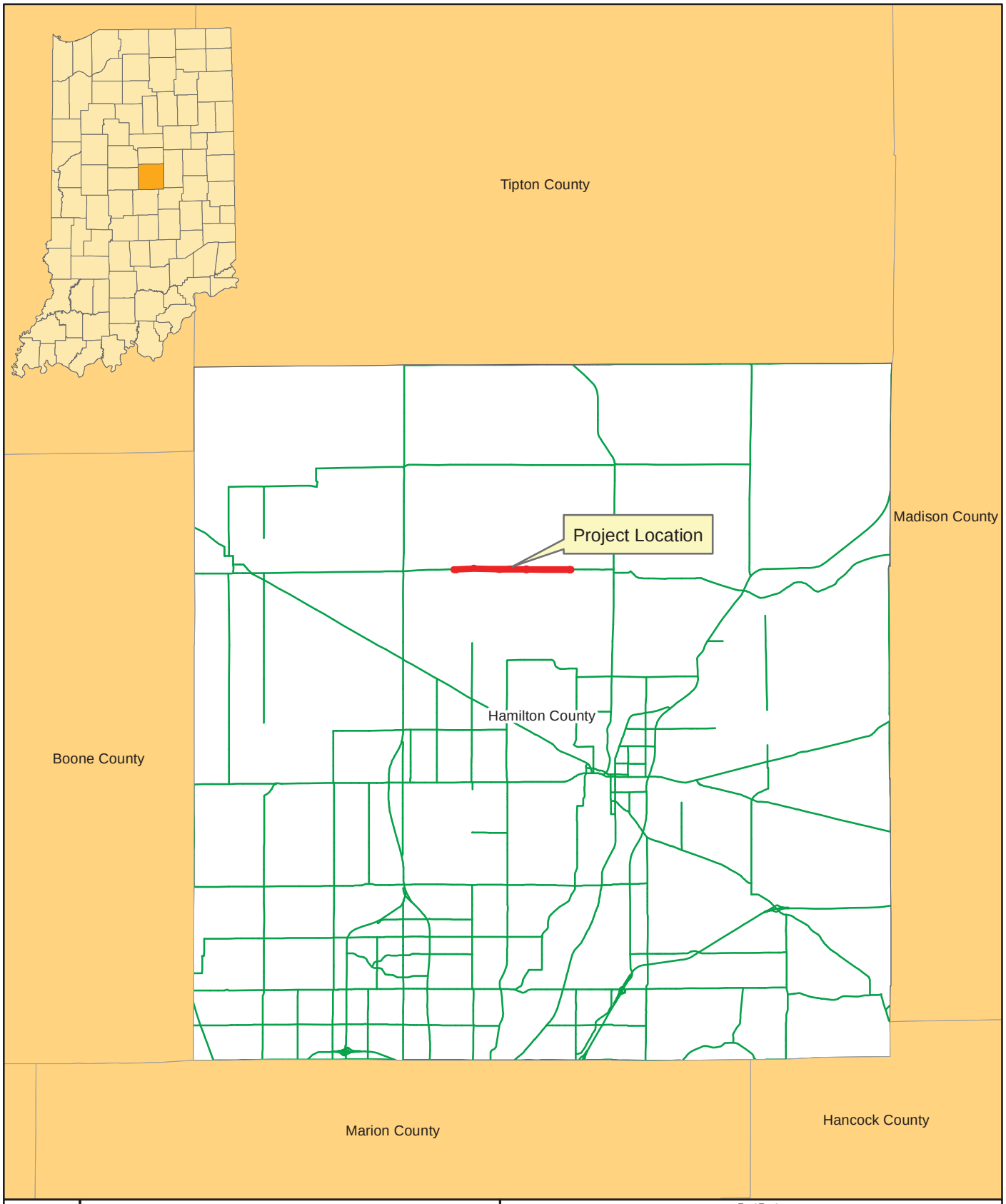
236th St. Rehabilitation, from Deming Rd. to Tollgate Rd.
Hamilton County, Indiana
Des. No. 1400788 Distributed on May 22, 2015

Agencies Receiving Re-Coordination Packet:

Mr. Scott Pruitt, Field Supervisor
U.S. Fish and Wildlife Service
Bloomington Field Office
620 South Walker St
Bloomington, IN 47403
Attn: Ms. Robin McWilliams-Munson
robin_mcwilliams@fws.gov
(Electronic Submittal)

Ms. Jane Hardisty, State Conservationist
Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278
Attn: Rick Neilson

Ms. Christie Stanifer, Environmental Coordinator
IN Dept. of Natural Resources
Division of Water, Fish & Wildlife Unit
402 West Washington Street, Rm W273, IGCS
Indianapolis, IN 46204
environmentalreview@dnr.in.gov
(Electronic Submittal)



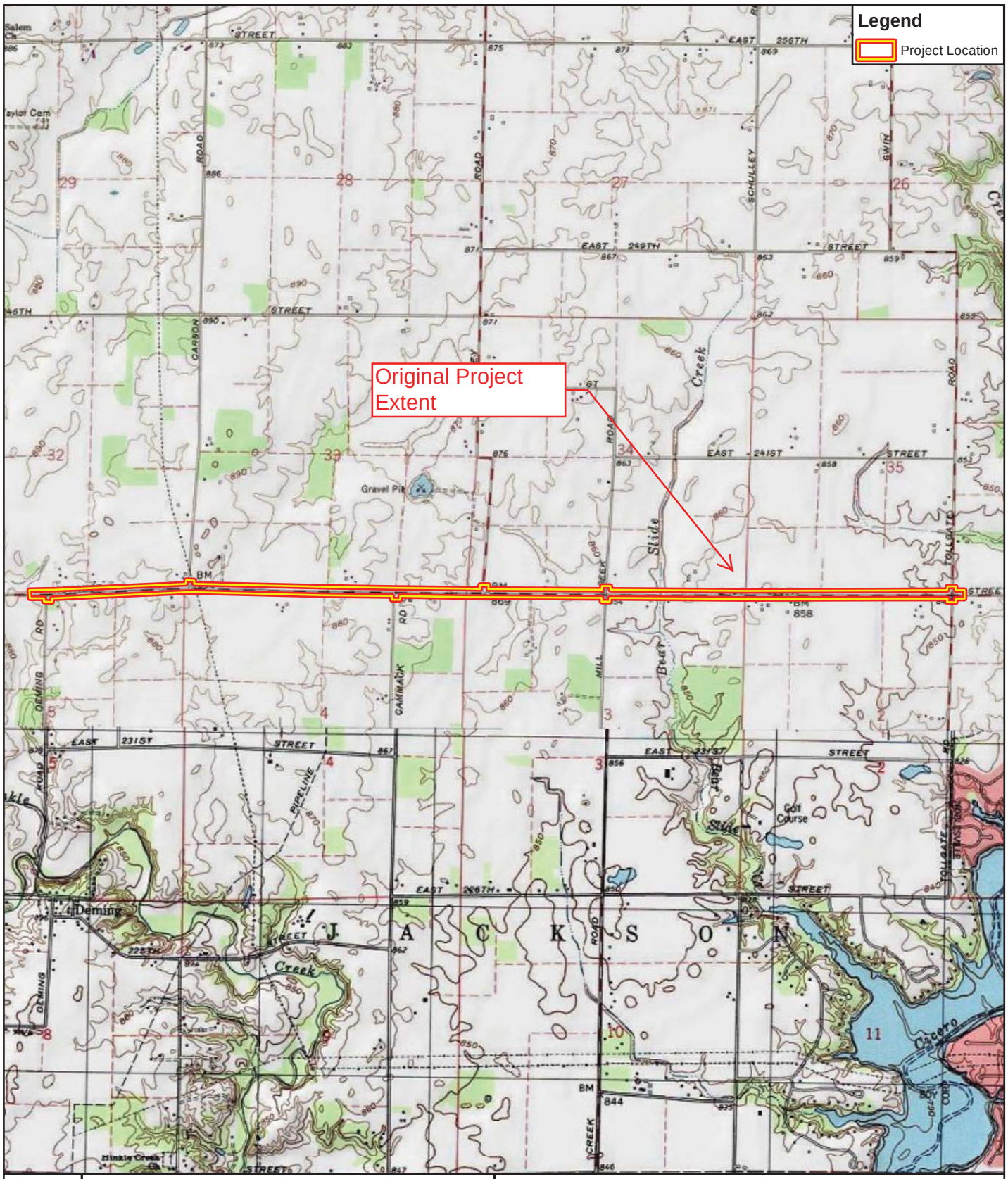
N

CHA
design/construction solutions

Exhibit 1
State Location Map
236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 20,000'	**DES No. 1400788**

County boundaries and transportation network courtesy of the Indiana Spatial Data Portal



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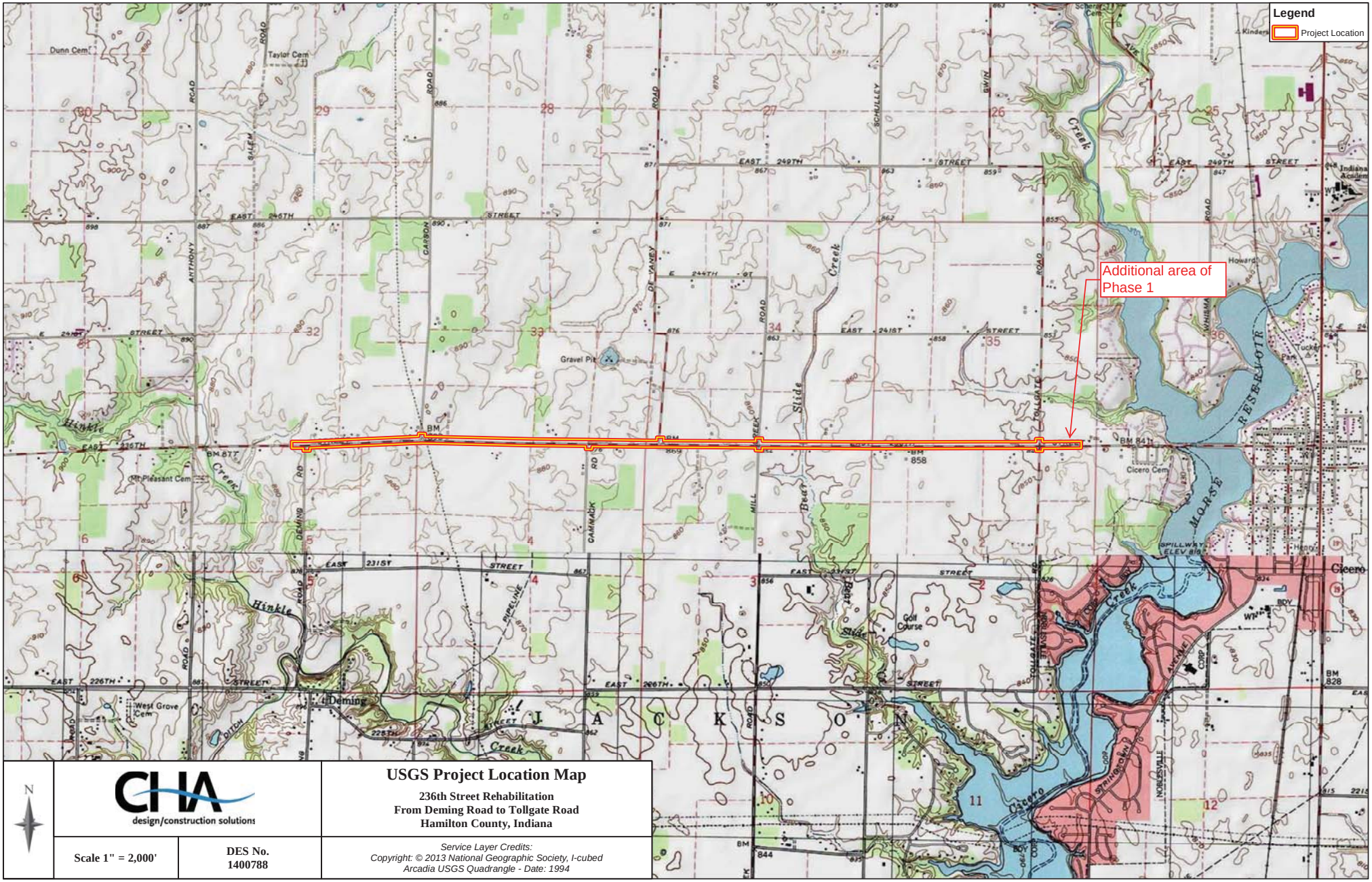
USGS Project Location Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 2,500'	DES No. 1400788	*Service Layer Credits:* *Copyright: © 2013 National Geographic Society, I-cubed* *Arcadia USGS Quadrangle - Date: 1994*



CHA design/construction solutions

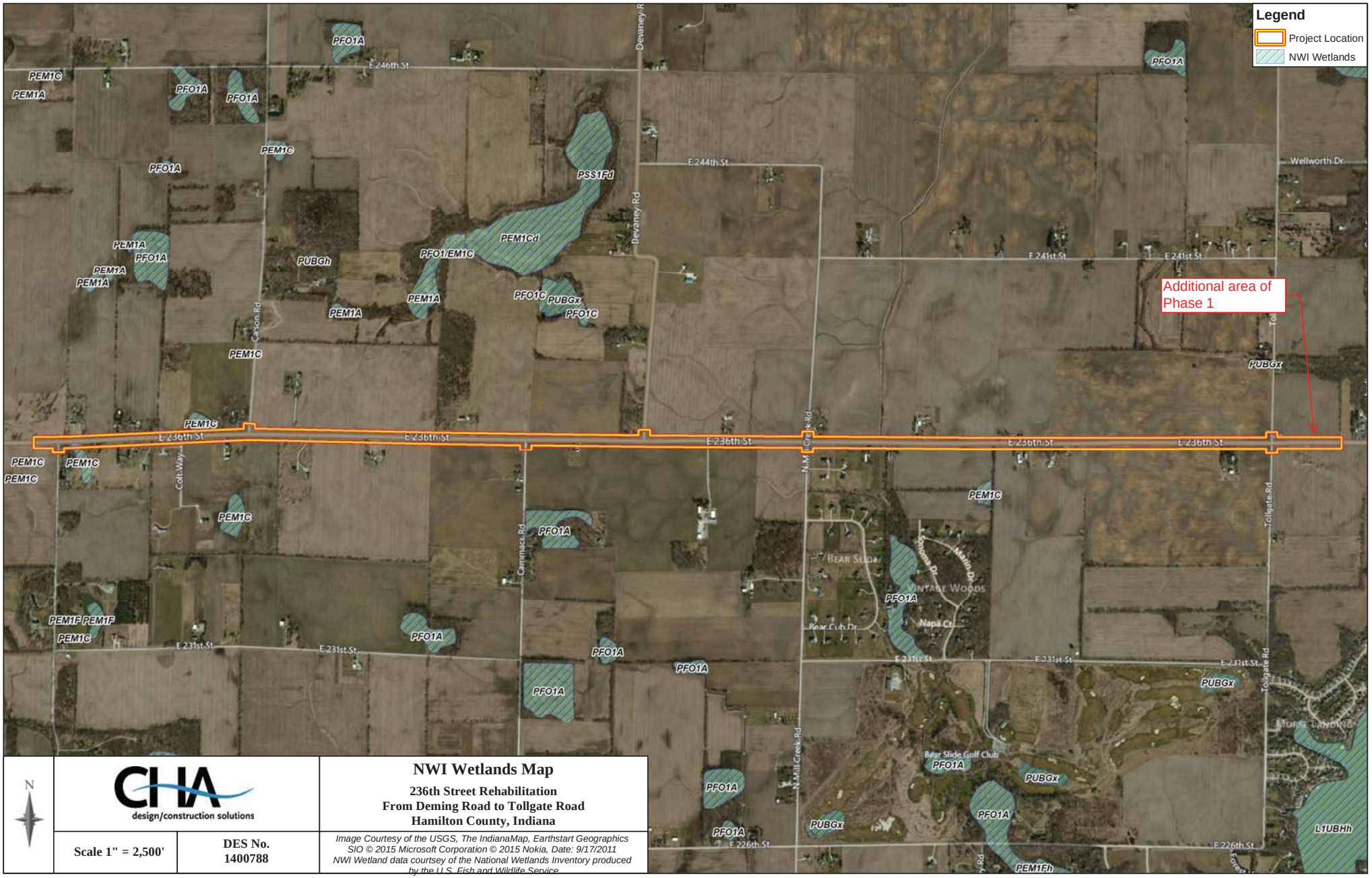
USGS Project Location Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 2,000'

DES No. 1400788

Service Layer Credits:
Copyright: © 2013 National Geographic Society, I-cubed
Arcadia USGS Quadrangle - Date: 1994



N

CHA design/construction solutions

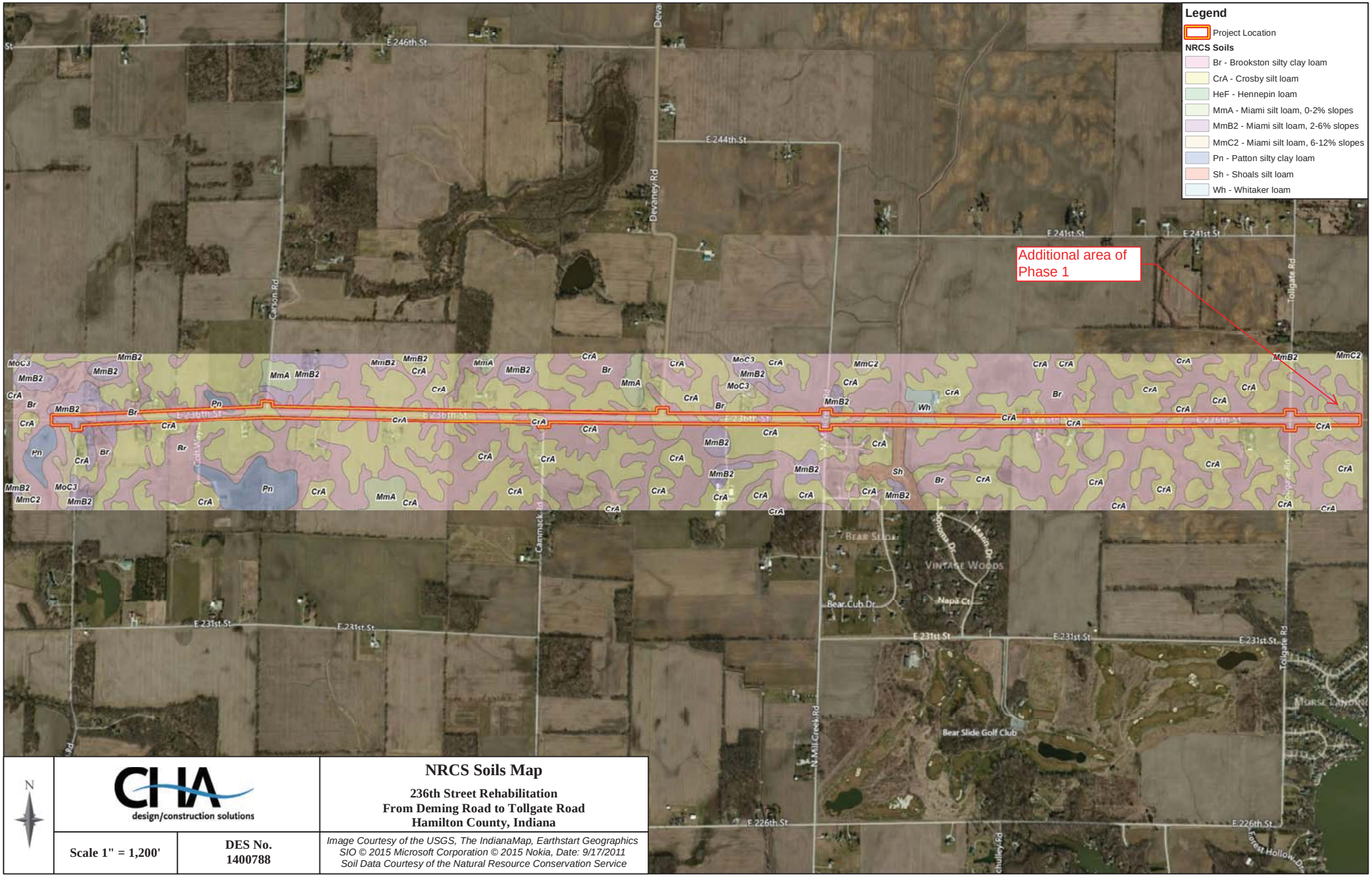
NWI Wetlands Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 2,500'

DES No. 1400788

Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
NWI Wetland data courtsey of the National Wetlands Inventory produced by the U.S. Fish and Wildlife Service



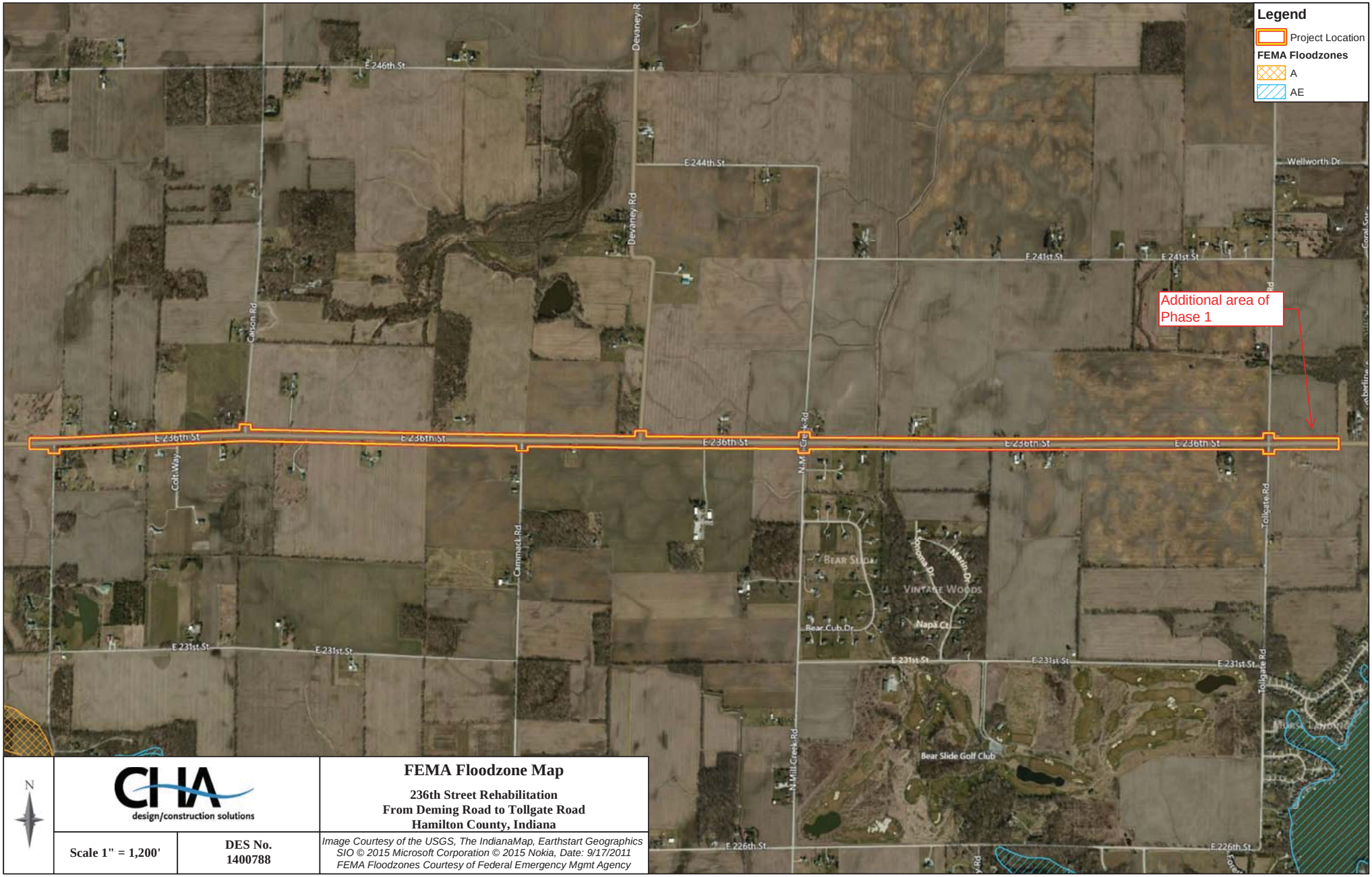
N

CHA design/construction solutions

NRCS Soils Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 1,200'	DES No. 1400788	*Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011 Soil Data Courtesy of the Natural Resource Conservation Service*



CHA design/construction solutions

FEMA Floodzone Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 1,200'

DES No. 1400788

Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
FEMA Floodzones Courtesy of Federal Emergency Mgmt Agency

Photo 29 – View north from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 30 – View east from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 31 – View west from access drive east of Tollgate Rd., showing 236th St. (taken 05-03-2015)

Photo 32 – View south from access drive east of Tollgate Rd., showing agricultural field. (taken 05-03-2015)

THIS IS NOT A PERMIT

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

DNR #: ER-18216-1 **Request Received:** May 22, 2015

Requestor: CHA Consulting Inc
Robert Winebrinner
Union Station, 300 South Meridian Street
Indianapolis, IN 46225-1193

Project: East 236th Street rehabilitation for a distance of 3.32 miles, from Deming Road to Tollgate Road, Cicero; Phase 1; Des #1400788: 750' of additional work east of Tollgate Road

County/Site info: Hamilton

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

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

Regulatory Assessment: This proposal 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, unless it qualifies for a bridge exemption (see enclosure). 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: The recommendations in our previous letter dated April 22, 2015, still apply.

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

Christie L. Stanifer **Date:** May 28, 2015
Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Attachments: A - Bridge Exemption Criteria

Winebrinner, Robert

From: McWilliams, Robin <robin_mcwilliams@fws.gov>
Sent: Tuesday, June 02, 2015 3:20 PM
To: Winebrinner, Robert
Subject: Re: Re-coordination: Hamilton Co Road Rehab Project - E 236th St., Phase I - from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: Coordination

Dear Robert,

We have reviewed the changes to the E 236th Street project and do not have any additional recommendations or comments. Thank you for re-coordinating with us on this project.

Sincerely,
Robin

Robin McWilliams Munson

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

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

On Fri, May 22, 2015 at 11:57 AM, Winebrinner, Robert <RWinebrinner@chacompanies.com> wrote:

> Ms. McWilliams-Munson,
>
> Our firm was selected by the Hamilton County Commissioners to prepare the environmental documentation to advance the following Road Rehabilitation project:
>
> Des. No. 1400788, Road Rehabilitation, East 236th Street, Phase 1 – From Deming Rd. to Tollgate Rd., Hamilton County, Indiana

The attached ***re-coordination letter*** is written to describe the modification of the project on the east end and to seek your comments regarding the resources under your jurisdiction. Please review the letter and let me know if you have any questions or comments.

Thank you,

Robert Winebrinner

Environmental Planner

CHA ~ *design/construction solutions*

Phone: 317.780.7146

Cell: 317.910.9705

rwinebrinner@chacompanies.com

www.chacompanies.com

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USDA
United States Department of Agriculture

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

June 4, 2015

Robert Winebrinner
Environmental Planner
CHA
Union Station
300 South Meridian Street
Indianapolis, Indiana 46225

Dear Mr. Winebrinner:

The proposed project to rehabilitate East 236th Street in Hamilton County, Indiana, as to in your letter received May 26, 2015, 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 Rick Neilson at 317-295-5875.

Sincerely,

Jane E. Hardisty

JANE E. HARDISTY
State Conservationist

Enclosures

Helping People Help the Land.

USDA is an equal opportunity provider and employer.

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 Road Rehabilitation, East 236th St	Federal Agency Involved
Proposed Land Use	County and State Hamilton County, Indiana
PART II *(To be completed by NRCS)*	Date Request Received By NRCS 5-26-15 / Person Completing Form: DP

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 194 AC
Major Crop(s) Corn	Farmable Land In Govt. Jurisdiction Acres: 267438 % 85	Amount of Farmland As Defined In FPPA Acres: 179477 % 73	
Name of Land Evaluation System Used LESA	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS 6-4-15	

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				
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland	34.17			
B. Total Acres Statewide Important or Local Important Farmland	0			
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.00			
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	28			
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)	92			

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	Maximum Points	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)	11			
2. Perimeter In Non-urban Use	(10)	8			
3. Percent Of Site Being Farmed	(20)	15			
4. Protection Provided By State and Local Government	(20)	0			
5. Distance From Urban Built-up Area	(15)	0			
6. Distance To Urban Support Services	(15)	10			
7. Size Of Present Farm Unit Compared To Average	(10)	10			
8. Creation Of Non-farmable Farmland	(10)	2			
9. Availability Of Farm Support Services	(5)	3			
10. On-Farm Investments	(20)	0			
11. Effects Of Conversion On Farm Support Services	(10)	0			
12. Compatibility With Existing Agricultural Use	(10)	3			
TOTAL SITE ASSESSMENT POINTS	160	62	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	92	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	62	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	154	0	0	0

Site Selected: A	Date Of Selection 9/28/2015	Was A Local Site Assessment Used? YES ☐ NO ☒

Reason For Selection:

This site meets the purpose and need without significant impact to farmland.

Name of Federal agency representative completing this form:	Date:

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

Winebrinner, Robert

From: Estrada, Mary <mestrada@dnr.IN.gov>
Sent: Tuesday, December 29, 2015 1:35 PM
To: Winebrinner, Robert
Subject: RE: Petroleum Wells Coordination: E 236th St - Phase I - Hamilton County - INDOT DES 1400788 - CHA Proj. No. 25895

Categories: Coordination

Robert,

Earlier this year I sent the area field Inspector out to see the site. He walked along the current road and he didn't see any signs of old wells at the surface. A couple of weeks later, Brian Royer, Field specialist/Orphan Well Program & Spill Management also walked 236th Street with a metal detector and old maps (which are never made to scale from wells that old). He had a few metal hits on the meter at the corner of E236th St. & Devaney Rd, however they were very weak signals. He felt that it could be metal shavings, bits of metal from old operations or may be more than 8' underground. He also had stronger hits on well IGS #139198 located west of N. Mill-creek road but that is outside of the boundries for
Road project.

The gas boom began in the early 1900's and wells were drilled everywhere in Northeastern Indiana. It was once the largest gas find in all of the U.S. There wasn't a regulatory agency until 1947 and that's when laws were created. So we never know what we are up against with those old wells that we can't even locate records on. Also, it was common practice to pull all casing out of the wells and move it somewhere else to do another well. So these wells are hard to locate. In the past, we have let the projects continue with the hope that they won't be an issue. However, if no casing or hole and you aren't getting gas or oil from the ground, then it is more likely the case that the hole has closed naturally, the field or source has been depleted (mostly true in the Trenton Field). We would like to be in on that decision. I'm sure that all the old wells in your project area do not have a responsible party of record anymore and are probably deceased. So we have no one to hold liable for the cost of plugging.

In the past, we have worked with other State Agencies and/or their contractors by establishing a plugging plan and assist in hiring an oil/gas plugging contractor. We will be on-site during the plugging and will do our best to keep costs to a minimum while making sure we get plugs that will hold up and protect sources of underground drinking water.

These are the wells that we believe may be an issue:

IGS# 139196 Giger Lease Operator Unknown North side of E. 236th between Carson & Devaney Rd.
IGS# 139200 Chew Lease Operator Unknown Intersection of E. 236th and Devaney Rd.
IGS# 139199 Applegate Lentz & Miller North side of Intersection of N. Mill Creek Rd. and E. 236th
IGS #138831 Caraway Lease Unknown South side of Intersection of N. Mill Creek Rd. and E. 236th

These wells are classified as Presumed Plugged because it was common practice to plug wells when they were no longer being used. However, in reality, since there weren't any laws requiring this until 1947 and no one to hold them accountable. Without signs of leakage and no imprint on the surface, we have to assume that the Operators did the right thing. I'm hoping you won't encounter any of them.

My cell phone # is (317) 450-6611

Brian Royer is (317) 417-6556 but he covers the whole state.

John White is the area inspector and would be the first to get on site if you call. (765) 618-0766.

Robert, if questions arise or you have questions after reading my response, please don't hesitate to call. I also apologize for the late response. I really thought I had replied after Brian's visit to the site. I'll do better next time; I promise!

Mary Estrada, Asst. Director
Division of Oil and Gas
(317) 233-0933

From: Winebrinner, Robert [mailto:RWinebrinner@chacompanies.com]
Sent: Tuesday, December 22, 2015 10:29 AM
To: Estrada, Mary
Cc: Wieseke, Trevor
Subject: Petroleum Wells Coordination: E 236th St - Phase I - Hamilton County - INDOT DES 1400788 - CHA Proj. No. 25895

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

Ms. Estrada,

The Hamilton County Commissioners, with assistance from the Federal Highway Administration, are proposing to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The complete project on East 236th Street, from US 31 to the Town of Cicero, has been divided into three phases due to funding restrictions. The first phase, between Deming Road and Tollgate Road, is the focus of this correspondence.

