



Chapter 3 – Alternatives

For purposes of this chapter, Preferred Alternative 8 that was identified in the Draft Environmental Impact Statement (DEIS) will be referred to as “Alternative 8.” The Preferred Alternative for the Final Environmental Impact Statement (FEIS) will be referred to as either “Refined Alternative 8,” or “Refined Preferred Alternative 8.”

Since the publishing of the DEIS, the following substantive changes have occurred to this chapter:

- **Section 3.1.2, *Traffic Modeling***, has been updated to include information regarding the use of the Indiana Statewide Travel Demand Model (ISTDM) Version 6.2 with the I-69 Corridor Model;
- **Figures 3-3 and 3-5** were updated to reflect the updated Traffic Modeling (**Section 3.1.2**);
- **Figure 3-6** was updated to detail current project status;
- Impact **Tables 3-5 and 3-16** were updated to include the potential impacts to caves;
- **Section 3.2.2.1, *Public Involvement***, was updated with a summary of the DEIS Public Hearing;
- **Section 3.2.2.8, *Refined Alternative 8***, was added to this section;
- **Tables 3-6 to 3-15** were updated to include information about Refined Alternative 8;
- **Section 3.3.1, *Transportation Performance Indicators***, was updated to reflect updated traffic data, including **Tables 3-7 to 3-9**;
- **Section 3.5, *Preferred Alternative***, was updated to include information about the Refined Preferred Alternative 8;
- **Table 3-16** was updated to include impacts from Refined Preferred Alternative 8; and,
- **Figures 3-13 and 3-14** were updated to include the Refined Preferred Alternative 8.

This chapter describes the preliminary alternatives analysis and screening of alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies, beginning with an overview of key factors in the development of Tier 2 Alternatives (**Section 3.1, *Alternative Development Overview***). Because this is a tiered study, the development of alternatives differs significantly from what is typical in a non-tiered National Environmental Policy Act (NEPA) study. The



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Section 5 project consists of upgrading SR 37 to interstate highway standards. Thus, the possible area of direct impact for Section 5 is already occupied by a four-lane, divided highway and its right-of-way, which already has multiple, diverse access points. Therefore, the challenge in identifying alternatives for Section 5 is how to limit or control the current access points and still provide access to current residential, commercial, and industrial development. By comparison, the primary challenge for Sections 1 to 4 was where best to place the new roadway and its access points. The development and scoping of the Tier 2 preliminary alternatives is discussed in **Section 3.2, *Alternative Development Process***, followed by a discussion of the performance measures that determine how the build alternatives perform in relation to the no-build scenario (**Section 3.3, *Screening of Alternatives***). Then, the preliminary alternatives are screened and the alternatives are identified for detailed evaluation (**Section 3.4, *Description of Alternatives***). **Section 3.4, *Description of Alternatives***, also summarizes potential impacts (both environmental and social) and cost estimates (capital and maintenance) for the alternatives. Lastly, the Preferred Alternative is identified in **Section 3.5, *Preferred Alternative***.

3.1 *Alternative Development Overview*

The range of alternatives in the second tier of a tiered NEPA study is constrained by the decisions reached in Tier 1. In a typical non-tiered NEPA study, these constraints do not exist. In non-tiered studies the project termini, along with a general routing (which may include alternative choices for communities to be served) are used in the scoping process to specify a range of alternatives. Even in a relatively small non-tiered NEPA study, the locations of alternatives may differ by many miles. **Section 3.1.1, *Scoping of Alternatives in a Tiered Study***, describes how the range of alternatives is affected by the tiered nature of this study.

The selection of a corridor in Tier 1 also requires an innovative approach to traffic forecasting for Tier 2 alternatives. Because the range of alternative alignments in a Tier 2 highway study is limited to the corridor selected in the Tier 1 decision, more detailed modeling tools are needed to evaluate alternatives. The traffic forecasts for this study are provided by a hierarchy of traffic models. Both Version 6.2 of the ISTDm and a more detailed model are used.¹ The I-69 corridor model is “fed” by the results of the ISTDm. The corridor model includes the counties through which the approved corridor for Sections 5 and 6 of I-69 passes, as well as all or part of other nearby counties. **Section 3.1.2, *Traffic Modeling***, describes this hierarchy of modeling tools.

3.1.1 *Scoping of Alternatives in a Tiered Study*

The Tier 1 Record of Decision (ROD) approved a corridor for I-69 between I-64 north of Evansville and I-465 south of Indianapolis. This corridor generally is 2,000 feet in width. It narrows in some places to as little as 420 feet (near the Patoka River National Wildlife Refuge). In other locations it widens to as much as 6,400 feet (in northern Daviess County). The Tier 2 studies determine an alignment for I-69 within this approved corridor. As provided in the Tier 1

¹ In the urban areas of Bloomington, Martinsville, and Indianapolis (in Tier 2 Sections 5 and 6), a Microsimulation model also is being used. The use of this model for Section 5 is described in this FEIS, and in **Appendix GG, *I-69 Corridor Model Documentation***, and **Appendix SS, *Traffic Simulation Modeling Summary***.



ROD (p. 8), the flexibility exists to consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor.

Section 5 begins at just north of the intersection of SR 37 and Victor Pike, south of Bloomington, and continues northward to just south of the existing interchange of SR 37 and SR 39 in Martinsville (refer to **Chapter 1, Introduction, Figure 1-3**). This section of the I-69 project is approximately 21 miles in length and extends through Monroe and Morgan counties, Indiana. Section 5 of I-69 entails upgrading an existing multi-lane, divided transportation facility, SR 37, to a full freeway design. Therefore, most of the right-of-way required for the Section 5 project already is devoted to transportation use.

The selection of a corridor in Tier 1 appreciably limits the range of alternatives developed for the Tier 2 studies. The Tier 1 decision determined which communities would be best served by I-69, while attempting to minimize impacts to the natural and human environment, and set forth the general route for the interstate based on this information. The Tier 1 ROD specified that the following would be key decision points for distinguishing alternatives in Tier 2 studies:²

- Interchange location and design;
- Access to abutting properties; and,
- Location of grade separations and intersecting roads.

With Section 5, the use of existing SR 37 further limited the number of alternatives developed for evaluation to those with boundaries of 1,000 feet to either side of the existing SR 37 centerline, as shown in **Figure 1-3** (see **Chapter 1, Introduction**). While this makes use of a major existing corridor to maximize re-use of existing facilities and bridge infrastructure, some impacts cannot be avoided as they could be by new alignment alternatives.³ Because the alignments themselves are constrained by a narrow corridor, variations in alignment may not be as significant in distinguishing alternatives as the decision points cited above. Smaller modifications in the alignment will be considerations in minimizing costs and impacts, where possible.

² For further information on these decision points, please refer to Section 2.3.4, *Range of Alternatives*, in the Tier 1 ROD for additional details.

³ For example, some relocations of homes and businesses near existing SR 37 cannot be avoided; noise impacts to adjoining properties are more likely to occur; and aquatic impacts in areas near intersecting roads are difficult to avoid when interchanges, overpasses or underpasses are provided.



3.1.2 Traffic Modeling

As discussed above, alternatives in this study were much more similar than is typical in a non-tiered NEPA study due to the identification of the corridor in Tier 2 studies as 1,000 feet to either side of the existing SR 37 centerline. Accordingly, the tools used to compare the performance of these alternatives were also more focused. The ISTDM is a very robust tool for comparing the alternatives in a typical NEPA study. However, with the alignments confined to a corridor that generally is less than one-half mile in width, tools to evaluate alternatives on a more refined scale were needed.

In large part to prepare for the Tier 2 studies, the ISTDM was refined to provide a more detailed representation of the highway network throughout the state.⁴ The results of this upgrade are illustrated in **Figure 3-1** and **Figure 3-2**. **Figure 3-1**⁵ shows the highway network for the previous version (Version 3) of the ISTDM. It had 18,000 links, with 23,000 miles of highway network. **Figure 3-2** shows the highway network for Version 6.2 of the ISTDM. It has 36,000 links, with 30,000 miles of highway network. **Figure 3-1** through **Figure 3-5** are located at the end of **Section 3.1, Alternative Development Overview**, on pages 3-6 and 3-7.

Figure 3-3 and **Figure 3-4** further illustrate the updates made to Version 6.2. These figures show that Version 6.2 contains more than five times as many Traffic Analysis Zones⁶ (TAZs) as Version 3; Version 3 included 844 zones, while Version 6.2 includes 4,831 zones. The greater number of zones means that each zone is smaller. Smaller zones provide a more detailed and precise representation of traffic movements within the area.⁷

An even more detailed model was created for the region proximate to the I-69 corridor to incorporate the forecasts from ISTDM. This “I-69 Corridor Model” is essentially an overlay on the standard ISTDM Version 6.2 model. The I-69 Corridor Model includes all of the roads that are included in Version 6.2, plus additional roads that are too minor to be included in the standard version of the statewide model. These additional roads are included in vicinity of the I-69 corridor. These additional roads are represented by the higher density lines along the selected corridor in **Figure 3-5**.

⁴ The ISTDM is regularly updated by the Indiana Department of Transportation (INDOT) to incorporate the most current data and transportation planning practices. ISTDM Version 3 was used for the Tier 1 Study; previous Tier 2 Studies used ISTDM Version 4, and this Tier 2 Study used Version 6.2. Traffic forecasts for ISTDM Version 3 were for a forecast year of 2025. Traffic forecasts in ISTDM Version 6.2 are for a forecast year of 2035.

⁵ **Figures 3-1** through **3-5** are intended to communicate, in a schematic manner, the relative level of detail of the modeled highway network and TAZs. Other maps provided in the FEIS are much more detailed, consistent with the resource or impacts under discussion.

⁶ A TAZ is a geographic area that conforms to United States Census geography, is consistent with the highway network, and is relatively homogeneous with respect to population demographics and land use. The transportation model regards trips on the highway network as originating and terminating within these TAZs. In ISTDM Version 3, land use forecasts within each TAZ were for the year 2025; in ISTDM Version 6.2, the land use forecasts are for the year 2035.

⁷ The traffic model calculates trips as movements from one TAZ to another TAZ. Any movements that occur entirely within a single TAZ are not recognized as trips in the model. Therefore, increasing the number of TAZs within the model allows the model to provide a more complete picture of travel movements within a given area.



Specifically, the I-69 Corridor Model includes all roads along the I-69 corridor with the functional classification⁸ of “minor collector” (in rural areas)⁹ and collector (in urban areas),¹⁰ as well as all local roads that possibly could be affected by I-69 (e.g., be considered for closure or grade separations). The corridor model also is designed to be suitable for considering alternative interchange locations.¹¹

The TAZ structure in the I-69 Corridor Model also is more detailed than in Version 6.2 of the ISTDM. As noted above, Version 6.2 of the ISTDM includes 4,831 TAZs throughout the state, which was a five-fold increase compared to Version 3. The I-69 Corridor Model contains over 4,300 TAZs *just within the vicinity of the I-69 corridor*. Thus, the I-69 Corridor Model has a much more detailed structure (within the vicinity of the I-69 corridor) than ISTDM Version 6.2.

To provide Tier 2 forecasts, Version 6.2 of the ISTDM was run, and the modeling results were input into the I-69 Corridor Model. The corridor model produced assignments for a typical weekday (24-hour period), as well as AM and PM peak periods, for roadways in the corridor. The information from the I-69 Corridor Model was used to develop the traffic forecasts used in the engineering analysis of alternatives. In addition, the performance measures for the purpose and need goals provided in **Section 3.3, Screening of Alternatives**, are calculated using postprocessors¹² that analyze the traffic assignments provided by the corridor model. The *I-69 Corridor Model Documentation*, which provides the technical documentation for the Tier 2 traffic forecasting methodology, is included as **Appendix GG**.

⁸ “Functional classification is the process by which streets and highways are grouped into classes, or systems, according to the character of the service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not serve travel independently in any major way. Rather, most travel involves movement through a network of roads.” Quoted from *Highway Functional Classification: Concepts, Criteria and Procedures*. FHWA, Revised March, 1989, p. II-1.

⁹ In rural areas, collectors are defined as routes that “... generally serve travel of primarily intracounty rather than statewide importance and constitute those routes on which (regardless of traffic volume) predominant travel distances are shorter than on arterial routes. Consequently, more moderate speeds may be typical.” Rural minor collectors are described as routes which should “... (1) Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within a reasonable distance of a collector road; (2) provide service to the remaining smaller communities (not served by major collectors); and (3) link the locally important traffic generators with their rural hinterlands.” (*Ibid*, p. II-10).

¹⁰ In urban areas, collectors are defined as routes that provide, “... both land access service and traffic circulation within residential neighborhoods, commercial and industrial areas. It (the collector street system) differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination” (*Ibid*, p. II-13). In urban areas, there is no distinction between major and minor collectors.

¹¹ As noted in **Section 3.1.1, Scoping of Alternatives in a Tiered Study**, grade separations, treatment of intersecting roads, and locations of interchanges are major issues that will define Tier 2 Alternatives. The I-69 corridor model can be used to provide a meaningful comparison of such alternative treatments.

¹² A “postprocessor” is a computer program that analyzes a traffic assignment to compute measures of transportation performance. For example, an accessibility postprocessor may compare the travel times between any number of location pairs in the “no-build” and “build” networks in order to assess the improvement in accessibility provided by a particular alternative.

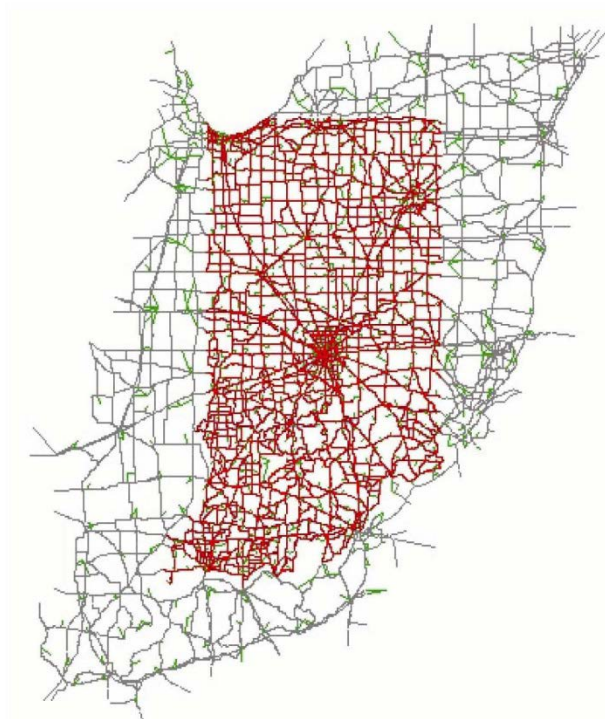


Figure 3-1: ISTDM Version 3 Network

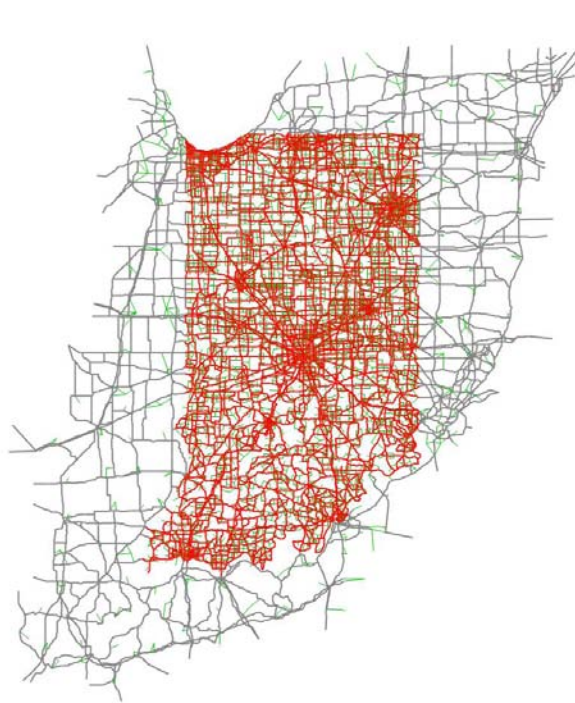


Figure 3-2: ISTDM Version 6.2 Network

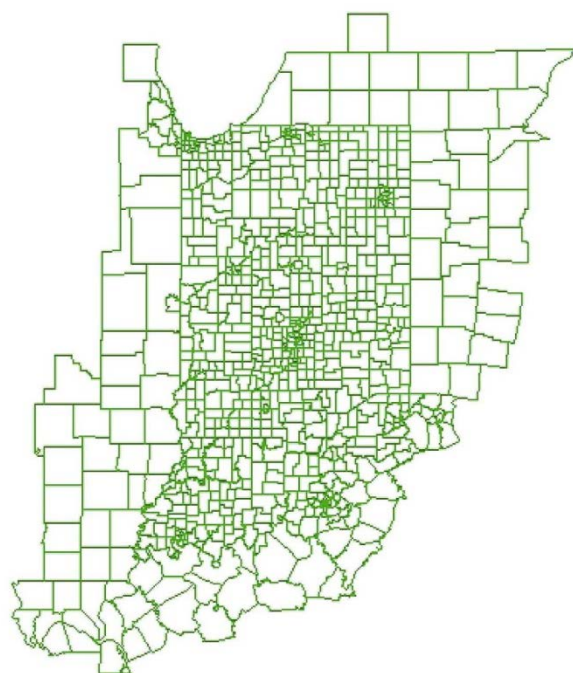


Figure 3-3: ISTDM Version 3 Traffic Analysis Zones

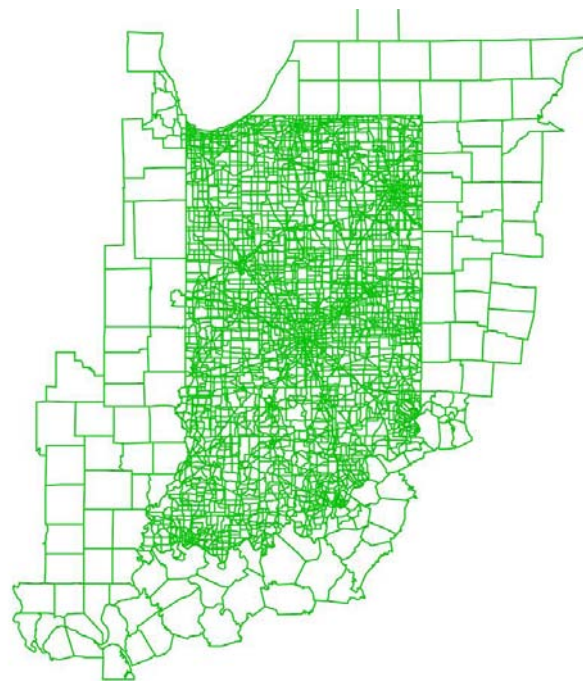


Figure 3-4: ISTDM Version 6.2 Traffic Analysis Zones

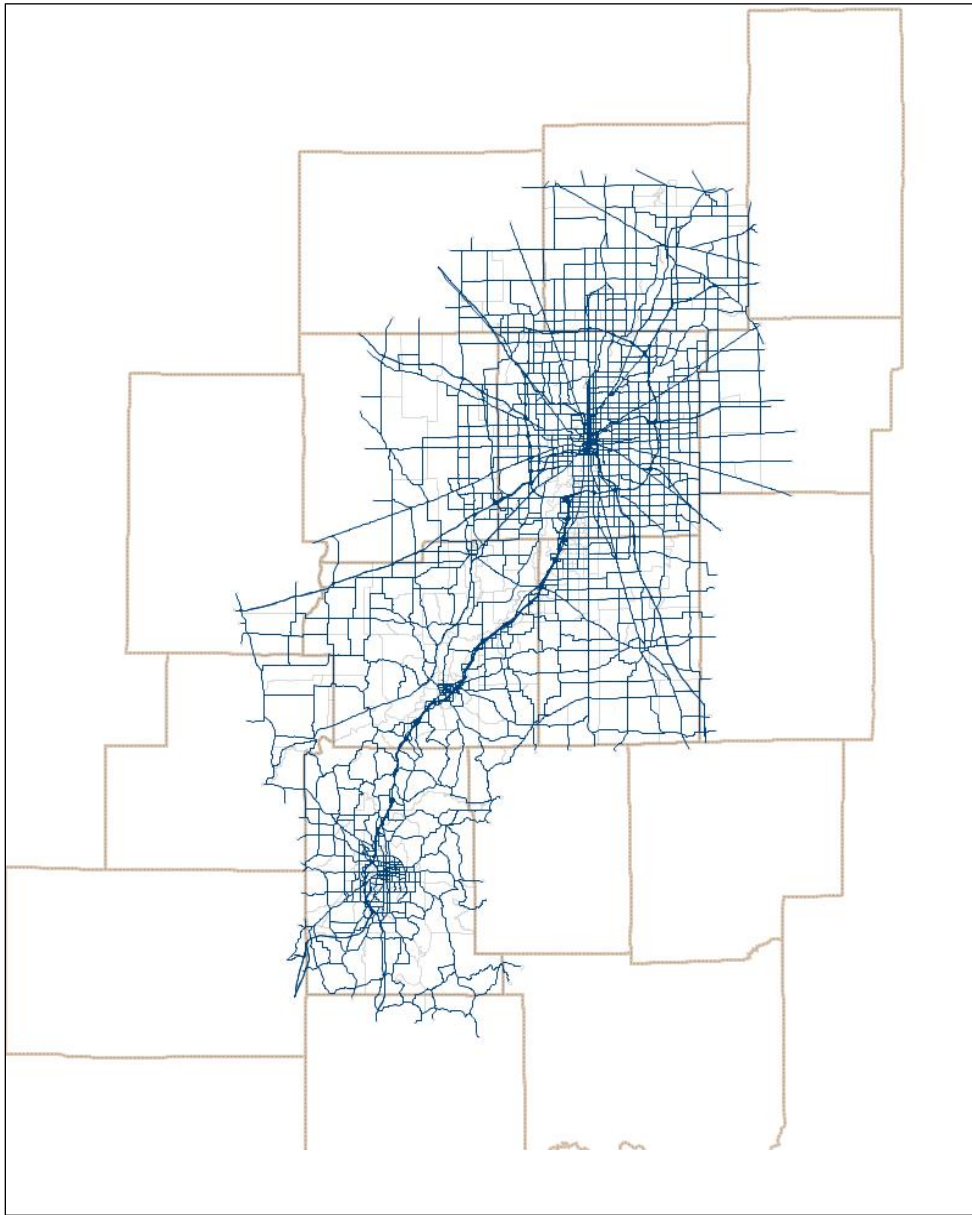


Figure 3-5: I-69 Section 5 and 6 Corridor Model

3.2 Alternative Development Process

This section describes the scoping process, the development of preliminary alternative roadway alignments, and the identification of potential interchange locations within the approved corridor for Section 5, which is 1,000 feet to either side of the right-of-way of SR 37 (refer to **Chapter 1, Introduction, Figure 1-3**). This corridor, including the termini for Section 5, was approved in the Tier 1 ROD on March 24, 2004, and was described in detail in **Section 3.1.1, Scoping of Alternatives in a Tiered Study**.



3.2.1 Methodology

The development of alternative roadway alignments under the NEPA process required consideration of multiple criteria. These included but were not limited to: satisfying highway design standards; providing and/or maintaining access to residential, commercial or industrial developments; avoiding and/or minimizing environmental impacts; minimizing cost; and satisfying project purposes. The “importance” of each criterion in the alternative development process varies between, among, and sometimes within projects. Long corridor projects such as I-69 are not homogenous throughout their length. For example, Sections 1-4 are constructed on new alignment while Sections 5 and 6 essentially involve upgrading a current four-lane, divided highway (SR 37) to interstate highway design standards. Therefore, criteria such as providing and/or maintaining access to residential, commercial, or industrial development may require a more careful consideration during alternative development in Section 5 than was the case in Sections 1-4.

Whatever the criteria identified and analyzed, they cannot be reduced to a single numerical scale; applying each of the criteria during the alternative development process involves an exercise of professional judgment. Developing alignments requires input from affected parties and resource agencies, environmental analyses, and highway engineering, all conducted in a transparent public process to develop a range of solutions. The development of alternative alignments may be defined as a five-step process. Each of those five steps and its applicability to Section 5 is discussed below. These steps are iterative, and require give and take. For example, detailed studies of environmental resources (step 3) may give rise to reconsidering basic project elements (step 1).

1. The first step is to define the basic elements of the project including: the beginning and ending points of the project (logical termini), the geometric design criteria, the typical section(s) of the roadway, the initial anticipated right-of-way width (approximately 300 feet to 800 feet in Section 5), and access control limits.¹³ These items are essential for defining the area that would be impacted by any alignment.

The Section 5 project consists of upgrading SR 37 to interstate highway standards. Thus, the possible area of direct impact for Section 5 is already occupied by a four-lane, divided highway and its right-of-way, which, as noted in step 2 below, already has multiple, diverse access points. Therefore the challenge in identifying alternatives for Section 5 is how to limit or control the current access points and still provide access to current residential, commercial, and industrial development. By comparison, Sections’ 1-4 primary challenge was where best to place the new roadway and its access points.

2. The second step is to determine points of access to the highway, the types of interchanges that will be required, and locations appropriate for grade separations and/or closures. For

¹³ Within the context of this project, an “access control limit” is a specific length along roads with an interchange within which no at-grade access is permitted. Access control limits are specified to avoid conflicts with traffic entering and leaving interchanges. Traffic entering and leaving the interchanges may be traveling at relatively high rates of speed in comparison to those on the local roads.



purposes of comparing alternatives in Tier 1, it generally was assumed that access to the interstate system would be limited to interchanges with other state jurisdictional highways;¹⁴ however, the Tier 1 studies acknowledged that interchanges with important county jurisdictional highways also might be warranted. These highways are identified on a case-by-case basis through coordination with local and county officials and members of the public.

As noted above, Section 5's goal is to upgrade SR 37 to interstate highway standards. Currently, SR 37 is a multi-lane divided principal arterial highway with partial access control that passes through the urbanized area of Bloomington in the south and then through rural farmland before approaching Martinsville at its northern terminus. Currently, there are approximately 76 streets, ramps, roads, or driveways with access to existing SR 37 in Section 5. These include driveways to local businesses, uncontrolled at-grade intersections with local roads, interchanges, and at-grade intersections controlled by traffic signals. A major focus of alternative development for Section 5 was modifying access (e.g., providing new access, closing current access, etc.) on existing SR 37 while maintaining access to residential, commercial, and industrial developments adjacent or "connected" to SR 37.

3. The third step is to define and locate all the environmental resources that might affect the roadway location.

For Section 5, key environmental resources for the development of preliminary alternatives for Section 5 were: historic properties, archaeological resources, wetlands, cemeteries, publicly-owned parks and recreation areas, known caves, and major springs (see **Section 3.2.2.3, Preliminary Alternatives [Alternatives 1 to 3]**). Additional environmental resources used for the screening of the preliminary alternatives were: forests, core forests, agricultural lands, prime farmland, managed properties, floodplains, streams, ponds, other karst features, and developed properties.¹⁵

4. The fourth step is to develop and test alternative alignments.

For Section 5, initial horizontal alignments were developed that lie within the existing SR 37 right-of-way. These initial alignments were refined using transportation design (Bentley InRoads and Bentley Geopack)¹⁶ software to further specify the attributes of the alignment and to plot the roadway on aerial mapping. The basic objectives were to avoid environmentally sensitive areas wherever possible, provide adequate access to properties, ensure continuity for the existing road system, and minimize residential and commercial relocations.

¹⁴ It is not required that state-jurisdictional highways have interchanges with freeways, such as I-69. This statement is meant to indicate that interchanges with non-state-jurisdictional highways are considered on a case-by-case basis.

¹⁵ Habitats for threatened or endangered species include wetlands, caves, forests, and managed properties. For this reason "habitats" were not identified as a separate category in the screening process.

¹⁶ Bentley InRoads and Bentley Geopack are civil engineering design software programs used for roads, drainage, and bridge design. These are provided by Bentley Systems, Inc.



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5. The fifth step is to present the preliminary alternatives to the resource agencies, government officials, and the general public.

As will be detailed below, for Section 5, the process of alternative development, alternative analysis (screening), alternative refinement, alternative selection, and final preferred alternative identification was a step by step iterative process conducted by INDOT and the Federal Highway Administration (FHWA). Input from the public, government officials, and environmental resource and permitting agencies was evaluated throughout the alternative development and preferred alternative selection processes.

3.2.1.1 Summary Results of Applying the Methodology

Because the alignment in Section 5 closely follows the SR 37 alignment, the degree to which local purpose and need goals¹⁷ were satisfied was not affected by any significant degree from slight alignment variations in the alternatives. The most variable features of the build alternative alignments were the various access options, e.g., interchanges and local access roads. These access options were analyzed as part of the alignment alternatives carried forward for detailed study. In addition, their ability to meet the performance measures of the Section 5 purpose and need goals is assessed later in this chapter, in **Section 3.3, *Screening of Alternatives***.

Figure 3-6 provides an overview of the alternatives development process for this project. **Table 3-1** presents a summary of this process including the mainline and access elements identified within each alternative and which of those elements was carried forward into the next set of alternative iterations (color coded yellow) or which were dismissed from further consideration and not carried forward (non-color coded). Reasons for those decisions are detailed below in **Section 3.2, *Alternative Development Process***, **Section 3.3, *Screening of Alternatives***, **Section 3.4, *Description of Alternatives***, and **Section 3.5, *Preferred Alternative***.

¹⁷ For further information on the purpose and need goals, please refer to **Chapter 2, *Purpose and Need***, **Section 2.5 *Performance Goals and Performance Measures***. The performance of alternatives on these goals is provided in **Section 3.3.1, *Transportation Performance Indicators***.

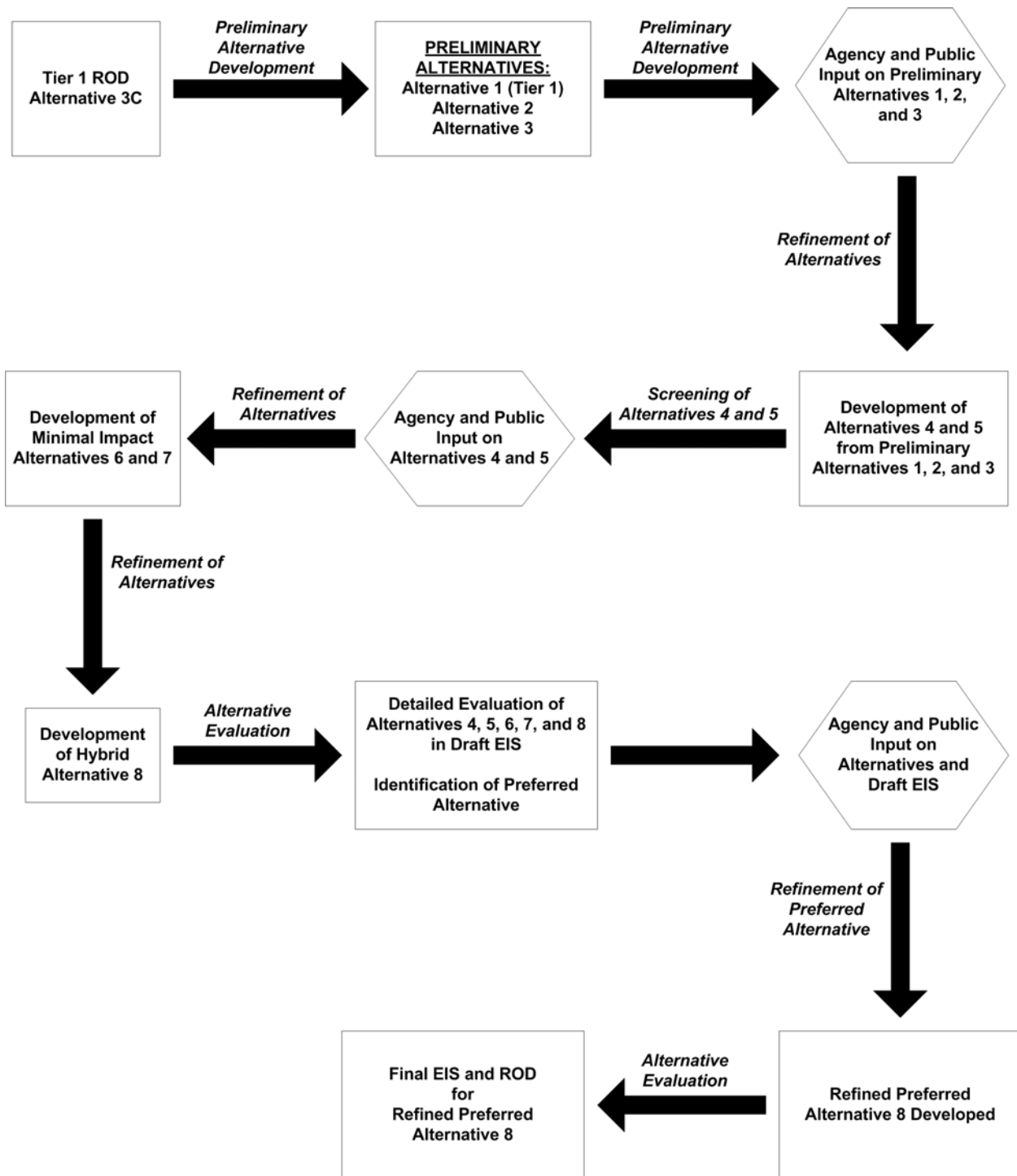


Figure 3-6: Alternative Development Process



Table 3-1: Summary of Section 5 Alternatives for the Existing Condition and Alternatives 1 - 8

Major Feature Name	Existing Condition	2005 Alternatives			2007 Alternatives Screening		Minimal Impact Alternatives		Alternative 8 (Option A and B) *
		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	
I-69 and SR 37	Not Applicable	Section 4 Interchange			Section 4 Interchange		Section 4 Interchange		Section 4 Interchange
That Road	Intersection Free Flow SR 37	No I-69 Access; E Access Rd	Overpass		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd
Rockport Road	Intersection Free Flow SR 37	Overpass	No I-69 Access; East Access Rd		Overpass		Overpass		Overpass
Mainline (That Rd. to Fullerton Pike)	SR 37; Grass Median	Shift to East; Grass Median	CD System; Median & Access Rd Barriers	Shift to East; Grass Median	Shift to East; Grass Median		Use SR 37 Pavement and Right-of-way; Median Barrier		Use SR 37 Pavement and Right-of-way; Median Barrier
Fullerton Pike	Signalized Intersection	Folded Diamond Interchange	Overpass	Folded Diamond Interchange	Folded Diamond Interchange		Double Folded Interchange	Double Folded Interchange; E. Fullerton Pk. Shift to South	Double Folded Interchange
Mainline	SR 37; Grass Median	SR37 Centered; Grass Median	CD System; SR37 Centered; to 3 rd St	SR 37 Centered; Grass Median	SR 37 Centered; Grass Median	Use SR 37 Pavement / Right-of-way		Use SR 37 Pavement/ Right-of-way	
(Fullerton Pike to Arlington Rd.)						Median Barrier		Median Barrier	
(Arlington Rd. to Sample Rd.)						Shift West Guardrail	Guardrail	Shift West Guardrail	
Tapp Road	Signalized Intersection	Overpass	CD System (barriers between through and local lanes); Single Point Interchanges at Tapp, 2 nd and 3 rd Streets	Overpass	Overpass; West turn lane	Split-Diamond Interchange	Overpass	Split-Diamond Interchange (Controlled Access Roads and Barriers) w/ No Mainline Shift	Split-Diamond Interchange (Controlled Access Roads and Barriers) w/ Mainline Shift to the west
SR 45/2 nd Street	Existing Interchange	Folded Diamond Interchange		Single Point Interchange	Tight Diamond Interchange	(Controlled Access Roads)	Use Existing Interchange		
SR 48/3 rd Street	Existing Interchange	Tight Diamond Interchange		Single Point Interchange	Tight Diamond Interchange	Single Point Interchange	Use Existing Interchange; Potential for additional turning lanes		
Vernal Pike	Signalized Intersection	Underpass	Overpass	Underpass	Underpass		Underpass	Overpass	Overpass
SR 46 Interchange	Existing Interchange	Use Existing Interchange			Use Existing Interchange		Use Existing Interchange		Use Existing Interchange
Arlington Rd	Overpass	Overpass			Overpass		Overpass		Overpass
Acuff Rd	Intersection Free Flow SR 37	No I-69 Access	Overpass	No I-69 Access; W Access	No I-69 Access		No I-69 Access		No I-69 Access



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Major Feature Name	Existing Condition	2005 Alternatives			2007 Alternatives Screening		Minimal Impact Alternatives		Alternative 8 (Option A and B) *
		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	
Kinser Pike	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange	Folded Diamond Interchange	Rural Diamond Interchange	Overpass	No I-69 Access; W Access Rd	Overpass	Overpass
Mainline South Beanblossom Valley	SR37 Grass Median; 5% Grade, SB Truck Lane	4% Cut/Fill and SB Truck Climbing Lane			4% Cut/Fill and SB Truck Climbing Lane		Use Existing 5% and SB Truck Lane	4% Cut/Fill and SB Truck Lane	Use Existing 5% and SB Truck Lane
N. Walnut Street	Existing Partial Interchange	Rural Diamond Interchange	No I-69 Access; E Access Rd	Overpass	Overpass	Single Point or Rural Diamond Interchange	Overpass	Existing Partial Interchange	Option A Full Interchange; Option B Partial Interchange
Mainline North Beanblossom Valley	SR37 Grass Median; 5% Grade, NB Truck Lane	4% Cut/Fill and NB Truck Climbing Lane			4% Cut/Fill and NB Truck Climbing Lane		Use Existing 5% with NB Truck Lane	4% Cut/Fill and NB Truck Lane	Use Existing 5% with NB Truck Lane
Sample Road	Intersection Free Flow SR 37	Rural Diamond Interchange		Overpass	Rural Diamond Interchange	Folded Urban Interchange	Urban Diamond Interchange	Folded Urban Interchange	
Mainline Shift (Sample Rd. to Chambers Pike)	SR 37; Grass Median	Shift to West; Grass Median; NB SR 37 as Access Rd			Shift to West; Wide Grass Median; NB SR 37 as Access Rd		Use SR 37, Right-of-way, Grass Median; New SB Right-of-way E Access Rd w/ median	Use SR 37 Right-of-way; Median Barrier; Use SR 37 Right-of-way for E Access Rd w/ Barrier	Use SR 37, Right-of-way, Grass Median; New SB Right-of-way E Access Rd w/ median
Chambers Pike	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange		Overpass		Overpass	No I-69 Access; E/W access Roads	Overpass
Mainline Shift (Chambers Pike to Bryant's Creek Rd.)	SR 37; Grass Median	All lanes on west-side; 4% Cut/Fill	3 lanes each side; 4% Cut/Fill		3 lanes each side; 4% Cut/Fill		2 lanes; Use Existing 5% Grade; (SB Truck Ln)	2 lanes; 4% Cut/Fill; (SB Truck Ln)	2 lanes; Use Existing 5% Grade; (SB Truck Ln)
Mainline (Bifurcation)	NB SR 37 Shoulder Guardrail	Wide Shoulders and Clear Zone			Medium width Shoulder/ Clear Zone (NB Guardrail)		NB Use SR 37 Shoulder Guardrail	NB Shoulder widening Guardrail	NB Use SR 37 Shoulder Guardrail
	SB SR 37 Shoulder/ Clear Zone						SB Use SR 37 Shoulder/ Clear Zone Truck Lane		SB Use SR 37 Shoulder/ Clear Zone Truck Lane
Bryant's Creek Rd	Intersection Free Flow SR 37	No I-69 Access; E/W Access Roads	Overpass		No I-69 Access; Eastside Property Acquisition; W Access Rd		No I-69 Access; E Acquisition W Access Rd	Overpass	No I-69 Access; E Acquisition; W Access Rd



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		Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5	Alternative 6	Alternative 7	
Mainline (Bryant's Creek Rd to Section 6)	SR 37; Grass Median	SR 37 Centered; Wide Grass Median			SR 37 Centered; Wide Grass Median		Use Existing SR 37 Pavement, Right-of-way, and Grass Median		Use Existing SR 37 Pavement, Right-of-way, and Grass Median
Paragon Road/ Pine Boulevard	Intersection Free Flow SR 37	Rural Diamond Interchange	Overpass	Rural Diamond Interchange	Rural Diamond Interchange	Overpass	No I-69 Access; W Access Rd; Use existing E Access Rd		No I-69 Access; W Access Rd; Use existing E Access Rd
Liberty Church Road	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange	Overpass	Overpass	Rural Diamond Interchange	Urban Diamond Interchange	Folded Diamond Interchange	Urban Diamond Interchange
SR37 N of Legendary Hills	Intersection Free Flow SR 37	No I-69 Access; E/W access Rds			No I-69 Access; East Access Rd		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd
I-69 and SR 39	Existing Interchange	Section 6 Interchange			Section 6 Interchange		Section 6 Interchange		Section 6 Interchange

Source: Michael Baker Jr., August 2012.

* Alternative 8 has two interchange options at Walnut Street. Option A would construct a new full single-point urban interchange, while Option B would keep the existing partial interchange. These options will be discussed further in **Chapter 3, Alternatives, and Chapter 6, Comparison of Alternatives.**

Notes:
 Access roads generally parallel I-69 on either the E – east side, W- west side, or E/W - both sides of I-69 Mainline;
 Descriptive terms such as wide, rural, urban medium, tight, and narrow provide relative comparatives only and are not indicative of specific dimensions. See **Figure 3-9.**
 Yellow shaded items share the same treatment.

3.2.2 Scoping Process

The scoping process defined the range of alternatives to be considered and the process to be used to address potential environmental impacts. FHWA and INDOT have provided numerous opportunities for involving the public, public officials, and government agencies (e.g., resource agencies) in the iterative alternative development scoping process which included:

- development of the first preliminary alternatives (Alternatives 1-3);
- refinement and transformation of Alternatives 1-3 into two new alternatives (Alternatives 4 and 5);
- development of two minimal impact Alternatives 6 and 7 based on Alternatives 4 and 5; and,
- further refinement of minimal impact Alternatives 6 and 7 into hybrid Alternative 8.

A summary of the public and government resource agency involvement in the alternative development scoping process is provided below. **Chapter 11, Comments, Coordination, and**



Public Involvement, contains even more detailed information regarding the public and agency input process, the key issues that were raised, and how they were addressed.

3.2.2.1 Public Involvement

Public involvement has been extensive and ongoing since the beginning of the Tier 1 process and has continued throughout Tier 2. Several opportunities and methods were used to involve the public in the Section 5 study. Meetings with local public officials, a project newsletter, hotline, website, outreach meetings, Community Advisory Committee (CAC) meetings, and other public involvement efforts were used to solicit input. In addition, a local project office on the southwest side of Bloomington has been staffed and open to the public during weekday business hours¹⁸ to allow convenient public access to project team members and materials. Public input was also sought at key milestones in this Tier 2 study. The following listing of major public involvement activities includes the public hearing on the Section 5 DEIS. While this is a post-scoping activity, it is included here to provide a complete listing of major public involvement activities.

- **Section 5 Project Office Open House** was hosted by INDOT on July 1, 2004, to acquaint public officials and the general public with the project office, introduce project staff, provide visitors with project information, and receive input regarding issues of concern.
- **Public Information Meetings** were held to share project information with the public and to receive feedback. On July 20, 2005, a meeting was held that presented information about the preliminary alternatives and draft purpose and need statement. A second meeting was held on April 24, 2012, to present the revised screened preliminary alternatives. Public input on the project (both in writing and via oral statements) was encouraged at both meetings.
- **CAC:** Two separate CACs were developed in the fall of 2004 to facilitate communication between project team members and representatives of potentially impacted and key constituent groups in the project area. One CAC was developed for groups representing Bloomington and Monroe County, and the other was developed jointly with Section 6 for groups representing Martinsville and Morgan County. Representation on the committee was sought from among such constituencies as local elected officials, major employers, the farming community, civil organizations, schools and places of worship, social service providers, etc. Through a series of five meetings, committee members learned details of the project; provided feedback on such subjects as community access, local needs, and the development of alternatives; and relayed the information about the project to the groups they represented. In 2012, INDOT combined the two original CACs (Bloomington/Monroe County and Martinsville/Morgan County) into a single CAC that serves a similar role as the original CACs, which have met several

¹⁸ The Section 5 Project Office opened in downtown Bloomington in May 2004. The office relocated in October 2008 to facilities west of the SR 37/SR 45/2nd Street interchange, sharing space with the Section 4 Project Office. The office is located at 3802 Industrial Boulevard and is staffed Monday through Thursday.



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times since the merger. INDOT and the Project Team have attended CAC meetings to provide information, answer questions, and gather input from the CAC members. For further information, refer to **Chapter 11.3.2**, *Community Advisory Committees*, and **Appendix CC**, *CAC and Public Meeting Summaries*.

- **Expert Land Use Panels (ELUP):** ELUPs were established in all six I-69 Tier 2 sections to assist in forecasting future land use without and with the construction of I-69. This information was used in the development and refinement of alternatives that would provide optimum access to the areas served while minimizing impacts to future growth patterns. The Section 5 panel was comprised of local professionals who are very familiar with development activity in the communities served by I-69. Members were involved in the public development approval process or in the development of major residential or commercial areas and included representatives of city and county planning and zoning departments, public utilities, real estate professionals, appraisers, and economic development groups. The meeting summaries for the Section 5 ELUP are in **Appendix E**, *Expert Land Use Panel Meeting Notes*.
- **Participating Agencies:** INDOT and FHWA extended invitations to Monroe and Morgan counties, the Cities of Bloomington and Martinsville, and the Town of Ellettsville to become participating agencies for the Section 5 environmental studies. All five government entities accepted and have been afforded an opportunity for early and timely input from local experts/local communities through the participating agency process. These participating agencies provide information and available data; provide input on the purpose and need and on the alternatives; and voice concerns that they or their constituents have regarding the project. Regular monthly meetings are ongoing with INDOT and FHWA, and the meeting summaries are located in **Appendix B**, *Participating Agency Meeting Summaries*.
- **A Public Hearing** was held on December 6, 2012, to present and receive input on the DEIS and the preferred alternative identified therein. The formal comment period for the DEIS began on October 26, 2012 and concluded January 2, 2013. Comments were received from state and federal agencies, local government entities and government officials, non-governmental organizations, and the public. Responses are provided to substantive comments that were made during the comment period for the DEIS, including oral comments made during the public hearing. The comments and responses can be found in **Volume III** of this FEIS.
- INDOT and the Project Team have attended and presented information to the Bloomington/Monroe County Metropolitan Planning Organization (BMCMPPO) Policy, Technical and Citizens Advisory Committees, and have also attended other meetings held by local government and non-government organizations, upon request.

Extensive input was received through coordination with local governments, the CACs, the ELUPs, the participating agencies, and the general public. Important comments included suggestions on interchange locations, additional grade separations of local roads, access concerns



for individual parcels, and information on community and natural resources for specific properties along the Section 5 corridor. Proposed access roads, road relocations, and overpasses are identified¹⁹ in **Section 3.4.1, *Common Elements***, and are described in greater detail in **Section 5.3, *Land Use and Community Impacts***, and **Section 5.6, *Traffic Impacts***.

3.2.2.2 Resource Agency Coordination

Many issues to be addressed in the evaluation of alternatives and the selection of a Preferred Alternative are mandated by various environmental resource agencies' laws, regulations, and guidelines. To ensure that the scope of study for these issues would be adequate and consistent with the various laws, regulations, and guidelines, six general meetings have been held to date among the various resource agencies, FHWA, INDOT, and their consultants working on the six Tier 2 sections, which are detailed in the following paragraphs.

- On **August 12, 2004**, a meeting was held with federal and state review agencies including the Indiana Department of Natural Resources (IDNR), Division of Fish and Wildlife, Division of Nature Preserves, and Division of Historic Preservation and Archaeology (DHPA, whose director has been designated as the Deputy State Historic Preservation Officer [SHPO]); Indiana Department of Commerce; Evansville Metropolitan Planning Organization (MPO) (the MPO formerly known as Evansville Urban Transportation Study [EUTS]); Indiana Geological Survey; United States Army Corps of Engineers (USACE); United States Fish and Wildlife Service (USFWS); Indiana Department of Environmental Management (IDEM), Offices of Water Quality-401 and Wetlands; BMCMPO; Indianapolis MPO; United States Environmental Protection Agency (USEPA), Region 5; Crane NSWC; and United States Forest Service (USFS). The purpose of the meeting was to familiarize the environmental review agencies with the scope and status of environmental survey activities associated with the Tier 2 studies; to introduce the Project Management Team, agency representatives, and consultants responsible for each of the six sections; acquaint agency representatives with the Tier 2 project corridor, overall project purpose and need, public involvement efforts, and project schedules; and, identify major issues to be addressed in the study.
- A second two-day environmental resource agency meeting was held **February 23-24, 2005**. Agency representatives attending the meeting, in addition to FHWA and INDOT, included IDNR Divisions of Fish and Wildlife, Water, Forestry, Soil Conservation, and DHPA/SHPO; Indiana Geological Survey; USFWS; IDEM Offices of Air Quality and Water Quality-401; USEPA Region 5; and USFS-Hoosier National Forest; and, the Natural Resources Conservation Service (NRCS). The first day's agenda included a general meeting of all participants followed by breakout sessions to discuss specific topics. The general session focused on explaining the steps in the formal agency coordination process that each Tier 2 study would follow; identifying project schedules

¹⁹ Overpasses, interchanges and some access roads were identified for each alternative.



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and timeframes; explaining how the Section 5 purpose and needs and goals would be identified and incorporated into the purpose and need statements of each section; and discussing how preliminary alternatives would be developed and evaluated. Each section's consultant project manager gave a brief presentation summarizing activities to date and future planned activities. These presentations were followed by questions and comments from the agencies. In the afternoon, the following three breakout sessions were held: (1) the Interagency Water Resources Coordination Team discussed issues related to wetlands, water quality, floodplains, floodways, and stream crossings; (2) the Interagency Karst Geology Team discussed issues related to karst features; and (3) a demonstration and training session was provided for the Trimble Quantm Alignment Planning Software.²⁰ The second day of the agency coordination activities was primarily devoted to a field review of Sections 1, 2, and 3 to provide agency representatives with an overview of notable resource features.

- A third two-day environmental resource agency meeting was held **August 1-2, 2006**. In addition to FHWA and INDOT, agencies represented included USEPA Region 5; USACE; USFWS-Bloomington Field Office; IDNR, Divisions of Water, Fish and Wildlife, Forestry, and Nature Preserves/Heritage Program; IDEM Offices of Water Quality, Drinking Water, and Permits; and USFS-Hoosier National Forest. The first day's agenda included a general meeting of all participants, as well as updates on the status of each section, a summary of the findings of the Tier 1 Re-evaluation (see **Section 1.2.3, Tier 1 Re-evaluation**), and the potential role of public-private partnerships in this project. Three general sessions also were held to discuss progress and to seek agency input on cumulative impacts analysis in Tier 2 EIS documents, water resource analysis, and special karst studies in Tier 2 Sections 4 and 5.
- A fourth one-day meeting with federal and state review agencies that attended the prior meetings was held **March 1, 2007**, to update the status of environmental survey and documentation activities for the Tier 2 studies. The agenda included an update about each section's schedule, as well as updates on the status of each section. The agenda included a summary of and discussion of comments on the Section 1 DEIS published in December 2006; the status of permitting and mitigation related to wetlands, streams, and forests; a discussion of the methodology for tracking and reporting mitigation activities to permitting agencies and the USEPA; and, an update on the status of potential impacts to karst resources in Sections 4 and 5.
- A fifth one-day meeting with federal and state review agencies that attended the prior meetings was held **April 30, 2009**. The meeting focused on overview presentations and discussions about the Section 2 DEIS and the Section 3 DEIS. The agenda also included updates on the schedules and project status for Sections 4, 5, and 6; the Section 1 design

²⁰ Trimble Quantm Alignment Planning Program is a software program. This software allows users to input topography, environmental, and other resource data and to set beginning/ending data, in order to generate "best fit" alignments that would avoid resources where possible. This tool was used extensively in Sections 1 through 4, which are being built on new alignments. Section 5 does not use this software tool because it is not applicable to analyze the upgrade of existing SR 37.



and construction; project permitting and mitigation; karst studies in Sections 4 and 5; and, the I-69 community planning grant studies. A video documentary on Indiana caves and bats was shown by the USEPA.

- A sixth two-day meeting with environmental resource agencies was held **July 24-25, 2012**. Both days were devoted to a field review to provide agency representatives with an overview of potential wetland and stream mitigation properties being considered for Section 5.

Purpose and Need/ Preliminary Alternatives Development - Resource Agency Coordination

During the scoping process, natural resources agencies were provided a Section 5 Purpose and Need and Preliminary Alternatives package, consisting of Alternatives 1, 2, and 3, for review on November 11, 2005. The USEPA and USFWS participated in a meeting/webcast with INDOT and FHWA and discussed their comments on this package. The USFS-Hoosier National Forest, IDNR Division of Water, and DHPA/SHPO provided response letters to this package. The Purpose and Need and Preliminary Alternatives package, meeting minutes, and letters from the USFS and IDNR are provided in **Appendix C, Agency Coordination Correspondence**. The meeting and response letters are summarized in the following paragraphs.

- On December 14, 2005, the INDOT, FHWA, USEPA-Region 5, and USFWS-Bloomington Field Office met to review the Purpose and Need and Preliminary Alternatives package. A copy of the meeting minutes that detail the discussion during the meeting can be found in **Appendix C, Agency Coordination Correspondence**.

The agencies primarily discussed the local purpose and need goals that comprise the Section 5 purpose and need statement. INDOT explained how the needs identified for Section 5 were identified through extensive public involvement activities and that these needs support the Tier 1 goals while providing the local focus of the Section 5 study. In addition, with regard to the alternatives analysis within the Section 5 corridor, INDOT stated that all of the alignments would likely satisfy the Tier 1 purpose and need the same. The agencies discussed how the effects of alternative interchanges locations based on local purpose and need goals, the potential environmental impacts, and costs would be key determinants in evaluating and comparing the alternatives. INDOT provided an update on the status of on-going field work and public involvement activities at the meeting. The key questions and comments focused on the coordination with the local bicycling organizations (commercial and recreational); the use of the local MPO's traffic model;²¹ location of access roads and the possible reuse of existing local roads; the noise

²¹ The BMCMPPO's traffic model has not been updated for several years. The current version of the ISTDM and the I-69 corridor model incorporate many features (such as a 2035 forecast year, use of 2010 census data, and updated freight flow data), which the BMCMPPO does not include. The BMCMPPO recently hired a consultant to update its travel model to a 2035 forecast year, which will coincide with the forecast year for the ISTDM and I-69 corridor model. When the BMCMPPO travel model update is completed, its results will be compared with the I-69 corridor model's forecasts for consistency.



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analysis; the proposed toll financing option for I-69,²² wetland fieldwork and delineations; karst features; and, impacts to local businesses.

- The USFS-Hoosier National Forest provided a comment letter dated January 10, 2006. The USFS stated that “The Purpose and Need for Section 5...is consistent with the Tier 1 FEIS and seems to reflect local concerns. The range of alternatives seems adequate...”.
- The IDNR, Division of Water, provided comments in a letter dated February 17, 2006. The Division of Water commented on karst impacts; forested habitat; light and noise effects; stream, wetland, and riparian impacts; and habitat connectivity. The Division expressed concerns about the need to minimize impacts to springs and the influence of roadway cuts and fills in the Fullerton Pike area and the potential loss of canopy forest and interior forest habitat especially with regards to the effects upon neotropical migrant songbirds. The agency discussed the value of wooded riparian corridors used for travel between larger habitat areas. IDNR, Division of Water, also expressed concerns about water quality effects upon the subterranean ecosystem associated with karst features.
- The DHPA/SHPO provided comments with a letter dated December 16, 2005. The DHPA/SHPO indicated that it had no particular concerns on the purpose and need statement. DHPA/SHPO did indicate concerns about potential direct and indirect effects upon the Maple Grove Road Rural Historic District (MGRRHD), which is listed on the National Register of Historic Places (NRHP). It also noted that the possibility of Monroe County Bridge No. 913 (located at N. SR 37 Business over Beanblossom Creek) being eligible for inclusion on the NRHP should be explored, and any change in use of the structure as a result of the Section 5 undertaking should be evaluated. DHPA/SHPO also noted that Morgan County Bridge No. 161 (located at North Old State Road 37 over Little Indian Creek) and No. 224 (located at South Old State Road 37 over Indian Creek) could also be eligible for inclusion on the NRHP, and that any change in use of these structures as a result of the Section 5 undertaking should be evaluated.

Alternatives Screening – Resource Agency Coordination

A Preliminary Alternatives Evaluation and Screening package was submitted to resource agencies and participating agencies for review and comment on May 25, 2007. This package can be found in **Appendix C**, *Agency Coordination Correspondence*. The package contained information about how preliminary Alternatives 1 through 5 were evaluated and the results of the evaluation with a recommendation of preliminary alternatives that would be carried forward, which are described in **Sections 3.2.2.3 to 3.2.2.5**. The FHWA and INDOT met with agencies and received comments from agencies during and after the meeting regarding the Preliminary

²² As described in **Section 1.2.3**, *Tier 1 Re-evaluation*, INDOT provided to FHWA a Tier 1 Re-evaluation in June 2006 which considered the potential of toll funding to significantly accelerate the construction of this project. Based upon the findings of the Re-evaluation and subsequent public and agency input, INDOT withdrew the Re-evaluation in a letter to FHWA dated November 22, 2006. In subsequent correspondence FHWA accepted the withdrawal of the tolling proposal and determined that there would not be a supplemental Tier 1 EIS.



Alternatives Evaluation and Screening package. The meeting and comment letter responses are summarized in the following sections.

- FHWA and INDOT held a meeting/webcast with USEPA, USFWS, IDNR, IDEM, and the City of Bloomington on July 3, 2007, to review and receive comments on Section 5's Preliminary Alternatives Evaluation and Screening package, submitted to the agencies on May 25, 2007. The primary discussion points included the screening methodology; the locations and conceptual configurations for potential interchanges; and, the preliminary recommendations for mainline alternatives to be advanced for detailed study. The INDOT and FHWA emphasized that the Section 5 project consists of upgrading an existing, four-lane, divided highway (SR 37) and that alternative development and screening would be based far more on analysis of access and travel patterns than was the case with Sections 1 to 4 of I-69. The agencies had questions and comments on clarifying how performance measures for the purpose and need goals would be used in the screening of alternatives; questions about the components of the different alternatives (local access roads, mainline shifts, etc.); impacts of the different alternative components on karst features and wetlands (particularly in the Kinser Pike/Walnut Street areas); discussion of opportunities for any "excess land" which results from the construction of the project; and, a request for consideration of property acquisition rather than construction of access roads. **Appendix C**, *Agency Coordination Correspondence*, contains the Preliminary Alternatives Evaluation and Screening package and the minutes of the meeting.
- The U.S. Department of the Interior, National Park Service, provided comments by a letter dated June 25, 2007. The Department noted there are two parks within the Study Area which were developed with funds from the Land and Water Conservation Fund and requested that the IDNR, Division of Outdoor Recreation, be consulted.
- The USEPA, Region 5, provided a comment letter on August 2, 2007, regarding the Preliminary Alternatives Evaluation and Screening package. The USEPA offered specific recommendations that further studies be conducted at the location of the proposed 17th Street underpass to ensure the groundwater table that flows under Lemon Lane Landfill is not interrupted by construction. USEPA further recommended that additional alternatives be considered which further avoid and minimize impacts to natural resources within the Kinser Pike/Walnut Street/access road areas. USEPA stated that Alternative 4 would have less potential to impact karst resources at Tapp Road and at SR 45/2nd Street than would Alternative 5. USEPA expressed a preference for Alternative 4 in the Kinser Pike/Walnut Street area, noting that floodplain impacts would be less. In the Sample Road area, USEPA suggested the use of existing local roads to the extent possible rather than constructing lengthy local access roads. In the Paragon Road/Liberty Church Road area, USEPA expressed a preference for Alternative 4.
- The IDNR, Division of Water, provided a response letter dated July 23, 2007. The Division of Water stated that alternatives resulting in the least amount of impacts to fish, wildlife, and botanical resources were preferred by the agency, and the Division noted



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that selecting features of either alternative may be an appropriate way to do so. The Division of Water requested a discussion of the benefits to the May Cave system of any shift in the I-69 mainline alignment near Fullerton Pike. It indicated that in the Kinser Pike/Walnut Street area either access treatment option would be acceptable and expressed a slight preference for Alternative 5. IDNR, Division of Water, also expressed preference for an overpass rather than an interchange at Paragon Road/Pine Boulevard. Either alternative was found acceptable at the Liberty Church Road area by the Division of Water.

