



US 31 SOUTH
PLANNING AND ENVIRONMENT LINKAGES (PEL)
STUDY REPORT
FINAL

Revision 1 – October 2025

Prepared By

HNTB



N **NextLevel**
ROADS

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NOTE: Minor edits made to the report in October 2025. The edits included the following:

- Corrected table and figure cross-reference hyperlinks in various locations throughout the document.
- Updated Appendix H to correct planning-level cost estimates for the Grissom Planning Segment. These changes did not alter any conclusions in the Level 3 Screening Report.
- Added Appendix L to include Addendum 1 for RASPI #3. Addendum 1 documents outreach efforts and comments received through August 1, 2025. References to this document were added on pages 19 and 36, as well as pages A-1, A-10, and A-11 of the Completed FHWA PEL Questionnaire (Appendix A).

1. INTRODUCTION

1.1. BACKGROUND AND STUDY OBJECTIVES

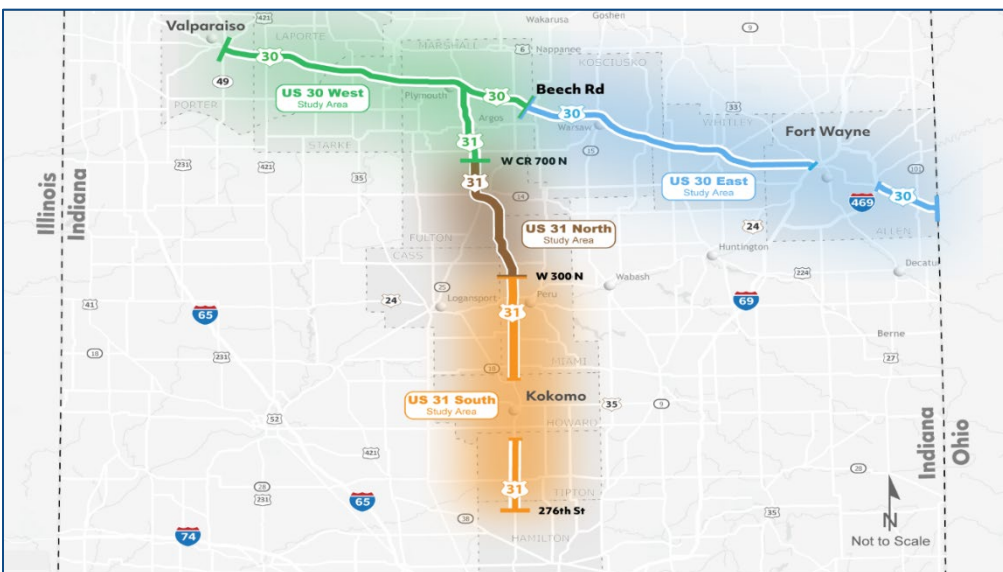
ProPEL is an INDOT initiative for transportation planning using collaborative Planning and Environment Linkages (PEL) studies to consider environmental, community, and economic goals early in the planning process. ProPEL studies use collaboration, data-driven analysis, and public engagement to help shape the future of transportation infrastructure.

The ProPEL US 30 and 31 studies span 180 miles across 12 counties. The overall study area, which was established as a direct result of stakeholder input, includes¹:

- US 30 from Valparaiso to the Indiana/Ohio state line (excluding the I-69/I-469 section around the north side of Fort Wayne).
- US 31 between Hamilton County and US 30 (excluding the US 31 Kokomo bypass).

Within the overall study limits, INDOT designated four smaller study areas for conducting individual PEL studies (see **Figure 1**). This approach enabled each of the study teams to more closely consider community needs and goals. The limits of the four study areas were defined to optimize engagement by keeping communities that associate with each other in the same study area. The four PEL studies were closely coordinated to make sure that potential solutions were integrated and work together across study area boundaries.

Figure 1: ProPEL US 30 and US 31 Study Areas



The ProPEL US 30 and US 31 studies were intended to help guide transportation investments over the next twenty years, creating transportation facilities that meet the needs of all users. Planning products from the PEL studies will

¹ The US 31 Kokomo bypass and the portions of I-69/I-469 around the north side of Fort Wayne were excluded from the overall study limits because they are currently freeway facilities. Therefore, the long-term vision of those portions of US 30 and US 31 has been decided.

inform subsequent project-specific environmental reviews conducted in accordance with the National Environmental Policy Act (NEPA).

A goal of the ProPEL US 30 and US 31 studies is to identify a reasonable range of alternatives for the study area. The studies included several objectives to achieve this goal:

- Engage the public, study stakeholders, and resource agencies throughout the study.
- Identify community goals for the study area.
- Identify transportation needs within the study area.
- Develop the purpose and need for improvements in the study area.
- Identify and develop alternatives that meet the identified needs and consider community goals.
- Evaluate alternatives and eliminate unreasonable alternatives
- Carry forward a smaller number of alternatives for further consideration in future planning and/or project development, including NEPA environmental reviews.
- Document the study process.

This PEL Study Report was prepared for the ProPEL US 31 South study area.

1.2. PROPEL US 31 STUDY AREA

The ProPEL US 31 South study area is approximately 31.5 miles long, extending along US 31 from 276th Street in Hamilton County north to the State Route (SR) 931 south junction in Tipton County, and from the SR 931 north junction in Howard County north to County Road (CR) West 300 North in Miami County. The US 31 Kokomo bypass is excluded from the ProPEL US 31 South study. The ProPEL US 31 South study area is shown in **Figure 2** and **Figure 3**.

1.3. INDOT STUDY TEAM

The ProPEL US 31 South study team included subject matter experts from several different INDOT groups, including Major Projects, Traffic Engineering, Environmental Services, and Technical Planning.

1.4. FHWA COORDINATION

The ProPEL US 31 South study team coordinated with the Federal Highway Administration (FHWA) on a regular basis throughout the study. Coordination included monthly meetings with FHWA to discuss study progress, recap activities, discuss technical approaches, and address any potential questions or concerns identified by FHWA. FHWA also reviewed and commented on the following technical reports developed during the study:

- *ProPEL US 31 South Environmental Constraints Report*
- *ProPEL US 31 South Purpose and Need Report*
- *ProPEL US 31 South Universe of Alternatives (Level 1) Screening Report*
- *ProPEL US 31 South Level 2 Screening Report*
- *ProPEL US 31 South Level 3 Screening Report*

Figure 2: ProPEL US 31 South Study Area (1 of 2)

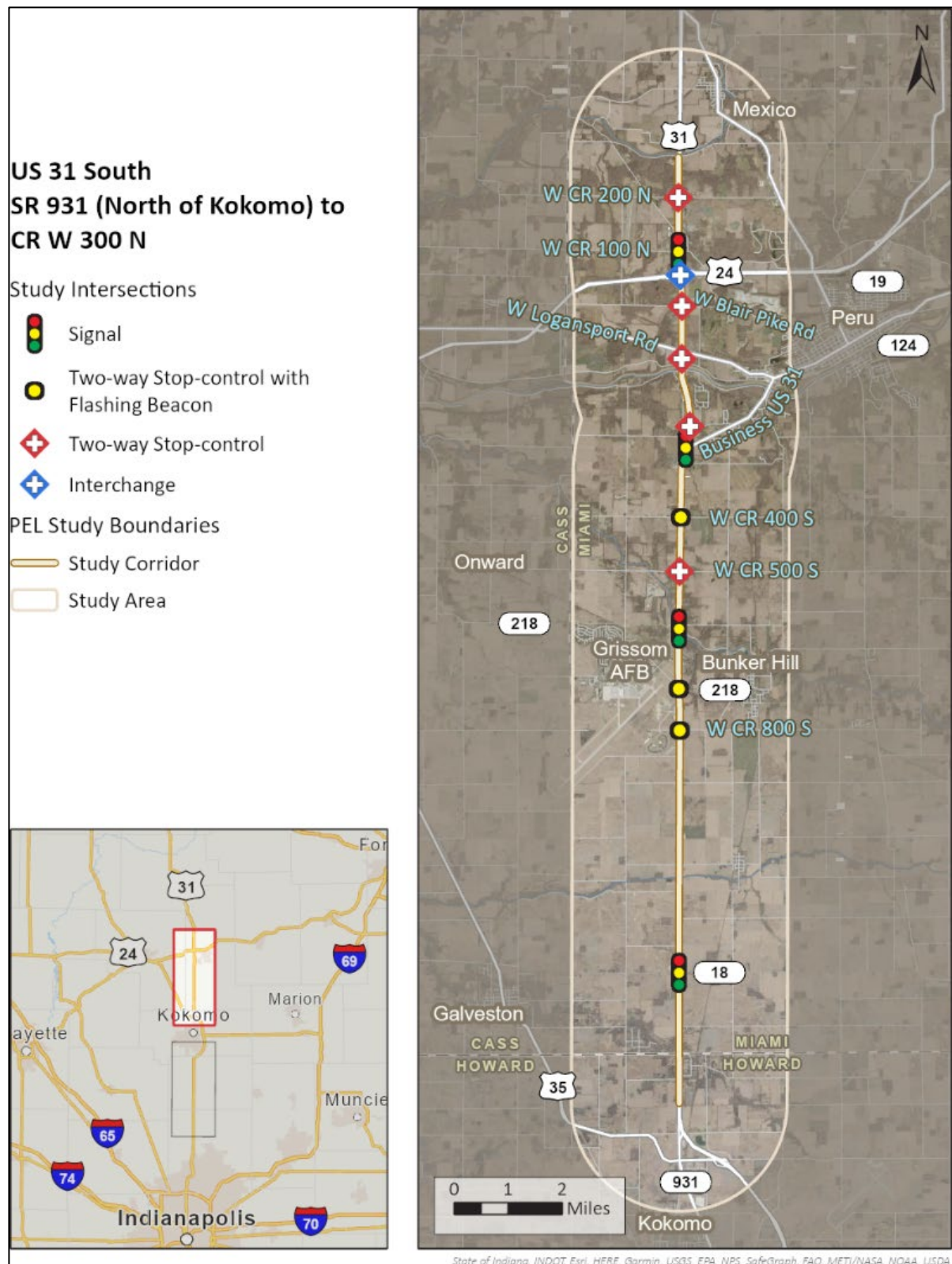
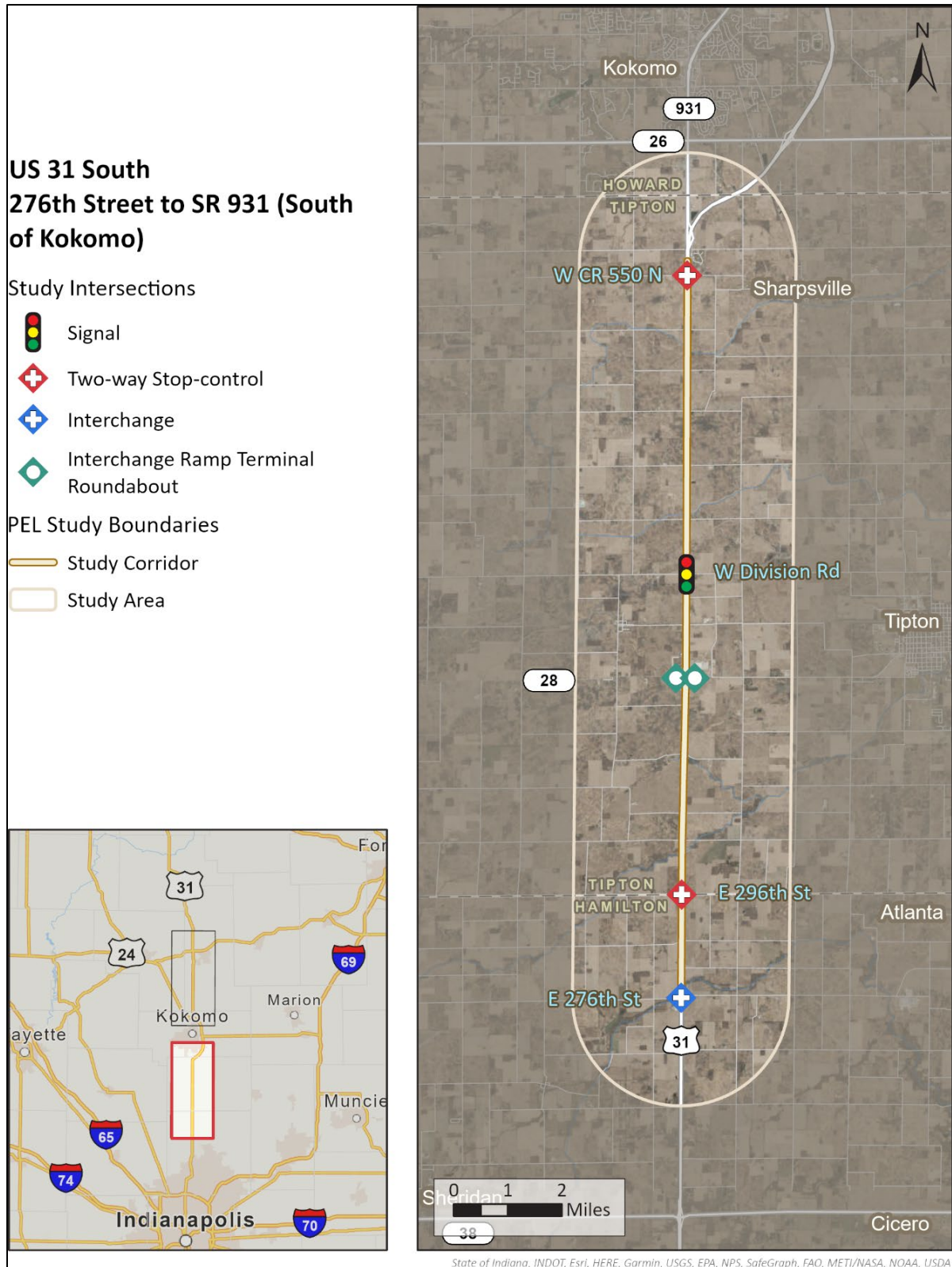


Figure 3: ProPEL US 31 South Study Area (2 of 2)



1.5. PEL STUDY PROCESS FRAMEWORK

The ProPEL US 31 South study included four distinct steps, which are identified below along with a summary of work tasks included in each step:

1. VISION & SCOPING / DATA COLLECTION

- Identify stakeholders and develop a plan to engage them in the study.
- Review corridor history and study area context.
- Identify baseline environmental conditions.
- Identify baseline transportation conditions.