On March 23, 2015, we mailed out early coordination letters to your agency, seeking comments from your area of expertise regarding any possible environmental effects associated with this project (see attached example). As we investigated further, we noted a number of oil/gas wells within our project area. I have attached maps depicting this further investigation. From our review of the Petroleum Database Management System, the five (5) wells within or adjacent to the project area appear inactive and are presumed plugged.

Please review the attached documentation and determine whether further action is warranted for the above referenced project.

Best regards,

Robert Winebrinner
Environmental Planner
CHA ~ *design/construction solutions*
Phone: 317.780.7146
Cell: 317.910.9705
rwinebrinner@chacompanies.com
www.chacompanies.com

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Appendix D

Section 106 Consultation

Item	Appendix Page
Effects Finding	D-1 to D-70
Public Notice of Effects Finding	D-71 to D-73

FEDERAL HIGHWAY ADMINISTRATION'S
SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties) AND
SECTION 106 FINDINGS AND DETERMINATIONS
AREA OF POTENTIAL EFFECTS
ELIGIBILITY DETERMINATIONS
EFFECT FINDING
ROAD REHABILITATION ALONG 236TH STREET
FROM DEMING ROAD TO 1000 FEET EAST OF TOLLGATE ROAD
NEAR CICERO IN JACKSON TOWNSHIP,
HAMILTON COUNTY, INDIANA
DES. NO.: 1400788

AREA OF POTENTIAL EFFECTS
(Pursuant to 36 CFR Section 800.4(a)(1))
The Area of Potential Effects (APE) is the "geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. The APE is influenced by the scale and nature of the undertaking…" (36 CFR 800.9(a)). For the purposes of this undertaking, the Area of Potential Effects (APE) is roughly defined as 500 feet north and south of the centerline of 236th Street and extending 500 feet beyond the western and eastern terminus points (See map in Appendix B).

ELIGIBILITY DETERMINATIONS
(Pursuant to 36 CFR 800.4(c)(2))
No properties are listed in, or eligible for listing in, the National Register of Historic Places (NRHP) within the APE.

EFFECT FINDING
The Indiana Department of Transportation (INDOT), acting on behalf of the Federal Highway Administration (FHWA), has determined a finding of "No Historic Properties Affected" is appropriate for this undertaking. INDOT respectfully requests the Indiana State Historic Preservation Officer (INSHPO) provide written concurrence with the Section 106 determination of effect.

SECTION 4(F) COMPLIANCE REQUIREMENTS (for historic properties)
This undertaking will not convert property from any Section 4(f) historic property to a transportation use; 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.

Consulting parties will be provided a copy of the finding and determination in accordance with INDOT and FHWA's Section 106 procedures. Comments will be accepted for 30-days upon receipt of the findings.

Patrick Carpenter 9-1-2015

Patrick Carpenter, for FHWA — Approved Date
Cultural Resource Manager
INDOT Cultural Resources Office

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)
FOR THE ROAD REHABILITATION ALONG 236TH STREET
FROM DEMING ROAD TO 1000 FEET EAST OF TOLLGATE ROAD
NEAR CICERO IN JACKSON TOWNSHIP,
HAMILTON COUNTY, INDIANA
DES. NO.: 1400788

1. DESCRIPTION OF THE UNDERTAKING

The Hamilton County Board of Commissioners intends to use funds from the Federal Highway Administration (FHWA) through the Indiana Department of Transportation (INDOT) to proceed with the road rehabilitation along 236th Street from Deming Road to 1000 feet east of Tollgate road near Cicero in Jackson Township, Hamilton County, Indiana. CHA Consulting, Inc. (CHA) has been retained to help complete the environmental documentation for this undertaking. Specifically, the road improvement project is located in sections 1, 2, 3, 4, 32, 33, 34, 35 and 36, Townships 19 and 20 North, and Range 4 East in Jackson Township, Hamilton County, as found on the USGS 7.5 minute Arcadia, Indiana quadrangle map (See map in Appendix B).

The 236th Street road rehabilitation project will entail widening lanes, addition of shoulders, vertical sight corrections, ditch grading in select locations, grading along the south side of the road for a future trail, and incidental work at both ends of the project and at intersections with roadways between Deming Road and Tollgate Road. This project is one of three phases planned to correct substandard road conditions.

East 236th Street is functionally classified as a Rural Primary Arterial, according to the Hamilton County Thoroughfare Plan (2007). The existing road is an east-west two-lane rural roadway upon level terrain. The typical section includes one 10 ft. wide travel lane in each direction with no shoulders and minimal to no ditches along either side of the roadway. The posted speed limit is 50 miles per hour (mph). Existing right-of-way is approximately 20 ft. from the centerline on each side of East 236th Street.

Land use in the project area predominately consists of agricultural row crop fields, with a number of residences and associated woodlots. There is an increased concentration of residences near Deming Road and Mill Creek Road (See photographs in Appendix C).

For the 236th Street road rehabilitation project, the Area of Potential Effects (APE) is roughly defined as 500 feet north and south of the centerline of 236th Street and extending 500 feet beyond the western and eastern terminus points for the purpose of this undertaking as proposed in the Historic Properties Report (HPR) (Gilliam/Daleiden-Fischer 06/03/2015) that was accepted both by INDOT on June 16, 2015, and the Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (IDNR/DHPA) on behalf of the Indiana State Historic Preservation Officer (INSHPO) on July 27, 2015 (See map in Appendix B).

The principal need for the road rehabilitation project is intended to correct substandard features to improve travel safety and provide a safe route for non-motorized traffic along the corridor. A more detailed explanation of the purpose and need for this undertaking may be found in the early coordination letter dated June 22, 2015, that was prepared by CHA. A copy of this coordination letter may be found in Appendix D of this document.

2. EFFORTS TO IDENTIFY HISTORIC PROPERTIES

An HPR (Gilliam/Daleiden-Fischer, 6/3/2015) was completed by EFI in which no historic properties were identified (See report summary in Appendix E). In conjunction with the visual inspection of the project area, the development of the HPR (Gilliam/Daleiden-Fischer, 6/3/2015) included an inspection of the National Register of Historic Places, Indiana Register of Historic Sites and Structures, the *Hamilton County Interim Report*, the SHAARD, the SHAARDGIS, and an analysis of the Arcadia, Indiana, USGS quadrangle map. Additional sources utilized in the identification and evaluation of potential historic properties are cited within the appendixes of the HPR (Gilliam/Daleiden-Fischer, 6/3/2015).

Efforts were also made to invite interested parties to participate in consultation and share views and information to aid in the identification and evaluation of historic properties.

For the purpose of this undertaking the following parties have been identified as automatic consulting parties given their responsibilities and jurisdiction over this undertaking as defined in 36 C.F.R. § 800.2:

- INSHPO via IDNR/DHPA
- FHWA, Indiana Division, Rick Marquis, Director
- INDOT, Cultural Resources Office
- INDOT, Greenfield District
- Hamilton County Board of Commissioners

All of the parties listed above have been provided with project information and documentation throughout the review process to enable them to share their views and concerns as appropriate. Copies of all correspondence may be found in Appendix D of this document.

A summary of the correspondence between CHA, the INDOT acting on behalf of FHWA and the INSHPO via IDNR/DHPA follows (See correspondence in Appendix D).

On June 8, 2015, CHA provided INDOT with a copy of the HPR (Gilliam/Daleiden-Fischer, 6/3/2015) for review and comments. In reply, on June 16, 2015, INDOT provided comments concerning the HPR (Gilliam/Daleiden-Fischer 6/3/2015) indicating that it may be distributed to all consulting parties without revisions (See report summary in Appendix E). On June 22, 2015, CHA provided the INSHPO via the IDNR/DHPA with a copy of the HPR (Gilliam/Daleiden-Fischer, 6/3/2015). The INSHPO via the IDNR/DHPA concurred with the conclusions and recommendations presented in the HPR (Gilliam/Daleiden-Fischer, 6/3/2015) in its letter dated July 27, 2015.

Also, on June 12, 2015, CHA provided INDOT with a copy of the *Phase Ia Archaeological Reconnaissance* (Bubb and Culver, 06/11/2015) completed by 106 Consulting LLC. In reply, on June 19, 2015, INDOT provided comments concerning *Phase Ia Archaeological Reconnaissance* (Bubb and Culver, 06/11/2015) with minor edits recommended prior to distribution. On July 1, 2015, CHA provided the INSHPO via the IDNR/DHPA with a copy of the *Phase Ia Archaeological Reconnaissance* (Bubb and Culver, 06/29/2015; see report summary in Appendix E). The INSHPO via the IDNR/DHPA noted that there was insufficient information to determine whether or not some identified archaeological sites meet the criteria to be considered eligible for inclusion in the National Register. However, in accordance with the recommendations presented in the *Phase Ia Archaeological Reconnaissance* (Bubb and Culver, 06/29/2015), the INSHPO via the IDNR/DHPA in its letter dated July 27, 2015, stated that no further archaeological investigations are recommended to further identify or evaluate archaeological sites.

On June 22, 2015, the following parties were invited to participate in consultation:

- Indiana Landmarks (“INLa”), Central Regional Office, Mark Dollase
- Hamilton County Historian, David Heighway
- Carmel Clay Historical Society, attn: Katherine Dill, President
- Fishers Historic Preservation Committee, attn: Michael Quinn, Chairperson

- Noblesville Preservation Alliance, Charlie Hyde, President
- Noblesville Main Street, Inc., attn: Nancy Snyder, President
- Westfield Preservation Alliance, attn: Adrienne Ogle
- Westfield-Washington Historical Society: Carol Daubenspeck, President
- Hamilton County Genealogical Society, attn: Kathy Venable, President
- Sheridan Historical Society, attn: Jim Pickett, Executive Director
- Hamilton County Historical Society, attn: Diane Nevitt, Director

The following summarizes the responses to those invitations. Of the eleven parties listed above, one of the organizations, the Hamilton County Historical Society formally accepted an invitation to participate in consultation via postcard (See consulting parties and postcard in Appendix A). The remaining ten parties, INLa, the Carmel Clay Historical Society, the Fishers Historic Preservation Committee, the Noblesville Preservation Alliance, the Noblesville Main Street, Inc., the Westfield Preservation Alliance, the Westfield-Washington Historical Society, the Hamilton County Genealogical Society, the Sheridan Historical Society and the Hamilton County Historian did not formally respond to the invitation by returning their postcard within thirty days, and as such, are not considered to be consulting parties for the purpose of this undertaking.

None of the automatic consulting parties or parties invited to participate in consultation provided any additional information concerning the presence of known or potential historic properties. Moreover, none of the consulting parties objected to the conclusions presented in the HPR (Gilliam/Daleiden-Fischer 06/03/2015). Lastly, no further archaeological investigations were recommended given the results of the *Phase Ia Archaeological Reconnaissance* (Bubb and Culver, 06/29/2015).

A public notice of the finding of "No Historic Properties Affected" will be published in a local newspaper and the public will be afforded thirty (30) days to comment. If appropriate, this document will be revised to reflect public comment.

3. BASIS FOR FINDING

No historic properties were identified in the HPR (Gilliam/Daleiden-Fischer 06/03/2015). In addition, no other consulting parties shared views or concerns regarding the presence of historic properties in the APE or effects on potential historic properties.

Furthermore, no further archaeological investigation was recommended given the results of the *Phase Ia Archaeological Reconnaissance (*Bubb and Culver, 06/29/15*).* Although the DHPA/IDNR on behalf of the INSHPO maintained that there was insufficient information to make a determination of eligibility on potentially significant archaeological sites, the DHPA/IDNR on behalf of the INSHPO concurred that further archaeological investigation is not recommended*.* No other objections or recommendations concerning determination and findings were shared by other consulting parties.

In conclusion, based on the identification and evaluation efforts that have been undertaken and documented, the scope of work as detailed in the CHA's correspondence dated June 22, 2015, and in the attachments included with this document, and views shared by all consulting parties, INDOT on behalf of the FHWA has determined that no historic properties lie within the APE established for this undertaking. Given this determination, it has been concluded that a finding of "No Historic Properties Affected" is appropriate for this undertaking.

APPENDICES

A - Consulting Parties

B - Maps

C - Photographs

D - Correspondence

E - Report Summaries

Appendix A

Road Rehabilitation, East 236th Street, Phase I
Hamilton County, Indiana
Des. Nos. 1400788

Invited Consulting Parties:

Mr. Mitch Zoll, Division Director
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, Room W274
Indianapolis, IN 46204

Mark Dollase, VP of Preservation Services
Indiana Landmarks, Central Regional Office
1201 Central Avenue
Indianapolis, 46202

David Heighway
Hamilton County Historian
140 N. 15th St.
Noblesville, IN 46060-2610

Katherine Dill, President
Carmel Clay Historical Society
211 First Street SW
Carmel, IN 46032

Michael Quinn, Chairperson
Fishers Historic Preservation Committee
1 Municipal Drive
Fishers, IN 46038

Charlie Hyde, President
Noblesville Preservation Alliance
P. O. Box 632
Noblesville, IN 46060

Nancy Snyder, President
Noblesville Main Street, Inc.
876 1/2 Logan Street
Noblesville, IN 46060

Adrienne Ogle
Westfield Preservation Alliance
16425 Oak Manor Drive
Westfield, IN 46074

Carol Daubenspeck, President
Westfield-Washington Historical Society
P. O. Box 103
Westfield, IN 46074

Kathy A. Venable, President
Hamilton County Genealogy Society
111 Beechmont Drive.
Carmel, IN 46032

Jim Pickett, Executive Director
Sheridan Historical Society
308 S. Main St.
Sheridan, IN 46069-1113

Diane Nevitt, Director
Hamilton County Historical Society
P.O. Box 397
Noblesville, IN 46061-0397

Recognized Agencies:

Mr. Rick Marquis, Administrator
Indiana Division
Federal Highway Administration
Room 254, Federal Office Building
575 North Pennsylvania Street
Indianapolis, IN 46204
ATTN: Mr. Larry Heil

Environmental Scoping Manager
Indiana Department of Transportation
Greenfield District
315 E. Boyd Blvd.
LaPorte, Indiana 46350

Mr. Patrick Carpenter, Manager
Cultural Resources Office
Office of Environmental Services
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204
ATTN: Ms. Mary Kennedy

Jim Neal, P.E., County Engineer
Hamilton County Highway Department
1700 South 10th Street
Noblesville, IN 46060

Consulting Party Response:

Des. Nos. 1400788
Road Rehabilitation
East 236th Street, Phase I, From Deming Road to Tollgate Road
Hamilton County, Indiana

You are hereby invited to be a consulting party. As a consulting party you will participate in consulting to identify and evaluate historic properties, assess effects, and resolve any adverse effects. Please complete and return this postcard. Check if you "**do**" or "**do not**" wish to be a consulting party. Thank you.

I do ✓ do not _____ wish to be a consulting party to participate in the section 106 process for the above referenced project.

Name: Hamilton Co. Historical Soc

Organization: _____

Address: P.O. Box 397 Noblesville IN 46061

U.S. POSTAGE PITNEY BOWES
ZIP 46225 $ 000.34⁰
02 1W
0001380619

CHA

Union Station
300 S Meridian Street
Indianapolis, IN 46225

CHA Consulting, Inc.
300 S. Meridian Street
Indianapolis, IN 46225

JUL 15 2015

ATTN: Robert Winebrinner

Appendix B

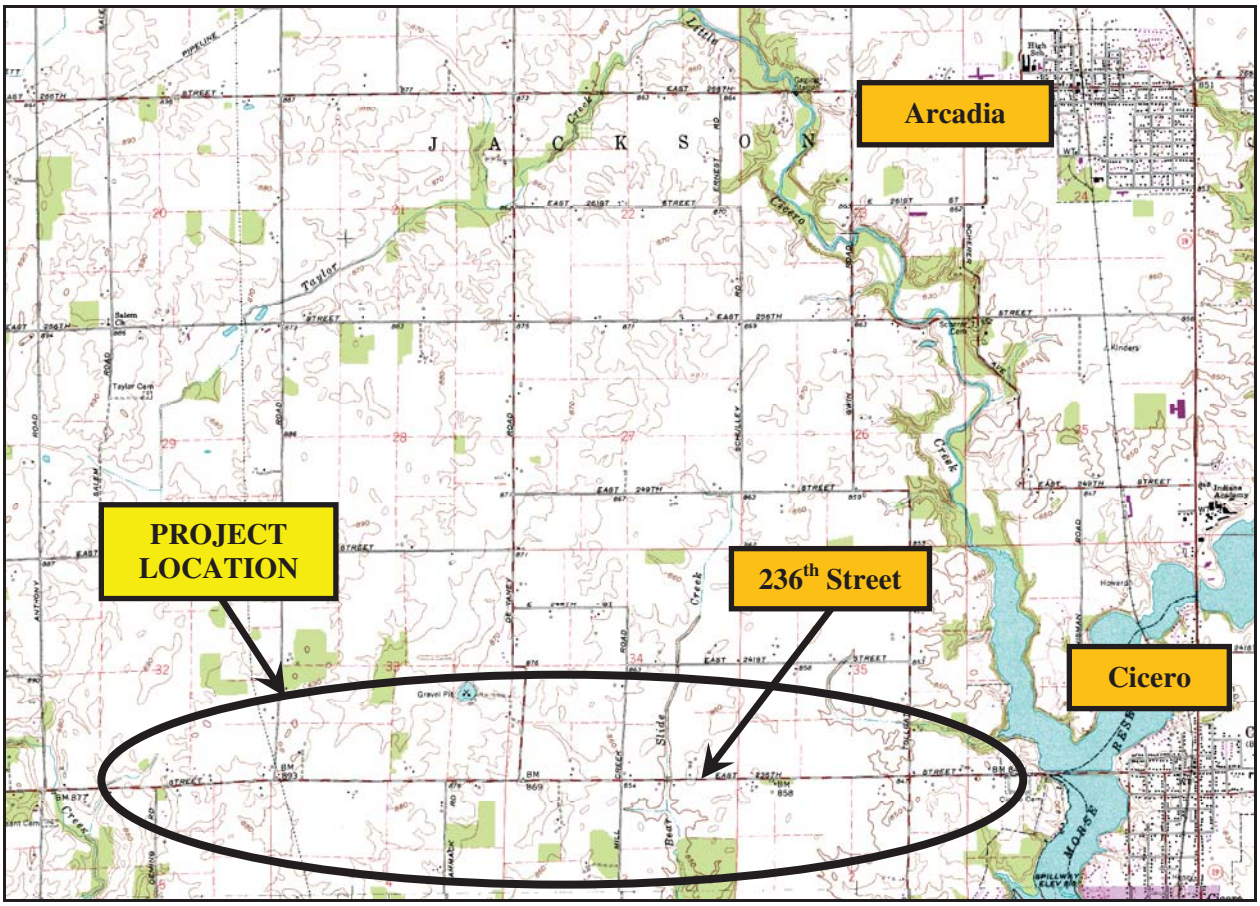

Figure 2: *Portion of the Arcadia, Indiana, USGS quadrangle map. (Map from Indiana University Indiana Spatial Data Portal [IU-ISDP])*

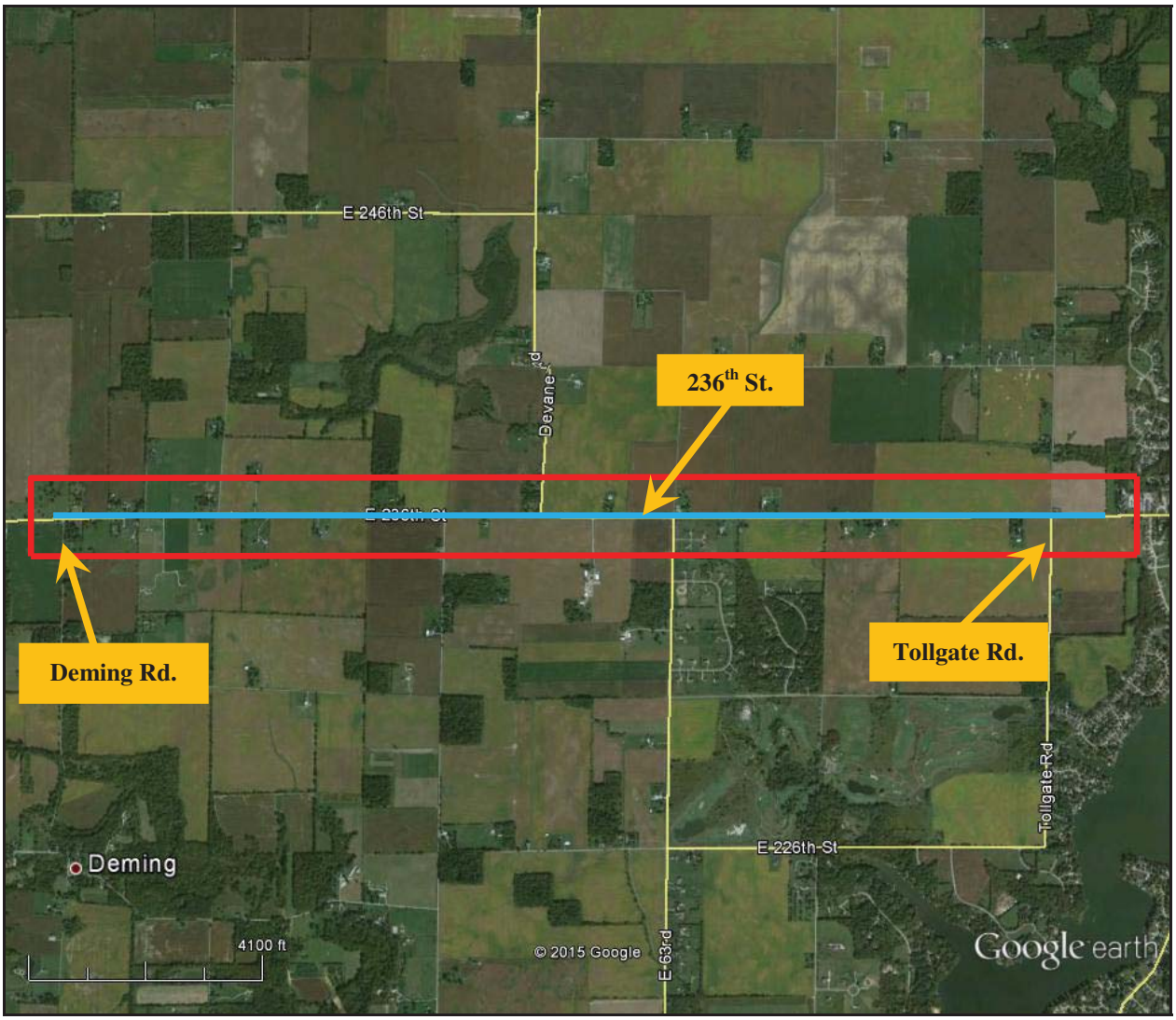

Figure 4: *APE indicated with red line. Project path indicated by blue line (Map from Google Earth Pro/licensed user).*

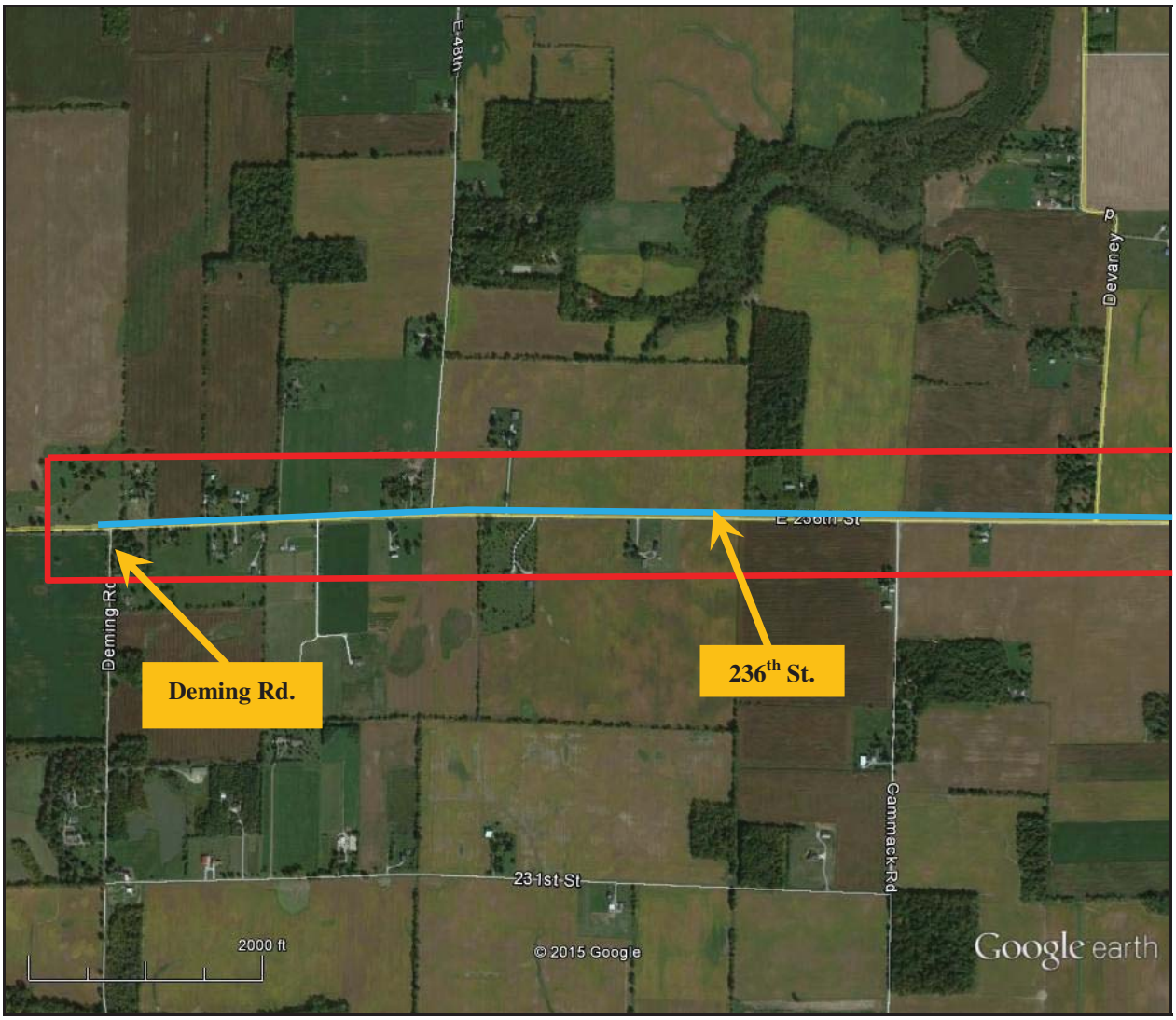

Figure 5: *Western APE indicated with red line. Project site indicated by the blue line.* (*Map from Google Earth Pro/licensed user*)

Figure 6: *Eastern APE indicated with red line. Project site indicated by the blue line.* (*Map from Google Earth Pro/licensed user*)

Historic Context

The undertaking is located immediately west of the Town of Cicero, Jackson Township, Hamilton County, which is north of Indianapolis. Hamilton County is divided into nine townships as follows: Adams, Clay, Delaware, Jackson, Noblesville, Washington, Wayne, White River, and Fall Creek (*Government of Hamilton County Indiana website*). For the past one hundred and fifty years, the overall population growth has rapidly increased in the county (*Stats Indiana website*). Hamilton County initially received white settlers in the early 1800's with the arrival of William Conner in 1802. Bennett, a French man and trader, also initiated trade with Native Americans on land under their control. In time many European settlers arrived, and with them, the population increased. William Conner continued to be

Appendix C

Appendix I: Photographs and Photograph Location Map

Please refer to figures A-2 to A-4 for photograph locations below:

Photograph 1: *House at 23565 Deming Road, camera facing east.*

Photograph 2: *House at the southwest corner of 236th Street and Deming Road (23575 Deming Rd.).*

Photograph 3: *View south along Deming Road standing at 236th Street.*

Photograph 4: *View west along 236th Street standing at Deming Road.*

Photograph 5: *Property at 4114 East 236th Street, camera facing north.*

Photograph 6: *View east along 236th Street.*

Photograph 7: *Property at 4180 East 236th Street, camera facing north.*

Photograph 8: *House on south side of 236th Street (4301 East 236th Street)***.**

Photograph 9: *House on south side of 236th Street (4305 East 236th Street).*

.

Photograph 10: *View east along 236th Street.*

Photograph 11: *House at Farm (IHSSI Site #057-020-05067), camera facing south.*

Photograph 12: *House at Farm (IHSSI Site #057-020-05067), camera facing southwest.*

Photograph 13: *View east along 236th Street at intersection with East 48th (Cal Carson Road)***.**

Photograph 14: *Property at 4785 East 236th Street.*

Photograph 15: *View south along East 48th (Cal Carson Road).*

Photograph 16: *Property at 4820 East 236th Street.*

Photograph 17: *Property at 5345 East 236th Street.*

Photograph 18: *Barn at 5345 East 236th Street.*

Photograph 19: *Looking east along 236th Street.*

Photograph 20: *Remaining barn at Farm (IHSSI Site #057-020-05064).*

.