- The IDNR, Division of Outdoor Recreation, noted in its September 14, 2007, response that the project has no effect on Cresmont Park or to Cascades Community Park, which fall under the Division's jurisdiction.
- The City of Bloomington, Planning Department, provided a response letter dated July 23, 2007. The City indicated a preference for an overpass at Tapp Road, a tight diamond interchange at SR 45/2nd Street, a single-point urban interchange at SR 48/3rd Street, an interchange at Kinser Pike, and an overpass at Walnut Street. The City also noted a strong desire that accommodations for bicycles and pedestrians be included for all crossings of I-69.

Based on agency and public input, the preliminary alternatives were further evaluated. Preliminary Alternatives 1 to 3 were eliminated from further evaluation, while Alternatives 4 and 5 were carried forward for further evaluation. In addition, preliminary alternative components (interchanges, overpasses, mainline, access roads) were revised to include design criteria that would minimize impacts to resources along the corridor as well as reduce project costs. These minimal impact alignments were designated as Alternatives 6 and 7, and their components are described later in **Section 3.4, Description of Alternatives**. A Revised Preliminary Alternatives Analysis and Screening package was submitted to agencies on April 6, 2012, that included Alternatives 4 and 5 as originally published in 2007, as well as Alternatives 6 and 7 that were developed using minimal impact design criteria. See **Section 3.2.2.6** for a description of the development of Alternatives 6 and 7. Below is a summary of the agency meeting and response comment letters received about the Revised Screening Report. A summary and discussion of the USEPA and IDNR comments are provided in **Section 11.4.2.2, Coordination**. Agency comments on specific alignments are identified in **Section 3.4.1, Common Elements**.

- FHWA and INDOT held a meeting/webcast on April 20, 2012, with the USEPA, USFWS, IDNR, IDEM, and USFS-Hoosier National Forest to review and receive agency comments on Section 5's Revised Preliminary Alternatives Evaluation and Screening Report. The primary focus of the discussion included the screening methodology, the locations and conceptual configurations for potential interchanges, and the preliminary recommendations for mainline alternatives to be advanced for detailed study. Once again, it was emphasized that the Section 5 project consists of upgrading an existing facility; therefore alternative development and screening were based far more on analysis of access and travel patterns than was the case with other sections of I-69. Agency questions/comments included the need to avoid karst features, floodplains, streams, and



wetlands wherever possible; recognizing that construction of existing SR 37 previously resulted in impacts; the location of the urban-to-rural transition; the possible acquisition of properties rather than construction of access roads to serve individual or groups of parcels; the options for grade separations between Sample Road and Liberty Church Road; minimizing impacts through the bifurcation with the use of design exceptions; floodplain impacts in the vicinity of Liberty Church Road; the desire for information about Section 6 Alternatives to be discussed as part of the Section 5 DEIS; and, the need to identify wildlife crossings along the corridor.

- USEPA, Region 5, provided written comments on the Section 5 Revised Preliminary Alternatives Analysis and Screening package on May 3, 2012. USEPA stated that the Preferred Alternative will need to be included in regional conformity analyses for both ozone and PM_{2.5}, and should include a detailed assessment of air quality associated with construction and operation of the project. USEPA noted in the Tapp Road and SR 45/2nd Street area that Alternatives 4 and 6 may offer the least potential for impacts to karst features when compared to Alternatives 5 and 7. At the SR 48/3rd Street interchange, the USEPA suggested that re-use of the existing configuration is likely to have fewer resource impacts and should be considered when additional traffic projections are available. USEPA stated that the use of Alternative 7 at the Vernal Pike grade separation is likely to have fewer impacts to karst features when compared to Alternatives 4 through 6. USEPA recommended inclusion of a cost-benefit study to address construction of local access roads as compared to purchasing properties. At the Kinser Pike area, USEPA did not see a clear indication of which alternative would have the least impacts. At Walnut Street, USEPA favored any alternative which minimized impacts to the existing floodplains in the area. At Liberty Church Road, USEPA requested that the ramps and access roads associated with any interchange at this location be reconfigured to avoid impacts to floodplains. USEPA also asked that tentative treatments at the southern end of Section 6 be identified as part of the Section 5 DEIS.

3.2.2.3 Preliminary Alternatives (Alternatives 1 to 3)

Preliminary alternatives were developed that are consistent with both the *Indiana Department of Transportation Design Manual* and the American Association of Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets*. The alternatives also incorporated information obtained via preliminary studies and public outreach and agency coordination activities. The access locations presented in Tier 1 (Alternative 3C) were used for the development of preliminary Alternative 1.

As part of the alternative development process, generalized typical sections including highway components such as the number of travel lanes, median width, shoulders, etc., and potential interchange types (e.g., diamond interchange types) were considered. The typical right-of-way width for preliminary alternatives in Section 5 ranges from about 220 feet to 300 feet wide, depending on the alignment and terrain features. The widest sections occur in limited locations where the existing SR 37 alignment is bifurcated, located near the Morgan/Monroe County Line. In addition, there are proposed local access roads at various points throughout the corridor.



Typical Cross-Sections

Tier 1 identified two different typical cross-sections to be used for impact and cost estimates in Section 5. The more rural portions of the project used a six-lane divided section with a grass median and local access roads separated from the mainline by grassed slopes and open ditches. In highly urbanized areas the project used an elevated eight-lane section and paved median with opposing traffic being separated by a concrete median barrier. New local access roads were to be constructed at existing grade, separated from the mainline by a mechanically stabilized earth wall and a paved buffer.

During earlier development of the Tier 2 preliminary alternatives, the rural areas were designed with the Tier 1 typical cross-section including a six-lane divided section and a grass median. The urban section had two modifications. It was revised to use or reconnect to the existing local road network rather than constructing the new local access roads. In addition, at the onset of the Tier 2 studies, it was decided to maintain the horizontal alignment within the existing SR 37 corridor and generally maintain the existing SR 37 elevations. With these slight modifications to the Tier 1 urban typical section (Tier 1 FEIS, Appendix E), it essentially would allow the use of an eight-lane divided section²³ and a grassy median through the urbanized area while minimizing potential impacts to karst features, visual impacts, and project cost. These assumptions were subject to modification for alternatives carried forward for detailed study. Such modifications would be considered to minimize impacts and/or cost.

Following further traffic modeling and level of service (LOS) evaluations conducted during the Tier 2 studies, it was determined that traffic levels permitted a reduction in the number of lanes for both the rural and urban areas from what was assumed in Tier 1. Illustrations of typical urban and rural sections with lane widths, shoulders, medians, clear zones, and features to be used where needed (such as truck climbing and auxiliary lanes, landscape berms, and local access roads) are shown in **Figure 3-7** (located at the end of this chapter). These typical sections were used for the two alternatives (Alternatives 4 and 5) identified in the May 2007 Preliminary Screening of Alternatives.

For Alternatives 4 and 5, the rural typical section has two 12-foot wide lanes in each direction separated by an 84-foot wide depressed median. A 12-foot wide truck climbing lane is also included, where needed, due to grade. The rural typical section has six-foot wide paved shoulders to the inside of the travel lanes along the median and 12-foot wide paved shoulders to the outside of the travel lanes within the minimum 35-foot wide outside clear zone.²⁴

²³ In Tier 1, an eight-lane typical section was assumed in portions of Bloomington. Updated traffic forecasts in Tier 2 established that only a six-lane typical section was required throughout Bloomington. See following paragraph.

²⁴ A clear zone is the unobstructed, relatively flat area provided beyond the edge of the traveled way. The clear zone is intended to allow errant vehicles to stop or to maneuver without striking any fixed objects. The clear zone includes any shoulders and auxiliary lanes.



The urban typical section has three 12-foot wide travel lanes in each direction, with an additional 12-foot wide auxiliary lane where needed. In addition, there is a 60-foot wide depressed median with two 12-foot wide paved shoulders at the edge of the travel lanes. To the outside of the travel lanes, there are two 12-foot wide paved shoulders within the minimum 35-foot wide clear zones on each side of the roadway.

These design elements satisfy the *Indiana Design Manual* (IDM) requirements. In addition to this footprint required for the roadway, median, and shoulders, sufficient land is needed to provide for cut and fill slopes, right-of-way maintenance (maneuverability of equipment for mowing, shrub clearing, etc.), drainage, and right-of-way fencing. In addition, access roads may be needed in certain areas along I-69, which would increase the amount of right-of-way needed by up to 100 feet on either or both sides. Safety also is a consideration; there must be sufficient distance from freeway travel lanes so that, should a tree or structure outside the right-of-way fall into the right-of-way toward the freeway, it would not cause a significant risk to motorists. Considering all of these elements, the average right-of-way width using the initial design criteria is approximately 500 feet; however, the right-of-way widths would vary from about 300 feet to almost 800 feet depending upon the alignment, terrain features, and local access treatments. The typical cross-sections for Alternatives 4 and 5 are shown in **Figure 3-7**.

After the publication and circulation of the May 2007 Preliminary Screening of Alternatives Report, other typical cross-sections were developed to further minimize impacts outside of the existing SR 37 right-of-way. These cross-sections make greater use of the existing footprint (and where appropriate, the existing pavement) of SR 37. They have been incorporated in **Figure 3-8** and play a major role in the “minimal impact” Alternatives 6 and 7.

These minimal impact alternative typical sections provide two 12-foot-wide lanes in each direction separated by either an 84-foot-wide depressed median (initial cross-section) or 60-foot-wide depressed median (low-impact cross-section) within the rural sections of I-69 north of Bloomington (north of Chambers Pike). The median includes two seven-foot wide usable inside shoulders, six feet of which are paved. Additional 12-foot-wide lanes are provided in select locations for warranted truck climbing lanes and ramp acceleration and deceleration lanes, and a 12-foot-wide outer shoulder.

In the urban area of Bloomington and the suburban section of Monroe County (from the Urban Area Boundary to Sample Road), a third 12-foot-wide lane is provided in each direction. Median treatment options in the urban area include a depressed median 60 feet in width (initial cross-section) or paved shoulders separated by a concrete barrier wall (low-impact cross-section). The suburban section uses guardrail, rather than concrete barrier wall. Inside shoulder width varies depending upon the specific alternative, ranging from 11 feet 9 inches, to 13 feet. **Figure 3-8** shows the typical sections for the I-69 mainline. Additional 12-foot-wide lanes are provided in locations warranting auxiliary lanes and ramp acceleration and deceleration lanes, and an 8- to 12-foot-wide paved outside shoulder. The outside clear zone ranges from 30 to 35 feet in width and extends beyond the travel lanes and includes 8- to 12-foot-wide paved outside shoulders (in both rural and urban areas of the project).



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Local access roads are proposed for either side of the mainline at various points throughout the Section 5 corridor. These local access roads provide access to otherwise landlocked properties. Either a 100-foot-wide median (initial cross-section) or barrier wall (low-impact cross-section) would be used between the interstate mainline and access roads. A median would provide for the necessary roadway clear zone and space for a landscaping berm with the initial cross-section. Barrier walls would allow local traffic to travel adjacent to the mainline with the low-impact cross-section. The typical cross-sections of these access roads include two travel lanes (width varies between 11 and 12 feet). Paved shoulders, varying by specific alternative, will range from five to eight feet in width. The minimum width of the clear zone on each side without a barrier wall is 20 feet.

Typical sections also will be defined for other roads at freeway interchanges and grade separations. The typical sections for these roadways will vary based on traffic demands and roadway functional class from two to four lanes and with or without curb and gutter.

Mainline Alternatives

Development of mainline alignments began using the existing SR 37 centerline and the 2,000-foot approved Section 5 corridor. Even though the Section 5 project is superimposed upon current SR 37, SR 37 must be upgraded to meet the interstate design standards for I-69. Horizontal and vertical alignments with a 70 mile per hour (mph) design speed were developed.

Preliminary guidance stated that median barriers, retaining walls, and guardrails would not be considered in the development of preliminary alternatives; however, the guidance did explain that these features could be used later, if necessary, to avoid or minimize impacts. Later, as part of the minimal impact alternative development, median barriers, retaining walls, and guardrails were incorporated in minimal impact alternatives (Alternatives 6 and 7), as discussed below.

Geographic Information System (GIS) data of base mapping, existing right-of-way, contours, environmental resources, and parcel boundaries were used to identify constraints when developing alternatives. Several key constraints that were avoided by all alignments included: all cemeteries; the Maple Grove Road Rural Historic District; Wapehani Mountain Bike Park; Bennett's Dump and Lemon Lane Landfill Superfund Sites; and, the Hoosier Energy Operations Headquarters/distribution center and transformer station. Avoidance of these environmental and physical constraints restricted the possible alignments to small variances on either side of the existing centerline. For at least some alternatives, the I-69 mainline alignment was shifted off existing SR 37 right-of-way in the following locations:

- **Shift to avoid Monroe Hospital.** The mainline alignment was shifted to the east at Fullerton Pike to avoid impacting the Monroe Hospital and to minimize impacts to karst features in the immediate area.



- **Shift to avoid Wapehani Mountain Bike Park.** Most of the mainline alignments were shifted to the west to avoid Wapehani Mountain Bike Park, a Section 4(f) Resource, while one alignment shifted east into the Park boundary to avoid residences on the west side of the road and address constructability issues at SR 45/2nd Street.
- **Shift to avoid Historic District.** The mainline alignment was shifted to the east at Acuff Road to avoid impacting the Maple Grove Road Rural Historic District boundary.
- **Shift to avoid Cemetery.** The mainline alignment was shifted to the west between Sample Road and Chambers Pike to avoid the Carlton/Huff/Kendrick Cemetery; here, the existing northbound SR 37 lanes were used as a local access road.
- **Shift within State Forest.** The bifurcation of SR 37 through the Morgan-Monroe State Forest was maintained in most of the I-69 alignments, while one alignment shifted I-69 to the west and used existing northbound SR 37 lanes as a local access road.

Interchange Options and Access Locations for Preliminary Alternatives

Because Section 5 essentially upgrades SR 37 to interstate highway standards, alternative development focused on development and consideration of alternatives to each of the major elements that compose SR 37. Currently there are approximately 76 streets, ramps, roads, or driveways with access to existing SR 37 in Section 5. Once SR 37 is upgraded to freeway standards as part of the I-69 construction, direct access to I-69 will be via traffic interchanges only; no direct access points (e.g., at grade intersections, driveways, signalized intersections, etc.) will remain. Any crossings of I-69 will be provided via grade separations. All other access points with existing SR 37 will be closed, and local access roads will serve existing traffic.

The Tier 1 Alternative 3C was used to identify potential locations of interchanges, grade separations, local access roads, and collector/distributor (CD) roads. Existing SR 37 interchanges were afforded preference due to the substantial disruption to local travel patterns, increased impacts, and costs if excluded from the Section 5 alternatives. These include the SR 45/2nd Street, SR 48/3rd Street, SR 46, and Walnut Street (partial) interchanges, although alternatives were considered which modified the interchange types. Potential alternates to the Tier 1 referenced locations were included based upon traffic volumes from the I-69 corridor model and input from local government representatives, the ELUPs, the CACs, and public comments. Tapp Road, Vernal Pike, Chambers Pike, and Liberty Church Road are examples of alternate locations.

Potential locations were added with input from local plans, participating agencies, CACs, ELUPs, and public comments. Traffic volumes from the I-69 corridor model; input from representatives of Monroe County, Morgan County, the City of Bloomington, and the I-69 CACs; and planned and programmed improvements to the local roadway network were all considered in choosing access locations. There are four existing interchanges on SR 37 in Section 5: a double-folded diamond at SR 45/2nd Street, a tight diamond at SR 48/3rd Street, a partial cloverleaf interchange at SR 46, and a partial interchange at Walnut Street. Interchanges



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were maintained at these locations, although alternatives were considered which modified the interchange types; some alternatives did not include a Walnut Street interchange.

For certain potential interchange locations (e.g., Fullerton Pike, Tapp Road, SR 45/2nd Street, SR 48/3rd Street, Kinser Pike, Walnut Street, Sample Road, Paragon Road/Liberty Church Road), multiple interchange types were considered. Types were chosen based on surrounding land uses, INDOT design guidance, and traffic operations. In rural areas, a wide diamond was developed for each interchange providing 1,320 feet or more distance between ramp termini where possible. A wide diamond allows for sufficient space to add loop ramps within the existing interchange right-of-way, should traffic volumes warrant it in the future. In urban areas, tight diamonds and single-point interchanges were used with much tighter ramp termini spacing (400 feet or fewer). The ramp spacing associated with tight diamonds generally requires synchronization of traffic signals to provide for operational considerations at these intersections. Because of safety concerns, loop ramps were not permitted unless necessary to avoid significant impacts (such as railroads, significant relocations, or significant aquatic impacts), or to improve traffic operations at system interchanges. **Figure 3-9** below shows examples of these interchange types. While preliminary interchange types are identified, other interchange layout options may be considered at I-69 access locations as the environmental impact studies progress.

It was decided that, due to the existing grade of SR 37 and the karst features present in much of the study corridor, it would be more cost-effective and would have fewer drainage concerns if overpasses (local road over I-69) as opposed to underpasses were generally used for grade separations. Use of underpasses increases potential disruption of karst conduits in underlying limestone bedrock and changes to surface-to-groundwater flow patterns.

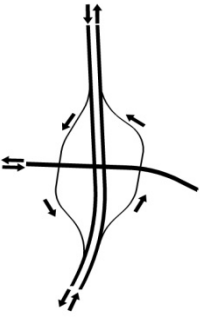
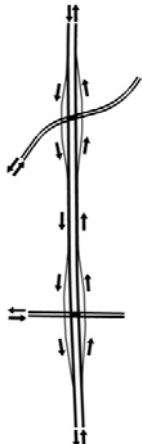

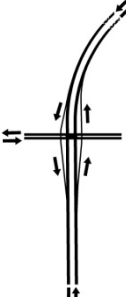
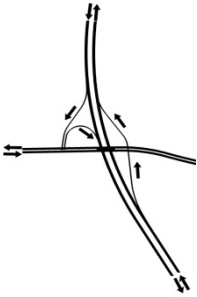
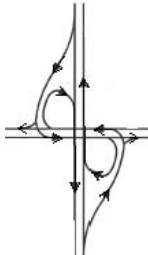
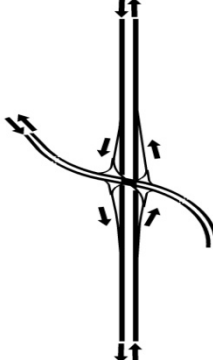
 <p>WIDE DIAMOND</p>	<p>Wide / Rural Diamond Consists of an overpass with two intersections on either side for the ramp connections. Flow can be controlled via stop signs or signals depending on the traffic volumes. Generally used in rural areas. For Section 5, ramps are generally spaced at about 1,200 from the mainline so that the opportunity for future loop ramps can be afforded.</p>	 <p>SPLIT DIAMOND</p>	<p>Split Diamond Consists of overpasses at two crossroads with frontage roads connecting the two halves. The ramp lanes are continuous between the two overpasses, with no access to the mainline until the motorist passes the second crossing. Flow is controlled via traffic signals at each crossroad intersection for roads in urban areas that are too close for a standard interchange but still have access needs at both locations.</p>
 <p>MEDIUM DIAMOND</p>	<p>Urban / Medium Diamond Consists of an overpass with two intersections on either side for the ramp connections. Flow can be controlled via stop signs or signals depending on the traffic volumes. Generally used in rural or suburban areas. For Section 5, the ramps are generally spaced at about 800 to 1,000 feet from the mainline.</p>	<p>Folded Diamond (Folded Loop, Single or Double) This is a variation of a diamond interchange in which there is a loop ramp in one or more quadrants. It is sometimes called a "Partial Cloverleaf". A loop ramp is introduced when there is a physical constraint in one or more quadrants. Access to the mainline can be controlled by stop signs or signals depending on traffic volumes. Ramp spacing is similar to those for a wide or medium diamond.</p>	
 <p>NARROW DIAMOND</p>	<p>Narrow / Tight Diamond Consists of an overpass with two intersections on either side for the ramp connections. Flow is usually controlled via traffic signals. Generally used in urban areas. For Section 5, the ramps are generally spaced at 400 feet from the mainline, due mainly to restrictions of adjacent land use.</p>	 <p>SINGLE FOLDED</p>	 <p>DOUBLE FOLDED</p>
		 <p>SINGLE - POINT</p>	<p>Single-Point (Single-Point Urban Interchange or SPUI) This is a variation of a narrow diamond interchange in which the ramps and crossroad traffic converge at the mainline in one intersection. It is generally used when left-turning ramp movements dominate the traffic movements. Flow is controlled via one signal rather than the two signals used for a diamond interchange.</p>

Figure 3-9: Section 5 Potential Interchange Types for Preliminary Alternatives



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The preliminary interchange types shown in **Figure 3-9** were used when considering the various interchange layout options (as appropriate at each location) at I-69 access locations, which were the major project features for which alternative approaches (alternatives) were developed. Each of these major project features is discussed in **Table 3-2**.

Table 3-2: Major Project Features of Preliminary Alternatives	
Project Feature	Description
That Road Overpass or Rockport Road Overpass	The That Road overpass was considered to maintain connectivity between neighborhoods on the east and west sides of I-69. As an alternative to the That Road overpass, an overpass also was considered at Rockport Road that would also maintain connectivity between neighborhoods on the east and west sides of I-69.
Fullerton Pike Interchange or That Road Interchange	The Monroe County Thoroughfare Plan is planned around Bloomington. Currently, right-of-way is being preserved in both the That Road and Fullerton Pike corridors for the proposed project. Providing access to I-69 from the northeast for the proposed project was considered at the SR 37 interchange with I-69 (which is part of Section 4) and at That Road. It was determined that the SR 37 interchange would become too complex to add a fourth (northeasterly) leg, and an interchange at That Road would be too close to the SR 37 interchange. Therefore, an interchange was proposed at Fullerton Pike to provide access to the southern areas of Bloomington and provide a connection for this future project. An interchange at Fullerton Pike would also provide access to the Monroe Hospital as well as the Fullerton Tax Increment Fund (TIF) District.
Tapp Road Overpass or Interchange	The City of Bloomington requested an interchange be studied for Tapp Road to serve a large portion of undeveloped land within the City. Providing a full interchange would require collector distributor (CD) roads on I-69 through the urban section of Bloomington due to the close spacing of interchanges. The interchange type considered for Tapp Road was a tight diamond. An overpass was also considered at this location to connect the neighborhoods west of I-69 with downtown Bloomington.
SR 45/2nd Street Interchange	Currently, there is an interchange at this location. Because SR 45/2 nd Street is a state highway with significant traffic volumes, an interchange was maintained at this location in all the preliminary alternatives.
Railroad Overpass	Currently, there is a grade separation over SR 37 for the Indiana Railroad. This section of track is to remain in service for the foreseeable future, and thus, a railroad overpass must be maintained for I-69 at this location.
SR 48/3rd Street Interchange	Currently, there is an interchange at this location. Because SR 48/3 rd Street is a state highway with significant traffic volumes, an interchange was maintained at this location in all preliminary alternatives. Interchange types considered included the existing tight diamond and a single-point interchange.
Railroad Underpass	Currently, there is a railroad grade separation under SR 37 for the Indiana Railroad and the CSX Railroad. This section of track is to remain in service for the foreseeable future, and thus, a railroad underpass is required for I-69 at this location.
Vernal Pike/17th Street Underpass or Overpass	Both the City of Bloomington and Monroe County recommended that a grade separation with I-69 be considered at this location. The existing access at Vernal Pike would be eliminated, and 17th Street would be extended across I-69 (either over or under) and connect with Vernal Pike. A grade separation would maintain community connectivity and maintain access to the industrial areas west of I-69.
Vernal Pike/17th Street Interchange	Monroe County stated a preference for interchange access at Vernal Pike. However, a Vernal Pike interchange would exceed the required minimum interstate interchange spacing relative to the SR 46 interchange. In order to address this spacing, a CD system and reconstruction of the SR 46 interchange (to accommodate the CD roads) would be required to meet the Monroe County recommendation for an interchange at Vernal Pike.
SR 46 Interchange	Currently, there is an interchange at this location. Because SR 46 is a state highway with significant traffic volumes, an interchange was maintained at this location in all of the preliminary alternatives. The existing interchange can remain with minor improvements to ramp termini.
Arlington Road Overpass	Currently, there is an Arlington Road grade separation over SR 37. The existing overpass was maintained at this location in all three of the preliminary alternatives to retain connectivity between the neighborhoods west of I-69 and Bloomington High School North.



Table 3-2: Major Project Features of Preliminary Alternatives

Project Feature	Description
Acuff Road Overpass or Access Road	An overpass or a local access road connecting to Kinser Pike was considered at this location to maintain neighborhood connectivity and maintain secondary access to the MGRHD.
Kinser Pike Overpass or Interchange	An interchange was considered at this location as an alternative to an interchange at Walnut Street. An interchange would provide access to the City of Bloomington’s Kinser Pike/Prow Road TIF district, which is considered a prime area for development. The interchange type considered was a diamond interchange. A grade separation was also considered for this location to maintain community connectivity for a neighborhood west of I-69.
Walnut Street Overpass, Interchange, or Access Road	<p>Currently, there is a partial interchange with SR 37 at this location, which only provides for southbound exit and northbound entrance traffic movements. Maintaining an interchange at this location was considered because the current interchange serves as the unofficial “Gateway to Bloomington” and Indiana University, while serving high traffic volumes. The interchange types considered at this location included the existing partial interchange, a diamond interchange, and a single-point interchange. An overpass or local access road connecting to Sample Road was also considered for this location.</p> <p>Retaining the existing partial interchange would require special authorization from FHWA. “When partial interchanges (either system or service interchanges that do not provide for all possible interchanging movements between intersecting routes) are being considered as an alternative for a change in access, it is essential that coordination and development of alternatives begin during the early phases of the planning process. Not providing for all movements violates driver expectation and may lead to ‘wrong-way’ movements on ramps. Therefore, alternatives for the construction of partial interchanges should generally be avoided. If partial interchanges are being considered, clear and detailed analysis must be conducted and documented as justification for their construction or retention. The alternatives to be analyzed should include at least one alternative for an interchange that provides ramps for all possible movements.”^a With adequate justification, FHWA may concur with the use of partial interchanges. This justification process has occurred, and FHWA has agreed that the partial interchange can remain at Walnut Street (refer to Appendix RR, Walnut Street Interchange Selection Report).</p>
Sample Road Overpass or Interchange / Chambers Pike Overpass or Interchange	<p>An interchange was considered at Sample Road to provide access to the neighborhoods and commercial businesses just north of Bloomington. An interchange would also provide access for Hoosier Energy maintenance trucks to use I-69. The interchange type considered was a diamond interchange. A grade separation was also considered to maintain connectivity between the business and neighborhoods on each side of I-69.</p> <p>An interchange was considered at Chambers Pike to provide access to the neighborhoods and commercial businesses just north of Bloomington. An interchange would also provide access to the Morgan-Monroe State Forest. The interchange type considered was a diamond interchange. A grade separation was also considered to maintain connectivity between the business and neighborhoods on each side of I-69.</p> <p>The access points at Sample Road and Chambers Pike are located approximately 2.9 miles apart. These alternatives considered in the screening process included having an overpass or interchange at Sample Road but not Chambers Pike, at Chambers Pike but not Sample Road, and at both locations.</p>
Bryant’s Creek Road Overpass or Access Road	A Bryant’s Creek Road overpass or local access road to Paragon Road were considered to provide access to I-69 for land locked parcels east of I-69 via Turkey Track Road and a Paragon Road interchange.
Paragon Road Overpass or Interchange	An interchange was considered at Paragon Road to provide access to the neighborhoods north of the Morgan-Monroe State Forest and to the Town of Paragon. The interchange type considered was a diamond interchange. A grade separation was also considered to maintain roadway connectivity in the area.
Liberty Church Road/ Godsey Road Overpass or Interchange	Liberty Church Road has become a major regional focal point for development. The City of Martinsville plans to extend utilities (water and sewer) to the area, regardless of whether I-69 is built. Therefore, an overpass or interchange was considered to connect Liberty Church Road and Godsey Road. An interchange at Liberty Church Road also would reduce the traffic loads at Section 6 interchanges at SR 39 and Burton Road. The interchange type considered was a diamond interchange.
<p>Note: ^a Text from the FHWA, “Interstate System Access Information Guide,” August 2010, www.fhwa.dot.gov/design/interstate/pubs/access/access.pdf. (Last accessed July 16, 2013).</p>	



Summary of Preliminary Alternatives (Alternatives 1 to 3)

Three initial alternatives – Alternatives 1, 2, and 3 – were developed by combining the mainline alignments with various combinations of interchanges and grade separations as described in **Table 3-2**. A series of local access roads parallel to I-69 were developed for each alternative between the interchanges. The local access roads connect individual parcels and roads that would otherwise be disconnected due to I-69. **Table 3-3** lists the interchanges and grade separation components included with each of these preliminary alternatives. **Figure 3-10** follows this table, and depicts Alternatives 1, 2, and 3.



Table 3-3: Section 5 – Summary of Alternatives 1, 2 and 3

Area Type	Major Feature Name	2005 Preliminary Alternatives		
		Alternative 1	Alternative 2	Alternative 3
Urban	I-69 and SR 37	Section 4 Interchange		
	That Road	No I-69 Access; E Access Rd	Overpass	
	Rockport Road	Overpass	No I-69 Access; East Access Rd	
	Mainline (That to Fullerton)	Shift to East; Grass Median	CD System; Median & Access Rd Barriers	Shift to East; Grass Median
	Fullerton Pike	Folded Diamond Interchange	Overpass with access road	Folded Diamond Interchange
	Mainline (Fullerton to Sample)	SR 37 Centered; Grass Median	CD System; SR 37 Centered to 3 rd St.	SR 37 Centered; Grass Median
	Tapp Road	Overpass	CD System (barriers between through and local lanes); Single Point Interchanges at Tapp, 2 nd St., and 3 rd St.	Overpass
	SR 45/2 nd Street	Folded Diamond Interchange		Single Point Interchange
	SR 48/3 rd Street	Diamond Interchange		Single Point Interchange
	Vernal Pike/17 th Street	Underpass	Overpass	Underpass
	SR 46 Interchange	Use Existing Interchange		
Transition from Urban to Rural	Arlington Road	Overpass		
	Acuff Road	No I-69 Access	Overpass	No I-69 Access; W Access Road
	Kinser Pike	Overpass	Rural Diamond Interchange	Folded Diamond Interchange
	SB Mainline Beanblossom Valley	4% Cut/Fill and Climbing Lane		
Rural	N. Walnut St.	Rural Diamond Interchange	No I-69 Access; E Access Road	Overpass
	NB Mainline Beanblossom Valley	4% Cut/Fill and Climbing Lane		
	Sample Road	Rural Diamond Interchange		Overpass
	Mainline Shift (Sample to Chambers)	Shift to West; Grass Median; use NB SR 37 as Access Road		
	Chambers Pike	Overpass	Rural Diamond Interchange	
	Mainline Shift (Chambers to Bryant's)	All lanes on west-side; 4% Cut/Fill	3 lanes each side; 4% Cut/Fill	
	Mainline (Bifurcation)	Wide Shoulders and Clear Zone		
	Bryant's Creek Road	No I-69 Access; E/W Access Roads	Overpass	
	Mainline (Bryant's Creek Road to Termini)	SR 37 Centered; Wide Grass Median		
	Paragon Road/Pine Boulevard	Rural Diamond Interchange	Overpass	Rural Diamond Interchange
	Liberty Church Road	Overpass	Rural Diamond Interchange	Overpass
	SR 37 N of Legendary Hills Road	No I-69 Access; E/W Access Roads		
	I-69 and SR 39	Section 6 Interchange		

Notes – Local access roads generally parallel I-69 on either E – east side, W – west side, or E/W – both sides of I-69 Mainline; Descriptive terms such as wide, rural, urban medium, tight, and narrow provide relative comparatives only and are not indicative of specific dimensions. See **Figure 3-9**.

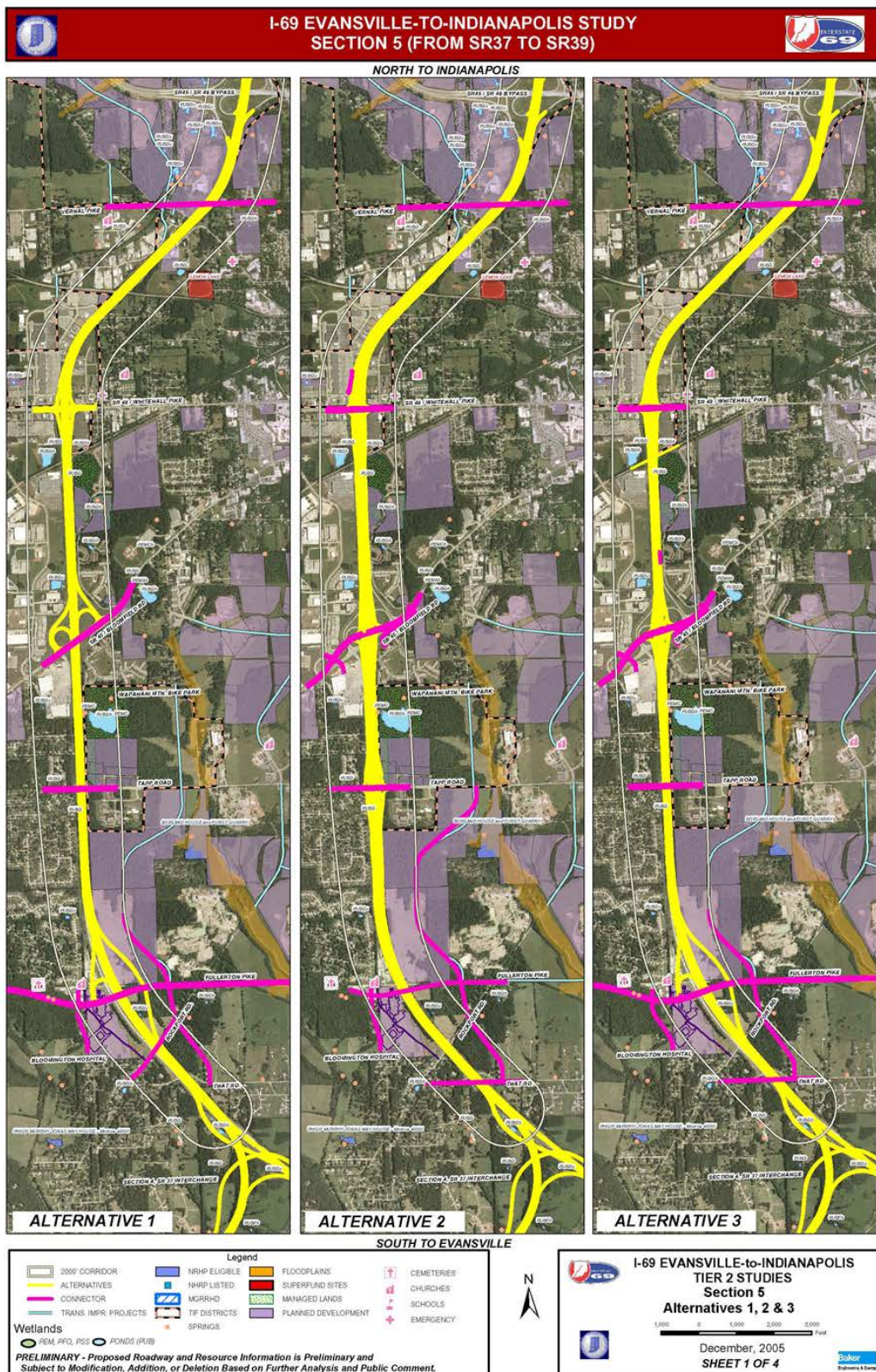


Figure 3-10: Alternatives 1, 2, and 3 Comparison Maps (Sheet 1 of 4)

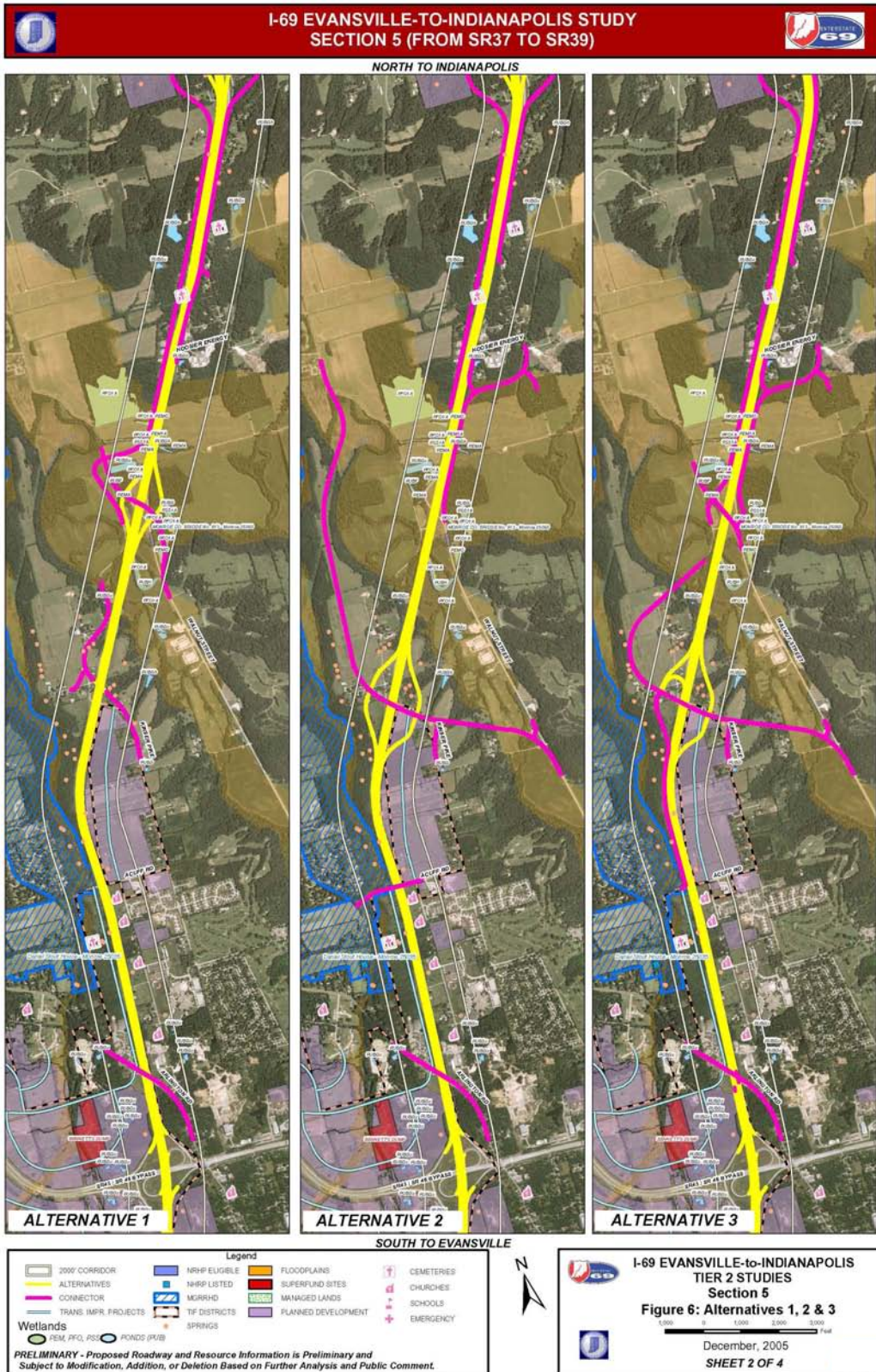


Figure 3-10: Alternatives 1, 2, and 3 Comparison Maps (Sheet 2 of 4)

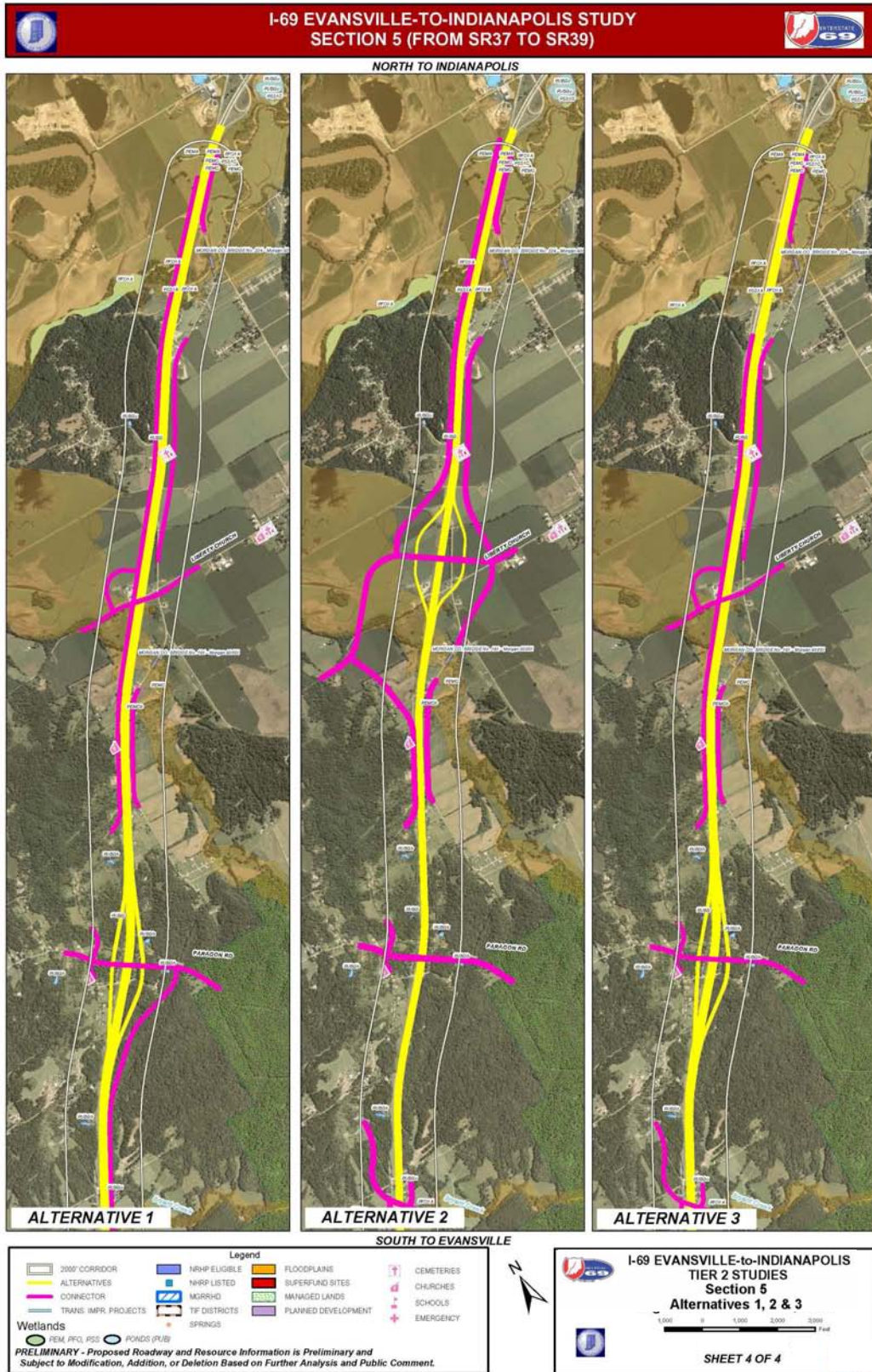


Figure 3-10: Alternatives 1, 2, and 3 Comparison Maps (Sheet 4 of 4)



3.2.2.4 Preliminary Alternatives 1, 2, and 3 Screening Process

The preliminary alternative screening process involved an evaluation of each major feature (e.g., Tapp Road intersection, Fullerton Pike intersection, mainline shifts, etc.) of SR 37 that would need to be assessed in the potential SR 37 upgrade action (e.g., overpass, underpass, access road, etc.) of each of the three preliminary alternatives (Alternatives 1 to 3, shown in **Figure 3-10** above). These screening evaluations were conducted through the public, public officials, and resource involvement programs as discussed in **Section 3.2.2, Scoping Process**. The various evaluations and recommendations made through these efforts were then subject to additional analyses by project engineering staff. Through this process some of the features composing Alternative 1 to 3 were retained, while others were eliminated, modified, or replaced. The features that were retained, modified, or replaced resulted in the development of two new alternatives – Alternatives 4 and 5. This section summarizes the decisions that resulted in Alternatives 4 and 5. See the tabbed maps located at the end of this chapter (**Figure 3-11** and **Figure 3-12**).

That Road Overpass/Rockport Road Overpass

Alternative 1 - overpass for Rockport Road.

Alternatives 2 and 3 - overpass at That Road.

An overpass at That Road was analyzed as an alternative to the overpass at Rockport Road, which was shown in the Tier 1 FEIS. The alternative screening recommended carrying forward the Rockport Road overpass and eliminating the That Road overpass. The recommendation is based on the following factors:

- Either overpass can serve the traffic within the immediate study area with a local access road connecting the two east of I-69.
- Rockport Road:
 - has a higher roadway classification than That Road (Major Collector versus Minor Collector);
 - provides a more continuous route for the region than That Road and provides access to areas southwest of Bloomington.
- An overpass at Rockport Road would:
 - have almost twice the forecasted traffic than a That Road overpass (4,200 vehicles per day [vpd] vs. 2,200 vpd);
 - provide better access to the new Monroe Hospital complex and associated access road (at Fullerton Pike).
- The City of Bloomington stated support for a Rockport Road overpass instead of a That Road overpass in its comments on Alternatives 1, 2, and 3.



- Monroe County stated support for either overpass option as long as a local access road was provided to connect both roadways on the east side of I-69.

Fullerton Pike Interchange/Realignment and Fullerton Pike Extensions

Alternatives 1 and 3 proposed interchanges at Fullerton Pike and proposed that Fullerton Pike (west of the proposed I-69) be relocated to the south of the existing Fullerton Pike alignment, widened to four lanes, and extended west to Leonard Springs Road and east to Gordon Pike.

Alternative 2 included an overpass but no relocation of Fullerton Pike or an eastern local access road that connected Fullerton Pike and Tapp Road.

Alternatives 1 and 3 proposed a mainline shift to the east of existing SR 37 in the vicinity of the proposed interchanges. Alternative 2 did not propose a mainline shift.

The purpose of the Fullerton Pike relocation under Alternatives 1 and 3, in association with an interchange, was to move the roadway further away from the Fullerton Cemetery and to upgrade the east/west connection between Gordon Pike and Leonard Springs Road. The alternative screening process recommended that the realignment and extensions of Fullerton Pike no longer be considered as parts of any alternative due to the large cost and minimal benefits associated with it, which are listed below:

- The proposed extension to Leonard Springs Road crosses steep terrain and would require either embankment fills in excess of 80 feet or a bridge approximately 1,000 feet in length.
- The realignment and extension to Leonard Springs Road could adversely impact additional homes and several large springs and could be within the viewshed of the Philip Murphy-Jonas May House, which is eligible for listing on the NRHP. The realignment could, therefore, constitute an Adverse Effect to the Philip Murphy-Jonas May House under Section 106.²⁵ (The house has since been demolished and is no longer eligible for listing in the NRHP.)
- Traffic volumes (3,200 vpd) on Fullerton Pike, west of the hospital site, do not warrant widening Fullerton Pike and Leonard Springs Road to SR 45/2nd Street.
- Since the development of Alternatives 1, 2, and 3, Monroe County has created a TIF district to fund a County project to extend Fullerton Pike east to connect with Gordon Pike (regardless of the I-69 undertaking) and as such, this extension was removed from all of the I-69 alternatives.

²⁵ An Adverse Effect, as defined by 36 CFR §800.5, is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.



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The selection of the SR 37/I-69 interchange in Section 4 factors into determining the type of interchange design recommended for Fullerton Pike. The interchange is expected to consist of a folded diamond interchange with a loop on the west side and a diamond interchange on the east side. This design reduces the impacts to the Monroe Hospital, because mainline traffic would be less likely to be affected by entering traffic than by exiting traffic.

The overpass and eastern local access road option proposed in Alternative 2 were eliminated to satisfy the required minimum interstate interchange spacing between Tapp Road and SR 45/2nd Street, and to accommodate the construction of the new Monroe Hospital in the southwestern quadrant of the Fullerton Pike/SR 37 intersection.

The following alternative elements were carried forward in Alternatives 4 and 5:

- an interchange at Fullerton Pike with no relocation of Fullerton Pike.
- a mainline shift to the east of SR 37 in the vicinity of the Fullerton Pike interchange. This shift is necessary to coincide with the geometry of the SR 37/I-69 interchange in Section 4, to minimize impacts to the newly constructed Monroe Hospital, to reduce residential and karst impacts, and to better accommodate a Fullerton Pike interchange. This shift would allow Fullerton Pike to return to existing grade before the cemetery, which would eliminate the need for realignment of Fullerton Pike to the south to avoid the cemetery.

Tapp Road Interchange and the CD System

Alternatives 1 and 3 included an overpass at Tapp Road. Instead of an overpass, Alternative 2 included a single-point interchange at Tapp Road with a CD system from approximately Fullerton Pike to SR 46. The CD system was proposed to provide interchange access at Tapp Road and SR 45/2nd Street. The CD system would separate local traffic from the interstate facility, which would greatly reduce weaving on to the interstate and would improve the LOS along the mainline. The alternative screening recommended that the CD system be eliminated for all alternatives. This recommendation is based on the following factors:

- The CD system would not allow for an interchange at Fullerton Pike due to the close proximity to the SR 37 interchange. (The Fullerton Pike area along I-69 is where the CD system roads would merge with the mainline, providing the separated traffic a merge zone onto and off of the CD system.)
- Providing a Fullerton Pike interchange would necessitate carrying the CD road through the SR 37/I-69 interchange, which would result in a more complex and costly interchange with more right-of-way impacts.
- The CD system would make the mainline about 80 feet wider than the alternatives that do not include a CD system (Alternatives 1 and 3). This would result in more right-of-way impacts than for Alternatives 1 and 3.



- For Alternatives 1 and 3 (which do not include the CD system), the volume on the mainline would be approximately 68,000 vpd. Alternative 2 also carries 68,000 vpd, but the volume is evenly split between the mainline and CD roads, each carrying 34,000 vpd.
- The City of Bloomington recommended elimination of the CD system. The City stated it would not want to incur the added impacts associated with the proposed CD system for the interchange at Tapp Road. The City further stated it believed that the proposed Fullerton Pike interchange would better serve its needs.
- Monroe County stated a preference for an interchange at Fullerton Pike rather than at Tapp Road if Fullerton Pike is extended across Clear Creek and connected with Gordon Pike to provide direct access into downtown Bloomington. Traffic forecasts for 2030 show 5,700 vpd would travel via this new connection.

The alternative screening process also recommended dropping the single-point interchange at Tapp Road and instead considering a split-diamond interchange at this location, based on the following:

- A split diamond interchange between Tapp Road and SR 45/2nd Street could be designed to maintain access to I-69 while not increasing the number of weave access points. There would be directional local access roads carrying traffic between Tapp Road and SR 45/2nd Street.
- The split diamond interchange should also reduce traffic volumes on Leonard Springs Road and Tapp Road west of I-69. Under Alternatives 1 and 3, Tapp Road (west of I-69) would have 13,000 vpd, while with a split diamond interchange, Tapp Road would have 8,500 vpd - a reduction of 4,500 vehicles. Traffic on Leonard Springs Road would also be reduced from 11,600 vpd to 7,800 vpd with the split diamond interchange.
- The split diamond interchange would also increase traffic volumes on Tapp Road east of I-69 by 2,000 vpd, but would reduce the SR 45/2nd Street volumes by 1,000 vpd and the Fullerton Pike volumes by 1,000 vpd.

Two of the elements of the alternatives developed for Tapp Road were carried forward for further consideration and analysis. They were:

- an overpass at Tapp Road (Alternative 4); or,
- a split-diamond interchange between Tapp Road and SR 45/2nd Street (Alternative 5).

SR 45/2nd Street Interchange Designs

The preliminary alternatives included three different interchange designs at SR 45/2nd Street. Alternative 1 depicted a folded diamond interchange layout, Alternative 2 included a single-point interchange with a CD system, and Alternative 3 included a single-point interchange without a CD system.



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Folded diamond interchanges have the potential to cause traffic backups on the mainline and have been removed from further consideration at this location.

- The Alternative 2 single-point interchange was developed due to the inclusion of a CD road, because the wider CD typical section would require enough space to preclude development of the loop ramps required for a folded diamond interchange.
- There is a significant amount of INDOT-owned right-of-way available to accommodate various urban interchange configurations; this approach could further reduce right-of-way costs and impacts to businesses.
- A tight diamond interchange would likely lower bridge costs compared to the single-point interchange.
- A single-point interchange would require realigning SR 45/2nd Street to reduce the skew²⁶ across I-69.
- The City of Bloomington has stated preference for the existing folded diamond interchange for SR 45/2nd Street.
- Monroe County did not specify a preferred layout for this interchange.

The screening process rejected the designs in the preliminary alternatives and decided to consider the following alternative designs be carried forward:

- a tight diamond interchange at SR 45/2nd Street (Alternative 4); or,
- a split diamond interchange between Tapp Road and SR 45/2nd Street (Alternative 5).

SR 48/3rd Street Interchange Designs

Alternative 1 included a tight diamond interchange, Alternative 2 included a single-point interchange with a CD system, and Alternative 3 included a single-point interchange design (without a CD system).

- A tight diamond interchange likely would lower bridge costs, compared to the single-point interchange.

Alternative screening recommended the following two interchange design types be carried forward:

- a tight diamond interchange (Alternative 4); or,
- a single-point interchange (Alternative 5).

²⁶ “Skew” refers to a grade separation of two facilities at an angle significantly less than 90 degrees. Crossings with a great deal of skew are associated with significantly higher right-of-way impacts and higher structure costs due to relatively lengthy bridges.



Vernal Pike/17th Street Overpass/Interchange

All preliminary alternatives included a grade separation at 17th Street with elimination of access at Vernal Pike. Alternatives 1 and 3 included an underpass at 17th Street, and Alternative 2 included an overpass. The alternative screening recommended that all alternatives carried forward include an underpass at 17th Street based on the following:

- Due to the terrain in this area, an underpass would return to the existing grade sooner than an overpass (within approximately 400 feet on the east side of I-69);
- An overpass would require that some areas west of I-69 have embankment fills of up to 60 feet, while an underpass would require excavation cuts of 50 feet in some areas east of I-69.
- An underpass would have fewer steep grades than an overpass and would be better for bicyclists and pedestrians (underpass maximum grade of 3.5% versus an overpass maximum grade of 5%).
- The City of Bloomington stated a preference for an underpass.
- Monroe County stated support for the use of 17th Street as an alternative to Vernal Pike. The County has also stated a preference for interchange access at Vernal Pike. However, a Vernal Pike interchange would exceed the required minimum interstate interchange spacing relative to the SR 46 interchange. In order to address this spacing, a CD system and reconstruction of the SR 46 interchange (to accommodate the CD roads) would be required to meet the Monroe County recommendation for an interchange at Vernal Pike.
- With the proposed underpass, businesses located along Industrial Drive would continue to have interstate access via Vernal Pike connections to Curry Pike and SR 46.

The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 during the alternative development process:

- elimination of access at Vernal Pike,
- providing a grade separation underpass at 17th Street; and,
- extending Industrial Drive.

Acuff Road Overpass and Local Access Road Connection to Kinser Pike

Alternative 1 eliminated access to Acuff Road, Alternative 2 included an overpass at Acuff Road, and Alternative 3 included a local access road west of SR 37 connecting Acuff Road with a Kinser Pike interchange. The alternative screening recommended eliminating the overpass and local access roads for Acuff Road based on:

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- Alternative 2 and 3 overpass and/or access road development and construction would directly impact the Maple Grove Road Rural Historic District. These impacts could result in a Section 4(f) impact and/or an adverse effect determination under Section 106, which would be a potential Section 4(f) constructive use impact.
- The overpass alternative would require construction of a bridge over the interstate and another bridge over Stout Creek, which would add significant cost to the project, with limited benefit. The Stout Creek Bridge would be approximately 75 feet high.
- The local access road to connect Acuff Road with Kinser Pike would connect with the County’s proposed local access road to tie Arlington Road to Acuff Road. However, the steep slopes along Stout Creek and the spacing required for construction of a western local access road would require the mainline in Alternative 3 to be shifted approximately 100 feet to the east of existing SR 37. This mainline shift to the east would encroach upon the Kinser Pike/Prow Road TIF district.
- The City of Bloomington does not recommend an overpass at this location. The City has stated it believes that a Kinser Pike interchange would mitigate for any “lost” access from Acuff Road.
- Monroe County has stated a preference for an overpass at Acuff Road.

The alternative screening process recommended the following alternative options for this project feature be carried forward in the alternative development process:

- The elimination of access at Acuff Road with no connecting local access roads was the design alternative recommended to be carried forward in both Alternatives 4 and 5.

Kinser Pike Interchange/Overpass and Western Extension

Alternative 1 recommended an overpass at Kinser Pike, with existing Kinser Pike west of I-69 used as a local access road to connect with an interchange at Walnut Street. Alternatives 2 and 3 both recommended an interchange at Kinser Pike and an extension of Kinser Pike to the east connecting with Walnut Street at Bayles Road, and an overpass at Walnut Street. Alternative 2 included an extension of Kinser Pike to the west/northwest along the existing natural ridge (between two watersheds in karst terrain) to tie in with Bottom Road. Alternative 3 included a tie in with Bottom Road closer to I-69.

The alternative screening process recommended the following alternative options for this project feature be carried forward in the alternative development process:

- an interchange at Kinser Pike and an overpass at Walnut Street (Alternative 4) based on:
 - reduction in construction costs, and right-of-way, karst, and farmland impacts along the ridge; and,
 - response to DHPA/SHPO comments regarding potentially increased noise and visual impacts to the Maple Grove Road Rural Historic District.



- an overpass at Kinser Pike, using existing Kinser Pike west as a local access road to connect with a Walnut Street interchange (Alternative 5).

Walnut Street Interchange/Overpass

Alternative 1 included an interchange at Walnut Street with a local access road along the west side of I-69. While Alternative 2 included no access at Walnut Street, it did provide a local access road running parallel to I-69 on the east side to Sample Road. Alternative 3 included an overpass at Walnut Street connecting to Bottom Road on the west side and local access roads running parallel to I-69 on both the east and west sides.

The alternative screening process recommended carrying forward an overpass at Walnut Street (in conjunction with a Kinser Pike interchange) or an interchange at Walnut Street (in conjunction with a Kinser Pike overpass). These recommendations were based on:

- Reduction in construction costs, creek crossings, and construction within the floodway; and the use of existing INDOT right-of-way property at the existing Walnut Street partial interchange.
- The need to maintain the use of the Monroe County Bridge 913 as part the local access road system (in response to concern expressed by the DHPA/SHPO over potential “demolition through neglect” should the bridge cease to be an integral component of county infrastructure).
- Monroe County has indicated a preference for a Walnut Street interchange as a “Gateway to Bloomington,” a second access to Ellettsville, and better use of existing infrastructure; however, the City of Bloomington has expressed a preference for a Kinser Pike interchange.