2. PURPOSE AND NEED STATEMENT & STUDY AREA GOALS

- Identify the transportation needs.
- Identify community goals.

3. ALTERNATIVES DEVELOPMENT AND EVALUATION

- Develop performance measures and screening criteria to evaluate alternatives.
- Develop a range of alternatives.
- Evaluate alternatives in terms of ability to meet purpose and need and practicality (Level 1 screening).
- Develop and evaluate intersection alternatives in terms of ability to meet purpose and need, benefits, costs, and impacts (Level 2 screening).
- Develop and evaluate improvement packages in terms of benefits, costs, and impacts (Level 3 screening).
- Document the evaluation process described above.

4. PEL STUDY DOCUMENTATION

- Prepare and distribute the study report to document the process.



1.6. PLANNING CONTEXT

1.6.1. PEL PROCESS AUTHORITY

The ProPEL US 31 South study was conducted in accordance with the regulations found at 23 CFR Part 450 (i.e., the Statewide and Metropolitan Planning Regulations). The ProPEL US 31 South study process was intentionally structured to meet these requirements. See **Table 1** for further information regarding the requirements and where they are addressed in the PEL study report.

Table 1: PEL Study Requirements and Relevant PEL Study Sections

Requirement	Addressed by the PEL Study?	How was it addressed?	Where to find further information?
1. Involvement of interested state, local, tribal, and federal agencies	YES	<ul style="list-style-type: none"> Resource agency and tribal coordination meetings held at multiple points during study. Draft technical reports distributed via email for agency and tribal review in advance of coordination meetings. 	<ul style="list-style-type: none"> Section 1.6.4 Section 2.7 Section 3.5 Section 4.2 Section 4.3 Section 4.4 Section 5
2. Public review	YES	<ul style="list-style-type: none"> Draft technical reports, including purpose & need and alternatives screening reports published for public review and comment. Extensive public involvement and stakeholder coordination efforts throughout study to keep study stakeholders informed and to discuss their relevant questions and concerns. 	<ul style="list-style-type: none"> Section 2.7 Section 3.5 Section 4.2 Section 4.3 Section 4.4 Section 5
3. Reasonable opportunity to comment during the development of the planning study	YES	<ul style="list-style-type: none"> A robust public involvement program was implemented during the study. These efforts included eblasts, social media platforms, Community Office Hours events, attendance at local community fairs and festivals, Stakeholder Advisory Committee (SAC) meetings, individual stakeholder meetings, as well as in-person and virtual public meetings. A minimum 30-day comment period was provided on all draft technical reports published for public review and comment. Draft technical reports published in electronic and hard copy format. Hard copies were placed at public venues within or near the study area during the public comment periods. Individual responses to public comments were provided as part of the alternatives development and screening reports. 	<ul style="list-style-type: none"> Section 2.7 Section 5
4. Documentation of relevant decisions in a form that is identifiable and available for review	YES	<ul style="list-style-type: none"> All planning analyses and relevant decisions were published in multiple technical reports and included in PEL study appendices as supporting 	<ul style="list-style-type: none"> Section 2 Section 4 Section 5 Section 6

Requirement	Addressed by the PEL Study?	How was it addressed?	Where to find further information?
during the NEPA scoping process and can be appended to or referenced in the NEPA document (future step)		documentation. These reports were available on the study website, as well as at multiple locations within or near the study area.	
5. Review of the FHWA	YES	<ul style="list-style-type: none"> Regular coordination meetings held with FHWA during the duration of the study. Draft technical reports provided to FHWA for review and comment (see Section 1.4). Updates made to the technical reports to address FHWA review comments, including responses to all FHWA comments. 	<ul style="list-style-type: none"> Section 1.4 Section 5.2

ProPEL US 31 South relied on information and data from current and previous planning efforts with the intention of integrating any future projects resulting from the study into the metropolitan and statewide transportation planning processes. Coordination with the Kokomo and Howard County Governmental Coordinating Council (KHCGCC), which is the metropolitan planning organization for the Kokomo, Indiana urbanized area, occurred throughout the study. More specifically, KHCGCC participated as a member of the ProPEL US 31 South SAC.

1.6.2. STUDY AREA PLANNING CONTEXT

As one of the first steps in the study, the study team collected and reviewed previously completed land use plans and transportation plans related to the study area (see **Table 2**). The purpose of this effort was to:

- Establish a planning context for the corridor.
- Provide background for creating a public and stakeholder outreach process.
- Support the development of the study area purpose and need statement.
- Inform the development of study area goals.
- Assist with the early phases of the alternatives development and evaluation.

Table 2: Previously Completed Studies Reviewed by the ProPEL US 31 South Study Team

Study Name	Potentially Relevant Information			
	Corridor History & Background	Purpose & Need Info	Potential Alternatives Info	Environmental Info
1. Hamilton County, Indiana Transportation Improvement Project Map		X	X	
2. Sheridan Comprehensive Plan (2013)	X			X
3. Hamilton County Comprehensive Plan 2020	X	X	X	X
4. Howard County Comprehensive Plan (2004)	X	X	X	X
5. Kokomo MPO Transportation Improvement Program – Fiscal Year 2022-2026		X	X	
6. Peru Downtown Revitalization Plan (2022)	X			
7. Tipton County, Indiana Comprehensive Plan 2013	X	X	X	X
8. Tipton County, IN Comprehensive Plan Amendment – US 31 Corridor Improvements (2018)		X	X	
9. Mini Scope for Us 31 From Indianapolis to Kokomo (Des 1702938) (2017)		X	X	
10. US 31 Corridor Economic Impact Analysis (2015)	X	X		
11. Mini Scope for Us 31 And Division Road Intersection Improvement Project (2018)		X	X	
12. Final Engineers Report for US 31 Intersection Improvements (2020)		X	X	X
13. North Central Indiana – Regional Development (READI) Plan (2021)	X			
14. Air Installation Compatible Use Zone (AICUS) Study at Grissom Air Reserve Base, Indiana (2014)	X		X	
15. Grissom Air Reserve Base Joint Land Use Study (2018)	X	X	X	X
16. Grissom Air Reserve Base Operational Areas Action Plan (2021)	X	X	X	X
17. Miami County, Indiana Economic Development Strategy (2006)	X	X		
18. Miami County Comprehensive Plan (2015)	X	X	X	X
19. North Central Indiana Planning Council (NCIRPC): Regional Economic Development Plan (2017)	X			
20. INDOT 2018-2045 Future Transportation Needs Report (2017)	X	X	X	
21. Indiana Department of Transportation Statewide Transportation Improvement Program (STIP) 2022-2026	X	X	X	
22. INDOT US 31 Corridor Study (2017)	X			X

Study Name	Potentially Relevant Information			
	Corridor History & Background	Purpose & Need Info	Potential Alternatives Info	Environmental Info
23. INDOT US 31 Corridor Feasibility Planning Study Report (2018)	X		X	X
24. Economic Impacts of US 31 Corridor Improvements (1998)	X	X		
25. Indiana Governor’s Public Health Commission Report (2022)	X	X		
26. Indiana Multimodal Freight Plan Update 2018	X	X		
27. US 31 Indy to South Bend Studies and Improvement Concept (1998)	X		X	X
28. Blue Ribbon Panel on Transportation Infrastructure (2014)	X	X		

1.6.3. REGIONAL AND STATEWIDE TRANSPORTATION PLANS

Metropolitan Transportation Plan

A small portion (approximately 1 mile) of the ProPEL US 31 South study area falls within the jurisdiction of the Kokomo Howard County Governmental Coordinating Council (KHCGCC), which is the metropolitan planning organization (MPO) for the Kokomo and Howard County area. KHCGCC is responsible for long-range transportation planning for the Kokomo, Indiana urbanized area.

KHCGCC’s 2050 Metropolitan Transportation Plan (MTP) was adopted on March 14, 2024. Regionally significant projects, such as capacity increasing projects, must be identified in the MTP. There are no projects in the MTP that overlap the ProPEL US 31 South study. Any regionally significant projects recommended from the ProPEL US 31 South study that move forward into project development will require coordination with KHCGCC to include in the MTP once funding has been identified. Recommendations from this study will also be provided to KHCGCC to inform future updates/amendments to the MTP.

Long-Range Transportation Plan

INDOT’s Long-Range Transportation Plan (LRTP) (2018-2045 Transportation Needs Report) was adopted in June 2019. This plan is not project specific, rather it identifies priorities over the next 30 years. The LRTP identifies goals to guide improvements to Indiana’s transportation system. These goals are safe and secure travel, system preservation, economic vitality, multimodal mobility, environmental responsibility, new technology, and strategic policy actions. The ProPEL US 31 South purpose and need and community goals, discussed in **Section 2**, are consistent with these LRTP goals. The LRTP identifies potential improvements along US 31 from SR 38 in Hamilton County to south of Kokomo and from Kokomo north to US 30. The US 31 corridor is identified as major corridor in the LRTP because it is critical to mobility and economic activity in Indiana.²

² At the time of this report, INDOT is in the process of updating the Long-Range Transportation Plan. INDOT Technical Planning, which is leading the LRTP updates, was part of the ProPEL US 31 South study team.

Transportation Improvement Program

KHCGCC also develops the Transportation Improvement Program (TIP), which is the short-term programming document for the Kokomo and Howard County area. All federally funded transportation projects are required to be included in the TIP. The current version of the TIP, which covers fiscal years 2024 through 2028, was approved March 5, 2025. The TIP is kept current with amendments that add new projects or adjust changing schedules and costs of existing projects. Any recommendations from the ProPEL US 31 South study that move forward into project development must be included in KHCGCC's TIP once INDOT identifies funding.

Statewide Transportation Improvement Program

INDOT's Statewide Transportation Improvement Program (STIP) is a planning document that lists all projects to be financed in whole or in part with federal funds as well as all state-funded projects that are regionally significant. As with the TIP, the STIP is used in the ProPEL US 31 South study to define the future existing roadway network. Projects listed in the STIP are expected to be completed within five years; and therefore, the study assumes they will be in place as part of the future conditions analysis.

The STIP was reviewed early in the study process. At that time, the STIP document covered fiscal years 2022 through 2026 and contained eleven projects within the study corridor, which are summarized in **Table 3**.³ As indicated in the table, several projects programmed for construction were delayed until this PEL study was completed.

Table 3: Summary of STIP Projects (2022-2026) within the ProPEL US 31 South Study Corridor

Contract No./ Des No.	Construction Funding Year	Location	Work Type
42208 / 1901523	2022	SR 931 Bridge over US 31 NB/SB	Bridge Thin Deck Overlay
41640 / 1802090	2023	US 31 at SR 218 N Jct	New Interchange Construction*
- / 2200539	2023	US 24 EB bridge over US 31	Bridge Deck Overlay
- / 2200862	2024	US 31 NB bridge over Abandoned RR (1.10 miles S of US 24)	Superstructure Repair and Rehabilitation
41640 / 2000903	2023	US 31 NB bridge over Wabash River	Bridge Deck Overlay
43281 / 2001787	2025	Various Locations on US 31 between RP 177.52 and 196.15	Small Structures & Drains Construction
43602 / 1800042	2023	US 31 at Business 31	New Interchange Construction*
43847 / 2100775	2026	US 31 over Rife Creek	Small Structure Pipe Lining
43201 / 2002313	2022	US 31 From 3.0 Miles N of SR 38 to SR 931	Access Control*
- / 1702626		US 31 Indianapolis to South Bend	Access Control*
- / 2100113		US 31 from 276 th St to US 30	PEL Study

*Project postponed due to the ProPEL US 31 South study

³ A draft STIP covering fiscal years 2026-2030 has been published online and may include additional programmed projects not reflected in this planning study.