Photograph 21: *Looking west along 236th Street standing at Cammack Road.*

Photograph 22: *Fieldstone post on the north side of 236th Street at Cammack Road.*

Photograph 23: *Looking east along 236th Street standing at Cammack Road.*

Photograph 24: *House at 23550 Cammack Road.*

Photograph 25: *Looking north along Devaney Road.*

Photograph 26: *Property at 23666 Devaney Road.*

Photograph 27: *Looking east along 236th Street.*

Photograph 28: *Property at 5970 East 236th Street.*

Photograph 29: *Subdivision along east side of Mill Creek Road.*

Photograph 30: *Looking north at intersection of 236th Street and Mill Creek Road.*

Photograph 31: *Looking east at property at 6330 East 236th Street with concrete posts along north side of road.*

Photograph 32: *House at Farm (IHSSI Site #057-020-05062), camera facing south.*

Photograph 33: *Barn at Farm (IHSSI Site #057-020-05062), camera facing west.*

Photograph 34: *Looking east along 236th Street.*

Photograph 35: *Property at 6510 East 236th Street, camera facingnorth.*

Photograph 36: *236th Street looking west.*

Photograph 37: *Property at 6835 East 236th Street, camera facing south.*

Photograph 38: *Property at 6911 East 236th Street, camera facing south.*

Photograph 39: *House at Farm (IHSSI Site #057-020-05062), camera facing south.*

Photograph 40: *House at Farm (IHSSI Site #057-020-05060), camera facing south.*

Photograph 41: *Fence on either side of driveway at Farm (IHSSI Site #057-020-05060), camera facing north.*

Photograph 42: *Outbuildings at Farm (IHSSI Site #057-020-05062), camera facing southwest.*

Photograph 43: *Looking east along 236th Street.*

Photograph 44: *Business at 7520 East 236th Street, camera facing north.*

Photograph 45: *236th Street looking east standing at Tollgate Road.*

Photograph 46: *View south along Tollgate Road.*

Photograph 47: *View west along 236th Street.*

Photograph 48: *House at 7680 East 236th Street.*

Photograph 49: *House at 7745 East 236th Street.*

Photograph 50: *Business at 7770 East 236th Street.*

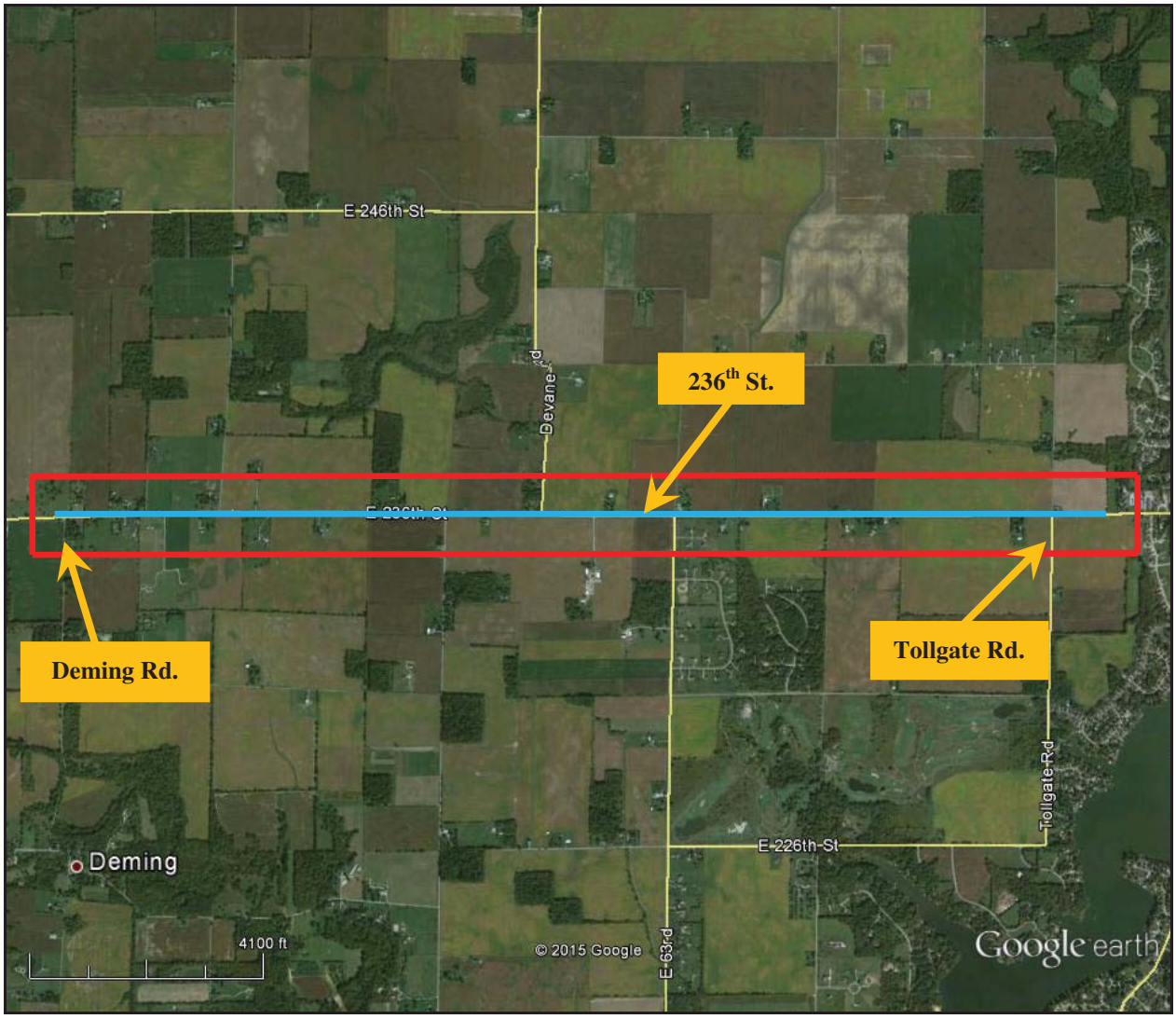

Figure A-1: *APE indicated with red line. Project path indicated by blue line (Map from Google Earth Pro/licensed user).*

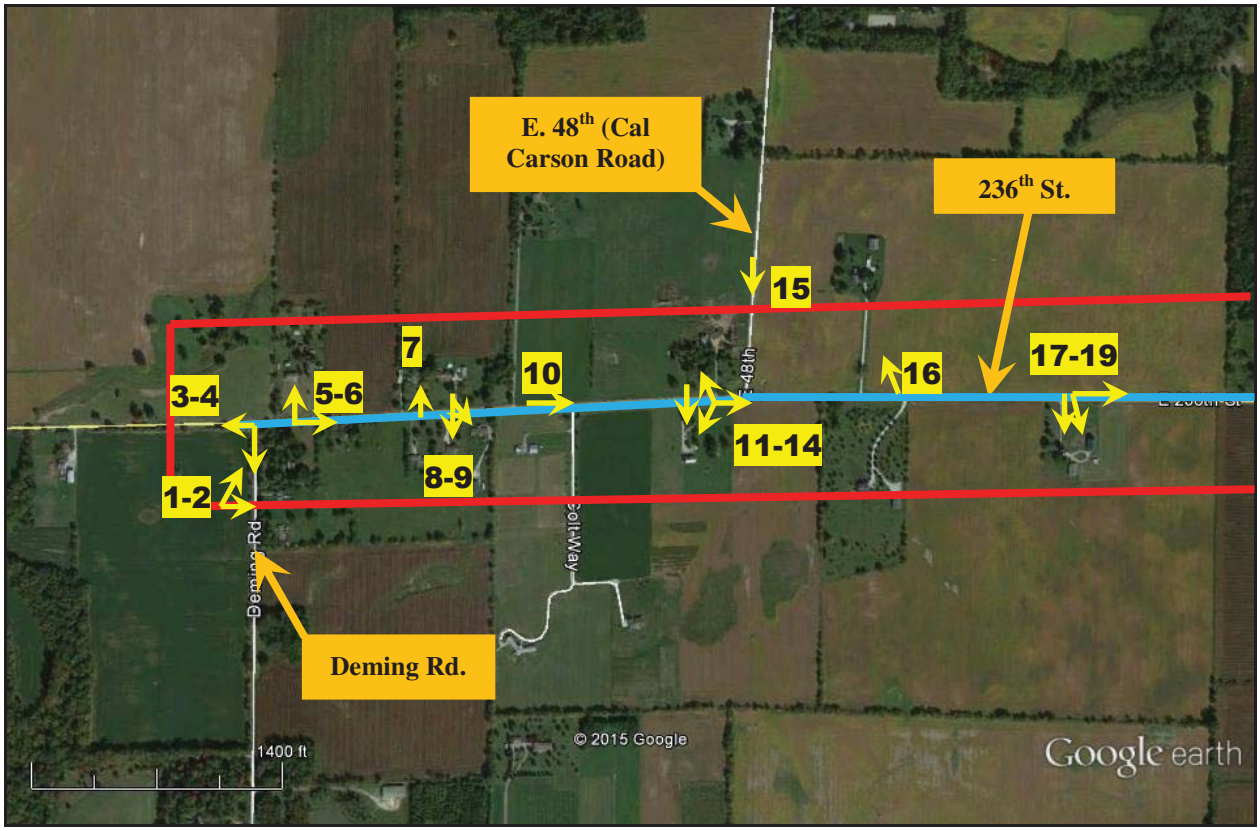

Figure A-2: *Photograph locations of western APE. APE indicated with red line. Project path indicated with blue line (Map from Google Earth Pro/licensed user).*

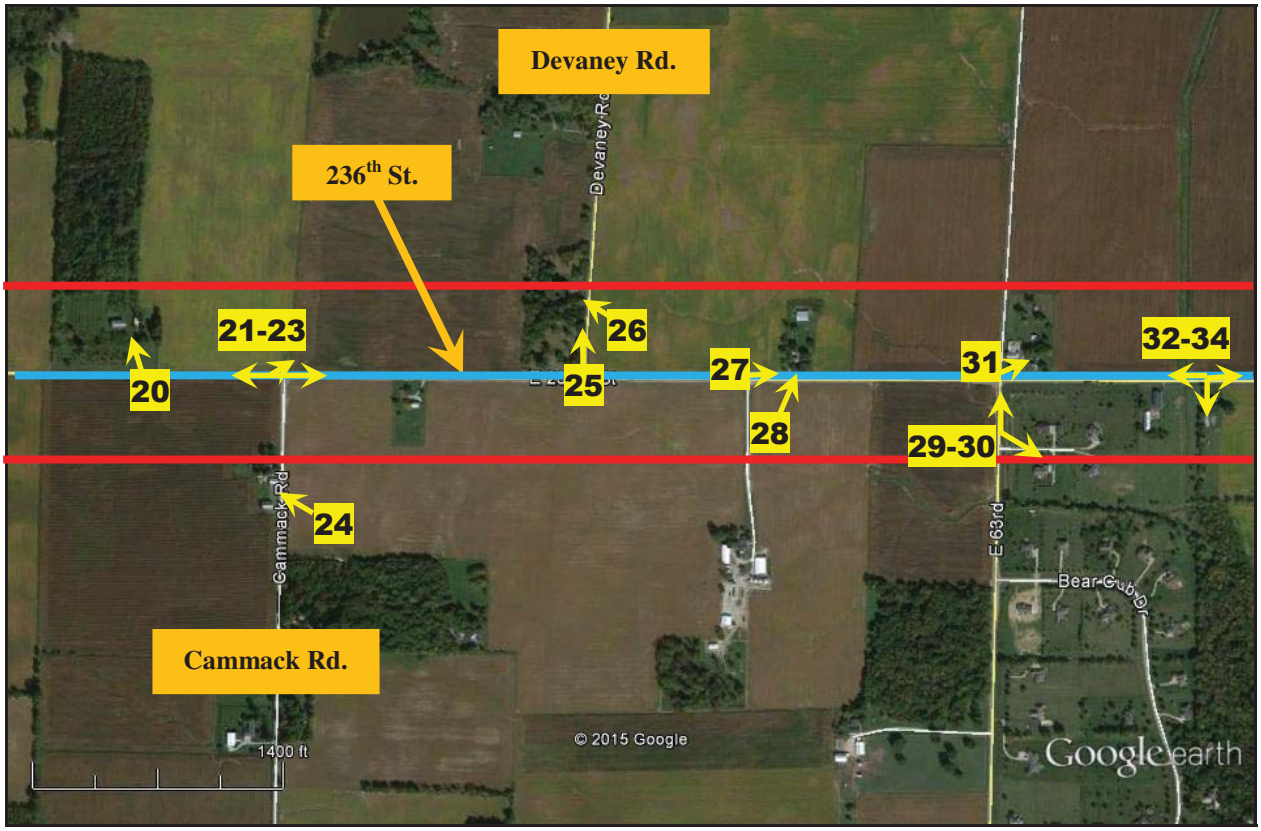

Figure A-3: *Photograph locations of central APE. APE indicated with red line. Project path indicated with blue line (Map from Google Earth Pro/licensed user).*

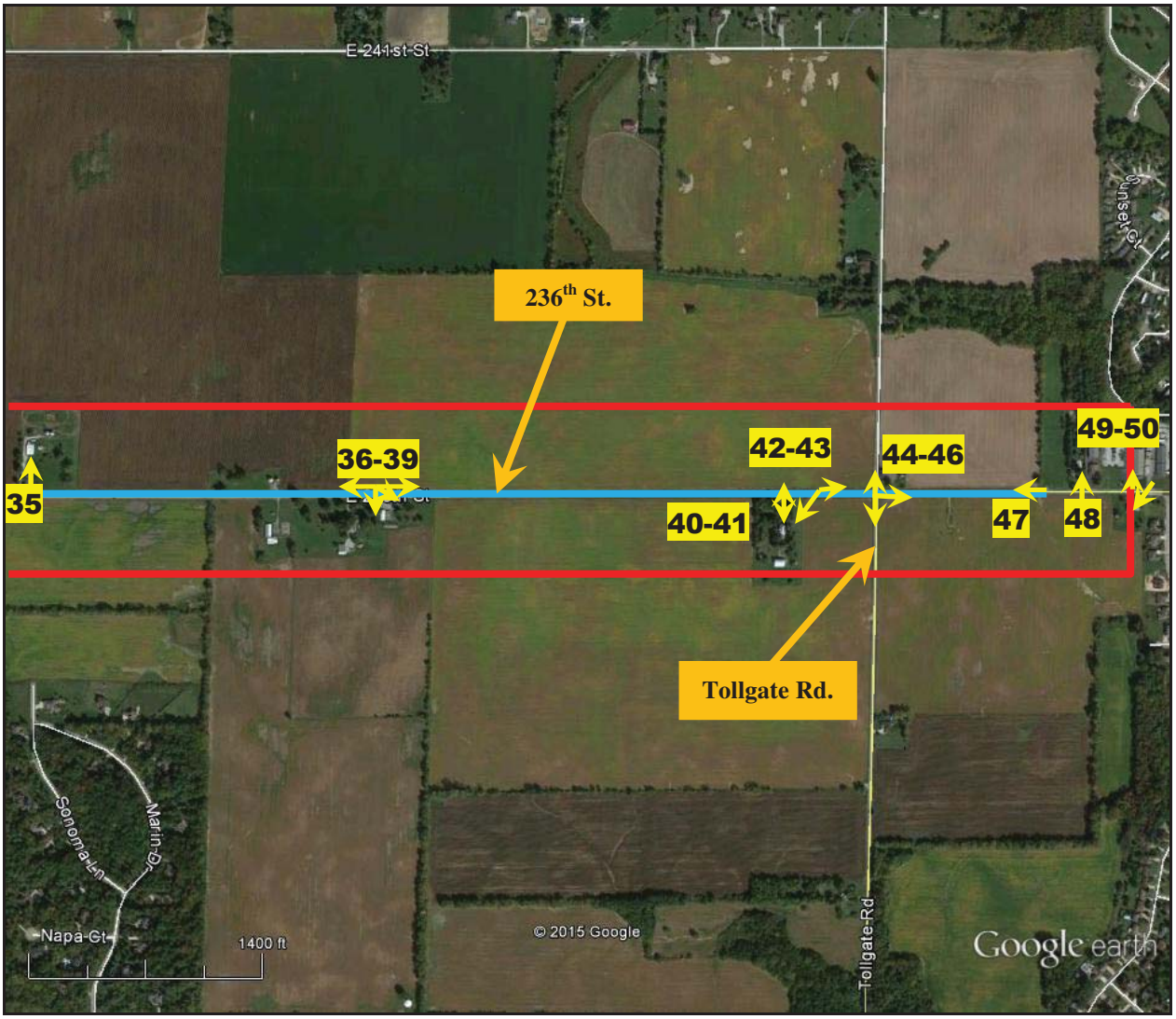

Figure A-4: *Photograph locations of eastern APE. APE indicated with red line. Project path indicated with blue line (Map from Google Earth Pro/licensed user).*

Appendix D

Winebrinner, Robert

From: Winebrinner, Robert
Sent: Friday, June 12, 2015 12:57 PM
To: Shaun Miller - (smiller@indot.IN.gov)
Cc: Mary Kennedy (MKENNEDY@indot.IN.gov); 'louis bubb'; Wieseke, Trevor
Subject: Phase I AFR: E 236th St Road Rehab, Phase I, Hamilton County, Indiana - Des 1400788 - Proj. No. 25895
Attachments: 236thStRehab_Des1400788_Phase1A_2015_06-11.pdf

Shaun,

Please see the attached Archaeological Field Recon for your review and concurrence.

Thank you and have a good weekend!

Robert Winebrinner
Environmental Planner
CHA ~ *design/construction solutions*
Phone: 317.780.7146
Cell: 317.910.9705
rwinebrinner@chacompanies.com
www.chacompanies.com

Follow us on Twitter, LinkedIn, and Facebook!

Please consider the environment before you print this email.

Winebrinner, Robert

From: Kennedy, Mary <MKENNEDY@indot.IN.gov>
Sent: Tuesday, June 16, 2015 8:25 AM
To: Winebrinner, Robert
Cc: Miller, Shaun (INDOT); Sue Becher Gilliam; Michelle-Daleiden Fischer (daleidenfischer07@sbcglobal.net); Wieseke, Trevor; James W. Neal (James.Neal@hamiltoncounty.in.gov); Beck, Jennifer; Slider, Chad (DNR); Day, Olivia
Subject: RE: Long form HPR: Hamilton Co Road Rehab Project - E 236th St., Phase I - from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Follow Up Flag: Follow up
Flag Status: Completed

Categories: NEPA

Robert,

Thank you for the submittal. We think the report looks ok for distribution to consulting parties. Please copy us when you send it out (emc).

Regards,

Mary E. Kennedy
Architectural Historian/History Team Lead
Cultural Resources Office
Environmental Services
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
Office: (317) 232-5215
Email: mkennedy@indot.in.gov

From: Winebrinner, Robert [mailto:RWinebrinner@chacompanies.com]
Sent: Monday, June 08, 2015 3:06 PM
To: Kennedy, Mary
Cc: Miller, Shaun (INDOT); Sue Becher Gilliam; Michelle-Daleiden Fischer (daleidenfischer07@sbcglobal.net); Wieseke, Trevor
Subject: Long form HPR: Hamilton Co Road Rehab Project - E 236th St., Phase I - from Deming Rd. to Tollgate Rd. - Des. No. 1400788 (Contract 25895)

Mary,

Please see the attached long form Historic Properties Report for your review and concurrence.

Thank you,

Robert Winebrinner
Environmental Planner
CHA *~ design/construction solutions*
Phone: 317.780.7146
Cell: 317.910.9705
rwinebrinner@chacompanies.com
www.chacompanies.com

Follow us on Twitter, LinkedIn, and Facebook!

Please consider the environment before you print this email.

Winebrinner, Robert

From: Laswell, Jeffrey <JLaswell@indot.IN.gov>
Sent: Friday, June 19, 2015 3:14 PM
To: Winebrinner, Robert
Cc: Miller, Shaun (INDOT); louis bubb
Subject: Phase I AFR: E 236th St Road Rehab, Phase I, Hamilton County, Indiana - Des 1400788 - Proj. No. 25895
Attachments: 236thStRehab_Des1400788_Phase1A_2015_06-11_INDOTComments.pdf

Follow Up Flag: Follow up
Flag Status: Completed

Categories: NEPA

Hi Rob,

Thank you for the submission of the above referenced archaeological report. The report was reviewed by INDOT Cultural Resources personnel who meet the Secretary of the Interior's Professional Qualification Standards as per 36 CFR Part 61. It is our opinion that the report is acceptable (once revisions are completed), and we concur with the evaluations and recommendations made by 106 Consulting (Bubb and Culver 6/11/2015) received by our office on June 12, 2015. However, the INDOT, Cultural Resources Office (CRO) respectfully requests that comments included in the enclosed report are addressed prior to forwarding the final report to SHPO. Once these revisions have been made, please submit one copy of the archaeology report to SHPO for review and concurrence. In addition, we ask that the revised report and the SHPO submittal letter are sent to INDOT, CRO care Jeff Laswell jlaswell@indot.in.gov during the time of submission. If there are any questions or concerns regarding this project, please contact me at jlaswell@indot.in.gov or (317) 233-2093.

Have a great weekend!

Sincerely,

Jeffrey Laswell
Archaeologist
INDOT Environmental Services
Cultural Resources Office
100 N. Senate Ave. IGCN - Room N642
Indianapolis, Indiana
46204-2216
(317) 233-2093

June 22, 2015

Mr. Mitch Zoll
State Historic Preservation Officer
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 West Washington Street, Rm W274
Indianapolis, IN 46204

Re: Des. Nos. 1400788
Road Rehabilitation
East 236th Street, Phase I
From Deming Road to Tollgate Road
Hamilton County, Indiana

Dear Mr. Zoll:

Our firm has been selected by the Hamilton County Commissioners to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The complete project on East 236th Street, from US 31 to the Town of Cicero, has been divided into three phases due to funding restrictions. The first phase, between Deming Road and Tollgate Road, is the focus of this coordination.

Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the effects of their undertakings on historic properties. In accordance with 36 CFR § 800.2(c), you are hereby requested to be a consulting party to participate in the Section 106 process. This process involves efforts to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties. This letter has been written to describe the proposed road rehabilitation project and to seek your comments regarding the resources under your jurisdiction. Your cooperation in this endeavor is appreciated.

PROJECT LOCATION

The proposed project is located in the northcentral portion of Hamilton County, Indiana, and extends along East 236th Street from approximately 250 ft. west of Deming Rd. to approximately 1,000 ft. east of Tollgate Rd., west of Cicero. In addition, the area for this phase would extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. Specifically, the project is located in Sections 2, 3, 4, and 5, Township 19 North, Range 4 East and Sections 32, 33, 34, and 35, Township 20 North, Range 4 East of Jackson Township in Hamilton County. See the 7.5 minute Arcadia USGS quadrangle map in the attached Historic Properties Report (HPR) for project location. The total project length would be approximately 18,250 ft. (3.46 miles).

EXISTING CONDITIONS

East 236th Street is functionally classified as a Rural Primary Arterial, according to the Hamilton County Thoroughfare Plan (2007). The existing road is an east-west two-lane rural roadway upon

level terrain. The typical section includes one 10 ft. wide travel lane in each direction with no shoulders and minimal to no ditches along either side of the roadway. The posted speed limit is 50 miles per hour (mph). Existing right-0f-way is approximately 20 ft. from the centerline on each side of East 236th Street.

LAND USE

Land use in the project area predominately consists of agricultural row crop fields, with a number of residences and associated woodlots. There is an increased concentration of residences near Deming Road and Mill Creek Road.

TRAFFIC VOLUME

Existing traffic counts show an annual average daily traffic (AADT) of 5,378 vehicles per day (vpd), including 5% trucks on East 236th Street. According to the traffic forecast developed for this project, the AADT is expected to increase to 9,397 vpd in design year 2038.

PROJECT NEED AND PURPOSE

The road currently exhibits substandard features, including narrow lane widths, a lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. Additionally, the East 236th Street corridor does not currently provide safe access for non-motorized traffic. The need for this project is due to the substandard features of the roadway and a lack of safe travel for non-motorized traffic along the corridor.

The purpose of the proposed project is to upgrade the roadway to current 3R standards and correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor.

PROPOSED PROJECT

This proposed roadway rehabilitation project would correct the facility deficiencies by addressing narrow lane widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. The roadway would be widened to one 12 ft. lane and 6 ft. paved shoulder in each direction along East 236th Street. Additionally, vertical sight corrections would be performed through portions of the project. A 10 ft. shared used path would be constructed on the south side of the East 236th Street corridor. Drainage ditches and 3 or 4:1 side slopes would also be constructed. The existing road surface would receive an HMA overlay to provide an improved driving surface.

Approximately 45 acres of right-of-way acquisition is anticipated, ranging from 25 ft. to 80 ft. from centerline. The right-of-way acquisition would be asymmetrical, with the majority occurring on the southern half of the project to provide for the proposed shared use path. Additionally, minor temporary right-of-way would be required for drive construction and yard grading. The exact amount of right-of-way required for the project will be developed as the design phase advances. At this time, there are two residential relocations anticipated.

Maintenance of traffic would involve a closure to thru traffic on East 236th Street, while access to residences and local traffic would be maintained. This closure might occur in non-concurrent segments. Traffic would be redirected to local roads north/south and east/west of the project segment currently under construction. The longest detour anticipated would require non-local traffic to travel 10 miles along US 31, 256th Street, and SR 19.

SECTION 106

A Historic Property Report (HPR) has been prepared by EFI Global, Inc. (EFI) in an effort to identify properties, within the probable area of potential effect (APE), which are listed or determined eligible for the National Register of Historic Places (NRHP). The representatives of EFI

who performed these investigations are qualified professionals that satisfy the *Secretary of Interior's Professional Qualifications Standards*. The Indiana Department of Transportation, Cultural Resources Office (INDOT, CRO) approved the HPR on June 16, 2015. The HPR is attached for your comment.

COORDINATION

The following agencies and organizations are either recognized consulting parties or have been invited to participate in the Section 106 consultation process:

- Federal Highway Administration (FHWA)
- Indiana Landmarks, Central Regional Office
- INDOT, Cultural Resources Office
- INDOT, Greenfield District
- Board of Hamilton County Commissioners
- Hamilton County Historian
- Carmel Clay Historical Society
- Fishers Historic Preservation Committee
- Noblesville Preservation Alliance
- Noblesville Main Street, Inc.
- Westfield Preservation Alliance
- Westfield-Washington Historical Society
- Hamilton County Genealogy Society
- Sheridan Historical Society
- Hamilton County Historical Society

Per 36 CFR 800.3 (f), we hereby request that your office notify this office of any other parties that may be entitled to be consulting parties or should be contacted as potential consulting parties for the proposed project. This letter is written to seek your comments regarding the potential impacts upon resources within the project area and to gain your comments regarding the attached HPR.

All future responses regarding the proposed project should be forwarded to CHA at the following address:

Robert Winebrinner
CHA Consulting, Inc.
300 South Meridian St.
Indianapolis, Indiana 46225

You are asked to return your reply within 30-days of receipt of this packet. If no reply has been received within 30-days, it will be indicated in the environmental document, which is to be prepared for the referenced project, that your agency has no comment on the project. If you have any questions, regarding the information contained in this letter, please do not hesitate to contact me at rwinebrinner@chacompanies.com or (317) 780-7146.

Very truly yours,

CHA Consulting, Inc.

Robert Winebrinner
Environmental Planner

Attachment: Historic Properties Report, June 2015

cc: Larry Heil, FHWA (w/copy)
Patrick Carpenter, CRO, INDOT (w/copy)
Jewell Stone, Greenfield District, INDOT (w/copy)
Jim Neal, Hamilton County Highway Department (w/ copy)
Sue Gilliam, EFI Global, Inc. (w/o copy)
Angela DeWees, P.E., CHA Consulting, Inc. (w/ copy)
File # 25895

June 22, 2015

{See Attached List}

Re: Des. Nos. 1400788
Road Rehabilitation
East 236th Street, Phase I
From Deming Road to Tollgate Road
Hamilton County, Indiana

Dear Sir or Madam:

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The purpose of the proposed project is to upgrade the roadway to current 3R standards and correct the facility deficiencies, as well as provide a safe route for non-motorized traffic along the corridor.

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Approximately 45 acres of right-of-way acquisition is anticipated, ranging from 25 ft. to 80 ft. from centerline. The right-of-way acquisition would be asymmetrical, with the majority occurring on the southern half of the project to provide for the proposed shared use path. Additionally, minor temporary right-of-way would be required for drive construction and yard grading. The exact amount of right-of-way required for the project will be developed as the design phase advances. At this time, there are two residential relocations anticipated.

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SECTION 106

A Historic Property Report (HPR) has been prepared by EFI Global, Inc. (EFI) in an effort to identify properties, within the probable area of potential effect (APE), which are listed or determined eligible for the National Register of Historic Places (NRHP). The representatives of EFI who performed these investigations are qualified professionals that satisfy the *Secretary of Interior's Professional Qualifications Standards*. The Indiana Department of Transportation,

Cultural Resources Office (INDOT, CRO) approved the HPR on June 16, 2015. The HPR is attached for your comment.

COORDINATION

Please return the enclosed postcard and check if you "do" or "do not" agree to be a consulting party. If you indicate on the postcard that you do not desire to be a consulting party, or if you do not return the postcard at all, you will not be included on the list of consulting parties for this project.

All future responses regarding the proposed project should be forwarded to CHA at the following address:

Robert Winebrinner
CHA Consulting, Inc.
300 South Meridian St.
Indianapolis, Indiana 46225

Please return the postcard and any comments regarding the project within 30-days of receipt of this packet. If you have any questions, regarding the postcard or the information contained in this letter, please do not hesitate to contact me at rwinebrinner@chacompanies.com or (317) 780-7146.

Thank you for considering this opportunity to be a consulting party for the referenced project.

Very truly yours,

CHA Consulting, Inc.

Robert Winebrinner
Environmental Planner

Attachment: Historic Properties Report, June 2015

cc: Larry Heil, FHWA (w/copy)
Patrick Carpenter, CRO, INDOT (w/copy)
Jewell Stone, Greenfield District, INDOT (w/copy)
Jim Neal, Hamilton County Highway Department (w/ copy)
Sue Gilliam, EFI Global, Inc. (w/o copy)
Angela DeWees, P.E., CHA Consulting, Inc. (w/ copy)
File # 25895

Road Rehabilitation, East 236th Street, Phase I
Hamilton County, Indiana
Des. Nos. 1400788

Invited Consulting Parties:

Mr. Mitch Zoll, Division Director
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, Room W274
Indianapolis, IN 46204

Mark Dollase, VP of Preservation Services
Indiana Landmarks, Central Regional Office
1201 Central Avenue
Indianapolis, 46202

David Heighway
Hamilton County Historian
140 N. 15th St.
Noblesville, IN 46060-2610

Katherine Dill, President
Carmel Clay Historical Society
211 First Street SW
Carmel, IN 46032

Michael Quinn, Chairperson
Fishers Historic Preservation Committee
1 Municipal Drive
Fishers, IN 46038

Charlie Hyde, President
Noblesville Preservation Alliance
P. O. Box 632
Noblesville, IN 46060

Nancy Snyder, President
Noblesville Main Street, Inc.
876 1/2 Logan Street
Noblesville, IN 46060

Adrienne Ogle
Westfield Preservation Alliance
16425 Oak Manor Drive
Westfield, IN 46074

Carol Daubenspeck, President
Westfield-Washington Historical Society
P. O. Box 103
Westfield, IN 46074

Kathy A. Venable, President
Hamilton County Genealogy Society
111 Beechmont Drive.
Carmel, IN 46032

Jim Pickett, Executive Director
Sheridan Historical Society
308 S. Main St.
Sheridan, IN 46069-1113

Diane Nevitt, Director
Hamilton County Historical Society
P.O. Box 397
Noblesville, IN 46061-0397

Recognized Agencies:

Mr. Rick Marquis, Administrator
Indiana Division
Federal Highway Administration
Room 254, Federal Office Building
575 North Pennsylvania Street
Indianapolis, IN 46204
ATTN: Mr. Larry Heil

Environmental Scoping Manager
Indiana Department of Transportation
Greenfield District
315 E. Boyd Blvd.
LaPorte, Indiana 46350

Mr. Patrick Carpenter, Manager
Cultural Resources Office
Office of Environmental Services
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204
ATTN: Ms. Mary Kennedy

Jim Neal, P.E., County Engineer
Hamilton County Highway Department
1700 South 10th Street
Noblesville, IN 46060

REVIEW REQUEST SUBMITTAL

State Form 55031 (7-12)
Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology, Indiana State Historic Preservation Office (SHPO)

Please complete this form and attach it to front of all submittals, along with any reports or supplemental materials you are providing to the Indiana DHPA for review.

Date: July 01, 2015

Is this a new submission? ☑ Yes ☐ No

Reference for previous submittals: DHPA # _____ Des. No. _____

THIS REVIEW REQUEST SUBMITTED BY:

Name: Robert Winebrinner

Company/Organization: CHA

Address: 300 South Meridian Street, Indianapolis, IN 46225

Telephone number: 317-780-7146 Email address: rwinebrinner@chacompanies.com

PROJECT NAME & LOCATION *[Please attach a map with location(s) marked]*

Project Name/Reference: E. 236th St. Rehabilitation Project/ Des # 1400788

Project Address/Location: From 250 ft. W. of Deming Rd. to 1000 ft. E. of Tollgate Rd.

City: Cicero Township(s): Jackson

County/Counties: Hamilton County

STATE OR FEDERAL AGENCY INVOLVEMENT

Agency: FHWA/Hamilton County Commissioners Program: _____

Type of funds, license, or permit to be obtained *(if applicable)*: _____

Name(s) of Agency Contact: Shaun Miller/Jeffrey Laswell

Address: 100 North Senate Ave., Indianapolis, IN 46204

Telephone number: 317-233-2093 Email address: JLaswell@indot.in.gov

APPLICANT *(if different than Federal Agency)* *If available, please attach copy of authorization letter from federal agency*

Applicant: Hamilton County Commissioners

Name of Contact: Jim Neal, County Engineer

Address: Hamilton County Highway Department, 1700 South 10th Street, Noblesville, IN 46060

Telephone number: (317) 773-7770 Email address: jim.neal@hamiltoncounty.in.gov

CONSULTANT FOR THE APPLICANT OR AGENCY *(IF APPLICABLE)*

Consultant: CHA

Name of Contact: Robert Winebrinner

Address: 300 South Meridian Street, Indianapolis, IN 46224

Telephone number: 317-780-7146 Email address: rwinebrinner@chacompanies.com

Contact for DHPA questions regarding this review request: Robert Winebrinner

Comments:
Attached is the Archaeological Field Reconnaissance Report for the proposed road rehabilitation project, between Deming Road and Tollgate Road, west of Cicero, Hamilton County, Indiana. This report has been reviewed and approved by the INDOT CRO on June 19, 2015.

Please note that incomplete submissions may result in delays. To ensure an expeditious review, please be sure that the following has been provided:

- ☑ Full contact information for person/entity submitting form, including phone number and email *(if available)*
- ☑ Map of project location with project area(s) clearly marked *(provided in current or previous submission)*
- ☑ Clear photographs of project area and surroundings
- ☑ Project description
- ☑ Description of any proposed ground disturbance
- ☑ Name of Federal agency/agencies and program providing funds, license, or permit
- ☐ Letter of authorization from Federal agency/agencies *(if applicable)*

Return this Form and Attachments to:

Indiana Department of Natural Resources
Division of Historic Preservation and Archaeology
402 W. Washington Street, Room W274
Indianapolis, Indiana 46204

http://www.in.gov/dnr/historic

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology·402 W. Washington Street, W274·Indianapolis, IN 46204-2739
Phone 317-232-1646·Fax 317-232-0693·dhpa@dnr.IN.gov

July 27, 2015

Robert Winebrinner
Environmental Planner
CHA Consulting, Inc.
300 South Meridian Street
Indianapolis, Indiana 46225

Federal Agency: Federal Highway Administration ("FHWA")

Re: Project description, historic properties report (Daleiden-Fischer and Gilliam, 06/03/2015), and Phase Ia archaeological reconnaissance survey report (Bubb and Culver, 06/29/2015), for Road Rehabilitation, East 236th Street, Phase I, from Deming Road to Tollgate Road, in Jackson Township, Hamilton County (Des. No. 1400788; DHPA No. 17877)

Dear Mr. Winebrinner:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement . . . Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed your letter dated June 22, 2015, and received on June 25, which described the project and transmitted the historic properties report, as well as your review request submittal dated July 1, 2015, and received on July 2, which transmitted the archaeological report, for the aforementioned project in Hamilton County, Indiana.