Both a diamond and single-point interchange designs are under consideration for the North Walnut Street interchange.

Therefore, the alternative screening process recommended the following alternative options for this project feature be carried forward in the alternative development process:

- an interchange at Kinser Pike and an overpass at Walnut Street (Alternative 4); or,
- a full interchange at Walnut Street (serving all directions of traffic) with redesigned structures and approaches to reduce the skew and avoid impacts to a significant hill, historic Bridge 913, and wetlands on the east side; and an overpass at Kinser Pike (Alternative 5).

Western Access Road across Beanblossom Valley

Alternative 1 and 3 included a western access road connecting Bottom Road to Sample Road. Alternative 2 included a western access road that would not cross Beanblossom Creek but would



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include a partial access road from Sample Road to the Griffith Cemetery. The alternative screening recommended that the western local access road across the Beanblossom floodway be eliminated, with the Alternative 2 plan carried forward based on:

- Traffic volumes on the western local access road would be extremely low (< 200 vpd), and construction of the road would require acquisition of many of the same properties for which it would be providing access.
- A western local access road could be designed that would extend from Griffith Cemetery to the Sample Road interchange to provide access to the cemetery.
- Stream, floodway, farmland, wetland, and residential impacts would be reduced.

Therefore, the alternative screening process recommended the following alternative option for both Alternatives 4 and 5 for this project feature be carried forward in the alternative development process:

- Eliminate the western local access road across the Beanblossom floodway but include a road from Sample Road to the Griffith Cemetery.

Eastern Local Access Road across Beanblossom Valley to Showers Road

Alternative 1 included an eastern local access road running parallel to I-69 from Sample Road to Hoosier Energy and did not cross Beanblossom Valley. Alternatives 2 and 3 included an eastern local access road from Walnut Street curving around the east side of Hoosier Energy to connect with Showers Road and then Sample Road.

The alternative screening recommended that the proposed eastern local access road running north from Walnut Street to curve around the east side of Hoosier Energy (as depicted in Alternatives 2 and 3) continue to curve sharply westward back toward I-69 (avoiding Showers Road) and then continue north, parallel to I-69, to Sample Road. This recommendation was based on:

- the need for a secondary interchange access point for Hoosier Energy during emergencies (Walnut Street or Kinser Pike);
- reduction of the need for Hoosier Energy heavy truck traffic to travel through the Showers Road neighborhood to the Sample Road interchange;
- the need to maintain the use of the Monroe County Bridge 913 as part the local access road system (in response to concern expressed by the DHPA/SHPO over potential “demolition through neglect” should the historic bridge cease to be an integral component of county infrastructure); and,
- positive response to the local access road alterations by Hoosier Energy.



The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 for further consideration and analysis during the alternative development process:

- a local access road spur to provide access to an otherwise landlocked residential parcel just south of Hoosier Energy; and
- an eastern local access road curving east around Hoosier Energy, then west back toward I-69, then north, running parallel to I-69 to Sample Road.

Sample Road/Chambers Pike Interchange/Overpass

Alternative 1 included a Sample Road interchange and Chambers Pike overpass, Alternative 2 included interchanges at both Sample Road and Chambers Pike, and Alternative 3 included a Sample Road overpass and Chamber Pike interchange.

The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 for further consideration and analysis during the alternative development process:

- elimination of a Chambers Pike interchange;
- development of an interchange at Sample Road;
- development of an overpass at Chambers Pike; and,
- The Sample Road interchange structure is shifted north to align with existing Sample Road and a proposed county road west of I-69. These recommendations were based on the following:
 - Year 2030 traffic forecasts showed that interchanges at both Sample Road and Chambers Pike are not warranted (the combined total is fewer than 10,000 vpd).
 - Traffic forecasts indicate that an interchange at Sample Road would serve twice the traffic when compared to an interchange at Chambers Pike.
 - Having both interchanges would not comply with the three-mile minimum interstate interchange spacing for rural areas.
 - Monroe County stated support for both interchange locations; however, the County stated a preference for the Sample Road interchange if only one were to be built.
 - Shifting the western Sample Road interchange ramps to the west avoids numerous small springs in the southwest quadrant.
 - Shifting the southeast quadrant local access road to the northwest reduces forest impacts and right-of-way acquisitions.



Morgan-Monroe State Forest Local Access Road

Alternative 1 shifted the entire I-69 mainline to the west beginning at the existing southbound lanes of SR 37 and used the northbound SR 37 lanes as an eastern local access road from Chambers Pike to Paragon Road through the Morgan-Monroe State Forest. Alternatives 2 and 3 maintained the existing bifurcation (separation of the north/southbound mainline lanes).

The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 for further consideration and analysis during the alternative development process:

- maintaining the existing bifurcation; and,
- eliminating the proposed eastern local access road through the State Forest.

These recommendations were based on the following:

- Traffic forecasts for 2030 predict only 100 vpd on the local access road.
- There are no major access connections provided along the local access road (except a minor access at Bryant's Creek Road).
- There would be substantial roadway excavation, natural gas storage and monitoring well relocations, and Morgan-Monroe Forest encroachment required in order to place six travel lanes along the western side of the bifurcation (southbound existing SR 37).
- Properties along I-69 will have adequate access without a continuous local access road through the State Forest; travel north and south through the State Forest would be provided by Old SR 37.

Bryant's Creek Road Overpass/Local Access Road

Alternative 1 included no overpass at Bryant's Creek Road but proposed an eastern local access road connecting to an interchange at Paragon Road. Alternatives 2 and 3 included an overpass connecting Bryant's Creek Road to Turkey Track Road, west of I-69.

The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 for further consideration and analysis during the alternative development process:

- Elimination of the proposed Bryant's Creek Road overpass and the eastern local access road for all alternatives carried forward based on the following:
 - The landlocked properties near Cooksey Lane could be purchased at half the cost of providing access to these properties; therefore, neither an overpass nor a local access road would be cost effective.



- While purchasing the landlocked properties near Cooksey Lane would increase residential impacts, it would significantly reduce forest and stream impacts.

Paragon Road/ Liberty Church Road Interchange/ Overpass

Alternative 1 included an interchange at Paragon Road connected to the south to a Sample Road interchange by an east side local access road through the Morgan-Monroe State Forest. Another east side local access road connected portions of Old SR 37 north to a Liberty Church Road overpass. Alternative 2 included an overpass at Paragon Road with no local access roads to the south, and the east side local access road connecting portions of Old SR 37 north to a Liberty Church Road interchange. Alternative 3 included an interchange at Paragon Road with no southern local access roads and the east side local access road connecting portions of Old SR 37 north to a Liberty Church Road overpass.

Alternatives 1, 2, and 3 all included a western local access road using Turkey Track Road north from Paragon Road, then running parallel to I-69 to Liberty Church Road.

The alternative screening process recommended the following alternative options for this project feature be carried forward in the alternative development process:

- An interchange at Paragon Road and an overpass at Liberty Church Road (Alternative 4); or, an interchange at Liberty Church Road and an overpass at Paragon Road (Alternative 5).
- An east side local access road (using Old SR 37) and the western local access road system (using Turkey Track Road) between Paragon Road and Liberty Church Road (Alternatives 4 and 5).

These recommendations were based on the following:

- The extension of the southern portion of the local access road was eliminated in both alternatives with the previously described elimination of the Morgan-Monroe State Forest local access road.
- Parallel local access roads that reconnect the portions of Turkey Track Road and Old SR 37 (separated during the construction of existing SR 37) were included in both alternatives to reduce construction costs and residential impacts and to maintain local access patterns.

Local Access Roads Between Liberty Church Road and SR 39

Alternatives 1 and 3 included parallel local access roads from Liberty Church Road to SR 39. Alternative 2 included this same system extended to the east and west around a Liberty Church Road interchange.



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The alternative screening process recommended the following alternative options for this project feature be carried forward in both Alternatives 4 and 5 for further consideration and analysis during the alternative development process:

- Shifting the mainline to the west and reducing the western local access road. These recommendations were based on the following reasons:
 - This would avoid a cemetery located immediately adjacent to the east side of SR 37.
 - The cost of the western local access road was determined to be significantly higher than the cost of acquiring landlocked parcels.
 - Reduction in business, floodway, and forest impacts.
 - Traffic forecasts for 2030 indicate only 700 vpd traveling to Martinsville on a western local access road.
 - Access to the Legendary Hills community would still be maintained; traffic that would have used the western local access road to access Martinsville could use Jordan Road/Burton Lane east of I-69.

3.2.2.5 Development of Alternatives 4 and 5

Following the screening of preliminary Alternatives 1, 2, and 3, those elements (e.g., interchange location, interchange types, local access roads, etc.) of each of the three alternatives that were retained for analysis screening process of Alternatives 1-3 were grouped into two new alternatives - Alternatives 4 and 5. Thus, various elements of preliminary Alternatives 1-3 were included in Alternatives 4 and 5 which were carried forward for detailed study. Alternatives 4 and 5 and their components are described in **Table 3-4** below.

Mainline features of Alternatives 4 and 5 include grassy medians, setback separation from parallel local access roads, inclusion of additional right-of-way for growth beyond the design year,²⁷ and generally used the existing SR 37 but with mainline/access road shifts where appropriate. These shifts were:

- Shift east at Fullerton Pike to avoid Monroe Hospital, karst features, and developed parcels;
- Shift to west between SR 45/2nd Street and Tapp Road to avoid Wapehani Mountain Bike Park;
- Shift east north of Arlington Road to avoid Maple Grove Road Rural Historic District; and,

²⁷ 2007 Alternatives were originally developed with a design year of 2030. In 2011, to incorporate publishing of the 2010 Census Data and updates to the ISTDM, the design year for Section 5 was extended to 2035.



- Shift west between Sample Road and Chambers Pike to avoid Carlton/Huff Cemetery.

Components of Alternatives 4 and 5 are summarized in **Table 3-4**. Alternatives 4 and 5 are shown on the Alternatives 4/5 Summary Maps located at the end of this chapter (see **Figure 3-11**).

Major Feature Name	Alternative 4 Component Description	Alternative 5 Component Description
I-69 and SR 37	Section 4 Interchange	Section 4 Interchange
That Road Overpass/Rockport Road Overpass	Develop Rockport Road overpass, and eliminate the That Road overpass. A local access road connecting both roadways on the east side of I-69.	Develop Rockport Road overpass, and eliminate the That Road overpass. A local access road was provided to connecting both roadways on the east side of I-69.
Fullerton Pike Interchange/Realignment and Fullerton Pike Extensions	Interchange at Fullerton Pike with no relocation of Fullerton Pike. A mainline shift to the east of SR 37 in the vicinity of the Fullerton Pike interchange.	Interchange at Fullerton Pike with no relocation of Fullerton Pike. A mainline shift to the east of SR 37 in the vicinity of the Fullerton Pike interchange.
Tapp Road Interchange and CD System	Overpass at Tapp Road.	A split-diamond interchange between Tapp Road and SR 45/2 nd Street.
SR 45/2nd Street Interchange Designs	A tight diamond interchange at SR 45/2 nd Street.	A split diamond interchange between Tapp Road and SR 45/2 nd Street.
SR 48/3rd Street Interchange Designs	A tight diamond interchange.	A single-point interchange.
Vernal Pike/17th Street Overpass or Underpass	Elimination of access at Vernal Pike. Underpass at 17 th Street. Extending Industrial Drive.	Elimination of access at Vernal Pike. Underpass at 17 th Street. Extending Industrial Drive.
Acuff Road Overpass and Access Road Connection to Kinser Pike	Elimination of access at Acuff Road, no connecting roads.	Elimination of access at Acuff Road, no connecting roads.
Kinser Pike Interchange/Overpass and Western Extension	An interchange at Kinser Pike and an overpass at Walnut Street.	Overpass at Kinser Pike, using existing Kinser Pike west as a local access road to connect with Walnut Street interchange.



Table: 3-4: Summary Table of Major Features of Alternatives 4 and 5

Major Feature Name	Alternative 4 Component Description	Alternative 5 Component Description
Walnut Street Interchange/Overpass	An interchange at Kinser Pike and an overpass at Walnut Street.	An interchange at Walnut Street with redesigned structures and approaches to reduce the skew and avoid impacts to a significant hill, historic Bridge 913, and wetlands on the east side; and an overpass at Kinser Pike.
Western Access Road across Beanblossom Valley	Partial road from Sample Road interchange to Griffith Cemetery.	Partial road from Sample Road interchange to Griffith Cemetery.
Eastern Access Road across Beanblossom Valley	<p>A local access road to provide access to an otherwise landlocked residential parcel just south of Hoosier Energy.</p> <p>An eastern local access road curving east around Hoosier Energy, then west back toward I-69, then north, running parallel to I-69 to Sample Road.</p>	<p>A local access road to provide access to an otherwise landlocked residential parcel just south of Hoosier Energy.</p> <p>An eastern local access road curving east around Hoosier Energy, then west back toward I-69, then north, running parallel to I-69 to Sample Road.</p>
Sample Road/Chambers Pike Interchange/Overpass	<p>Elimination of a Chambers Pike interchange.</p> <p>Development of an interchange at Sample Road.</p> <p>Development of an overpass at Chambers Pike.</p>	<p>Elimination of a Chambers Pike interchange.</p> <p>Development of an interchange at Sample Road.</p> <p>Development of an overpass at Chambers Pike.</p>
Morgan-Monroe State Forest Access Road	Eliminate eastern access road and maintain current SR 37 bifurcation.	Eliminate eastern access road and maintain current SR 37 bifurcation.
Paragon Road/Liberty Church Road Interchange/Overpass	<p>Interchange at Paragon Road.</p> <p>Liberty Church Road Overpass.</p>	<p>Overpass at Paragon Road.</p> <p>Interchange at Liberty Church Road.</p>

3.2.2.6 Development of Minimal Impact Alternatives – Alternatives 6 and 7

Following the development of Alternatives 4 and 5, INDOT carefully reviewed each alternative and its components to consider changes which could further minimize impacts to the natural and human environment. Examples of minimization measures considered include: considering various interchange designs (e.g., single-point urban interchange, folded diamond, etc.); locations of and types of median barriers, retaining walls, and guardrails to reduce the width of the right-of-way needed for the corridor, thereby lowering the impacts along the corridor. Using these design elements, two minimal impact alternatives (Alternatives 6 and 7) were developed and carried forward for detailed study.

The minimal impact alternative development process focused on reducing environmental impacts, right-of-way needs, construction costs, as well as community impacts by:



- reducing interchange size and location (based on traffic needs and impacts);
- reducing the number of mainline lanes based upon refined traffic modeling and LOS evaluations;
- using existing interchange access points;
- locating local access roads closer to the I-69 mainline to reduce new impacts;
- reducing the length of local access roads;
- relocating access roads to reduce farm and parcel splits;
- evaluating whether it would be less costly and cause fewer environmental impacts to acquire property that would be landlocked by Section 5 or provide new access roads to the landlocked property;
- incorporating input from local governments, emergency service providers, CACs, utility representatives, and public comments; and,
- identifying potential conservation and mitigation areas.

The major features of Alternatives 6 and 7 are described below, and are shown on the Alternatives 6/7 Summary Maps located at the end of this chapter (see **Figure 3-12**).

The minimal impact Alternatives 6 and 7 include a mainline that varies from that in Alternatives 4 and 5 in the following ways:

- a median barrier vs. a grassy median in Alternatives 4 and 5 urban segment;
- guardrail versus grassy median in the suburban segment;
- a reduced width grass median (rural segment);
- either a barrier or setback separation from parallel local access roads; and,
- where feasible, incorporation of current SR 37 lanes into I-69.

The mainline for the minimal impact alternatives stays within the existing SR 37 right-of-way with the exception of two shifts. With Alternative 6 only, the mainline shifts to the west between SR 45/2nd Street and Tapp Road to avoid the Wapehani Mountain Bike Park (see **Section 5.3, Land Use and Community Impacts, Section 5.22, Managed Lands and Natural Areas, and Chapter 8, Section 4(f)**). Alternative 7 would remain on the existing SR 37 right-of-way, impacting the edge of the Park. For both Alternatives 6 and 7, mainline alignment shifts between Sample Road and Chambers Pike. This shift allows the use of the existing northbound SR 37 lanes as the local access road east of I-69 and the use of the existing southbound SR 37 lanes as



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the new I-69 northbound lanes. New lanes carrying I-69 southbound traffic would be constructed to the west of the existing SR 37 pavement.

This section summarizes the decisions that resulted in the development of Alternatives 6 and 7. **Figure 3-12** provides summary maps of Alternatives 6 and 7.

That Road Overpass/Rockport Road Overpass

That Road and Rockport Road currently both have at-grade intersections with SR 37 spaced about 1,000 feet apart. Upgrading SR 37 to interstate standards will require that both of these at-grade intersections be closed. Minimal impact Alternatives 6 and 7 adopted the overpass at Rockport Road recommended in both Alternatives 4 and 5.

Fullerton Pike Interchange/Realignment and Fullerton Pike Extensions

During development of Alternatives 4 and 5, it was determined that an interchange would be required at Fullerton Pike. Because of this requirement, both minimal impact Alternatives 6 and 7 include the recommended interchange at Fullerton Pike and generally stay within the existing SR 37 right-of-way.

Tapp Road Interchange

During the development of Alternatives 4 and 5, it was determined that the current Tapp Road intersection could be served by either an overpass (Alternative 4) or, to avoid impact to and better serve residential development to the west of SR 37 and a surgical center to the east of SR 37, place a split-diamond interchange north of the current Tapp Road intersection between Tapp Road and SR 45/2nd Street (Alternative 5).

Minimal impact Alternative 6 retains the Tapp Road overpass, and Alternative 7 maintains the split-diamond interchange between Tapp Road and SR 45/2nd Street. Each of these alternatives was tested for its performance ability in the next step of alternative analysis.

SR 48/3rd Street Interchange

The existing interchange would be retained for both the minimal impact Alternatives 6 and 7. Retaining the existing interchange would clearly minimize the footprint of the project as well as reducing project costs. Each of these alternatives was tested for its performance ability in the next step of alternative analysis.

Western Access Road Across Beanblossom Valley

Minimal impact Alternatives 6 and 7 retain a western local access road across the valley. However, Alternative 6 would use existing southbound SR 37 lanes to further reduce potential cost and impacts but would require a design exception for maintaining the existing 5% grade. Each of these alternatives was tested for its performance ability in the next step of alternative analysis.



Eastern Access Road Across Beanblossom Valley

Minimal impact Alternatives 6 and 7 include an eastern local access road continuously adjacent to I-69 north to Sample Road. However, Alternative 6 would use existing northbound SR 37 lanes to further reduce potential cost and impacts but require a design exception for maintaining the existing 5% grade. Each of these alternatives was tested for its performance ability in the next step of alternative analysis.

Sample Road/ Chambers Pike Interchange/Overpass

A single folded diamond interchange at Sample Road and an overpass at Chambers Pike were retained in minimal impact Alternative 6. Minimal impact Alternative 7 would have a medium diamond (urban) interchange at Sample Road but eliminates both the Chambers Pike interchange and overpass. Rather, it would have local access roads on both the eastern and western sides on I-69. Each of these alternatives was tested for its performance ability to meet project purpose and need in the next step of alternative analysis.

Morgan-Monroe State Forest Access Road

Both minimal impact Alternatives 6 and 7 eliminated an eastern access road through the Morgan-Monroe State Forest in favor of maintaining the existing bifurcation of SR 37 in that area. Alternative 6 would also use existing SR 37 lanes to further reduce potential cost and impacts. Each of these alternatives was tested for its performance ability to meet project purpose and need in the next step of alternative analysis.

Bryant's Creek Road Overpass/Access Road

Minimal impact Alternative 7 includes a Bryant's Creek Road overpass, while Alternative 6 does not include either an overpass or an eastern access road at Bryant's Creek Road. Parcels on the east side of the roadway would be acquired with Alternative 6, and there would be a west side local access road. Each of these alternatives was tested for its performance ability to meet project purpose and need in the next step of alternative analysis.

Paragon Road/Liberty Church Road Interchange/Overpass

Minimal impact Alternatives 6 and 7 include a Liberty Church Road/Godsey Road interchange with either a folded diamond or narrow diamond layout and elimination of a Paragon Road interchange or overpass. Paragon Road/Pine Boulevard access would be provided by a western local access road using reconnected portions of Turkey Track Road. Access to the Morgan-Monroe Forest would be provided by an eastern local access road using reconnected portions of Old SR 37 (previously separated during the construction of existing SR 37) to reduce construction costs, residential impacts, and maintain local access patterns. Each of these alternatives was tested for its performance ability to meet project purpose and need in the next step of alternative analysis.



Access Roads Between Liberty Church Road and SR 39

Minimal impact Alternatives 6 and 7 include shifting the mainline to the west and reducing the western access road to end at the Legendary Hills access point. Each of these alternatives was tested for its performance ability in the next step of alternative analysis.

Alternatives 4 to 7 Summary

Table 3-5 summarizes the initial potential impacts from Alternatives 4, 5, 6, and 7 that were identified during the alternatives screening analysis. Total construction costs for each alternative are not included since right-of-way costs, especially for impacts to commercial properties, are yet to be estimated. Right-of-way costs can vary greatly depending on the selected alignment footprint and their effects on existing properties, especially commercial properties. Construction costs and right-of-way cost estimates will be included in **Chapter 6**, *Comparison of Alternatives*.



Table 3-5: Section 5 – Potential Impacts for Alternatives 4 to 7 from Alternatives Screening Process

Evaluation Factors	Alternative 4	Alternative 5	Alternative 6	Alternative 7
Length (miles) Interstate	21	21	21	21
Non-interstate (/local access roads)	26	26	20	21
Estimated Construction Cost (millions) ¹	\$318	\$316	\$250	\$267
Required Right-of-Way				
Use of existing INDOT right-of-way (acres)	770	770	640	660
Approximate acquisition right-of-way (acres)	660	640	200	210
Total required right-of-way (acres) ²	1,430	1,410	840	870
Relocations (based on acquisition right-of-way)				
Residences - Multi Unit	14	14	2	4
Residences – Single	118	119	40	60
Commercial	43	45	17	12
Churches	4	4	2	2
Floodplain Encroachment (100-year/acres)	95	115	90	60
Wetlands (acres)	18	24	16	5
Jurisdictional Streams (linear ft)				
Perennial	2,670	3,240	2,720	2,470
Intermittent	9,300	9,290	5,150	6,790
Ephemeral	68,990	64,870	35,470	36,360
Access:Road Crossings/Closures ³	14 / 34	14 / 34	12 / 36	12 / 36
Farmland Impacts (acres)				
Total for row crop, pasture, orchard, grove, specialty crops, agricultural operations	145	155	50	60
Federal Threatened/ Endangered Species ⁴	3	3	3	3
Historic Resources/Section 106 (NRHP listed and Eligible sites)				
Architectural	1 - 2	1 - 2	1 - 2	0 - 1
Archaeological ⁵	(to be determined for Preferred Alternative only)			
Section 4(f) Resources	1 - 2	2 - 3	1 - 2	0 - 1
Hazardous Materials (Possible Sites)	14	14	8	9
Mineral Resources (Limestone, in acres)	7	7	1	0
Forest Impacts				
Forested Areas - Total Land Cover (acres)	345	310	105	120
Land Within Morgan- Monroe State Forest includes both forest and upland habitat (acres)	30	30	15	20
Karst Impacts				
Springs	16	17	5	7
Sinkholes (acres)	90	85	50	45
Sinking Streams (acres)	240	240	155	160
Number of Cave Recharge Areas	1	1	1	1
Wellhead Protection Areas (sites)	1	1	1	1

Source: Preliminary Alternatives Evaluation and Screening, April 2012.

¹ Cost estimates (in 2012 dollars) are preliminary and do not include costs for right-of-way, utility relocations, or impact mitigation

² All impacts were calculated based on the total right-of-way amount, not necessarily the amount to be acquired.

³ Includes driveways accessing existing SR 37

⁴ Three Indiana bat (*Myotis sodalis*) maternity colonies were identified in Section 5, located near Bryant Creek, Lambs Creek, and Beanblossom Bottoms Nature Preserve, all west of SR 37. All alternatives pass through the maternity colonies' foraging area but will not impact known roost trees.

⁵ No listed sites; eligible sites to be determined for Preferred Alternative only.



3.2.2.7 Development of Hybrid Alternative – Alternative 8

INDOT and its project engineers conducted additional analyses on minimal impact Alternatives 6 and 7 in an attempt to further reduce impacts and project costs. The result of those additional analyses was the development of a hybrid alternative. Designated as Alternative 8, this alternative is composed of desirable features of Alternatives 5, 6, and 7, taking into consideration the previously-considered Level 1 and Level 2 design exceptions. Alternative 8 was further refined, where possible, to minimize impacts and costs and to incorporate engineering and safety design considerations. Alternative 8 has the same mainline typical rural and urban configurations as Alternatives 6 and 7. In some areas, Alternative 8 is identical to either Alternative 6 or Alternative 7; or, uses design features from Alternative 5; or, introduces new features not present in the other alternatives. This hybrid alternative was designated as Alternative 8, and is shown along with Alternatives 6 and 7 in **Table 3-6**. The yellow shading indicates elements that are in common with Alternative 8 and the minimal impact Alternatives 6 and 7. Alternative 8 alignment is shown in **Figure 3-13**.

3.2.2.8 Refined Alternative 8

After the Alternative 8 was published in the DEIS, modifications were made based on public and agency comment. These modifications, further explained later in **Section 3.5, Preferred Alternative**, were used to develop the Refined Alternative 8. Refined Alternative 8 uses features of Alternative 8 and Alternative 7, as well as some new revisions to further reduce impacts. Refined Alternative 8 has the same mainline typical rural and urban configurations as Alternatives 6, 7, and Alternative 8. Comparison of the features of the Refined Alternative 8 are shown in **Table 3.6**.



Table: 3-6: Summary Table of Major Features of Alternatives 6, 7, 8, and Refined Alternative 8				
Major Feature Name	Alternative 6 Component Description	Alternative 7 Component Description	Alternative 8 (Options A and B) Component Description	Refined Alternative 8 Component Description
I-69 and SR 37	Section 4 Interchange			
That Road Overpass/Rockport Road Overpass	Carrying forward the Rockport Road overpass and eliminating the That Road overpass. A local access road was provided to connect both roadways on the east side of I-69.			
Fullerton Pike Interchange/Realign and Fullerton Pike Extensions	Double-folded Interchange at Fullerton Pike with no relocation of existing Fullerton Pike.	Double-folded interchange at Fullerton Pike with realignment of Fullerton Pike and Rockport Road intersection.	Double-folded Interchange at Fullerton Pike with no relocation of existing Fullerton Pike, to align with parallel project and provide access to TIF district.	Double-folded interchange at Fullerton Pike. No relocation of E. Fullerton Pike, <i>to align with ongoing local project and provide access to TIF district.</i> Slight relocation to the north of W. Fullerton Pike, <i>to straighten curvature and taper to existing roadway on west side.</i>
Tapp Road Interchange and CD System	Overpass at Tapp Road. A tight diamond interchange at SR 45/2 nd Street	A split-diamond interchange between Tapp Road and SR 45/2 nd Street	A split-diamond interchange between Tapp Road and SR 45/2 nd Street.	A split-diamond interchange between Tapp Road and SR 45/2 nd Street
SR 45/2 nd Street Interchange Designs		Alignment stays on existing SR 37 pavement to reduce western impacts, and allow for reuse of SR 45/2 nd Street Bridge structure.	Alignment shifted west of SR 37 to avoid Wapehani Mountain Bike Park, a Section 4(f) resource, but still reduces traffic volumes and supports economic development.	Alignment stays on existing SR 37 pavement, <i>to reduce western impacts, and allow for reuse of SR 45/2nd Street Bridge structure. Takes strip of property from Wapehani Mountain Bike Park.</i>
SR 48/3 rd Street Interchange Designs	Use existing interchange.			
Vernal Pike/17 th Street Overpass or Underpass	Elimination of access at Vernal Pike. Underpass at 17 th Street. Extending Industrial Drive.	Elimination of access at Vernal Pike. Overpass at 17 th Street. Extending Industrial Drive.	Elimination of access at Vernal Pike. Overpass at 17 th Street. <i>To avoid impacts to superfund site recharge area and, better east side access connections.</i> Extending Industrial Drive.	
SR 46 Interchange	Use existing interchange.			
Arlington Road	Maintain existing overpass bridge, lower mainline slightly.			
Acuff Rd Overpass and Access Rd Connection to Kinser Pike	Elimination of access at Acuff Road, no connecting roads.			



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Table: 3-6: Summary Table of Major Features of Alternatives 6, 7, 8, and Refined Alternative 8

Major Feature Name	Alternative 6 Component Description	Alternative 7 Component Description	Alternative 8 (Options A and B) Component Description	Refined Alternative 8 Component Description
Kinser Pike Interchange/Overpass and Western Extension	No overpass at Kinser Pike. Local access road to connect Kinser Pike to Walnut Street.	Overpass at Kinser Pike, using existing Kinser Pike west as a local access road to connect to Bottom Road.	Overpass at Kinser Pike, using existing Kinser Pike west as a local access road to connect to Bottom Road. <i>Maintain connectivity between Bloomington North High School area and west side of SR 37 and provide access to Bloomington Wastewater Treatment Plant.</i>	
Walnut Street Interchange/Overpass	No overpass at Kinser Pike. Local access road to connect Kinser Pike to Walnut Street. Full interchange at Walnut Street.	Use of the existing partial interchange at Walnut Street; and an overpass at Kinser Pike.	Maintain historic access, established "gateway," historic bridge. Option A - Full interchange to meet FHWA design standards ^a Option B - Use of the existing partial interchange at Walnut Street, has support from resource agencies (refer to Chapter 6, Comparison of Alternatives , for further information)	Use of the existing partial interchange at Walnut Street; and an overpass at Kinser Pike. <i>Reduced wetland and floodplain impacts, reduced construction costs.</i>
Western Access Road across Beanblossom Valley	Western local access road provided.	No western local access road, access provided to western side of SR 37 via overpass at Kinser Pike.	No western local access road, access provided to western side of SR 37 via overpass at Kinser Pike. <i>Reduced wetland and floodplain impacts.</i>	
Eastern Access Road across Beanblossom Valley	An eastern local access road across valley between Walnut Street and Connaught Road. <i>Secondary access for Hoosier Energy Complex.</i>			No eastern access road between Walnut Street and Connaught Road. <i>Reduced wetland and floodplain impacts.</i>
Sample Road Interchange	Development of a single folded diamond interchange at Sample Road.	Development of an urban tight diamond interchange at Sample Road.	Development of a single folded diamond interchange at Sample Road, <i>to avoid impacts to forest and karst resources in the Southwest quadrant, where there is a deep valley.</i>	
Mainline	Shifts to west to use existing NB SR 37 lanes (pavement) as local east side access road. Existing SR 37 SB lanes become I-69 NB lanes.	Uses existing SR 37 right-of-way, not pavement.	Shifts to west to use existing NB SR 37 lanes (pavement) as local east side access road. Existing SR 37 SB lanes become I-69 NB lanes. <i>Will make best use of existing infrastructure and provides better access to multiple users on the east side.</i>	
Chambers Pike Interchange/Overpass	Overpass at Chambers Pike.	No overpass at Chambers Pike. Eastern and western local access roads on either side.	Overpass at Chambers Pike. <i>Has higher traffic volumes than Bryant's Creek Road or Paragon Road. Provides connectivity for the Simpson Chapel area.</i>	



Table: 3-6: Summary Table of Major Features of Alternatives 6, 7, 8, and Refined Alternative 8

Major Feature Name	Alternative 6 Component Description	Alternative 7 Component Description	Alternative 8 (Options A and B) Component Description	Refined Alternative 8 Component Description
Morgan-Monroe State Forest Access Road	East access road from Sample Road to Chambers Pike. West access road from Burma Road to Sample Road.			
SR 37 Bifurcation	Maintains bifurcation. Uses existing SR 37 NB. Uses SR 37 SB and truck climbing lane.			
Bryant's Creek Road Overpass	No access. East side property acquisitions. West side local access road.	Overpass at Bryant's Creek Road to west side local access road.	No access. East side property acquisitions. West side local access road. <i>Substandard roadway east of SR 37/ Bryant's Creek Road and low traffic volumes on Bryant's Creek Road.</i>	
Paragon Road Interchange/Overpass	No overpass at Paragon Road. West local access road built, east would use existing local access roads.	No overpass at Paragon Road. West local access road built, east would use existing local access roads.	No overpass at Paragon Road. West local access road built, east would use existing local access roads. <i>Provides forest impact reduction and low traffic volumes.</i>	
Liberty Church Road Interchange/Overpass	Medium (urban) diamond interchange at Liberty Church Road.	Folded diamond interchange at Liberty Church Road.	Medium (urban) diamond interchange at Liberty Church Road. <i>Maintaining existing alignment between Godsey Road and Liberty Church Road. Reduced farmland impacts.</i>	Medium (urban) diamond interchange at Liberty Church Road, shifted north. <i>Reduced floodplain impacts.</i>
Mainline – Liberty Church Road to SR 39	Shifts to west to avoid cemetery; acquire properties southwest of Indian Creek Bridge.			
<p>Notes: <i>Yellow shading</i> indicates elements that are common among Alternatives 6, 7, and 8. Text in italics gives reasoning for using the element in Alternative 8 and Refined Alternative 8.</p> <p>^a Full interchange at North Walnut Street was design feature from Alternative 5 that was used for Alternative 8 Option A. See Chapter 6, Comparison of Alternatives, for additional discussion of Option A and Option B at North Walnut Street.</p>				



3.3 Screening of Alternatives

Project screening is a process that involves a number of steps of increasingly more detailed and sharper focus and analysis. The number of steps is not absolutely defined and depends on each individual project. Regardless of the number of steps in any alternative screening process, the first step always involves some testing of each alternative's ability to meet the project's purpose and need. For Section 5's initial screening step relative to the developed alternative's ability to meet the project purpose and need, a performance analysis was performed. The details and results of that analysis are presented below. The more detailed (i.e., finer analysis) leading to the identification of a Preferred Alternative is found in **Chapter 6, *Comparison of Alternatives***, of this document.

3.3.1 Transportation Performance Indicators

Transportation performance goals in the Section 5 Study Area include improving accessibility, reducing congestion, and improving safety, as discussed in **Section 2.5, *Project Goals and Performance Measures***. The following paragraphs discuss the performance measures that determine how well the build alternatives perform under various options in meeting these stated goals (compared to the No Build scenario).²⁸ Six alternatives were included in this analysis. Because the alternatives are of comparable length and very near to one another, the difference in interchange options provides the range in purpose and need goals for the performance of the build alternatives. This analysis was made to determine the performance of different interchange options on purpose and need. All performance measures were calculated for a forecast year of 2035. All calculations assume that I-69 is completed from Evansville to Indianapolis.

3.3.1.1 Congestion²⁹

The performance measure for the goal of reducing congestion is the overall improvement in the vehicle miles traveled (VMT) and vehicle hours traveled (VHT) on congested roads in 2035.

²⁸ In the DEIS, the I-69 Ohio River Bridge between Evansville and Henderson was inadvertently excluded from the No Build forecasts. However, in this FEIS, the I-69 Ohio River Bridge is assumed in the No Build Scenario. This is consistent with the assumptions in the EISs for Sections 1 through 4, all of which incorporated the I-69 Ohio River Bridge as part of the No Build.

²⁹ Most congestion statistics were calculated using a model post-processor which calculates congestion as functions of traffic volumes and capacities on each link in the modeled network, with the following exceptions:

- Since the DEIS, calculations of delays and congestion at urban signalized interchanges was modified to be consistent with Highway Capacity Manual (HCM) 2010 methodology, which calls for considering running speed delay approaching intersections separate from signal delay.
- The TransModeler simulation (not available in the DEIS) provided more precise estimates of congestion at and near interchanges. The TransModeler levels of service were used at locations in and near the SR 46, SR 48, SR 45 and Tapp Rd. interchanges.
- Highway Capacity Software (HCS) was used to calculate LOS on mainline I-69 sections between Sample Rd. and Liberty Church Road, in order to better account for grades and truck climbing lanes.
- HCS also was used for several at grade intersections on SR 37 in the no-build case (Vernal Pike, Tapp Rd., and Fullerton Pike) to include more operation detail in the analysis than was available in the model post-processor.



Congested roads in rural areas are those operating at LOS D, E or F;³⁰ in urban areas, congested roads are those operating at LOS E or F. The following tables compare the reduction in congested VMT and VHT for each of the alternatives.

Table 3-7 shows the addition or reduction of total daily VMT at a congested LOS in 2035 for the six alternatives, broken down by county. As shown in **Table 3-7**, all alternatives would show a reduction in congested VMT over the No Build scenario, with Alternatives 4, 5, 8 and Refined Alternative 8 having the greater reduction when compared to Alternatives 6 and 7.

		Level of Service (VMT)			
Build Scenario (Interchange Options)	County	LOS D	LOS E	LOS F	Total Congested VMT
Alternative 4	Monroe County	-33,359	-10,657	445	-43,571
	Morgan County	-29,754	-3,528	-9,162	-42,443
Alternative 5	Monroe County	-23,425	-3,158	6,507	-20,077
	Morgan County	-30,027	-2,666	-9,155	-41,848
Alternative 6	Monroe County	-22,144	-4,212	10,121	-16,235
	Morgan County	-23,312	-3,703	-8,728	-35,743
Alternative 7	Monroe County	-32,615	-8,351	7,875	-33,092
	Morgan County	-23,092	-3,615	-8,720	-35,427
Alternative 8 Data assume full Walnut Street interchange (Option A)	Monroe County	-22,871	-5,296	-2,014	-30,181
	Morgan County	-23,652	-3,493	-8,729	-35,873
Refined Alternative 8	Monroe County	-32,459	-10,069	8,391	-34,136
	Morgan County	-23,334	-3,675	-8,673	-35,683

Notes:
 For full VMT data, please refer to **Appendix GG, I-69 Corridor Model Documentation**.
 VMT at LOS D is shown only for rural areas; urban roads are not considered congested until LOS E is reached.

I-69 results in a significant increase in vehicle travel in Monroe and Morgan counties, by diverting traffic from roads outside of this two-county area. All alternatives result in additional daily VMT ranging from 243,000 to 249,000 in the two counties, an increase of between 9.19% and 9.39% from the No Build scenario. Increases in daily VHT range from 1,003 to 2,398, an increase of between 1.95% and 2.11%. It should be noted that VMT increases to a much greater

³⁰ LOS is the method commonly used to evaluate a roadway’s functionality. LOS is a measure of operational conditions. These conditions are defined in terms of factors such as speed and travel time, maneuverability, and delay. There are six levels of service, which are designated by the letters “A” through “F.” LOS “A” represents the most desirable operating conditions, while LOS “F” defines the least acceptable.



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degree than VHT. This is due primarily to additional traffic on I-69 (once it is upgraded from SR 37) traveling in uncongested conditions. In spite of these significant increases in overall traffic, each alternative provides a significant decrease in congestion from the No Build scenario.

Table 3-8 compares the reduction in total daily VHT in 2035 at congested LOS for the build alternatives, compared with the No Build scenario. A reduction in congested VHT means that travelers are on the roadwork for less time, which is also an indicator of congestion relief. As with VMT, the total daily congested VHT when compared to the No Build scenario also is reduced for all Build Alternatives. The greatest reduction (4,671 hours) would occur under Alternative 4. All build alternatives would also satisfy the local goals to reduce traffic congestion for VHT.

		Level of Service (hours)			
Build Scenario (Interchange Options)	County	LOS D	LOS E	LOS F	Total Congested VHT
Alternative 4	Monroe County	-620	-805	106	-1,320
	Morgan County	-553	-6	-520	-1,078
Alternative 5	Monroe County	-504	-583	580	-508
	Morgan County	-560	17	-519	-1,062
Alternative 6	Monroe County	-272	-530	690	-111
	Morgan County	-484	24	-432	-892
Alternative 7	Monroe County	-722	-624	551	-794
	Morgan County	-481	26	-430	-885
Alternative 8 Data assume full Walnut Street Interchange (Option A)	Monroe County	-502	-521	-106	-1,082
	Morgan County	-504	28	-426	-879
Refined Alternative 8	Monroe County	-717	-722	357	-1,129
	Morgan County	-484	24	-419	-902

Notes:
 VHT at LOS D is shown only for rural areas; urban roads are not considered congested until LOS E is reached.
 For full VMT data, please refer to **Appendix GG, I-69 Corridor Model Documentation.**

3.3.1.2 Safety

The performance measure for the goal of improving safety is the reduction in the number of crashes. The forecasts of crash reductions are made using historical rates and the projected volume of traffic on each functional class of road. The construction of I-69 would divert traffic from lower functional class roads with higher crash rates to the new, safer facility. **Table 3-9** shows the changes in the number of crashes projected in 2035 to occur by type and location for the No Build scenario and the build alternatives.



Table 3-9: Build Versus No Build Safety Comparison – Changes in the Annual Number of Crashes by Type and Location

Build Scenario (Interchange Options)	Freeway				Non-Freeway Roads				Total Freeway Plus Non-Freeway
	F	I	PD	Sub-Total	F	I	PD	Sub-Total	
Alternative 4									
Monroe County	1	16	117	134	-2	-56	-132	-189	-55
Morgan County	1	19	121	141	-2	-83	-228	-313	-173
Total	2	34	238	274	-4	-138	-360	-502	-228
Alternative 5									
Monroe County	1	14	110	125	-2	-58	-129	-190	-65
Morgan County	1	19	125	145	-2	-84	-233	-319	-174
Total	2	33	235	270	-4	-142	-363	-509	-239
Alternative 6									
Monroe County	1	15	115	131	-2	-53	-112	-167	-36
Morgan County	1	19	128	148	-2	-89	-250	-341	-193
Total	2	34	243	279	-4	-142	-362	-508	-229
Alternative 7									
Monroe County	1	14	106	121	-2	-54	-117	-173	-52
Morgan County	1	19	128	148	-2	-89	-249	-340	-192
Total	2	33	234	269	-4	-143	-366	-513	-244
Alternative 8									
Monroe County	1	13	105	119	-2	-58	-128	-188	-69
Morgan County	1	20	129	150	-2	-89	-251	-342	-192
Total	2	33	234	269	-4	-147	-379	-530	-261
Refined Alternative 8									
Monroe County	1	13	106	120	-2	-57	-131	-190	-70
Morgan County	1	20	129	150	-2	-89	-250	-341	-191
Total	2	33	235	270	-4	-146	-381	-531	-261
Notes: <i>F = Fatality Accident</i> <i>I = Injury Accident</i> <i>PD = Property Damage Accident</i>									

All of the build alternatives analyzed show a reduction in the total number of annual forecasted crashes in 2035 when compared to the No Build scenario. Total annual crash reductions forecasted in Monroe and Morgan counties for the build options are similar with reductions ranging from 228 fewer accidents per year under Alternative 4 to 261 fewer accidents per year with Alternative 8 and Refined Alternative 8. This is considered a conservative estimate of the project’s potential safety benefits, because it does not take into account the total reduction in crashes forecasted for all of Southwest Indiana in the Tier 1 studies due to traffic diverting to I-69 from other roadways in the two counties.



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Because there are relatively fewer freeways in Monroe and Morgan counties in the No Build scenario, there is an “increase” in freeway crashes with the build alternatives. On the other hand, as I-69 attracts traffic from lower functional class facilities with higher crash rates, the number of crashes on non-freeway facilities (as well as the total number of crashes) is reduced. The total reduction in crashes for non-freeway traffic (from 502 to 531 fewer crashes per year) represents the annual savings in crashes on the local (non-interstate) highway network in Monroe and Morgan counties. When total crashes are considered on both freeway and non-freeway facilities, there is a total reduction in crashes (between 228 and 261 annually) for the two counties, as shown in **Table 3-9**. As the Tier 1 FEIS noted, there is a significant reduction in crashes in Southwest Indiana as a whole when all traffic changes due to I-69 are taken into account.

The significance of the annual crash reductions is enhanced when it is recognized that the overall vehicle miles traveled in the two-county Study Area would increase under the build alternatives due to drivers choosing routes within the study area over alternate routes outside the area. Future vehicle miles traveled under the build alternatives are each predicted to increase by about 244,000,000 miles annually, which is an approximate 10% increase above the No Build scenario. Even with increased vehicle miles traveled in the two-county study area, overall crashes would be reduced significantly.

3.3.1.3 Transportation Performance Measures Summary

All of the Section 5 alternatives provide significant benefits on performance measures addressing the Section 5’s local purpose and need goals (see **Section 2.5, Project Goals and Performance Measures**). All build alternatives provide substantial benefits on performance measures regarding local purpose and need goals related to congestion and safety measures (see **Table 3-7** through **Table 3-9**) and will be carried forward for finer and more detailed analysis. Specifically:

Total Congested VMT: The daily total congested VMT under the No Build scenario would be reduced under all of the build alternatives. Alternative 4 shows the greatest reduction in congested vehicle miles traveled (86,014), while Alternative 6 shows the least reduction (51,978).

Total Congested VHT: All build alternatives show a reduction in congested vehicle hours traveled when compared to the No Build scenario. The greatest reduction in congested VHT is shown for Alternative 4 (2,398), and Alternative 6 shows the least reduction in congested VHT (1,003).

Safety: The total numbers of crashes annually in the study area are expected to decrease for all of the build alternatives when compared to the No Build scenario. Alternative 8 and Refined Alternative 8 are anticipated to have the greatest reduction in crashes (261), and Alternative 4 is expected to have the least reduction (228).



3.3.1.4 Economic Performance Measures Summary

The analysis of economic conditions in Southwest Indiana during the Tier 1 study indicated a need to enhance economic development opportunities in the region. The study evaluated the role an improved transportation system could play in addressing this need and concluded that improving the transportation system can lead to enhanced economic growth (see Tier 1 FEIS, **Section 3.4.4, *Economic Development Indicators***). Supporting local economic development initiatives is one of Section 5's local goals, based on input from the local officials, economic development groups, the Section 5 CAC, and the public (see **Chapter 2, *Purpose and Need***). The performance indicators for this goal include:

- Improve or maintain access of area businesses. Alternatives will be evaluated and compared for the overall level of accessibility which they provide to businesses. This will include consideration of the location of interchanges, grade separations, and access roads that provide appropriate access to I-69 for local commercial and industrial interests. Travel times and distances from three representative local origin points to specific local commercial, retail, and employment areas will be compared for each alternative.

Currently, there are approximately 34 direct access points for individual businesses and business districts to SR 37. These current access points include interchanges, intersections, or individual driveways with direct SR 37 access. Should I-69 be constructed, these access points would be consolidated to interchange access only, and travelers would be required to use interchanges, existing local roads, and new access roads to get to business areas east and west of the interstate. These changes in access for existing and planned commercial developments are summarized in **Section 5.5, *Economic Impacts*** (**Figure 5.5-1** and **Table 5.5-5**) and detailed in **Figure 5.3-5 to 5.5-9** (tabbed maps at the end of **Section 5.3, *Land Use and Community Impacts***). The highest concentration of businesses is at Fullerton Pike, SR 45/2nd Street, and SR 48/3rd Street. In any alternative, these major commercial centers would have similar or improved access with a full interchange.

From the perspective of impacts to businesses and business districts, this analysis assumes that an interchange would provide similar access and positive benefits to existing and planned businesses. An overpass would provide slightly reduced access with less benefit than a full interchange; however in some cases the east/west accessibility will provide new benefits to existing businesses. When roads would be closed from direct access to I-69, access via existing local roads and new access roads would be provided to the remaining business and institutions. It is assumed that this would result in the potential for negative impacts to business operations related to the additional travel distance and time required. **Section 5.3, *Land Use and Community Impacts***, and **Section 5.6.3.2, *Access***, describes the revised travel routes at each access point along SR 37.

Travel times vary between business centers based on the access provided by each alternative. Details of the analysis of travel time differences for the build alternatives are provided in **Appendix JJ, *Local Travel Accessibility Analysis***.



3.4 Description of Alternatives

Typical Sections – as previously discussed, during the development of the Tier 2 preliminary alternatives (Alternatives 1, 2, and 3), the rural areas were designed with the Tier 1 typical cross-section with a six-lane divided section with a grassy median and a modified Tier 1 cross-section in the urban areas with an eight-lane divided section with a grassy median.

Following further traffic modeling and LOS evaluations conducted during the Tier 2 studies, it was determined that forecasted traffic levels allowed for fewer lanes in both the rural and urban areas than were assumed in Tier 1. While the median type and setbacks differ, the typical sections for the 2007 Alternatives 4 and 5 and minimal impact Alternatives 6 and 7 (see **Figures 3-7 and 3-8**) all consist of a four-lane divided section in rural areas and a six-lane divided section in urban areas. Alternative 8 and Refined Alternative 8 would have the same typical sections as Alternatives 6 and 7.

Access Roads – except for locations where interchange/overpass decisions are under consideration, local access roads are similar between each pair of alternatives (Alternatives 4 and 5 or Alternatives 6 and 7). Alternative 8 and Refined Alternative 8 would have similar local access roads as Alternatives 6 and 7.

3.4.1 Common Elements

The build alternatives share many common elements. Common elements for either all alternatives or sets of alternatives are shown below on **Table 3-10**.



Table 3-10: Section 5 – Common Elements of the Alternatives	
South of That Road	
– Section 4 is addressing the studies and engineering south of That Road.	
That Road	
– No interchange or overpass at this location; east-west access provided via access roads to Rockport Road overpass; access to I-69 provided via access roads to Fullerton Pike interchange.	
Rockport Road	
– Overpass provided for east/west access; I-69 access provided via access roads to Fullerton Pike.	
Fullerton Pike	
– Interchange provided for east/west access and I-69 access; various interchange layout options.	
SR 48/3rd Street	
– Interchange provided for east/west access and I-69 access; various interchange layout options.	
Vernal Pike (Alts 4, 5, and 6)	Vernal Pike (Alts 7 and 8)
– Underpass provided for east/west access; – I-69 access provided via existing roads to SR 46 interchange.	– Overpass option; construction maintenance of traffic.
SR 46	
– Use of existing interchange provided for east/west access and I-69 access.	
Arlington Road	
– Overpass provided for east/west access; I-69 access provided via existing roads to SR 46 interchange.	
Acuff Road	
– No interchange or overpass; access provided via existing roads to SR 46 interchange or Kinser Pike.	
Access Road West of Griffith Cemetery	
– Local access road provided for to reach cemetery.	
Sample Road	
– Interchange provided for east/west access and I-69 access; various interchange layout options.	
Chambers Pike (Alts 4, 5, and 6)	Chambers Pike (Alts 7 and 8)
– Overpass provided for east/west access; I-69 access provided via east side access road to Sample Road interchange.	– No I-69 access; E/W side access roads
Morgan-Monroe State Forest	
– Mainline follows existing SR 37 bifurcation to reduce impacts to forest, streams, and wetlands. (Alternatives vary with different grade correction options)	
Bryant's Creek Road (Alts 4, 5, 6, and 8)	Bryant's Creek Road (Alt 7)
– No access; east side properties are to be acquired and possibly used for potential forest, wetland, and stream mitigation areas.	– Overpass provided for east/west access.
Liberty Church Road (Alt 4)	Liberty Church Road (Alts 5, 6, 7, 8)
– Overpass provided for east/west access	– Interchange provided for east/west access and I-69 access; various interchange layout options.
North of Indian Creek	
– Section 6 is addressing the studies and engineering north of Indian Creek.	
Note: For purposes of this Table, Alternative 8 means either Alternative 8 or Refined Alternative 8, unless otherwise noted.	



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3.4.2 Decision Elements

The alternatives carried forward differ in the following ten key areas as shown below on **Table 3-11**.

Table 3-11: Section 5 – Decision Elements of Alternatives	
<p>I-69 Mainline throughout Section 5</p> <p>The decision is whether to reuse SR 37 pavement, structures, and right-of-way or to increase cost and land use impacts with a wider right-of-way and no lane barriers offset by the benefits of less urban feel and easier addition of travel lanes in the future.</p>	
<p style="text-align: center;"><u>Alternatives 4/5</u></p> <ul style="list-style-type: none"> • While generally centered on SR 37, there are several east / west shifts to avoid resources. • Travel lanes added to the outside to maintain a grassy median and setback of parallel access roads from the mainline. • Grassy median could be used for potential future placement of additional travel lanes. 	<p style="text-align: center;"><u>Alternatives 6, 7, and 8</u></p> <ul style="list-style-type: none"> • Uses SR 37 lane layout and structures and generally within state right-of-way to reduce cost, property acquisition, and resource impacts. • Placement of added lanes and median barrier within the existing grassy median and either barriers or setback of parallel access roads from the mainline.
<p>Fullerton Area Mainline Shift or Stay on SR 37 Right-of-way</p> <p>The decision is whether to reuse SR 37 pavement, structures, and right-of-way. Alternatively, is the increased complexity and cost of a shift east offset by reduced impacts?</p>	
<p style="text-align: center;"><u>Alternatives 4/5</u></p> <ul style="list-style-type: none"> • The mainline shifts east from just south of That Road to north of Fullerton Pike to reduce impacts to the Monroe Hospital, karst features, and residences, and accommodate flexibility in the Section 4 interchange design. 	<p style="text-align: center;"><u>Alternatives 6, 7, and 8</u></p> <ul style="list-style-type: none"> • The mainline stays within the existing SR 37 right-of-way to increase use of SR 37 pavement layout and state right-of-way; similar karst impacts due to smaller profile but with increased residential impacts, Section 4 interchange design was accounted for as part of layout.
<p>Tapp Road and SR 45/2nd Street The decision is whether the increased interchange complexity, cost, and land use impacts of a split interchange are offset by the benefits of access to I-69 at Tapp Road (instead of requiring travel to Fullerton Pike or SR 45/2nd Street).</p>	
<p style="text-align: center;"><u>Alternatives 4 and 6</u></p> <ul style="list-style-type: none"> • Tapp Road overpass; either new interchange layout or reuse of existing folded interchange at SR 45/2nd Street. 	<p style="text-align: center;"><u>Alternatives 5, 7, and 8</u></p> <ul style="list-style-type: none"> • Split interchange with both Tapp Road and SR 45/2nd Street; controlled parallel access roads with lane barriers from the mainline.
<p>Maple Grove Area Mainline Shift or Stay on SR 37 Right-of-way</p> <p>The decision is whether to reuse SR 37 pavement, structures, and right-of-way. Do the increased cost and land use impacts of a wider right-of-way and no lane barriers offset the benefits of less urban feel and easier addition of travel lanes in the future?</p>	
<p style="text-align: center;"><u>Alternatives 4/5</u></p> <ul style="list-style-type: none"> • Mainline shifts east from just north of Acuff Road to approximately Kinser Pike to avoid impacts to the MGRRHD. 	<p style="text-align: center;"><u>Alternatives 6, 7, and 8</u></p> <ul style="list-style-type: none"> • Generally within existing SR 37 right-of-way while still avoiding impacts to the MGRRHD.



Table 3-11: Section 5 – Decision Elements of Alternatives			
<p>Griffith Cemetery Area Mainline Shift or Stay on SR 37 Right-of-way</p> <p>The decision is whether to reuse SR 37 pavement, structures, and right-of-way. Do the increased cost and land use impacts of a wider right-of-way and no lane barriers offset the benefits of less urban feel and easier addition of travel lanes in the future?</p>			
<p><u>Alternatives 4/5</u></p> <ul style="list-style-type: none"> Mainline shifts to the east just north of Beanblossom Valley then west just south of Sample Road through just south of Chambers Pike to reduce impacts to the Hoosier Energy Operations facility, cemeteries, businesses, and a potential hazardous waste site. 		<p><u>Alternatives 6, 7, and 8</u></p> <ul style="list-style-type: none"> Generally within existing SR 37 right-of-way while still avoiding impacts to the Hoosier facility, cemeteries, businesses, and a potential hazardous waste site. 	
<p>Kinser Pike</p> <p>The decision is whether the loss of established traffic patterns at Walnut Road, increased karst impacts, secondary impacts west of I-69, new stream crossing, and land acquisition are offset by the commercial growth opportunities provided by direct access to the TIF district.</p>			
<p><u>Alternative 4</u></p> <ul style="list-style-type: none"> Diamond interchange with connection to Kinser Pike and Walnut Street east of I-69 (with Walnut Street overpass). 	<p><u>Alternative 6</u></p> <ul style="list-style-type: none"> No I-69 access; access via parallel access road across Beanblossom Valley to Walnut Street and Sample Road. 	<p><u>Alternatives 5, 7 and 8</u></p> <ul style="list-style-type: none"> Overpass to west side of Kinser Pike and (with Walnut Street interchange). 	
<p>Walnut Street</p> <p>The decision is whether the potential loss of commercial growth and development opportunities and increased wetland impacts are offset by maintaining/enhancing the “Gateway to Bloomington” and using existing SR 37 right-of-way features.</p>			
<p><u>Alternatives 4 and 6</u></p> <ul style="list-style-type: none"> Overpass to west side Bottom Road area; re-use of historic Monroe Bridge 913. 	<p><u>Alternative 5</u></p> <ul style="list-style-type: none"> Interchange with various layouts; re-use of historic Monroe Bridge 913 (with Kinser Pike overpass). 	<p><u>Alternative 7, Alternative 8 Option B, and Refined Alternative 8</u></p> <ul style="list-style-type: none"> Use existing partial interchange and historic Monroe Bridge 913. The use of this partial interchange would reduce impacts. 	<p><u>Alternative 8</u></p> <ul style="list-style-type: none"> Interchange with various layouts; re-use of historic Monroe Bridge 913 (with Kinser Pike overpass).
<p>Electrical Substation Area Mainline Shift or Stay on SR 37 Right-of-Way</p> <p>The decision is whether to reuse SR 37 pavement, structures, and right-of-way; or if the increased cost and land use impacts of a wider right-of-way and no lane barriers are offset by the benefits of less urban feel and easier addition of travel lanes in the future.</p>			
<p><u>Alternatives 4/5</u></p> <ul style="list-style-type: none"> Mainline shifts east just south of the Hoosier Energy substation to existing SR 37 alignment to reduce impacts to forest, businesses, and the substation. 		<p><u>Alternatives 6, 7, and 8</u></p> <ul style="list-style-type: none"> Generally within existing SR 37 right-of-way while still avoiding impacts to electrical substation. 	
<p>East/West Connection Between Sample and Liberty Church Roads</p> <p>The distance between Sample Road and Liberty Church Road is 8.3 miles. INDOT and FHWA have commented that this is too far in distance without east/west connectivity. Therefore, an east/west grade separation is warranted at Chambers Pike, Bryant’s Creek Road, or Paragon Road/Pine Boulevard.</p>			



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Table 3-11: Section 5 – Decision Elements of Alternatives		
<u>Alternatives 4/5</u>	<u>Alternative 6 and 8</u>	<u>Alternative 7</u>
<ul style="list-style-type: none"> • Overpass at Chambers Pike and an overpass or interchange at Paragon Road (no overpass at Bryant's Creek Road). 	<ul style="list-style-type: none"> • Overpass at Chambers Pike (no I-69 access or overpass at either Bryant's Creek or Paragon Roads). 	<ul style="list-style-type: none"> • Overpass at Bryant's Creek Road (no I-69 access or overpass at either Chambers Pike or Paragon Road).
<p>Paragon Road/Pine Boulevard and Liberty Church Road</p> <p>The decision is whether the increased forest impacts and construction costs are offset by better access to the Morgan-Monroe State Forest at Paragon Road/Pine Boulevard, or whether the increased farmland impacts and land acquisition area are offset by increased development potential for the area southeast of Martinsville.</p>		
<u>Alternative 4</u>	<u>Alternative 5</u>	<u>Alternatives 6, 7, 8</u>
<ul style="list-style-type: none"> • Interchange at Paragon Road/Pine Boulevard (Liberty Church Road overpass). 	<ul style="list-style-type: none"> • Interchange at Liberty Church Road (Paragon Road/Pine Boulevard overpass). 	<ul style="list-style-type: none"> • Interchange at Liberty Church Rd.(no I-69 access or overpass at Paragon Road/Pine Boulevard).
<p><i>Note: For purposes of this table, Alternative 8 represents either Alternative 8 or Refined Alternative 8, unless otherwise noted.</i></p>		

It is important to note that while Alternatives 4 and 5 were developed to illustrate *possible combinations of the various potential access points and mainline segments* and that the Preferred Alternative could involve any combination of decisions at these seven locations, the access, grade separation, and no access options for Alternatives 6, 7, 8, and Refined Alternative 8 are not as interchangeable because a decision in one portion of Section 5 could affect other decision options.