Several programmed projects listed in the TIP and STIP address short-term infrastructure condition needs. The ProPEL US 31 South study does not include a detailed analysis of transportation asset conditions in the study area. That assessment will take place as part of future project scoping to develop a more detailed scope of work and budget prior to identifying funding for inclusion in the STIP.

Any recommendations from the ProPEL US 31 South study that move forward into project development will be included in the STIP once INDOT identifies funding.

1.6.4. COORDINATION WITH LOCAL PLANNING AGENCIES

Regular coordination with the local transportation and planning agencies occurred throughout the PEL study. These agencies, which participated as members of the SAC, included:

- KHCGCC
- Tipton County Planning & Highway Departments
- City of Peru Planning & Zoning Departments
- Hamilton County Highway Department
- Howard County Highway Department

See **Section 5.3** for further details on the coordination completed with the SAC members.

2. PURPOSE AND NEED

2.1. INTRODUCTION

The purpose and need statement establishes “why” a study or project is being proposed and sets the foundation for alternatives development and evaluation. The statement identifies specific transportation problems (needs) to be addressed and describes specific desired outcomes (purposes). The purpose and need statement helps determine a reasonable range of alternatives. Potential alternatives determined not to meet the purpose and need are eliminated from further consideration. Additionally, project goals that are desirable, but not required outcomes, can guide the development and screening of potential alternatives along with other factors, such as transportation performance, environmental impacts, benefits, and cost.

The information contained in this section is summarized from the following documents, which are included as appendices to the PEL study report:

- Appendix B: *ProPEL US 31 South Existing Transportation Conditions Report*
- Appendix C: *ProPEL US 31 South Existing Transportation Conditions Report – Addendum 1*
- Appendix D: *ProPEL US 31 South Final Purpose and Need Report*
- Appendix I: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #1 (RASPI #1)*
- Appendix J: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #2 (RASPI #2)*

2.2. CORRIDOR VISION

The following vision⁴ was established for the US 31 corridor during development of the study area purpose and need statement:

The US 31 corridor will serve local, regional, and national travelers by balancing mobility and access considerations in a way that:

- **Enhances safety for all users;**
- **Provides transportation solutions for all; and**
- **Complements local community goals and objectives, including maintaining the character of the study area.**

The corridor vision, which was collaboratively developed for both the ProPEL US 31 North and US 31 South studies, is separate from and does not take the place of the purpose and need statement.

During the Level 3 screening process, INDOT supplemented the corridor vision based on the analysis completed throughout the study. More specifically, INDOT identified a long-term vision of upgrading US 31 in the study area to

⁴ The corridor vision was refined based on the passage of several federal and state Executive Orders (EOs) as well as one USDOT order. See **Section 3.2** for additional information.

a free-flow facility, which is a road without traffic signals, stop signs, or yield signs for mainline traffic. There are varying types of free-flow facilities, ranging from freeways – which have full control of access – to free-flow facilities that have no or partial control of access. The ProPEL US 31 South study found achieving this long-term vision was feasible; however, there are tradeoffs to consider and uncertainties that would impact the implementation timeline.

Tradeoffs to consider include:

- Higher costs;
- Higher community and environmental impacts; and
- Potentially severe impacts to local communities and businesses due to the loss of access to/from US 31 and US 30, as well as reduced mobility across them.

Uncertainties impacting the implementation timeline include:

- Policy decisions of elected officials and agency leaders;
- Statewide transportation priorities; and
- Transportation funding.

Given these tradeoffs and uncertainties, the ProPEL US 31 South study considered a range of improvements that provide INDOT with the flexibility needed to incrementally move toward a long-term vision of a free-flow facility through a series of improvements over time to address the identified transportation needs. The improvements include more immediate, lower-cost improvements, as well as higher-cost improvements that require funding beyond what is currently available.

Due to the identified uncertainties, the study concludes that implementation of an entirely free-flow facility on US 31 in the study area will likely extend beyond the study's planning horizon of 2045. In the interim, the study provides INDOT with a flexible guide to incrementally upgrade US 31 in the study area to a free-flow facility.

2.3. TRANSPORTATION NEEDS

The study team identified the following transportation needs for the ProPEL US 31 South study area:

- Safety concerns due to a high number and severity of crashes within the study area.
- Operational issues at intersections across the study area.
- Lack of consistency with INDOT's Access Management Guidelines.
- Mobility requirements across the corridor (east-west).
- Safe, high-quality mobility for long-distance passenger and freight trips through the study corridor.

2.4. PURPOSE

To address the needs identified, the purpose of the ProPEL US 31 South study is to:

- Improve safety along the US 31 corridor by reducing the number and severity of crashes within the study area.
- Improve traffic operations by reducing delay at unsignalized intersections.
- Improve access control through implementation of INDOT's Access Management Guidelines.
- Support east-west mobility for schools, emergency services, and agricultural services.
- Enhance the efficiency and reliability of US 31 as a regional and statewide corridor.

2.5. PERFORMANCE MEASURES

Performance measures are quantifiable criteria used to measure how well an alternative functions with respect to planning objectives. The study team identified the performance measures shown in **Table 4** to guide the development and evaluation of alternatives during the PEL study.

Table 4: Study Performance Measures

Study Purpose	Performance Measure
Improve safety along the US 31 corridor by reducing the number and severity of crashes within the study area.	Apply safety countermeasures to reduce crash rates and/or severity.
Improve traffic operations at the unsignalized intersections.	Reduce delay at the unsignalized intersections.
Improve access control through implementation of INDOT's Access Management Guidelines.	Prioritize and consolidate access points on US 31 to meet INDOT's Access Management Guidelines.
Support east-west mobility for schools, emergency services, and agricultural services.	Maintain or improve safety, access, and mobility across the corridor for school bus routes, emergency services, and agricultural equipment by preserving the most important crossing locations.
Enhance the efficiency and reliability of US 31 as a regional and statewide corridor.	Improve operations along US 31 to enhance passenger and/or freight mobility.

2.6. STUDY AREA GOALS

Goals represent overarching outcomes that are desirable, but not specifically required since they are not measurable with respect to identified study area needs. Goals were not the sole basis for eliminating or carrying forward a solution or alternative; they were considered alongside other factors such as transportation performance, benefits, impacts, and costs. The study team identified the following goals for the ProPEL US 31 South study area:

- **Economic Development** – Provide transportation infrastructure to support local economies and economic development goals.
- **Transportation for All** – Provide fair solutions that consider the needs of all communities, including sensitive communities.⁵

⁵ This goal was refined in the *Final Level 3 Screening Report* based on the issuance of several federal and state Executive Orders (EOs), as well as one USDOT order. See **Section 3.2** for additional information.

- **Multimodal Access & Connections** – Accommodate non-motorized, transit, and active modes of travel in and across the study area.
- **Emerging Technologies** – Support emerging technologies and related infrastructure, including alternative fuel, and autonomous or connected vehicles.
- **Fiscal & Environmental Practicality** – Identify fiscally responsible improvements and avoid/minimize impacts to the human and natural environment.

2.7. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

Two public information meetings were held during the Vision and Scoping phase of the study. These meetings were used to solicit input from the public regarding the fit and function of the study corridor, including location-specific concerns regarding safety and/or operations. The input collected from these meetings was used to develop the corridor vision articulated in the study area purpose and need statement.

The study team published the *Draft Purpose and Need Report* for public and agency review on June 5, 2023, and the public comment period extended through July 31, 2023. Additionally, the report was distributed to federal, state, and local resources agencies as well as the tribal nations for review and comment. Two in-person public information meetings were held in the study area during the public comment period. A virtual public information meeting, which included the meeting materials and a recording of the presentation from the in-person meetings, was made available online at the ProPEL US 31 website the day following the second public information meeting.

A virtual resource agency and cultural resources stakeholder coordination meeting was held on September 15, 2023. Comments from resource agencies and cultural resources stakeholders were requested on or before September 29, 2023.

After considering the comments received from the public, agencies, and tribes, the *Final Purpose and Need Report* was published in December 2023 and amended in March 2024. The March 2024 amendment, which was minor in nature, updated the Fiscal & Environmental Practicality goal to specifically reference resources important to tribal nations.

Please see **Section 5** for further information regarding public involvement and agency coordination efforts related to purpose and need development.

3. EXISTING ENVIRONMENT

3.1. INTRODUCTION

This section summarizes the likely environmental resources within the ProPEL US 31 South study area. An environmental constraints report was prepared early in the study to identify key resources, avoid fatal flaws, and account for sensitive environmental areas during alternatives development and evaluation. To identify social, economic, and environmental constraints, data was gathered through online databases, aerial imagery, Google Maps, geographic information system (GIS) GIS analysis, limited field reviews, and coordination with local planning agencies. Environmental resources were generally identified within a 0.5-mile buffer from the corridor centerline; exceptions to the half-mile study area included airports (2.8-mile buffer), demographic data (5-mile buffer); and noise sensitive areas (500-foot buffer from the edge of travel lanes per INDOT policy).

The information contained in this section is summarized from the *ProPEL US 31 South Environmental Constraints Report (Appendix B)*. Additional details and mapping of environmental resources can be found in **Appendix B**. All resources identified in the report will be revisited during subsequent NEPA reviews for any future project(s) that may result from the ProPEL US 31 South study.

3.2. LAND USE AND SOCIOECONOMICS

Socioeconomic data outlines trends and projections related to population, households, and employment within the study area. This data serves as the baseline for analyzing and recommending future transportation improvements. It also includes information about current and future land use to help show where growth and development are expected.

Between 2000 and 2020, Hamilton County's population grew by 44.7%. In contrast, the populations of Tipton, Howard, Cass, and Miami Counties declined by between 0.3% and 8.49% during the same period. Looking ahead, forecasts project Hamilton County will see a population increase of approximately 3.36% from 2020 to 2050, while the other counties are expected to experience declines ranging from 11.06% to 30.73%.

Since the publication of the *ProPEL US 31 South Environmental Constraints Report*, the socioeconomic impact analysis was updated to consider the issuance of several federal and state Executive Orders (EOs), as well as one US Department of Transportation Order (USDOT) order, including:

- Federal EOs: EO 14154, EO 14148, EO 14173, and EO 14281;
- State EOs: EO 25-49, EO 25-37, and EO 25-14; and
- USDOT Order 2100.7.

Land use within the ProPEL US 31 South study area is predominantly agricultural, with some residential and industrial development, particularly near key intersections. Notable land uses include Grissom Air Reserve Base, highway-oriented commercial uses, industrial facilities, and residential areas near major crossroads. The northern portion of the study area features significant forested land. The corridor is primarily zoned agricultural in Hamilton, Tipton, and Miami Counties. Select areas in Tipton County are zoned for light industrial, general business, and agribusiness. The area around Grissom Air Reserve Base in Miami County is zoned industrial.

Several community facilities were located within or adjacent to the study area. Pipe Creek Elementary is located adjacent to the study area at US 31 and County Road (CR) W 400 S. Additionally, seven school districts span the study

area. Four churches are located near the corridor: Hopewell Church, East Union Christian Church, Carpenter's House, Calvary Church. Seven cemeteries are within the study area, including three directly adjacent to US 31—East Union, Tucker/Center Grove, and Cassville Cemeteries.

Potential Section 4(f) resources were identified within the study area that would require formal evaluation to determine Section 4(f) eligibility and use. Potential Section 4(f) resources include the Pipe Creek Elementary School recreational areas and the Nickel Plate Trail. Additionally, there are potentially historic resources located adjacent to US 31. Future work will include formal evaluation to determine Section 4(f) eligibility and use of these potentially historic resources.

No Section 6(f) resource properties are located within or adjacent to the study area.

3.3. NATURAL RESOURCES

Aquatic resources within the study area include wetlands and surface waters such as streams, rivers, ponds, and lakes. These resources are protected under Section 404 of the Clean Water Act (CWA) and Executive Order 11990, which addresses wetland protection. Under Section 404, impacts to jurisdictional waters of the United States—including wetlands and open waters—must be avoided, minimized, or mitigated to prevent a net loss of their functions and values. Additionally, non-jurisdictional waters may still require compensatory mitigation depending on project scope and funding. A more detailed delineation to map and evaluate the features listed below and other potentially unmapped streams will be required during subsequent NEPA reviews for any future project(s) that may result from the ProPEL US 31 South study.