We are not aware of any additional parties who should be invited to participate in the Section 106 consultation on this Federal undertaking, beyond those whom you already have invited.

The area of potential effects proposed in the historic properties report ("HPR"; Daleiden-Fischer and Gilliam, 6/3/2015) to encompass the area where direct and indirect effects may occur.

For the purposes of the Section 106 review of this particular Federal undertaking, we also agree that none of the above-ground properties identified in the HPR appears to be eligible for inclusion in the National Register of Historic Places ("NHRP").

Based upon the submitted information and the documentation available to the staff of the Indiana SHPO, there is insufficient information to determine whether or not archaeological sites 12-H-1751 and 12-H-1757 (both of which were identified during the archaeological investigations) are eligible for inclusion in the NRHP. However, the portions of sites 12-H-1751 and 12-H-1757 that lie within the proposed project area do not appear to contain significant archaeological deposits, and no further archaeological investigations are necessary in those portions of the sites. Additionally, those areas of the sites that lie outside the proposed project area should be clearly marked so that they are avoided by all ground-disturbing project activities. Should the proposed project area be expanded to include other areas within sites 12-H-1751 and 12-H-1757, then further archaeological investigations, in consultation with our office, will be required. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation" (48 F.R. 44716).

Additionally, we concur with the opinion of the archaeologist, as expressed in the Phase Ia archaeological reconnaissance survey report (Bubb and Culver, 06/29/2015), that archaeological sites 12-H-1749, 12-H-1750, 12-H-1752, 12-H-1753, 12-H-1754, 12-H-1755, and 12-H1756 (all of which were identified during the archaeological investigations) do not appear to be eligible for inclusion in the NRHP. We concur that no further archaeological investigations appear necessary in the present proposed project area.

As a reminder, please note that archaeological site survey forms for sites 12-H-1749—12-H-1757 should be entered into the DHPA SHAARD database.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery 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, including but not limited to 36 C.F.R. 800.

Unless another consulting party disagrees with the HPR about the absence of any historic property within the APE, or unless the project footprint is expanded to include an area where additional archaeological work is needed, it might now be appropriate to ask INDOT for a finding.

If you have questions about archaeological issues, then please contact Wade Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov.

In all future correspondence regarding Road Rehabilitation, East 236th Street, Phase I, from Deming Road to Tollgate Road, in Jackson Township, Hamilton County (Des. No. 1400788), please refer to DHPA No. 17877.

Very truly yours,

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:JLC:WTT:wtt

emc: Patrick Carpenter, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Jeffrey Laswell, Indiana Department of Transportation
Shirley Clark, Indiana Department of Transportation
Robert Winebrinner, CHA Consulting, Inc.
Michelle Daleiden-Fischer, EFI Global
Sue Becher Gilliam, EFI Global
Louis Bubb, 106 Consulting L.L.C.
Wade Tharp, Indiana Department of Natural Resources
John Carr, Indiana Department of Natural Resources

October 5, 2015

Jennifer Hershberger
Carmel Clay Historical Society
675 Waterlilly Way
Carmel, IN 46032

Re: Des. No. 1400788
Road Rehabilitation Project
East 236th Street, Phase I
From Deming Road to 1000 ft. east of Tollgate Road
Hamilton County, Indiana

Dear Ms. Hershberger:

Enclosed please find a copy of the Indiana Department of Transportation's (INDOT) Area of Potential Effect/Eligibility Determinations and "No Historic Properties Affected" finding prepared in accordance with 36 CFR Part 800.4(d)(1) for your review and comment. In the development of this documentation, CHA Consulting, Inc. utilized EFI Global to review the project area for historic properties. Additionally, an archaeological records check and Phase Ia field reconnaissance was completed for the project area by Section 106 Consulting. The INDOT, on behalf of the Federal Highway Administration, concurred in the determinations and finding on September 1, 2015.

Initial notice of this finding was mailed out to consulting parties on September 14, 2015 and a public notice was published in the September 14, 2015 edition of the IndyStar. A copy of this public notice is included. The determinations and finding will be updated 30 days from the date of this letter to reflect the views of the consulting parties and the public, if required. If there is no disagreement after this 30-day consultation and public comment period, the Section 106 process will be concluded.

Your input is appreciated. Should you have questions, please do not hesitate to contact me at rwinebrinner@chacompanies.com or (317) 780-7146.

Best regards,

CHA Consulting, Inc.

Robert B. Winebrinner
Environmental Planner

cc: Mr. Larry Heil, FHWA-Indiana Division (w/ copy)
Mr. Patrick Carpenter, INDOT, Cultural Resources Office (w/ copy)
Environmental Manager, INDOT, Greenfield District (w/ copy)
Mr. Jim Neal, P.E., Hamilton County Highway Department (w/ copy)
Ms. Sue Gilliam, EFI Global (w/o copy)
Ms. Angela DeWees, CHA Consulting, Inc. (w/o copy)
File# 25895

Michael R. Pence, Governor
Cameron F. Clark, Director

DNR Indiana Department of Natural Resources

Division of Historic Preservation & Archaeology·402 W. Washington Street, W274·Indianapolis, IN 46204-2739
Phone 317-232-1646·Fax 317-232-0693·dhpa@dnr.IN.gov

HISTORIC PRESERVATION AND ARCHAEOLOGY

October 15, 2015

Patrick Carpenter
Manager, Cultural Resources Office
Environmental Services
Indiana Department of Transportation
100 North Senate Avenue, Room N642
Indianapolis, Indiana 46204

Federal Agency: Indiana Department of Transportation ("INDOT"), on behalf of Federal Highway Administration ("FHWA")

Re: Indiana Department of Transportation's finding of "no historic properties affected," on behalf of the Federal Highway Administration, for road improvements along 236th Street from Deming Road to 1000 feet east of Tollgate Road (Des. No. 1400788; DHPA No. 17877)

Dear Mr. Carpenter:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the "Programmatic Agreement . . . Regarding the Implementation of the Federal Aid Highway Program In the State of Indiana," the staff of the Indiana State Historic Preservation Officer ("Indiana SHPO") has reviewed the documents enclosed with CHA Consulting, Inc.'s cover letter, dated September 14, 2015, and received on September 15, 2015, for the aforementioned project in Jackson Township, Hamilton County, Indiana.

As previously indicated, based upon the submitted information and the documentation available to the staff of the Indiana SHPO, there is insufficient information to determine whether or not archaeological sites 12-H-1751 and 12-H-1757 (both of which were identified during the archaeological investigations) are eligible for inclusion in the National Register of Historic Places ("NHRP"). However, the portions of sites 12-H-1751 and 12-H-1757 that lie within the proposed project area do not appear to contain significant archaeological deposits, and no further archaeological investigations are necessary in those portions of the sites. Additionally, those areas of the sites that lie outside the proposed project area should be clearly marked so that they are avoided by all ground-disturbing project activities. Should the proposed project area be expanded to include other areas within sites 12-H-1751 and 12-H-1757, then further archaeological investigations, in consultation with our office, will be required. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation" (48 F.R. 44716).

Additionally, as previously indicated, we concur with the opinion of the archaeologist, as expressed in the Phase Ia archaeological reconnaissance survey report (Bubb and Culver, 06/29/2015), that archaeological sites 12-H-1749, 12-H-1750, 12-H-1752, 12-H-1753, 12-H-1754, 12-H-1755, and 12-H1756 (all of which were identified during the archaeological investigations) do not appear to be eligible for inclusion in the NRHP. We concur that no further archaeological investigations appear necessary in the present proposed project area.

As a reminder, please note that archaeological site survey forms for sites 12-H-1749—12-H-1757 should be entered into the DHPA SHAARD database.

Furthermore, as previously indicated, for the purposes of the Section 106 review of this particular Federal undertaking, we agree that none of the above-ground properties identified in the HPR appears to be eligible for inclusion in the NHRP.

Therefore, we concur with INDOT's September 1, 2015, finding, on behalf of FHWA, of "No Historic Properties Affected" for this federal undertaking.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 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, including but not limited to 36 C.F.R. 800.

If you have questions about archaeological issues, then please contact Wade Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 233-1949 or jcarr@dnr.IN.gov.

In all future correspondence regarding Road Rehabilitation, East 236th Street, Phase I, from Deming Road to Tollgate Road, in Jackson Township, Hamilton County (Des. No. 1400788), please refer to DHPA No. 17877.

Very truly yours,

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:WTT:wtt

emc: Patrick Carpenter, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Shaun Miller, Indiana Department of Transportation
Jeffrey Laswell, Indiana Department of Transportation
Shirley Clark, Indiana Department of Transportation
Robert Winebrinner, CHA Consulting, Inc.
Michelle Daleiden-Fischer, EFI Global
Sue Becher Gilliam, EFI Global
Louis Bubb, 106 Consulting L.L.C.
Wade Tharp, Indiana Department of Natural Resources
John Carr, Indiana Department of Natural Resources

Appendix E

8091 Center Run Drive
Suite 191
Indianapolis, IN 46250
Tel: 317-585-6430
Fax: 317-585-6436
www.efiglobal.com

Historic Properties Report

Long Form

Road improvements along 236th Street from Deming Road to 1000 feet east of Tollgate Road near Cicero in Jackson Township, Hamilton County, Indiana

Designation #1400788, EFI Project #98510-05788

Prepared for:

CHA Consulting, Inc.
300 South Meridian Street
Indianapolis, Indiana 46225

Prepared by:

Michelle Marie Daleiden-Fischer
Historic Preservation Consultant
&
Sue Becher Gilliam
Historic Preservation Consultant
Principal Investigator

Date Prepared:

June 3, 2015

Abstract

In accordance with 36 C.F.R. § 800.2(a)(3), the following information, analyses, and recommendations have been prepared for the proposed road improvements along 236th Street from Deming Road to 1000 feet east of Tollgate Road near Cicero in Jackson Township, Hamilton County, Indiana. Specifically, the project is located in sections 1, 2, 3, 4, 32, 33, 34, 35 and 36, townships 19 and 20 North, and Range 4 East as found on the Arcadia, Indiana USGS quadrangle map. A records check of available resources was completed and followed by on-site field checks of the project area on March 16 and June 2, 2015. A long form of the Historic Properties Report (HPR) was prepared for this project, because the project area includes four resources receiving a *Contributing* rating as identified by the Indiana Historic Sites and Structures Inventory (IHSSI). As a result of the records and field checks for the preparation of this report, one additional resource was found within the APE that warranted a *Contributing* rating from the IHSSI. However, no properties meeting the criteria to be considered eligible for inclusion in the National Register of Historic Places (NRHP) are within the APE as a result of this investigation.

**Note: All survey numbers cited throughout this document are from the *Hamilton County Indiana Historic Sites and Structures Inventory (HCIR/IHSSI)* (1992) and the *Indiana State Historic Architectural and Archaeological Research Database* (*SHAARD*), unless otherwise noted.

Introduction

In response to a request from CHA Consulting, Inc., a historic properties records review and field analysis was completed for the proposed road improvements to 236th Street from Deming Road to 1000 feet east of Tollgate Road near Cicero in Jackson Township, Hamilton County, Indiana (Figure 1). The proposed project site is located in sections 1, 2, 3, 4, 32, 33, 34, 35 and 36, townships 19 and 20 North, and Range 4 East in Jackson Township, Hamilton County, as shown on a portion of the USGS 7.5 minute Arcadia, Indiana Quadrangle (Figure 2) and the aerial map in Figure 3.

- The two photographs above illustrate one fieldstone post along the north side of 236th Street and a set of four concrete posts along the front property of a farm at 6330 East 236th Street. The single fieldstone post with concrete cap is the only one along a farm field with no evidence of a former homestead. Evaluated as an individual resource, the fieldstone post would not warrant a rating of *Contributing* or higher in the IHSSI system. The concrete posts at 6330 East 236th Street are part of a farm that was not surveyed in the IHSSI. Due to significant alterations to the house, the farm, including the posts, does not warrant a rating of *Contributing* or higher in the IHSSI system.

- There are no other buildings or structures that may be 50 years old or older within the APE that warrant a rating of *Contributing* or higher in the IHSSI system. Thirteen resources were found within the APE that would not warrant a rating of *Contributing* or higher many due to significant architectural integrity issues. The types of resources range from twelve houses (4114 East 236th Street, 4785 East 236th Street, 4820 East 236th Street, 5345 East 236th Street, 5595 East 236th Street, 6101 East 236th Street, 6330 East 236th Street, 6510 East 236th Street, 6835 East 236th Street, 7680 East 236th Street, 7745 East 236th Street and 23550 Cammack Road), some of which are part of a farm complex, one in which includes the four concrete posts, and the fieldstone post on the north side of 236th Street at Cammack Road. Examples of properties that are over 50 years of age and are considered *Non-contributing* can be found in photographs 5, 14, 16-18, 20, 22, 24, 28, 31, 35, 37, 48 and 49 in Appendix I.

- None of those buildings or structures less than 50 years old, which includes ten residences (23575 Deming Road, 23565 Deming Road, 4180 East 236th Street, 4215 East 236th Street, 4301 East 236th Street, 4302 East 236th Street, 4305 236th Street, 4700 236th Street, 5001 East 236th Street, 23666 Devaney Road), three businesses (7520 East 236th Street, 7690 East 236th Street and 7770 East 236th Street), a former business at 6911 East 236th Street and houses in two subdivision along the east side of Mill Creek Road, within the APE area is believed to be of exceptional importance to be considered eligible for the NRHP. Examples are illustrated in photographs 1, 2, 7, 8, 9, 26, 38, 44 and 50 in Appendix I.

Please refer to Appendix I for photographs and figures A-2 through A-4 for photograph locations.

Summary

It is our opinion that there are no buildings, structures, or other resources in the APE that are of exceptional importance (see NRHP criteria) to be considered eligible for the NRHP. Therefore, no properties within the APE embody the distinctive characteristics of a type, period, or method of construction or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction. Also, to our knowledge, no properties in the APE are associated with events that have made a significant contribution to the broad patterns of our history, or with the lives of persons significant in our past. Furthermore, we believe based on the research completed that the resources would not have yielded, and are unlikely to yield, information important in prehistory or history. It will be necessary for FHWA in conjunction with the INSHPO and INDOT to consider the information gathered in this report and make the necessary findings.

Four properties had been identified by the *HCIR/IHSSI.* Three of those properties had the NRHP criteria for eligibility applied to their analysis. The house of one of those surveyed properties has been demolished and the criteria were not applied. One additional property had the NRHP criteria for eligibility applied to its analysis as part of this investigation. The following resources are ineligible due to alterations resulting in a lack of integrity: 4775 East 236th Street and 6425 East 236th Street. While other resources in the APE have retained a good level of integrity, they are ineligible due to a lack of architectural distinction. Those properties are: 7411 East 236th Street and 5970 East 236th Street.

Our analysis was developed through a visual inspection of the project area, a review of existing documentation including the NRHP, IRHSS, the *Hamilton County Interim Report*, the *SHAARD* and *SHAARDGIS*, copy of the Arcadia, Indiana, USGS quadrangle map, and information provided by CHA Consulting, Inc., in addition to the sources cited in the bibliography of this document. Sue Becher Gilliam completed the records check and the site visit for this undertaking. Ms. Gilliam and Michelle Daleiden-Fischer provided the analyses and recommendations that were used to prepare this report. Both Ms. Gilliam and Ms. Daleiden-Fischer meet the Secretary of the Interior's Professional Qualifications Standards and Ms. Gilliam is listed as a qualified professional with the INSHPO.

If you have any questions concerning the project information provided, please contact Robert Winebrinner at RWinebrinner@chacompanies.com.

References Cited

Sources

Historic Landmarks Foundation of Indiana. *Hamilton County Interim Report: Indiana Historic Sites and Structures Inventory.* Rowland Printing, March 1992.

National Cooperative Highway Research Program: Report 723, *A Model for Identifying and Evaluating the Historic Significance for Post-World War II Housing,* Transportation Research Board, 2012.

Taylor, Robert M., Jr. *Indiana:-A New Historical Guide*. Indianapolis: Indiana Historical Society, 1989, 1992.

Internet Sources

Bethel Lutheran website, Noblesville, site accessed March 31, 2015, http://bethellutheranchurch.com/AboutUs/BethelHistory.aspx.

Carmel Clay Historical Society website, "Concerning the 400 Square Miles of Earth known as Hamilton County Indiana", site accessed March 30, 2015, http://www.carmelclayhistory.org/local-history/hamilton-county-history-timeline.

Cicero Indiana website, site accessed March 30, 2015, www.ciceroin.org.

City-Data website, site accessed March 25, 2015; www.city-data.com.

Phase Ia Archaeological Field Reconnaissance for the Proposed Rehabilitation of East 236th Street, Hamilton County, Indiana

(Des. No.1400788)

Prepared by:

Louis Bubb, MA & Emily Culver, MA

Submitted By:

Louis Bubb, MA
Principal Investigator
106 Consulting LLC
3419 Cardiff Avenue, Suite 2
Cincinnati, Ohio 45209-1317
513.620.6770
LouisBubb@Gmail.com

Submitted To:

Mr. Robert Winebrinner
CHA Companies
300 South Meridian Street
Indianapolis, IN 46225
317.786.0461

Lead Agency:

Indiana Department of Transportation

June 29, 2015

Louis Bubb, MA, Principal Investigator
Project #106C – 0138

Abstract

On April 3-4th, 6-7th and 27th, 2015, 106 Consulting LLC (106C) completed a Phase Ia field reconnaissance for the proposed rehabilitation of East 236th Street (Des. No.1400788) in Jackson Township, Hamilton County, Indiana. This Phase Ia field reconnaissance was conducted at the behest of Mr. Robert Winebrinner of CHA Companies, Inc. in order to satisfy the requirements of Section 106 of National Historic Preservation Act.

CHA has been contracted to widen and realign the approximately 3.6 mile segment of East 236th Street from two hundred and fifty (250) feet west of Deming Road and one thousand (1000) feet east of Tollgate Road. Eighty (80) feet on either side of the present center line of East 236th Street were investigated. Additionally, eighty (80) feet from the center lines Carson Road, Camack Road, De Vaney Road and Mill Creek Road were investigated for a distance of one hundred and fifty (150) feet in each direction from their intersections with East 236th Street. In total, this project would require approximately 70.9 ac (28.7 ha) of new temporary and permanent right of way.

The goals of this investigation were (1) to document any cultural resources within the current survey area and, if located, (2) to offer preliminary interpretations regarding their eligibility for inclusion to National Registers of Historic Places. A records review conducted at the Indiana Division of Historic Preservation and Archaeology (DHPA) indicated that the proposed project area had not been subject to prior survey by a professional archaeologist but that it did have potential to contain unrecorded cultural resources. A Phase Ia archaeological field reconnaissance was warranted.

Nine (9) previously undocumented archaeological sites (12H1749-12H1757) were recorded during the field reconnaissance. Of those, seven (7) were prehistoric (12H1749-12H1750, 12H1752-12H1756) and two (2) were historic (12H1751, 12H1757).

The seven (7) prehistoric sites each contained two (2) or fewer artifacts. None contained diagnostic artifacts. Neither FCR nor cultural features were noted. These sites lack potential to provide new and significant cultural information through additional archaeological research (Criterion D) and are not eligible for inclusion to the National Register of Historic Places.

The two (2) historic sites were both artifact scatters marking the former locations of houses or farmsteads. Collections from the first – 12H1751 – were modest (n= 12) and no evidence of cultural features or former structures was noted. Though the low-density scatter which presently constitutes 12H1751 appears well-defined, it is nonetheless quite small; as such, it seems possible that additional elements associated with this site could lie outside of the proposed project area. 106 Consulting recommends clearance for that portion of 12H1751 which lies inside the proposed project footprint. The National Register eligibility of 12H1751 remains unclear and, as such, a Phase I field reconnaissance is recommended should the vicinity of 12H1751 become threatened by future development.

Collections from the second historic site – 12H1757 – were modest (n= 28) as well, since they were only taken from that small sliver which is located within the proposed project area. No evidence of cultural features was encountered within the proposed project area. Historical and modern imagery place all of the structures once located at 12H1757 well to the south of the proposed project area; the mixed assemblage encountered inside the project footprint is likely the byproduct of clearing this site for agriculture rather than any activities of the occupants of 12H1757. The portion of this site within the proposed project area lacks potential to provide new and significant cultural information through additional archaeological research and, as such, project clearance is recommended. A full Phase I field reconnaissance is recommended for the remainder of 12H1757, should it become threatened by future development.

No archaeological sites eligible for inclusion to the National Register of Historic Places are present within the proposed project area. Project clearance is recommended. In the unlikely event that unrecorded archaeological deposits are encountered during the course of the proposed project, the DHPA must be notified immediately and, if human skeletal remains are encountered, the local coroner and local law enforcement must also be contacted.

Public Notice

The Hamilton County Board of Commissioners proposes to proceed with a road rehabilitation project, funded, in part by, the Federal Highway Administration (FHWA), along East 236th Street from Deming Road to 1000 ft. east of Tollgate road near Cicero in Jackson Township, Hamilton County, Indiana (Des. No. 1400788). The proposed project would entail widening the existing lanes, adding shoulders, vertical sight corrections, ditch grading in select locations, grading along the south side of the road for a future trail, and incidental work at both ends of the project and at intersecting roadways. This project is the first of three phases planned to correct substandard road conditions along this corridor.

Approximately 40 ft. to 80 ft. of right-of-way is anticipated along either side of the centerline of East 236th Street. Additionally, right-of-way up to 130 ft. is anticipated at joining roadways, where turnouts would be constructed. Total permanent right-of-way is anticipated to be approximately 32 acres. Minor temporary right-of-way would be required for drive construction and is anticipated to be approximately 0.5 acre. There are no residential relocations anticipated. The anticipated cost of construction is $10,750,500. The anticipated start of construction is spring of 2019.

The Indiana Department of Transportation (INDOT), acting on the FHWA's behalf, has found no properties within the Area of Potential Effects (APE) that are listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Additionally, as a result of archaeological investigations, no archaeological sites that could qualify for inclusion in the NRHP were located within the project area. Therefore, the Indiana Department of Transportation (INDOT), acting on behalf of the FHWA, has determined a finding of "No Historic Properties Affected" is appropriate for the project. This finding was issued on September 1, 2015.

In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.6(a) (4), the documentation specified in 36 CFR 800.11(d) which serves as the basis for the "No Historic Properties Affected" finding is available for public inspection at the address listed below and the Hamilton County Highway Department Office, 1700 South 10th Street Noblesville, IN 46060. The views of the public on this finding are being sought.

Comments should be submitted to the following address no later than October 14, 2015.

Mr. Robert B. Winebrinner
Environmental Planner
CHA Consulting, Inc.
300 S. Meridian St.
Indianapolis, IN 46225

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STATE OF INDIANA } SS:
County of Marion, }

Personally appeared before me, a notary public in and for said county and state, the undersigned Louie Flynn who, being duly sworn, says that he is a clerk of the Indianapolis Star newspaper of general circulation printed and published in the English Language in the City of Indianapolis in state and county afore-said, and that the printed matter attached hereto is a true copy, which was duly published in said paper for 1 time(s), the date(s) of publication as follows: 9/14/15

INI-1750 0000719209

Louie Flynn 10-16-15

Subscribed and sworn to before me, this
16th day of October, 2015

My commission expires: _____

Public Notice

The Hamilton County Board of Commissioners proposes to proceed with a road rehabilitation project, funded, in part by, the Federal Highway Administration (FHWA), along East 236th Street from Deming Road to 1000 ft. east of Tollgate road near Cicero in Jackson Township, Hamilton County, Indiana (Des. No. 1400788). The proposed project would entail widening the existing lanes, adding shoulders, vertical sight corrections, ditch grading in select locations, grading along the south side of the road for a future trail, and incidental work at both ends of the project and at intersecting roadways. This project is the first of three phases planned to correct substandard road conditions along this corridor.

Approximately 40 ft. to 80 ft. of right-of-way is anticipated along either side of the centerline of East 236th Street. Additionally, right-of-way up to 130 ft. is anticipated at joining roadways, where turnouts would be constructed. Total permanent right-of-way is anticipated to be approximately 32 acres. Minor temporary right-of-way would be required for drive construction and is anticipated to be approximately 0.5 acre. There are no residential relocations anticipated. The anticipated cost of construction is $10,750,500. The anticipated start of construction is spring of 2019.

The Indiana Department of Transportation (INDOT), acting on the FHWA's behalf, has found no properties within the Area of Potential Effects (APE) that are listed on or eligible for inclusion in the National Register of Historic Places (NRHP). Additionally, as a result of archaeological investigations, no archaeological sites that could qualify for inclusion in the NRHP were located within the project area. Therefore, the Indiana Department of Transportation (INDOT), acting on behalf of the FHWA, has determined a finding of "No Historic Properties Affected" is appropriate for the project. This finding was issued on September 1, 2015.

In accordance with the National Historic Preservation Act, the views of the public are being sought regarding the effect of the proposed project on the historic elements as per 36 CFR 800.2(d), 800.3(e) and 800.6(a)(4). Pursuant to 36 CFR 800.6(a) (4), the documentation specified in 36 CFR 800.11(d) which serves as the basis for the "No Historic Properties Affected" finding is available for public inspection at the address listed below and the Hamilton County Highway Department Office, 1700 South 10th Street Noblesville, IN 46060. The views of the public on this finding are being sought.

Comments should be submitted to the following address no later than October 14, 2015.

Mr. Robert B. Winebrinner
Environmental Planner
CHA Consulting, Inc.
300 S. Meridian St.
Indianapolis, IN 46225

(S - 9/14/15 - 0000719209)

Appendix E

Red Flag and Hazardous Materials

Item	Appendix Page
Red Flag Investigation	E-1 to E-18
Hazardous Materials Site Assessment Form	E-19
IDNR – Oil & Gas well maps	E-20 to E-21

Red Flag Investigation

Date: April 29, 2015

To: File

From: Robert Winebrinner
CHA Consulting, Inc.
300 S. Meridian Street
Indianapolis, IN 46225
rwinebrinner@chacompanies.com

Re: RED FLAG INVESTIGATION
Road Rehabilitation, 236th Street, Phase I -Deming Road to Tollgate Road, DES #1400788, Hamilton County, Indiana

NARRATIVE

The Hamilton County Commissioners are proposing to proceed with a road rehabilitation project involving East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The complete project on East 236th Street, from US 31 to the Town of Cicero, has been divided into three phases due to funding restrictions. The first phase, between Deming Road and Tollgate Road, is the focus of this investigation. Specifically, the project is located in Sections 2, 3, 4, and 5, Township 19 North, Range 4 East and Sections 32, 33, 34, and 35, Township 20 North, Range 4 East of Jackson Township in Hamilton County as shown on the attached 7.5 minute Arcadia USGS quadrangle map.

The proposed project is located in the northcentral portion of Hamilton County, Indiana, and extends along East 236th Street from approximately 250 ft. west of Deming Rd. to approximately 1000 ft. east of Tollgate Rd., west of Cicero. In addition, the area for this phase would extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., De Vaney Rd., Mill Creek Rd., and Tollgate Rd. The total project length would be approximately 18,250 ft. (3.46 miles).

Land use in the project area predominately consists of agricultural row crop fields, with a number of residences and associated woodlots. There is an increased concentration of residences near Deming Road and Mill Creek Road.

Approximately 45 acres of right-of-way acquisition is anticipated, ranging from 25 ft. to 80 ft. on either side of the centerline. The right-of-way acquisition would be asymmetrical, with the majority occurring on the southern half of the project to provide for the proposed trail. Additionally, minor temporary right-of-way would be required for drive construction and yard grading. The exact amount of right-of-way required for the project will be developed as the design phase advances. At this time, there are two residential relocations anticipated.

This proposed roadway rehabilitation project would correct the facility deficiencies by addressing narrow lane widths, lack of shoulders, vertical sight deficiencies, poor side slopes, and inadequate drainage. The roadway would be widened to one 12 ft. lane and 6 ft. paved shoulder in each direction along East 236th Street. Additionally,

vertical sight corrections would be performed through portions of the project. A 10 ft. shared use path would be constructed on the south side of the East 236th Street corridor. Drainage ditches and 3:1 or 4:1 side slopes would also be constructed. The existing road surface would receive an HMA overlay to provide an improved driving surface.

Maintenance of traffic would involve a closure to thru traffic on East 236th Street, while access to residences and local traffic would be maintained. This closure might occur in non-concurrent segments. Traffic would be redirected to local roads north/south and east/west of the project segment currently under construction. The longest detour anticipated would require non-local traffic to travel 10 miles along US 31, 256th Street, and SR 19.

The purpose of this investigation is to broadly identify potential issues associated with the recommended project that will need to be evaluated in depth (i.e., during the NEPA review process) prior to implementation. To accomplish this task, the investigation was completed utilizing the IndianaMap and other available resources. The IndianaMap was developed by the Indiana Geological Survey in conjunction with INDOT, the Indiana Geographic Information Council, and numerous other agencies. The resources identified on the map may not be shown in their exact location, but provide a general idea of resources that may require further investigation.

SUMMARY

Infrastructure
Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:

Religious Facilities	**N/A**	Recreational Facilities	**1**
Airports	**N/A**	Pipelines	**1**
Cemeteries	**2**	Railroads	**N/A**
Hospitals	**N/A**	Trails	**1**
Schools	**1**	Managed Lands	**N/A**

Explanation:

Cemeteries:
Two (2) cemeteries were identified within the one half mile investigation radius. The Mount Pleasant Cemetery is located approximately 0.43 mile southwest of the westernmost terminus of the proposed project. The Cicero Cemetery is located approximately 0.28 mile east of the easternmost terminus of the proposed project. Impacts to these cemeteries are not anticipated, due to a lack of proximity.

Schools:
One (1) school was identified within the one half mile investigation radius. The point represents Indiana Academy, located approximately 0.14 mile east southeast of the eastern terminus of the proposed project. Impacts to the school are anticipated, due to temporary road closure along 236th Street. To minimize the impact of the proposed project on the school, coordination will be undertaken.

Recreational Facilities:
One (1) recreational facility was identified within the one half mile investigation radius. The Red Bridge Park, owned by Cicero Parks Department, is located approximately 0.4 mile east southeast of the eastern terminus of the proposed project area. Impacts to the park are not anticipated, due to a lack of proximity.

Pipelines:
One (1) pipeline was identified within the one half mile investigation radius. The pipeline, owned by Buckeye Pipe Line. Co., transects 236th Street, approximately 0.68 miles east of Deming Road and is a single 8 inch interstate pipeline. Impacts to the pipeline are not anticipated with this project, due to the limited excavation required as part of the proposed project. CHA Consulting, Inc. will coordinate with the utility during the design phase of the proposed project.

Trails:
One (1) trail was identified within the one half mile investigation radius. The trail, 236th Street Corridor, is being prepared as part of the proposed project for the entire length. Impacts are not anticipated, because the trail is mapped as proposed and will be installed under the proposed project.

Water Resources Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
NWI - Points	**3**	NWI - Wetlands	**31**
Karst Springs	**N/A**	IDEM 303d Listed Lakes	**N/A**
Canal Structures – Historic	**N/A**	Lakes	**2**
NWI - Lines	**N/A**	Floodplain - DFIRM	**2**
IDEM 303d Listed Rivers and Streams (Impaired)	**N/A**	Cave Entrance Density	**N/A**
Rivers and Streams	**12**	Sinkhole Areas	**N/A**
Canal Routes - Historic	**N/A**	Sinking-Stream Basins	**N/A**

Explanation:

NWI – Points:
Three (3) NWI points were identified within the one half mile investigation radius. All three points were identified near the western end, but outside of the project area. The closest point was identified 110 feet south of the project area, approximately 0.70 mile east of the western terminus of the project area. To confirm this information, environmental staff from CHA Consulting, Inc. will perform a Waters of the U.S. Investigation. Results from this investigation will be used to determine whether this project will impact wetlands. If impacts are expected, this project will be permitted in accordance with Section 401 and 404 of the Clean Water Act (CWA).