3.4.3 Alternative Summaries

Table 3-12 summarizes the similarities and differences between the preliminary alternatives that were eliminated (Alternative 1, 2, and 3), the subsequent alternatives presented in the DEIS (Alternatives 4 to 8), and the Refined Alternative 8 that will be evaluated further in later chapters of this FEIS.



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Table 3-12: Summary of Section 5 Alternatives by Major Feature for the Existing Condition and Alternatives 1 Through 8

Major Feature Name	Existing Condition	2005 Preliminary Alternatives (not carried forward)			2007 Alternative Screening		Minimal Impact Alternatives		Alt. 8 (Options A and B)	Refined Alt. 8
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7		
I-69 and SR 37	Not Applicable	Section 4 Interchange			Section 4 Interchange		Section 4 Interchange		Section 4 Interchange	
That Road	Intersection Free Flow SR 37	No I-69 Access; E Access Rd	Overpass		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd	
Rockport Road	Intersection Free Flow SR 37	Overpass	No I-69 Access; East Access Rd		Overpass		Overpass		Overpass	
Mainline (That Rd. to Fullerton Pike)	SR 37; Grass Median	Shift to East; Grass Median	CD System; Median & Access Rd Barriers	Shift to East; Grass Median	Shift to East; Grass Median		Use SR 37 Pavement and Right-of-way; Median Barrier		Use SR 37 Pavement and Right-of-way; Median Barrier	
Fullerton Pike	Signalized Intersection	Folded Diamond Interchange	Overpass	Folded Diamond Interchange	Folded Diamond Interchange		Double Folded Interchange	Double Folded Interchange; E. Fullerton Pk. Shift to South	Double Folded Interchange	
Mainline	SR 37; Grass Median	SR 37 Centered; Grass Median	CD System; SR37 Centered; to 3 rd St	SR 37 Centered; Grass Median	SR 37 Centered; Grass Median		Use SR 37 Pavement / Right-of-way		Use SR 37 Pavement/Right-of-way	
(Fullerton Pike to Arlington Rd.)							Median Barrier		Median Barrier	
(Arlington Rd. to Sample Rd.)							Shift West Guardrail	Guardrail	Shift West Guardrail	
Tapp Road	Signalized Intersection	Overpass	CD System (barriers between through and local lanes);	Overpass	Overpass; West turn lane	Split-Diamond Interchange	Overpass	Split-Diamond Interchange (Controlled Access Roads and Barriers) w/ No Mainline Shift	Split-Diamond Interchange (Controlled Access Roads and Barriers) w/ No Mainline Shift	
SR 45/2 nd Street	Existing Interchange	Folded Diamond Interchange	Single Point Interchanges at Tapp, 2 nd St. and 3 rd St.	Single Point Interchange	Tight Diamond Interchange	(Controlled Access Roads)	Use Existing Interchange			
SR 48/3 rd Street	Existing Interchange	Tight Diamond Interchange		Single Point Interchange	Tight Diamond Interchange	Single Point Interchange	Use Existing Interchange; Potential for additional turning lanes			Use Existing Interchange; Potential additional turning lanes
Vernal Pike	Signalized Intersection	Underpass	Overpass	Underpass	Underpass		Underpass	Overpass	Overpass	
SR 46 Interchange	Existing Interchange	Use Existing Interchange			Use Existing Interchange		Use Existing Interchange		Use Existing Interchange	
Arlington Rd	Overpass	Overpass			Overpass		Overpass		Overpass	
Acuff Rd	Intersection Free Flow SR 37	No I-69 Access	Overpass	No I-69 Access; W Access	No I-69 Access		No I-69 Access		No I-69 Access	
Kinser Pike	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange	Folded Diamond Interchange	Rural Diamond Interchange	Overpass	No I-69 Access; W. Access Road	Overpass	Overpass	



Table 3-12: Summary of Section 5 Alternatives by Major Feature for the Existing Condition and Alternatives 1 Through 8

Major Feature Name	Existing Condition	2005 Preliminary Alternatives (not carried forward)			2007 Alternative Screening		Minimal Impact Alternatives		Alt. 8 (Options A and B)	Refined Alt. 8
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7		
Mainline South Beanblossom Valley	SR 37 Grass Median; 5% Grade, SB Truck Lane	4% Cut/Fill and SB Truck Climbing Lane			4% Cut/Fill and SB Truck Climbing Lane		Use Existing 5% Grade and SB Truck Lane	4% Cut/Fill and SB Truck Climbing Lane	Use Existing 5% Grade and SB Truck Lane	
N. Walnut Street	Existing Partial Interchange	Rural Diamond Interchange	No I-69 Access; E. Access Rd	Overpass	Overpass	Single-Point or Rural Diamond Interchange	Overpass	Existing Partial Interchange	Option A: Single-Point or Rural Diamond Interchange Option B: Use Existing Partial Interchange	Existing Partial Interchange
Mainline North Beanblossom Valley	SR 37 Grass Median; 5% Grade, NB Truck Lane	4% Cut/Fill and NB Truck Climbing Lane			4% Cut/Fill and NB Truck Climbing Lane		Use Existing 5% with NB Truck Lane	4% Cut/Fill and NB Truck Lane	Use Existing 5% with NB Truck Lane	
Sample Road	Intersection Free Flow SR 37	Rural Diamond Interchange		Overpass	Rural Diamond Interchange	Folded Urban Interchange	Urban Diamond Interchange	Folded Urban Interchange		
Mainline Shift (Sample Rd. to Chambers Pike)	SR 37; Grass Median	Shift to West; Grass Median; NB SR37 as Access Rd			Shift to West; Wide Grass Median; NB SR 37 as Access Rd		Use SR 37, Right-of-way, Grass Median; New SB Right-of-way E Access Rd w/ median	Use SR 37 Right-of-way; Median Barrier; Use SR 37 Right-of-way for E Access Rd w/ Barrier	Use SR 37, Right-of-way, Grass Median; New SB Right-of-way E Access Rd w/ median	
Chambers Pike	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange		Overpass	Overpass	Overpass	No I-69 Access; E/W access Rds	Overpass	
Mainline Shift (Chambers Pike to Bryant's Creek Rd.)	SR 37; Grass Median	All lanes on west-side; 4% Cut/Fill	3 lanes each side; 4% Cut/Fill		3 lanes each side; 4% Cut/Fill		2 lanes; Use Existing 5% Grade; (SB Truck Ln)	2 lanes; 4% Cut/Fill; (SB Truck Ln)	2 lanes; Use Existing 5% Grade; (SB Truck Ln)	
Mainline (Bifurcation)	NB SR 37 Shoulder Guardrail	Wide Shoulders and Clear Zone			Medium width Shoulder/ Clear Zone (NB Guardrail)		NB Use SR 37 Shoulder Guardrail	NB Shoulder widening Guardrail	NB Use SR 37 Shoulder Guardrail	
	SB SR 37 Shoulder/ Clear Zone						SB Use SR 37 Shoulder/ Clear Zone Truck Lane		SB Use SR 37 Shoulder/ Clear Zone Truck Lane	
Bryant's Creek Rd	Intersection Free Flow SR 37	No I-69 Access; E/W Access Rds	Overpass		No I-69 Access; Eastside Property Acquisition; W Access Rd	No I-69 Access; E Acquisition W Access Rd	Overpass	No I-69 Access; E Acquisition; W Access Rd		
Mainline (Bryant's Crk Rd to Section 6)	SR 37; Grass Median	SR 37 Centered; Wide Grass Median			SR 37 Centered; Wide Grass Median		Use Existing SR 37 Pavement, Right-of-way, and Grass Median		Use Existing SR 37 Pavement, Right-of-way, and Grass Median	



Table 3-12: Summary of Section 5 Alternatives by Major Feature for the Existing Condition and Alternatives 1 Through 8

Major Feature Name	Existing Condition	2005 Preliminary Alternatives (not carried forward)			2007 Alternative Screening		Minimal Impact Alternatives		Alt. 8 (Options A and B)	Refined Alt. 8
		Alt. 1	Alt. 2	Alt. 3	Alt. 4	Alt. 5	Alt. 6	Alt. 7		
Paragon Rd./ Pine Blvd.	Intersection Free Flow SR 37	Rural Diamond Interchange	Overpass	Rural Diamond Interchange	Rural Diamond Interchange	Overpass	No I-69 Access; W Access Rd; Use existing E Access Rd		No I-69 Access; W Access Rd; Use existing E Access Rd	
Liberty Church Road	Intersection Free Flow SR 37	Overpass	Rural Diamond Interchange	Overpass	Overpass	Rural Diamond Interchange	Urban Diamond Interchange	Folded Diamond Interchange	Urban Diamond Interchange	
SR37 N of Legendary Hills Rd.	Intersection Free Flow SR 37	No I-69 Access; E/W access Rds			No I-69 Access; East Access Rd		No I-69 Access; East Access Rd		No I-69 Access; East Access Rd	
I-69 and SR 39	Existing Interchange	Section 6 Interchange			Section 6 Interchange		Section 6 Interchange		Section 6 Interchange	

Notes - Access roads generally parallel I-69 on either the E – east side, W- west side, or E/W - both sides of I-69 Mainline; Descriptive terms such as wide, rural, urban medium, tight, and narrow provide relative comparatives only and are not indicative of specific dimensions. See Figure 3-9.

Yellow shaded items share the same treatment.

The traffic volumes for the alternatives are presented in **Table 3-13**. This table shows how the traffic on the cross streets would be affected by the treatment type (i.e. interchange, overpass, or nothing) based on alternative. The information in this table lists the forecasted 2035 Annual Daily Traffic (ADT) for traffic anticipated on the main cross streets east and west of I-69. Some roadways only have one ADT listed, due to the low ADT on this roadway, i.e. Chambers Pike with Alternatives 4, 5, 6, or 8. In locations where there are potential interchanges, the total ADT on the on-/off-ramps are also shown. Some areas have no proposed interchanges or overpasses for a certain alternative (like Alternative 6 for Kinser Pike), and therefore, have no ADT data associated with it. Interchange spacing data are presented in **Table 3-14**, which lists the distance between interchanges based on alternative. **Table 3-15** presents a comparison of key access factors for interchange locations for the alternatives.



Table 3-13: Section 5 Forecast Year (2035) Traffic Volumes For the Alternatives

Cross Street	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 (Options A and B)	Refined Alternative 8
SR 37 (Section 4)	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange
Fullerton Pike	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	18,800/10,800	19,500/10,500	13,700/10,800	14,000/10,100	14,100/10,900	14,000/10,900
Total Ramp ADT	15,500	17,300	17,200	15,200	15,900	15,600
Tapp Road	Overpass	Split Interchange w/ SR 45	Overpass	Split Interchange w/ SR 45	Split Interchange w/ SR 45	Split Interchange w/ SR 45
Cross Traffic ADT E/W of I-69	14,400	14,300/12,700	13,900	14,000/13,400	14,800/13,600	14,900/13,600
Total Ramp ADT	Not applicable	22,300	Not applicable	21,800	22,100	22,000
2nd Street/SR 45	Interchange	Split Interchange w/ Tapp	Interchange	Split Interchange w/ Tapp	Split Interchange w/ Tapp	Split Interchange w/ Tapp
Cross Traffic ADT E/W of I-69	32,600/30,200	29,300/28,600	33,900/32,200	31,800/31,200	29,600/30,300	29,700/30,000
Total Ramp ADT	27,000	27,300	28,000	26,400	27,500	27,200
SR 48/3rd Street	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	35,800/42,400	42,700/49,600	35,900/42,700	37,000/42,800	33,900/42,700	34,000/42,200
Total Ramp ADT	30,000	38,500	35,900	37,000	37,000	36,400
SR 46	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	48,900/46,400	46,300/49,000	51,000/46,000	49,300/46,900	45,300/47,600	49,500/46,7000
Total Ramp ADT	44,400	41,900	49,000	46,900	42,000	46,600
Kinser Pike	Interchange	Overpass	No Overpass	Overpass	Overpass	Overpass
Cross Traffic ADT E/W of I-69	10,300/1,700	1,400	Not applicable	1,700	1,000	1,800
Total Ramp ADT	10,400	Not applicable		Not applicable	Not Applicable	Not applicable
Walnut Street	Overpass	Interchange	Overpass	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	2,200	17,700/5,800	5,500	7,600	18,400/5,300	7,600
Total Ramp	Not applicable	18,800	Not applicable	6,500	19,100	7,600
Sample Road	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	7,700/4,000	7,000/2,700	7,900/3,400	8,500/6,100	7,500/2,800	8,500/4,700
Total Ramp ADT	9,400	8,400	11,400	12,200	9,000	12,200
Chambers Pike	Overpass	Overpass	Overpass	No Overpass	Overpass	Overpass
ADT	700	600	500	Not Applicable	400	400
Paragon Road	Interchange	Overpass	No Overpass	No Overpass	No Overpass	No Overpass
Cross Traffic ADT E/W of I-69	1,600/4,700	300	Not applicable	Not applicable	Not applicable	Not Applicable
Total Ramp ADT	5,900	Not applicable				
Liberty Church Road	Overpass	Interchange	Interchange	Interchange	Interchange	Interchange
Cross Traffic ADT E/W of I-69	1,200	3,900/3,300	3,400/3,200	3,500/3,100	4,000/3,200	4,100/3,200
Total Ramp ADT	Not applicable	6,700	6,000	6,400	6,500	6,500
SR 39 (Section 6)	Interchange	Interchange	Interchange	Interchange	Interchange	Interchange

Note: Spacing between Chambers Pike and Liberty Church Interchange is 5.5 miles.



Table 3-14: Section 5 Interchange Spacing of the Alternatives

Cross Street	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
Section 4	Interchange	Interchange	Interchange	Interchange	Interchange
	1.1 miles	1.1 miles	1.0 mile	1.0 mile	1.0 mile
Fullerton Pike	Interchange	Interchange	Interchange	Interchange	Interchange
		1.0 mile		1.0 mile	1.0 mile
Tapp Road	1.8 miles	Split Interchange w/SR 45	1.8 miles	Split Interchange w/SR 45	Split Interchange w/SR 45
		0.7 mile		0.7 mile	0.7 mile
SR 45/2 nd Street	Interchange	Split Interchange w/Tapp	Interchange	Split Interchange w/Tapp	Split Interchange w/Tapp
	1.2 miles	1.2 miles	1.2 miles	1.2 miles	1.2 miles
SR 48/3 rd Street	Interchange	Interchange	Interchange	Interchange	Interchange
	1.9 miles	1.9 miles	1.9 miles	1.9 miles	1.9 miles
SR 46		Interchange	Interchange	Interchange	Interchange
	2.4 miles				
Kinser Pike	Interchange	3.4 miles	5.8 miles	3.4 miles	3.4 miles
Walnut Street	3.4 miles	Interchange		Interchange	Interchange
		2.4 miles		2.4 miles	2.4 miles
Sample Road	Interchange	Interchange	Interchange	Interchange	Interchange
	6.4 miles				
Paragon Road	Interchange	8.3 miles	8.2 miles	8.2 miles	8.2 miles
Liberty Church Road	4.5 miles	Interchange	Interchange	Interchange	Interchange
		2.4 miles	2.5 miles	2.5 miles	2.5 miles
Section 6	Interchange	Interchange	Interchange	Interchange	Interchange

Notes:
^a This lists the distances for both Alternative 8 and Refined Alternative 8.
 Spacing between Chambers Pike and Liberty Church Road Interchange is 5.5 miles.



	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
Tapp Road					
General Description	Overpass for east/west traffic flow; access to I-69 via existing roads to Fullerton Pike and SR 45/2 nd Street interchanges	Split interchange SR 45/2 nd Street with connecting access roads on both east and west sides	Overpass for east/west traffic flow; access to I-69 via existing roads to Fullerton Pike and SR 45/2 nd Street interchanges	Split interchange with SR 45/2 nd Street with connecting access roads on both east and west sides	Split interchange with SR 45/2 nd Street with connecting access roads on both east and west sides
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>
Access and Operations	Maintains east/west connectivity	Increased development potential on eastern Tapp Road with more direct access to I-69. The split diamond spreads traffic loads more evenly for traffic headed east into Bloomington and reduces travel through western neighborhoods.	Maintains east/west connectivity	Increased development potential on eastern Tapp Road with more direct access to I-69. The split diamond spreads traffic loads more evenly for traffic headed east into Bloomington and reduces travel through western neighborhoods.	Increased development potential on eastern Tapp Road with more direct access to I-69. The split diamond spreads traffic loads more evenly for traffic headed east into Bloomington and reduces travel through western neighborhoods.
Right-of-way	Reduced right-of-way impacts vs. split interchange and access roads	None	Reduced right-of-way impacts vs. split interchange and access roads	None	None
Environmental	Similar residential impacts due to widening to Leonard Springs Road	Increased residential impacts due to west side access road shift due to expansion of Wapehani Mountain Bike Park	Reduced residential impacts with elimination of Tapp Road widening	Similar residential impacts due to west side access road	Similar residential impacts due to west side access road
Maintenance of Traffic (MOT)	Similar impacts	Similar impacts	Similar impacts	Similar impacts	Similar impacts
Public Input	None	Preferred access at Tapp Road but not with the extensive CD system design	None	Preferred access at Tapp Road but not with the extensive CD system design	Preferred access at Tapp Road but not with the extensive CD system design



Table 3-15: Section 5 Alternatives Key Access Plan Comparison for Interchange Locations (continued)

	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
SR 45/2nd Street					
General Description	Urban diamond or single-point interchange with east/west and I-69 access	Split interchange with Tapp Road with connecting access roads on both east and west sides	Use of existing folded interchange with east/west and I-69 access	Split interchange with Tapp Road with connecting access roads on both east and west sides	Split interchange with Tapp Road with connecting access roads on both east and west sides
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>
Access and Operations	None	The split diamond spreads the traffic loads more evenly for traffic headed east into Bloomington	None	The split diamond spreads the traffic loads more evenly for traffic headed east into Bloomington	The split diamond spreads the traffic loads more evenly for traffic headed east into Bloomington
Right-of-way	Reduced right-of-way impacts vs. split interchange and access roads	None	Significant reduction with use of existing layout and right-of-way	None	None
Environmental	Similar impacts	Similar impacts	Significant reduction	Similar impacts	Similar impacts
MOT	Similar impacts	Similar impacts	Significant reduction	Similar impacts	Similar impacts
Public Input	Public support for existing interchange	Initial responses have been positive	Public support for existing interchange	Initial responses have been positive	Initial responses have been positive
SR 48/3rd Street					
	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
General Description	Interchange with east/west and I-69 access; tight diamond interchange type	Interchange with east/west and I-69 access; single-point interchange	Use of existing interchange with east/west and I-69 access		
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>		
Access and Operations	Reduced construction costs	Better traffic flow	Significant reduction with use of existing layout and right-of-way		
Right-of-way	Similar impacts	Similar impacts	Significant reduction		
Environmental	Similar impacts	Similar impacts	Significant reduction		
MOT	Similar impacts	Similar impacts	Similar impacts		
Public Input		City prefers single-point interchange			



Table 3-15: Section 5 Alternatives - Key Access Plan Comparison for Interchange Locations (continued)

	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
Kinser Pike					
General Description	Interchange with east/west and I-69 access; medium diamond interchange	Overpass for east/west access; I-69 access via west side access road to Walnut Street interchange	No I-69 Access; improvement of Kinser Pike to Bottom Road west of I-69	Overpass for east/west access; I-69 access via west side access road to Walnut Street interchange	Overpass for east/west access; I-69 access via west side access road to Walnut Street interchange
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>
Access and Operations	Accommodates TIF district; allows access to high school	None	Reduced east/west connectivity	None	None
Right-of-way		None	Significant reduction	None	None
Environmental	Reduce wetland impacts; floodway impacts are offset by Kinser Pike access road crossing Griffey Creek	None	Significant reduction	None	None
MOT	Similar impacts	Similar impacts	Reduced	Similar impacts	Similar impacts
Public Input	Recommendation by the City of Bloomington to support the TIF district	None	None	None	None
Walnut Street					
	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Option A & B)
General Description	Overpass for east/west traffic flow; I-69 access via east side access road to Sample Road interchange or west side access road to Kinser Pike; Bridge 913 used as part of access road to Bottom Road/ Kinser Pike	Interchange with east/west and I-69 access; either a single-point or tight diamond interchange; Bridge 913 used as part of east side access road to Sample Road	Overpass for east/west traffic flow; I-69 access via east side access road to Sample Road interchange; Bridge 913 used as part of access road to Bottom Road/ Kinser Pike	Use existing partial interchange for I-69 access only with continued use of Bridge 913	Interchange with east/west and I-69 access; either a single-point or tight diamond interchange; Bridge 913 used as part of east side access road to Sample Road
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>



Table 3-15: Section 5 Alternatives Key Access Plan Comparison for Interchange Locations (continued)

	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 (Option A)	Alternative 8 ^a (Option B)
Access and Operations	None	Unofficial "Gateway to Bloomington," maintains existing interchange access; provides secondary access to Ellettsville, and secondary emergency access for Hoosier Energy	None	Unofficial "Gateway to Bloomington," maintains existing interchange access	Enhances existing interchange access; provides a second access to Ellettsville, Hoosier Energy	Unofficial "Gateway to Bloomington," maintains existing interchange access
Right-of-way	None	Reduced right-of-way cost	None	Significant reduction		Significant reduction
Environmental	None	Reduced karst and stream impacts and noise/visual impacts for MGRRH	None	Significant reduction	Reduced karst and stream impacts and noise/visual impacts for MGRRH	Significant reduction
MOT	None	Similar impacts	None	Significant reduction	Similar impacts	Significant reduction
Public Input	None	Popular support as "Gateway to Bloomington," preferred by Hoosier Energy	None	Popular support as "Gateway to Bloomington"	Popular support as "Gateway to Bloomington"	
Paragon Road						
	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)	
General Description	Interchange with east/west and I-69 access; medium rural interchange	Overpass for east/west access; I-69 access via west side access road to Liberty Church Road interchange	No I-69 Access; access via Turkey Track Road and Old SR 37 to Morgan-Monroe State Forest and Liberty Church Road interchange			
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>			
Access and Operations	Direct access to Morgan-Monroe State Forest; fewer roads required for parcel access than with a Liberty Church Road interchange	None	Reduced east/west connectivity			



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Table 3-15: Section 5 Alternatives Key Access Plan Comparison for Interchange Locations (continued)

	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
Right-of-way	Similar impacts	Similar impacts	Significant reduction		
Environmental	Reduced farmland, limited commercial and floodway impacts	None	Significant reduction		
MOT	Similar impacts	Similar impacts	Significant reduction		
Public Input	Little public support except by those potentially impacted by a Liberty Church Road interchange	None	None		
Liberty Church Road					
	Alternative 4	Alternative 5	Alternative 6	Alternative 7	Alternative 8 ^a (Options A & B)
General Description	Overpass for east/west access; I-69 access via west side access road to Paragon Road interchange	Interchange with east/west and I-69 access; medium rural interchange type	Medium urban diamond interchange with east/west and I-69 access	Folded interchange with east/west and I-69 access	Medium urban diamond interchange with east/west and I-69 access
Screening Criteria	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>	<i>Advantages</i>
Access and Operations	None	Easy terrain; better access to farms and developing areas; maintains existing mobility patterns to west; supports development projected for area; eases Burton Lane overloads.			
Right-of-way	Similar impacts	Similar impacts	Reduced impacts		
Environmental	None	Reduced forest, residential, and stream impacts	Reduced forest, residential, and stream impacts		
MOT	Similar impacts	Similar impacts	Similar impacts		
Public Input	None	Preferred over Paragon Road; Morgan County and City of Martinsville strongly recommends due to projected development, water service project, and to support access for farms			
<p><i>Note:</i> ^a For purposes of this Table, Alternative 8 represents either Alternative 8 or Refined Alternative 8, unless otherwise noted.</p>					



3.5 Preferred Alternative

Alternative 8 (with either Option A or Option B) was identified as the preferred alternative in the DEIS (refer to **Figure 3-13**). DEIS Preferred Alternative 8 was comprised of various features of Alternatives 4, 5, 6, and 7, as described previously in this chapter (see **Tables 3-6 and Table 3-12**). Throughout the Section 5 corridor, all of the alternatives evaluated followed existing SR 37. I-69 would use the existing SR 37 right-of-way, with additional adjacent acreage required based on design requirements and topography.

Refined Alternative 8 is identified as the preferred alternative in this FEIS. Refined Preferred Alternative 8 is the same as the DEIS Preferred Alternative 8, except with the following alignment modifications (refer to **Figure 3-13** and **Figure 3-14**):

- **West Fullerton Pike:** Alternative 8 was tapered in this area on the west end of Fullerton Pike to tie into the existing Fullerton Pike alignment. This modification would also straighten the curve on West Fullerton Pike and shift it slightly to the north avoiding two office buildings on the south side of West Fullerton Pike.
- **Access to the Hickory Heights Mobile Home Park via Barger Lane:** This mobile home park currently has access from Tapp Road via Barger Lane. With Alternative 8, access to the mobile home park was to connect onto West Maple Leaf Drive, through neighborhoods north of the mobile home park. With the Refined Preferred Alternative 8, access has been revised to tie into South Danlyn Road to the west of the mobile home park, to provide for shorter access between Tapp Road and the mobile home park and reduce the change to existing access. This revision reduces the distance of travel through neighborhoods in order to access I-69.
- **Wapehani Mountain Bike Park:** With Alternative 8, the park was avoided. Modifications in Refined Preferred Alternative 8 encroach into the edge of the park and use the same right-of-way limits along the east side of SR 37 as Alternative 7, and further reduce displacement impacts along the west side of SR 37 south of the park. This results in a *de minimis* use of the park, which is a protected resource under Section 4(f) of the U.S. Department of Transportation Act.
- **Sam's Club:** New access was added from eastbound 2nd Street to Sam's Club to provide right in/right out movement between the ramp intersections and Liberty Drive.
- **SR 45/2nd Street Interchange:** The existing bridge at SR 45/2nd Street will remain in place with some modifications to accommodate bicycle/pedestrian traffic across the bridge. The interchange ramps will be reconfigured for the split diamond interchange between SR 45/2nd Street and Tapp Road.
- **SR 48/3rd Street Interchange:** The existing interchange layout will remain in place with additional capacity added to the exit ramps. The left turn lanes on SR 48/3rd Street to the



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entrance ramps will be extended and the existing bridge will be widened to provide bicycle/pedestrian facilities.

- **N. Walnut Street Interchange Selection:** The use of the existing partial interchange was approved by FHWA and will be used at this location, consistent with the DEIS Preferred Alternative 8 (Option B).
- **Eastern Local Access Road Removal:** The eastern local access road connecting Walnut Street to Connaught Road was removed due to the low volumes of traffic on the roadway compared to the environmental impacts and costs associated with constructing the roadway.
- **Liberty Church Road Interchange Revision:** The interchange at Liberty Church Road was shifted north to minimize impacts to floodplains located in the southwest corner of the interchange.

In addition to these modifications, further refinements were made to the right-of-way along the alignment to minimize impacts to resources, reduce the number of displacements, as well as to address access changes and roadway design revisions and corrections. Some bridges were also modified to allow for bicycle/pedestrian use. Details of how the DEIS Preferred Alternative 8 was modified to produce the Refined Preferred Alternative 8 is found in **Section 6.4.2, Refinement of DEIS Preferred Alternative 8**. Detailed drawings of the Refined Preferred Alternative 8 are located in **Appendix R, Refined Preferred Alternative Plan and Profile Drawings**, of the FEIS.

Chapter 5, Environmental Consequences, presents the detailed evaluation of environmental impacts that were used to arrive at the recommendation of Refined Preferred Alternative 8 as the Preferred Alternative. **Chapter 6, Comparison of Alternatives**, provides a comparison of the six alternatives, including the Refined Preferred Alternative 8. This comparison includes environmental impacts, road closures, grade separations and access roads; and estimated design, right-of-way acquisition/relocation, construction, and mitigation costs associated with the alternatives.

Table 3-16 provides estimates of potential project features and select resource impacts for Alternatives 4 to 8 and the Refined Preferred Alternative, as determined in **Chapter 5, Environmental Consequences**; see **Table 6-10**.

Total estimated construction costs shown here for each alternative do not include right-of-way acquisition costs. Right-of-way costs can vary greatly depending on the selected alignment footprint and their effects on existing properties, especially commercial properties. This information is found in **Section 5.3, Land Use**, as well as **Chapter 6, Comparison of Alternatives**.



Table 3-16: Section 5 – Potential Impacts of the Alternatives

Evaluation Factors	Build Alternatives						
	4	5	6	7	Alternative 8		Refined Preferred Alternative 8
					Option A	Option B	
Length (miles) Interstate	21	21	21	21	21	21	21
Non-interstate (/local access roads, in miles)	16	15	15	15	14	14	14
Estimated Construction/Design/Utility/Admin Cost (millions) ¹	\$546	\$575	\$396	\$392	\$371	\$333	\$327
Required Right-of-Way (ROW)							
Use of existing INDOT right-of-way (acres)	967	968	973	973	973	973	973
Approximate acquisition right-of-way (acres)	802	762	347	319	373	346	327
Total required right-of-way (acres) ²	1,768	1,729	1,320	1,292	1,346	1,318	1,300
Relocations (based on acquisition right-of-way)							
Residences - Multi Unit	24	24	4	0	4	4	4
Residences – Single	225	211	134	123	147	146	115
Commercial	77	71	33	27	32	32	17
Churches	3	3	1	1	1	1	1
Floodplain Encroachment (100 year / acres)	126	146	127	100	129	102	75
Wetlands (total acres within construction limits)³	12	16	11	5	10	6	3
Jurisdictional Streams (linear ft)							
Perennial	4,029	4,554	3,863	3,851	3,831	3,559	3,028
Intermittent	14,984	14,816	12,915	12,636	13,067	13,067	11,862
Ephemeral	87,432	83,795	68,414	66,804	69,506	68,673	65,692
Access: Road Crossings/Closures⁴	22/ 59	20/ 61	18 / 65	18 / 61	17 / 62	17 / 62	16 / 63
Farmland Impacts (acres) Farmland acquired for additional right-of-way (row crop, pasture, orchard, grove, specialty crops, & agricultural operations)	149	160	65	70	67	56	60
Federal Threatened/ Endangered Species⁵	3	3	3	3	3	3	3
Historic Resources/Section 106 Adverse Effect (NRHP Listed and Eligible sites) Architectural	1	1	0	0	0	0	0
Archaeological ⁶	For Refined Preferred Alternative 8 only - 11 sites recommended for avoidance or additional study; one site recommended for Phase 1c testing; 19 alluvial floodplain test areas identified for Phase 1c archaeological investigations.						
Section 4(f) Resource Uses							
Wapehani Mountain Bike Park	No	<i>de minimis</i>	No	<i>de minimis</i>	No	No	<i>de minimis</i>
North Clear Creek Historic Landscape District	Yes	Yes	<i>de minimis</i>	No	<i>de minimis</i>	<i>de minimis</i>	<i>de minimis</i>
Hazardous Materials (Possible Sites)	9	9	7	8	9	9	9
Mineral Resources (Limestone) (acres)	996	959	742	731	766	766	772
Forest Impacts Forested Areas - Total Land Cover (acres)	441	406	246	236	256	249	229



Table 3-16: Section 5 – Potential Impacts of the Alternatives

Evaluation Factors	Build Alternatives						
	4	5	6	7	Alternative 8		Refined Preferred Alternative 8
					Option A	Option B	
Karst Impacts							
Springs	19	22	13	15	14	14	13
Sinkholes (drainage/acres)	105 (147 ac)	95 (141 ac)	76 (101 ac)	78 (98 ac)	76 (100 ac)	76 (100 ac)	77 (101 ac)
Sinking Streams (watershed/acres)	5 (307 ac)	5 (304 ac)	5 (253 ac)	5 (258 ac)	5 (257 ac)	5 (257 ac)	5 (260 ac)
Number of Cave recharge areas (feature/acre)	1 (52 ac)	1 (51 ac)	1 (39 ac)	1 (39 ac)	1 (38 ac)	1 (38 ac)	1 (37 ac)
Wellhead Protection Areas (sites)	1	1	1	1	1	1	1

¹ Cost estimates (in 2015 dollars) as considered at the screening stage does not include costs for right-of-way or mitigation.
² All impacts were calculated based on the total right-of-way amount, not necessarily the amount to be acquired.
³ Total wetland acres impacted within and outside of existing SR 37 ROW.
⁴ Includes driveways accessing existing SR 37.
⁵ Three Indiana bat (*Myotis sodalis*) maternity colonies were identified in Section 5, located near Bryant Creek, Lambs Creek, and Beanblossom Bottoms Nature Preserve, all west of SR 37. All alternatives pass through the maternity colonies' foraging area but will not impact known roost trees.
⁶ No listed sites; eligible sites determined for Refined Preferred Alternative 8 only. See **Section 5.14**, Archaeology Impacts, for further information.



Chapter 3 Figure Index

(Figures follow this index, except as otherwise noted)

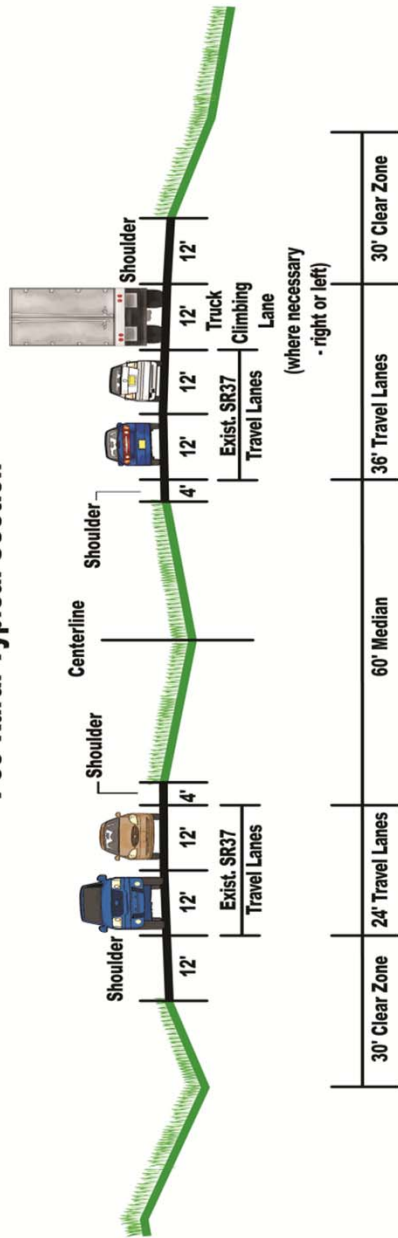
Figure Reference	Number of Sheets
Figure 3-1: ISTDM Version 3 Network	(p. 3-6)
Figure 3-2: ISTDM Version 6.2 Network	(p. 3-6)
Figure 3-3: ISTDM Version 3 Traffic Analysis Zones	(p. 3-6)
Figure 3-4: ISTDM Version 6.2 Traffic Analysis Zones	(p. 3-6)
Figure 3-5: I-69 Section 5 and 6 Corridor Model	(p. 3-7)
Figure 3-6: Alternative Development Process	(p. 3-11)
Figure 3-7: Tier 2 Section 5 – Conceptual Typical Sections for Alternatives 4 and 5	1 Sheet
Figure 3-8: Tier 2 Section 5 – Minimal Impact Typical Sections for Alternatives 6, 7, 8, and Refined Preferred Alternative 8	2 Sheets
Figure 3-9: Section 5 Potential Interchange Types for Preliminary Alternatives	(p. 3-29)
Figure 3-10: Alternatives 1, 2, and 3 Comparison Maps	(p. 3-34, 4 Sheets)
Figure 3-11: Alternatives 4 & 5	16 Sheets*
Figure 3-12: Alternatives 6 & 7	16 Sheets*
Figure 3-13: Alternative 8 and Refined Preferred Alternative 8	16 Sheets*
Figure 3-14: Alternative 8 and Refined Preferred Alternative 8 (USGS Contour Maps)	16 Sheets*

** Figure is included in the tabbed map sets following this chapter.*



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I-69 Rural Typical Section



I-69 Rural Typical Section with Adjacent Access Road

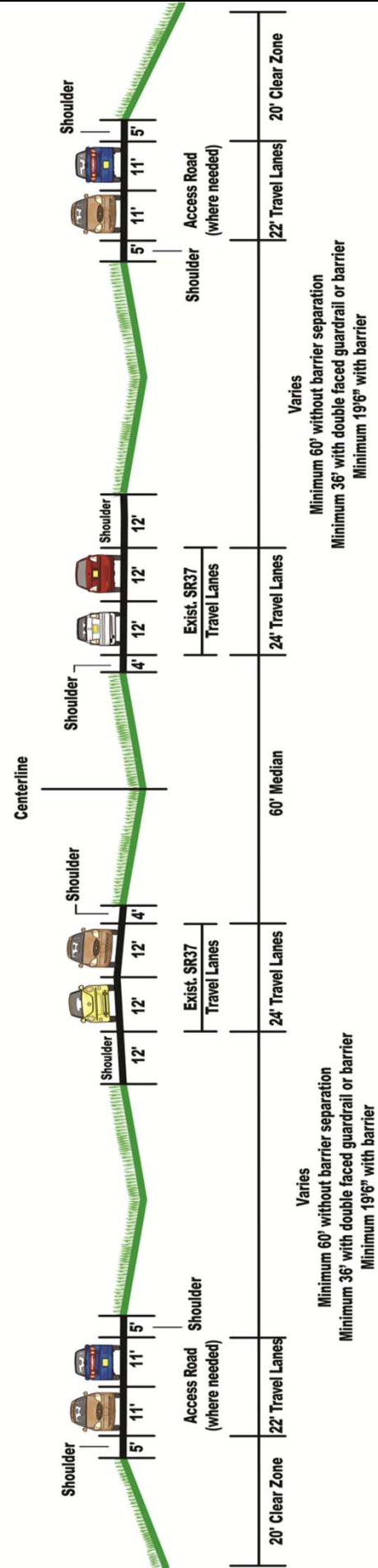
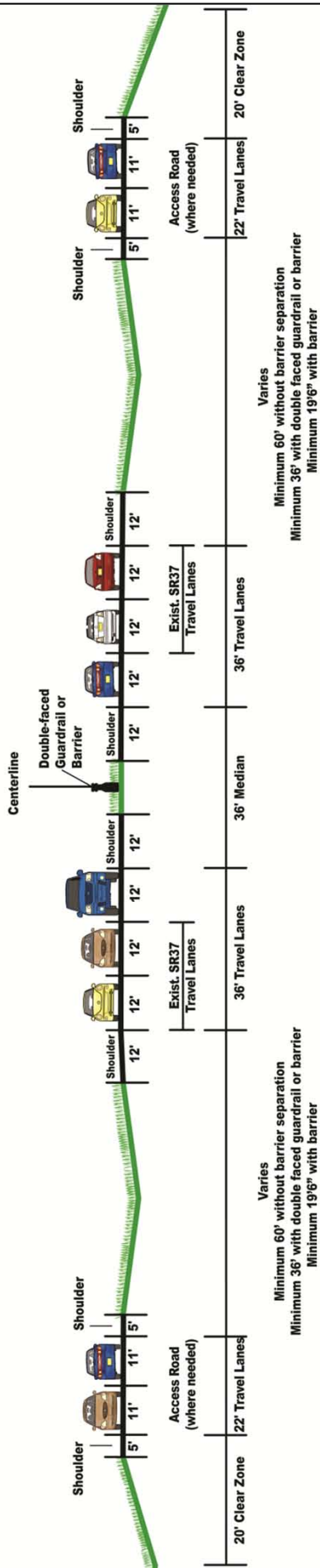


Figure 3-8: Tier 2 Section 5 – Minimal Impact Typical Sections for Alternatives 6, 7, 8, and Refined Preferred Alternative 8 (Sheet 1 of 2)

I-69 Suburban Typical Section with Adjacent Access Road



I-69 Urban Typical Section

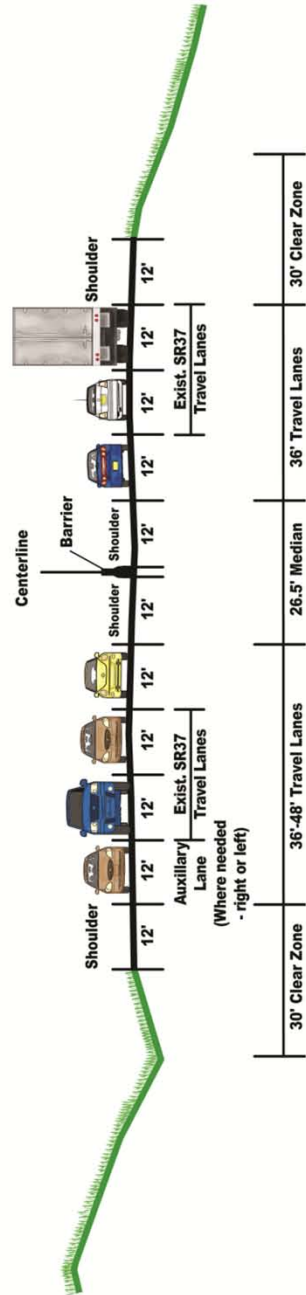
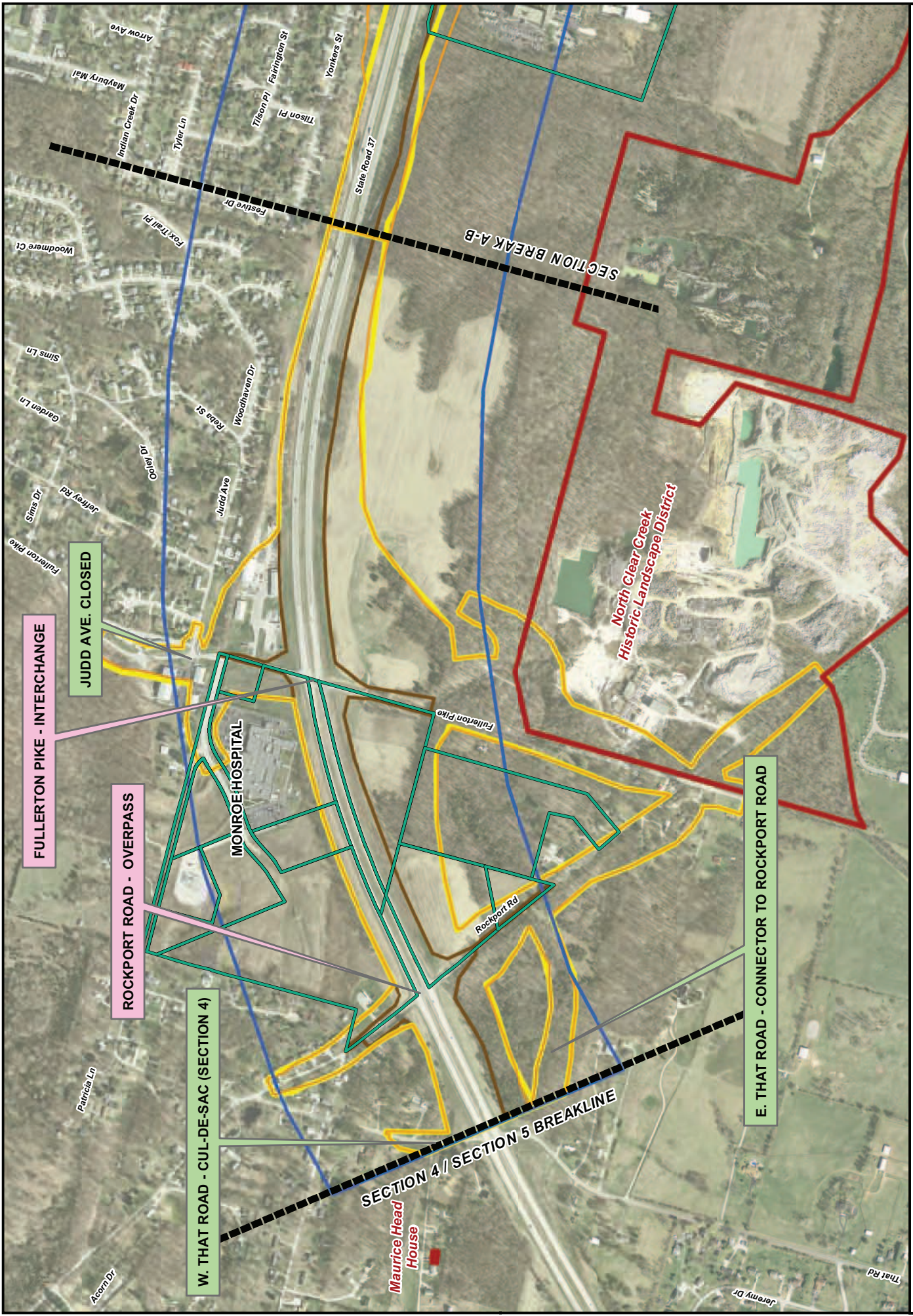


Figure 3-8: Tier 2 Section 5 – Minimal Impact Typical Sections for Alternatives 6, 7, 8, and Refined Preferred Alternative 8 (Sheet 2 of 2)

For display purposes only, not to scale. Figures do not represent right-of-way required.

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FULLERTON PIKE - INTERCHANGE

JUDD AVE. CLOSED

ROCKPORT ROAD - OVERPASS

W. THAT ROAD - CUL-DE-SAC (SECTION 4)

E. THAT ROAD - CONNECTOR TO ROCKPORT ROAD

MONROE HOSPITAL

SECTION 4 / SECTION 5 BREAKLINE

SECTION BREAK A-B

*North Clear Creek
Historic Landscape District*

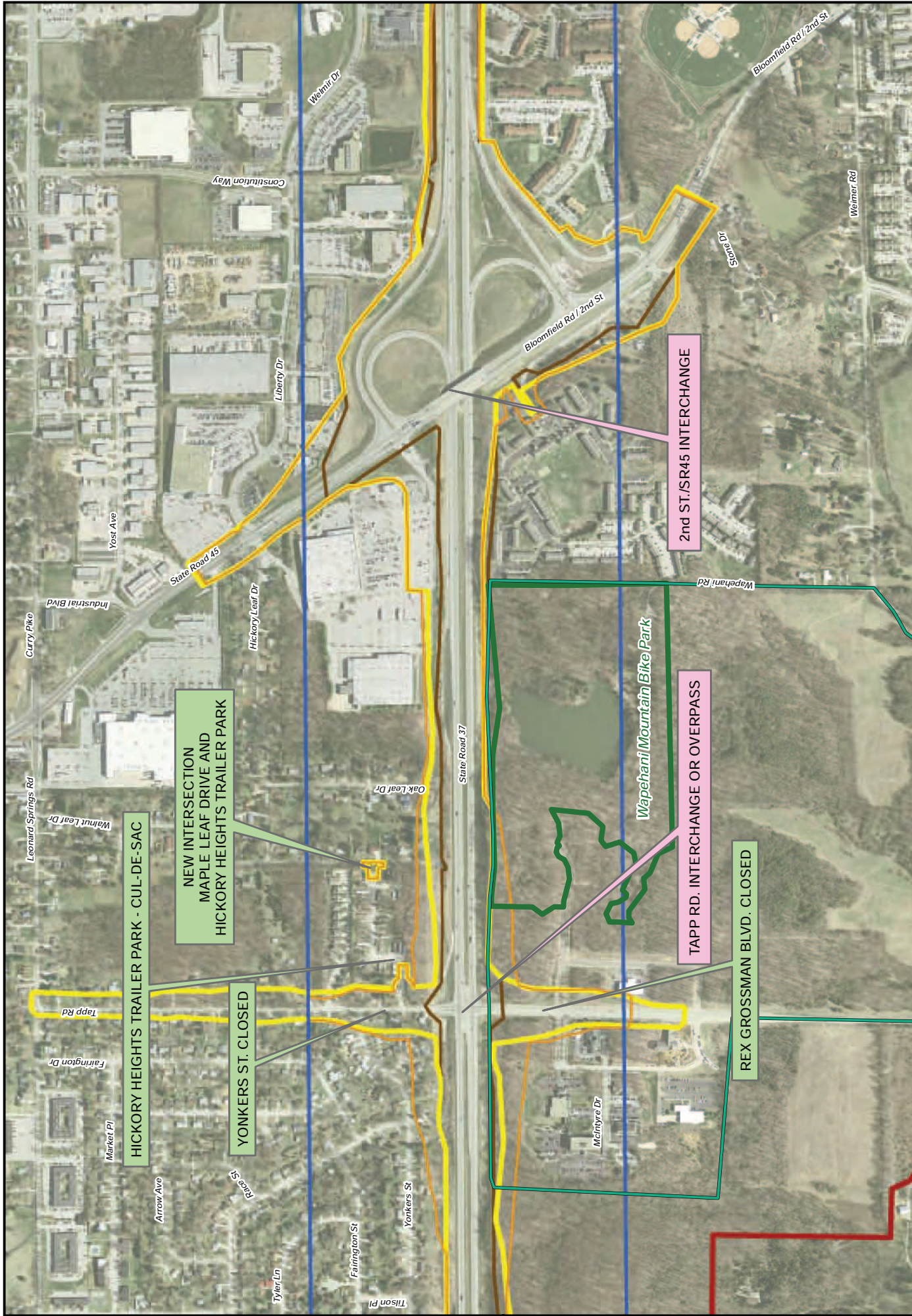
*Maurice Head
House*



F GURE 3-11: Sheet 1 of 16
A ternat ves 4 & 5

Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies
- Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- Alternative 4
- Alternative 5
- National Register Historic Property/District Listed or Eligible
- Superfund Sites
- T F Districts
- Subsection Breaks



HICKORY HEIGHTS TRAILER PARK - CUL-DE-SAC

NEW INTERSECTION
MAPLE LEAF DRIVE AND
HICKORY HEIGHTS TRAILER PARK

YONKERS ST. CLOSED

2nd ST./SR45 INTERCHANGE

TAPP RD. INTERCHANGE OR OVERPASS

REX GROSSMAN BLVD. CLOSED

z

0 400 800 1,200 1,600 Feet

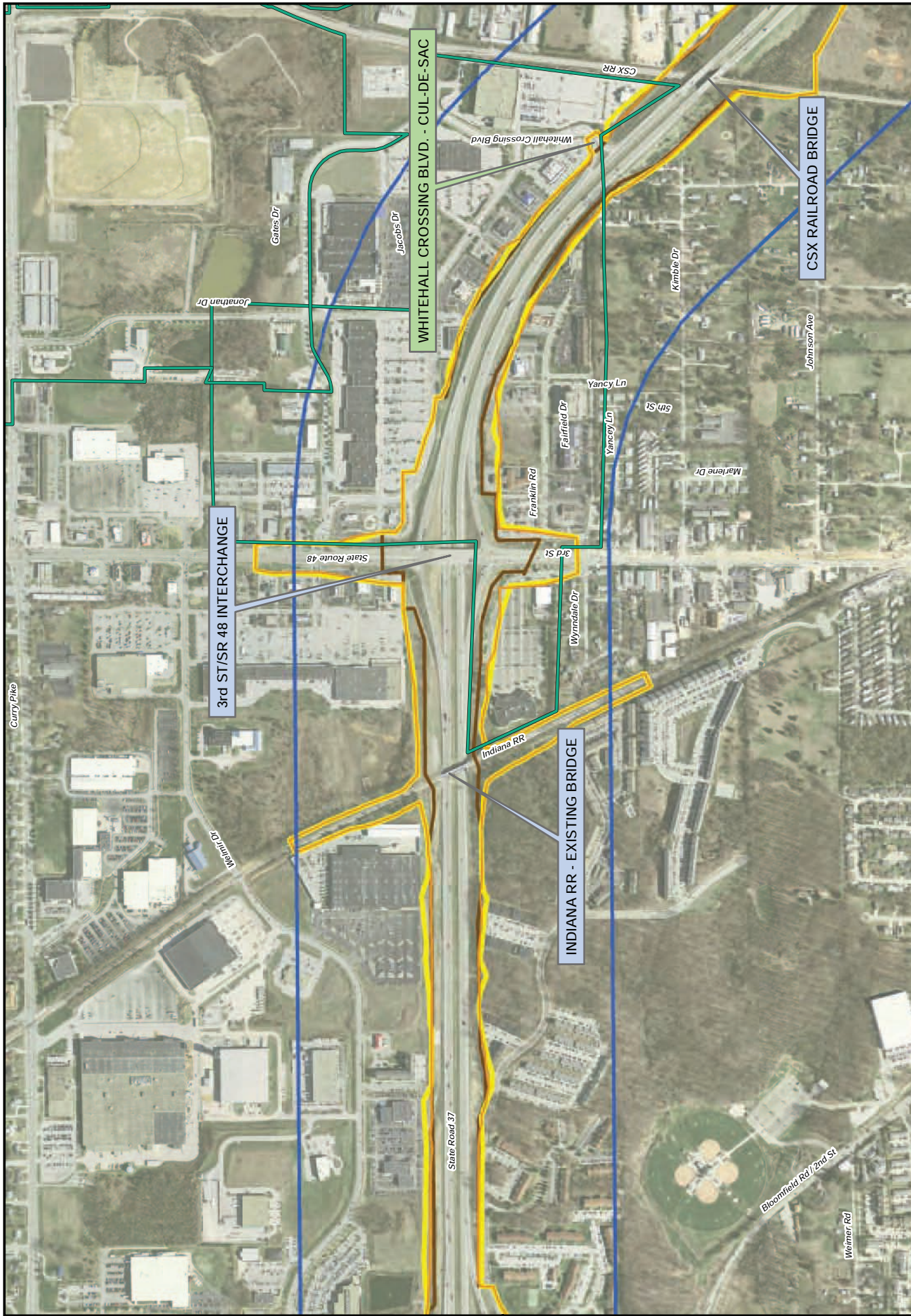
FIGURE 3-11: Sheet 2 of 16
Alternatives 4 & 5

Legend

Section 5 Approved Corridor	SR 37 Existing Right of Way	National Register Historic Property/District Listed or Eligible
Alternative 4	Superfund Sites	Subsection Breaks
Alternative 5	TIF Districts	

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39





Legend

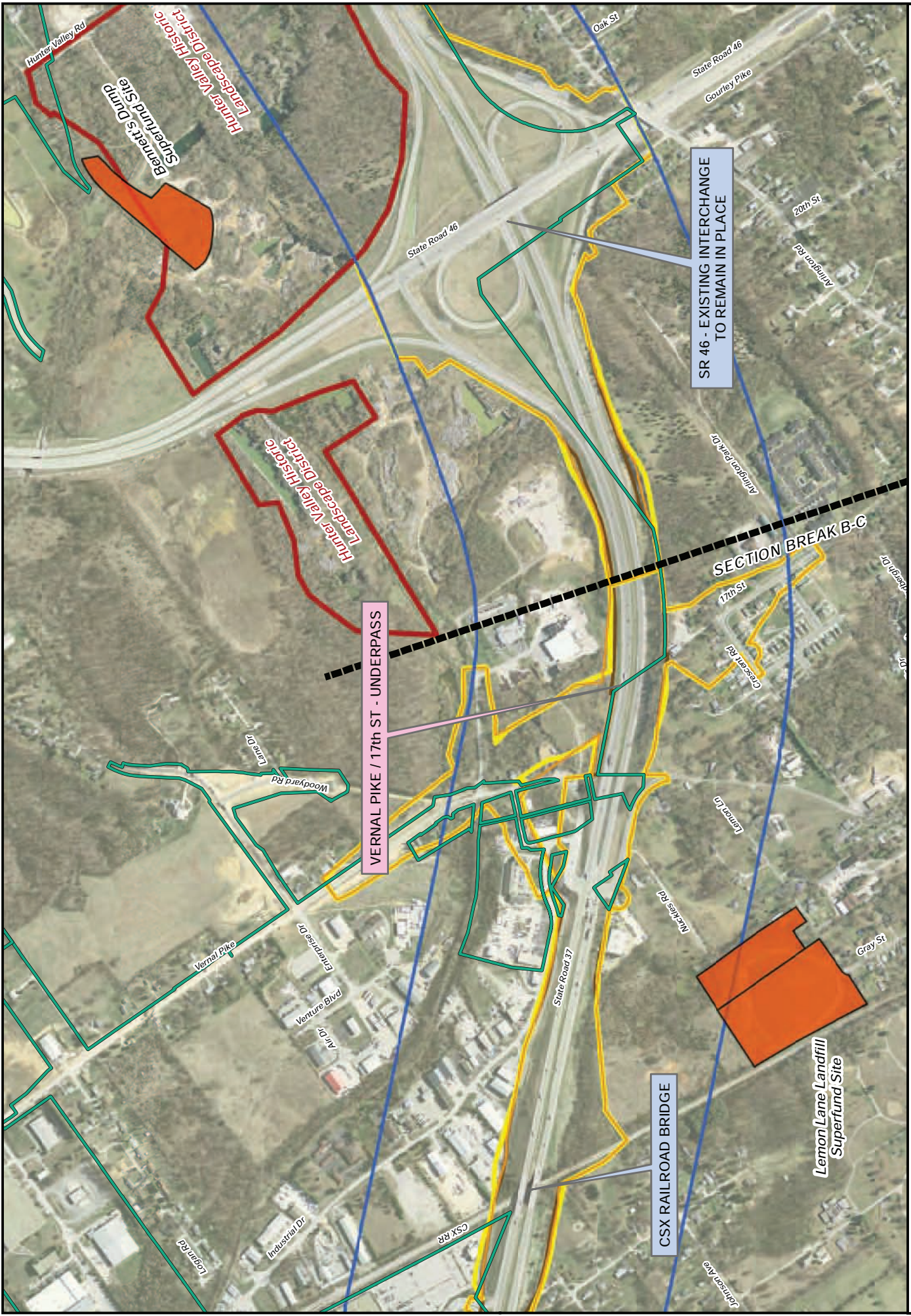
- Section 5 Approved Corridor
- Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