The following summarizes the natural resources present in the study area:

- One-hundred-ninety-seven (197) National Wetlands Inventory (NWI) mapped wetlands are located within the study area. Eight (8) NWI wetlands are adjacent to the southern portion of the study area and seven (7) NWI wetlands are adjacent to the northern portion of the study area.
- Three INDOT mitigation sites are located within the study area.
- One-hundred-twenty-eight (128) stream segments are mapped within the study area. Twenty-four (24) stream segments cross or are adjacent to US 31. Nine (9) stream segment crossings are within the southern portion of the study area and fifteen (15) stream segment crossings are within the northern portion of the study area.
 - Nine (9) IDEM 303(d) listed streams and lakes intersect with US 31 in the southern portion of the study area, and five (5) IDEM 303(d) listed streams and lakes intersect with US 31 in the northern portion of the study area
- Forty-three (43) floodplain polygons are mapped within the study area. Twenty (20) floodplain polygons are adjacent to or intersect with US 31: Six (6) floodplain polygons are mapped in the southern portion of the study area and fourteen (14) are mapped in the northern portion of the study area.
 - Based on coordination with the Hamilton County Surveyor and Miami County Planning and Zoning Plan Commission Administration, there are no Flood Hazard Mitigation Grant Program lands located in Hamilton or Miami County. Coordination was attempted with Tipton and Howard County representatives, and no response was received.
- Forty (40) lakes are mapped within the study area. Three (3) lakes are directly adjacent to US 31 in the northern portion of the study area, while none are directly adjacent to US 31 in the southern portion of the study area.

A review of the USFWS database did not indicate the presence of endangered bat species in the study area.

The study area is within range of the federally endangered Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*), as well as the proposed endangered tricolored bat (*Perimyotis subflavus*). The official species list generated from IPaC indicated that one “experimental population” for the whooping crane (*Grus americana*), two federally threatened mussels, rabbitsfoot (*Quadrula cylindrica cylindrica*) and round hickorynut (*Obovaria subrotunda*), and one proposed endangered mussel, salamander mussel (*Simpsonaias ambigua*), are present within the study area. One candidate species, the monarch butterfly (*Danaus plexippus*), was also identified. Since finalization of the *ProPEL US 31 South Environmental Constraints Report*, the United States Fish and Wildlife Service proposed listing the monarch butterfly as a federally threatened species.

3.4. CULTURAL RESOURCES

Federal law requires agencies to evaluate the potential impacts of their actions on cultural resources before granting approval. This legislation establishes a regulatory framework for identifying, evaluating, protecting, and managing cultural resources, which include both archaeological sites and historic properties such as buildings, structures, and other elements of the built environment.

Seventeen (17) “Notable” and “Outstanding” resources, two (2) properties listed on the National Register, and two (2) bridges listed on the National Register of Historic Places (NRHP) were identified within the study area. Several of these resources are directly adjacent to US 31, including the NRHP-listed B-17G “Flying Fortress” No. 44-83690, the Kelley House (“Outstanding” resource), and two previously determined eligible houses.

In addition to the resources identified above, available information was obtained on historic canal structures and routes and Centennial Farms. One historic canal route lies within the study area. The Wabash-Erie Canal intersects with US 31 1.25 miles south of the US 31 and US 24 interchange. Centennial farms are listed by county, without specific location information. Hamilton County has 100 Centennial Farms, Howard County has 87 Centennial Farms, Miami County has 86 Centennial Farms, and Tipton County has 189 Centennial Farms.

Numerous archaeological resource sites were identified throughout the study area; however, in accordance with 54 USC 307103 and Indiana Code 14-21-1, which provides protection for archaeological sites and burial sites, information related to such resources is not publicly disclosed in this report.

3.5. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

The study team published the *Draft Environmental Constraints Report* to the study website in June 2023. Additionally, the report was distributed to federal, state, and local resources agencies for review and comment. A virtual resource agency and cultural resources stakeholder coordination meeting was held on September 15, 2023. Comments from resource agencies and cultural resources stakeholders were requested on or before September 29, 2023. After considering the comments received, the *Final Environmental Constraints Report* was published in July 2024.

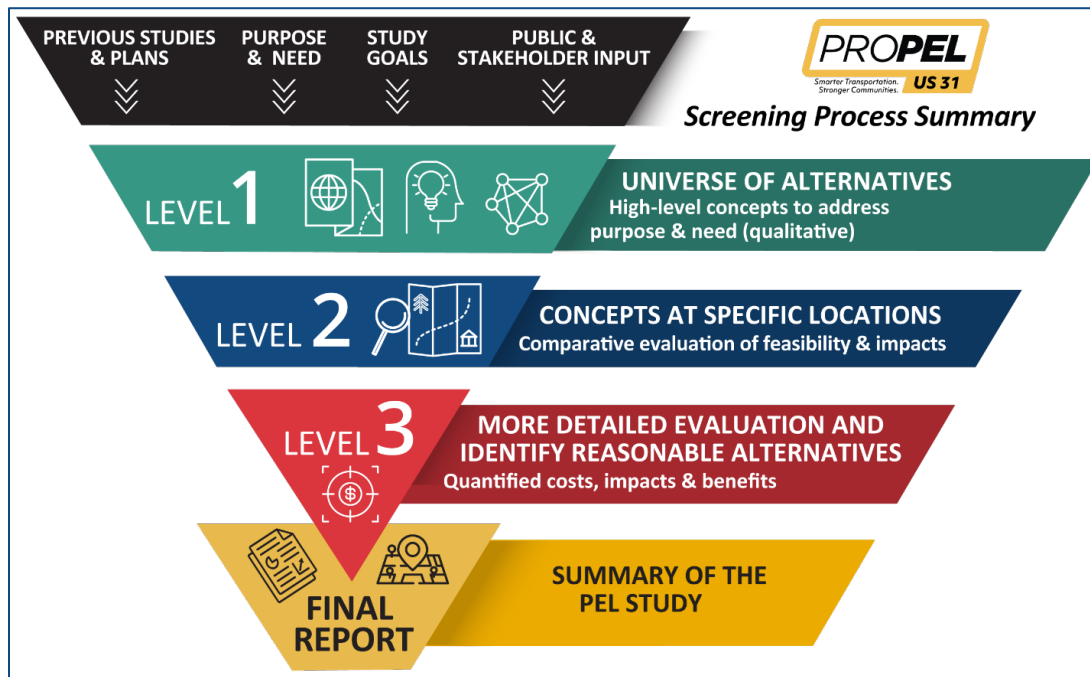
Please see **Section 5** for further information regarding public involvement and agency coordination efforts related to the development of the environmental constraints report.

4. ALTERNATIVES DEVELOPMENT AND EVALUATION

4.1. INTRODUCTION

The ProPEL US 31 South study used a three-level screening process, depicted in **Figure 4**, to identify reasonable alternatives that address the identified transportation needs and goals of the study area.

Figure 4: ProPEL US 31 South Alternatives Development and Screening Process



The following sub-sections summarize each screening report, including alternatives considered, evaluation process, results, as well as the associated public involvement and agency coordination completed with each screening step. The information contained in these sub-sections is summarized from the following documents, which are included as appendices to the PEL study report:

- Appendix F: *ProPEL US 31 South Final Universe of Alternatives (Level 1) Screening Report*;
- Appendix G: *ProPEL US 31 South Final Level 2 Screening Report*;
- Appendix H: *ProPEL US 31 South Final Level 3 Screening Report*;
- Appendix I: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #1 (RASPI #1)*;
- Appendix J: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #2 (RASPI #2)*;
- Appendix K: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #3 (RASPI #3)*; and
- Appendix L: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #3 – Addendum 1 (RASPI #3 – Addendum 1)*.

4.2. SUMMARY OF LEVEL 1 SCREENING

The purpose of the Universe of Alternatives (Level 1) screening was to identify concepts meeting the purpose and need for the study area. Concepts that met the purpose and need were carried forward and further evaluated in the Level 2 screening process. A qualitative screening process was used to evaluate the improvement concepts contained in the Level 1 screening. This process focused on the ability of each concept to meet the purpose and need for the study area, as well as an assessment of the practicality of each concept. Concepts that did not meet one or more study area needs and/or were not practical were eliminated from further consideration and were not evaluated in the Level 2 screening process.

The Level 1 screening considered a set of 55 transportation improvement concepts for the ProPEL US 31 South study area. The concepts included:

- The No-Build Alternative;
- Ten corridor improvement concepts;
- Two off-corridor improvement concepts;
- Nine intersection improvement concepts;
- Four interchange improvement concepts;
- Ten spot improvement concepts;
- Five traffic systems management and operations (TSMO) improvement concepts;
- Eight policy considerations; and
- Six transit and non-motorized improvement concepts.

The Level 1 screening resulted in the following:

- Five Primary Concepts that met a majority of transportation needs and were carried forward to the Level 2 screening for evaluation as stand-alone alternatives.
- Nine Complementary Concepts that met some transportation needs but could not function as a stand-alone alternative. These concepts were carried forward to the Level 2 screening for location-specific application as part of a Primary Concept.
- Thirteen Design Elements that did not meet any transportation needs but were considered practical as they provided some benefit to the study area. These concepts were carried forward to the Level 2 screening for incorporation where applicable.
- The No-Build alternative met one transportation need, but it would not address the substantive safety issues identified throughout the study area. The No-Build alternative was advanced to the Level 2 screening to serve as a baseline for comparison to build alternatives.

Table 5 lists the practical concepts advanced from the Level 1 screening process.

Table 5: ProPEL US 31 South Level 1 Screening Results

Primary Concepts (5)	Complementary Concepts (9)	Design Elements (13)
<ul style="list-style-type: none"> • Access Management • Freeway (Free Flow Facility with Full Control of Access) • Unsignalized Intersection Improvements • Cross Road Overpass/Underpasses • Convert to Interchange 	<ul style="list-style-type: none"> • Auxiliary Lanes • Signal Timing Updates/Coordination • Add/Lengthen Turn Lanes • Add/Extend Acceleration Lanes • Signalized Intersection Improvements • Ramp Terminal Intersection Improvements • Roadway Lighting • Warning Systems • Freight Priority System 	<ul style="list-style-type: none"> • Median Safety Improvements • Realign Skewed Intersections • Intersection Sight Distance Improvements • Traffic Control Visibility Upgrades • Pavement Marking Improvements • Roadway Signage Improvements • Accommodate Wildlife Crossing • Geometric Improvements • Roadway Drainage Improvements • Gateway/Corridor Treatment • Speed Management • Alternative Fuel/Electric Vehicle Considerations • Bicycle/Pedestrian Facilities

The *Draft Universe of Alternatives (Level 1) Screening Report* was published for public review and comment on November 13, 2023, and the public comment period extended through December 22, 2023. Additionally, the report was distributed to federal, state, and local resource agencies as well as the tribal nations for review and comment. After considering the comments received from the public, agencies and the tribes, the Level 1 screening report was finalized on March 27, 2024.

For further information on the Level 1 screening, including details on methodology, screening results, as well as comments received during the public comment period and responses to them, please see the *Final Universe of Alternatives (Level 1) Screening Report* in **Appendix F**. Please see **Section 5** for further information regarding public involvement and agency coordination efforts related to the Universe of Alternatives (Level 1) screening.

4.3. SUMMARY OF LEVEL 2 SCREENING

The purpose of the Level 2 screening analysis was to qualitatively evaluate location-specific improvements carried forward from the *Final Universe of Alternatives (Level 1) Screening Report* for reasonability and potential impacts. In Level 2, the 14 potential solutions that were identified as Primary and Complementary Concepts were qualitatively evaluated at the primary intersections in the study area. These intersections largely control roadway operations in the study area. Therefore, the intersection alternatives selected at the primary intersections influence what can be constructed upstream or downstream and set the foundation for improvements between them. Thus, the Level 2 screening identified the building blocks for the Level 3 screening.

A four-step evaluation process was applied to each of the 18 primary intersections within the ProPEL US 31 South study area. This process is summarized as follows:

- **Step 1** – A decision tree assessment tool was developed to identify the scale of improvement needed at each primary intersection based on safety and operational data, as well as input from both the public and stakeholders.

- **Step 2** – An operational analysis of various concepts or intersection types was completed at each primary intersection. Concepts that were expected to produce poor operating conditions were eliminated from further consideration.
- **Step 3** – An evaluation matrix was prepared for each primary intersection to assess the following attributes for all concepts advancing from Step 2:
 - Ability to meet purpose and need;
 - Social, economic, and environmental impacts; and
 - Relative cost.
- **Step 4** – Concepts advancing from Step 3 were developed into intersection alternatives by preparing conceptual designs to establish a high-level estimation of the improvement limits (i.e., a footprint). These footprints were then used to assess impacts and screen out alternatives with high impacts.