River and Streams:
Twelve (12) rivers and streams were identified within the one half mile investigation radius. Two lines were identified as Hinkle Creek, which flows from the west to the southeast and located approximately 0.32 mile southwest of the western terminus of the project. An unnamed tributary (UNT) of Hinkle Creek flows from the northeast to the southwest and crosses 236th Street approximately 0.16 mile west of the western terminus of the project area. One line was identified as Cicero Creek, but is actually an UNT to Little Cicero Creek, where it is currently impounded to form Morse Reservoir. This line and adjoining line, representing the UNT to Little Cicero Creek are located approximately 0.18 mile northeast of the project area. Three lines were identified as the west fork of Cicero Creek, but are currently impounded and form a flooded channel of Morse Reservoir. This channel is located approximately 0.39 mile northeast of the project area. Three lines were identified as Bear Slide Creek, which crosses 236th Street from north to south approximately 0.21 mile east of the 236th Street and Millcreek Road

intersection. One line was identified as a UNT to Bear Slide Creek and flows parallel to 236th Street to the south. The UNT meets Bear Slide Creek 0.15 mile south of 236th Street. Bear Slide Creek is the only waterway identified within the project area. As previously mentioned, environmental staff from CHA Consulting, Inc. will perform a Waters of the U.S. Investigation. Results from this investigation will be used to determine whether this project will impact waterways. If impacts are expected, this project will be permitted in accordance with Section 401 and 404 of the Clean Water Act (CWA).

NWI – Wetlands:
Thirty one (31) National Wetland Inventory (NWI) wetlands were identified within the one half mile investigation radius. The wetlands were identified as palustrine emergent, palustrine forested, palustrine unconsolidated bottom, and lacustrine limnetic unconsolidated bottom systems (PEMA, PEMC, PEMCD, PEMF, PFO1A, PFO1AH, PFO1C, PUBGX, PUBHX, PEM/FO1C and L1UBHH). Only one (1) NWI wetland was identified within the project area, located approximately 185 feet east of the 236th Street/ Deming Road intersection. Otherwise, the closest is located approximately 475 feet south of the project, approximately 900 feet east of Carmack Road. As previously mentioned, environmental staff from CHA Consulting, Inc. will perform a Waters of the U.S. Investigation. Results from this investigation will be used to determine whether this project will impact wetlands. If impacts are expected, this project will be permitted in accordance with Section 401 and 404 of the Clean Water Act (CWA).

Lakes:
Two (2) lakes/ponds were identified within the one half mile investigation radius. Morse Reservoir is located approximately 0.27 mile northeast of the eastern terminus of the project area. An unnamed pond is located 0.38 mile northwest of 236th Street and De Vaney Road. Impacts to these waterbodies are not anticipated, due to a lack of proximity.

Floodplain-DFIRM:
Two (2) floodplains were identified within the one half mile investigation radius. The mapped floodplain of Morse Reservoir (Zone AE) was identified approximately 0.27 mile northeast of the eastern terminus of the project area. The mapped floodplain of Hinkle Creek (Zone A) was identified approximately 0.22 mile southwest of the western terminus of the project area. Impacts to these floodplains are not anticipated, due to a lack of proximity.

Mining/Mineral Exploration Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
Petroleum Wells	**12**	Petroleum Fields	**1**
Mines – Surface	**N/A**	Mines – Underground	**N/A**

Explanation:

Petroleum Wells:
Twelve (12) petroleum wells were identified within the one half mile investigation radius. According to the Petroleum Database Management System (PDMS) that is maintained by the Indiana Geological Society, one well is operated by Miller & Lentz and is located approximately 0.39 mile north of the project area, west of Millcreek Road. According to the PDMS, the remaining wells are presumed plugged. Two of these wells are located at the intersection of 236th Street and Millcreek Road (IGS # 138831 and 139199), within the project area. One of these wells is located within the project area at the intersection of 236th Street and De Vaney Road (IGS # 139200).

Another of these wells is located just outside of the project area, north of 236th Street and 0.20 mile east of Carson Road (IGS # 139196). The remaining presumed plugged wells are located outside of the project area, the closest being 0.20 mile southwest of the westernmost terminus of the proposed project. Coordination will be undertaken with the IDNR, Division of Oil and Gas, regarding the three wells in the project area and the fourth adjacent to the project area.

Petroleum Fields:
One (1) petroleum field was identified within the one half mile investigation radius. According to the Petroleum Database Management System (PDMS) that is maintained by the Indiana Geological Society, the inactive Trenton Oil Field was identified. Due to a history of wells abandoned improperly in this oil field, oil and drilling fluids could potentially surface and contaminate nearby land and water resources. However, due to the limited scope of this project, impacts are not anticipated to a depth likely to impact the oil field.

Hazmat Concerns Indicate the number of items of concern found within ½ mile, including an explanation why each item within the ½ mile radius will/will not impact the project. If there are no items, please indicate N/A:			
Brownfield Sites	**N/A**	Restricted Waste Sites	**N/A**
Corrective Action Sites (RCRA)	**N/A**	Septage Waste Sites	**N/A**
Confined Feeding Operations	**N/A**	Solid Waste Landfills	**N/A**
Construction Demolition Waste	**N/A**	State Cleanup Sites	**N/A**
Industrial Waste Sites (RCRA Generators)	**N/A**	Tire Waste Sites	**N/A**
Infectious/Medical Waste Sites	**N/A**	Waste Transfer Stations	**N/A**
Lagoon/Surface Impoundments	**N/A**	RCRA Waste Treatment, Storage, and Disposal Sites (TSDs)	**N/A**
Leaking Underground Storage Tanks (LUSTs)	**N/A**	Underground Storage Tanks	**N/A**
Manufactured Gas Plant Sites	**N/A**	Voluntary Remediation Program	**N/A**
NPDES Facilities	**N/A**	Superfund	**N/A**
NPDES Pipe Locations	**N/A**	Institutional Control Sites	**N/A**
Open Dump Sites	**N/A**		

Explanation:

Underground Storage Tanks:
One (1) underground storage tank was identified within the one half mile investigation radius. According to the Virtual File Cabinet (VFC) maintained by the Indiana Department of Environmental Management, the Red Bridge Park is the site of an underground tank. Impacts to the tank are not anticipated, due a lack of proximity.

Ecological Information

The Indiana Natural Heritage Data Center website was accessed for Hamilton County. The information presented on the website, which includes information on endangered, threatened, or rare (ETR) species and high quality natural communities, can be found attached to this document (Appendix B). ETR species have been highlighted.

It should be noted that the county-wide list does not accurately reflect potential impacts for our project site. Therefore, further coordination with the IDNR and the US Fish & Wildlife Service (USFWS) will be undertaken to verify potential impacts in the area of this project.

Cultural Resources

According to the State Historic Architectural and Archaeological Research Database (SHAARD), the following are present within a half mile radius of the proposed project; seven (7) contributing county survey sites (057-020-05060, 057-020-05062, 057-020-05064, 057-020-05067, 057-020-05059, 057-020-05068, and 057-020-05066), and two (2) cemeteries (Taylor: CR-29-11 and Cicero: CR-29-28). The William Malott Farm, an outstanding resource, (057-020-05065) is also located near the project one half mile radius, north on Carson Road 0.51 mile.

The project area will be surveyed by individuals satisfying the *Secretary of Interior Professional Qualification Standards* to determine an area of potential effect (APE), make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the Indiana Department of Natural Resources (IDNR) Department of Historic Preservation & Archaeology (DHPA) and the identified consulting parties will be ongoing for the duration of the Section 106 process.

RECOMMENDATIONS

INFRASTRUCTURE: Impacts to the school are anticipated, due to temporary road closure along 236th Street. To minimize the impact of the proposed project on the school, coordination will be undertaken.

WATER RESOURCES: Environmental staff from CHA Consulting, Inc. will perform a Waters of the U.S. Investigation. Results from this investigation will be used to determine whether this project will impact wetlands or waterways. If impacts are expected, this project will be permitted in accordance with Section 401 and 404 of the Clean Water Act (CWA).

MINING/MINERAL EXPLORATION: Petroleum wells were identified within and adjacent to the proposed project. Coordination will be undertaken with the IDNR, Division of Oil and Gas.

HAZMAT CONCERNS: N/A

ECOLOGICAL INFORMATION: Coordination with the IDNR and the USFWS will be undertaken to verify potential impacts in the area of this project.

CULTURAL RESOURCES: The project area will be surveyed by individuals satisfying the *Secretary of Interior Professional Qualification Standards* to determine an APE, make recommendations on eligibility determinations and assess effects on potential historic resources. Additionally, the project area will be subjected to an archaeological reconnaissance by a qualified archaeologist. Coordination with the IDNR, DHPA and the identified consulting parties will be ongoing for the duration of the Section 106 process.

Prepared by:

Robert Winebrinner
Environmental Planner
CHA Consulting, Inc.

Graphics:

GENERAL SITE MAP SHOWING PROJECT AREA: YES

INFRASTRUCTURE: YES

WATER RESOURCES: YES

MINING/MINERAL EXPLORATION: YES

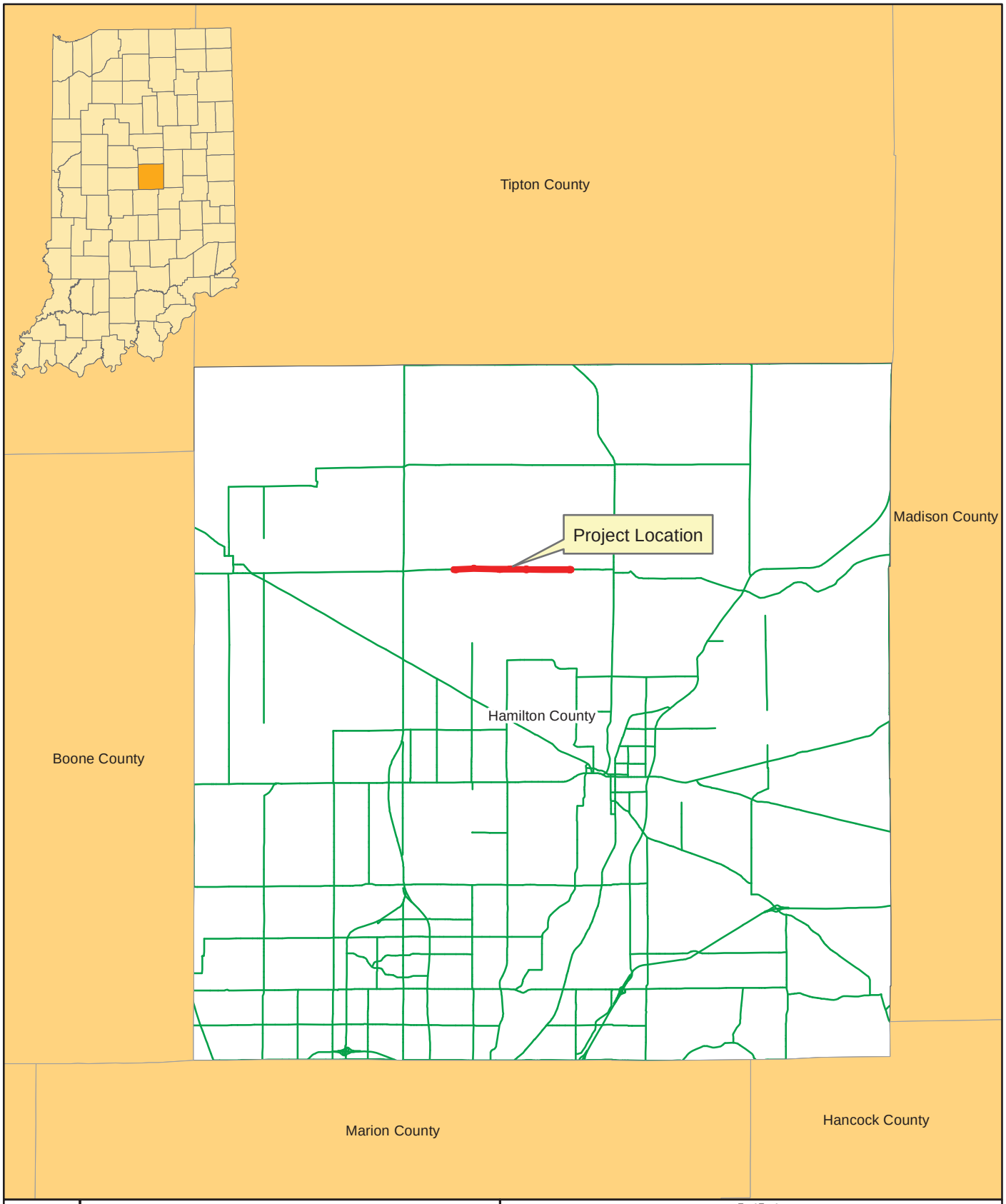
HAZMAT CONCERNS: YES

Appendix A

East 236th Street, Phase I, Hamilton County

From Deming Road to Tollgate Road

Des. No. 1400788



N

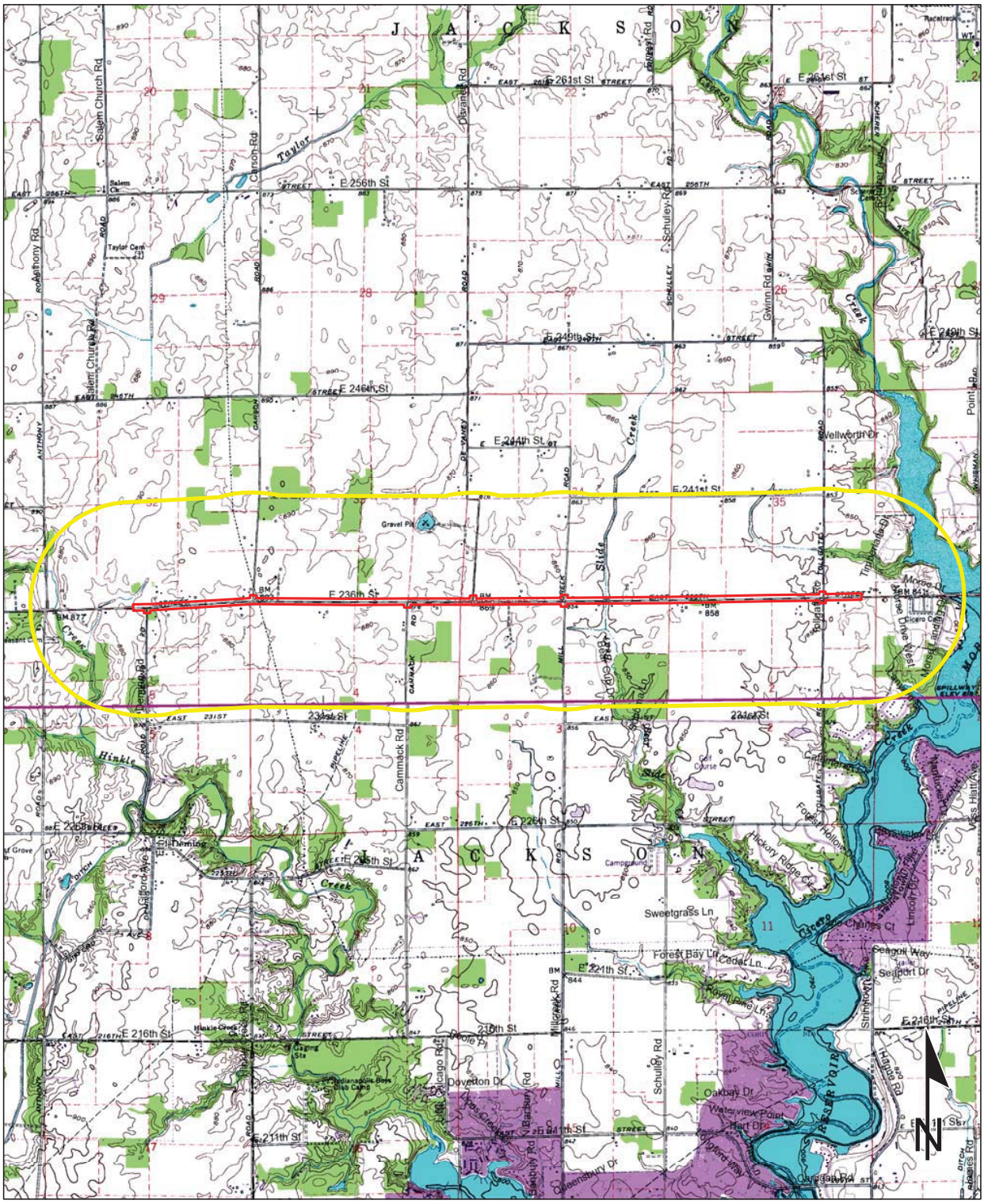
CHA
design/construction solutions

Exhibit 1
State Location Map
236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 20,000'	**DES No. 1400788**

County boundaries and transportation network courtesy of the Indiana Spatial Data Portal

Red Flag Investigation - Topo/Quad Map
236th Street Rehabilitation
Des. No. 1400788
Hamilton County, Indiana



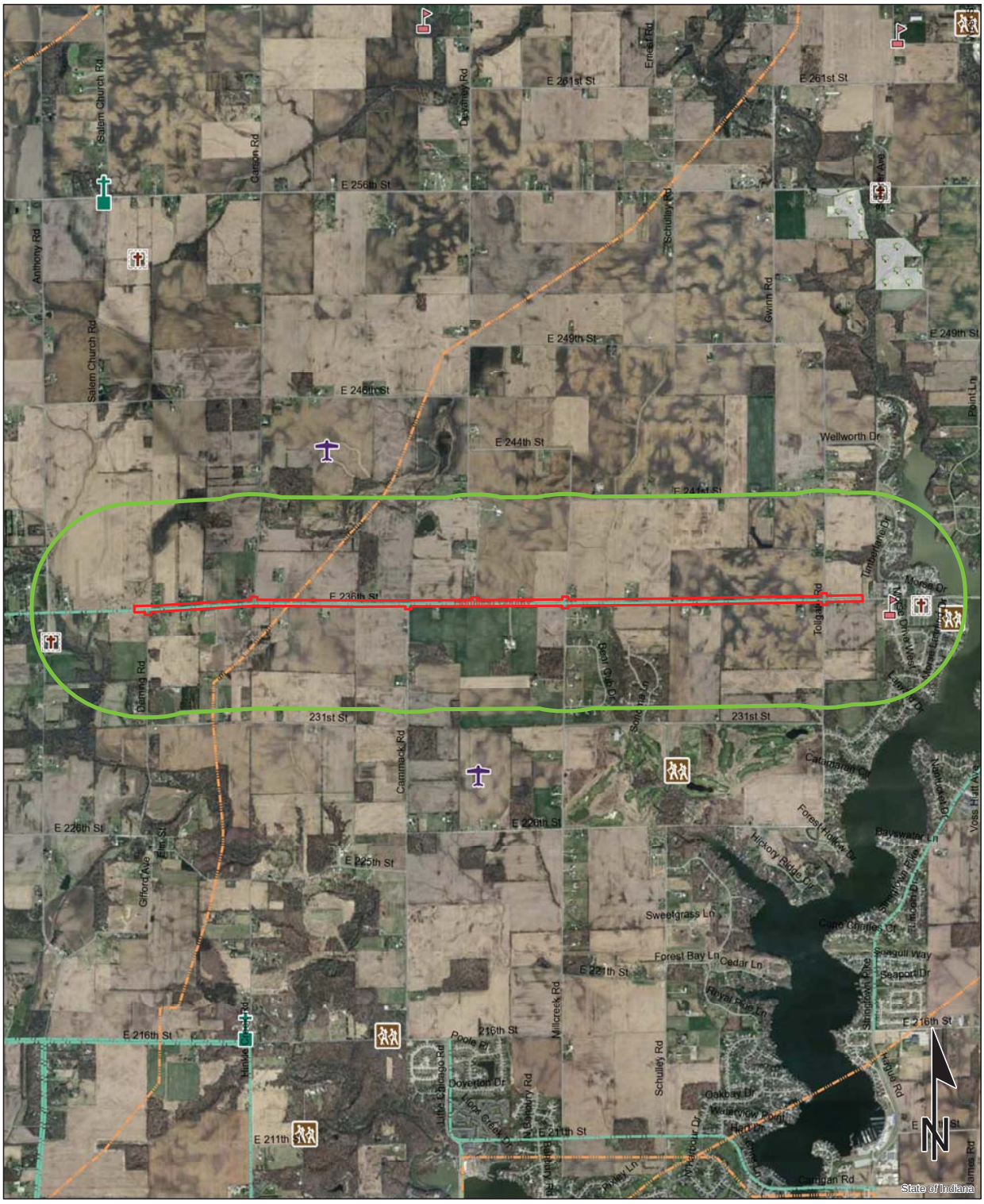
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

0.6 0.3 0 0.6 Miles

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

Arcadia & Noblesville
Quadrangles
Indiana
7.5 Minute Series (Topographic)

Red Flag Investigation - Infrastructure
236th Street Rehabilitation
Des. No. 1400788
Hamilton County, Indiana



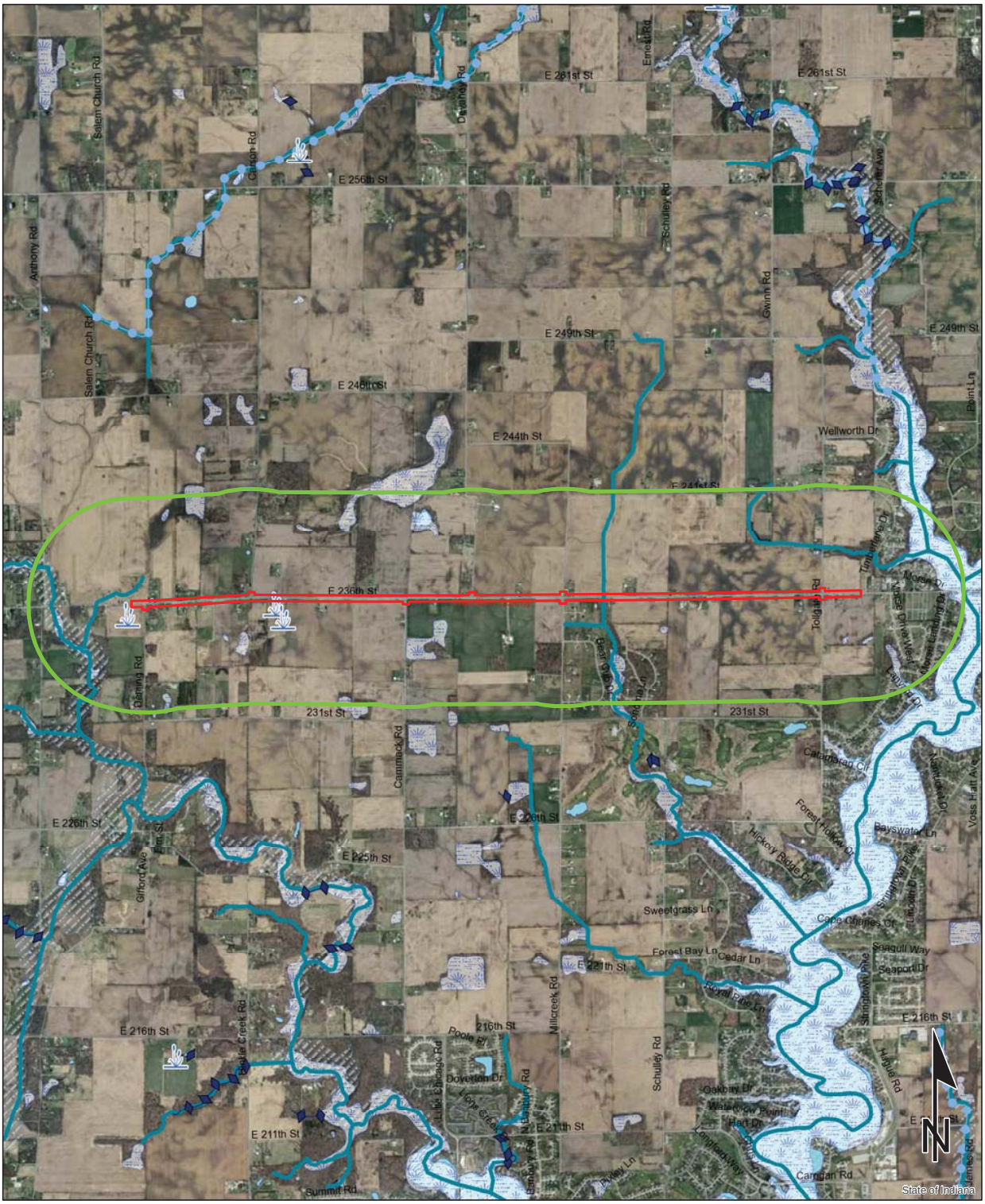
Sources:
Non Orthophotography Data - Obtained from the State of Indiana Geographical Information Office Library
Orthophotography - Obtained from Indiana Map Framework Data (www.indianamap.org)
Map Projection: UTM Zone 16 N **Map Datum:** NAD83

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

0.6 0.3 0 0.6 Miles

Religious Facility	Recreation Facility	Project Area
Religious Facility Indiana Map	Pipeline	Half Mile Radius
Airport	Railroad	Interstate
Cemeteries	Trails	State Route
Hospital	Managed Lands	US Route
School	County Boundary	Local Road

Red Flag Investigation - Water Resources
236th Street Rehabilitation
Des. No. 1400788
Hamilton County, Indiana



0.6 0.3 0 0.6 Miles

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

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

NWI - Point	Wetlands	Project Area
Karst Spring	Lake - Impaired	Half Mile Radius
Canal Structure - Historic	Lake	Interstate
NWI- Line	Floodplain - DFIRM	State Route
Stream - Impaired	Cave Entrance Density	US Route
NPS NRI listed	Sinkhole Area	Local Road
River	Sinking-Stream Basin	
Canal Route - Historic	County Boundary	

Red Flag Investigation - Mining/Mineral Exploration
236th Street Rehabilitation
Des. No. 1400788
Hamilton County, Indiana

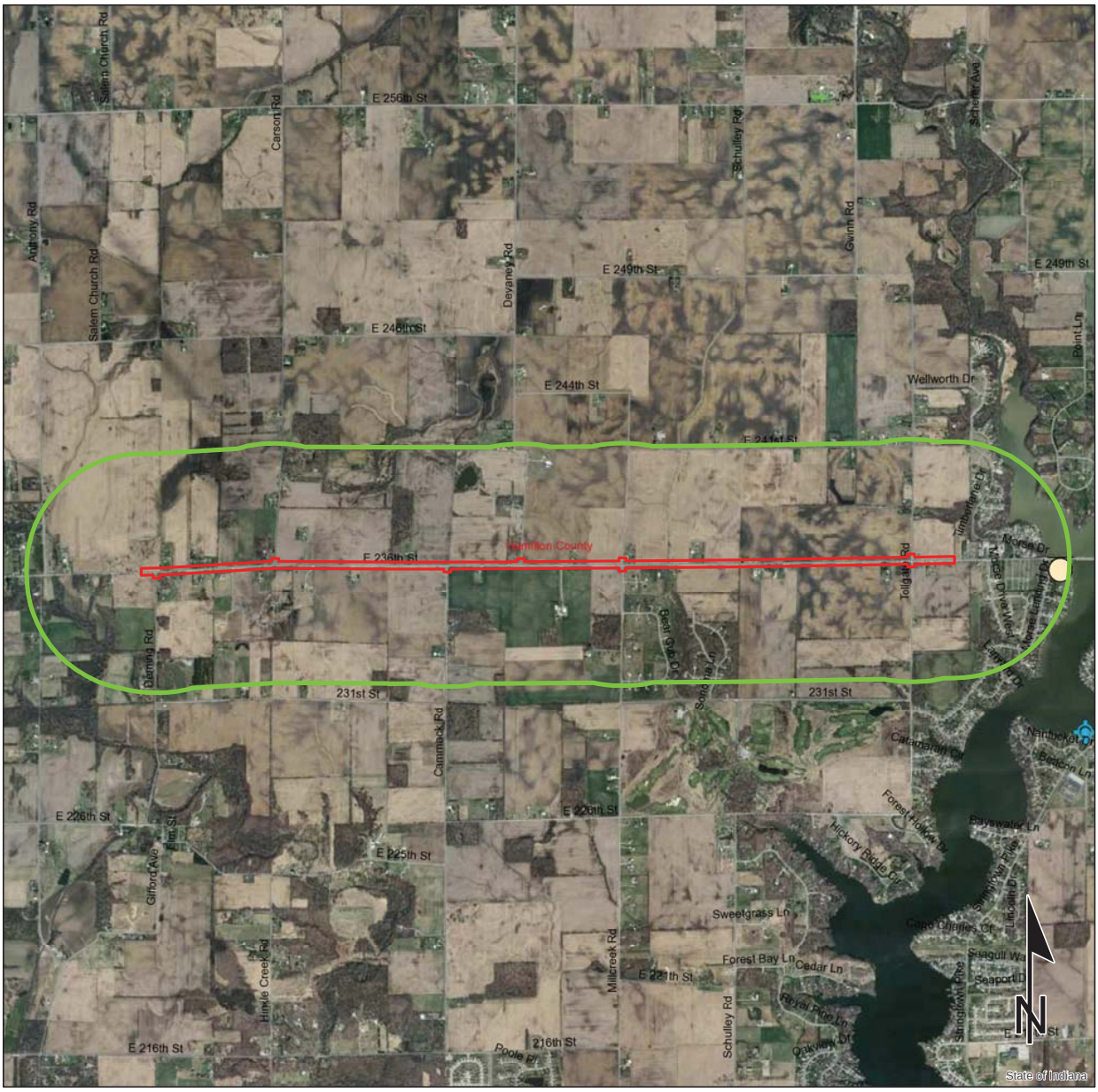
0.6 0.3 0 0.6 Miles

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

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

- Petroleum Well
- Mine - Surface
- Mine - Underground
- Petroleum Field
- County Boundary
- Project Area
- Half Mile Radius
- Interstate
- State Route
- US Route
- Local Road

Red Flag Investigation - Hazardous Material Concerns
236th Street Rehabilitation
Des. No. 1400788
Hamilton County, Indiana



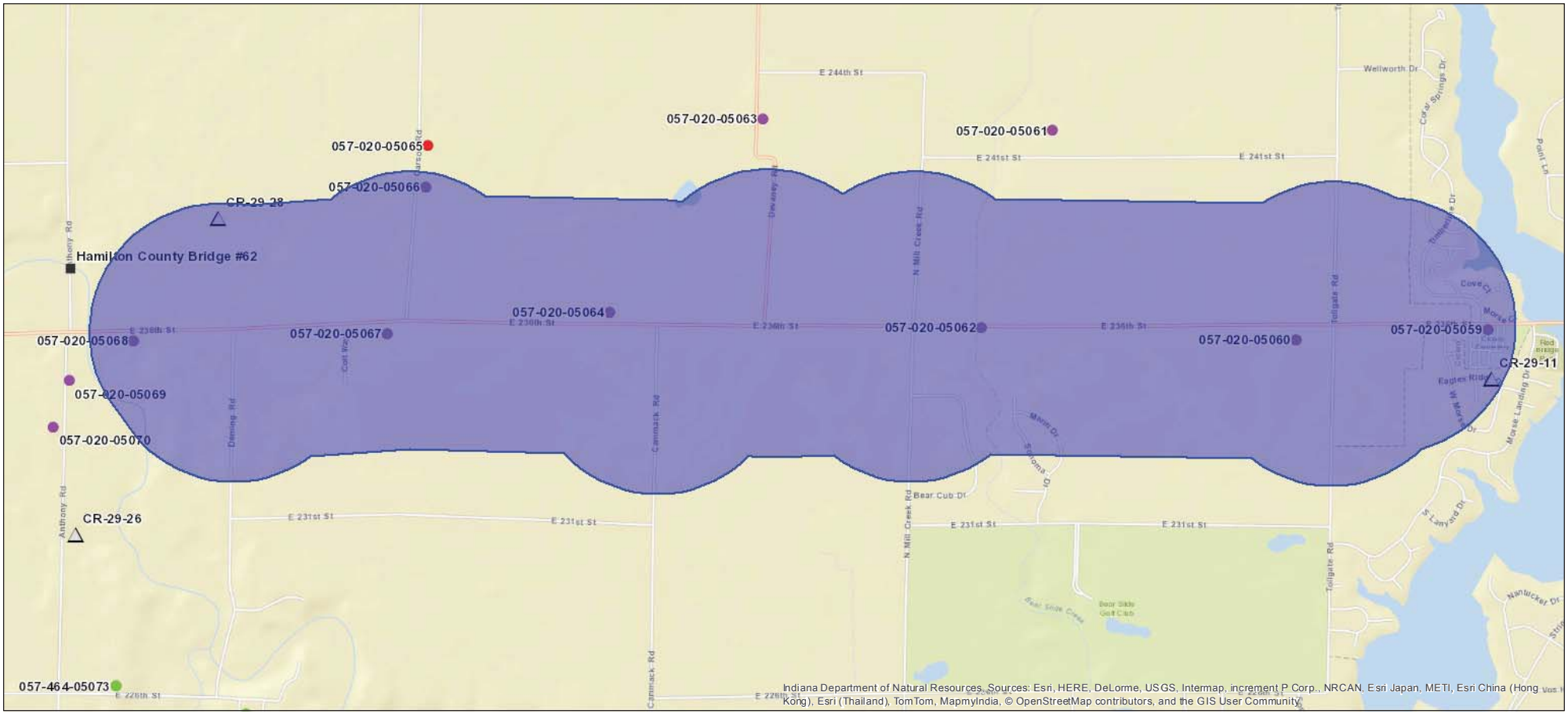
Brownfield	RCRA Generator/TSD	Institutional Controls
RCRA Corrective Action Sites	Restricted Waste Site	County Boundary
Confined Feeding Operation	Septage Waste Site	Project Area
Construction/Demolition Site	Solid Waste Landfill	Half Mile Radius
Infectious/Medical Waste Site	State Cleanup Site	Interstate
Leaking Underground Storage Tank	Superfund	State Route
Manufactured Gas Plant	Tire Waste Site	US Route
NPDES Facilites	Underground Storage Tank	Local Road
NPDES Pipe Locations	Voluntary Remediation Program	
Open Dump Waste Site	Waste Transfer Station	