**FIGURE 3-11: Sheet 3 of 16
Alternatives 4 & 5**

0 400 800 1,200 1,600 Feet

North Arrow



SR 46 - EXISTING INTERCHANGE TO REMAIN IN PLACE

VERNAL PIKE / 17th ST - UNDERPASS

CSX RAILROAD BRIDGE

SECTION BREAK B-C

Lemon Lane Landfill Superfund Site

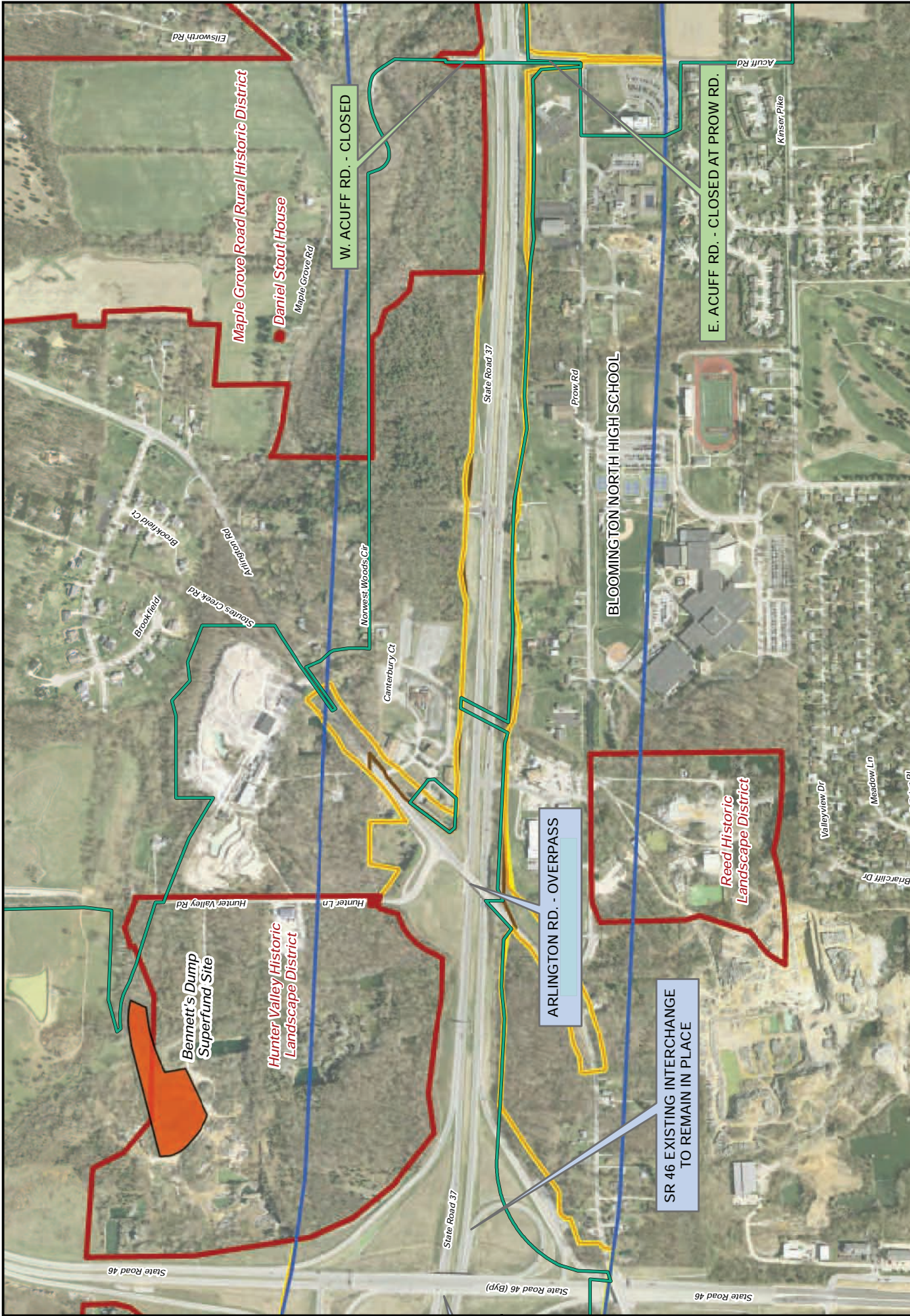




- Legend**
- Section 5 Approved Corridor
 - Alternative 4
 - Alternative 5
 - National Register Historic Property/District Listed or Eligible
 - SR 37 Existing Right of Way
 - Superfund Sites
 - TIF Districts
 - Section Break
 - Subsection Break

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Tier 2 Studies
Section 5 - SR 37 to SR 39


FIGURE 3-11: Sheet 4 of 16
Alternatives 4 & 5





**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**



0 400 800 1,200 1,600 Feet

Legend

Section 5 Approved Corridor	SR 37 Existing Right of Way	National Register Historic Property/District Listed or Eligible
Alternative 4	Superfund Sites	Subsection Breaks
Alternative 5	TIF Districts	

**FIGURE 3-11: Sheet 5 of 16
Alternatives 4 & 5**

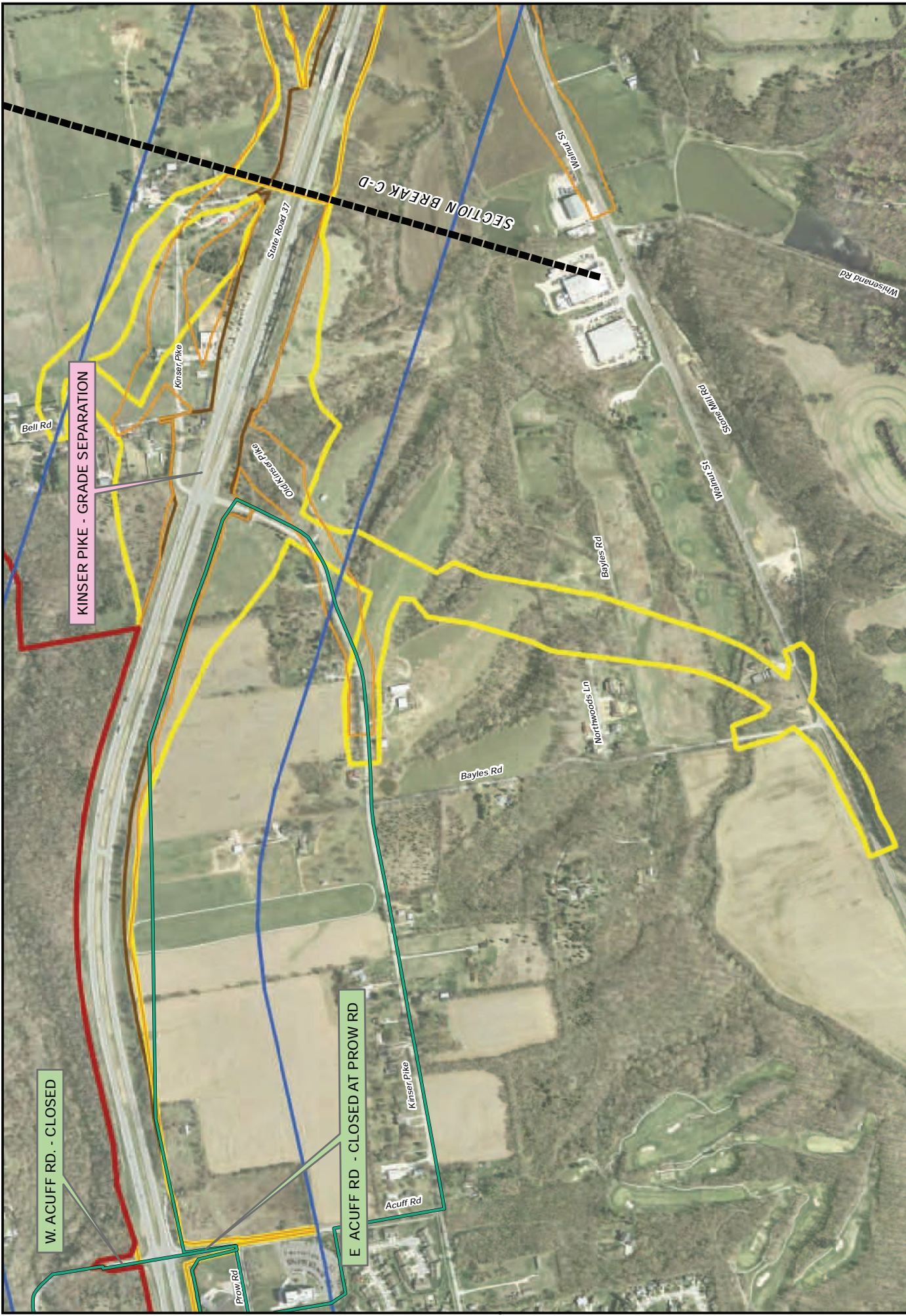








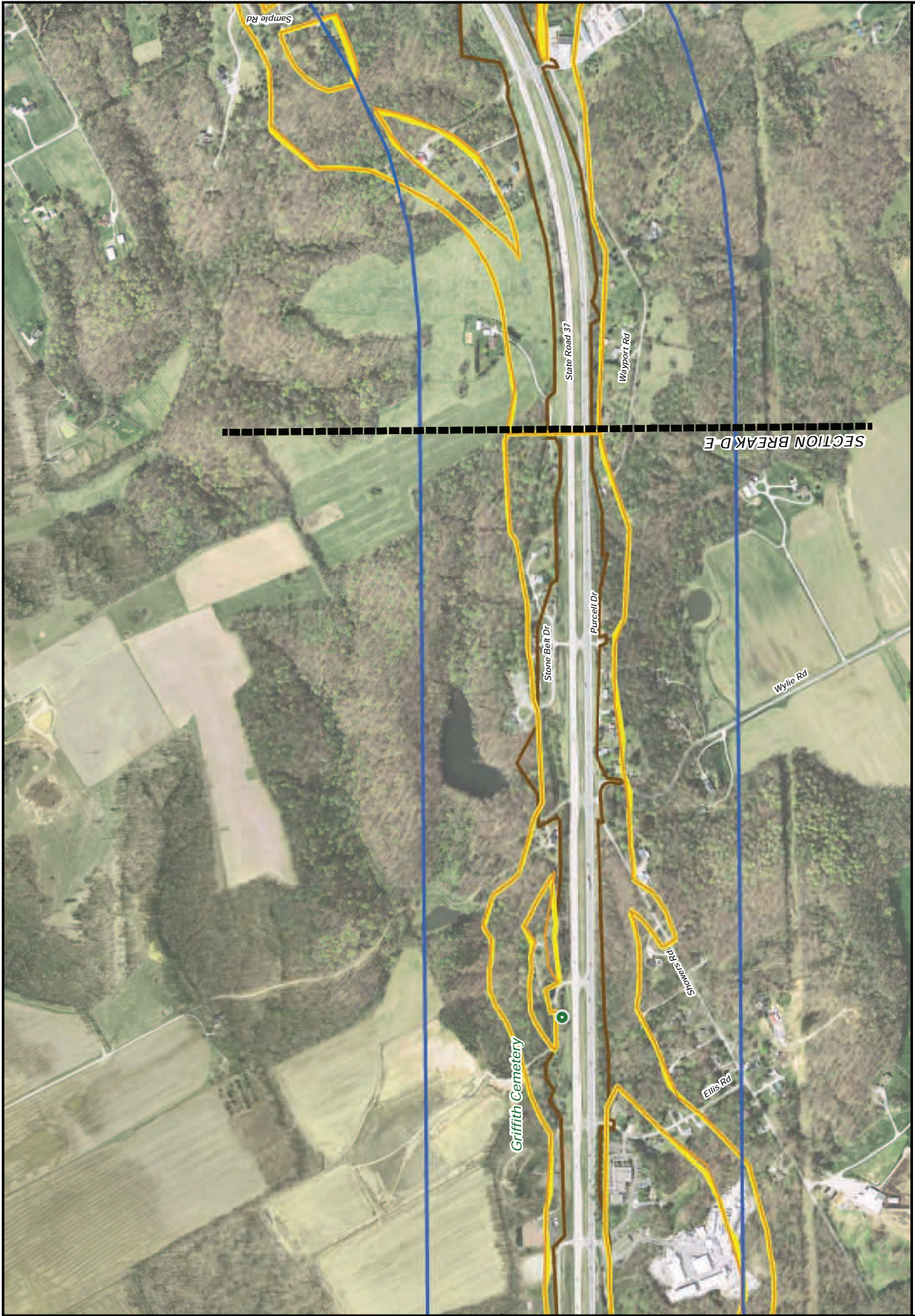


FIGURE 3-11: Sheet 6 of 16
Alternatives 4 & 5

- Legend**
-  Section 5 Approved Corridor
 -  Alternative 4
 -  Alternative 5
 -  SR 37 Existing Right of Way
 -  Superfund Sites
 -  TIF Districts
 -  National Register Historic Property/District Listed or Eligible
 -  Subsection Breaks

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39





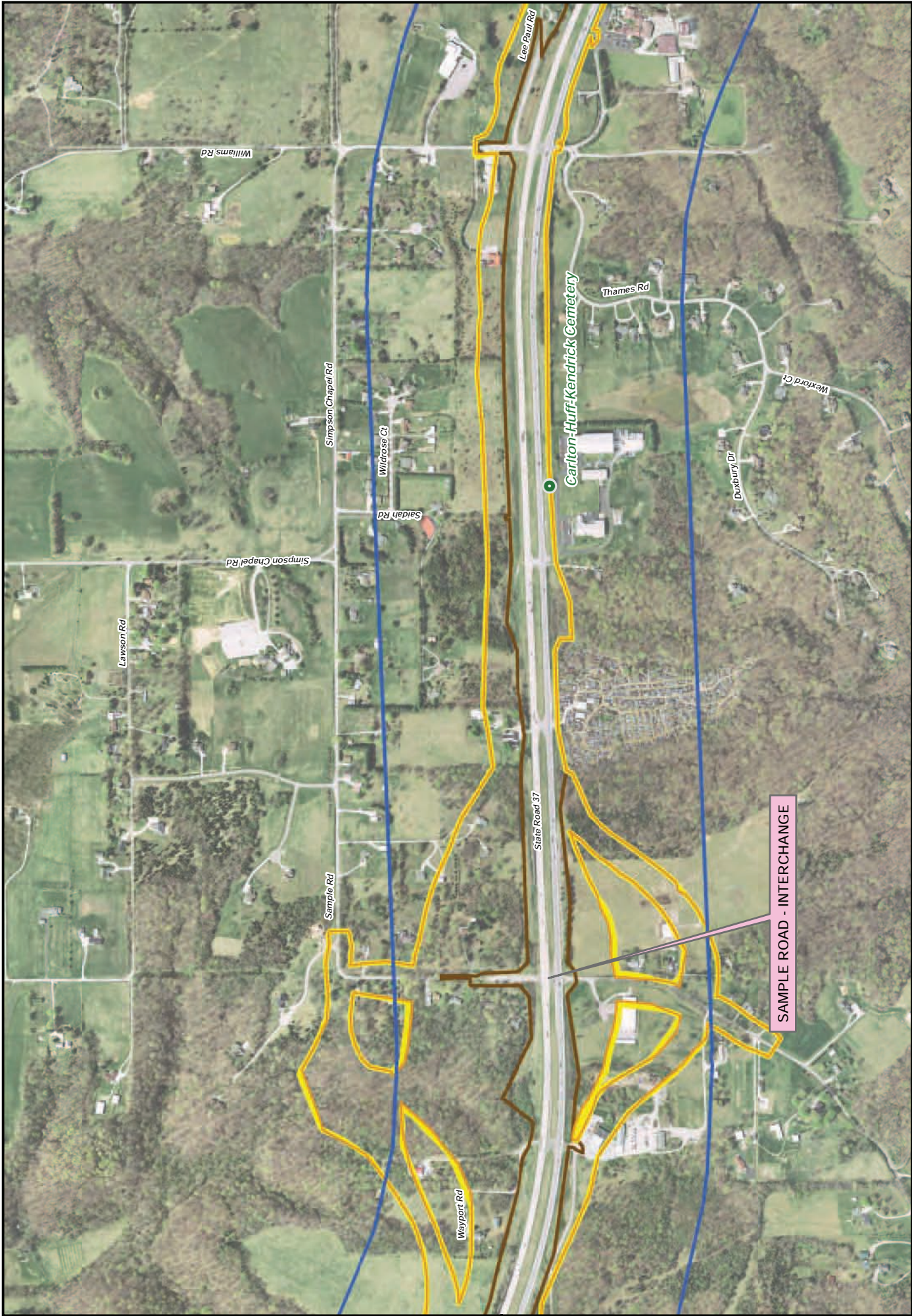
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1,200 1,600 Feet

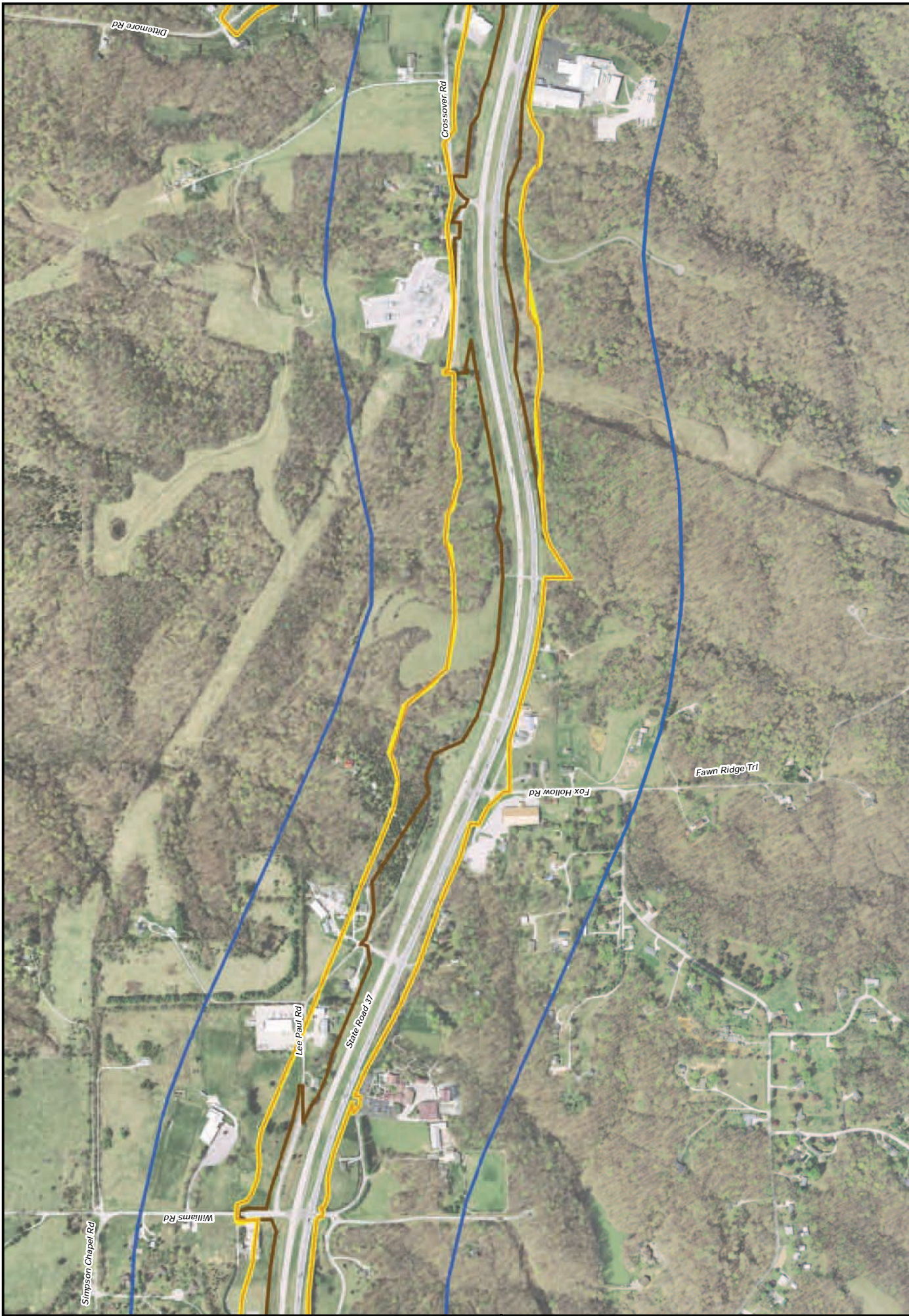
**FIGURE 3-11: Sheet 8 of 16
Alternatives 4 & 5**



Legend

- Section 5 Approved Corridor Alternative 4
- Section 5 Approved Corridor Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

FIGURE 3-11: Sheet 9 of 16
Alternatives 4 & 5



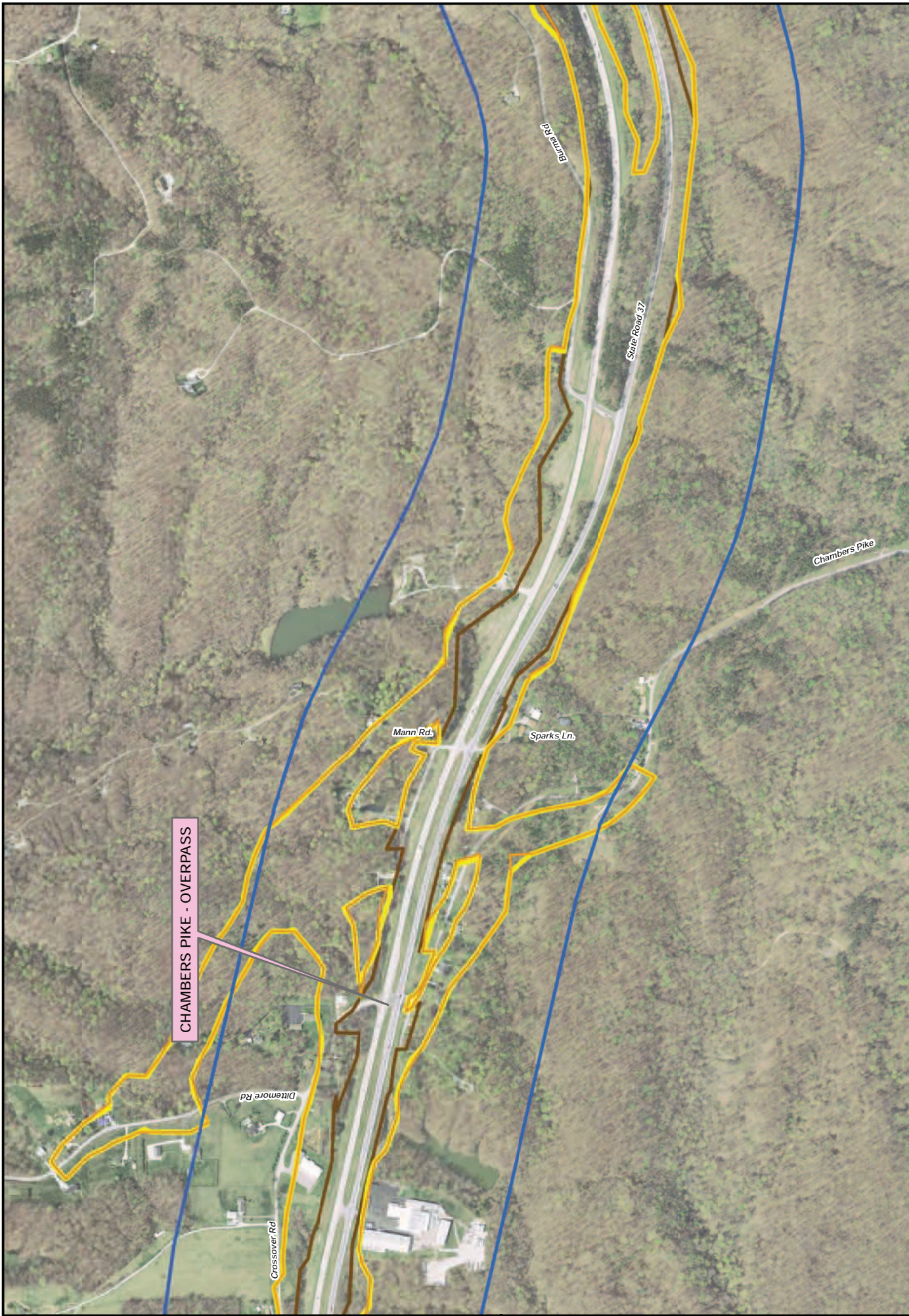
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- █ Section 5 Approved Corridor
- █ Alternative 4
- █ Alternative 5
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks
- Superfund Sites
- TIF Districts

0 400 800 1,200 1,600 Feet

FIGURE 3-11: Sheet 10 of 16
Alternatives 4 & 5



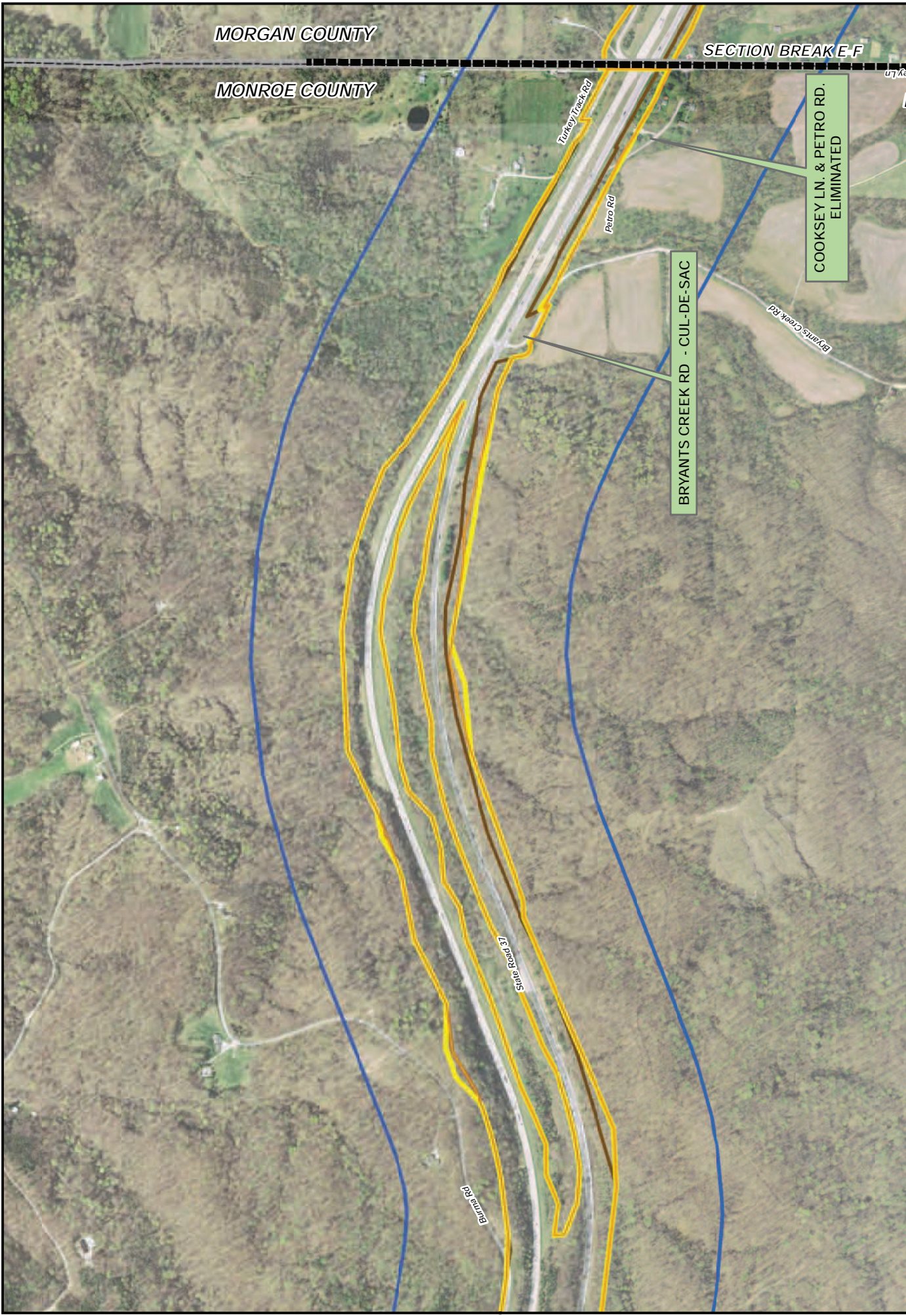
CHAMBERS PIKE - OVERPASS

Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1,200 1,600 Feet

FIGURE 3-11: Sheet 11 of 16
Alternatives 4 & 5



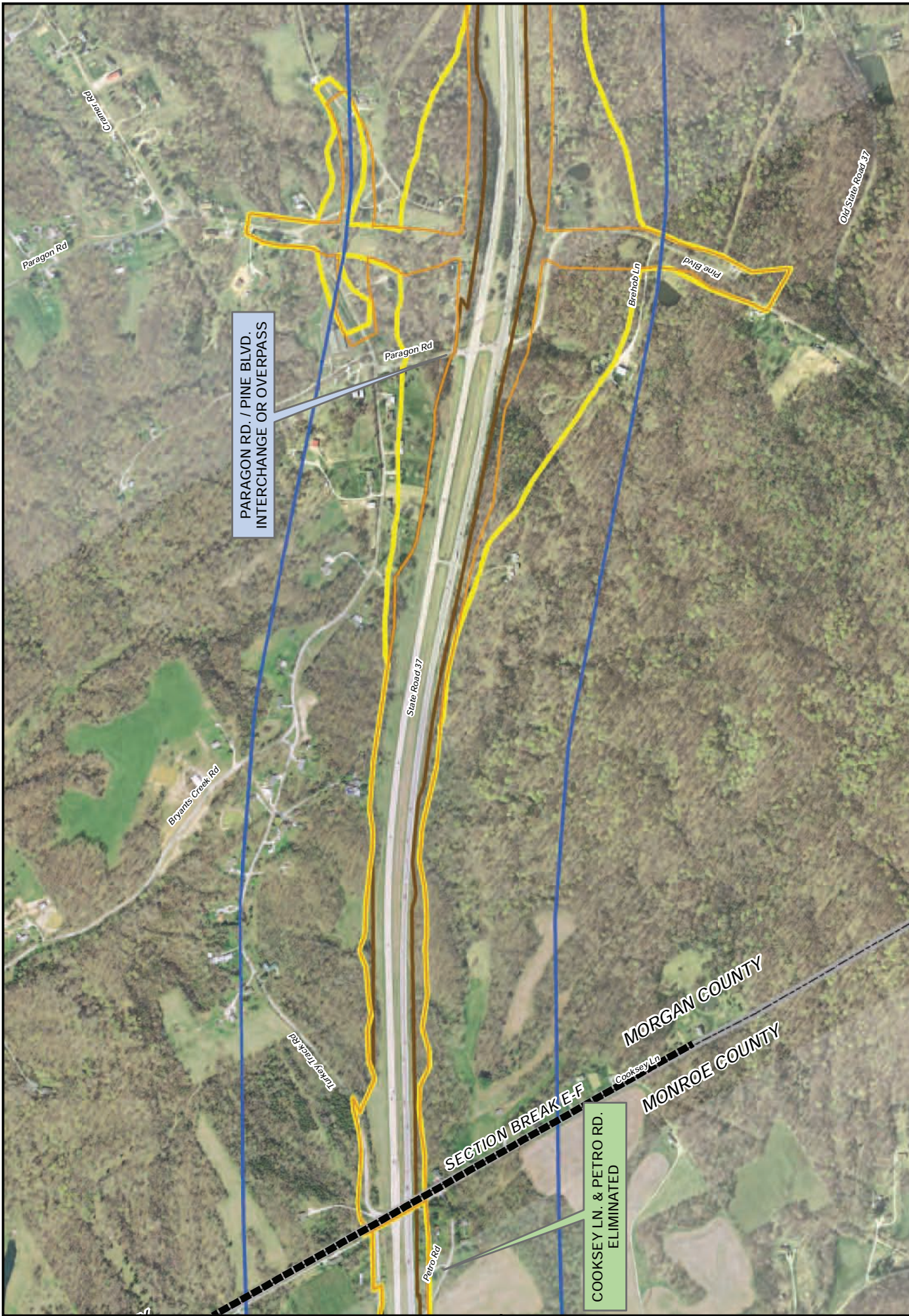
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39


Legend

- Section 5 Approved Corridor
- Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1,200 1,600 Feet

FIGURE 3-11: Sheet 12 of 16
Alternatives 4 & 5









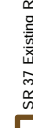


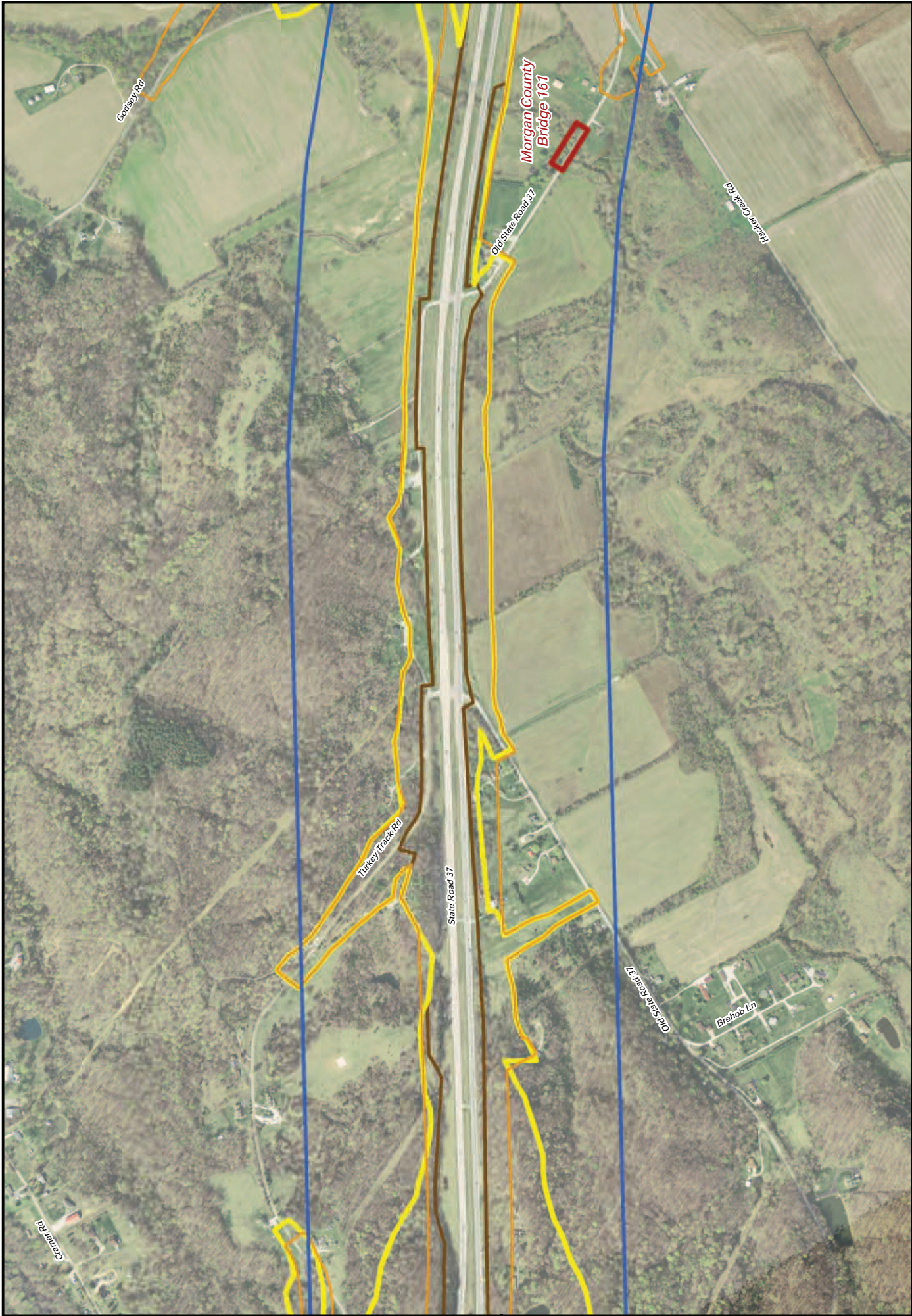


FIGURE 3-11: Sheet 13 of 16
Alternatives 4 & 5

Legend

-  Section 5 Approved Corridor
-  Alternative 4
Alternative 5
-  SR 37 Existing Right of Way
-  Superfund Sites
TIF Districts
-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39



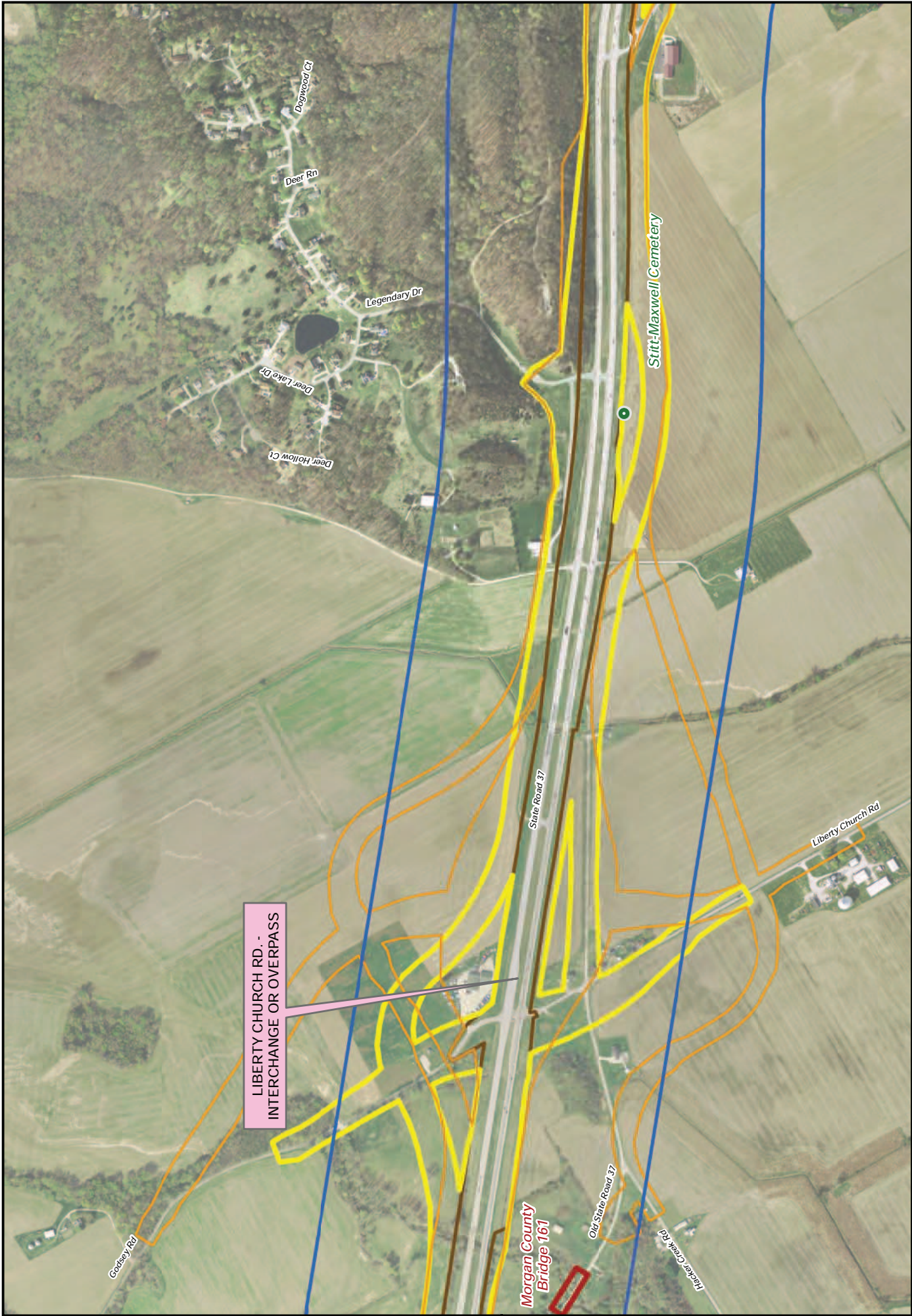
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1,200 1,600 Feet

**FIGURE 3-11: Sheet 14 of 16
Alternatives 4 & 5**



LIBERTY CHURCH RD. -
INTERCHANGE OR OVERPASS

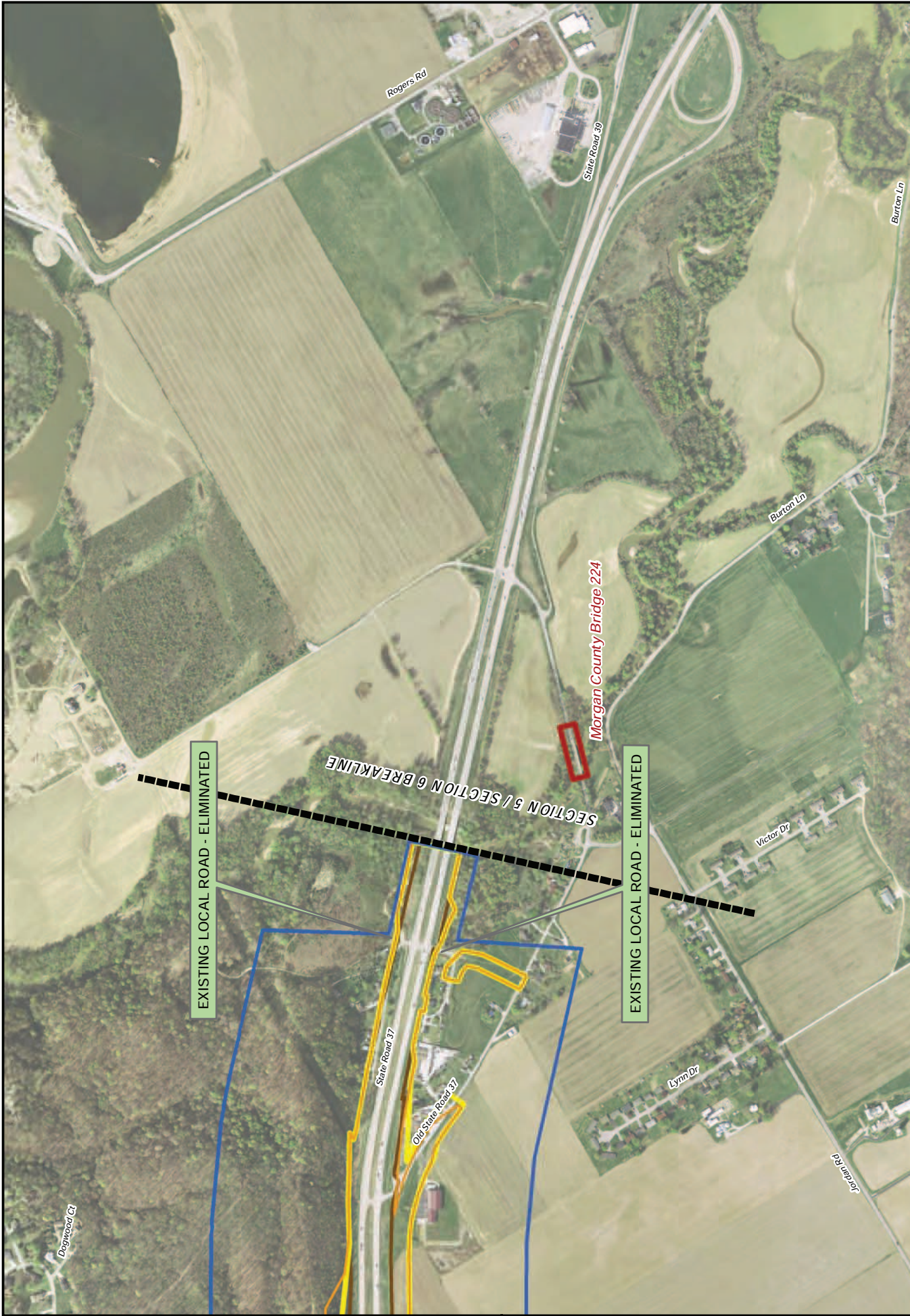


FIGURE 3-11: Sheet 15 of 16
Alternatives 4 & 5

- Legend**
- Section 5 Approved Corridor
 - Alternative 4
 - Alternative 5
 - SR 37 Existing Right of Way
 - Superfund Sites
 - TIF Districts
 - National Register Historic Property/District Listed or Eligible
 - Subsection Breaks

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39





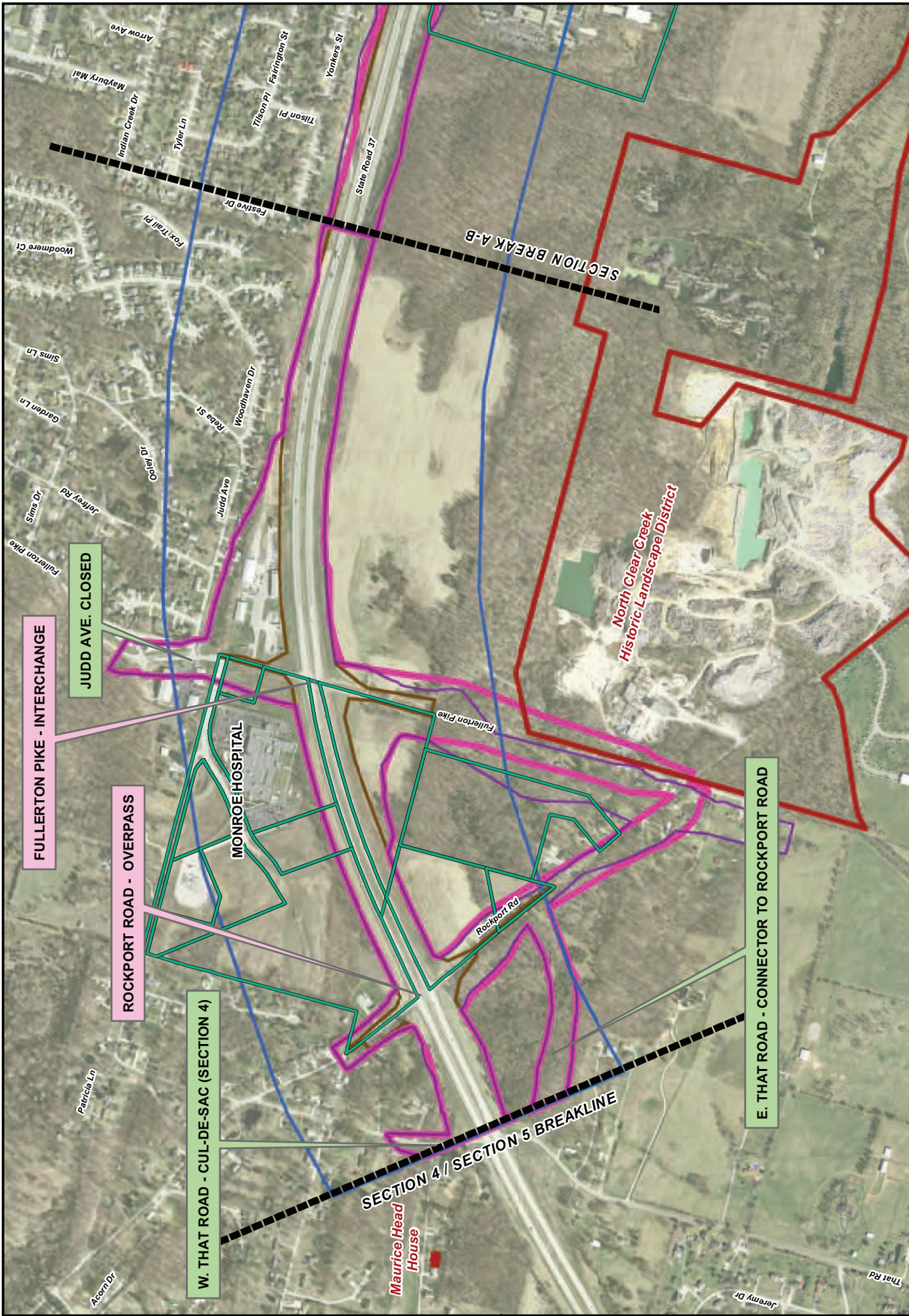
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend

- Section 5 Approved Corridor Alternative 4
- Alternative 5
- SR 37 Existing Right of Way
- Superfund Sites
- TIF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

Feet

FIGURE 3-11: Sheet 16 of 16
Alternatives 4 & 5



FULLERTON PIKE - INTERCHANGE

JUDD AVE. CLOSED

ROCKPORT ROAD - OVERPASS

W. THAT ROAD - CUL-DE-SAC (SECTION 4)

E. THAT ROAD - CONNECTOR TO ROCKPORT ROAD

MONROE HOSPITAL

SECTION 4 / SECTION 5 BREAKLINE

SECTION BREAK A-B

*North Clear Creek
Historic Landscape District*

*Maurice Head
House*

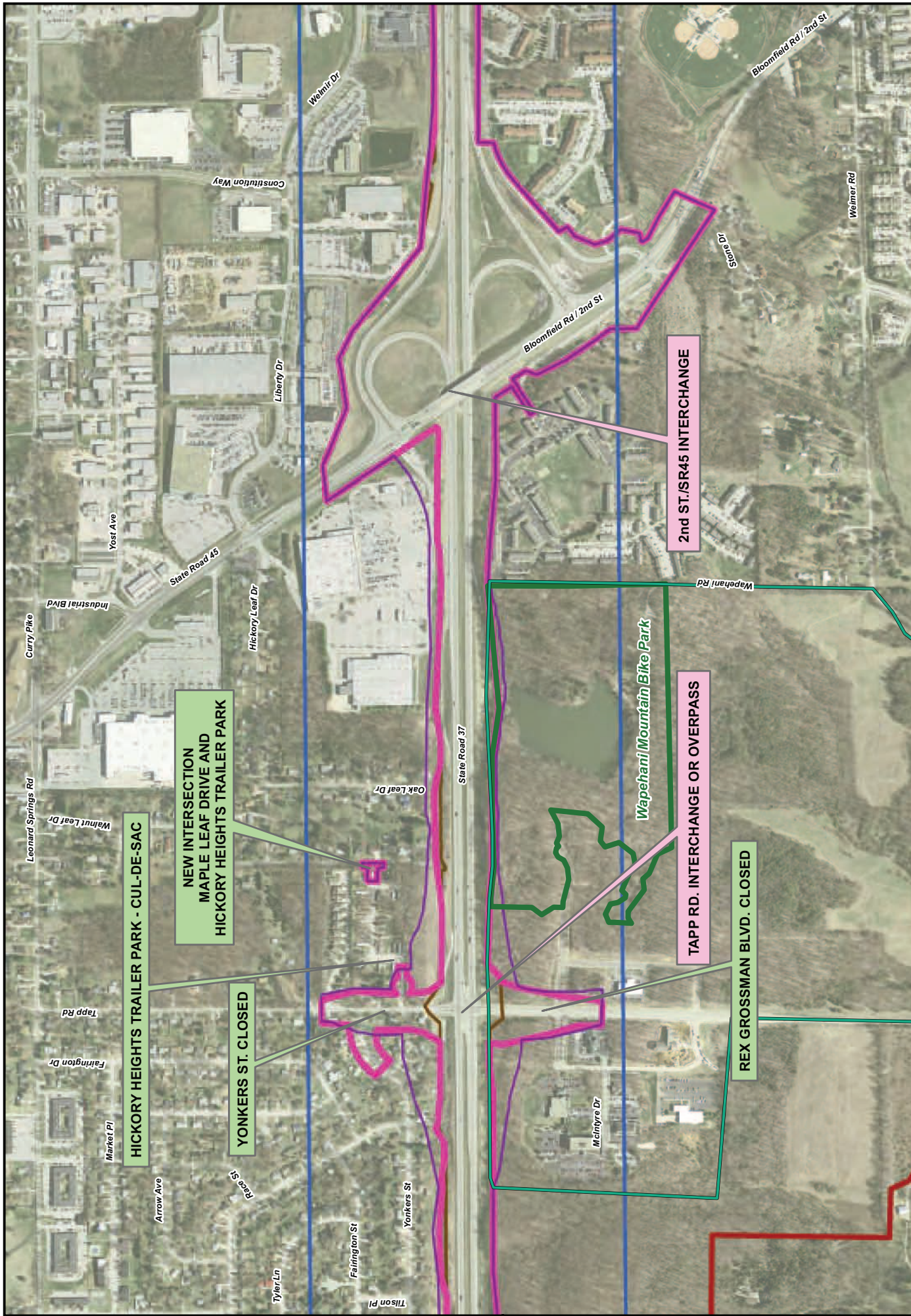
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Superfund Sites
- T F Districts
- Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 1 of 16
A ternet ves 6 & 7



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

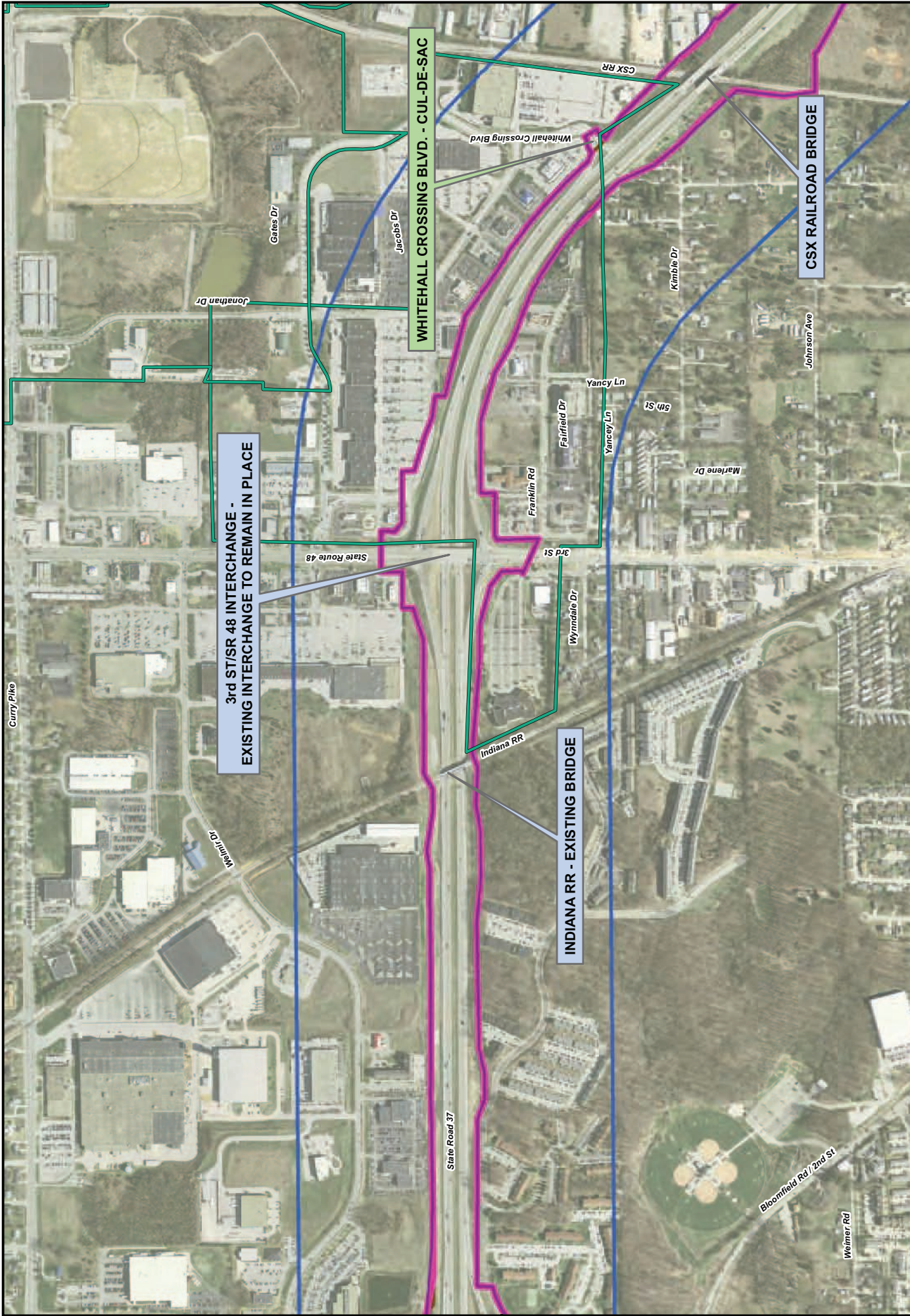
	Section 5 Approved Corridor		SR 37 Existing Right of Way
	Alternative 6		Superfund Sites
	Alternative 7		T F Districts

National Register
Historic Property/District
Listed or Eligible

Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 2 of 16
A terna tves 6 & 7



**3rd ST/SR 48 INTERCHANGE -
EXISTING INTERCHANGE TO REMAIN IN PLACE**

WHITEHALL CROSSING BLVD. - CUL-DE-SAC

INDIANA RR - EXISTING BRIDGE

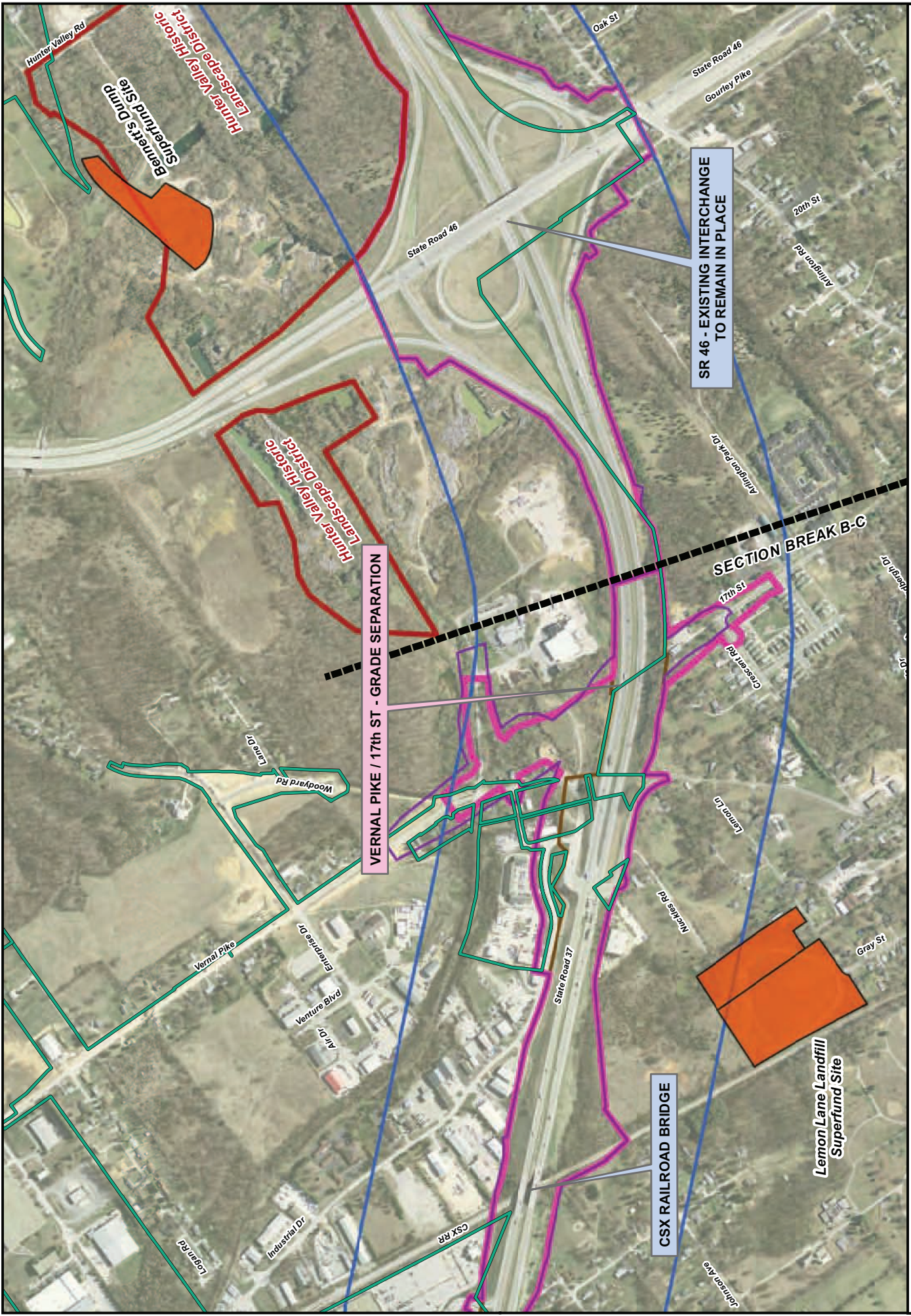
CSX RAILROAD BRIDGE

**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

- Legend**
- Section 5 Approved Corridor
 - Alternative 6
 - Alternative 7
 - SR 37 Existing Right of Way
 - Superfund Sites
 - T F Districts
 - National Register Historic Property/District Listed or Eligible
 - Subsection Breaks