The Level 2 screening identified a range of alternatives to improve operations and safety at the 18 primary intersections. These alternatives were screened qualitatively based on their ability to meet study area needs, relative cost, and social, economic, and environmental impacts. Alternatives not able to substantially meet study area needs and/or with substantial environmental impacts that could not be avoided or minimized were eliminated from further consideration.

The Level 2 screening resulted in the following:

- Six intersection improvement alternatives were carried forward to the Level 3 screening for further study: Access Modifications (i.e., convert to a right-in/right-out intersection, intersection closure, and directional median openings), Reduced Conflict Intersections (RCIs), Overpasses, Interchanges, Green-T Intersections, and Quadrant Roadway Intersections.
- A freeway concept was carried forward as a Primary Concept. A freeway is one example of a free-flow facility. There are varying types of free-flow facilities, ranging from freeways – which have full control of access⁶ – to free-flow facilities that have no or partial control of access⁷ (e.g., unsignalized arterial, expressway). The Level 2 screening report indicated the potential options for facility types in the US 31 South study area would be evaluated in the Level 3 screening.
 - Note: A freeway may be designated an interstate if certain conditions are met; however, not all freeways are interstates. INDOT is not including or considering applying interstate design standards along the US 31 South study corridor.
- Five Complementary Concepts were carried forward to the Level 3 screening for location-specific application: Add/Lengthen Turn Lanes, Acceleration/Deceleration Lanes, Ramp Terminal Improvements (SR 28 interchange only), Roadway Lighting, and Freight Priority Systems.
- Warning systems were recommended as a potential short-term improvement to address the identified safety issues in the study area.
- The No-Build Alternative was advanced to the Level 3 screening to serve as a baseline for comparison to build alternatives.

⁶ Full control of access = Connections are provided only with select public roads through interchanges. Driveway connections (residential and commercial) are not permitted.

⁷ Partial control of access = Connections are provided with public roads via interchanges and/or at-grade intersections. The number of roadway connections and/or driveway connections (residential and commercial) may be reduced in number and/or limited to right-in/right-out movements. The number of median openings may also be reduced.

The results of the Level 2 screening are summarized in **Table 6**.

The *Draft Level 2 Screening Report* was published for public review and comment on March 27, 2024, and the public comment period extended through April 30, 2024. Additionally, the report was distributed to federal, state, and local resource agencies as well as the tribal nations for review and comment. After considering the comments received from the public, agencies, and tribes, the Level 2 screening report was finalized on November 12, 2024.

For further information on the Level 2 screening, including details on methodology, screening results as well as comments received during the public comment period and responses to them, please see the *Final Level 2 Screening Report* in **Appendix G**. Please see **Section 5** for further information regarding public involvement and agency coordination efforts related to the Level 2 screening.

Table 6: ProPEL US 31 South Level 2 Screening Results

Alternatives	No Build	Primary Concepts					Complementary Concepts									
		Access Modifications	Unsignalized Intersection Improvements		Grade Separation		Auxiliary Lanes	Signal Timing Updates	Add/ Lengthen Turn Lanes	Acceleration / Deceleration Lanes	Signalized Intersection Improvements		Ramp Terminal Improvements	Roadway Lighting	Warning System	Freight Priority System
			RCI	Signalization	Overpass	Interchange					Green-T Intersection	Quadrant Roadway				
US 31 & CR 200 N	✓	✓	✓			✓			✓	✓				✓	✓	
US 31 & CR 100 N	✓	✓	✓			✓			✓	✓		✓		✓	✓	
US 31 & US 24	✓															
US 31 & Blair Pike Rd	✓	✓	✓						✓	✓				✓	✓	
US 31 & Logansport Rd	✓		✓		✓	✓				✓	✓			✓	✓	
US 31 & Airport Rd	✓	✓							✓	✓					✓	
US 31 & Business 31	✓					✓				✓	✓			✓	✓	✓
US 31 & CR 400 S	✓		✓		✓				✓	✓				✓	✓	
US 31 & CR 500 S	✓	✓	✓		✓				✓	✓				✓	✓	
US 31 & SR 218 N	✓		✓			✓				✓	✓			✓	✓	✓
US 31 & SR 218 S	✓	✓	✓							✓	✓			✓	✓	
US 31 & CR 800 S	✓	✓	✓			✓				✓				✓	✓	
US 31 & SR 18	✓		✓			✓			✓	✓		✓		✓	✓	✓
US 31 & CR 550 N	✓	✓	✓			✓			✓	✓				✓	✓	
US 31 & Division Rd	✓		✓			✓				✓		✓		✓	✓	✓
US 31 & SR 28	✓												✓			
US 31 & 296th St	✓	✓	✓			✓			✓	✓				✓	✓	
US 31 & 276th St	✓	New interchange constructed as part of a separate project														
✓ = Advanced to the Level 3 screening																

4.4. SUMMARY OF LEVEL 3 SCREENING

The purpose of the Level 3 screening was to develop and analyze Improvement Packages for sections of the study area. These sections, called planning segments, considered improvements at all study area intersections as well as the roadway sections between them. The improvements considered in the Level 3 screening were identified from the Level 2 screening, previous studies, current plans, and public and stakeholder input as well as industry guidelines and solutions for safety and operations for highways like US 31.

The Level 3 screening considered both qualitative and quantitative factors to enable a relative assessment of costs, benefits, and impacts to eliminate unreasonable alternatives. It also included a detailed analysis of varied access management strategies for the planning segments in the study area. The purpose of this analysis was to better understand relative costs, benefits, and impacts of different access management strategies along the study corridor for all users.

As discussed in Section 1, the goal of the ProPEL US 31 South study was to identify a reasonable range of alternatives; therefore, the ProPEL US 31 South study does not result in a single recommended alternative. The Level 3 screening evaluated a range of Improvement Packages for each planning segment, including some with more access control (e.g., a freeway) and some with less access control on US 31 that would maintain public access points more in line with existing conditions. The Improvement Packages considered in the Level 3 screening represent different facility types that could be applied to the US 31 South corridor.

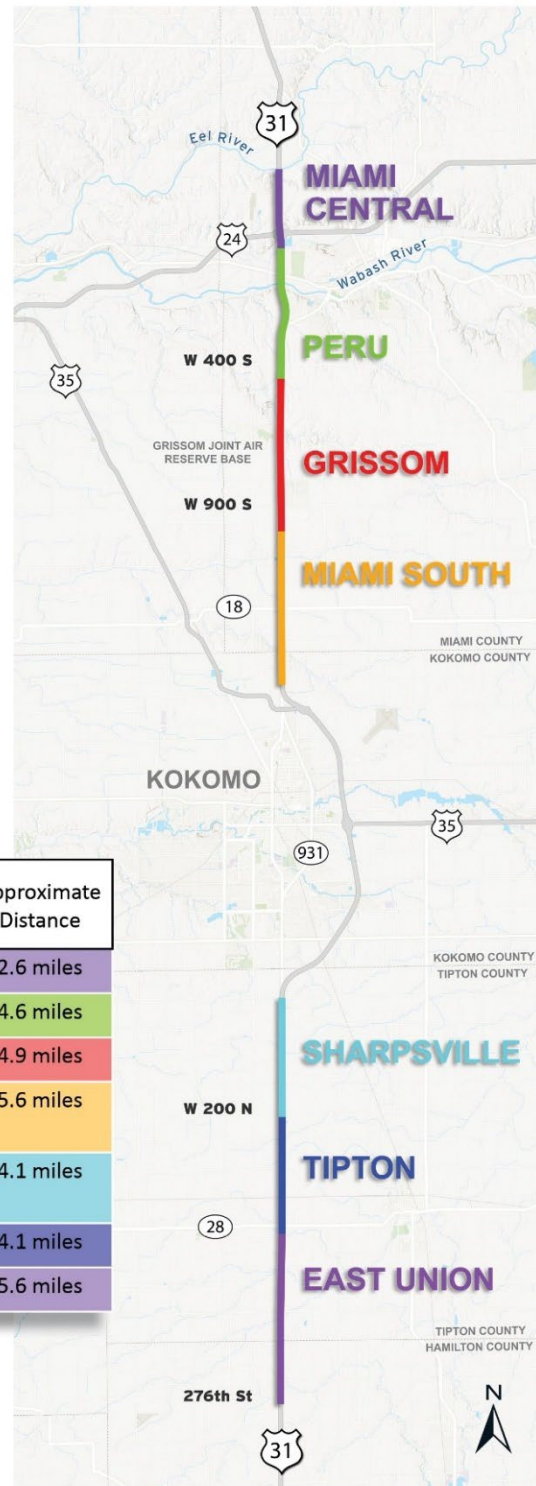
The Level 3 screening applied an eight-step evaluation process which is summarized as follows:

- **Step 1 – Define Planning Segments.** The study corridor was divided into sections called planning segments. This approach helped to avoid potential negative impacts from focusing only on a single intersection without analyzing the impacts the intersection improvements could have upstream and downstream within the planning segment. Planning segments were named based on their geographic area. The planning segments for the US 31 South study area are depicted in **Figure 5**.
- **Step 2 – Alternatives Pre-Screening.** The Level 2 screening did not consider combinations of different intersection improvements together within a planning segment. During this step, some alternatives carried forward from Level 2 were dismissed from further consideration at specific locations when included as part of a package of improvements. Alternatives dismissed during this step included Quadrant Roadway Intersections, Green-T Intersections, and potential interchanges at CR 200 N, CR 550 N, and 296th Street. For additional information on why these alternatives were eliminated from further consideration, please see the *Final Level 3 Screening Report* in **Appendix H**.
- **Step 3 – Define Improvement Packages.** For each planning segment, comprehensive sets of intersection improvements were combined as Improvement Packages. Multiple Improvement Packages were developed for each planning segment. The following criteria were considered when forming the Improvement Packages: Influence on adjacent intersections, interchange spacing guidelines, access management principles, and improvements at secondary intersections.
- **Step 4 – Evaluate Safety and Mobility.** The safety and mobility performance of each Improvement Package was determined through a multi-step evaluation process that considered twelve different criteria. The criteria included:
 - Total number of conflict points,
 - Number of crossing conflict points
 - Percent reduction in crossing conflict points

Figure 5: US 31 South Planning Segments

US 31 South Planning Segments

Planning Segment	Northern Limit	Southern Limit	Approximate Distance
Miami Central	Eel River	S of US 24	2.6 miles
Peru	S of US 24	S of CR 400 S	4.6 miles
Grissom	S of CR 400 S	S of CR 900 S	4.9 miles
Miami South	S of CR 900 S	US 31 & SR 931 N Jct	5.6 miles
Sharpsville	US 31 & SR 931 S Jct	S of CR 200 N	4.1 miles
Tipton	S of CR 200 N	S of SR 28	4.1 miles
East Union	S of SR 28	276th St	5.6 miles



- Estimate of crossing crashes prevented over 20-year life cycle
- Cost-effectiveness index
- Average travel time along US 31
- Average distance between US 31 access points
- Average distance between US 31 crossing points
- East-west mobility compared to No-Build
- Number and type of residential driveways
- Number and type of commercial driveways
- Number and type of field access points.
- **Step 5 – Refine Conceptual Design and Estimate Costs.** The conceptual designs from the Level 2 screening were refined during the Level 3 screening process to:
 - Consider results of the safety and mobility analysis, as well as the overall context of each Improvement Package;
 - Detail improvements at secondary intersections;
 - Avoid and minimize adverse impacts to the human and natural environment; and
 - Minimize costs.

Planning-level construction and right-of-way acquisition costs were then estimated for each of the Improvement Packages using the refined the conceptual designs.
- **Step 6 – Evaluate Environmental Resource Impacts.** Each package was analyzed against known environmental constraints within each planning segment to determine the potential impacts.
- **Step 7 – Evaluate Study Goals.** Study area goals were considered as part of the Level 3 screening using several measures of effectiveness to comparatively evaluate Improvement Packages.
- **Step 8 – Evaluate Improvement Packages.** The different measures for safety and mobility, impacts to environmental resources, and costs were collectively considered for each Improvement Package within each planning segment. Unreasonable alternatives were eliminated from further consideration.

The results of the Level 3 screening are summarized in **Figure 6 through Figure 12**.

Cohesive Improvement Packages based on certain access management strategies were evaluated in the Level 3 screening to show potential interoperability between intersections and to be able to assess potential impacts relative to each other. Improvement Packages are not intended to be completely rigid and improvements from different packages could be mixed and matched in future studies.

A stated goal of the PEL process is the identification of a range of reasonable alternatives. Given the needs identified within the study area, a reasonable alternative could consist of improvements at a single intersection; it could also consist of improvements at multiple intersections and/or the roadway sections in between them (i.e., access management). Depending on multiple factors, including statewide priorities and funding availability, improvements considered as part of this PEL study could be combined in different ways in the future to address the identified transportation needs and support the goals of the study area.