0.6 0.3 0 0.6 Miles

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

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

SHAARD Map - Road Rehabilitation - 236th St, Deming Rd to Tollgate Rd. - DES 1400788



Map Coordinate System:
WGS_1984_Web_Mercator_Auxiliary_Sphere

0 0.375 0.75 1.5 Miles

1:24,113

Author:
Indiana Dept. of Natural Resources
Geographic Information Systems

Legend

- 1/2 Mile Radius
- Cemeteries
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown
- Outstanding
- Notable
- Contributing
- Non-Contributing
- Demolished
- Unknown
- National Register Sites
- Historic Districts
- World Street Map

Appendix B

Ecological Information

Des. No. 1400788

Indiana County Endangered, Threatened and Rare Species List

County: Hamilton

Species Name	Common Name	FED	STATE	GRANK	SRANK
Mollusk: Bivalvia (Mussels)					
Epioblasma torulosa rangiana	Northern Riffleshell	LE	SE	G2T2	SX
Epioblasma triquetra	Snuffbox	LE	SE	G3	S1
Lampsilis fasciola	Wavyrayed Lampmussel		SSC	G5	S3
Ligumia recta	Black Sandshell			G5	S2
Obovaria subrotunda	Round Hickorynut		SSC	G4	S1
Plethobasus cyphyus	Sheepnose	LE	SE	G3	S1
Pleurobema clava	Clubshell	LE	SE	G2	S1
Ptychobranchus fasciolaris	Kidneyshell		SSC	G4G5	S2
Quadrula cylindrica cylindrica	Rabbitsfoot	C	SE	G3G4T3	S1
Toxolasma lividus	Purple Lilliput		SSC	G3	S2
Villosa fabalis	Rayed Bean	LE	SSC	G2	S1
Villosa lienosa	Little Spectaclecase		SSC	G5	S3
Insect: Odonata (Dragonflies & Damselflies)					
Enallagma divagans	Turquoise Bluet		SR	G5	S3
Amphibian					
Acris crepitans blanchardi	Northern Cricket Frog		SSC	G5	S4
Necturus maculosus	Common mudpuppy		SSC	G5	S2
Rana pipiens	Northern Leopard Frog		SSC	G5	S2
Reptile					
Clemmys guttata	Spotted Turtle		SE	G5	S2
Sistrurus catenatus catenatus	Eastern Massasauga	C	SE	G3G4T3T4Q	S2
Bird					
Bartramia longicauda	Upland Sandpiper		SE	G5	S3B
Buteo lineatus	Red-shouldered Hawk		SSC	G5	S3
Certhia americana	Brown Creeper			G5	S2B
Dendroica cerulea	Cerulean Warbler		SE	G4	S3B
Haliaeetus leucocephalus	Bald Eagle	LT,PDL	SSC	G5	S2
Ixobrychus exilis	Least Bittern		SE	G5	S3B
Lanius ludovicianus	Loggerhead Shrike	No Status	SE	G4	S3B
Nycticorax nycticorax	Black-crowned Night-heron		SE	G5	S1B
Thryomanes bewickii	Bewick's Wren			G5	S1B
Mammal					
Taxidea taxus	American Badger		SSC	G5	S2
Vascular Plant					
Armoracia aquatica	Lake Cress		SE	G4?	S1
Chelone obliqua var. speciosa	Rose Turtlehead		WL	G4T3	S3
Drosera intermedia	Spoon-leaved Sundew		SR	G5	S2
Platanthera leucophaea	Prairie White-fringed Orchid	LT	SE	G2G3	S1

Indiana Natural Heritage Data Center
Division of Nature Preserves
Indiana Department of Natural Resources
This data is not the result of comprehensive county surveys.

Fed: LE = Endangered; LT = Threatened; C = candidate; PDL = proposed for delisting

State: SE = state endangered; ST = state threatened; SR = state rare; SSC = state species of special concern; SX = state extirpated; SG = state significant; WL = watch list

GRANK: Global Heritage Rank: G1 = critically imperiled globally; G2 = imperiled globally; G3 = rare or uncommon globally; G4 = widespread and abundant globally but with long term concerns; G5 = widespread and abundant globally; G? = unranked; GX = extinct; Q = uncertain rank; T = taxonomic subunit rank

SRANK: State Heritage Rank: S1 = critically imperiled in state; S2 = imperiled in state; S3 = rare or uncommon in state; G4 = widespread and abundant in state but with long term concern; SG = state significant; SH = historical in state; SX = state extirpated; B = breeding status; S? = unranked; SNR = unranked; SNA = nonbreeding status unranked

Indiana County Endangered, Threatened and Rare Species List

County: Hamilton

Species Name	Common Name	FED	STATE	GRANK	SRANK
High Quality Natural Community					
Forest - floodplain wet-mesic	Wet-mesic Floodplain Forest		SG	G3?	S3
Forest - upland mesic	Mesic Upland Forest		SG	G3?	S3

Indiana Natural Heritage Data Center
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HAZARDOUS MATERIALS SITE VISIT FORM

Des # 1400788 Project # 1400788
Road # 236th St., Hamilton County, Indiana Type of Road Project Road Rehabilitation
Description of area (either general location or exact location of parcel) 236th St. between Deming Rd. and Tollgate Rd., Hamilton County, Indiana.
Person completing this Field Check Robert Winebrinner

1. **Has a Red Flag Investigation been completed?** X Yes □ No

Notes: A Red Flag Investigation was undertaken on February 27, 2015 and the report is being completed.

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

Notes: Greater than 10.0 acres of right-of-way and two relocations will be required for the proposed project.

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 (Source: Visual inspection and aerial photographs)
Current Land Uses:	Residential / Agricultural / Wooded (Source: Visual inspection)
Previous Land Uses:	Agricultural / Wooded (Source: Aerial photographs)
Adjacent Land Uses:	Residential / Agricultural / Wooded / Municipal (Source: Visual inspection and aerial photographs)

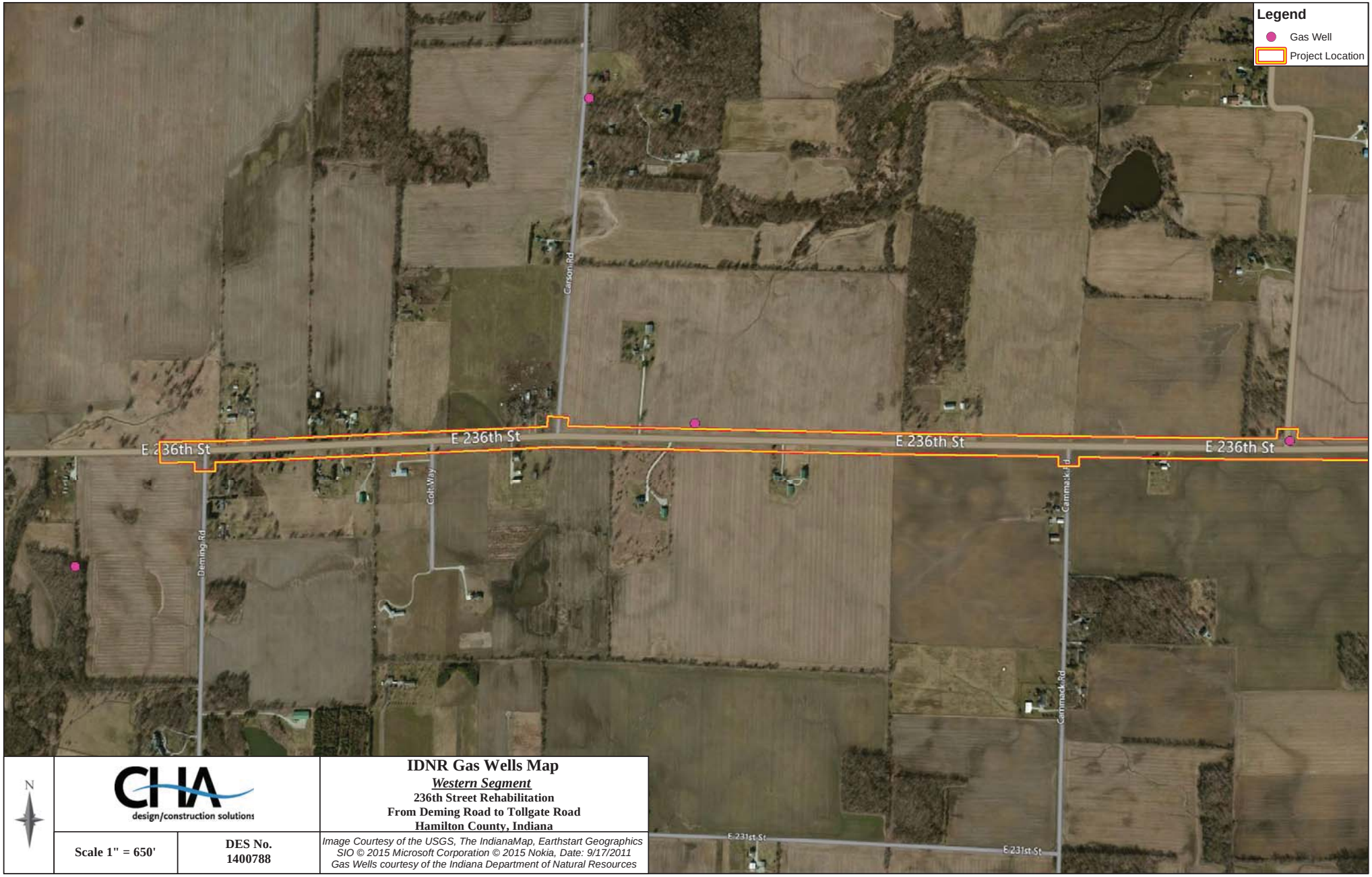
Describe any structures on the property: No structures were identified on properties within the proposed project area.

4. **Visual Inspection:**

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

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

5. **Is a Phase I, Initial Site Assessment required?** □ Yes X No
(Write additional notes on back)



CHA design/construction solutions

IDNR Gas Wells Map

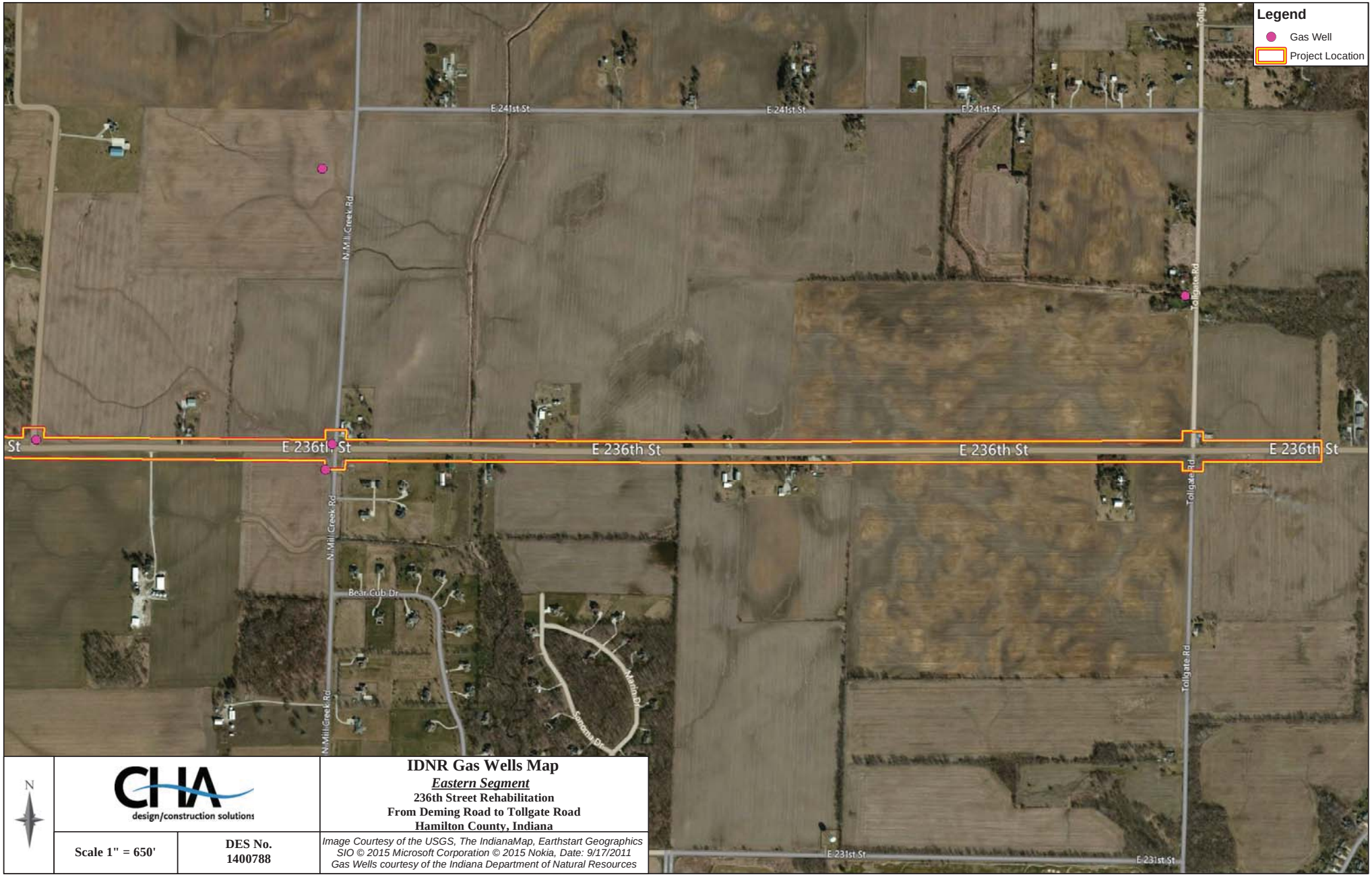
Western Segment

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 650'

DES No. 1400788

Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
Gas Wells courtesy of the Indiana Department of Natural Resources



N

CHA
design/construction solutions

IDNR Gas Wells Map

Eastern Segment

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 650'	**DES No. 1400788**

Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
Gas Wells courtesy of the Indiana Department of Natural Resources

Appendix F

Water Resources

Item	Appendix Page
Wetland Delineation/ Waters Investigation	F-1 to F-32
IDNR Water Well Maps	F-33 to F-34

Wetland Delineation and Waters of the US Report
Road Rehabilitation, East 236th Street
From Deming Road to Tollgate Road
Hamilton County, Indiana
Project Des. No. 1400788
Prepared By: Summer O'Brien, PWS

Introduction:

The Hamilton County Commissioners are proposing to rehabilitate a portion of East 236th Street, from US 31 to the Town of Cicero, in Hamilton County, Indiana. The purpose of this investigation was to identify wetlands and waterways within and adjacent to the project area. A routine wetland determination, per the *1987 Corps of Engineers Wetland Delineation Manual (Y-87-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region (*Version 2.0) was conducted. This report details the findings of the investigation.

The proposed project is located in the northcentral portion of Hamilton County, Indiana, and extends along East 236th Street (236th Street) from Deming Rd. to Tollgate Rd., west of Cicero. In addition, the area for this phase would extend 150 ft. onto adjoining roads; Deming Rd., Cal Carson Rd., Cammack Rd., Devaney Rd., Millcreek Rd., and Tollgate Rd. Specifically, the project is located in Sections 2, 3, 4, and 5, Township 19 North, Range 4 East and Sections 32, 33, 34, and 35, Township 20 North, Range 4 East of Jackson Township in Hamilton County as shown on the attached 7.5 minute Arcadia USGS quadrangle map. The total project length would be approximately 17,500 ft. (3.32 miles).

The area inspected included 80 feet from the asphalt centerline and encompassed approximately 32 acres.

Existing Data:

7.5 Minute USGS Quadrangle Map

The Arcadia, IN 7.5 Minute USGS Quadrangle Map was reviewed to determine the topography of and drainage patterns within the project areas (See Attached, USGS Project Location Map). The USGS map indicates the project area is relatively flat with a gentle rise as the road travels west. Elevations range from approximately 850 to 880 feet above sea level. Bear Slide Creek is the only dominant feature on the map and is indicated as an intermittent stream. Bear Slide Creek flows approximately 1.5 river miles south into Morse Reservoir.

The USGS topographic map and Stream Stats-Indiana indicated that the watershed of Bear Slide Creek at this location is approximately 2.0 square miles.

National Wetland Inventory Map

The U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Wetlands Mapper was reviewed for the presence of potential jurisdictional wetlands within the project area (See Attached, NWI Wetlands Map). The NWI map and the Indiana GIS Atlas identified two potential wetland areas along East 236th Street, between Deming Road and Cal Carson Road. Both of these wetlands are classified as seasonally flooded, persistent, emergent wetlands (PEM1C).

County Soil Survey Map

The Natural Resources Conservation Service (NRCS) Web Soil Survey for Hamilton County was reviewed to determine soil classifications within the project area (See Attached, NRCS Soils Map). Six (6) soil types are identified within the project area and are identified and briefly described in the table below. The most abundant soil types within the project area are Brookston silty clay loam (48.4%) and Crosby silt loam (45.9%).

Map Unit Symbol	Map Unit Name	Farmland Classification	Natural Drainage Class	Depth to Water Table (inches)	Frequency of Flooding or Ponding	Hydric
Br	Brookston silty clay loam, 0-2 percent slopes	Prime farmland	Poorly drained	0-12	No flooding Frequent ponding	Yes
CrA	Crosby silt loam, fine-loamy subsoil, 0 to 2 percent slopes	Prime farmland if drained	Somewhat poorly drained	6-24	No Flooding No Ponding	No
MmB2	Miami silt loam, 2 to 6 percent slopes, eroded	Prime farmland	Moderately well drained	24-40	No Flooding No Ponding	No
Pn	Patton silty clay loam	Prime farmland if drained	Poorly drained	0-12	No flooding Frequent Ponding	Yes
Sh	Shoals silt loam	Prime farmland if protected from flooding	Somewhat poorly drained	6-24	Frequent flooding No Ponding	Yes
Wh	Whitaker Loam	Prime farmland if drained	Somewhat poorly drained	6-24	No flooding No ponding	No

Flood Map

Floodplain information was obtained from the Flood Insurance Rate Maps (FIRM) produced by the Federal Emergency Management Agency (FEMA; See Attached, FEMA Floodzone Map). The mapping indicates that the project location is not located within a flood zone.

Methodology:

The project area was analyzed using methods outlined in the *1987 Corps of Engineers Wetland Delineation Manual (Y-81-1)* and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Midwest Region* (Version 2.0). These manuals require wetland boundaries to be delineated using a 3-parameter approach: whereby an area is a wetland if it exhibits vegetation adapted to wet conditions (hydrophytes), hydric soils, and the presence or evidence of water at or near the soil surface during the growing season (hydrology).

All three criteria must be present for a site to be considered a regulated wetland. Representative sites are field inspected to document vegetative communities present, soil profiles to 20 inches or more, and hydrology. Data points are collected when the ability to meet one or more wetland criteria is apparent. If the three criteria are met, then the wetland/upland boundary is marked with bright color flagging tied to woody vegetation or staked with lath and the boundary is surveyed. Paired upland/wetland data

points are collected and recorded utilizing the WetForms[1] application which then produces report ready Data Forms (attached) based on the applicable Regional Supplement.

Field Reconnaissance:

CHA staff conducted a field investigation on May 13, 2015 to determine the presence of wetlands, waters of the US, and waters of the State within the project area. Locations of data points are provided on the attached Wetland Delineation Map. Photographs of the project area are also attached. The following provides a brief description of the findings of the field reconnaissance.

Data Point 1 (Wetland A)
Wetland A is located approximately 185 feet east of the Deming Road and 236th Street intersection within the southeast corner. White mulberry (*Morus alba*, FAC) was present in the tree stratum and provided 10% absolute cover. Vegetation within the herb stratum was dominated by curly dock (*Rumex crispus*, FAC), fescue sedge (*Carex festucacea*, FACW), great ragweed (*Ambrosia trifida*, FAC), and calico aster (*Symphyotrichum lateriflorum*, FACW). The dominant vegetation present meets the dominance and prevalence index tests for hydrophytic vegetation at DP-1. The soil at DP-1 displayed a matrix of 10YR 3/2 from 0-4 inches, a matrix of 10YR 4/1 with 20 percent redox features of N 2.5/1 from 4 to 8 inches, and from 8-16 inches the soil displayed a matrix of 10YR 4/2 with 15 percent redox features within the pore lining of 10YR 3/6. This is characteristic of a depleted matrix hydric soil. Wetland hydrology consisted of 1 inch of surface water and the FAC-Neutral test.

DP-1 passed all three wetland criteria and would thus be considered a wetland (Wetland A). There is no obvious connection between Wetland A and a regulated Waters of the U.S. Topography suggests that water from this area would travel southwest and enter Hinkle Creek. If that connection is made then this wetland would be considered jurisdictional.

Data Point 2 (Upland)
Data Point 2 (DP-2) was located approximately 15 feet northwest of DP-1. The tree stratum was dominated by white mulberry and the herbaceous layer was primarily composed of reed canarygrass (*Phalaris arundinacea*, FACW), curly dock, calico aster, Kentucky bluegrass (*Poa pratensis*, FAC), and great ragweed. DP-2 passed the dominance and the prevalence index tests meeting the hydrophytic vegetation criterion. The soil profile had a matrix color of 10YR 3/2 from 0 to 8 inches with loam texture, 10YR 4/3 from 8 to 14 inches with silty clay loam texture, and a matrix of 10YR 5/2 with 10 percent redox features within the pore lining of 5YR 4/6 from 14 to 20 inches with silty clay texture. The depleted layer is more than 10 inches from the surface therefore, DP-2 failed to meet the hydric soils criterion. No hydrological features were identified, thus failing to meet the hydrology criterion. Based on the absence of two of the three criteria, DP-2 was not considered a wetland. This data point represents the surrounding area on the southwest portion of the project area.

Data Point 3 (Wetlands B and C)
Wetland B is located north of East 236th Street approximately 100 feet east of the Deming Road/236th Street intersection. Black willow (*Salix nigra*, OBL) and eastern cottonwood (*Populus deltoides*, FAC) were present in the tree stratum, the shrub stratum was dominated by white mulberry and common hackberry *(Celtis occidentalis*, FAC). Dominant vegetation within the herb stratum included reed canarygrass and calico aster. The dominant vegetation present meets the dominance and prevalence index tests for hydrophytic vegetation at DP-3. The soil at DP-3 displayed a matrix of 10YR 2/2 from 0-4 inches, a matrix of 10YR 4/2 with 10 percent redox features of 10YR 3/6 from 4 to 8 inches, and from 8-16 inches the soil displayed a matrix of 10YR 4/1 with 15 percent redox features concentrated within

[1] Ecotone Corporation

the pore lining of 10YR 3/6. This is characteristic of a depleted matrix hydric soil (F3). Wetland hydrology consisted of saturated soil at 4 inches and a water table present at 16 inches.

DP-3 passed all three wetland criteria and would thus be considered a wetland. Wetland C is similar to Wetland B and is separated by about 20 feet. Wetland B is connected to Wetland A by a culvert under 236th Street.

Data Point 4 (Upland)
Data Point 4 (DP-4) was located approximately 15 feet southeast of DP-3. The tree stratum was dominated by eastern cottonwood and the herbaceous layer was primarily composed of Kentucky bluegrass, red fescue (*Festuca rubra*, FACU), and ground ivy (*Glechoma hederacea*, FACU). DP-4 does not meet the hydrophytic vegetation criterion. The soil profile had a matrix color of 10YR 3/2 from 0 to 3 inches with loam texture, and a matrix of 10YR 4/1 with 30 percent redox features within the pore lining of 10YR 3/6 from 3 to 16 inches with silt loam texture. This is characteristic of a depleted matrix hydric soil (F3). DP-4 meets the wetland hydric soils criterion. No hydrological features were identified, thus failing to meet the hydrology criterion. Based on the absence of two of the three criteria, DP-4 was not considered a wetland. This data point represents the surrounding area on the northwest portion of the project area.

Data Point 5 (Wetland D)
Wetland D is located within the northwest corner of the Devany Road and 236th Street intersection. No vegetative species were identified within the tree or shrub strata. Dominant vegetation within the herb stratum included red fescue, small eastern star sedge (*Carex radiata*, FAC), and eastern woodland sedge (*Carex blanda*, FAC). The dominant vegetation present meets the dominance test for hydrophytic vegetation at DP-5. The soil at DP-5 displayed a matrix of 10YR 3/1 with 5 percent redox features within the pore lining of 10YR 3/6 with a silt loam texture from 0-8 inches, and a matrix of 10YR 5/1 with 15 percent redox features of 10YR 5/8 within the pore lining from 8 to 16 inches. This is characteristic of a redox dark surface (F6) hydric soil. Wetland hydrology consisted of Oxidized Rhizospheres on Living Roots (C3).

DP-5 passed all three wetland criteria and would thus be considered a wetland (Wetland D). There is no obvious connections between Wetland D and a Water of the U.S. However, drainage patterns as observed in the field and on an aerial photograph dated 3/30/05 indicate that water from Wetland D could travel north then east towards Bear Slide. If this is the case then Wetland D would be considered jurisdictional.

Data Point 6 (Upland)
Data Point 6 (DP-6) was located approximately 15 feet northeast of DP-5. No species were located within the tree or sapling/shrub strata. The herbaceous stratum was primarily composed of red fescue, and orchard grass (*Dactylis glomerata*, FACU). DP-6 does not meet the hydrophytic vegetation criterion. The soil profile had a matrix color of 10YR 3/2 from 0 to 8 inches with a silt loam texture, and a matrix of 10YR 4/2 from 8 to 16 inches with redox features of 10YR 5/6 at 5 percent, also with a silt loam texture. DP-6 meets the depleted matrix wetland hydric soils criterion. No hydrological features were identified, thus failing to meet the hydrology criterion. Based on the absence of two wetland criteria, DP-6 was not considered a wetland. This data point represents the surrounding area on the east end of the project site.

Data Point 7 (Upland)
Data Point 7 (DP-7) was located approximately 450 feet east of the intersection of East 236th Street and Colt Way on the north side of 236th. No species were located within the tree or sapling/shrub strata. The herbaceous stratum was dominated by red fescue, white clover (*Trifolium repens*, FACU), and ground

ivy. DP-7 does not meet the hydrophytic vegetation criterion. The soil profile had a matrix color of 10YR 3/2 from 0 to 12 inches with a silt loam texture, and a matrix of 10YR 3/1 with very fine redox features of 10YR 3/6 at 2 percent from 12 to 16 inches, also with a silt loam texture. DP-7 fails to meet the wetland hydric soils criterion. No hydrological features were identified, thus failing to meet the hydrology criterion. Based on the absence of all three criteria, DP-7 was not considered a wetland.

Roadside Ditch
A roadside ditch was located along the north east portion of the project area. This feature was created within an upland area to carry upland waters. The ditch does not exhibit an ordinary high water mark. This is not a jurisdictional Waters of the US. This determination was based on the INDOT *Indiana Waterway Permits Manual* under Section 1.4.3.1 'OES Technical Guidance on Roadside Ditches' and the guidance contained in the *Army Corps of Engineers Standard Operating Procedures for the Regulatory Program*, 1999, where a roadside ditch would not be considered a Waters of the U.S. if it is constructed in uplands, and/or located along a roadway or railroad and only carries water from upland areas. Any construction or maintenance activities involving this upland drainage ditch is exempt from Section 404 regulations.

Bear Slide Creek
Bear Slide Creek is a tributary of the Wabash River, a Traditional Navigable Water (TNW) and is thus considered jurisdictional. The project area is located approximately 78 aerial miles east of the Wabash River. However, water travels over 200 miles from Bear Slide Creek to Cicero Creek into the White River then to the Wabash River. At the project area, Bear Slide Creek is considered an intermittent water approximately 22 feet wide with an ordinary high water mark depth of approximately 3 feet upstream and 32 feet wide with an ordinary high water mark depth of 2 feet downstream. There is a defined bed and bank with the substrate consisting mostly of sand, silt, and gravel. Bear Slide Creek is listed as an impaired water by IDEM due to the presence of *E. coli*.

Fish were observed near the culvert during the field investigation (See photo on page 4 of Photo Log).

Other Waters
An additional stream channel is located just outside of the project area south of 236th along Mill Creek Road (see Photo Location 11). The channel appears to be ephemeral due to the lack of a defined channel upstream of this culvert. This channel begins on the west side of the road and appears to drain an agricultural field that was planted in corn in 2014. Within this area there is a shallow depression that transports water to a culvert under Mill Creek Road. On the east side of Mill Creek Road the channel appears to be excavated toresemble more of a stream and exhibits a defined bed, bank, and ordinary high water mark. The stream outlets to bear Slide Creek and would likely be considered jurisdictional starting from Mill Creek Road.

Conclusion:

Bear Slide Creek is an intermittent flowing stream with a defined bed and bank. The creek would be considered a jurisdictional Waters of the U.S. due to the presence of an OHWM and apparent connectivity to other waters.

Four additional wetland areas were identified within the review area outside the ordinary high water elevation of Bear Slide Creek. Each of these wetlands are classified as emergent wetlands. There are no direct hydrological connections from these wetlands to a Waters of the U.S. however, for the purposes of this project they are all considered jurisdictional.

There is one roadside ditch located on the eastern portion of the project area adjacent to the west bound lane that did not exhibit an OHWM and was contained within the original design configuration and is therefore not jurisdictional Waters of the U.S.

Just outside of the project area a second ephemeral stream was identified. This stream would also be considered a jurisdictional Waters of the U.S. due to the presence of an OHWM and it's apparent connectivity to Bear Slide Creek and other waters.