F GURE 3-12: Sheet 3 of 16
A ternat ves 6 & 7



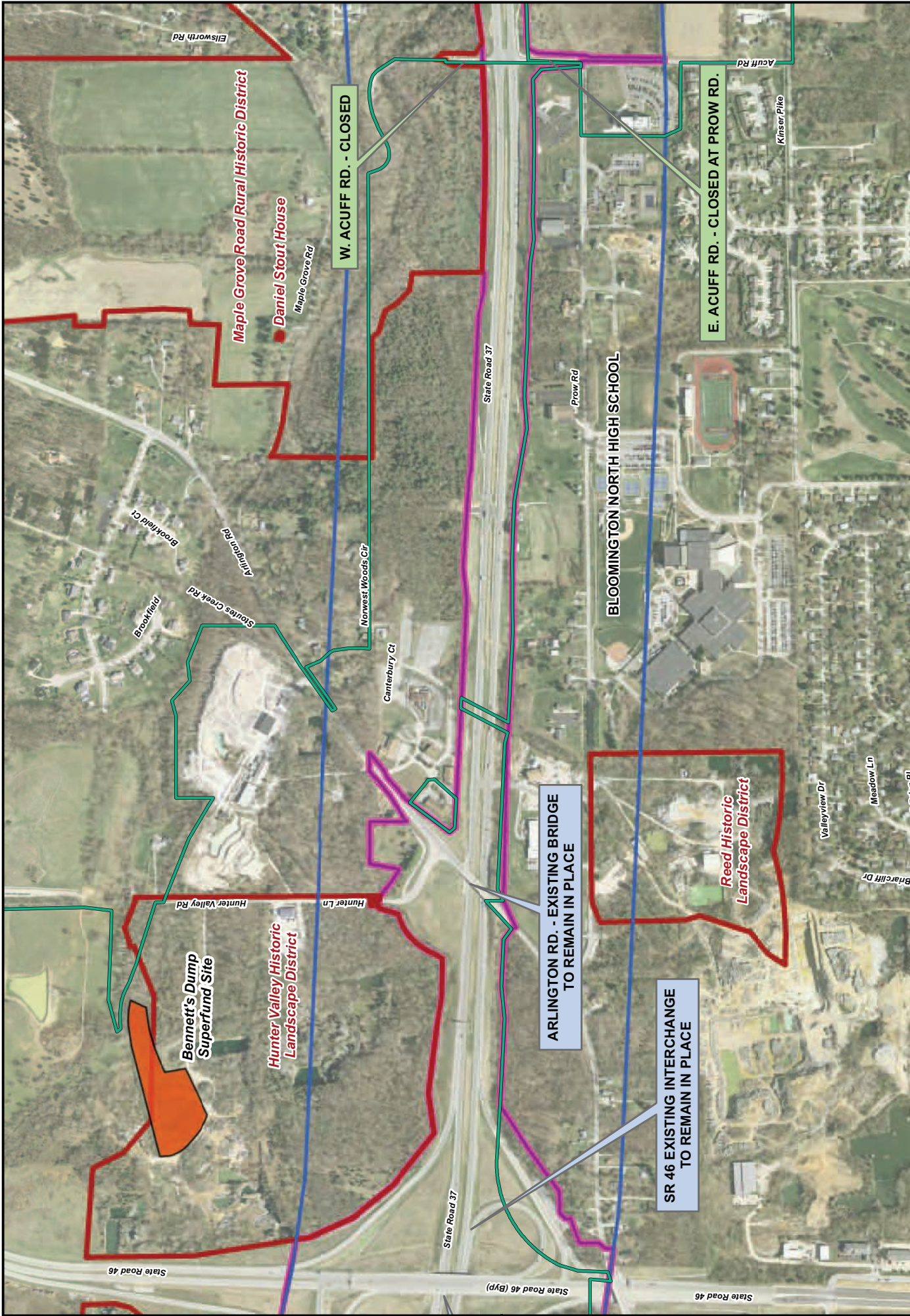
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Superfund Sites
- Subsection Breaks
- Alternative 6
- Alternative 7
- T F Districts

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 4 of 16
A ternat ves 6 & 7



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

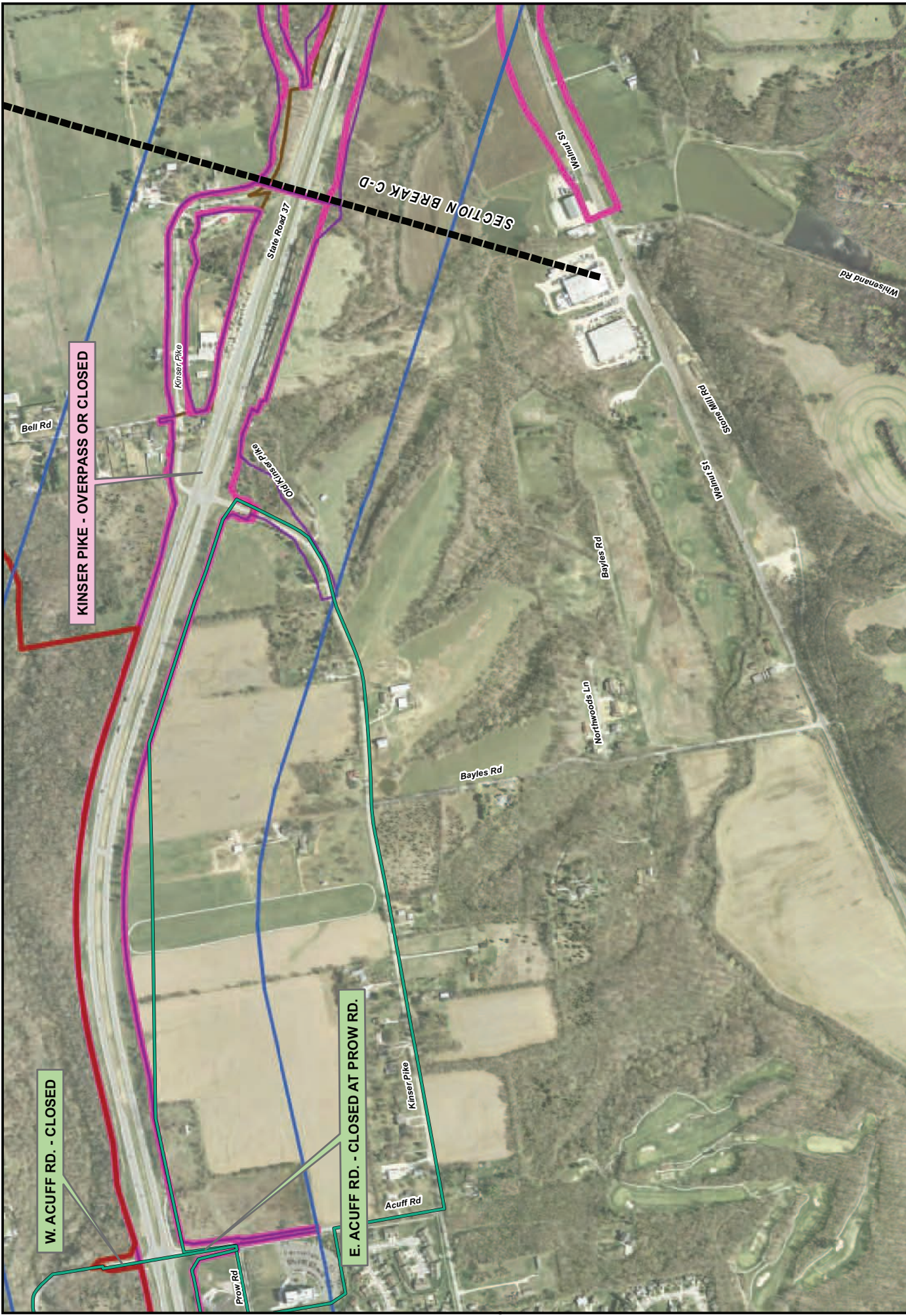
Legend

- Section 5 Approved Corridor
- National Register Historic Property/District Listed or Eligible
- SR 37 Existing Right of Way
- Superfund Sites
- Alternative 6
- Alternative 7
- Subsection Breaks
- T F Districts

z

0 400 800 1200 1600 Feet

F GURE 3-12: Sheet 5 of 16
A terna tives 6 & 7



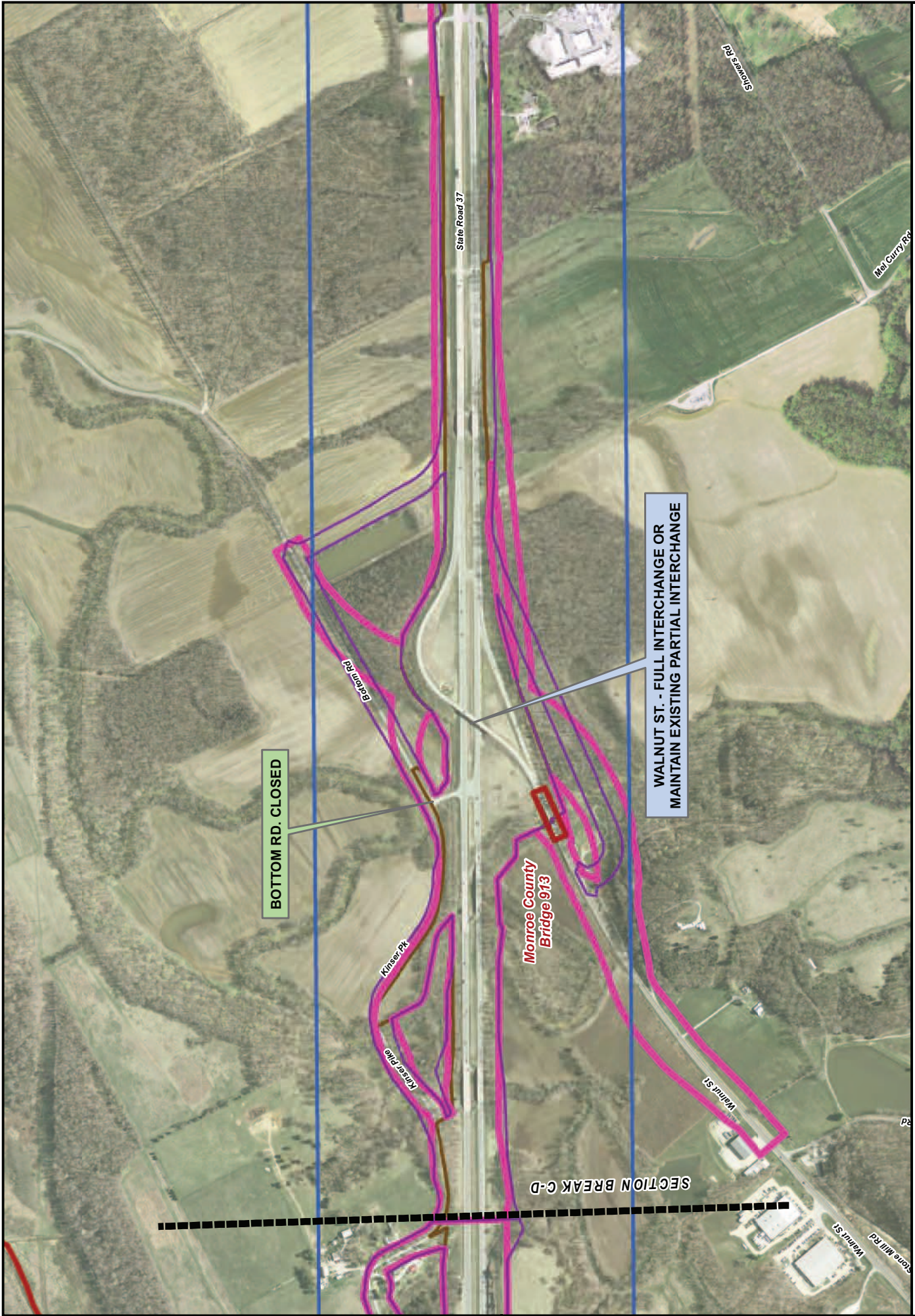
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- Superfund Sites
- TF Districts
- Subsection Breaks
- National Register Historic Property/District Listed or Eligible

**F GURE 3-12: Sheet 6 of 16
A ternat ves 6 & 7**

0 400 800 1 200 1 600 Feet



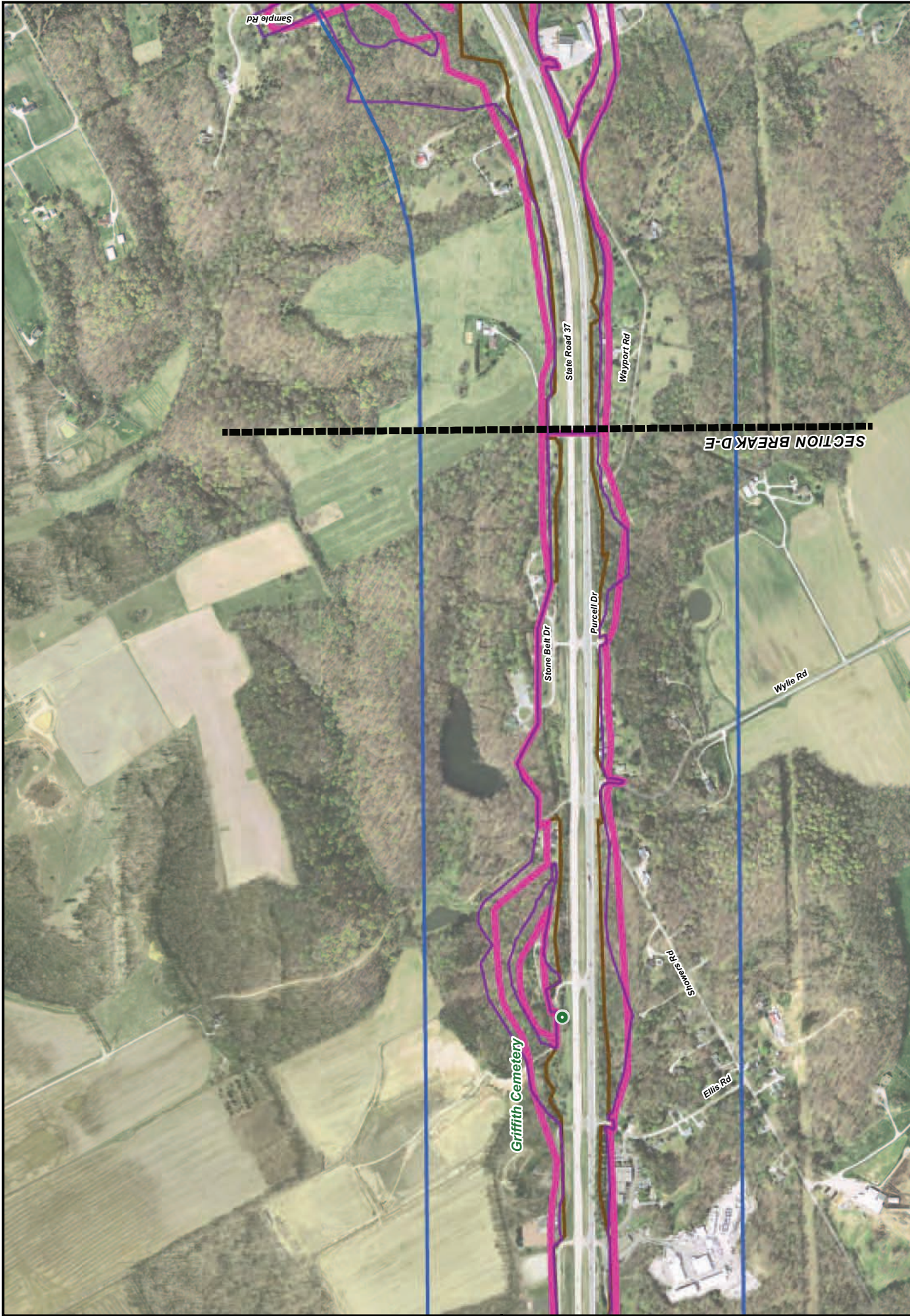
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- Alternative 6
- Alternative 7
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

**F GURE 3-12: Sheet 7 of 16
A ternatives 6 & 7**

0 400 800 1 200 1 600 Feet



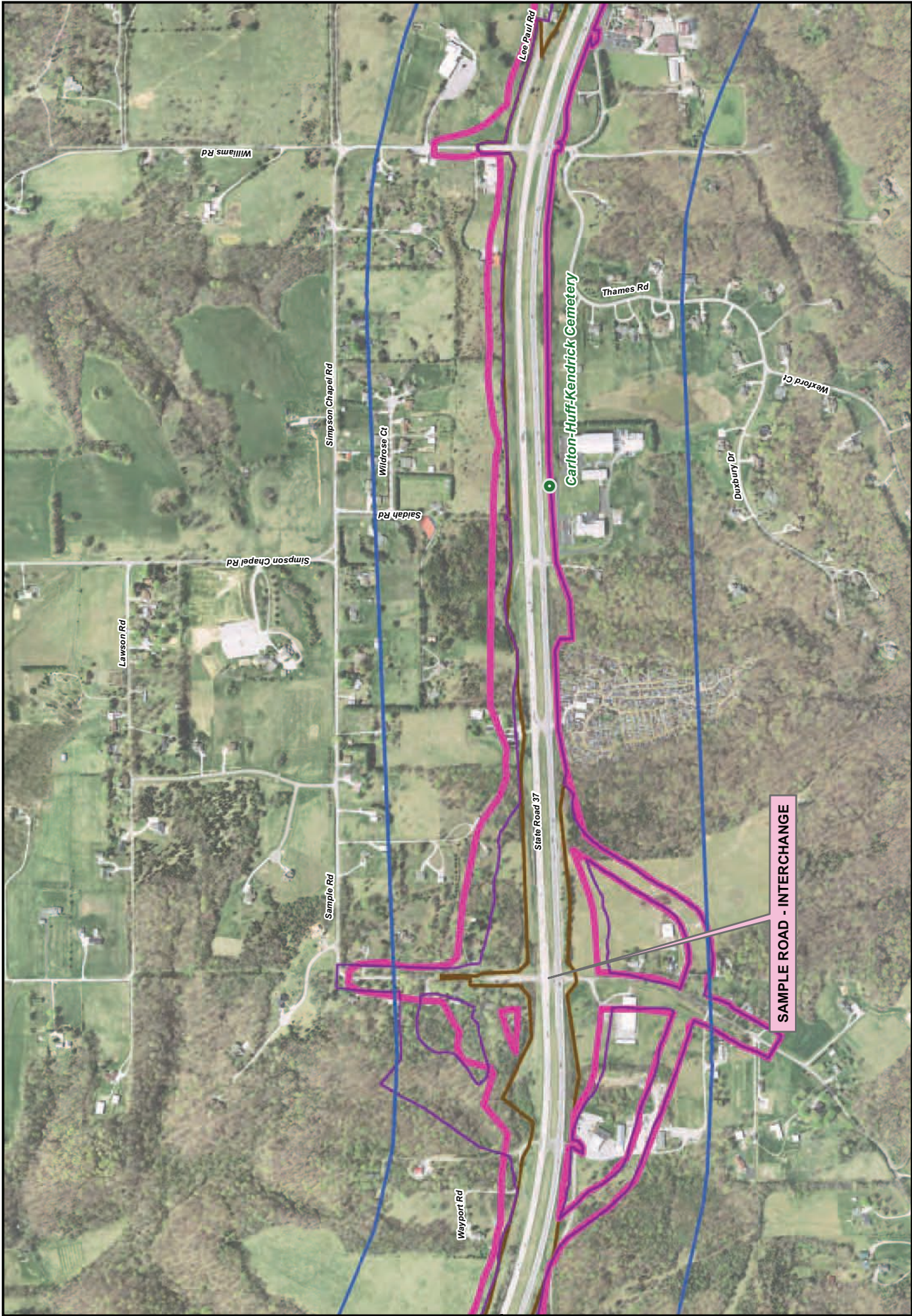
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- Alternative 6
- Alternative 7
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 8 of 16
A ternat ves 6 & 7



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

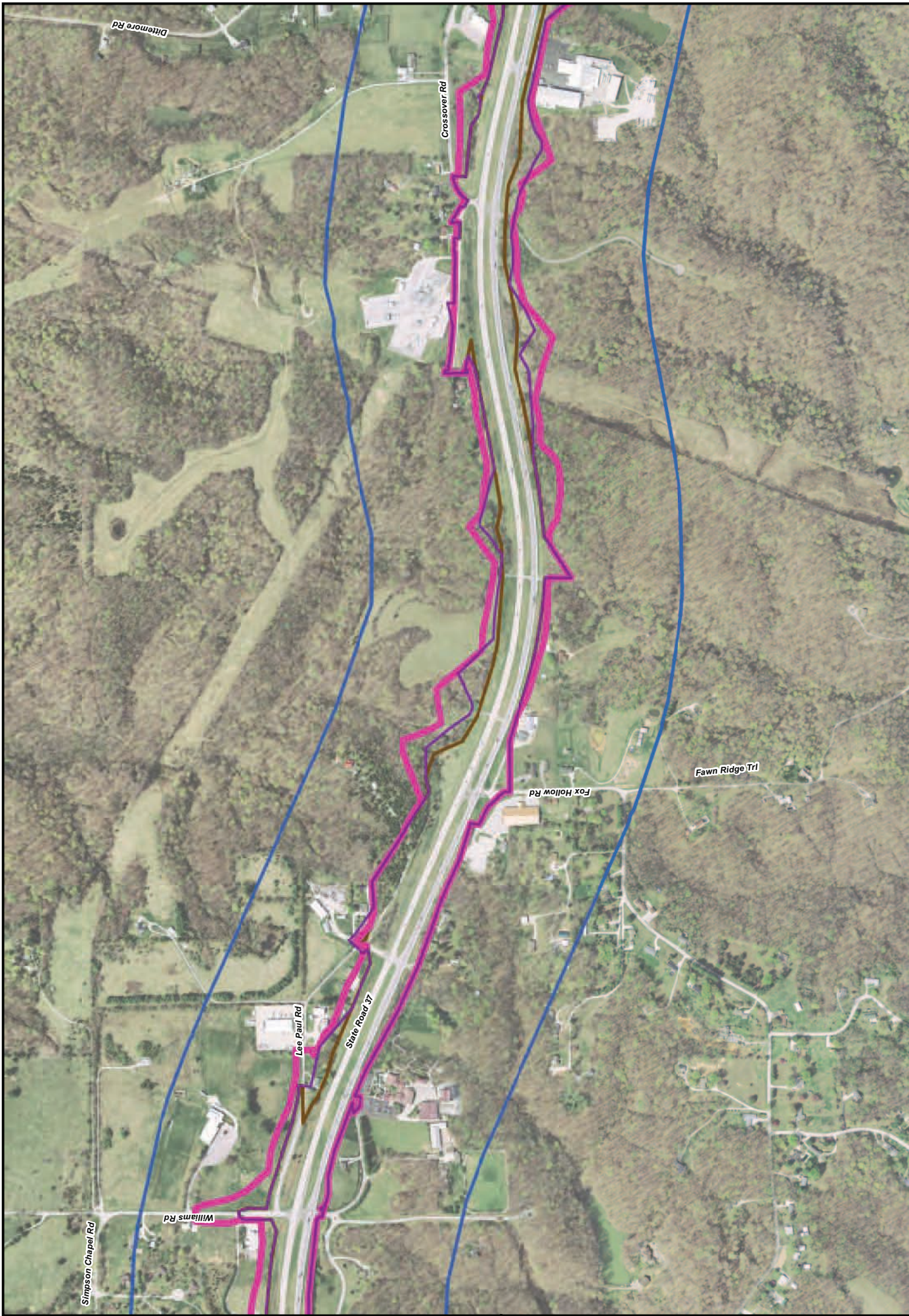
Legend

- ▭ Section 5 Approved Corridor Alternative 6
- ▭ Alternative 7
- ▭ SR 37 Existing Right of Way
- ▭ Superfund Sites
- ▭ T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks



F GURE 3-12: Sheet 9 of 16
A terna tives 6 & 7





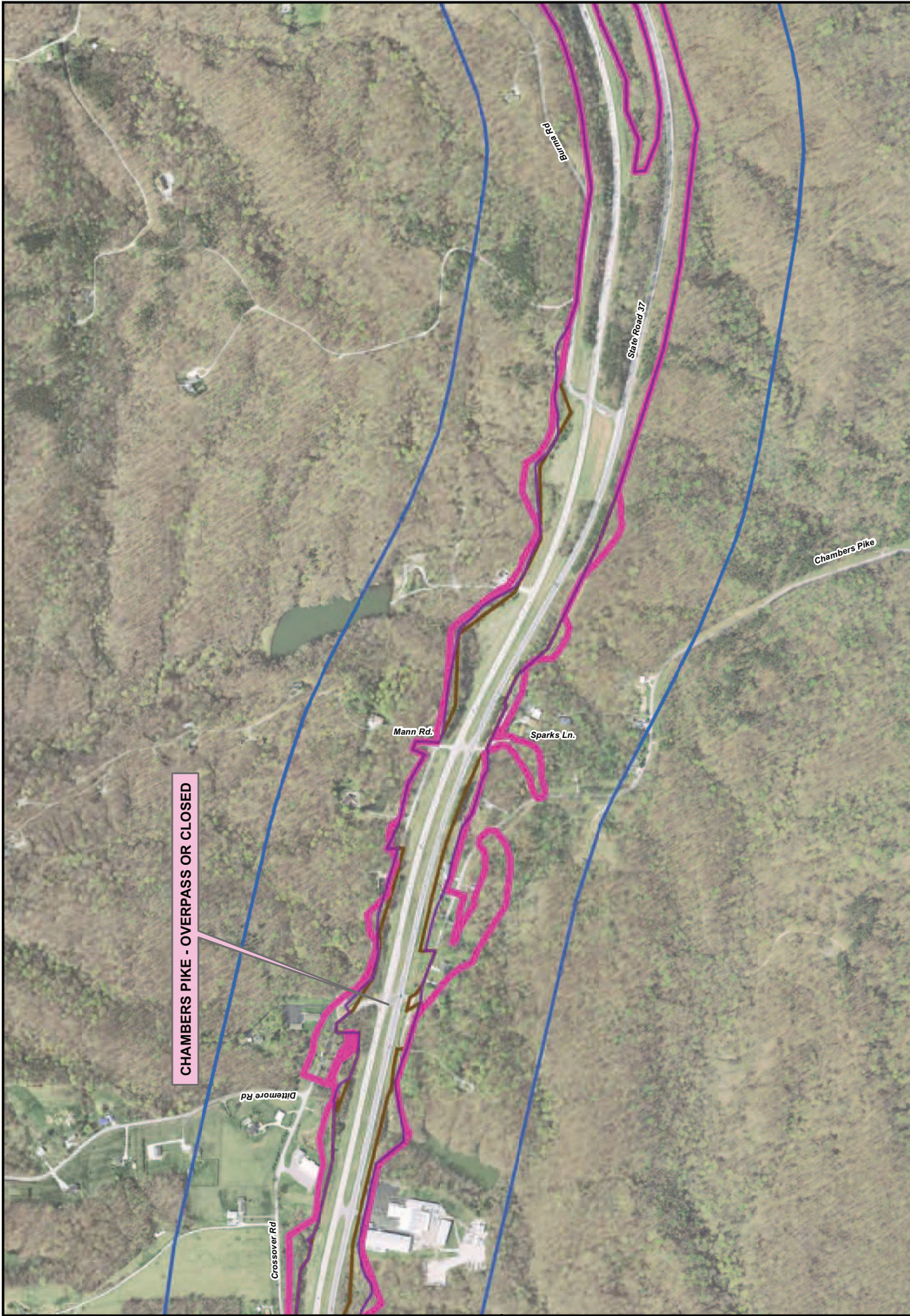
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend



- Section 5 Approved Corridor
- Alternative 6
- Alternative 7
- SR 37 Existing Right of Way
- Superfund Sites
- TF Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 10 of 16
A ternat ves 6 & 7



CHAMBERS PIKE - OVERPASS OR CLOSED

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

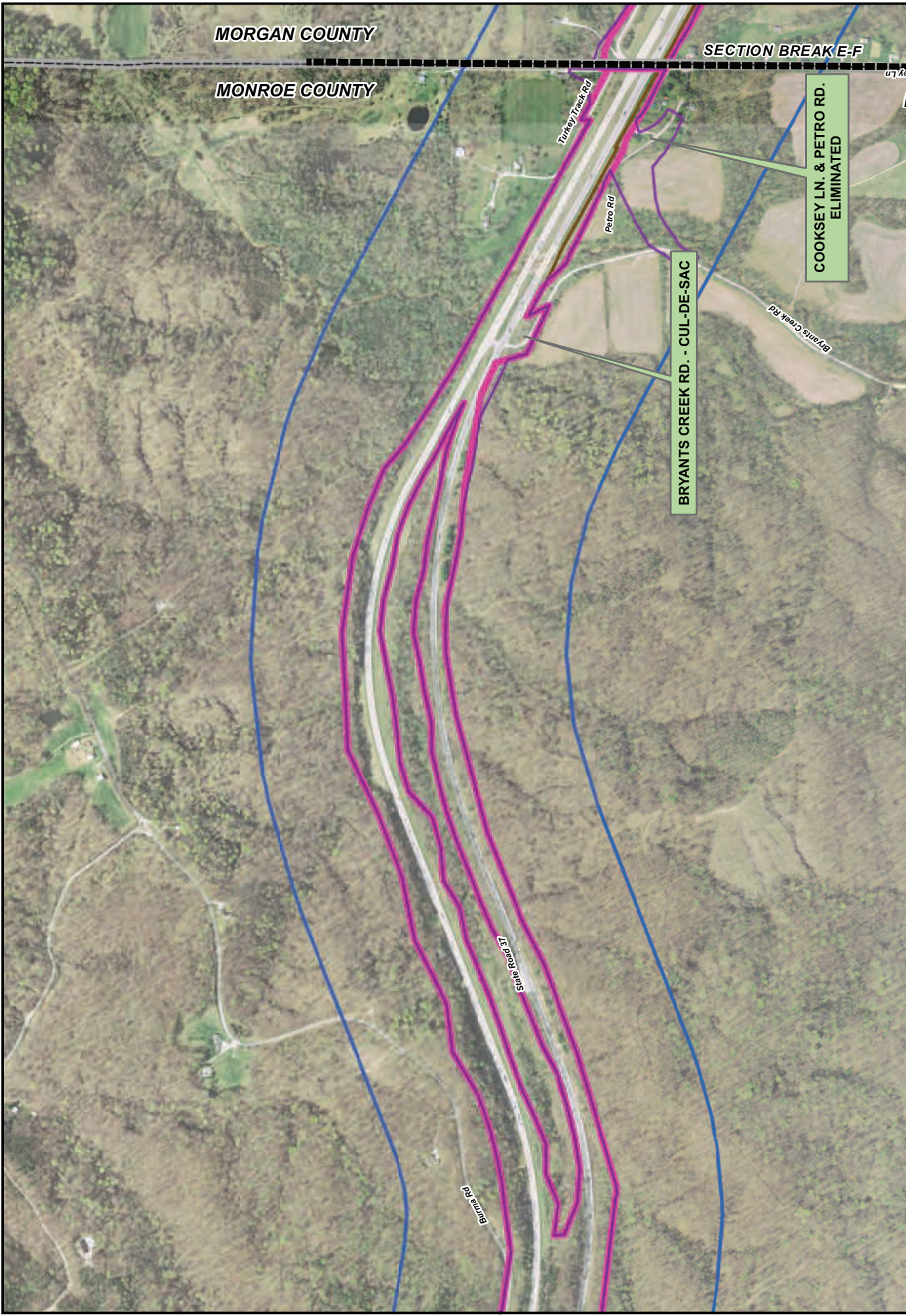
North Arrow

Scale: 0, 400, 800, 1200, 1600 Feet

F GURE 3-12: Sheet 11 of 16
 Alternatives 6 & 7









Legend

- Section 5 Approved Corridor
- Alternative 6
- Alternative 7
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- Subsection Breaks
- National Register Historic Property/District Listed or Eligible



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

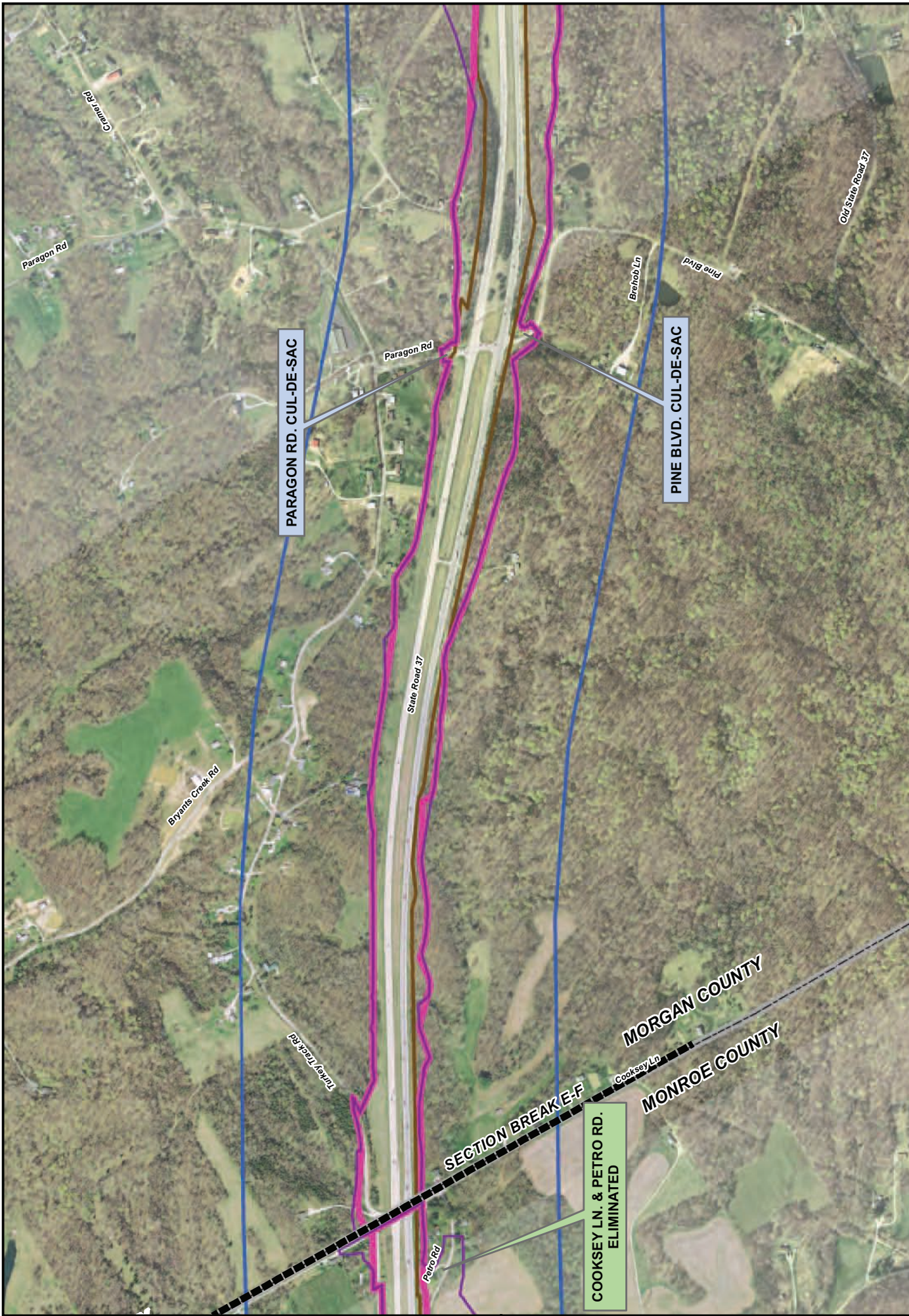
Legend



-  Section 5 Approved Corridor
-  Alternative 6
-  Alternative 7
-  SR 37 Existing Right of Way
-  Superfund Sites
-  T F Districts
-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks



F GURE 3-12: Sheet 12 of 16
A ternat ves 6 & 7





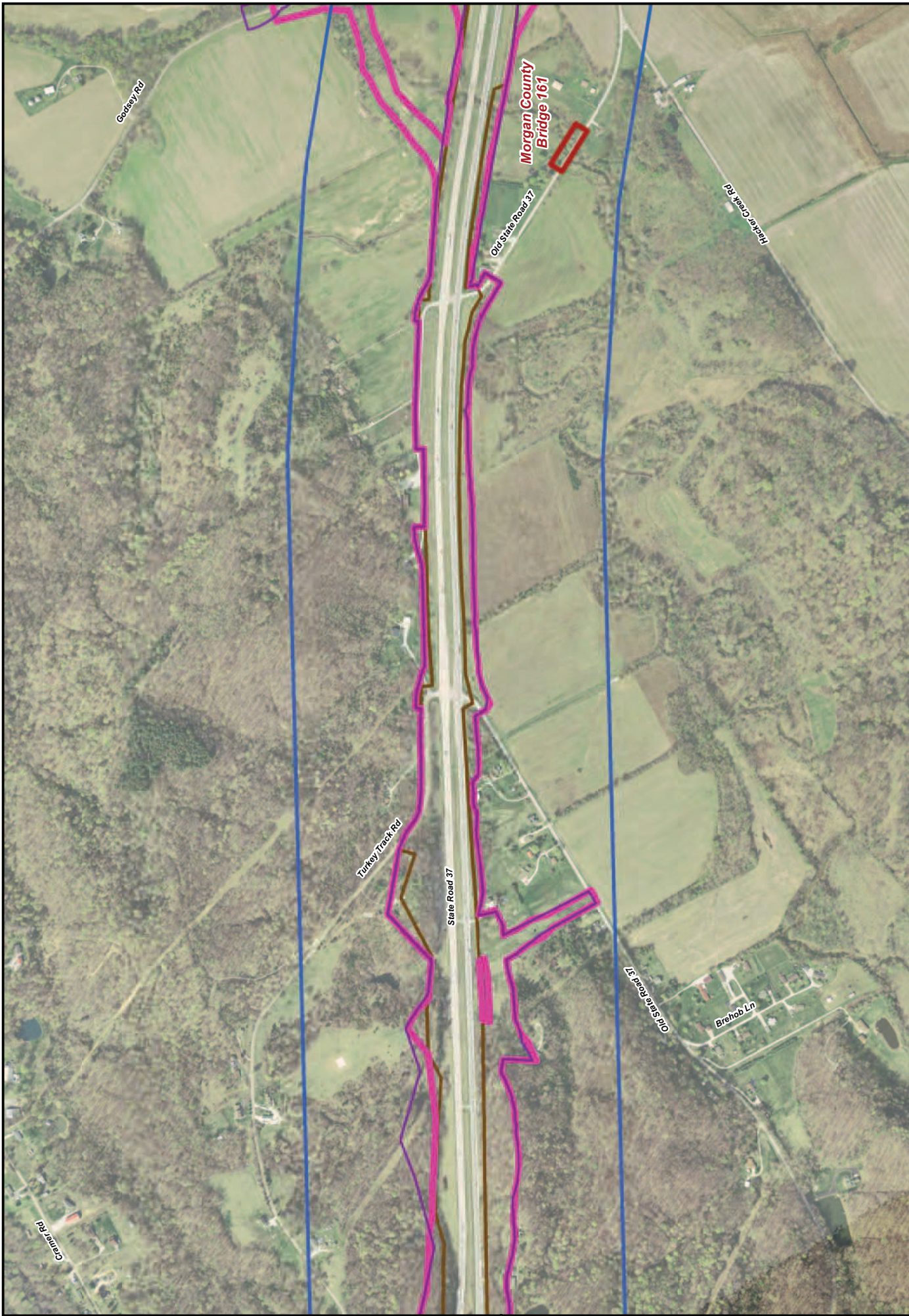
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend









- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks
- Alternative 6
- Alternative 7
- Superfund Sites
- T F Districts

0 400 800 1 200 1 600 Feet

F GURE 3-12: Sheet 13 of 16
 A ternat ves 6 & 7

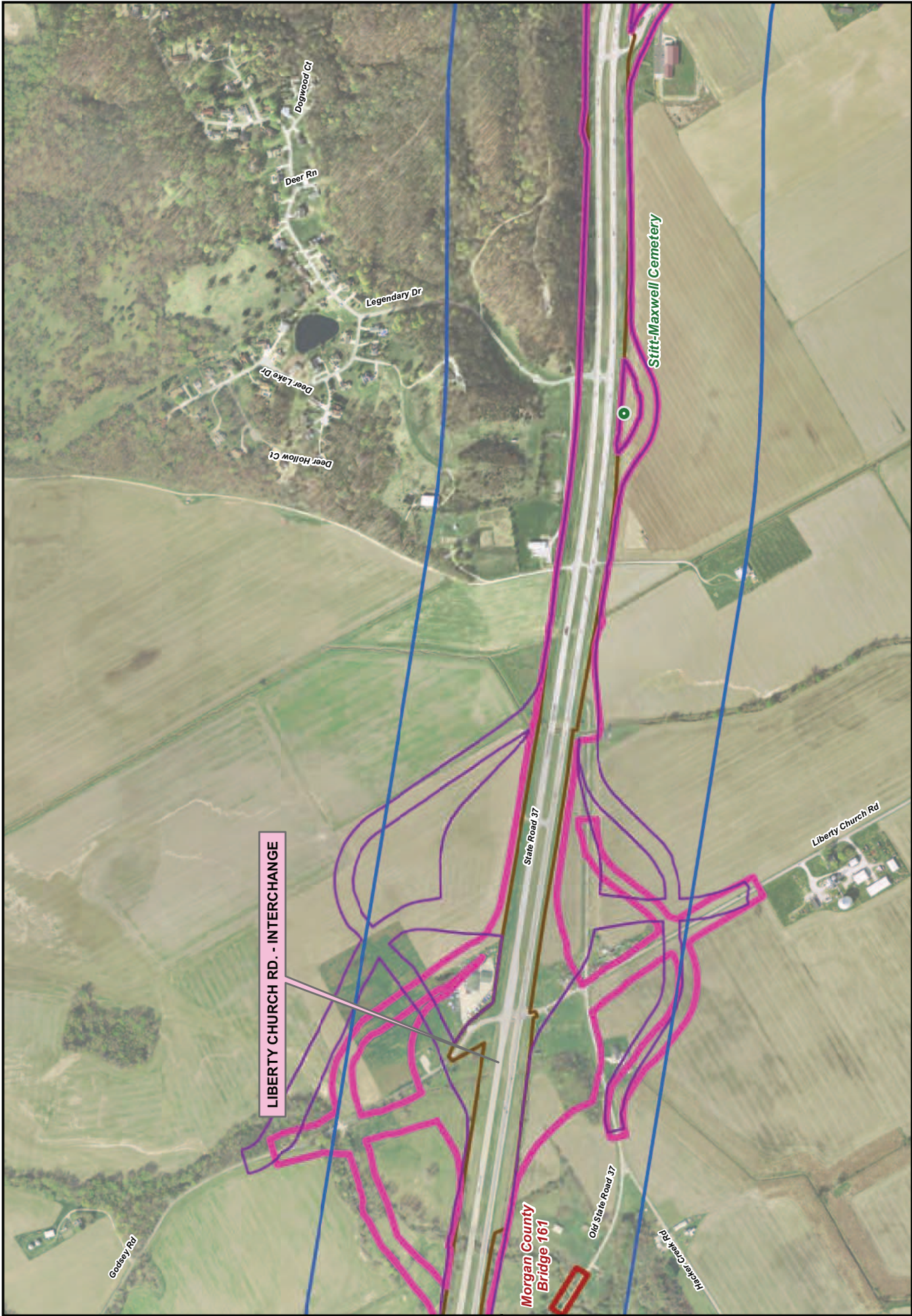


F GURE 3-12: Sheet 14 of 16
A terna tves 6 & 7


- Legend**
-  Section 5 Approved Corridor
 -  Alternative 6
 -  Alternative 7
 -  SR 37 Existing Right of Way
 -  Superfund Sites
 -  T F Districts
 -  National Register Historic Property/District Listed or Eligible
 -  Subsection Breaks

**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**





LIBERTY CHURCH RD. - INTERCHANGE



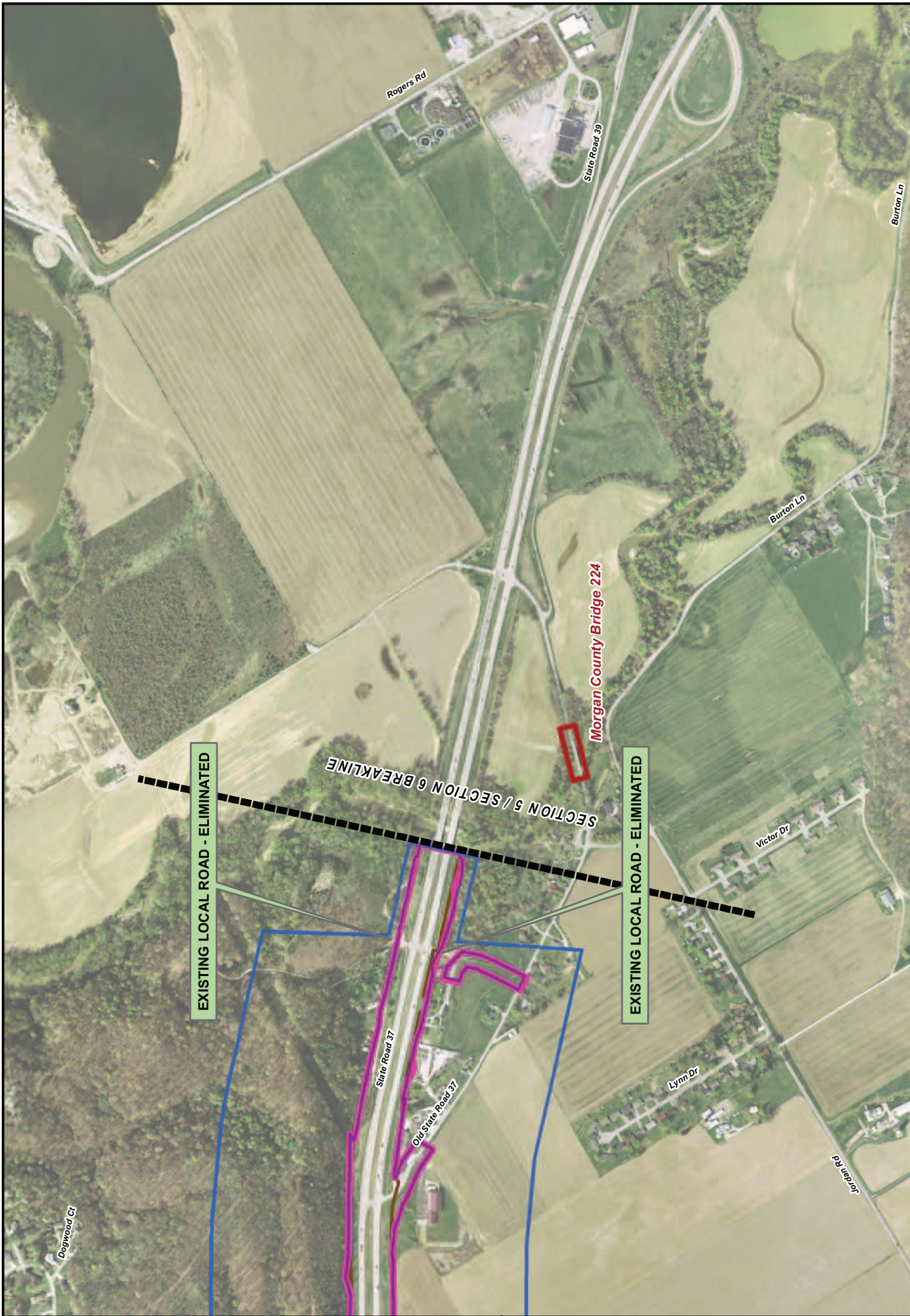
0 400 800 1 200 1 600 Feet


F GURE 3-12: Sheet 15 of 16
A ternat ves 6 & 7


Legend

- Section 5 Approved Corridor
- Alternative 6
- Alternative 7
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**














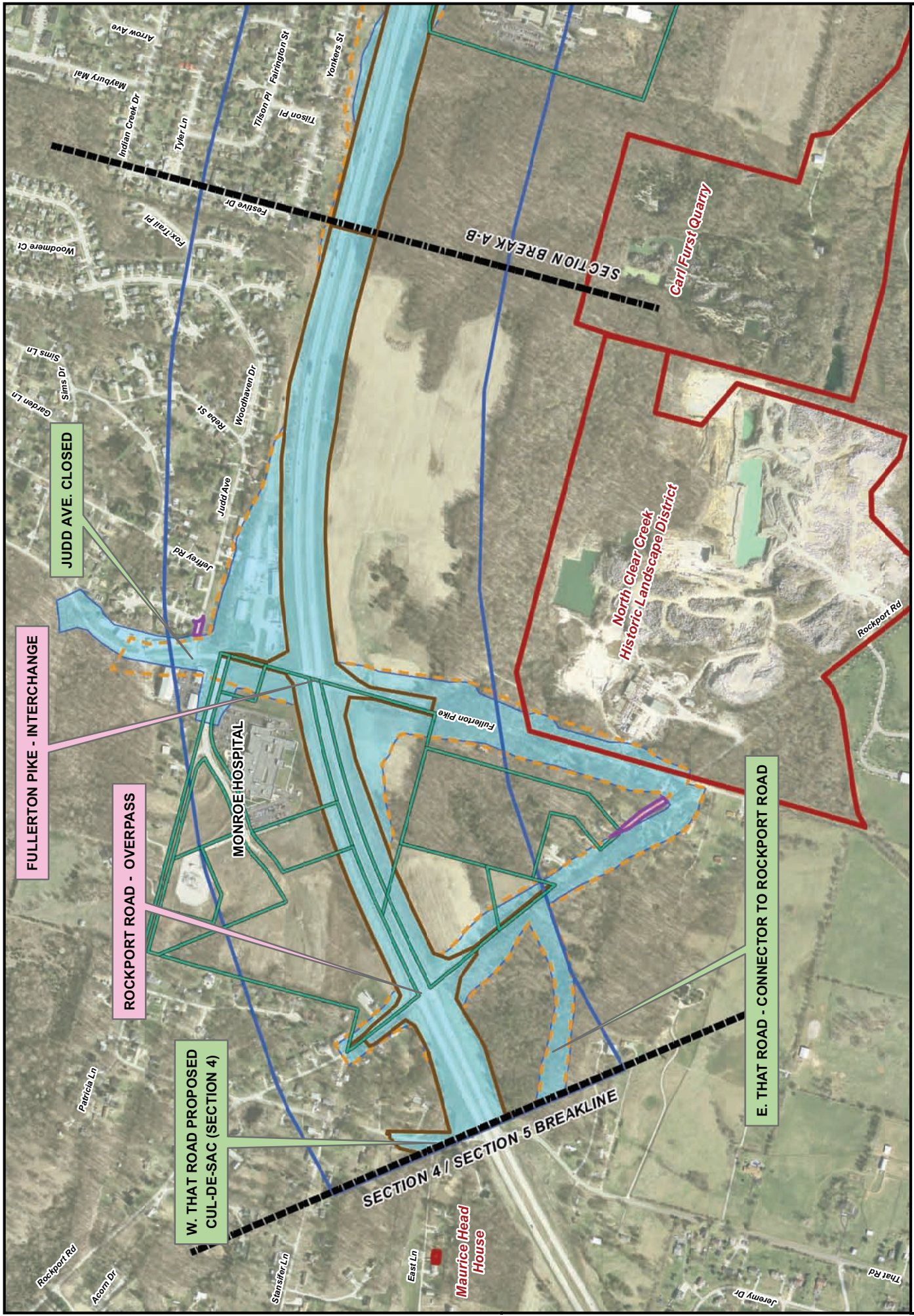
Feet

F GURE 3-12: Sheet 16 of 16
A ternat ves 6 & 7

Legend

-  Section 5 Approved Corridor
-  Alternative 6
-  Alternative 7
-  SR 37 Existing Right of Way
-  Superfund Sites
-  T F Districts
-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

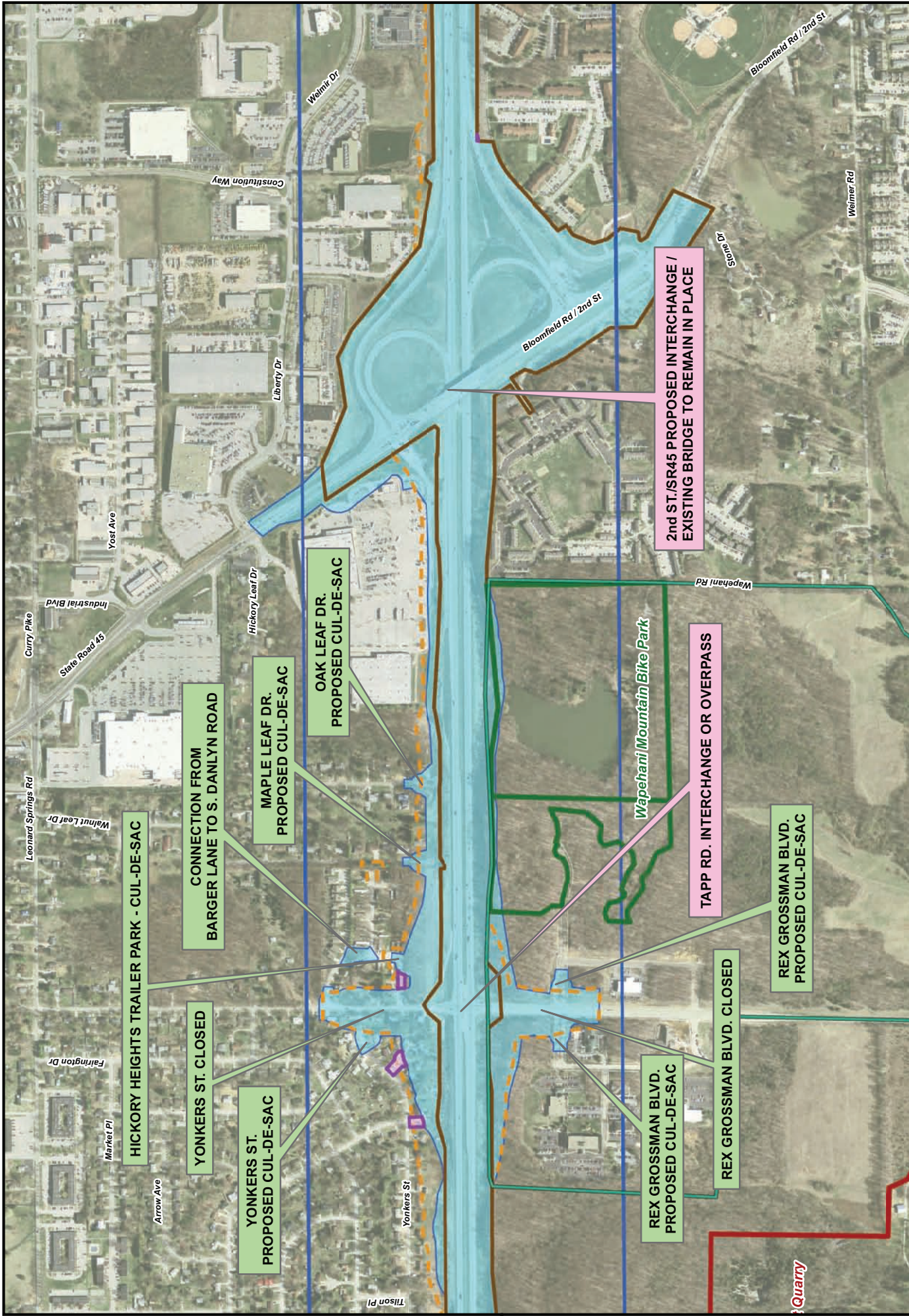
Feet

0 400 800 1 200 1 600

Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
- Historic Property/District Listed or Eligible

FIGURE 3-13: Sheet 1 of 16
 DEIS Preferred Alternative 8 and
 Refined Preferred Alternative 8



I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39

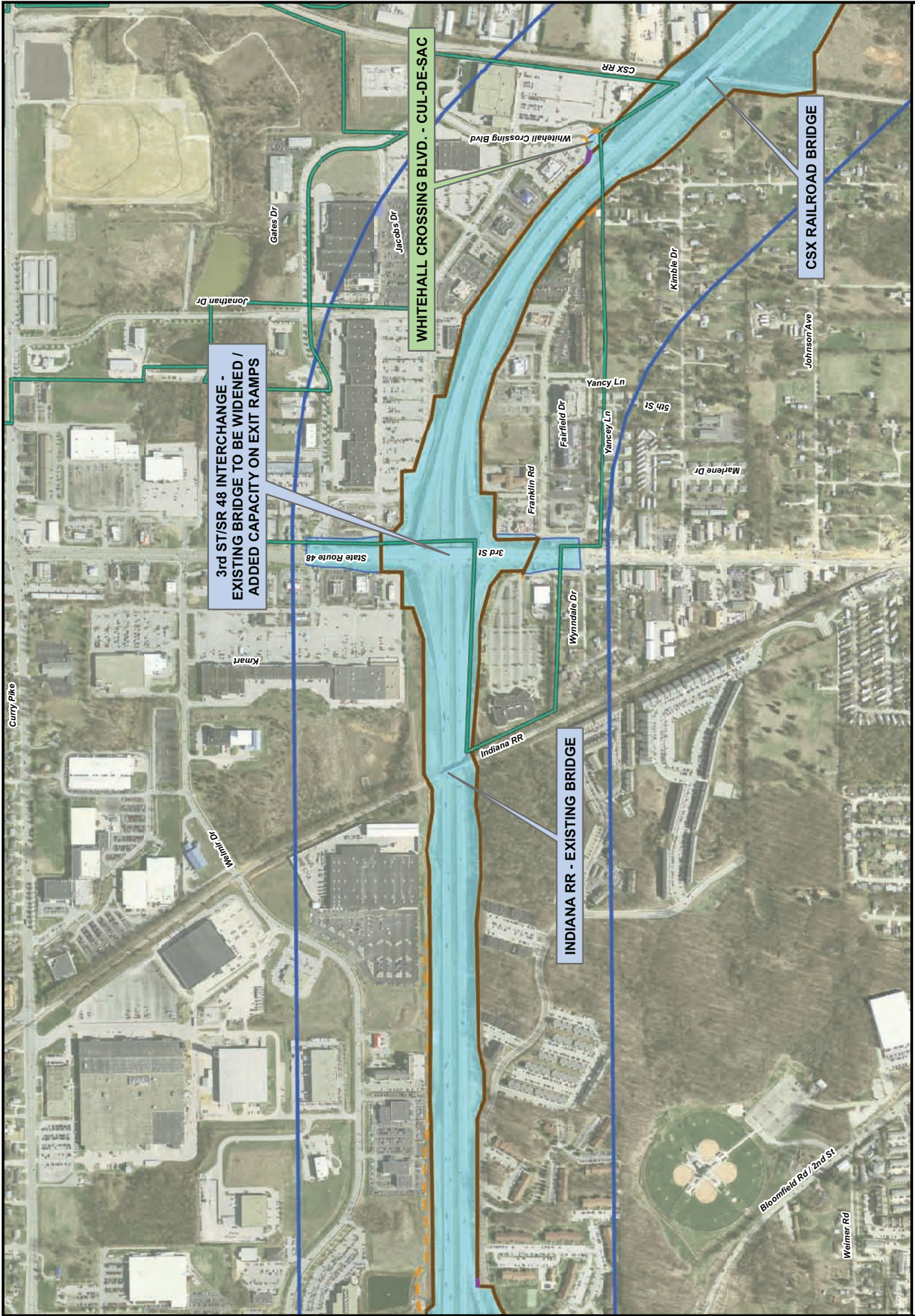
Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
- Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