It is possible that Improvement Packages could be mixed and matched across planning segments in the future. This means that access management strategies could vary throughout the study area; however, as part of that decision-making process (which may occur after this PEL study), an assessment will be completed to consider factors such as driver expectation and continuity across the planning segments, as well as the relationship and potential impacts upon other intersections and/or planning segments.

The *Draft Level 3 Screening Report* was published for public review and comment on November 12, 2024, and the public comment period extended through December 13, 2024. Additionally, the report was distributed to federal, state, and local resources agencies as well as the tribal nations for review and comment. Two in-person

public information meetings were held in the study area during the public comment period. A virtual resource agency and cultural resources stakeholder coordination meeting was held on December 5, 2024. After considering the comments received from the public, agencies, and tribes, the Level 3 screening report was finalized on June 19, 2025.

For further information on the Level 3 screening, including details on methodology, screening results, as well as comments received during the public comment period and responses to them, please see the *Final Level 3 Screening Report* in **Appendix H**. Please see **Section 5** for further information regarding public involvement and agency coordination efforts related to the Level 3 screening.

Figure 6: Miami Central Planning Segment Improvement Packages and Level 3 Screening Results

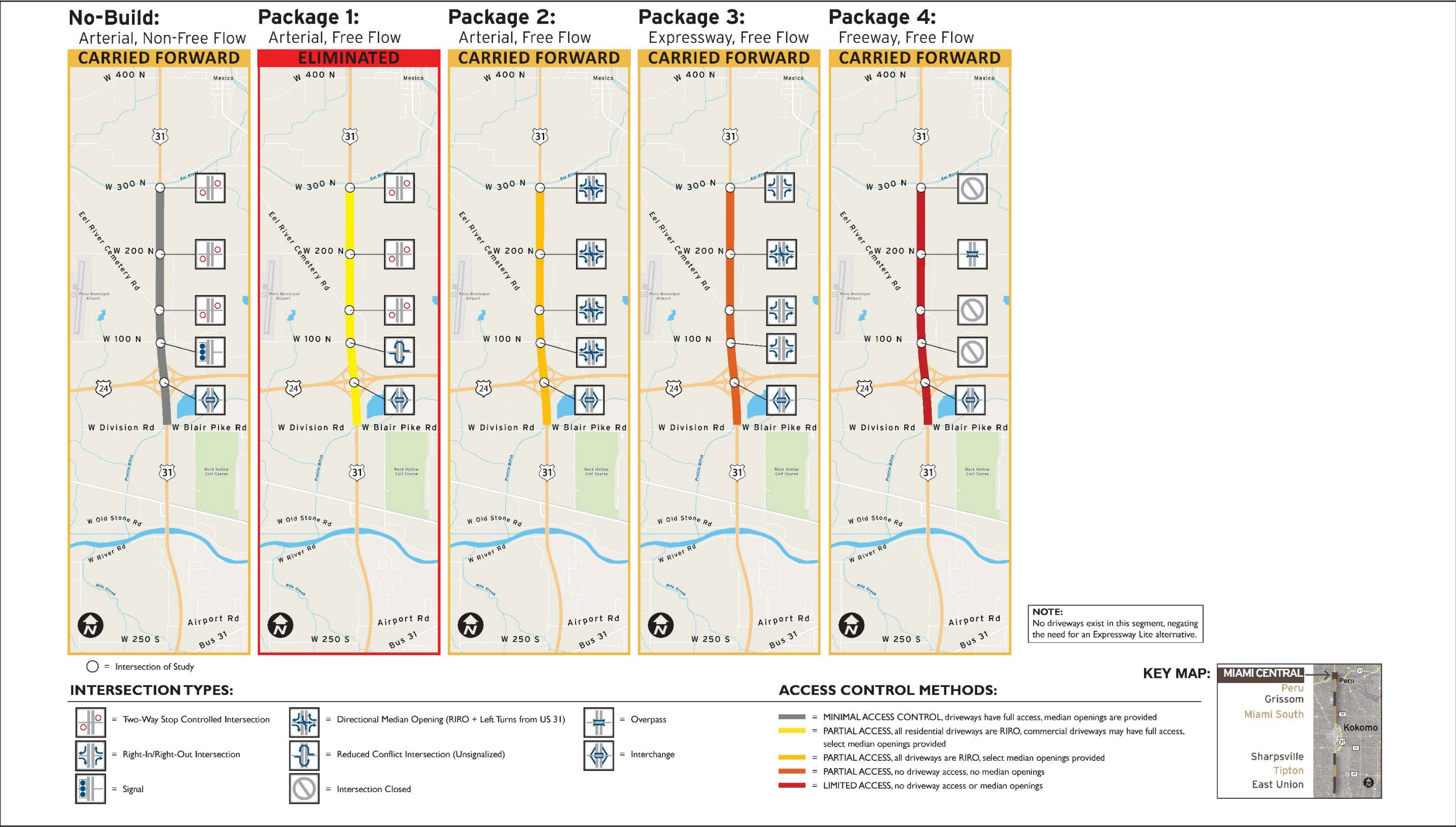


Figure 7: Peru Planning Segment Improvement Packages and Level 3 Screening Results

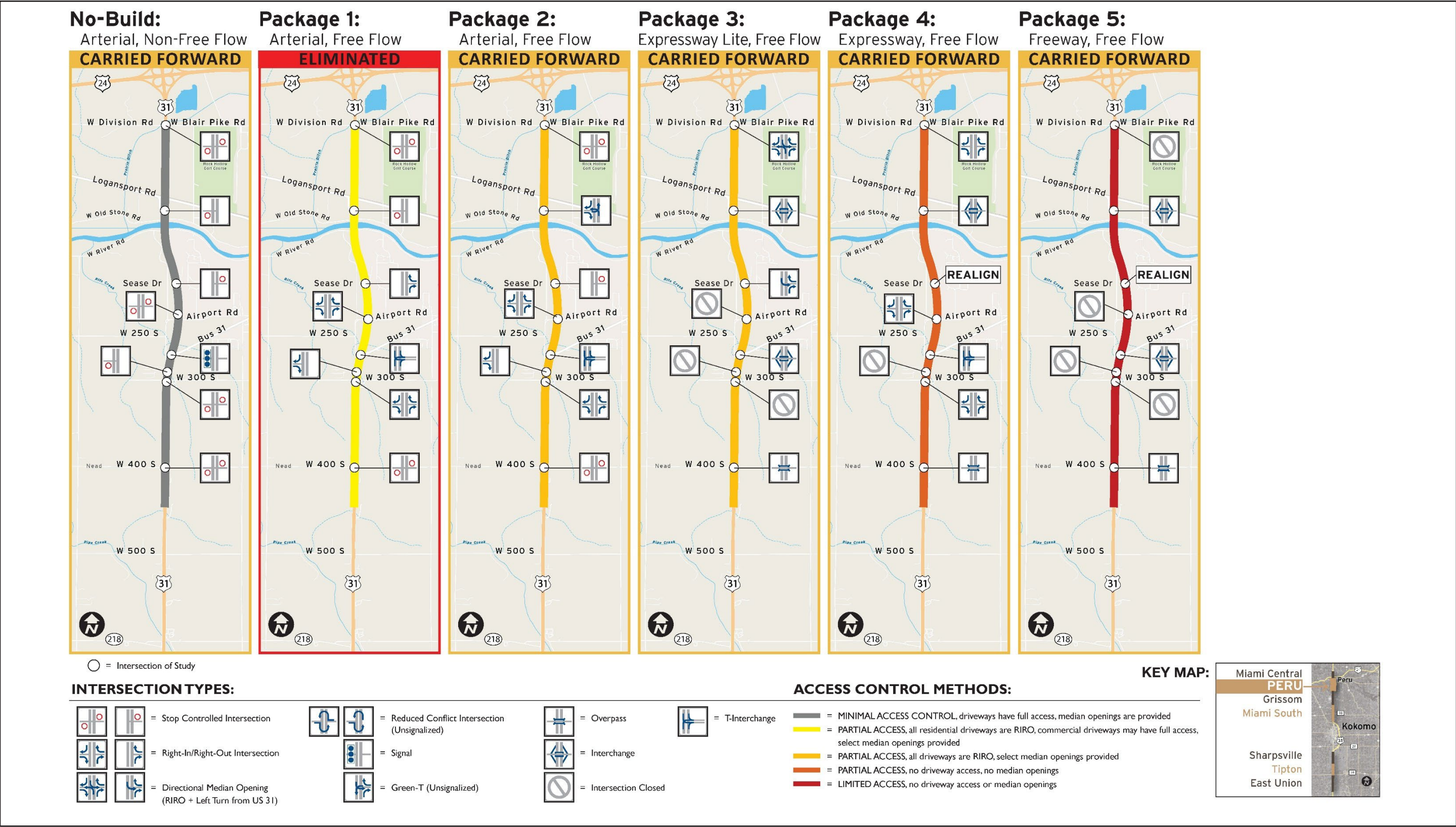


Figure 8: Grissom Planning Segment Improvement Packages and Level 3 Screening Results

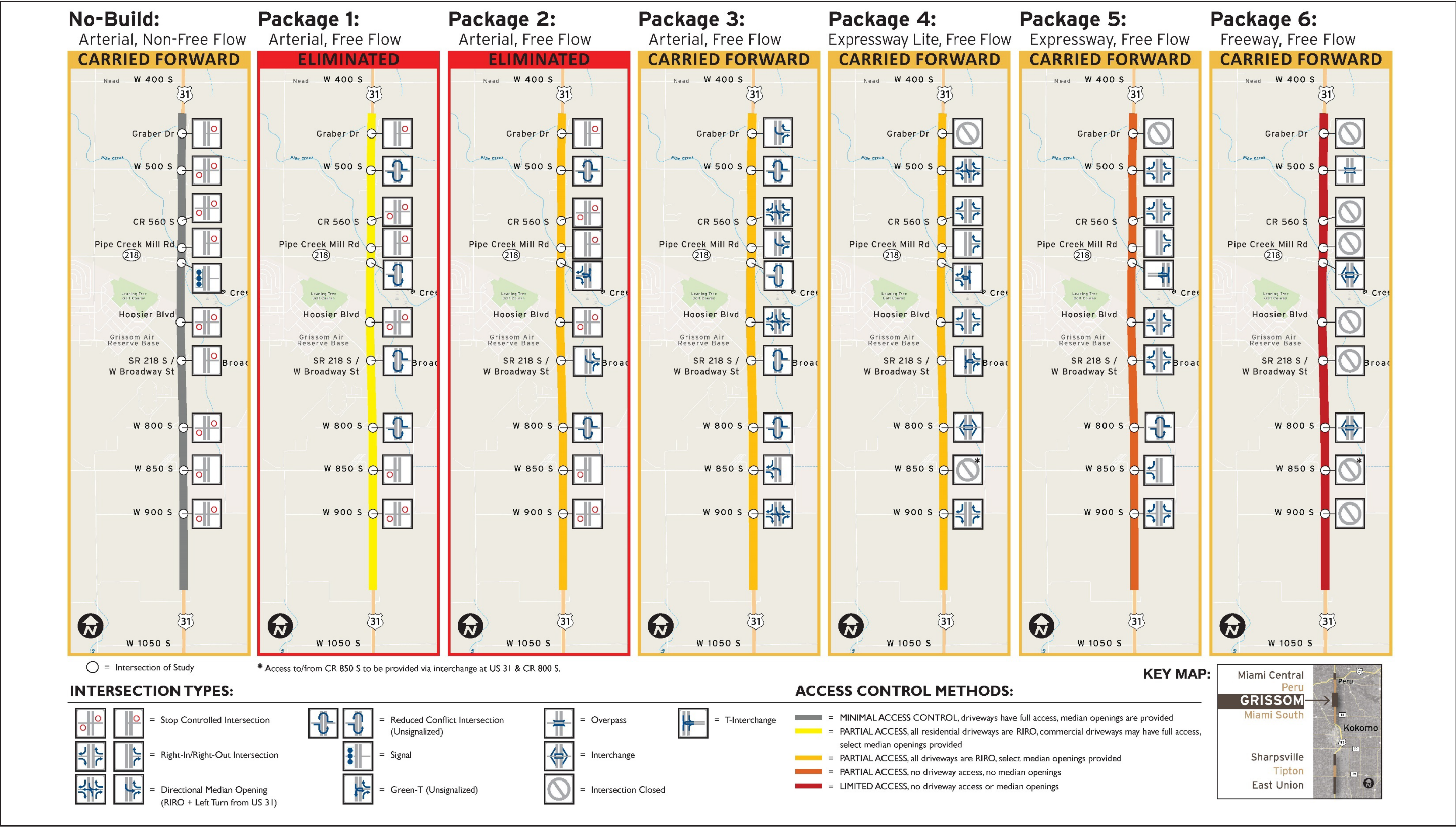


Figure 9: Miami South Planning Segment Improvement Packages and Level 3 Screening Results