Table 1. Wetland Summary

Wetland ID	Photo Location	Lat/Long	Wetland Type	Wetland Size (Acres)	Jurisdictional
Wetland A	2, 4	40.13190° N 86.09868° W	Emergent	0.03	Yes
Wetland B	5	40.13203° N 86.09907° W	Emergent	0.05	Yes
Wetland C	6	40.13209° N 86.09871°W	Emergent	0.01	Yes
Wetland D	13	40.13222° N 86.06997° W	Emergent	0.03	Yes

Table 2. Waterway Summary

Waterway ID	Photo Location	Lat/Long	OHWM Width/Depth	USGS Blue Line	Riffles /Pools	Stream Quality	Jurisdictional
Bear Slide Creek	10	40.13218° N 86.05728° W	22'/3'	Yes	None	Poor	Yes
Unnamed stream	11	40.13168° N 86.06101° W	4'/0.5'	No	None	Poor	Yes

Table 3. Roadside Ditch Summary

Ditch Location	Photo Location	Lat/Long	Jurisdictional
Northeast	7	40.13226° N 86.03667° W	No

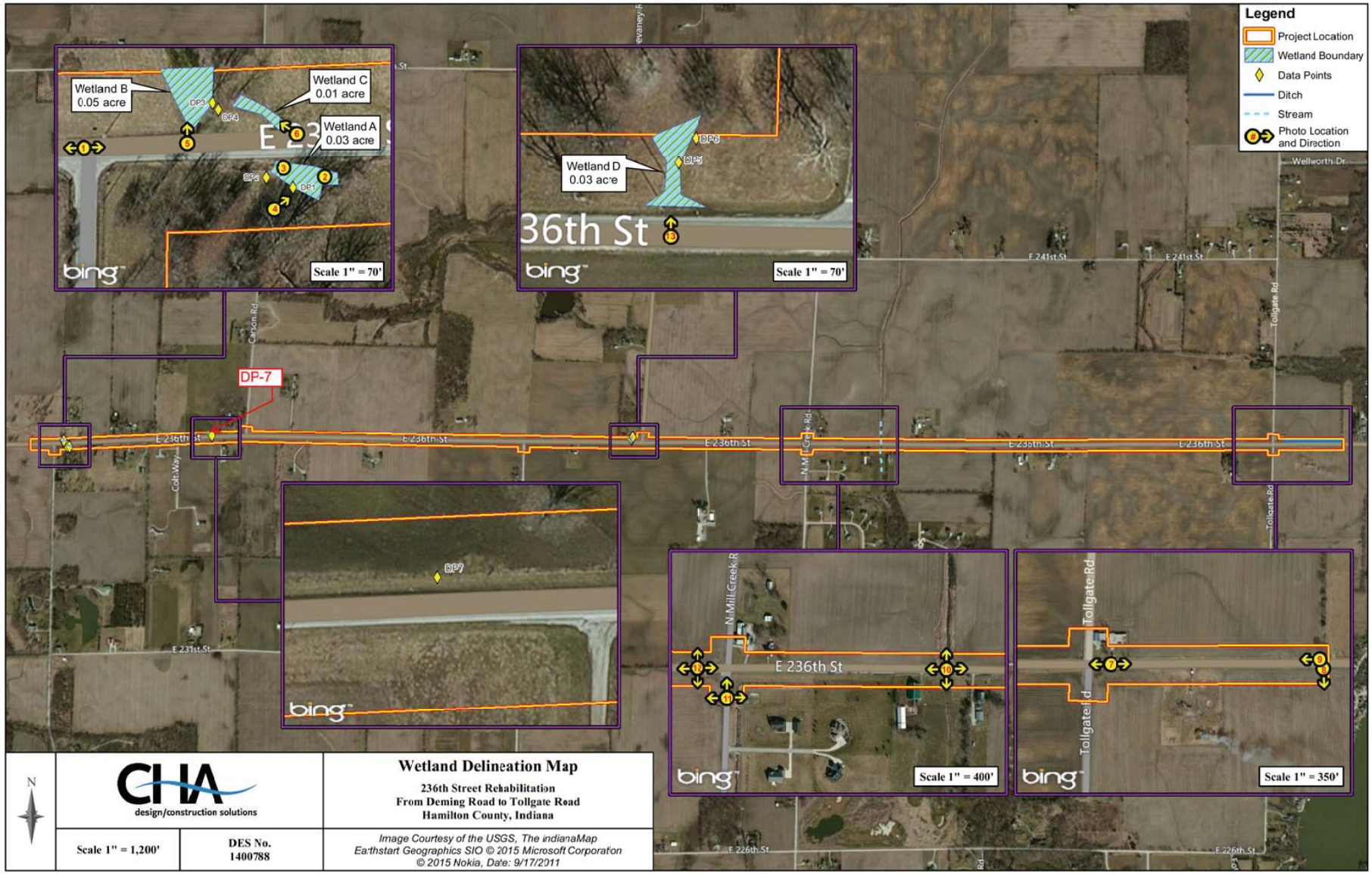
Every effort should be taken to avoid and minimize impacts to the resources outlined in this report. If impacts are necessary, then mitigation may be required. Please note that the final determination of jurisdictional waters is ultimately made by the USACE and this report is our best judgment based on the guidelines set forth by the USACE.

List of Preparers

Report was completed in July 2015.

- Summer O'Brien, PWS, Senior Environmental Scientist, CHA
- Robert Winebrinner, Environmental Planner, CHA
- Sue Vilord, Senior Environmental Scientist, CHA

Please Note - The general maps attached to the report have been removed, but can be found in Appendix B of this document.



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Wetland Delineation Map

236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana

Scale 1" = 1,200'

DES No.
1400788

Image Courtesy of the USGS, The IndianaMap
Earthstart Geographics SIO © 2015 Microsoft Corporation
© 2015 Nokia, Date: 9/17/2011

Photo Log
East 236th Street
Road Rehabilitation Project

Photos taken: 5/13/2015

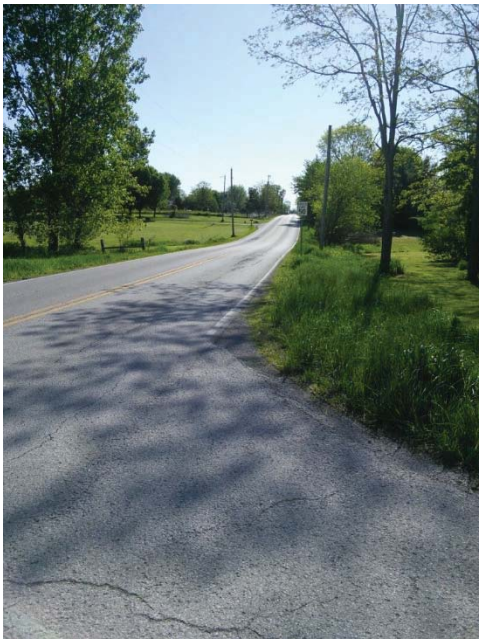


Photo Location 1. Looking east.

Photo Location 2. Wetland soil at Data Point 1 (Wetland A).

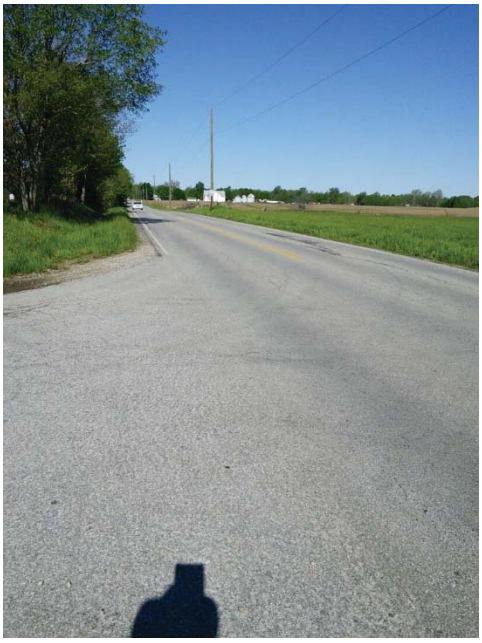


Photo Location 1. Looking west

Photo Location 3. Upland soil at Data Point 2.

Photo Location 4. Looking east through Wetland A with 236th Street in the background.

Photo Location 6. Looking Northwest at Wetland C.

Photo Location 5. Looking north at Wetland B.

Photo Location 7. Looking East along the Roadside Ditch.

Photo Location 7. Looking West of Roadside Ditch in previous photo.

Photo Location 8. Looking South from culvert.

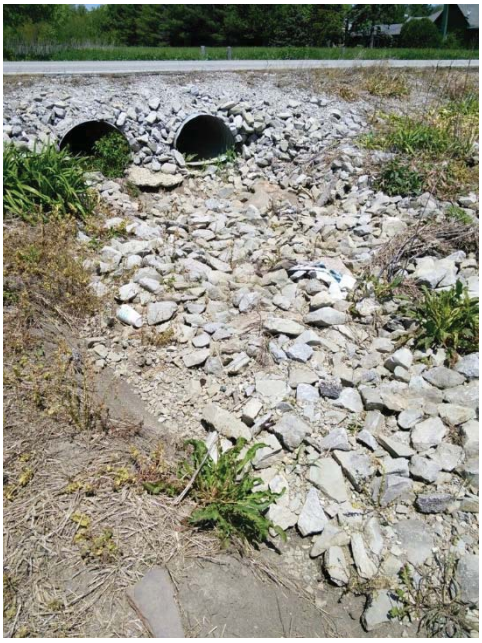


Photo Location 8. Looking North at stone lined culvert outfall.

Photo Location 9. Looking west along the north shoulder of East 236 Street.

Photo Location 10. Looking East along the north shoulder of East 236th street.

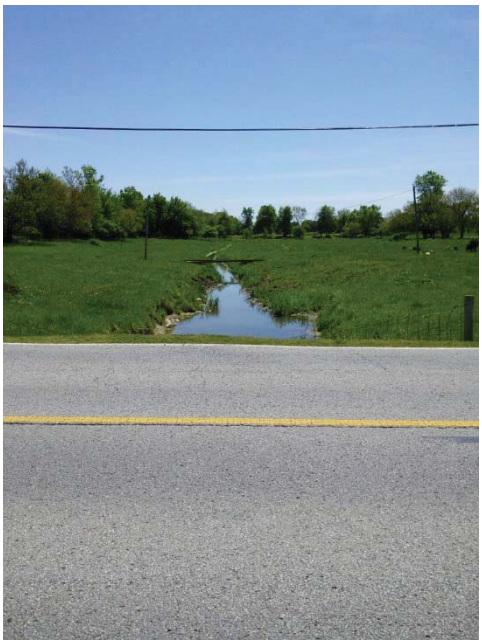


Photo Location 10. Looking south (downstream) at Bear Slide Creek.

Photo Location 10. Looking North (upstream) at Bear Slide Creek.

Photo Location 10. Aquatic life documented within stream.

Photo Location 10. Looking West.

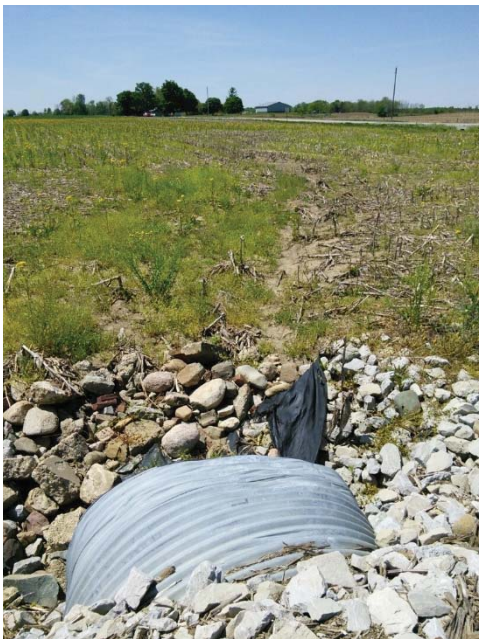


Photo Location 11. Looking west from Mill Creek Road.

Photo Location 11. Looking east from Mill Creek Road

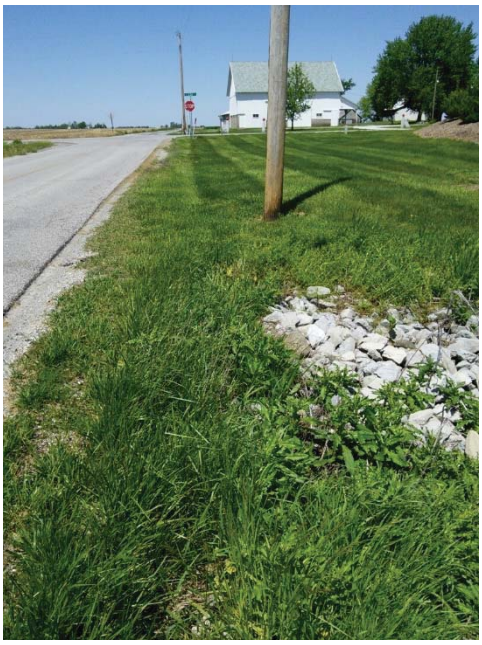


Photo Location 11. Looking north along shoulder of Mill Creek Road.

Photo Location 12. Looking east along the south shoulder of East 236th Street.

Photo Location 12. Looking south from field drainage culverts.

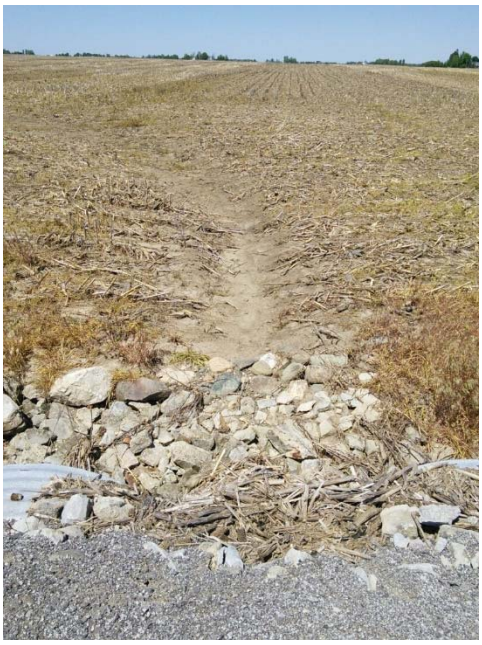


Photo Location 12. Looking north of culvert placed for field drainage.

Photo Location 12. Looking west along the north shoulder of East 236th Street.

Photo Location 13. Looking north towards Wetland D.

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-1**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 5 T 19N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 7 54.92 Long.: -86 5 55.03 Datum: NAD83

Soil Map Unit Name: Brookston silty clay loam (Br) NWI classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○
Hydric Soil Present?	Yes ◉	No ○
Wetland Hydrology Present?	Yes ◉	No ○

Is the Sampled Area within a Wetland? Yes ◉ No ○

Remarks:
wetland A

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Morus alba	10	☑	100.0%	FAC
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	10	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5)				
1. Rumex crispus	25	☑	25.0%	FAC
2. Carex festucacea	25	☑	25.0%	FACW
3. Ambrosia trifida	15	☑	15.0%	FAC
4. Symphyotrichum lateriflorum	15	☑	15.0%	FACW
5. Acalypha rhomboidea	10	☐	10.0%	FACU
6. Fragaria virginiana	5	☐	5.0%	FACU
7. Poa palustris	5	☐	5.0%	FACW
8.		☐	0.0%	
9.		☐	0.0%	
10.		☐	0.0%	
	100	= Total Cover		
Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	45	x 2 =	90
FAC species	50	x 3 =	150
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column Totals:	110 (A)		300 (B)

Prevalence Index = B/A = 2.727

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	3/2	100						Loam	
4-8	10YR	4/1	80	N	2.5/1	20	D	M	Silty Clay Loam	manganese
8-16	10YR	4/2	80	10YR	3/6	15	C	PL	Silty Clay	manganese 5 %

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type:

Depth (inches):

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ◉	No ○	Depth (inches): 1
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-2**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 5 T 19N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 07 55.07 Long.: -86 05 55.51 Datum: NAD83

Soil Map Unit Name: Brookston silty clay loam (Br) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○
Hydric Soil Present?	Yes ○	No ◉
Wetland Hydrology Present?	Yes ○	No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

Remarks:
upland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Morus alba	5	☑	100.0%	FAC
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	5		= Total Cover	

Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Herb Stratum (Plot size: 5)				
1. Phalaris arundinacea	35	☑	36.8%	FACW
2. Rumex crispus	10	☑	10.5%	FAC
3. Symphyotrichum lateriflorum	10	☑	10.5%	FACW
4. Poa palustris	5	☐	5.3%	FACW
5. Poa pratensis	10	☑	10.5%	FAC
6. Ambrosia trifida	10	☑	10.5%	FAC
7. Carex festucacea	5	☐	5.3%	FACW
8. Plantago major	5	☐	5.3%	FAC
9. Taraxacum officinale	5	☐	5.3%	FACU
10.		☐	0.0%	
	95		= Total Cover	

Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	55	x 2 =	110
FAC species	40	x 3 =	120
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	100 (A)		250 (B)

Prevalence Index = B/A = 2.500

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR	3/2	100						Loam	
8-14	10YR	4/3	100						Silty Clay Loam	
14-20	10YR	5/2	90	5YR	4/6	10	C	PL	Silty Clay	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

depleted layer is more than 10 inches from surface

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

none

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-3**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 32 T 20N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 7 55.73 Long.: -86 5 56.33 Datum: NAD83

Soil Map Unit Name: Brookston silty clay loam (Br) NWI classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○
Hydric Soil Present?	Yes ◉	No ○
Wetland Hydrology Present?	Yes ◉	No ○

Is the Sampled Area within a Wetland? Yes ◉ No ○

Remarks:
wetland B

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Populus deltoides	30	☑	42.9%	FAC
2. Salix nigra	40	☑	57.1%	OBL
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	70		= Total Cover	
Sapling/Shrub Stratum (Plot size: 15)				
1. Celtis occidentalis	5	☑	50.0%	FAC
2. Morus alba	5	☑	50.0%	FAC
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	10		= Total Cover	
Herb Stratum (Plot size: 5)				
1. Phalaris arundinacea	45	☑	64.3%	FACW
2. Symphyotrichum lateriflorum	20	☑	28.6%	FACW
3. Cirsium arvense	5	☐	7.1%	FACU
4.		☐	0.0%	
5.		☐	0.0%	
6.		☐	0.0%	
7.		☐	0.0%	
8.		☐	0.0%	
9.		☐	0.0%	
10.		☐	0.0%	
	70		= Total Cover	
Woody Vine Stratu (Plot size: 30)				
1. Toxicodendron radicans	5	☐	100.0%	FAC
2.		☐	0.0%	
	5		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 7 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	65	x 2 =	130
FAC species	45	x 3 =	135
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column Totals:	155 (A)		325 (B)

Prevalence Index = B/A = 2.097

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☑ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR	2/2	100						Silt Loam	
4-8	10YR	4/2	90	10YR	3/6	10	C	PL	Silty Clay Loam	
8-16	10YR	4/1	80	10YR	3/6	15	C	PL	Silt Loam	manganese 5p

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ◉	No ○	Depth (inches): 16
Saturation Present? (includes capillary fringe)	Yes ◉	No ○	Depth (inches): 4

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-4**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 32 T 20N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 7 55.65 Long.: -86 5 56.23 Datum: NAD83

Soil Map Unit Name: Brookston silty clay loam (Br) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉
Hydric Soil Present?	Yes ◉	No ○
Wetland Hydrology Present?	Yes ○	No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

Remarks:
upland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1. Populus deltoides	25	☑	100.0%	FAC
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	25		= Total Cover	

Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Herb Stratum (Plot size: 5)				
1. Festuca rubra	40	☑	40.0%	FACU
2. Poa pratensis	40	☑	40.0%	FAC
3. Glechoma hederacea	20	☑	20.0%	FACU
4.		☐	0.0%	
5.		☐	0.0%	
6.		☐	0.0%	
7.		☐	0.0%	
8.		☐	0.0%	
9.		☐	0.0%	
10.		☐	0.0%	
	100		= Total Cover	

Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	65	x 3 =	195
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column Totals:	125 (A)		435 (B)

Prevalence Index = B/A = 3.480

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR	3/2	100						Loam	
3-16	10YR	4/1	70	10YR	3/6	30	C	PL	Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-5**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 34 T 20N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 7 56.36 Long.: -86 4 11.90 Datum: NAD83

Soil Map Unit Name: Brookston silty clay loam (Br) NWI classification: PEM

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ◉	No ○
Hydric Soil Present?	Yes ◉	No ○
Wetland Hydrology Present?	Yes ◉	No ○

Is the Sampled Area within a Wetland? Yes ◉ No ○

Remarks:
wetland D

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Herb Stratum (Plot size: 5)				
1. Festuca rubra	50	☑	50.0%	FACU
2. Carex radiata	10	☑	10.0%	FAC
3. Carex blanda	10	☑	10.0%	FAC
4. Solidago gigantea	3	☐	3.0%	FACW
5. Carex scoparia	6	☐	6.0%	FACW
6. Carex gracillima	4	☐	4.0%	FACU
7. Asclepias syriaca	2	☐	2.0%	FACU
8. Toxicodendron radicans	5	☐	5.0%	FAC
9. Erythronium albidum	5	☐	5.0%	FACU
10. Dactylis glomerata	5	☐	5.0%	FACU
	100		= Total Cover	

Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	2	(A)
Total Number of Dominant Species Across All Strata:	3	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	66.7%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	9	x 2 =	18
FAC species	25	x 3 =	75
FACU species	66	x 4 =	264
UPL species	0	x 5 =	0
Column Totals:	100 (A)		357 (B)

Prevalence Index = B/A = 3.570

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☑ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ◉ No ○

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR	3/1	95	10YR	3/6	5	C	PL	Silt Loam	
8-16	10YR	5/1	80	10YR	5/8	15	C	PL	Silt Loam	depletion 5p. 10YR 3/1

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☑ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ◉ No ○

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-6**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 34 T 20N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): concave

Slope: 2.0% 1.1 ° Lat.: 40 7 56.55 Long.: -86 4 11.70 Datum: NAD83

Soil Map Unit Name: Crosby silt loam (CrA) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉
Hydric Soil Present?	Yes ◉	No ○
Wetland Hydrology Present?	Yes ○	No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

Remarks:
upland

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0		= Total Cover	

Herb Stratum (Plot size: 5)				
1. Festuca rubra	50	☑	52.6%	FACU
2. Dactylis glomerata	20	☑	21.1%	FACU
3. Heracleum maximum	10	☐	10.5%	FACW
4. Silphium laciniatum	5	☐	5.3%	UPL
5. Achillea millefolium	10	☐	10.5%	FACU
6.		☐	0.0%	
7.		☐	0.0%	
8.		☐	0.0%	
9.		☐	0.0%	
10.		☐	0.0%	
	95		= Total Cover	

Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	0	(A)
Total Number of Dominant Species Across All Strata:	2	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	0.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	10	x 2 =	20
FAC species	0	x 3 =	0
FACU species	80	x 4 =	320
UPL species	5	x 5 =	25
Column Totals:	95 (A)		365 (B)

Prevalence Index = B/A = 3.842

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR	3/2	100						Silt Loam	
8-16	10YR	4/2	90	10YR	5/6	5	C	PL	Silt Loam	depletion 5p 10YR 3/1

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ◉ No ○

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: 236th Street City/County: Hamilton Sampling Date: 13-May-15

Applicant/Owner: Hamilton County State: Indiana Sampling Point: **DP-7**

Investigator(s): S. OBrien, R. Winebrinner Section, Township, Range: S 32 T 20N R 4E

Landform (hillslope, terrace, etc.): Undulating Local relief (concave, convex, none): flat

Slope: 0.0% 0.0 ° Lat.: 40 07 56.53 Long.: -86 05 28.99 Datum: NAD83

Soil Map Unit Name: Patton silty clay loam (Pn) NWI classification:

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ◉ No ○ (If no, explain in Remarks.)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ○	No ◉
Hydric Soil Present?	Yes ○	No ◉
Wetland Hydrology Present?	Yes ○	No ◉

Is the Sampled Area within a Wetland? Yes ○ No ◉

Remarks:

VEGETATION - Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Rel.Strat. Cover	Indicator Status
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0	= Total Cover		
Sapling/Shrub Stratum (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
3.		☐	0.0%	
4.		☐	0.0%	
5.		☐	0.0%	
	0	= Total Cover		
Herb Stratum (Plot size: 5)				
1. Festuca rubra	50	☑	50.0%	FACU
2. Trifolium repens	20	☑	20.0%	FACU
3. Glechoma hederacea	20	☑	20.0%	FACU
4. Plantago major	5	☐	5.0%	FAC
5. Taraxacum officinale	5	☐	5.0%	FACU
6.		☐	0.0%	
7.		☐	0.0%	
8.		☐	0.0%	
9.		☐	0.0%	
10.		☐	0.0%	
	100	= Total Cover		
Woody Vine Stratu (Plot size:)				
1.		☐	0.0%	
2.		☐	0.0%	
	0	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	0	x 2 =	0
FAC species	5	x 3 =	15
FACU species	95	x 4 =	380
UPL species	0	x 5 =	0
Column Totals:	100 (A)		395 (B)

Prevalence Index = B/A = 3.950

Hydrophytic Vegetation Indicators:

- ☐ **1 - Rapid Test for Hydrophytic Vegetation**
- ☐ **2 - Dominance Test is > 50%**
- ☐ **3 - Prevalence Index is ≤3.0** [1]
- ☐ **4 - Morphological Adaptations** [1] **(Provide supporting data in Remarks or on a separate sheet)**
- ☐ **Problematic Hydrophytic Vegetation** [1] **(Explain)**

[1] **Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.**

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL

Sampling Point: DP-7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)		Matrix %	Redox Features Color (moist)		Redox %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR	3/2	100						Silt Loam	
12-16	10YR	3/1	98	10YR	3/6	2	C	PL	Silt Loam	

[1] Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining. M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5)
- ☐ 2 cm Muck (A10)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Muck Mineral (S1)
- ☐ 5 cm Mucky Peat or Peat (S3)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Coast Prairie Redox (A16)
- ☐ Dark Surface (S7)
- ☐ Iron Manganese Masses (F12)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3] Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ○ No ◉

Remarks:

the redox features were very faint.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ True Aquatic Plants (B14)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Gauge or Well Data (D9)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required

- ☐ Surface Soil Cracks (B6)
- ☐ Drainage Patterns (B10)
- ☐ Dry Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Stunted or Stressed Plants (D1)
- ☐ Geomorphic Position (D2)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ○	No ◉	Depth (inches): 0
Water Table Present?	Yes ○	No ◉	Depth (inches): 0
Saturation Present? (includes capillary fringe)	Yes ○	No ◉	Depth (inches): 0

Wetland Hydrology Present? Yes ○ No ◉

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

ATTACHMENT

PRELIMINARY JURISDICTIONAL DETERMINATION FORM

BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): July 17, 2015

B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:

Summer O'Brien, PWS, CHA Consulting Inc., Union Station, 300 S Meridian Street, Indianapolis, IN 46225

C. DISTRICT OFFICE, FILE NAME, AND NUMBER:

Louisville

D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)

State: IN County/parish/borough: Hamilton City: Cicero

Center coordinates of site (lat/long in degree decimal format):

Lat. °40.1322Long. 86.0662 °

Universal Transverse Mercator: _____

Name of nearest waterbody: Bear Slide Creek

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 100 linear feet: 22 width (ft) and/or _____ acres.

Cowardin Class: Riverine

Stream Flow: Intermittent

Wetlands: 0.12 acres.

Cowardin Class: Emergent

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal: _____

Non-Tidal: _____

E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

☐Office (Desk) Determination. Date: _____

☐Field Determination. Date(s): _____

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.
2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable.
This preliminary JD finds that there *"may be"* waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply - checked items should be included in case file and, where checked and requested, appropriately reference sources below):

☒Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: _____.

☒Data sheets prepared/submitted by or on behalf of the applicant/consultant.

☐Office concurs with data sheets/delineation report.
☐Office does not concur with data sheets/delineation report.

☐Data sheets prepared by the Corps: _____.

☐Corps navigable waters' study: _____.

☐U.S. Geological Survey Hydrologic Atlas: _____.

☐USGS NHD data.
☐USGS 8 and 12 digit HUC maps.

☒U.S. Geological Survey map(s). Cite scale & quad name: Arcadia, IN 1:24,000.

☒USDA Natural Resources Conservation Service Soil Survey. Citation: NRCS Web Soil Survey.

☒National wetlands inventory map(s). Cite name: USFWS NWI Mapper.

☐State/Local wetland inventory map(s): _____.

☒FEMA/FIRM maps: FIRM 11-19-2014, panel no. 18057C0040G & 18057C0043G.

☐100-year Floodplain Elevation is: _____ (National Geodetic Vertical Datum of 1929)

☒Photographs: ☒Aerial (Name & Date): 2011 ISDP.
or Other ☒ (Name & Date): site photos 6/15/2015.

☐Previous determination(s). File no. and date of response letter: _____.

☐Other information (please specify): _____.

IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.

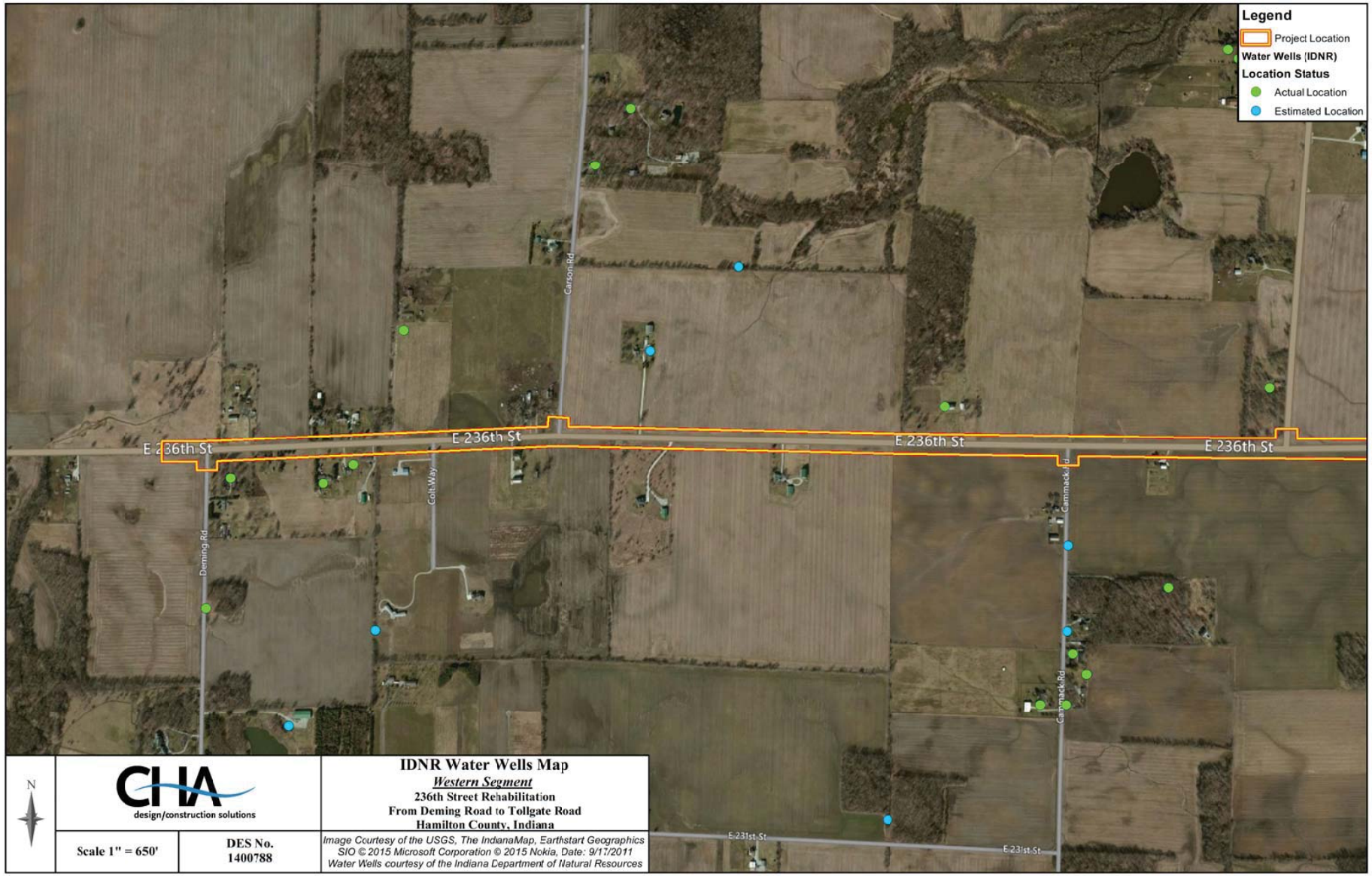
_____	7/20/2015
Signature and date of Regulatory Project Manager (REQUIRED)	Signature and date of person requesting preliminary JD (REQUIRED, unless obtaining the signature is impracticable)