North Arrow

F GURE 3-13: Sheet 2 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8



**3rd St/SR 48 INTERCHANGE -
EXISTING BRIDGE TO BE WIDENED /
ADDED CAPACITY ON EXIT RAMPs**

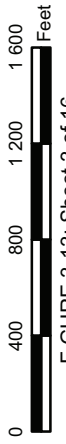
WHITEHALL CROSSING BLVD. - CUL-DE-SAC

INDIANA RR - EXISTING BRIDGE

CSX RAILROAD BRIDGE

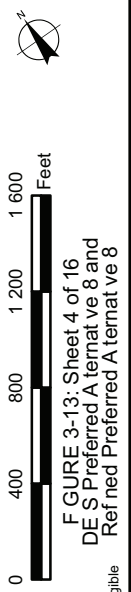
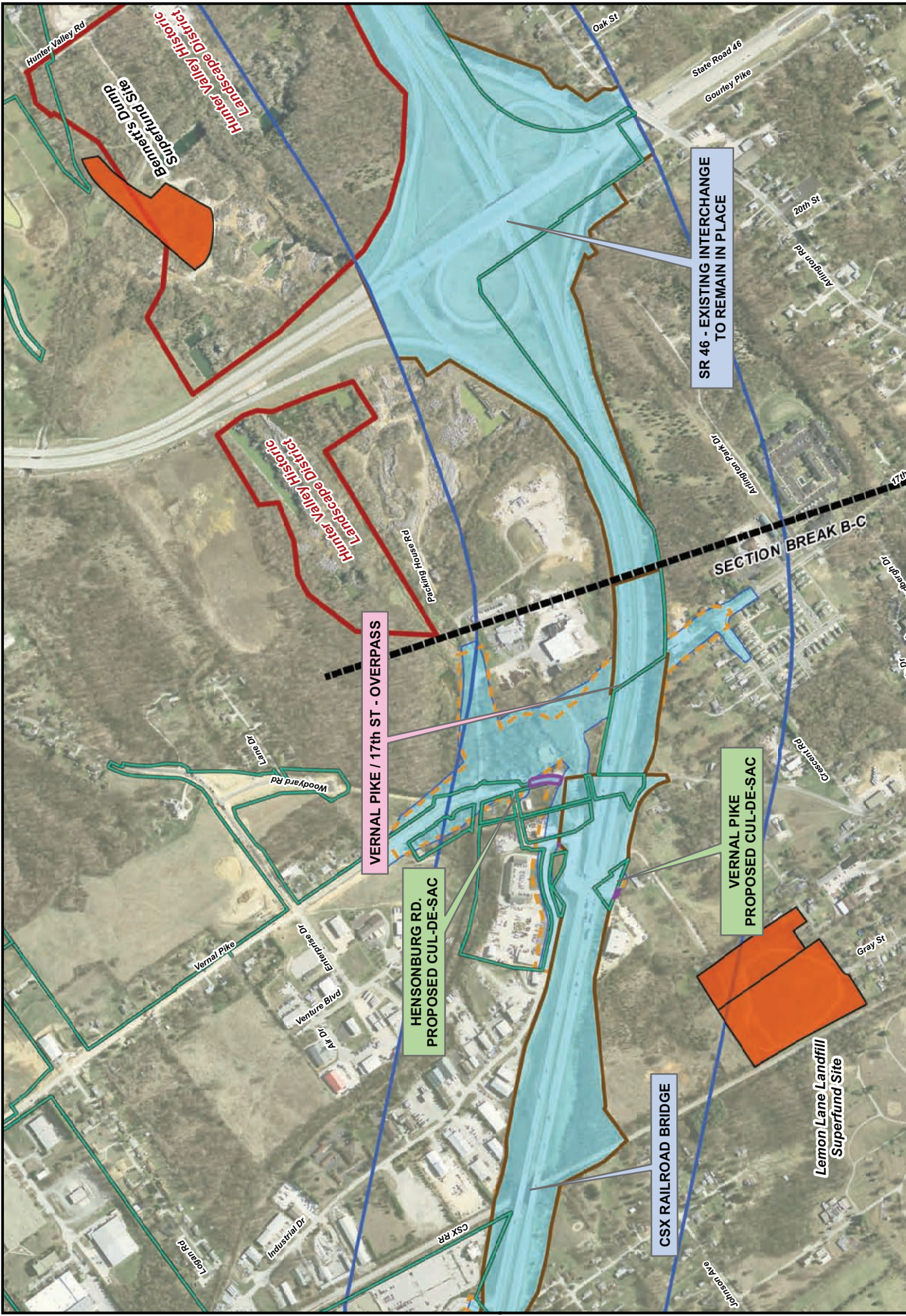
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

- Legend**
- Section 5 Approved Corridor
 - DEIS Preferred Alternative 8
 - Refined Preferred Alternative 8
 - Temporary Pavement Removal ROW
 - SR 37 Existing Right of Way
 - Subsection Breaks
 - Superfund Sites
 - TIF Districts
 - National Register
 - Historic Property/District Listed or Eligible



F GURE 3-13: Sheet 3 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8



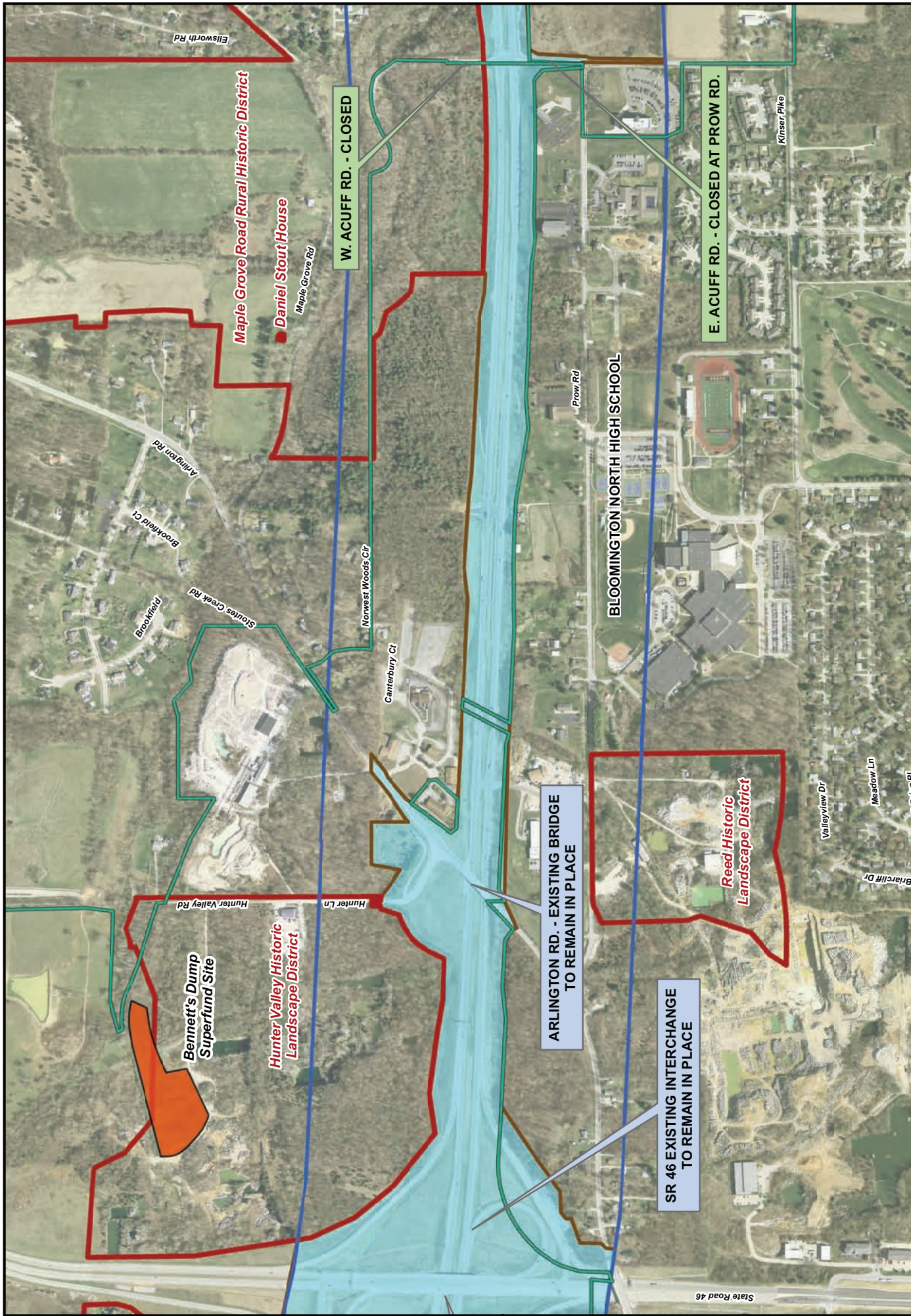


F GURE 3-13: Sheet 4 of 16
 DE S Preferred Alternative 8 and
 Refined Preferred Alternative 8

- Legend**
- Section 5 Approved Corridor
 - Temporary Pavement Removal ROW
 - Superfund Sites
 - DEIS Preferred Alternative 8
 - SR 37 Existing Right of Way
 - TIF Districts
 - National Register
 - Historic Property/District Listed or Eligible
 - Refined Preferred Alternative 8
 - Subsection Breaks

**I-69 Evansville-to-Indianapolis
 Tier 2 Studies
 Section 5 - SR 37 to SR 39**





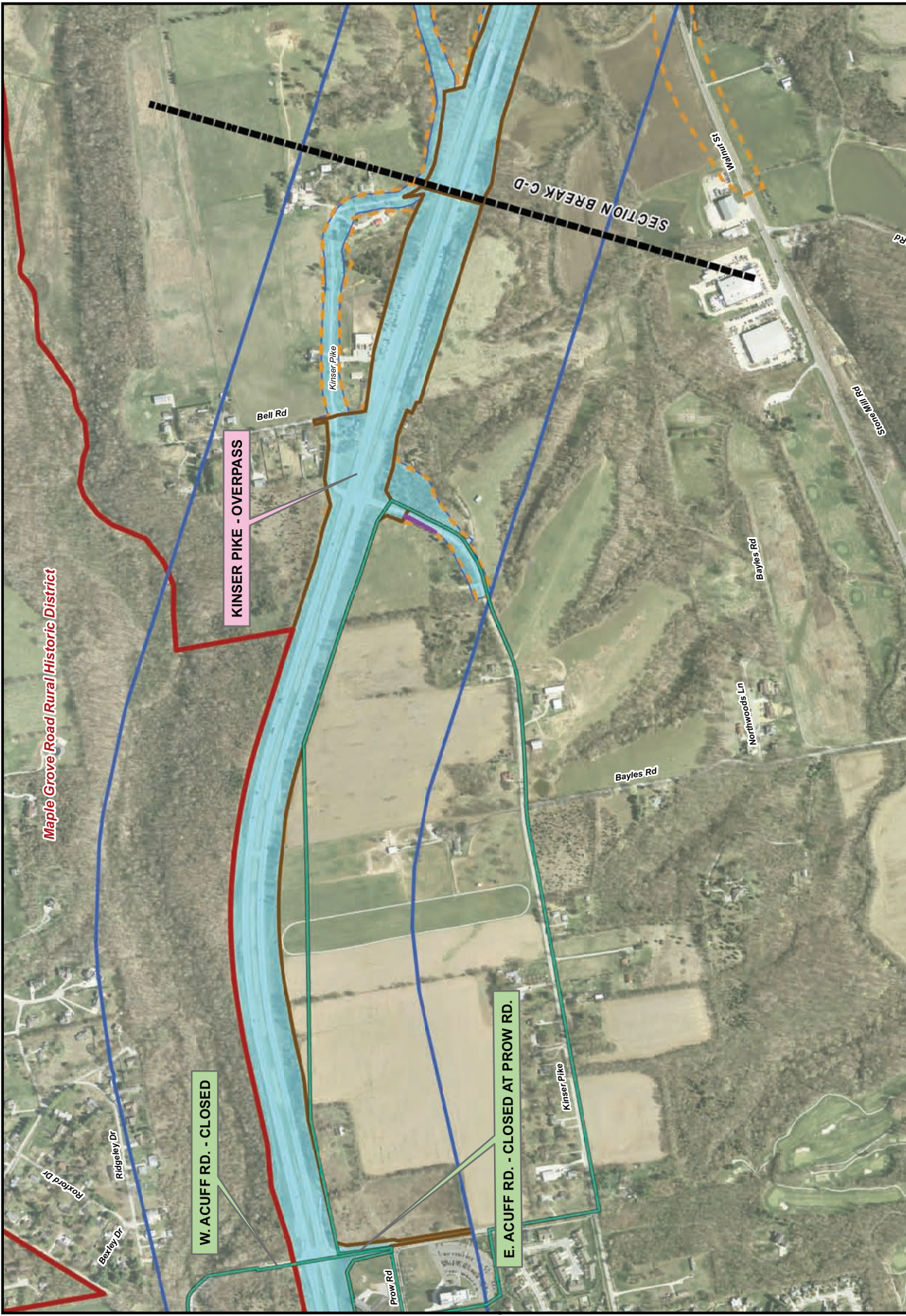
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend

- Section 5 Approved Corridor
- Superfund Sites
- Temporary Pavement Removal ROW
- TIF Districts
- DEIS Preferred Alternative 8
- SR 37 Existing Right of Way
- National Register
- Refined Preferred Alternative 8
- Subsection Breaks
- Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

F GURE 3-13: Sheet 5 of 16
 DE S Preferred A temat ve 8 and
 Ref ned Preferred A temat ve 8

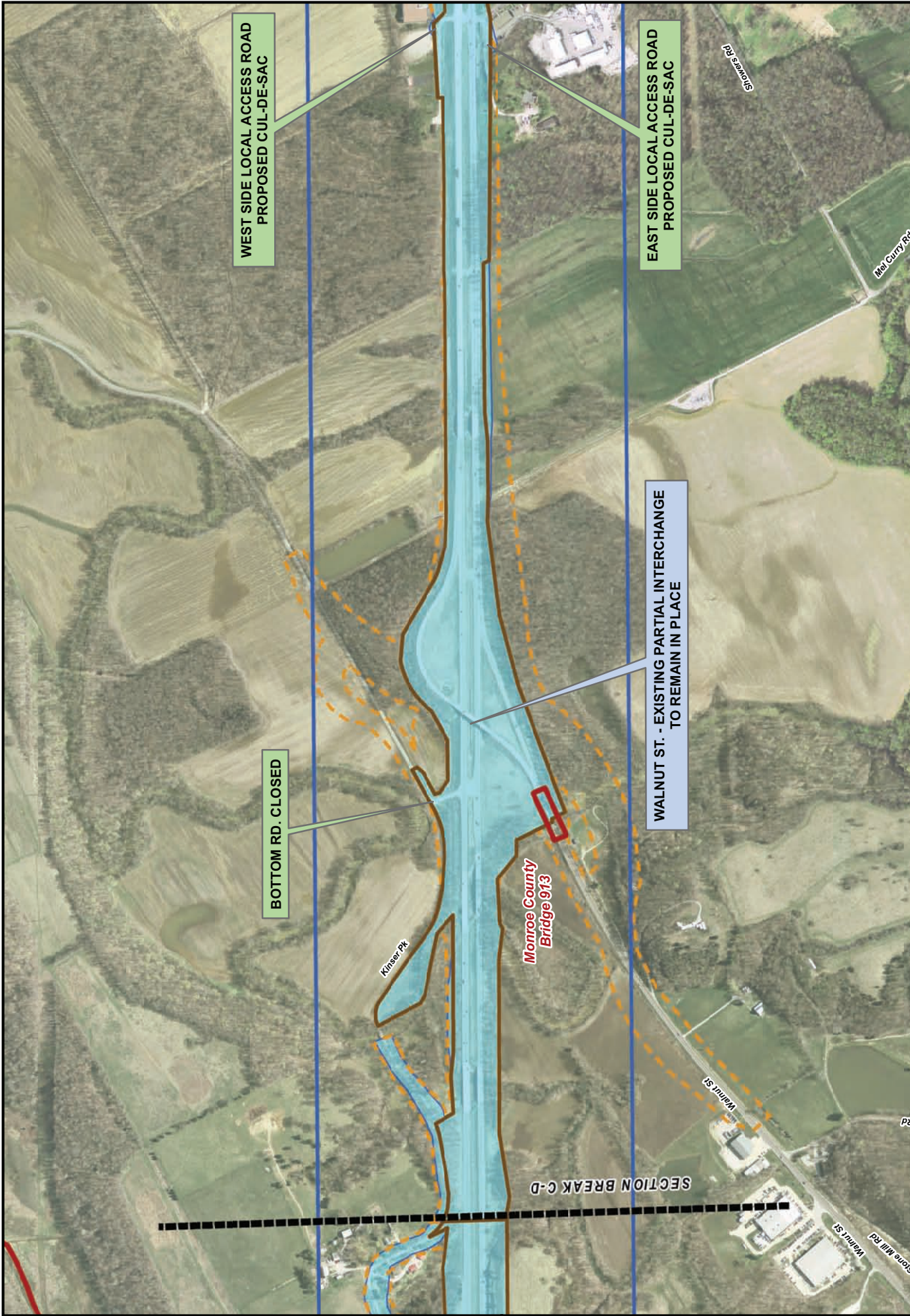


I-69 Evansville-to-Indianapolis
 Tier 2 Studies
 Section 5 - SR 37 to SR 39

- Legend**
- Section 5 Approved Corridor
 - DEIS Preferred Alternative 8
 - Refined Preferred Alternative 8
 - Temporary Pavement Removal ROW
 - SR 37 Existing Right of Way
 - Subsection Breaks
 - Superfund Sites
 - TIF Districts
 - National Register
 - Historic Property/District Listed or Eligible

F GURE 3-13: Sheet 6 of 16
 DEIS Preferred Alternative 8 and
 Refined Preferred Alternative 8





WEST SIDE LOCAL ACCESS ROAD
PROPOSED CUL-DE-SAC

EAST SIDE LOCAL ACCESS ROAD
PROPOSED CUL-DE-SAC

BOTTOM RD. CLOSED

WALNUT ST. - EXISTING PARTIAL INTERCHANGE
TO REMAIN IN PLACE

Monroe County
Bridge 913

SECTION BREAK C-D

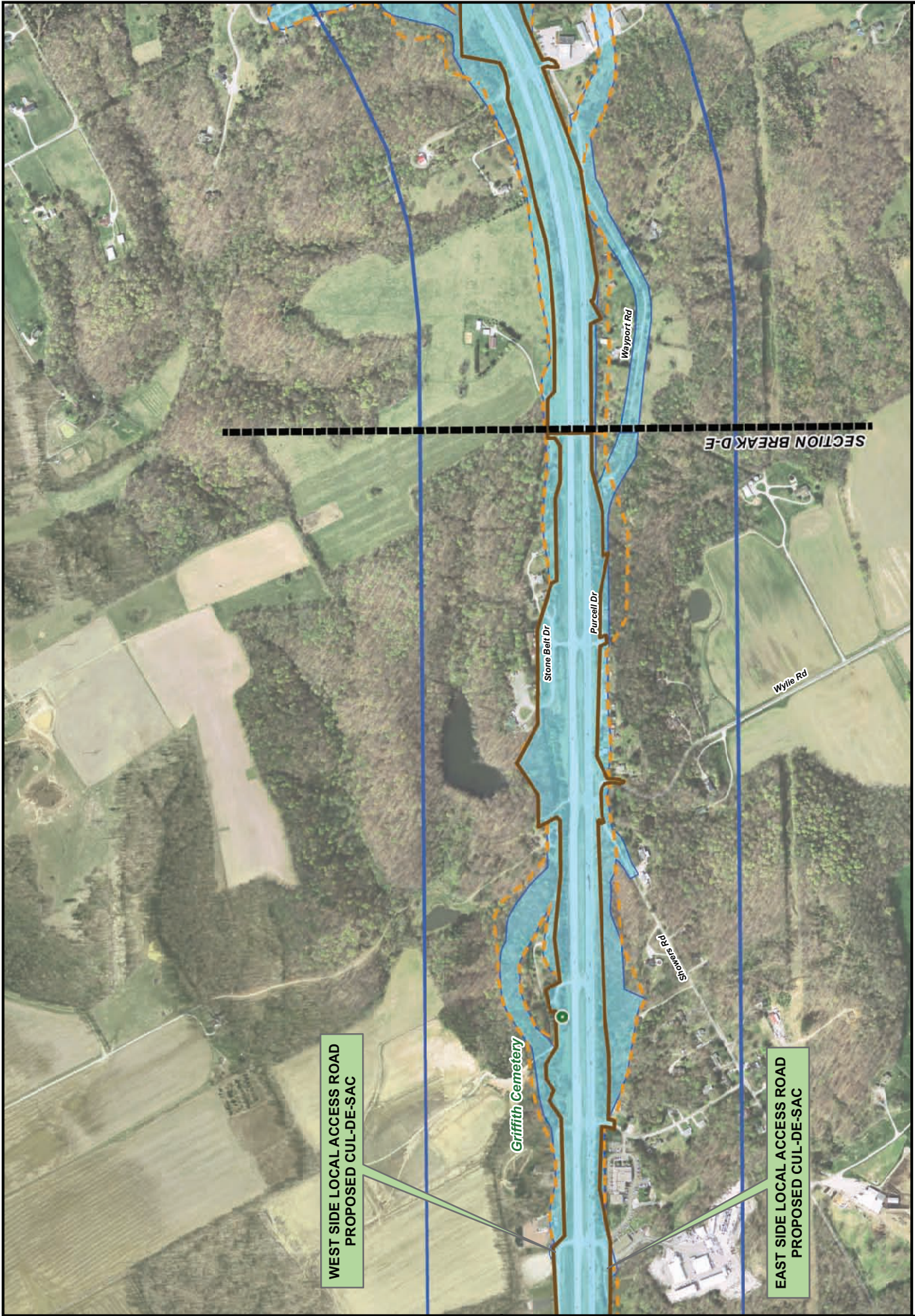
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

F GURE 3-13: Sheet 7 of 16
DEIS Preferred Alternative 8 and
Refined Preferred Alternative 8



WEST SIDE LOCAL ACCESS ROAD
PROPOSED CUL-DE-SAC

EAST SIDE LOCAL ACCESS ROAD
PROPOSED CUL-DE-SAC

SECTION BREAK D-E

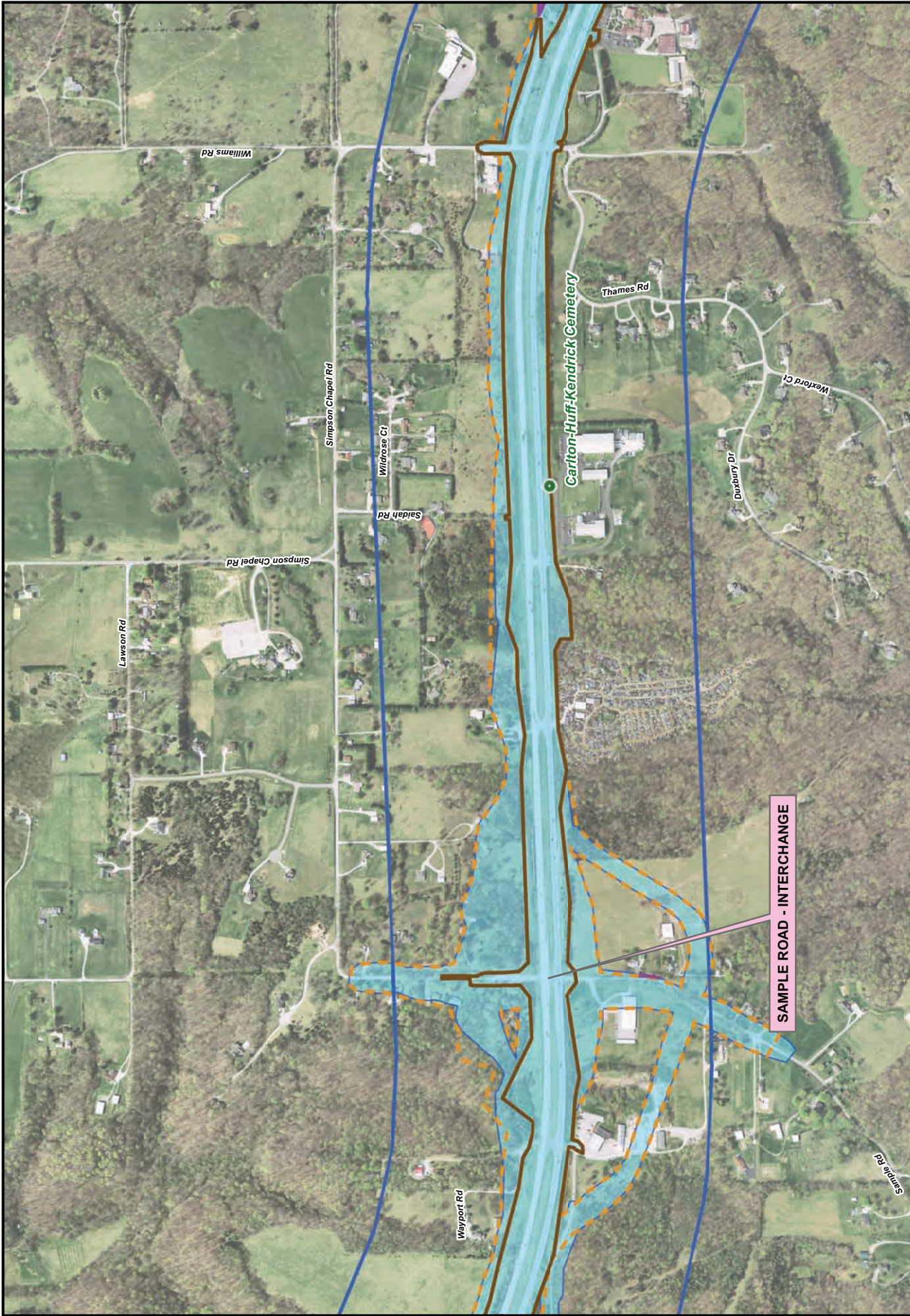


- Legend**
- Section 5 Approved Corridor
 - DEIS Preferred Alternative 8
 - Refined Preferred Alternative 8
 - Temporary Pavement Removal ROW
 - SR 37 Existing Right of Way
 - Subsection Breaks
 - Superfund Sites
 - TIF Districts
 - National Register
 - Historic Property/District, Listed or Eligible

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39



F GURE 3-13: Sheet 8 of 16
DEIS Preferred Alternative 8 and
Refined Preferred Alternative 8



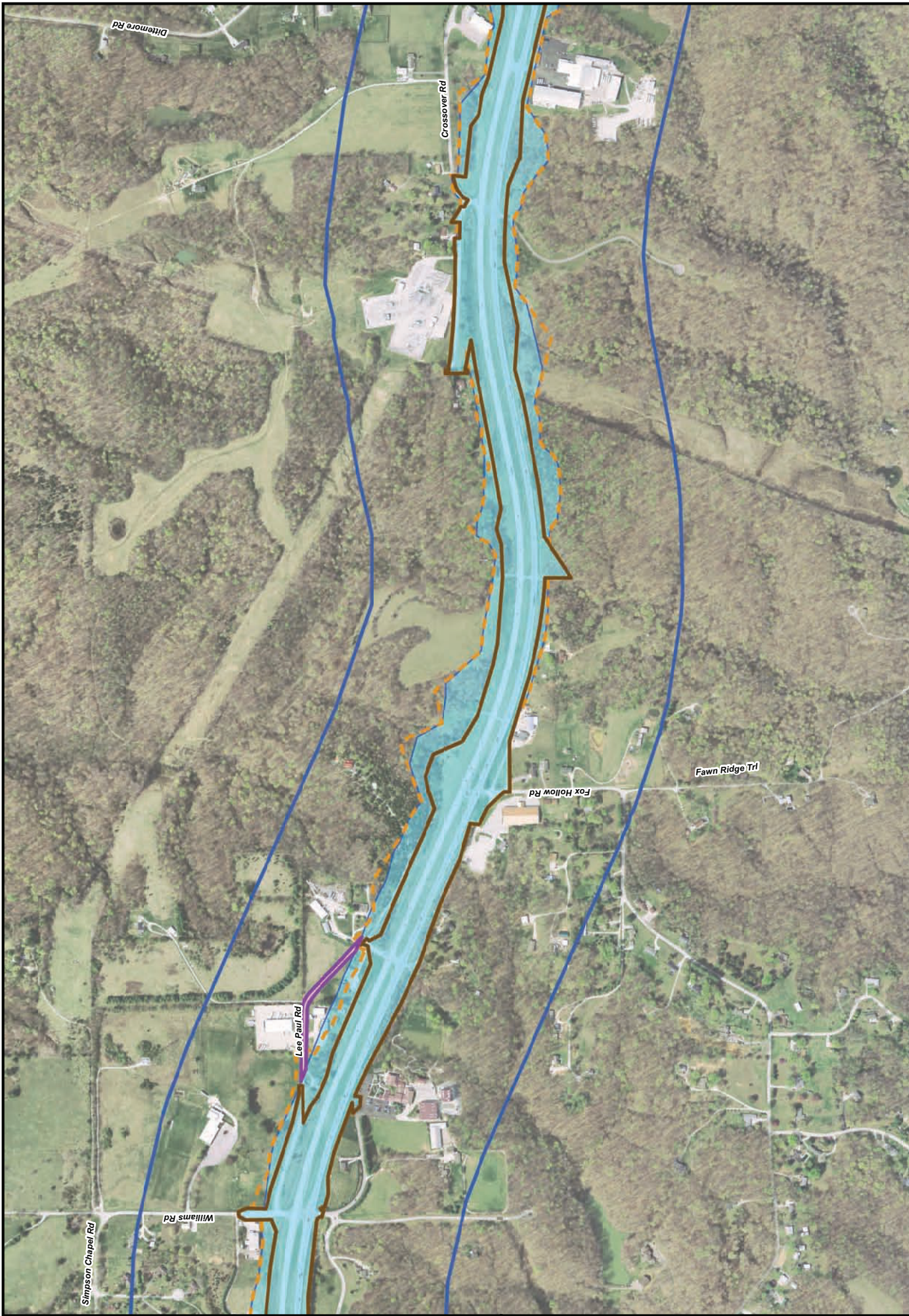
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

F GURE 3-13: Sheet 9 of 16
 DE S Preferred A temat ve 8 and
 Ref ned Preferred A temat ve 8



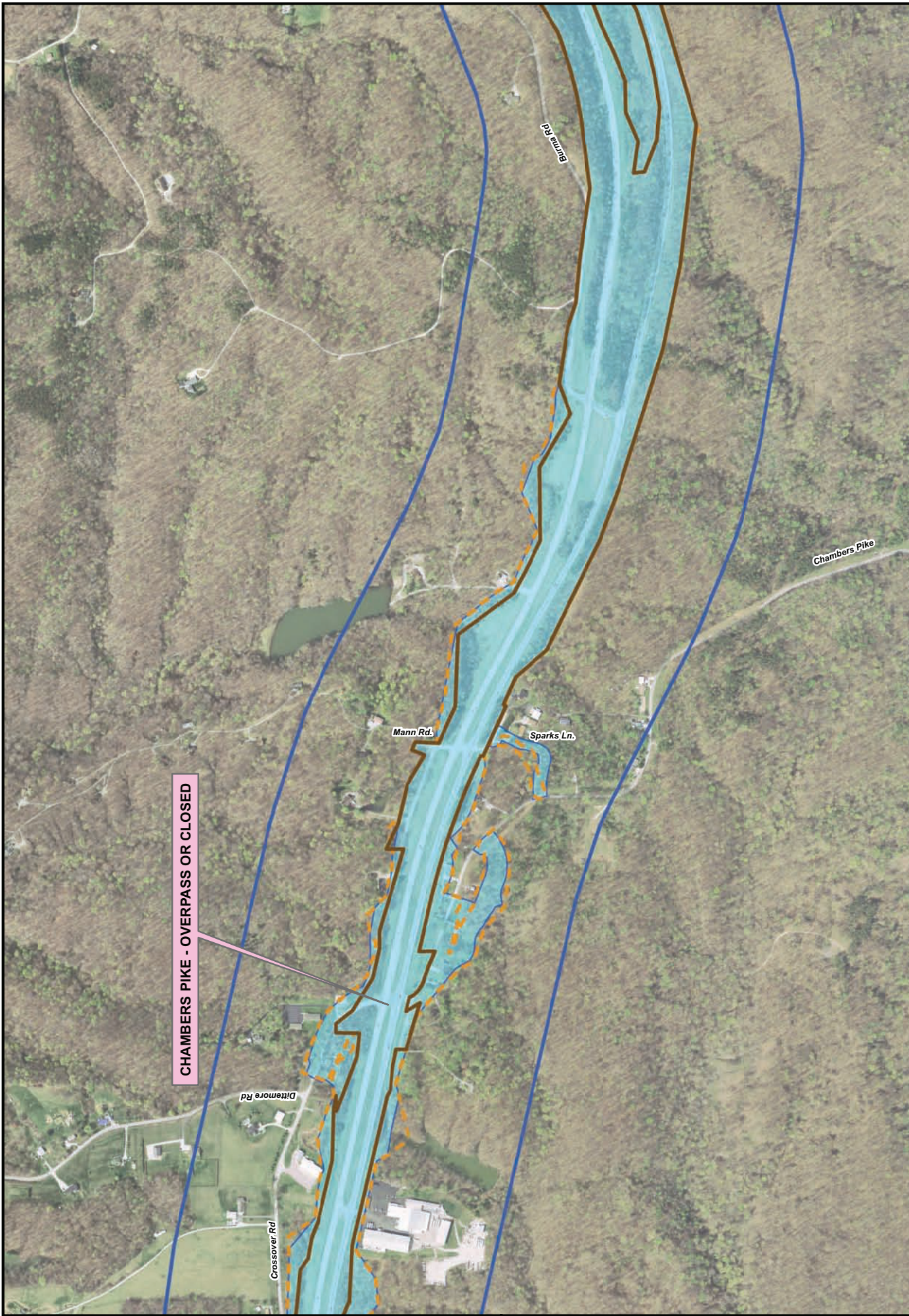
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- Temporary Pavement Removal ROW
- Superfund Sites
- DEIS Preferred Alternative 8
- TIF Districts
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks
- Refined Preferred Alternative 8



F GURE 3-13: Sheet 10 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8



CHAMBERS PIKE - OVERPASS OR CLOSED



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
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- SR 37 Existing Right of Way
- Subsection Breaks

- Superfund Sites
- TIF Districts
- National Register
- Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

F GURE 3-13: Sheet 11 of 16
DEIS Preferred Alternative 8 and
Refined Preferred Alternative 8



MORGAN COUNTY

MONROE COUNTY

SECTION BREAK E-F

WEST SIDE LOCAL ACCESS RD.
PROPOSED CUL-DE-SAC

BRYANTS CREEK RD. - CUL-DE-SAC

COOKSEY LN. & PETRO RD.
ELIMINATED

Petro Rd

Bryants Creek Rd

PA 60018

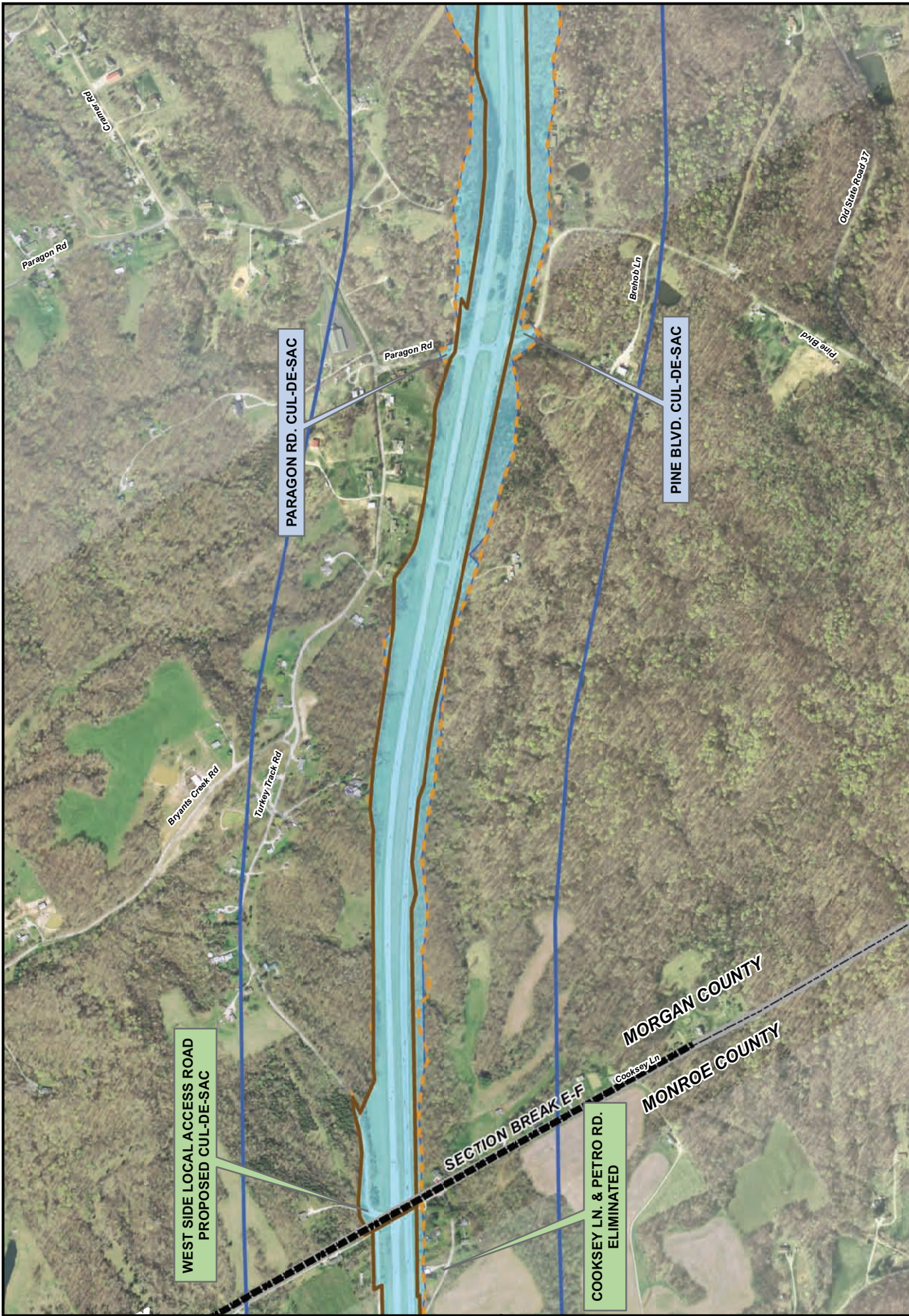


F GURE 3-13: Sheet 12 of 16
DE S Preferred Alternative 8 and
Refined Preferred Alternative 8

- Legend**
- Section 5 Approved Corridor
 - Temporary Pavement Removal ROW
 - Superfund Sites
 - DEIS Preferred Alternative 8
 - SR 37 Existing Right of Way
 - TIF Districts
 - National Register
 - Historic Property/District Listed or Eligible
 - Refined Preferred Alternative 8
 - Subsection Breaks

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39





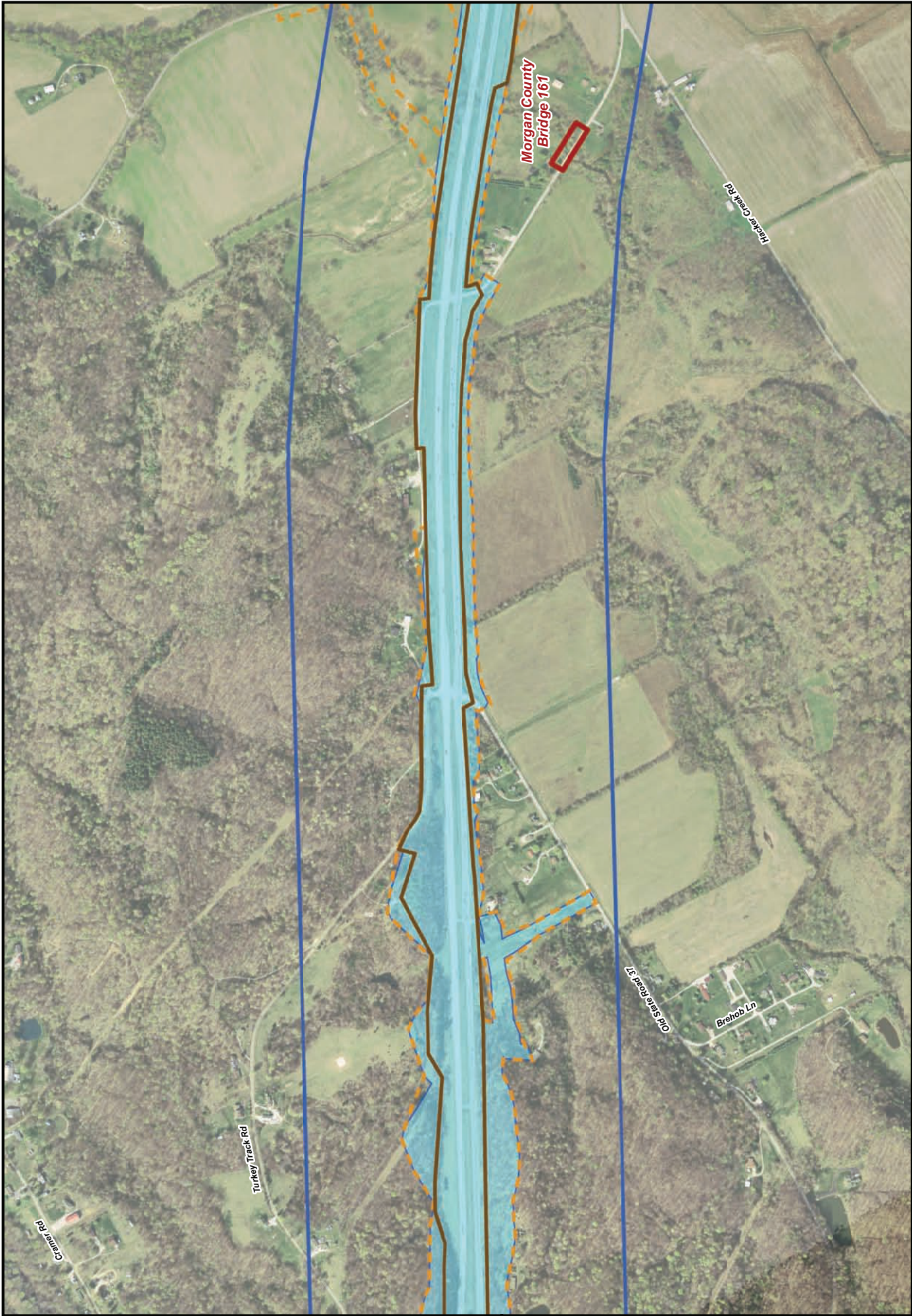
**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
Historic Property/District Listed or Eligible




0 400 800 1 200 1 600 Feet





FIGURE 3-13: Sheet 13 of 16
DEIS Preferred Alternative 8 and
Refined Preferred Alternative 8



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

-  Section 5 Approved Corridor
-  DEIS Preferred Alternative 8
-  Refined Preferred Alternative 8

-  Temporary Pavement Removal ROW
-  SR 37 Existing Right of Way
-  Subsection Breaks

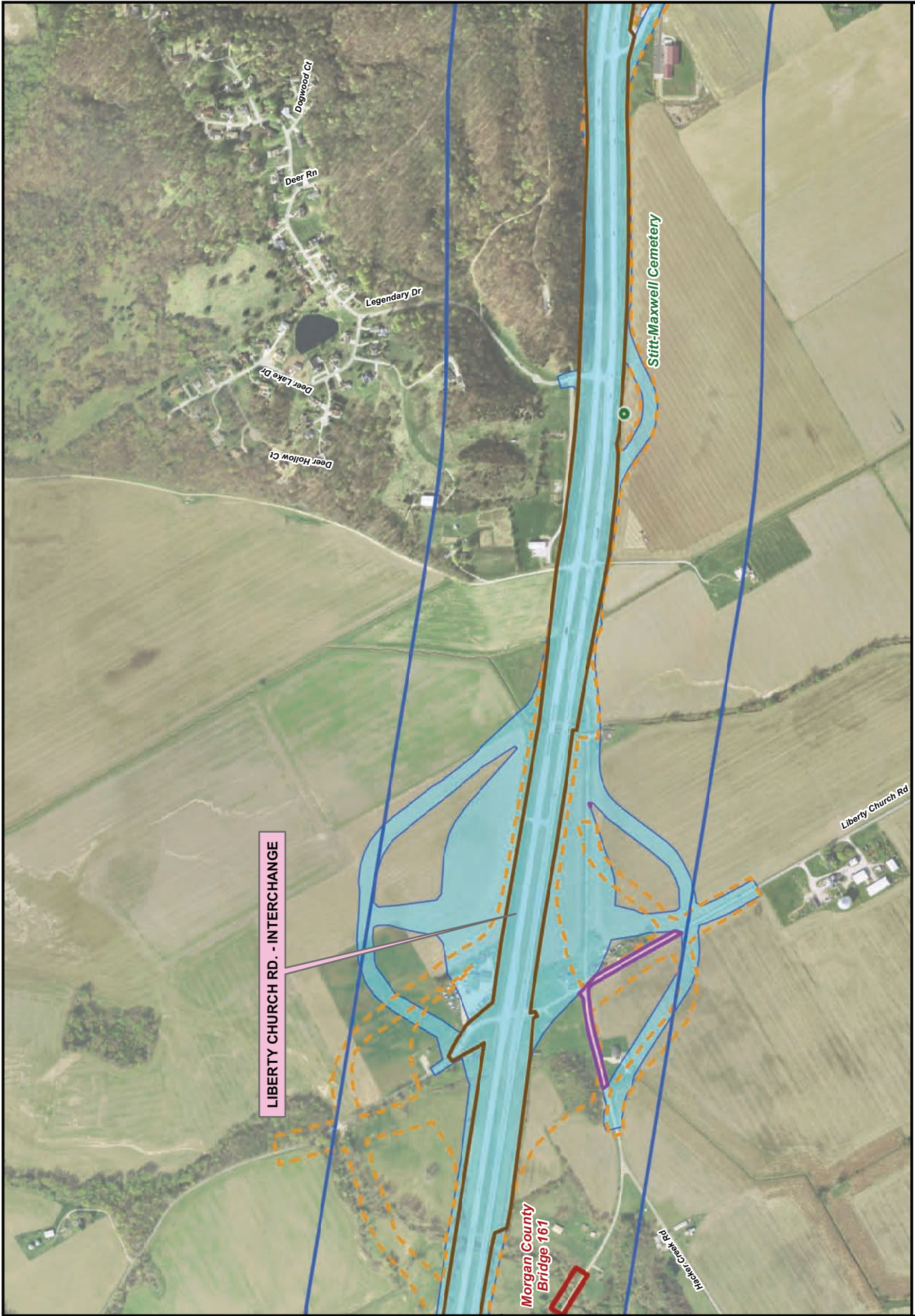
-  Superfund Sites
-  TIF Districts
-  National Register
-  Historic Property/District Listed or Eligible

Legend

 Feet

F GURE 3-13: Sheet 14 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8





LIBERTY CHURCH RD. - INTERCHANGE

Morgan County
Bridge 161

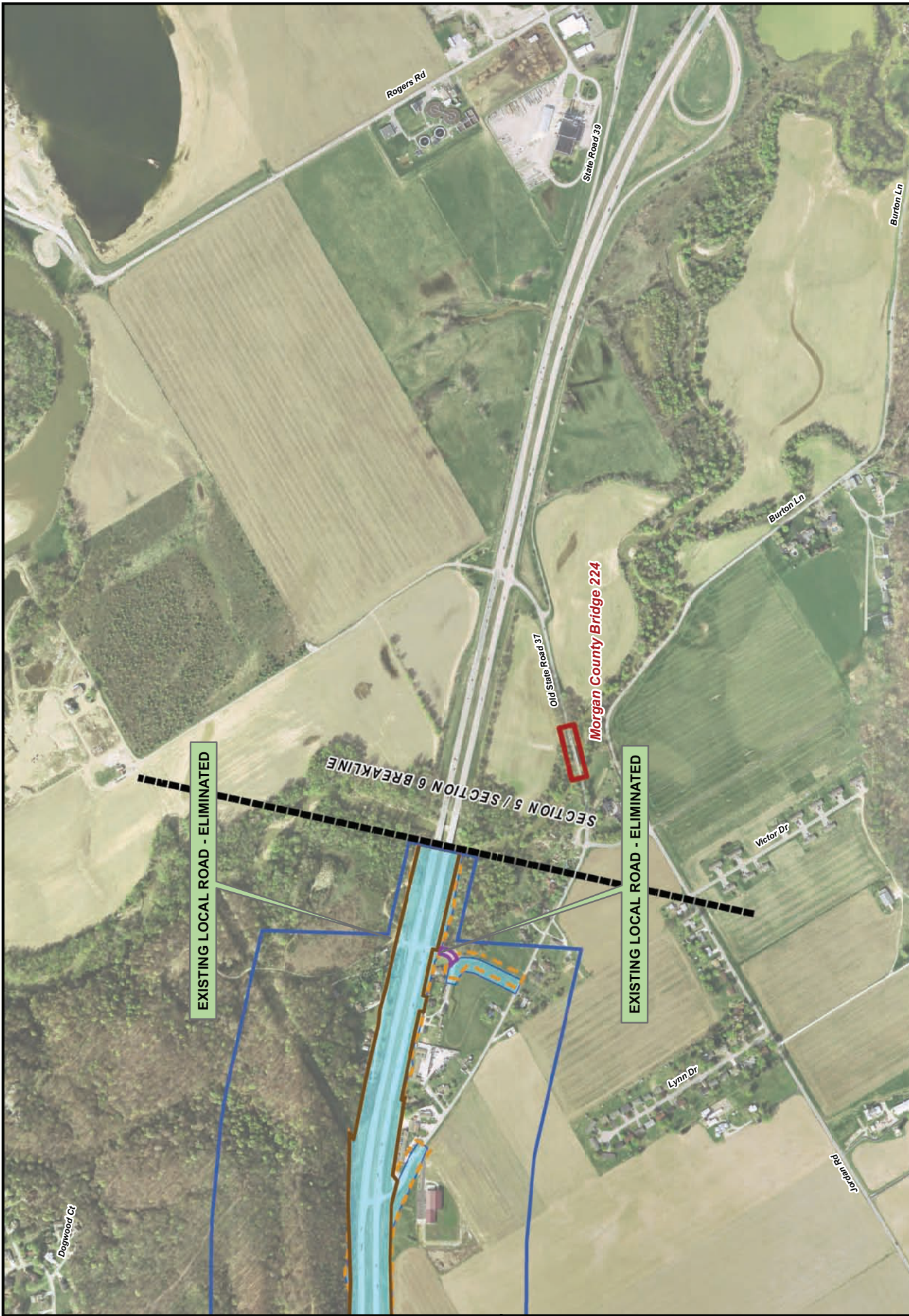
Stitt-Maxwell Cemetery

Liberty Church Rd

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend
 Section 5 Approved Corridor
 DEIS Preferred Alternative 8
 Refined Preferred Alternative 8
 Temporary Pavement Removal ROW
 SR 37 Existing Right of Way
 Subsection Breaks
 Superfund Sites
 TIF Districts
 National Register
 Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet
 F GURE 3-13: Sheet 15 of 16
 DE S Preferred A temat ve 8 and
 Ref ned Preferred A temat ve 8



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

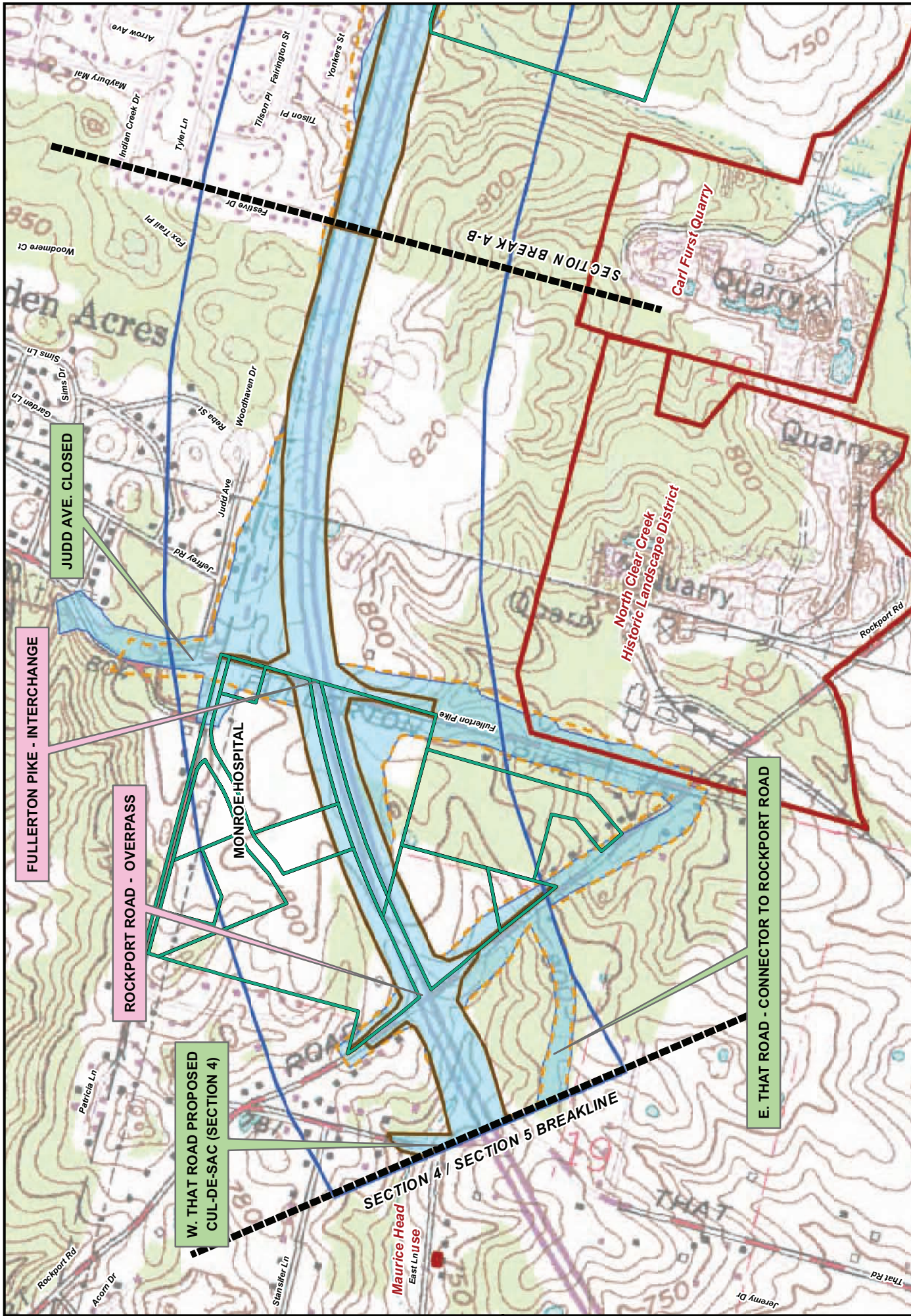
Legend

- Section 5 Approved Corridor
- DEIS Preferred Alternative 8
- Refined Preferred Alternative 8
- Temporary Pavement Removal ROW
- SR 37 Existing Right of Way
- Subsection Breaks
- Superfund Sites
- TIF Districts
- National Register
- Historic Property/District Listed or Eligible

0 400 800 1 200 1 600 Feet

FIGURE 3-13: Sheet 16 of 16
DEIS Preferred Alternative 8 and
Refined Preferred Alternative 8



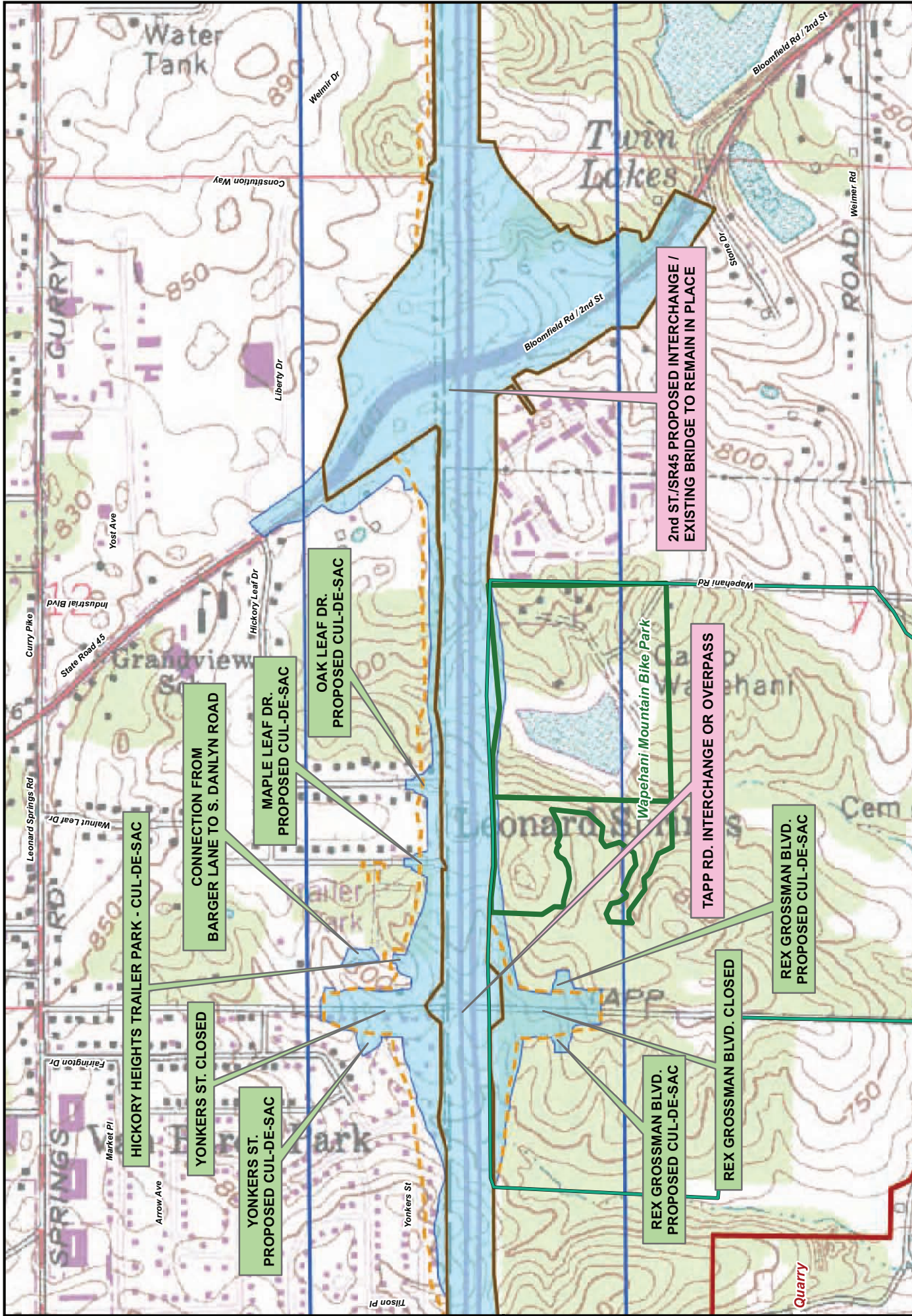


Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

Scale: 0 400 800 1 200 1 600 Feet

Map Title: FIGURE 3-14: Sheet 1 of 16
DE S Preferred Alternative 8 and Refined Preferred Alternative 8