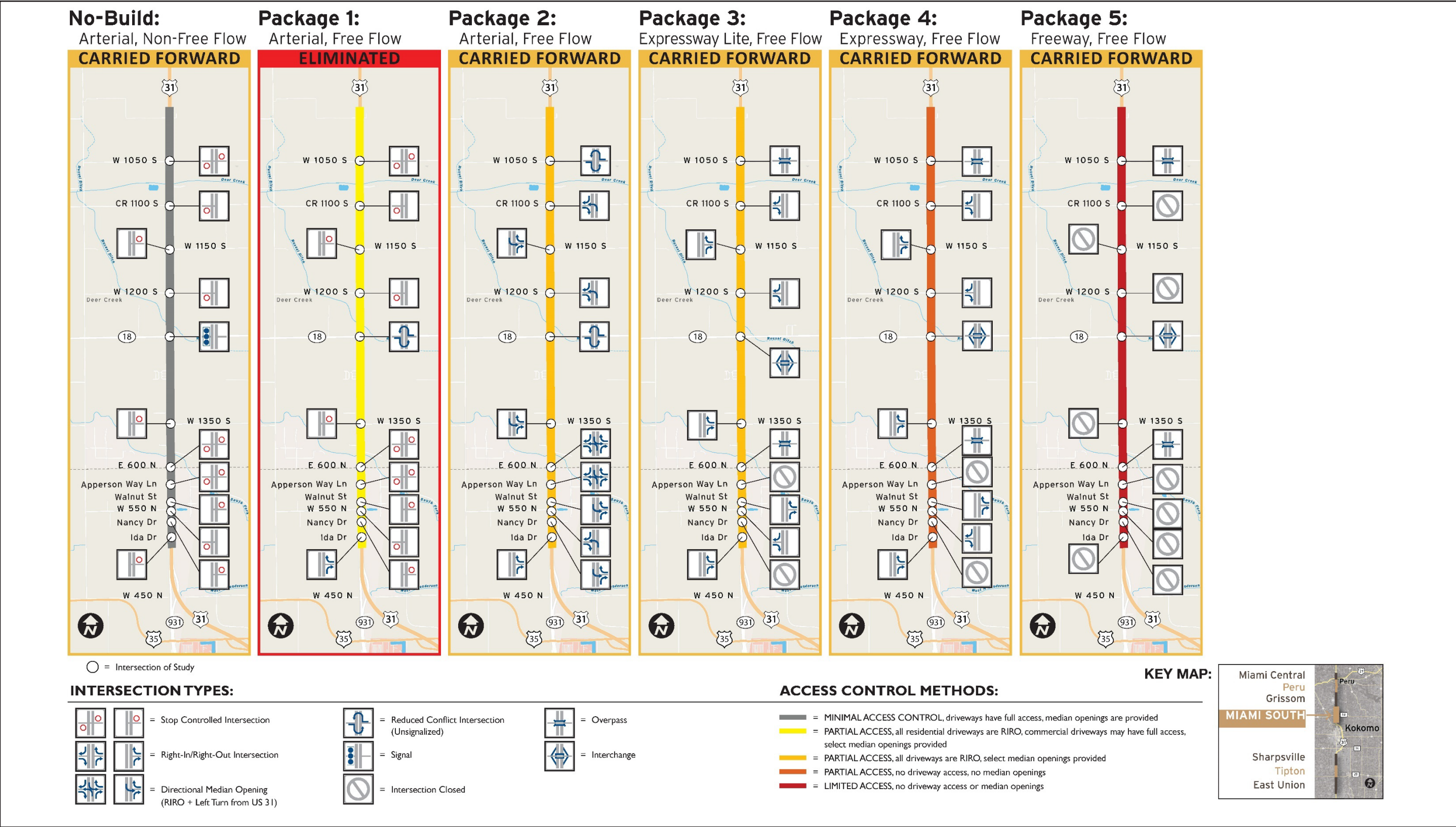


Figure 10: Sharpsville Planning Segment Improvement Packages and Level 3 Screening Results

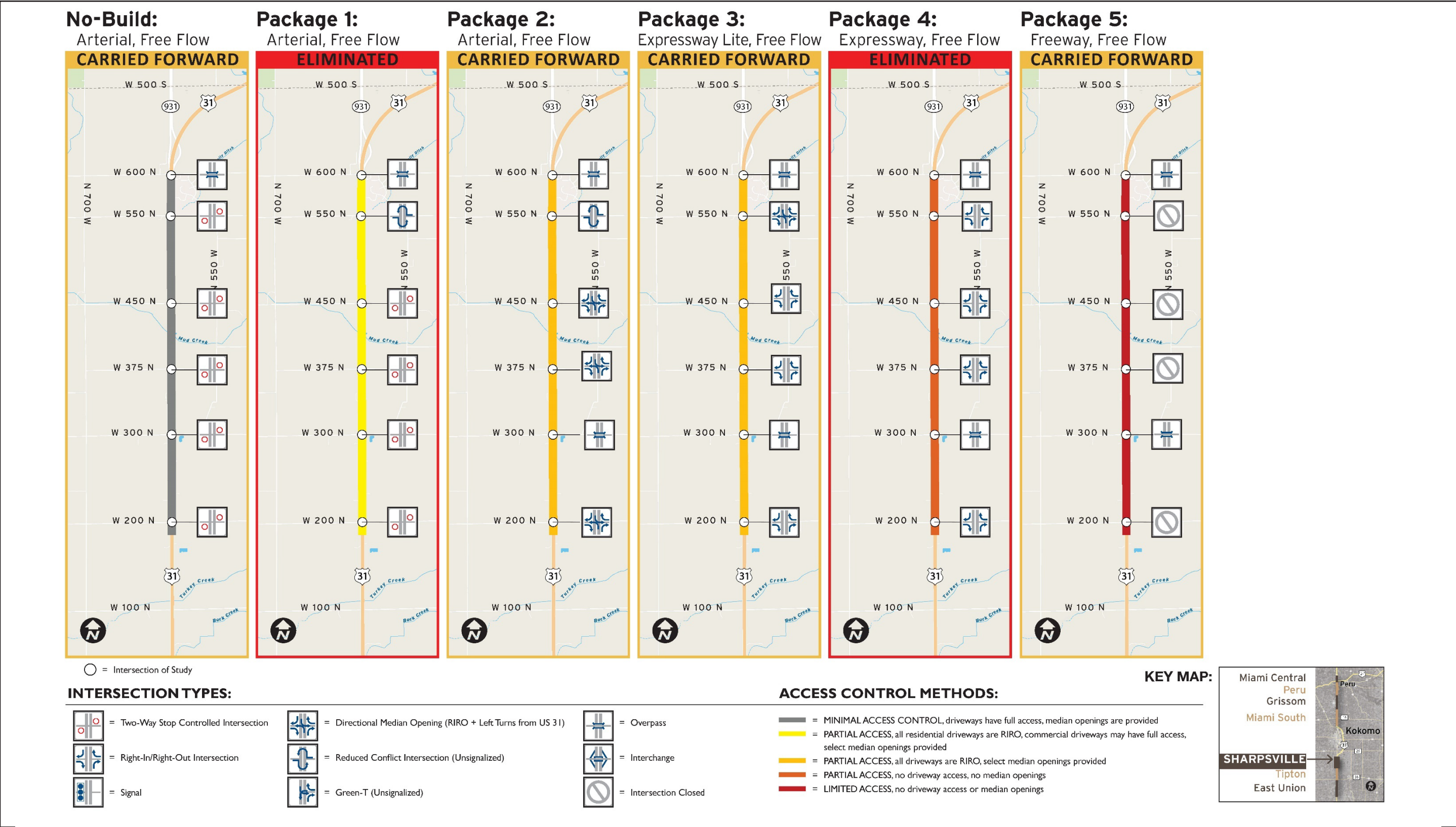


Figure 11: Tipton Planning Segment Improvement Packages and Level 3 Screening Results

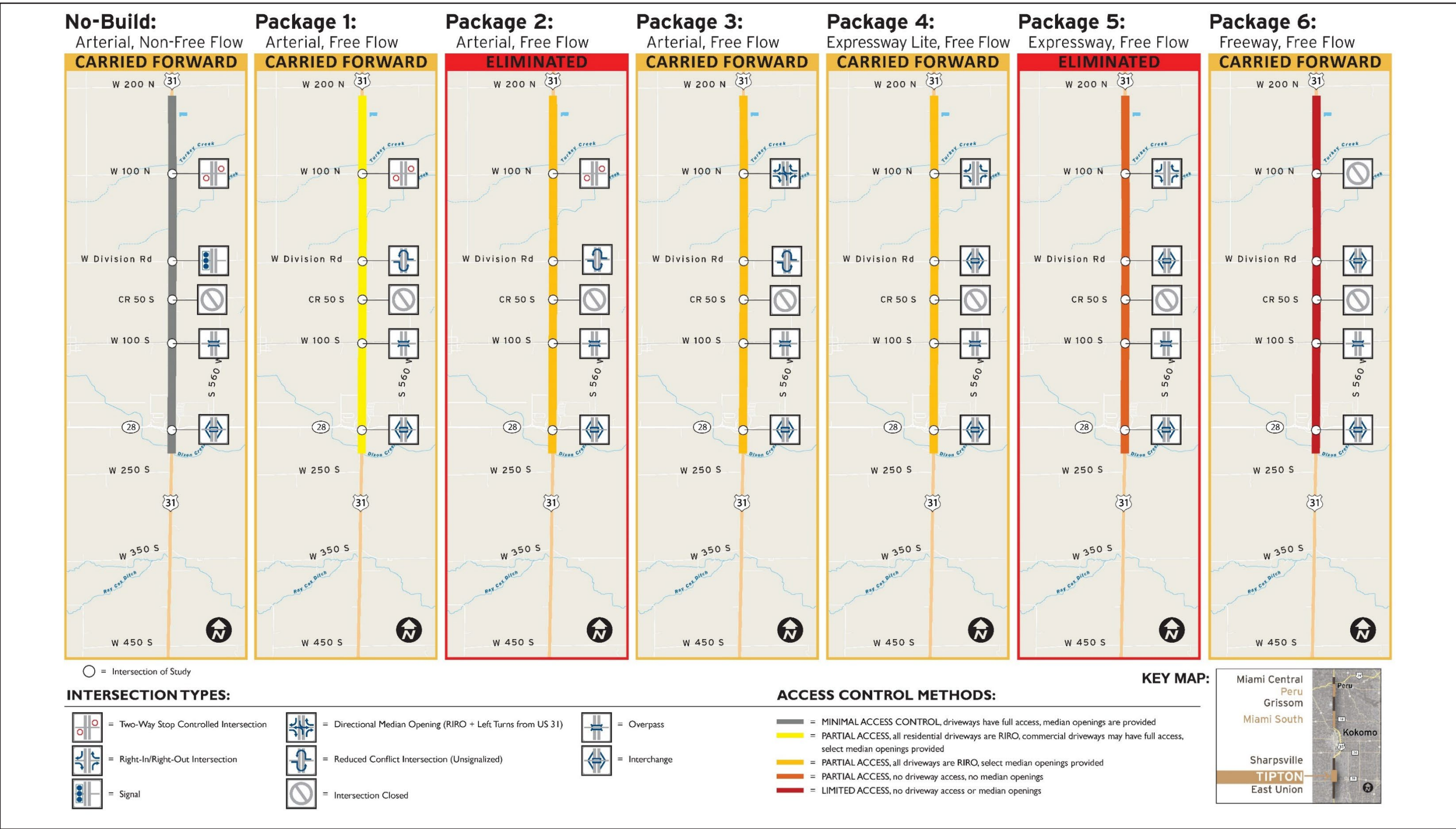
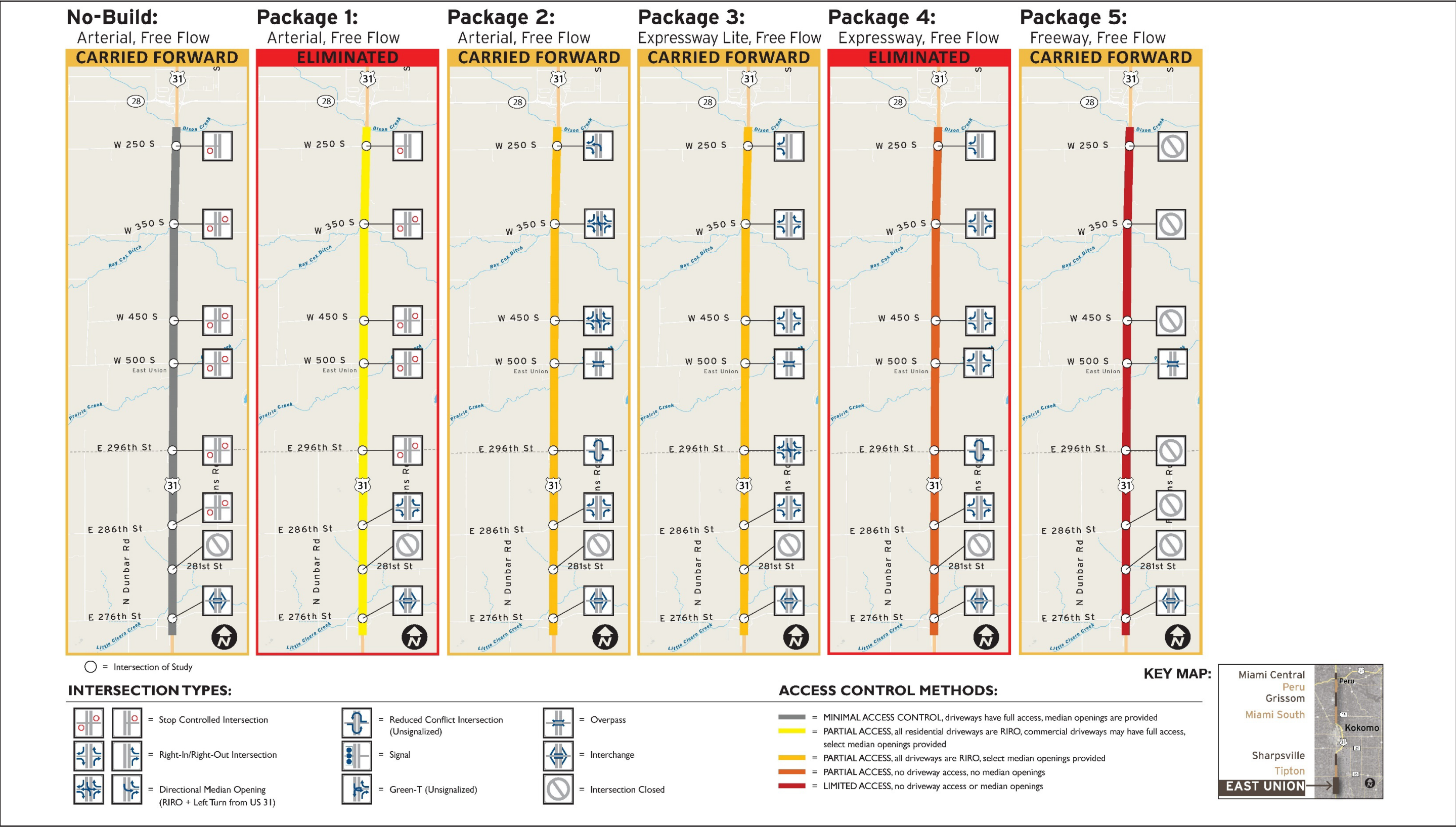