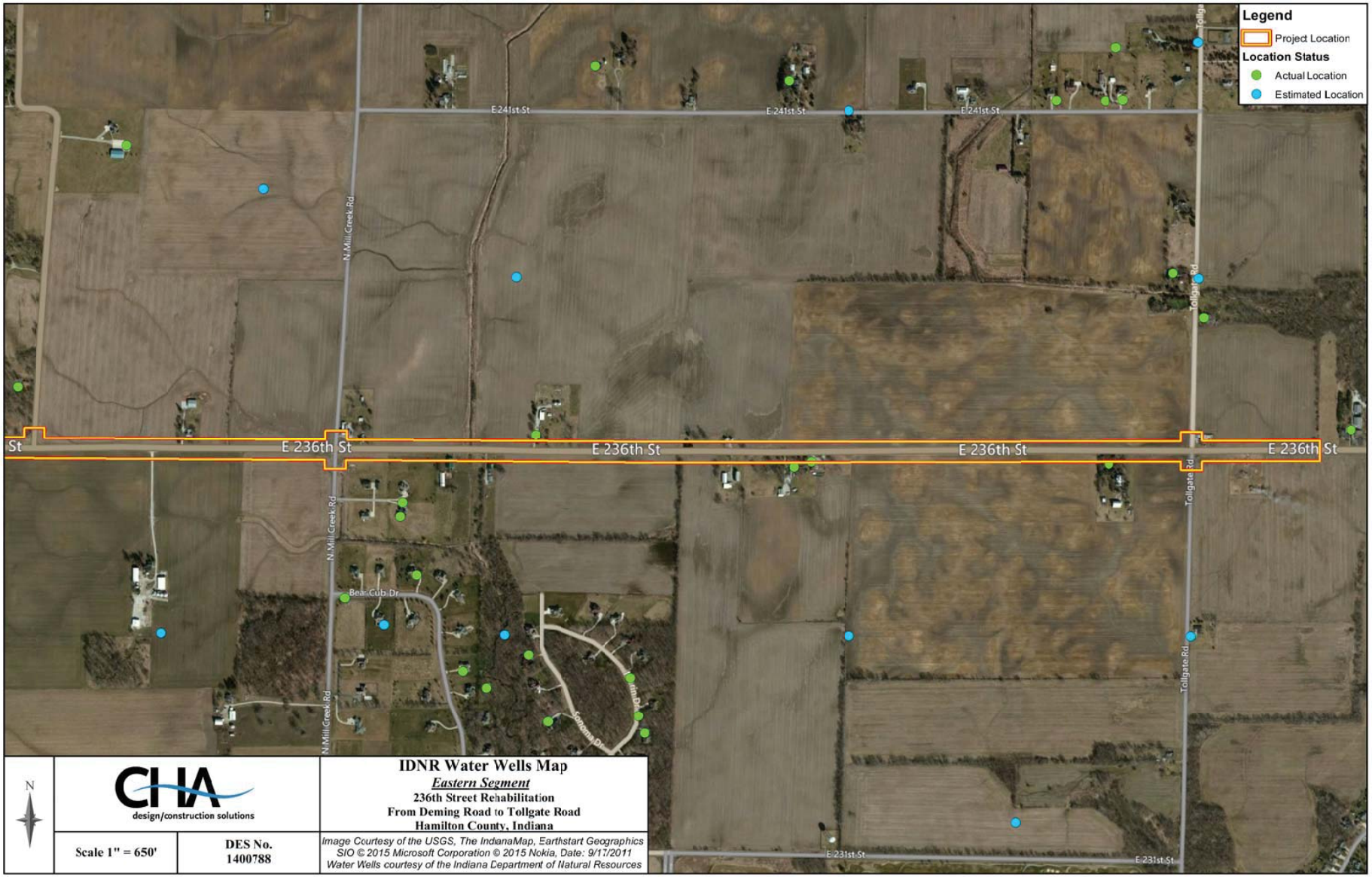
Table 1. Wetland Summary

Wetland ID	Size in Review Area (ac)	Cowardin Class	Latitude	Longitude	Class of aquatic resource
Wetland A	0.03	Emergent	40.13190° N	86.09868° W	Non-section 10 - wetland
Wetland B	0.05	Emergent	40.13203° N	86.09907° W	Non-section 10 - wetland
Wetland C	0.01	Emergent	40.13209° N	86.09871° W	Non-section 10 - wetland
Wetland D	0.03	Emergent	40.13222° N	86.06997° W	Non-section 10 - wetland

Table 2. Stream Summary

Waterway name	Length in Review Area (ft)	Width at OHWM(ft)	Cowardin Class	Latitude	Longitude	Class of aquatic resource
Bear Slide Creek	100	22	Intermittent Riverine	40.13218° N	86.05728° W	Non-section 10 non-wetland
Unnamed Stream	100	4	Ephemeral Riverine	40.13168° N	86.06101° W	Non-section 10 non-wetland


Legend
Project Location
Water Wells (IDNR)
Location Status
Actual Location
Estimated Location
E 236th St
E 236th St
E 236th St
E 236th St
Carson Rd
Deming Rd
Colt Way
Cammack Rd
Cammack Rd
E 231st St
E 231st St
N
CHA
design/construction solutions
Scale 1" = 650'
DES No.
1400788
IDNR Water Wells Map
Western Segment
236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana
Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics
SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
Water Wells courtesy of the Indiana Department of Natural Resources


Legend
Project Location
Location Status
Actual Location
Estimated Location
E 241st St
E 241st St
E 241st St
N Mill Creek Rd
E 236th St
E 236th St
E 236th St
E 236th St
Tollgate Rd
Bear Cub Dr
E 231st St
E 231st St
N
CHA
design/construction solutions
IDNR Water Wells Map
Eastern Segment
236th Street Rehabilitation
From Deming Road to Tollgate Road
Hamilton County, Indiana
Scale 1" = 650'
DES No.
1400788
Image Courtesy of the USGS, The IndianaMap, Earthstart Geographics
SIO © 2015 Microsoft Corporation © 2015 Nokia, Date: 9/17/2011
Water Wells courtesy of the Indiana Department of Natural Resources

Appendix G

Public Involvement

Item	Appendix Page
Notice of Survey	G-1 to G-3
Notice of Planned Improvement	G-4

Sample Letter

February 16, 2015

NOTICE OF ENTRY FOR SURVEY

RE: Des. No. 1400788
Rehabilitation of 236th Street
Between Deming Road and Tollgate Road
Hamilton County, Indiana

Dear Property Owner:

Our information indicates that you own property near the referenced transportation project, which will evaluate a number of alternatives to improve the existing roadway. At this time, project details are only conceptual and will be refined as the environmental process advances.

The intent of this letter is merely to inform you that representatives of Hamilton County will be conducting environmental surveys of the project area in the near future. It may be necessary for them to enter onto your property to complete this work. This is permitted under Indiana Code (IC) § 8-23-7-26. Anyone performing this type of work has been instructed to identify him or herself to you, if you are available, before they enter your property. If you no longer own this property or it is currently occupied by someone else, please let us know the name of the new owner or occupant so that we can contact them about the survey.

Please read the attached notice to inform you of what the "Notice of Entry for Survey" means. The survey work may include the identification and mapping of wetlands, archaeological investigations (which may involve the survey, testing, or excavation of identified archaeological sites), historical surveys, noise studies and various other environmental evaluations. The information we obtain from such studies is necessary for the proper planning and design of this transportation project. It is our sincerest desire to cause you as little inconvenience as possible during this survey.

If any problems do occur, please contact the field crew or contact me at (317) 780-7146 or by email at rwinebrinner@chacompanies.com. You may also write to me at 300 S. Meridian Street, Indianapolis, Indiana 46225.

Please be aware that IC 8-23-7-27 and 28 provides that you may seek compensation from Hamilton County for damages occurring to your property (land or water) that result from the County's entry for the purposes mentioned above in IC 8-23-7-26. In this case, a basic procedure that may be followed is for you and/or a County employee or representative to present an account of the damages to me. I will check the information and forward it to the appropriate person at the County who will contact you to discuss the situation and compensation.

If you are not satisfied with the compensation that the County determines is owed to you, IC 8-23-7-8 provides the following:

> The amount of damages shall be assessed by the county agricultural extension educator of the county in which the land or water is located and two (2) disinterested residents of the county, one (1) appointed by the aggrieved party and one (1) appointed by the department. A written report of the assessment of damages shall be mailed to the aggrieved party and the department by first class United States mail. If either the department or the aggrieved party is not satisfied with the assessment of damages, either or both may file a petition, not later than fifteen (15) days after receiving the report, in the circuit or superior court of the county in which the land or water is located.

It is our sincere desire to cause as little inconvenience as possible during our work, and we thank you in advance for your cooperation.

Sincerely,

CHA Consulting, Inc.

Robert Winebrinner
Environmental Planner

Attachment

Notice of Entry for Survey

If you have received a "Notice of Entry for Survey" from Hamilton County or a County representative, you may be wondering what it means. In the early stages of a project's development, as much information as possible must be collected to ensure that sound decisions are made in designing the proposed project. Before entering onto private property to collect that data, the County is required to notify landowners that personnel will be in the area and may need to enter onto their property. Indiana Code, Title 8, Article 23, Chapter 7, Section 26 deals with the department's authority to enter onto any property within Indiana.

Receipt of a Notice of Entry for Survey does not necessarily mean that the County will be buying property from you. It doesn't even necessarily mean that the project will involve your property at all. Since the Notice of Entry for Survey is sent out in the very early stages and since we want to collect data within AND surrounding the limits of the project more landowners are contacted than will actually fall within the eventual project limits. It may also be that your property falls within the project limits but we will not need to purchase property from you to make improvements to the roadway. Another thing to keep in mind is that when you receive a Notice of Entry for Survey, very few specifics have been worked out and actual construction of the project may be several years in the future.

During the development of a transportation project that requires the purchasing of property from landowners, an opportunity for a public hearing is typically offered. If you were on the list of people who received a Notice of Entry for Survey, you should also receive a notice informing you of your opportunity to request a public hearing. These notices will also be published in your local newspaper so interested individuals who are not adjacent to the project will also have the opportunity to request a public hearing. If a public hearing is to be held, the County will publicize the date, location, and time. The County will present detailed project information at the public hearing, comments will be taken from the public in spoken and written form, and question and answer sessions will be offered. Based on the feedback the County receives from the public, a project can be modified and improved to better serve the public.

So, if you have received a "Notice of Entry for Survey or Investigation", remember:

1. You do not need to take any action at this time. It is merely letting you know that people in orange/lime vests are going to be in your neighborhood.
2. The project is still in its very early planning stages.
3. You will be notified of your opportunity to comment on the project at a later date.

Union Station, 300 S. Meridian Street, Indianapolis, IN 46225
T 317.786.0461 • F 317.788.0957 • www.chacompanies.com

Notice of Planned Improvement

Please Note - This information is to be included after the document has been released for public involvement.

Appendix H

Air Quality

Item	Appendix Page
Statewide Transportation Improvement Plan (STIP)	H-1
Indianapolis Regional TIP	H-2

Indiana Department of Transportation (INDOT)
State Preservation and Local Initiated Projects FY 2016 - 2019

SPONSOR	DES	STIP NAME	ROUTE	WORK TYPE	LOCATION	DISTRICT	MILES	FEDERAL CATEGORY	Estimated Cost left to Complete Project*	PROGRAM	PHASE	FEDERAL	MATCH	2016	2017	2018	2019
	Comments: IMPO FY 16-19 TIP in cooperated into STIP 2016-2019 by reference July 1, 2015 for phases and year.																
Westfield	1400936	A 08	ST 1075	Road Reconstruction (3R/4R Standards)	Intersection improvements & road construction Greyhound Pass US 31 to 147th St	Greenfield	0	CMAQ	$8,072,000.00	Indianapolis MPO	CN	$3,543,900.00	$0.00			($1,856,100.00)	$5,400,000.00
										100% Local Funds	PE	$0.00	$472,000.00		$472,000.00		
										100% Local Funds	RW	$0.00	$0.00	($850,000.00)		$850,000.00	
										100% Local Funds	CN	$0.00	$885,975.00			($464,025.00)	$1,350,000.00
	Comments: IMPO FY 16-19 TIP in cooperated into STIP 2016-2019 by reference July 1, 2015 for phases and year.																
Carmel	1400937	M 12	ST 1065	Intersection Improvement, Roundabout	Intersection of 96th St & Priority Way - roundabout	Greenfield	0	STP		Indianapolis MPO	CN	$1,920,000.00	$0.00			$1,920,000.00	
										100% Local Funds	CN	$0.00	$480,000.00			$480,000.00	
	Comments: IMPO FY 16-19 TIP in cooperated into STIP 2016-2019 by reference July 1, 2015 for phases and year.																
Hamilton County	1400788	Init.	IR 1066	Road Rehabilitation (3R/4R Standards)	236th Street, between Deming Road and Tollgate Road	Greenfield	3.3	STP		Group IV Program	CN	$7,568,400.00	$0.00				$7,568,400.00
										100% Local Funds	RW	$0.00	$200,000.00		$125,000.00	$75,000.00	
										100% Local Funds	CN	$0.00	$1,892,100.00				$1,892,100.00
										Group IV Program	RW	$800,000.00	$0.00		$500,000.00	$300,000.00	
Hamilton County	1400760	Init.	IR 1066	Road Rehabilitation (3R/4R Standards)	236th Street from approx. 2.2 miles west of US 31 (Br. #201) to US 31	Greenfield	2.2	STP		100% Local Funds	CN	$0.00	$1,216,000.00				$1,216,000.00
										100% Local Funds	PE	$0.00	$147,010.00	$25,000.00	$77,010.00	$45,000.00	
										Group IV Program	RW	$660,000.00	$0.00		$660,000.00		
										100% Local Funds	RW	$0.00	$165,000.00		$165,000.00		
										Group IV Program	CN	$4,864,000.00	$0.00				$4,864,000.00
										Group IV Program	PE	$588,040.00	$0.00	$100,000.00	$308,040.00	$180,000.00	
Indiana Department of Transportation	1400065	Init.	SR 32	Added Travel Lanes, HMA	Between Cicero Creek and SR 38 WJCT	Greenfield	.491	NHPP		Road ROW	RW	$160,000.00	$40,000.00			$200,000.00	

 Report Created:12/3/2015 9:44:05AM

*Estimated Costs left to Complete Project column is for costs that may extend beyond the four years of a STIP. This column is not fiscally constrained and is for information purposes.

TABLE 16

Group IV Rural Surface Transportation Program (STP) Projects

State Fiscal Years 2016-2019

Projects in bold are considered regionally significant for air quality purposes.

Des. No.	Recipient	Road Name	Project Description	Project Length (mi.)	Phase	Total Project Cost	Federal Funds	Local Match
			2016					
1383408	**Boone Co.**	**Ronald Reagan Parkway**	**CR 400 S / 300 S Connector east of 650 E to bypass downtown Whitestown**	**1.82**	**RW**	**$ 559,800**	**$ 479,840**	**$ 119,960**
0500161	Hamilton Co.	136th St.	Intersection improvement at 136th St. and Prairie Baptist Road	n/a	CN	$ 582,875	$ 300,000	$ 282,875
1400788	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage east of US 31 from Deming Rd. to Tollgate Rd.	3.30	RW	$ 1,000,000	$ 800,000	$ 200,000
1400760	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage west of US 31 to Hamilton Co. Bridge #201.	2.20	PE	$ 635,050	$ 508,040	$ 127,010
1400760	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage west of US 31 to Hamilton Co. Bridge #201.	2.20	RW	$ 825,000	$ 660,000	$ 165,000
0400037	Hancock Co.	CR 600 W	600 W Phase 2, from US 40 to Broken Arrow Dr	0.73	CN	$ 2,603,125	$ 2,082,500	$ 520,625
0400037	Hancock Co.	CR 600 W	600 W Phase 2, from US 40 to Broken Arrow Dr	0.73	CE	$ 371,875	$ 297,500	$ 74,375
1005947	**Johnson Co.**	**CR 700 N & 750 N**	**New 2 lane roadway between CR 325 E. and CR 400 E**	**1.16**	**RW**	**$ 436,269**	**$ 320,960**	**$ 115,309**
			2017					
1383408	**Boone Co.**	**Ronald Reagan Parkway**	**CR 400 S / 300 S Connector east of 650 E to bypass downtown Whitestown**	**1.82**	**CN**	**$ 4,376,000**	**$ 3,500,800**	**$ 875,200**
1383408	**Boone Co.**	**Ronald Reagan Parkway**	**CR 400 S / 300 S Connector east of 650 E to bypass downtown Whitestown**	**1.82**	**CE**	**$ 538,440**	**$ 49,952**	**$ 488,488**
1297608	Hancock Co.	CR 600 W	Relocate a reimburseable utility, install a large storm sewer, and reconstruct the roadway.	n/a	CN	$ 510,000	$ 408,000	$ 102,000
1383325	Hancock Co.	CR 300 S	Replace bridge 91 over Brandywine Creek	n/a	CN	$ 1,700,000	$ 1,360,000	$ 340,000
1383325	Hancock Co.	CR 300 S	Replace bridge 91 over Brandywine Creek	n/a	CE	$ 212,500	$ 170,000	$ 42,500
1005947	**Johnson Co.**	**CR 700 N & 750 N**	**New 2 lane roadway between CR 325 E. and CR 400 E**	**1.16**	**CN**	**$ 2,579,243**	**$ 2,095,111**	**$ 484,132**
1005947	**Johnson Co.**	**CR 700 N & 750 N**	**New 2 lane roadway between CR 325 E. and CR 400 E**	**1.16**	**CE**	**$ 302,112**	**$ 236,889**	**$ 65,223**
			2018					
1400760	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage west of US 31 to Hamilton Co. Bridge #201.	2.20	CN	$ 100,000	$ 80,000	$ 20,000
			2019					
1400760	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage west of US 31 to Hamilton Co. Bridge #201.	2.20	CN	$ 5,465,000	$ 4,372,000	$ 1,093,000
1400760	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and	2.20	CE	$ 615,000	$ 492,000	$ 123,000
1400788	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage east of US 31 from Deming Rd. to Tollgate Rd.	3.30	CN	$ 8,500,000	$ 6,800,000	$ 1,700,000
1400788	Hamilton Co.	236th St.	Widen narrow lanes, add 6' paved shoulders, add a 10' multiuse path, and improve side ditch drainage east of US 31 from Deming Rd. to Tollgate Rd.	3.30	CE	$ 960,500	$ 768,400	$ 192,100
1297608	Hancock Co.	CR 600 W	Relocate a reimburseable utility, install a large storm sewer, and reconstruct the roadway.	n/a	CN	$ 2,546,250	$ 2,037,000	$ 509,250
1297608	Hancock Co.	CR 600 W	Relocate a reimburseable utility, install a large storm sewer, and reconstruct the roadway.	n/a	CE	$ 363,750	$ 291,000	$ 72,750
1400744	Hancock Co.	CR 300 N	Widen bridge 63.	n/a	CN	$ 960,000	$ 768,000	$ 192,000
1400744	Hancock Co.	CR 300 N	Widen bridge 63.	n/a	CE	$ 120,000	$ 96,000	$ 24,000
1401650	**Westfield**	**Westfield Blvd.**	**Connector from 161st to 169th.**	**1.18**	**CN**	**$ 5,000,000**	**$ 4,000,000**	**$ 1,000,000**
1401650	**Westfield**	**Westfield Blvd.**	**Connector from 161st to 169th.**	**1.18**	**CE**	**$ 625,000**	**$ 500,000**	**$ 125,000**
					TOTAL	**$ 42,487,789**	**$ 33,473,992**	**$ 9,053,797**

NOTE: Additional Group IV STP projects may be approved at a later date and amended into Table 16.

Appendix I

Additional Studies

Item	Appendix Page
DOI Land & Water Conservation Funds Grants	I-1
US Census Bureau Map	I-2
Environmental Justice Analysis Tables	I-3 to I-7

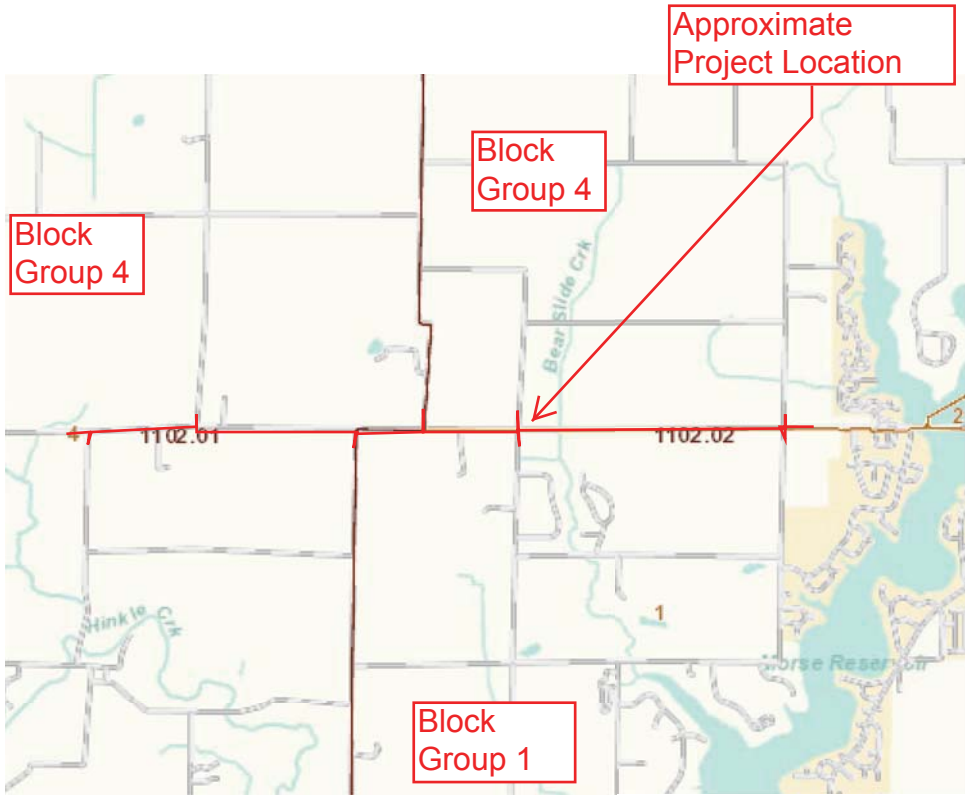
Grant ID & Element	Type	Grant Element Title	Grant Sponsor	Amount	Status	Date Approved	Exp. Date	Cong. District
HAMILTON								
17 - XXX	D	FOREST PARK DEVELOPMENT	NOBLESVILLE PARK BOARD	$8,383.88	C	12/17/1969	12/31/1969	6
58 - XXX	A	FOREST PARK ADDITION	NOBLESVILLE PARK BOARD	$45,744.50	C	5/8/1969	12/31/1970	6
128 - XXX	C	MORSE PARK	HAMILTON COUNTY PARK BOARD	$142,332.00	C	12/6/1972	6/30/1975	6
198 - XXX	D	TRI-TOWN COMMUNITY PARK	CICERO PARK BOARD	$34,242.81	C	5/6/1975	12/31/1977	6
236 - XXX	D	FOREST PARK POOL	HAMILTON COUNTY PARK BOARD	$125,000.00	C	2/3/1976	6/30/1978	6
493 - XXX	C	FLOWING WELL PARK	CARMEL/CLAY TWP PARK BOARD	$75,000.00	C	4/23/1993	6/30/1998	6
502 - XXX	D	COOL CREEK PARK NATURE CENTER	HAMILTON COUNTY PARK BOARD	$75,000.00	C	5/20/1994	6/30/1999	6
519 - XXX	C	KOTEEWI PARK ACQUISITION & DEVELOPMENT	HAMILTON COUNTY PARK BOARD	$200,000.00	C	9/6/2000	12/31/2005	5
551 - XXX	C	D/MACGREGOR PARK	WASHINGTON TOWNSHIP PARK BOARD	$200,000.00	C	3/9/2005	12/31/2007	0
			Hamilton County Total:	**$905,703.19**		**County Count:**		**9**
HANCOCK								
350 - XXX	D	RILEY PARK AND POOL RENOVATION	GREENFIELD PARK BOARD	$220,000.00	C	1/30/1979	12/31/1983	6
552 - XXX	C	BECKENHOLDT PARK	GREENFIELD PARK BOARD	$200,000.00	C	4/19/2005	12/31/2009	5
561 - XXX	C	SUGAR CREEK TOWNSHIP PARK	SUGAR CREEK PARK BOARD	$200,000.00	C	9/7/2006	12/31/2009	5
575 - XXX	D	BECKENHOLDT PARK PHASE II	GREENFIELD PARK & RECREATION BOARD	$156,466.00	C	4/15/2011	12/31/2015	0
			Hancock County Total:	**$776,466.00**		**County Count:**		**4**

Road Rehabilitation - E 236th St - Phase I, Hamilton County - DES 1400788

Legend:

Boundaries	Features
State	Major Road
'14 County	Street
'14 Census Tract	Stream/Waterbody
'14 Block Group	

Items in grey text are not visible at this zoom level



Environmental Justice (EJ) Analysis

Road Rehabilitation, E. 236th St., Phase I
Hamilton County, Indiana
Des. No. 1400788

	Community of Concern (COC)	Affected Community (AC)	Affected Community (AC)
	Jackson township	Census Tract 1102.01 Block Group 4	Census Tract 1102.02 Block Groups 1 & 4
Race			
Total Population for the purpose of surveying race:	10,463	1,316	4330
Total population non-hispanic/latino; white alone:	9,838	1,308	4084
Number of Minorities	**625**	**8**	**246**
Percent of Minorities	**5.97%**	**0.61%**	**5.68%**
125% of COC	*7.47%*		
Potential Minority EJ Concern?		**No**	**No**

	Community of Concern (COC)	Affected Community (AC)	Affected Community (AC)
	Jackson township	Census Tract 1102.01	Census Tract 1102.02
Income			
Total population for the purpose of surveying poverty income:	10,338	4,233	6,105
Population with income in the past 12 months below poverty level:	962	382	580
Percent Low Income	**9.31%**	**9.02%**	**9.50%**
125% of COC	*11.63%*		
Potential Low-income EJ Concern?		**No**	**No**

B03002: HISPANIC OR LATINO ORIGIN BY RACE - Universe: Total population

2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.
Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Jackson township, Hamilton County, Indiana		Block Group 4, Census Tract 1102.01, Hamilton County, Indiana		Block Group 1, Census Tract 1102.02, Hamilton County, Indiana		Block Group 4, Census Tract 1102.02, Hamilton County, Indiana	
	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error	Estimate	Margin of Error
Total:	10,463	+/-28	1,316	+/-209	3,324	+/-463	1,006	+/-309
Not Hispanic or Latino:	10,128	+/-192	1,308	+/-209	3,158	+/-450	1,006	+/-309
White alone	9,838	+/-264	1,308	+/-209	3,078	+/-439	1,006	+/-309
Black or African American alone	21	+/-22	0	+/-11	0	+/-11	0	+/-11
American Indian and Alaska Native alone	64	+/-92	0	+/-11	0	+/-11	0	+/-11
Asian alone	37	+/-45	0	+/-11	37	+/-45	0	+/-11
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Some other race alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Two or more races:	168	+/-116	0	+/-11	43	+/-57	0	+/-11
Two races including Some other race	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Two races excluding Some other race, and three	168	+/-116	0	+/-11	43	+/-57	0	+/-11
Hispanic or Latino:	335	+/-190	8	+/-13	166	+/-125	0	+/-11
White alone	194	+/-125	8	+/-13	144	+/-117	0	+/-11
Black or African American alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
American Indian and Alaska Native alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Asian alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Native Hawaiian and Other Pacific Islander alone	0	+/-18	0	+/-11	0	+/-11	0	+/-11
Some other race alone	109	+/-149	0	+/-11	0	+/-11	0	+/-11
Two or more races:	32	+/-40	0	+/-11	22	+/-37	0	+/-11
Two races including Some other race	10	+/-15	0	+/-11	0	+/-11	0	+/-11
Two races excluding Some other race, and three	22	+/-37	0	+/-11	22	+/-37	0	+/-11

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error
(for a discussion of nonsampling variability, see Accuracy of the Data). The effect of nonsampling error is not represented in these tables.

While the 2009-2013 American Community Survey (ACS) data generally reflect the February 2013 Office of Management and Budget (OMB) definitions of metropolitan and

micropolitan statistical areas; in certain instances the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB definitions due to differences in the effective dates of the geographic entities.

Estimates of urban and rural population, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

Explanation of Symbols:

1. *An '**' entry in the margin of error column indicates that either no sample observations or too few sample observations were available to compute a standard error and thus the margin of error. A statistical test is not appropriate.*
2. *An '-' entry in the estimate column indicates that either no sample observations or too few sample observations were available to compute an estimate, or a ratio of medians cannot be calculated because one or both of the median estimates falls in the lowest interval or upper interval of an open-ended distribution.*
3. *An '-' following a median estimate means the median falls in the lowest interval of an open-ended distribution.*
4. *An '+' following a median estimate means the median falls in the upper interval of an open-ended distribution.*
5. *An '***' entry in the margin of error column indicates that the median falls in the lowest interval or upper interval of an open-ended distribution. A statistical test is not appropriate.*
6. *An '*****' entry in the margin of error column indicates that the estimate is controlled. A statistical test for sampling variability is not appropriate.*
7. *An 'N' entry in the estimate and margin of error columns indicates that data for this geographic area cannot be displayed because the number of sample cases is too small.*
8. *An '(X)' means that the estimate is not applicable or not available.*

B17001: POVERTY STATUS IN THE PAST 12 MONTHS BY SEX BY AGE - Universe: Population for whom poverty status is determined

2009-2013 American Community Survey 5-Year Estimates

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Data and Documentation section.
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Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities and towns and estimates of housing units for states and counties.

	Jackson township, Hamilton County, Indiana		Census Tract 1102.01, Hamilton County, Indiana		Census Tract 1102.02, Hamilton County, Indiana	
	Estimate	Margin of	Estimate	Margin of	Estimate	Margin of
Total:	10,338	+/-95	4,233	+/-211	6,105	+/-225
Income in the past 12 months below	962	+/-291	382	+/-150	580	+/-247
Male:	313	+/-135	163	+/-80	150	+/-111
Under 5 years	78	+/-76	35	+/-33	43	+/-67
5 years	4	+/-7	4	+/-7	0	+/-16
6 to 11 years	9	+/-11	9	+/-11	0	+/-16
12 to 14 years	21	+/-21	21	+/-21	0	+/-16
15 years	61	+/-94	0	+/-11	61	+/-94
16 and 17 years	0	+/-18	0	+/-11	0	+/-16
18 to 24 years	31	+/-32	31	+/-32	0	+/-16
25 to 34 years	14	+/-12	14	+/-12	0	+/-16
35 to 44 years	15	+/-17	15	+/-17	0	+/-16
45 to 54 years	44	+/-37	26	+/-22	18	+/-30
55 to 64 years	31	+/-25	3	+/-5	28	+/-23
65 to 74 years	0	+/-18	0	+/-11	0	+/-16
75 years and over	5	+/-7	5	+/-7	0	+/-16
Female:	649	+/-229	219	+/-88	430	+/-212
Under 5 years	24	+/-23	24	+/-23	0	+/-16
5 years	3	+/-4	3	+/-4	0	+/-16
6 to 11 years	43	+/-38	43	+/-38	0	+/-16
12 to 14 years	66	+/-106	0	+/-11	66	+/-106
15 years	0	+/-18	0	+/-11	0	+/-16
16 and 17 years	14	+/-16	14	+/-16	0	+/-16
18 to 24 years	68	+/-66	27	+/-21	41	+/-63
25 to 34 years	142	+/-136	21	+/-18	121	+/-135
35 to 44 years	176	+/-119	53	+/-31	123	+/-117
45 to 54 years	13	+/-14	13	+/-14	0	+/-16
55 to 64 years	16	+/-22	3	+/-6	13	+/-21
65 to 74 years	0	+/-18	0	+/-11	0	+/-16
75 years and over	84	+/-82	18	+/-16	66	+/-81
Income in the past 12 months at or	9,376	+/-329	3,851	+/-233	5,525	+/-368
Male:	4,709	+/-240	1,985	+/-154	2,724	+/-222
Under 5 years	115	+/-62	97	+/-52	18	+/-31
5 years	62	+/-61	39	+/-48	23	+/-37
6 to 11 years	639	+/-159	223	+/-66	416	+/-145
12 to 14 years	182	+/-77	101	+/-52	81	+/-59
15 years	70	+/-51	20	+/-18	50	+/-49
16 and 17 years	134	+/-96	33	+/-25	101	+/-84
18 to 24 years	347	+/-93	195	+/-56	152	+/-86
25 to 34 years	426	+/-143	196	+/-76	230	+/-127
35 to 44 years	539	+/-104	272	+/-64	267	+/-97
45 to 54 years	823	+/-138	358	+/-65	465	+/-134

55 to 64 years	646	+/-133	251	+/-60	395	+/-128
65 to 74 years	424	+/-110	129	+/-36	295	+/-107
75 years and over	302	+/-108	71	+/-32	231	+/-103
Female:	4,667	+/-264	1,866	+/-156	2,801	+/-281
Under 5 years	241	+/-104	83	+/-32	158	+/-100
5 years	83	+/-56	45	+/-37	38	+/-45
6 to 11 years	332	+/-122	138	+/-49	194	+/-121
12 to 14 years	99	+/-57	59	+/-36	40	+/-45
15 years	76	+/-42	61	+/-35	15	+/-23
16 and 17 years	175	+/-94	48	+/-35	127	+/-88
18 to 24 years	376	+/-119	152	+/-61	224	+/-116
25 to 34 years	455	+/-140	160	+/-59	295	+/-136
35 to 44 years	705	+/-179	280	+/-64	425	+/-154
45 to 54 years	793	+/-130	322	+/-71	471	+/-119
55 to 64 years	715	+/-138	266	+/-62	449	+/-122
65 to 74 years	391	+/-102	139	+/-38	252	+/-99
75 years and over	226	+/-79	113	+/-40	113	+/-62

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