HICKORY HEIGHTS TRAILER PARK - CUL-DE-SAC

YONKERS ST. CLOSED

YONKERS ST. PROPOSED CUL-DE-SAC

CONNECTION FROM BARGER LANE TO S. DANLYN ROAD

MAPLE LEAF DR. PROPOSED CUL-DE-SAC

OAK LEAF DR. PROPOSED CUL-DE-SAC

REX GROSSMAN BLVD. PROPOSED CUL-DE-SAC









REX GROSSMAN BLVD. CLOSED

TAPP RD. INTERCHANGE OR OVERPASS

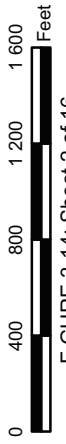
REX GROSSMAN BLVD. PROPOSED CUL-DE-SAC

2nd ST./SR45 PROPOSED INTERCHANGE / EXISTING BRIDGE TO REMAIN IN PLACE

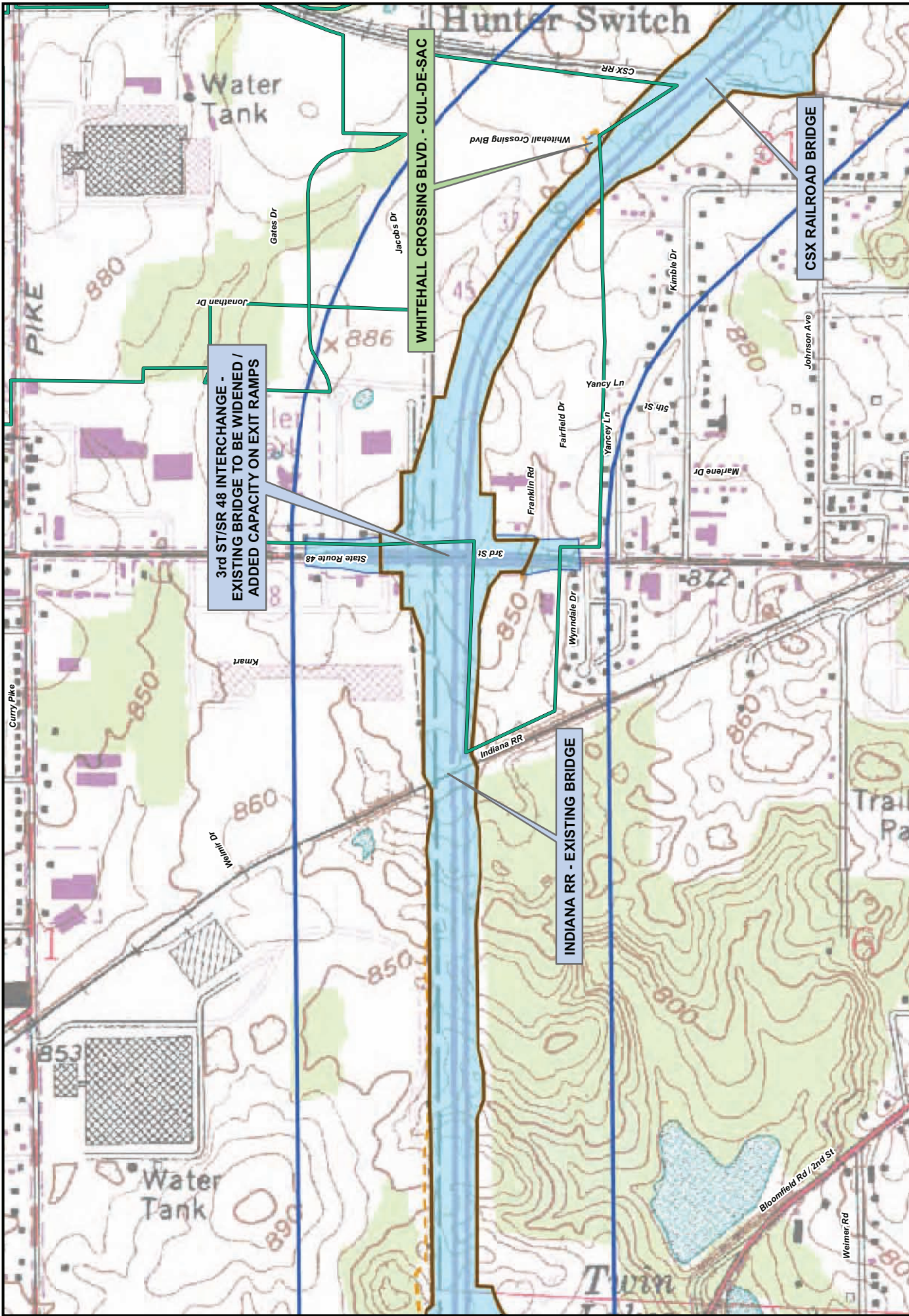
Legend

-  Section 5 Approved Corridor
-  DE S Preferred Alternative 8
-  Refined Preferred Alternative 8
-  SR 37 Existing Right of Way
-  Superfund Sites
-  T F Districts
-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks

I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39



Feet
 0 400 800 1200 1600
 F GURE 3-14; Sheet 2 of 16
 DE S Preferred Alternative 8
 Refined Preferred Alternative 8



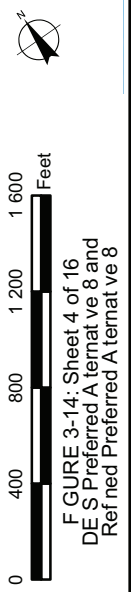
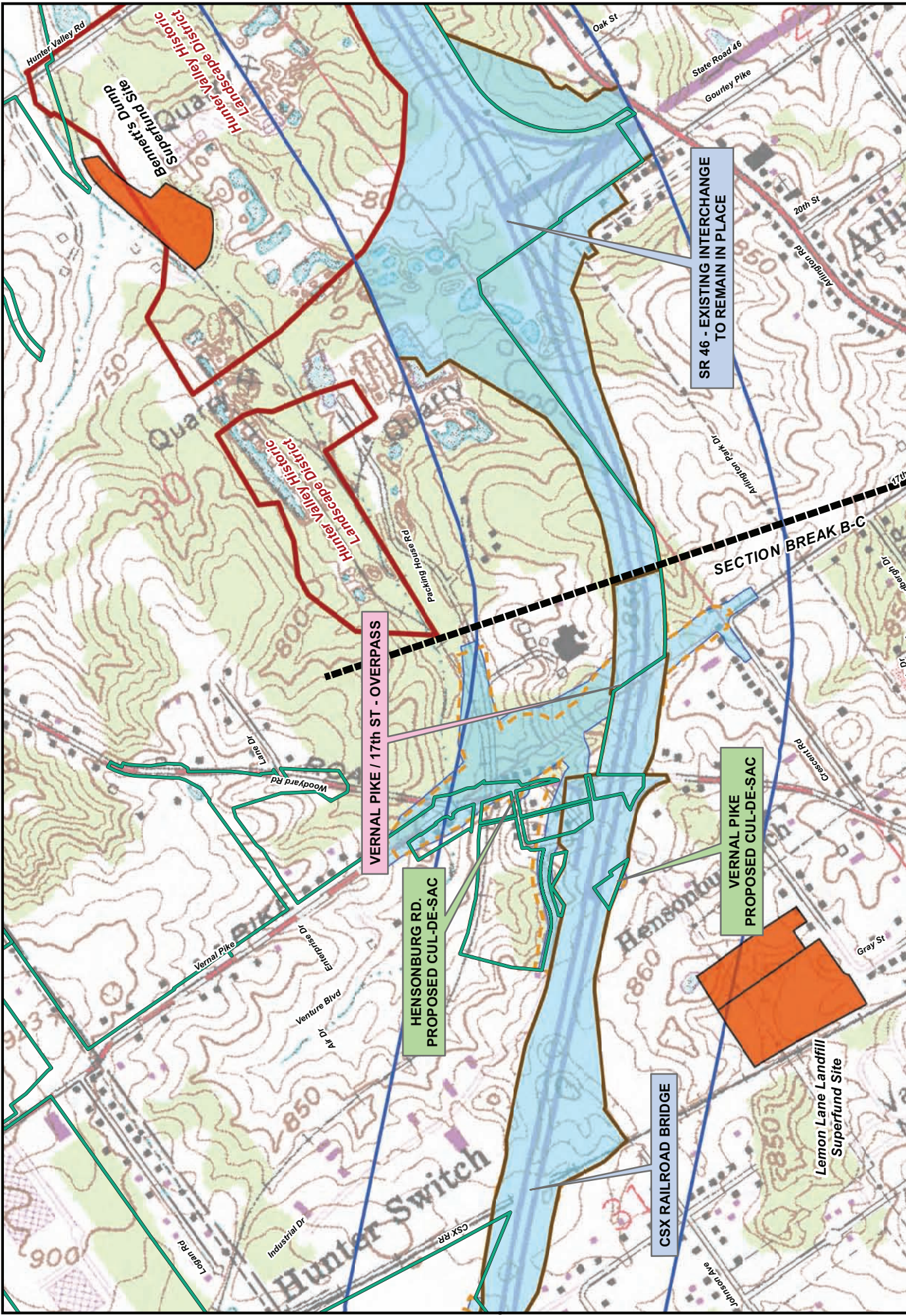
I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39

Legend

- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-14: Sheet 3 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8



National Register
Historic Property/District
Listed or Eligible

Subsection Breaks

Section 5 Approved Corridor

SR 37 Existing Right of Way

DE S Preferred Alternative 8

Refined Preferred Alternative 8

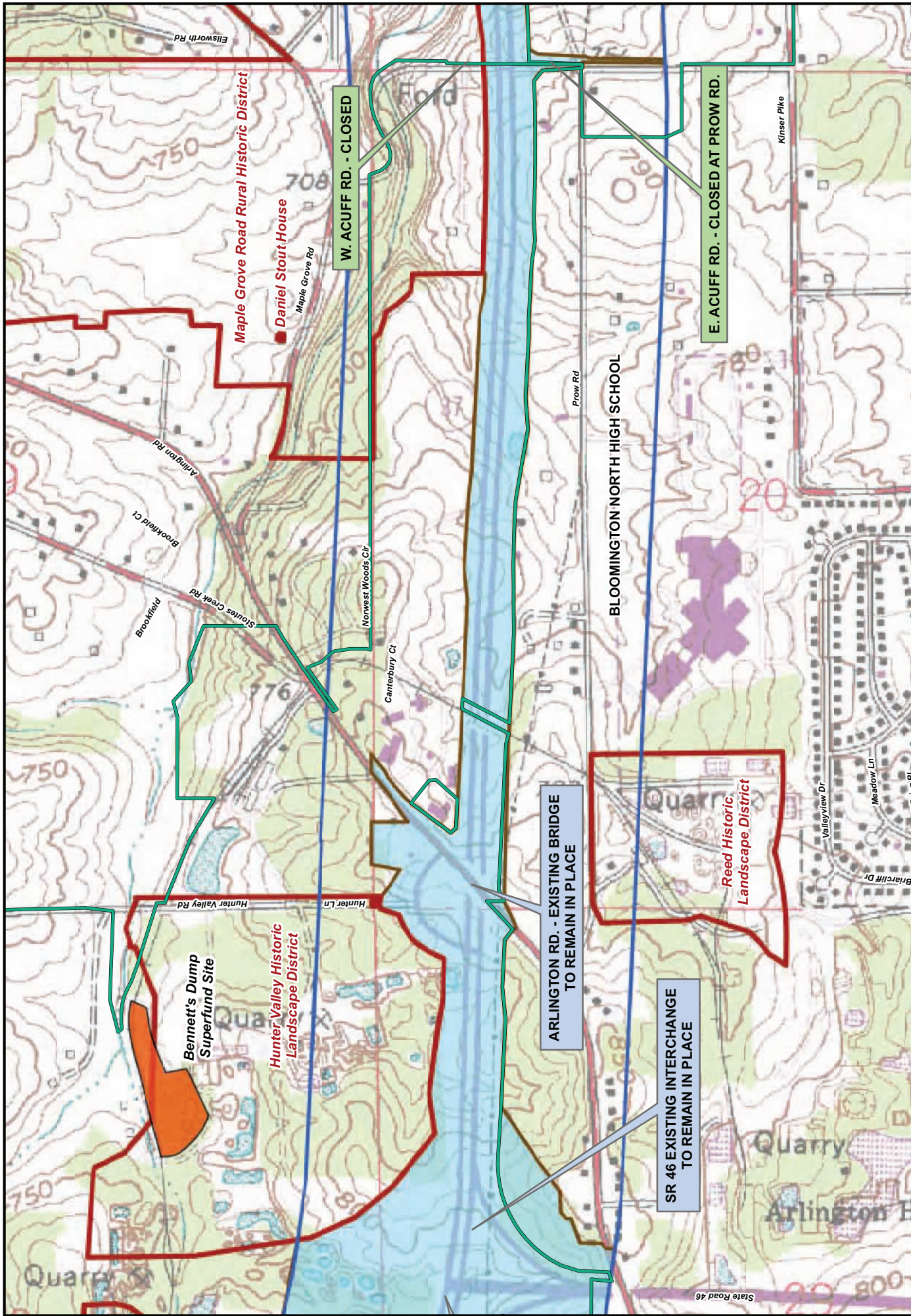
Superfund Sites

T F Districts

**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

F GURE 3-14: Sheet 4 of 16
DE S Preferred Alternative 8 and
Refined Preferred Alternative 8





I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39

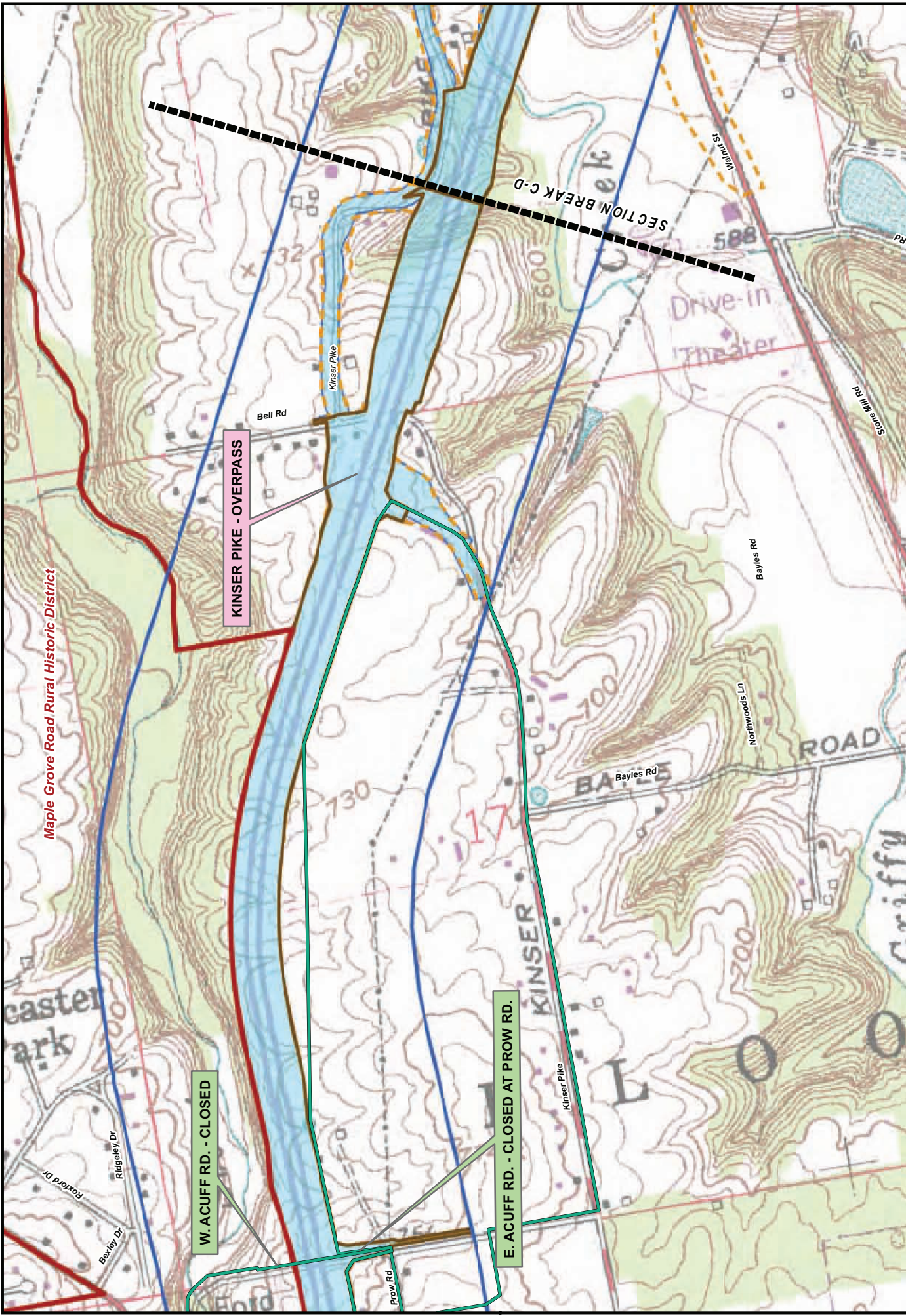
Legend

- Section 5 Approved Corridor
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Superfund Sites
- DE S Preferred Alternative 8
- T F Districts
- Refined Preferred Alternative 8
- Subsection Breaks

F GURE 3-14: Sheet 5 of 16
DE S Preferred A temative 8 and
Ref ned Preferred A temative 8

0 400 800 1 200 1 600 Feet

z



Maple Grove Road Rural Historic District

KINSER PIKE - OVERPASS

W. ACUFF RD. - CLOSED

E. ACUFF RD. - CLOSED AT PROFF RD.

SECTION BREAK C-D

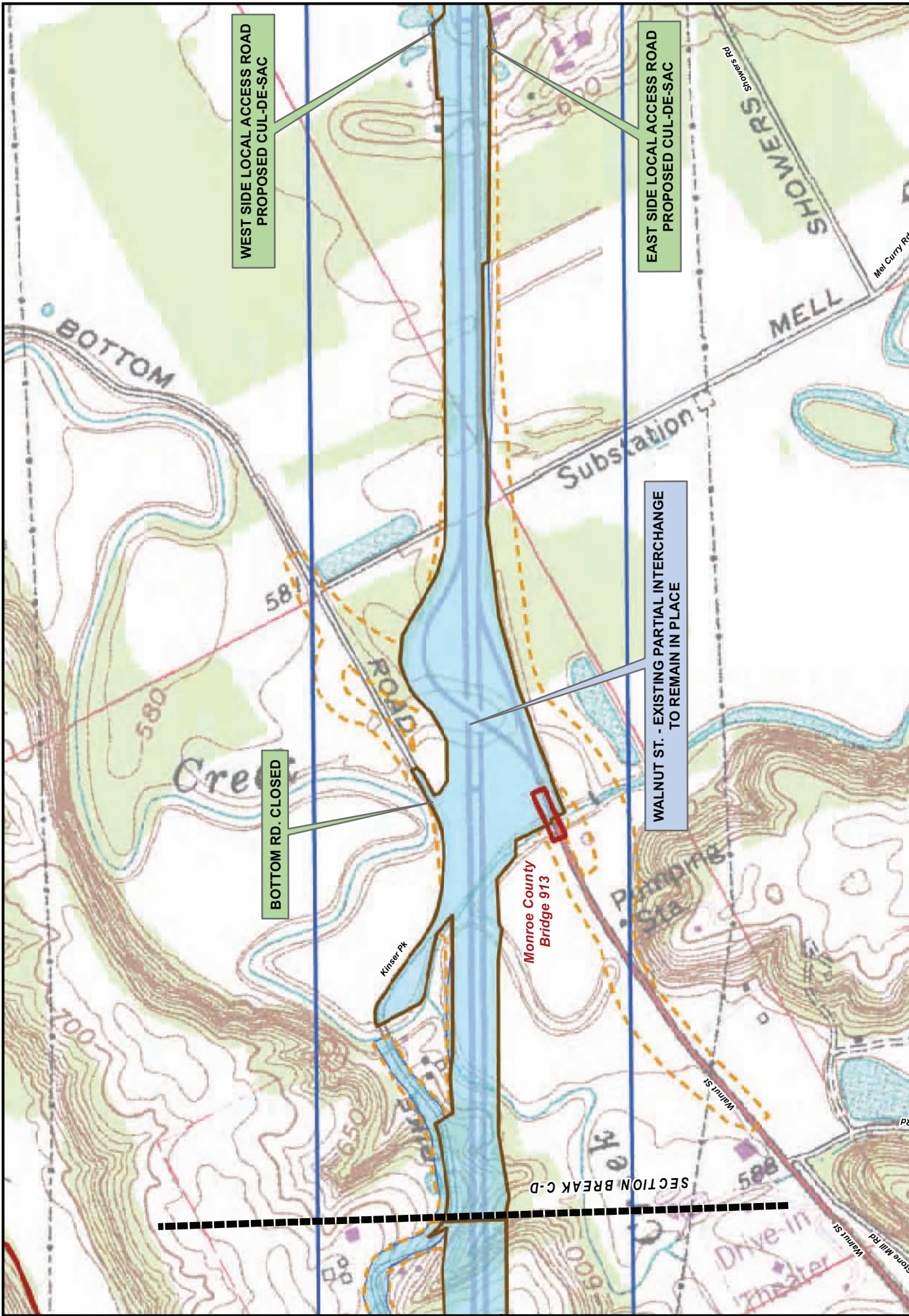
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

1600 Feet
1200
800
400
0

Legend

	Section 5 Approved Corridor		National Register Historic Property/District Listed or Eligible
	SR 37 Existing Right of Way		Subsection Breaks
	DE S Preferred Alternative 8		Superfund Sites
	Refined Preferred Alternative 8		T F Districts



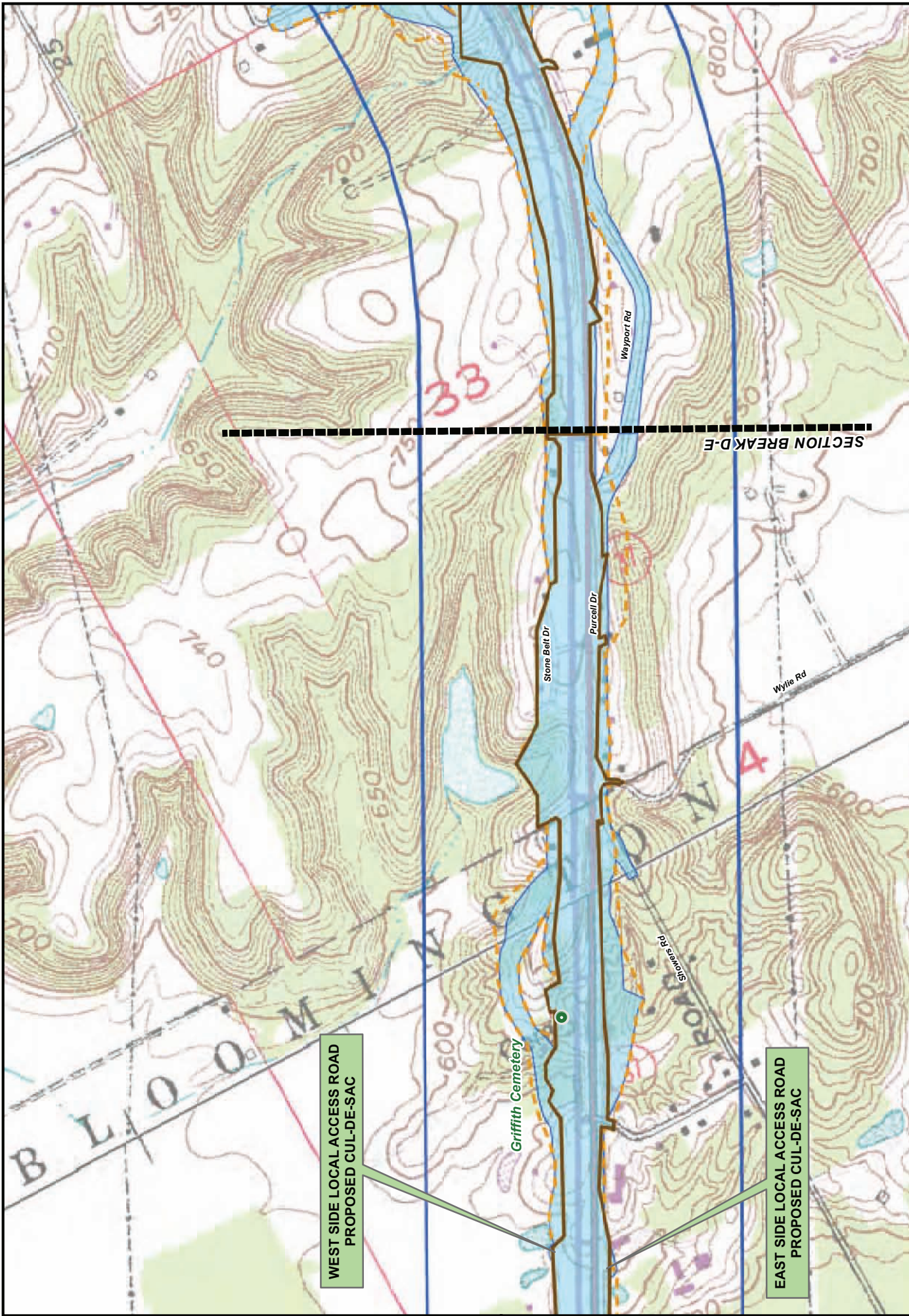


Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

Scale: 0 400 800 1 200 1 600 Feet

Figure Information:
 FIGURE 3-14; Sheet 7 of 16
 DE S Preferred Alternative 8 and
 Refined Preferred Alternative 8



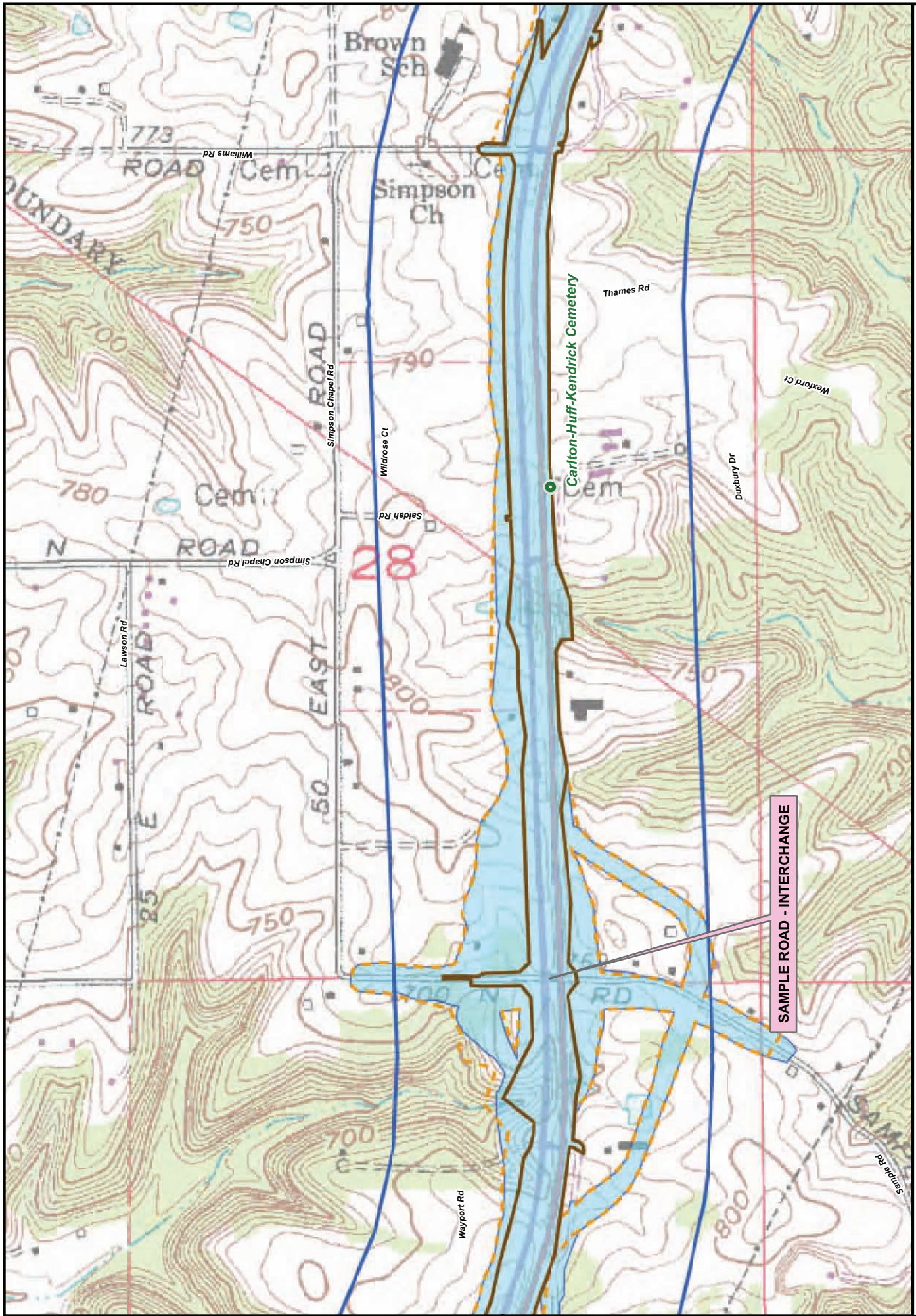
I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39

Legend




	Section 5 Approved Corridor
	SR 37 Existing Right of Way
	Superfund Sites
	T F Districts
	National Register Historic Property/District Listed or Eligible
	Subsection Breaks
	DE S Preferred Alternative 8
	Refined Preferred Alternative 8




0 400 800 1 200 1 600 Feet

FIGURE 3-14; Sheet 8 of 16
 DE S Preferred Alternative 8 and
 Refined Preferred Alternative 8

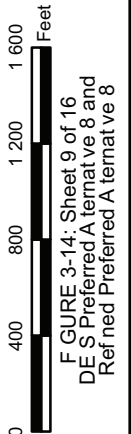


**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

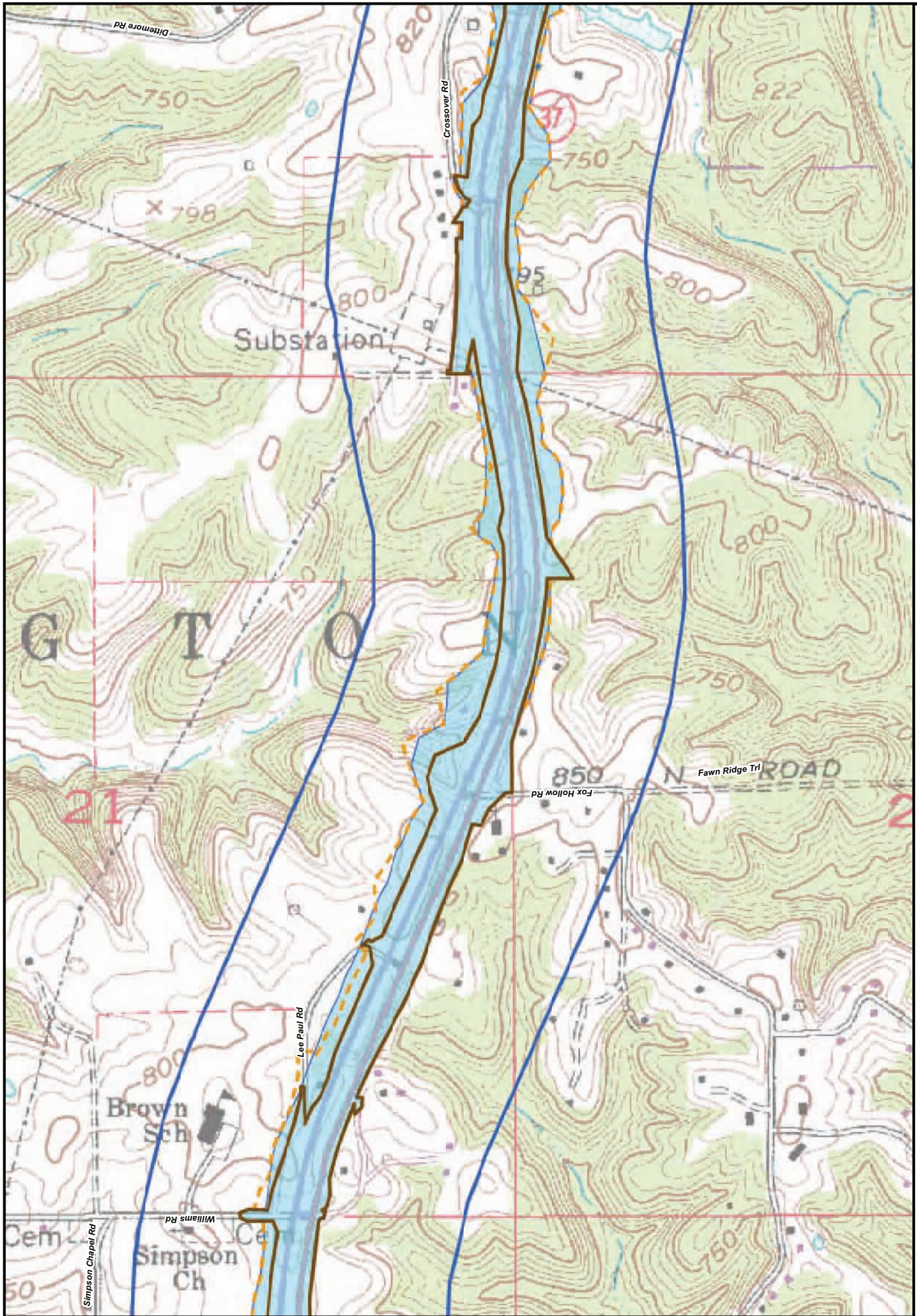
-  Section 5 Approved Corridor
-  DE S Preferred Alternative 8
-  Refined Preferred Alternative 8

-  SR 37 Existing Right of Way
-  Superfund Sites
-  T F Districts

-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks



F GURE 3-14: Sheet 9 of 16
DE S Preferred A temat ve 8 and
Ref ned Preferred A temat ve 8



Legend

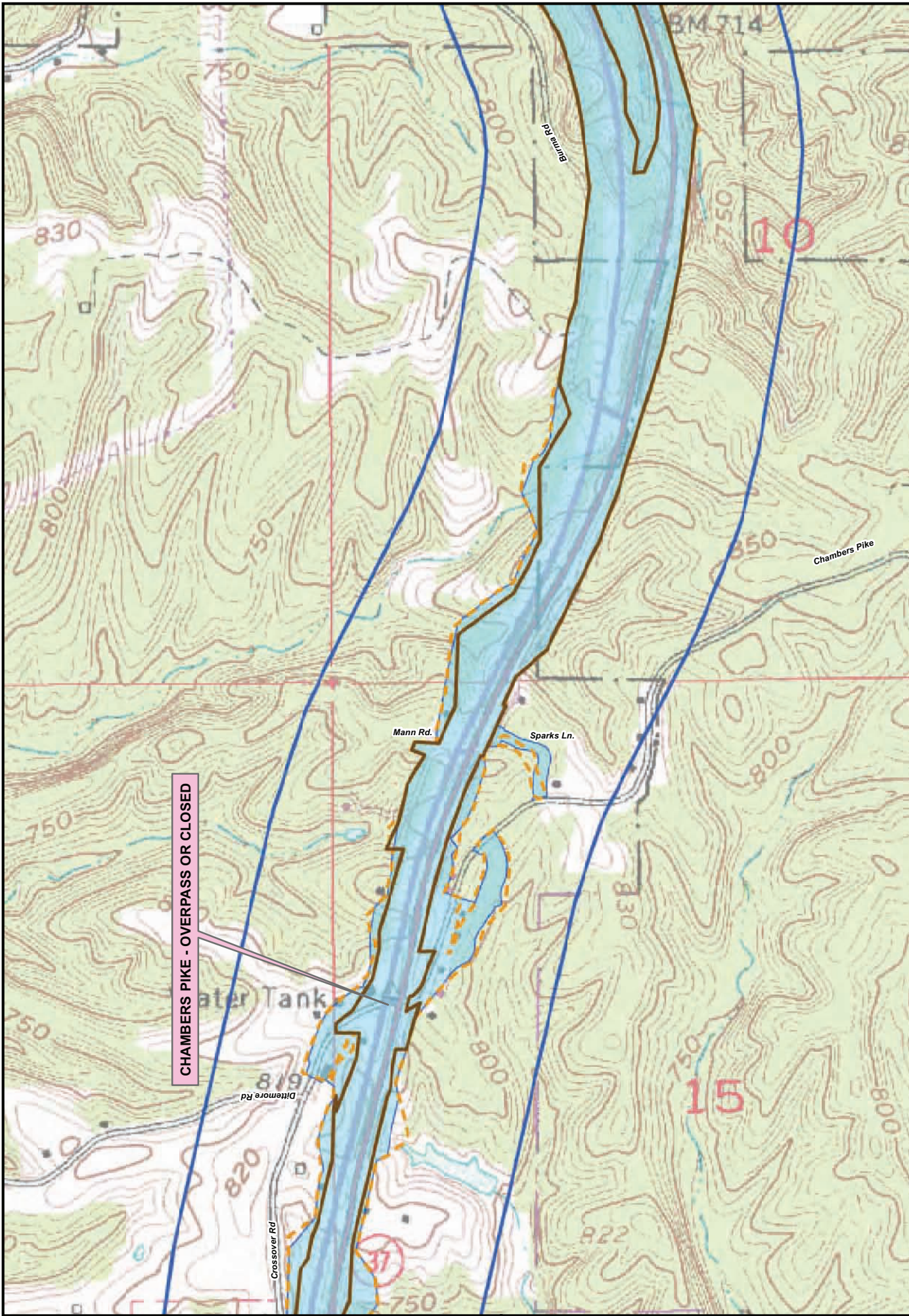
- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts

I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39

F GURE 3-14: Sheet 10 of 16 DE S Preferred A temat ve 8 and Ref ned Preferred A temat ve 8

Scale: 0 400 800 1 200 1 600 Feet

North Arrow: z



CHAMBERS PIKE - OVERPASS OR CLOSED

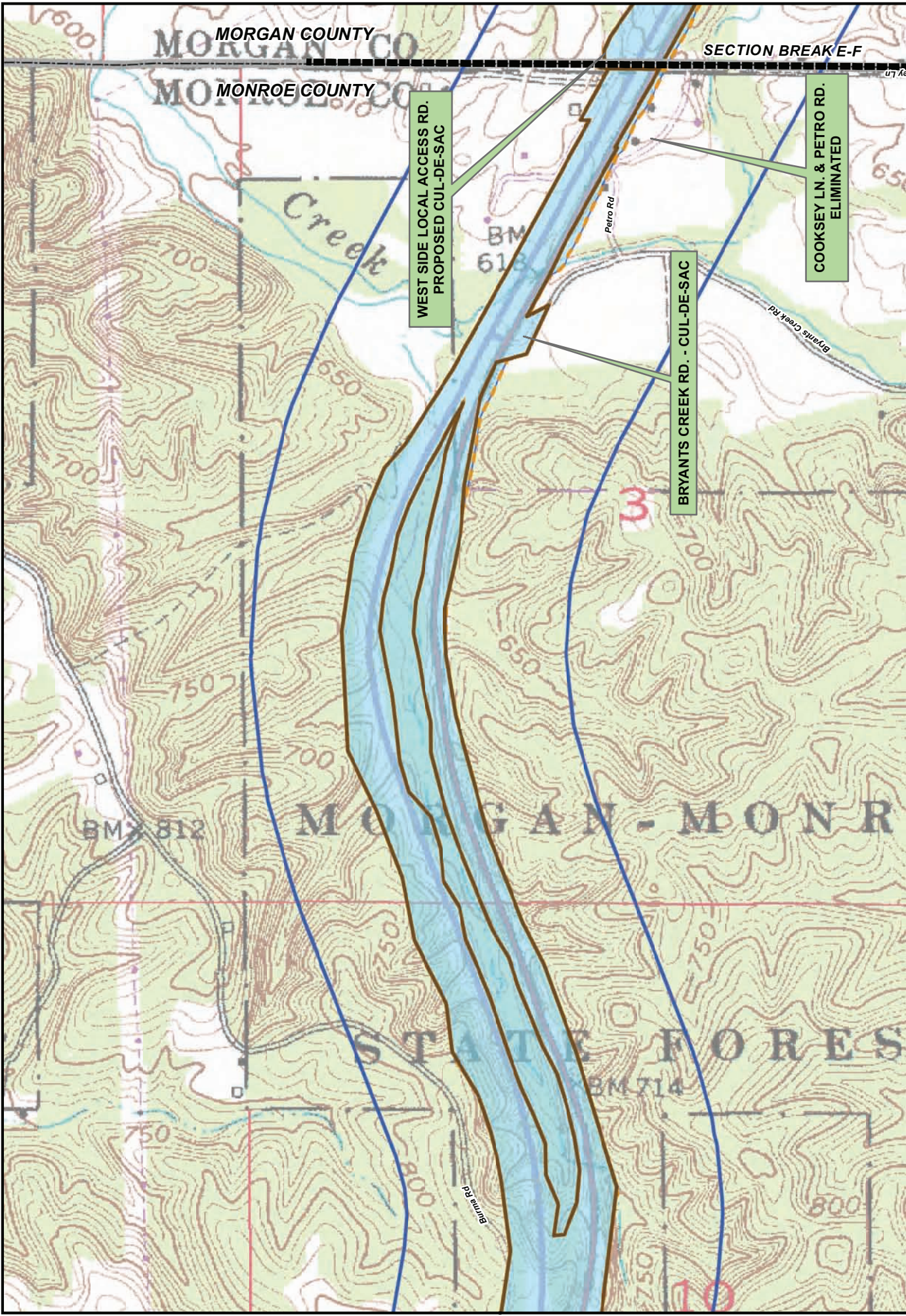
0 400 800 1 200 1 600 Feet

F GURE 3-14: Sheet 11 of 16
 DE S Preferred Alternative 8 and
 Ref ned Preferred Alternative 8

Legend

	Section 5 Approved Corridor		SR 37 Existing Right of Way		National Register Historic Property/District Listed or Eligible
	DE S Preferred Alternative 8		Superfund Sites		Subsection Breaks
	Refined Preferred Alternative 8		T F Districts		

I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39



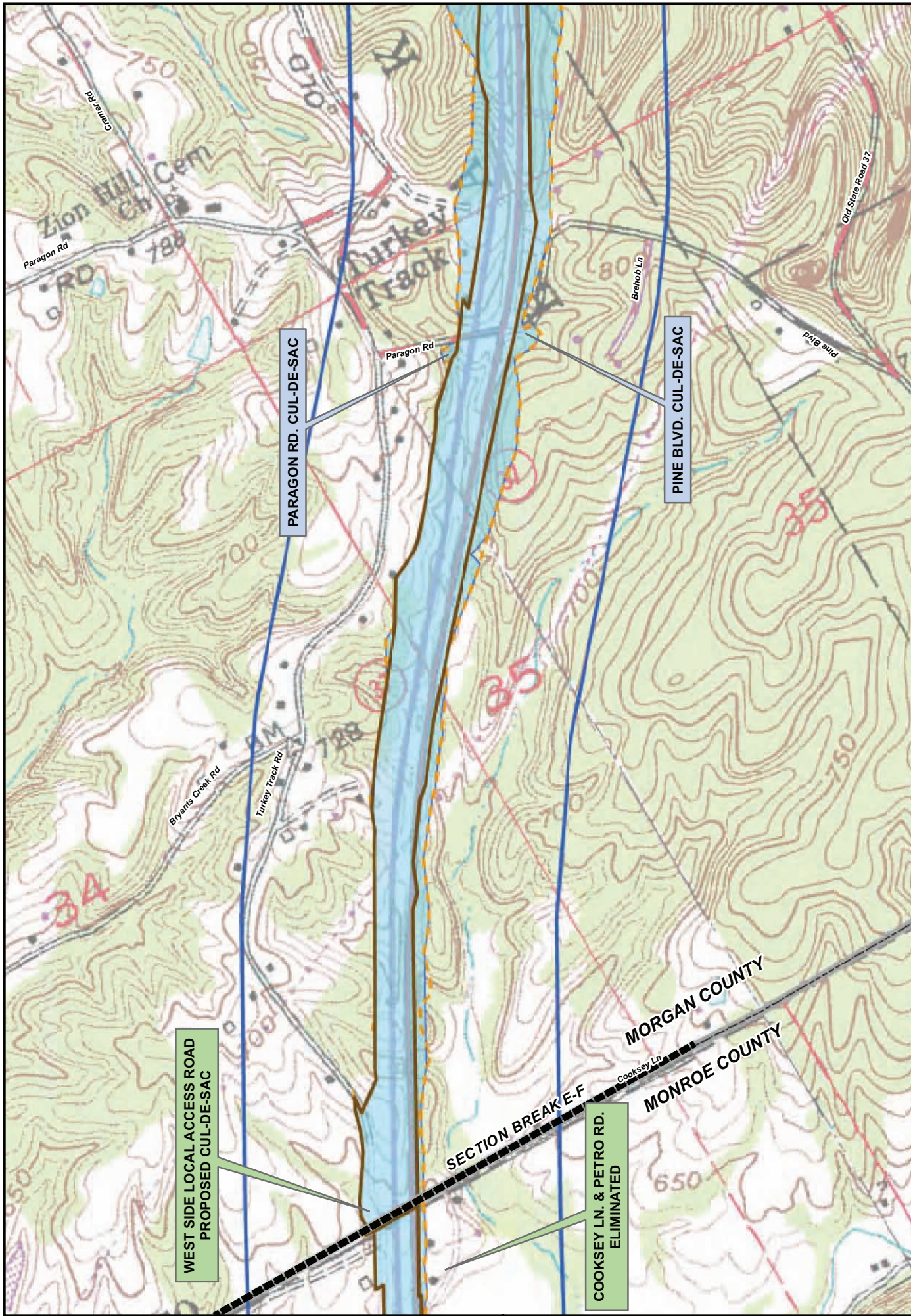
Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- National Register Historic Property/District Listed or Eligible
- SR 37 Existing Right of Way
- Superfund Sites
- T F Districts
- Subsection Breaks

F GURE 3-14: Sheet 12 of 16
DE S Preferred Alternative 8 and
Refined Preferred Alternative 8

0 400 800 1200 1600 Feet

North Arrow



WEST SIDE LOCAL ACCESS ROAD
PROPOSED CUL-DE-SAC

PARAGON RD. CUL-DE-SAC

PINE BLVD. CUL-DE-SAC

COOKSEY LN. & PETRO RD.
ELIMINATED

SECTION BREAK E-F

MORGAN COUNTY

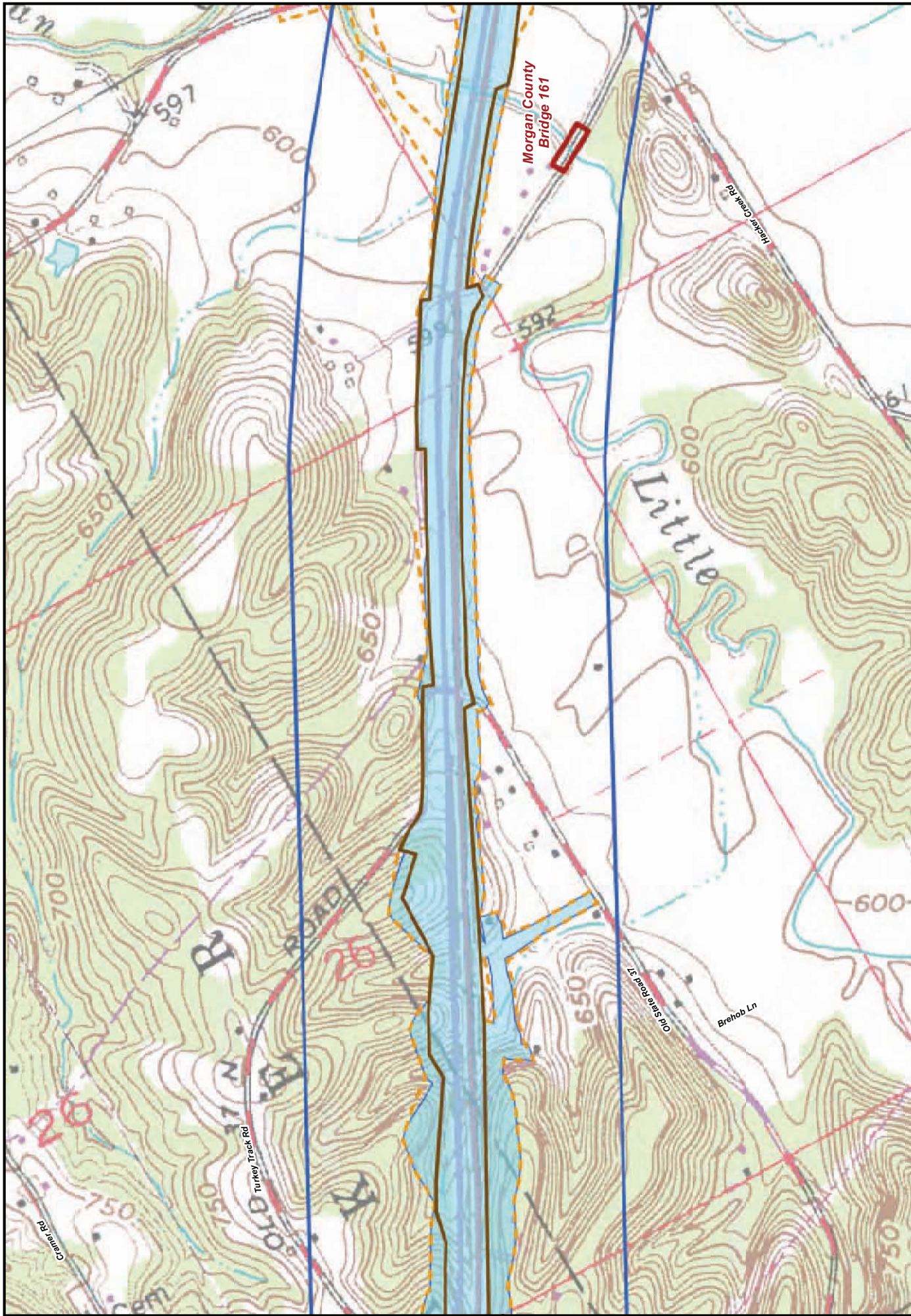
MONROE COUNTY

Legend

- I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39
- Section 5 Approved Corridor
- DE S Preferred Alternative 8
- Refined Preferred Alternative 8
- SR 37 Existing Right of Way
- National Register Historic Property/District Listed or Eligible
- Superfund Sites
- T F Districts
- Subsection Breaks

0 400 800 1 200 1 600 Feet

F GURE 3-14: Sheet 13 of 16
DE S Preferred Alternative 8 and
Refined Preferred Alternative 8



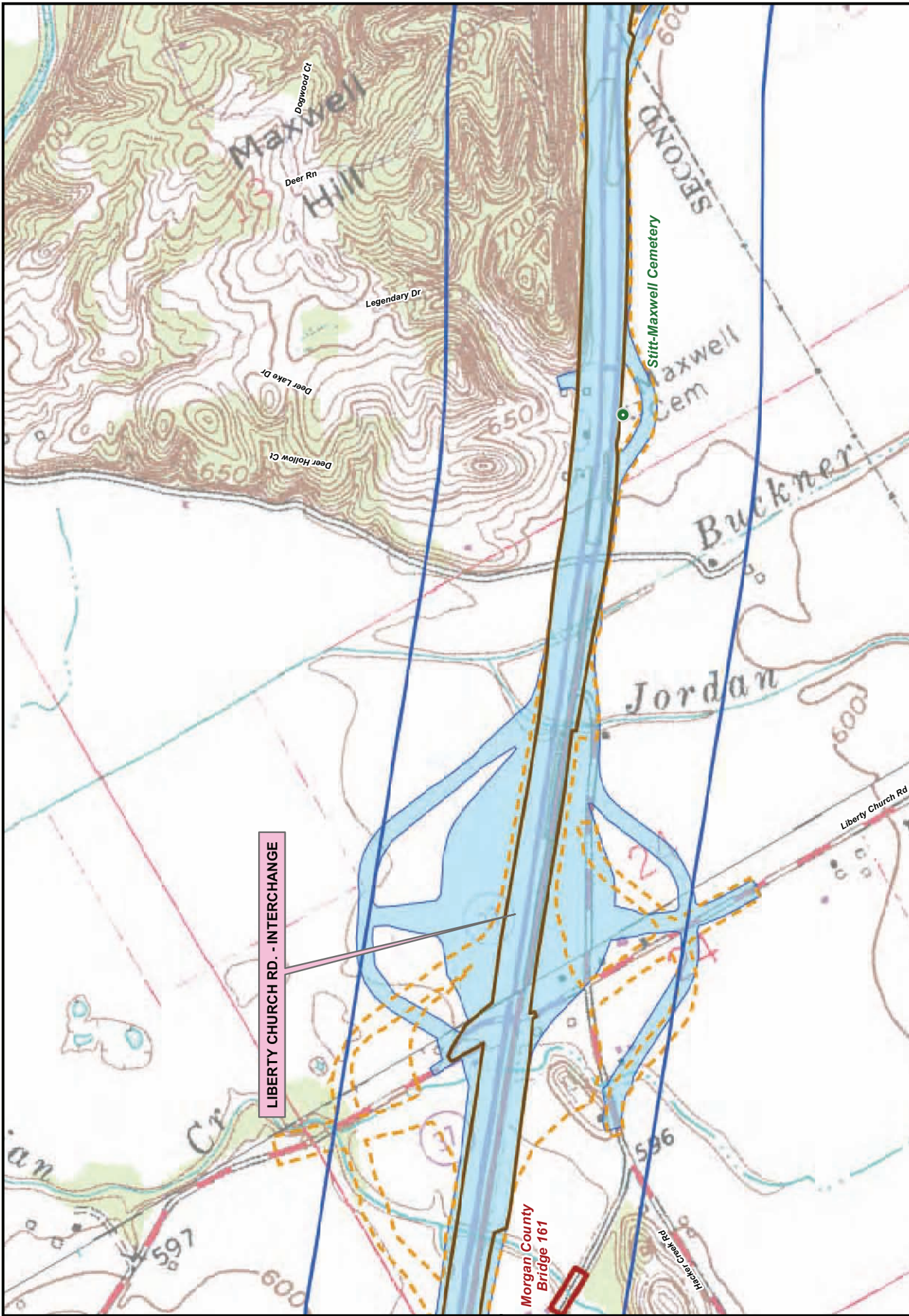
Legend

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- SR 37 Existing Right of Way
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- T F Districts
- National Register Historic Property/District Listed or Eligible
- Subsection Breaks

I-69 Evansville-to-Indianapolis Tier 2 Studies Section 5 - SR 37 to SR 39


F GURE 3-14: Sheet 14 of 16
DE S Preferred Alternative 8 and
Ref ned Preferred Alternative 8

0 400 800 1 200 1 600 Feet



LIBERTY CHURCH RD. - INTERCHANGE

Morgan County
Bridge 161

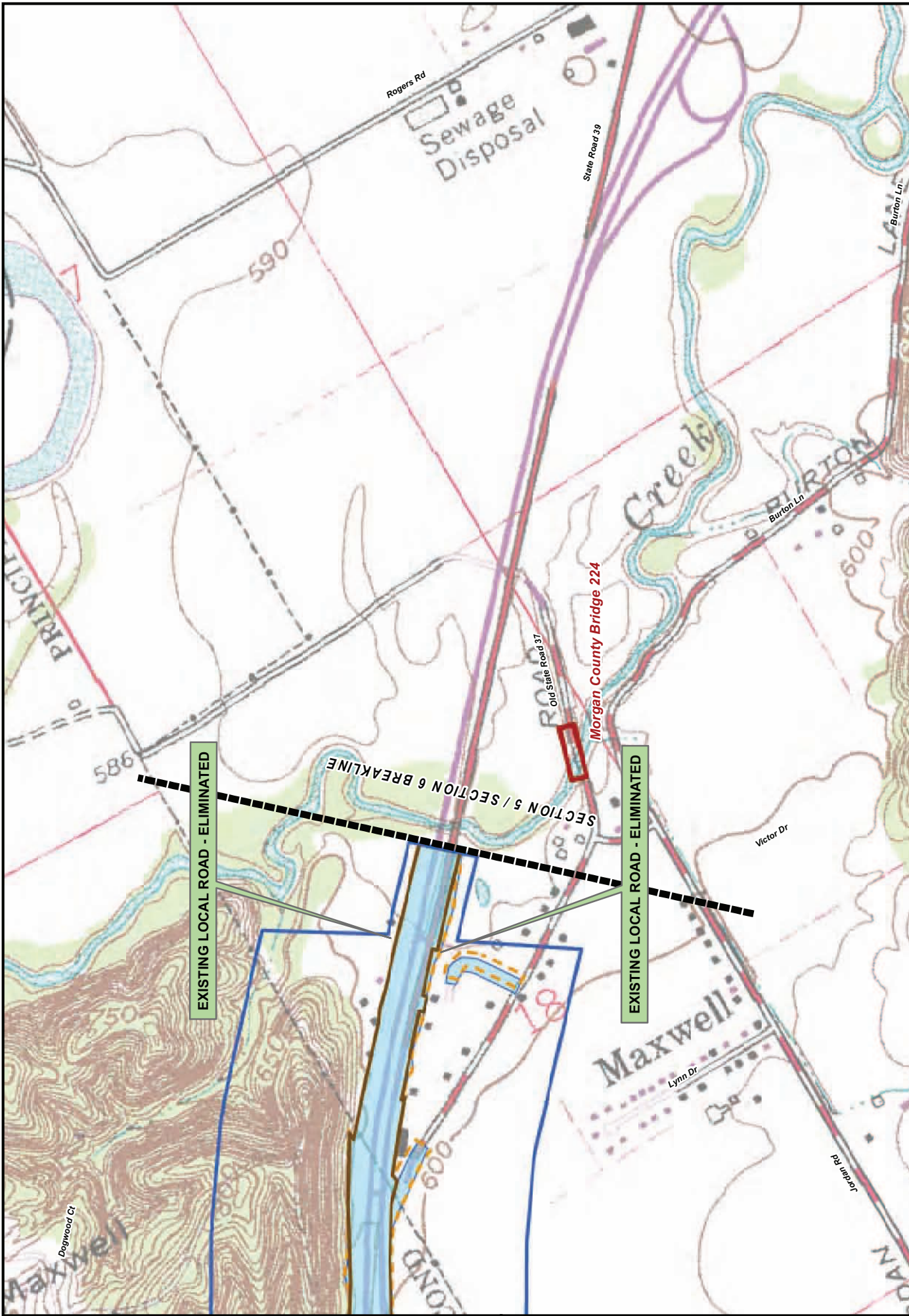



**I-69 Evansville-to-Indianapolis
Tier 2 Studies
Section 5 - SR 37 to SR 39**

Legend

	Section 5 Approved Corridor		SR 37 Existing Right of Way		National Register Historic Property/District Listed or Eligible
	DE S Preferred Alternative 8		Superfund Sites		Subsection Breaks
	Refined Preferred Alternative 8		T F Districts		

F GURE 3-14: Sheet 15 of 16
 DE S Preferred Alternative 8 and
 Refined Preferred Alternative 8







0 400 800 1200 1600 Feet

F GURE 3-14: Sheet 16 of 16
 DE S Preferred Alternative 8 and
 Refined Preferred Alternative 8

Legend

-  Section 5 Approved Corridor
-  DE S Preferred Alternative 8
-  Refined Preferred Alternative 8
-  SR 37 Existing Right of Way
-  Superfund Sites
-  T F Districts
-  National Register Historic Property/District Listed or Eligible
-  Subsection Breaks

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Section 5 - SR 37 to SR 39