Figure 12: East Union Planning Segment Improvement Packages and Level 3 Screening Results



5. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

5.1. INTRODUCTION

As an INDOT planning initiative, the ProPEL US 30 and US 31 studies are data driven and fueled by feedback. Feedback from residents, motorists, businesses, and others was vital to the success of the studies. Engagement efforts included resource agency and tribal coordination, Stakeholder Advisory Committees, targeted stakeholder meetings, community office hours, community outreach events (such as fairs and festivals), and public information meetings. The ProPEL US 31 South study team gathered and considered feedback throughout the study process. Outreach and formal comment periods were organized around key milestones of the study, including:

- **Vision and Scoping:** The purpose of this outreach was to introduce and define the PEL study process; kick off the ProPEL US 30 and US 31 studies (all four studies); identify specific goals of the US 31 South study; discuss proposed analysis methodologies; and solicit input on the fit and function of the study corridor. Fit and function discussions included future corridor vision, specific transportation concerns, and environmental resources of concern, as well as community goals.
- **Purpose and Need:** The engagement efforts during this phase reported on insights gained during the Vision and Scoping phase; shared data gathered from engineering and technical assessments; provided an overview of the transportation issues (needs) and desired outcomes (purpose) identified for the US 31 South study area; solicited input on study goals and the draft purpose and need statement; and previewed next steps.
- **Alternatives Analysis:** This phase included three distinct alternatives analysis and screening steps:
 - **Universe of Alternatives:** The study team identified the improvement concepts that met the purpose and need for potential improvements in the study area and were considered practical in the Universe of Alternatives (Level 1) screening.
 - **Level 2 Alternatives Analysis:** In this phase, the study team identified and evaluated location-specific improvements for reasonability and potential impacts at 18 primary intersections in the study area.
 - **Level 3 Alternatives Analysis:** The study team identified and evaluated improvement packages for multiple sections, or planning segments, within the study area. Packages included improvements at the primary intersections, the secondary intersections, and the roadway sections between them.

The information contained in this section is summarized from the following documents, which are included as appendices to the PEL study report:

- Appendix I: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #1 (RASPI #1)*;
- Appendix J: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #2 (RASPI #2)*;
- Appendix K: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #3 (RASPI #3)*; and
- Appendix L: *ProPEL US 31 South Resource Agency, Stakeholder and Public Involvement Summary #3 – Addendum 1 (RASPI #3 – Addendum 1)*.

5.2. INDOT AND FHWA COORDINATION

The ProPEL US 31 South study team coordinated with the FHWA on a regular basis throughout the study. Coordination included monthly meetings with FHWA to discuss study progress, recap activities, discuss technical approaches, and address any potential questions or concerns identified by FHWA. FHWA also reviewed and provided comments for study team consideration on the following technical reports developed during the ProPEL US 31 South study:

- *ProPEL US 31 South Environmental Constraints Report*
- *ProPEL US 31 South Purpose and Need Report*
- *ProPEL US 31 South Universe of Alternatives (Level 1) Screening Report*
- *ProPEL US 31 South Level 2 Screening Report*
- *ProPEL US 31 South Level 3 Screening Report*

5.3. RESOURCE AGENCY AND TRIBAL COORDINATION

As part of the Vision and Scoping phase of the study, three coordination meetings were held with resource agencies, cultural resource stakeholders, and federally recognized tribes. Meeting materials and summaries are included in **Appendix H of RASPI #1**.

These meetings included:

- November 30, 2022: Indiana Department of Natural Resources Division of Historic Preservation & Archaeology Coordination Meeting
- January 27, 2023: Resource Agency Meeting & Cultural Resource Stakeholder Meeting (Virtual)
- February 23, 2023: Tribal Partner Coordination Meeting (Virtual)

From January 1 to July 31, 2023, two coordination meetings were held with resource agencies, cultural resource stakeholders and federally recognized tribes during the Purpose and Need phase of the study. Meeting materials and summaries are included in **Appendix K of RASPI #2**.

These meetings included:

- July 17, 2023: Tribal Partner Coordination Meeting #2 (Virtual): Transmitted the Archaeological Resources Identification Memorandum and the Draft Purpose and Need for review and comment via email on August 30, 2023.
- September 15, 2023: Resource Agency & Cultural Resource Stakeholder Meeting (Virtual): The draft Purpose and Need and the Aboveground Cultural Resources Memorandum were transmitted for review and comment via the meeting invite sent on July 27, 2023.

During the Alternatives Analysis phase of the study, coordination with resource agencies and cultural resources stakeholders was completed via email, as well as a virtual coordination meeting held on December 5, 2024. The following summarizes these coordination efforts:

- Draft Universe of Alternatives (Level 1) Screening Report
 - Federal/State/Local Resource Agencies: Transmitted for review and comment via email on November 20, 2023. A hard copy was also mailed to the Indiana State Historic Preservation Office (SHPO).
 - Tribal Nations: Transmitted for review and comment via email on December 8, 2023.
- Draft Level 2 Screening Report:

- Federal/State/Local Resource Agencies: Transmitted for review and comment via email on March 27, 2024. A hard copy was also mailed to the Indiana SHPO.
- Tribal Nations: Transmitted for review and comment via email on April 2, 2024.
- Draft Level 3 Screening Report:
 - Federal/State/Local Resource Agencies & Cultural Resources Stakeholders: Transmitted for review and comment via email on November 13, 2024; Virtual coordination meeting held on December 5, 2024.
 - Tribal Nations: Transmitted for review and comment via email on December 5, 2024.

The purpose of the virtual coordination meeting on December 5, 2024, was to summarize the Level 1 and Level 2 screening steps, to introduce the Draft Level 3 Screening Reports, and to familiarize attendees with content and resources available to learn more. Email correspondence, meeting materials, and meeting summary are included in **Appendix K of RASPI #3**.

5.4. STAKEHOLDER ADVISORY COMMITTEES

The study team established two Stakeholder Advisory Committees, which included representatives from local agencies, residents, community organizations, churches, social service providers, emergency service providers, businesses, and community organizations. One Stakeholder Advisory Committee included individuals from the northern portion of the study area (from the northern US 31/Kokomo Bypass intersection to just south of the Eel River in Miami County). The second included representatives from the southern portion of the study area (from 276th Street in Hamilton County to the southern US 31/Kokomo Bypass intersection).

Virtual meetings with each occurred:

- November 15 and 16, 2022 - The purpose of these meetings was to introduce the committee to the study, discuss expected roles, and facilitate feedback from the community stakeholders. The study team also encouraged the committee members to assist in raising community awareness about the study and its feedback opportunities. Meeting materials and summaries are included in **Appendix F of RASPI #1**.
- May 22 and 23, 2023 - The purpose of these meetings was to report on insights gained from the public during the Vision and Scoping phase, share additional data gathered by the study teams, provide an overview of the study area issues (needs) and desired outcomes (purposes), and preview next steps. The study team also encouraged the committee members to assist in raising community awareness about the study and its feedback opportunities, and to identify sensitive communities within the study area. Meeting materials and summaries are included in **Appendix H of RASPI #2**.
- November 17, 2023 (Universe of Alternatives), April 9 and 11, 2024 (Level 2), and November 13, 2024 (Level 3) - The purpose of these meetings was to introduce the Draft Universe of Alternatives (Level 1), Draft Level 2, and Draft Level 3 Screening Reports and familiarize attendees with the resources available to learn more. The study team also encouraged the committee members to ask questions and share information out to colleagues and/or constituents. Meeting materials and summaries are included in **Appendix G of RASPI #3**.

5.5. STAKEHOLDER COORDINATION

Elected officials, the US 31 Coalition, study stakeholders (including residents, businesses, schools, and emergency service providers), and the public have been engaged along the study corridor. Outreach efforts included community office hours, public information meetings, community outreach events, resource agency coordination, and targeted stakeholder meetings.

On November 21, 2022, members of the US 30 and US 31 Coalitions received an update on the studies, discussed community and stakeholder engagement activities, provided information on next steps, and answered questions from attendees. Meeting materials and summaries are included in Appendix G in RASPI #1.

On May 18, 2023, the ProPEL US 31 study teams (US 31 North and US 31 South) met virtually with members of the US 31 Coalition to report on insights gained from the public during the Vision and Scoping phase, share additional data gathered by the study teams, provide an overview of the study area issues (needs) and desired outcomes (purposes), preview next steps, and answer any questions from attendees. Meeting materials and summaries are included in Appendix I in RASPI #2.

The ProPEL US 31 study teams (US 31 North and US 31 South) met virtually with members of the US 31 Coalition to discuss the alternatives development and screening process. These meetings occurred on November 16, 2023, to review the draft Universe of Alternatives screening results; April 10, 2024, to review the draft Level 2 screening results; and November 12, 2024, to review the draft Level 3 screening results. Meeting materials and summaries are included in **Appendix H of RASPI #3**.

Local Elected Officials, Farm Bureaus, Local Economic Development Organizations:

In addition to Stakeholder Advisory Committee and US 31 Coalition outreach, members of the US 31 South study team coordinated and/or conducted outreach with the following stakeholder groups:

- Indiana state legislators (coordinated with all study teams)
- Local media representatives (coordinated with all study teams)
- US 31 South Local Economic Development Organizations (LEDOs)
- Farm Bureau members from Hamilton, Tipton, Howard, and Miami counties (coordinated with US 31 North study team)
- Miami County Economic Development Authority (coordinated with US 31 North study team)
- Local elected officials
- Local (non-resource) agencies
- Grissom Air Reserve Base/Indiana National Guard
- Miami Correctional Facility
- Adjacent businesses (JJ's Travel Plaza, Best Western, Knights Inn, etc.)

5.6. OFFICE HOURS AND COMMUNITY EVENTS

The US 31 South study team visited stakeholder communities within the study area regularly to build awareness around the study, provide an opportunity for residents and stakeholders to engage with the study team, and receive public comments related to the study and study milestones. These outreach efforts included community office hours and participation at fairs, festivals, and other community events. During this time, study team members engaged with community members in informal, one-on-one conversations where they could ask questions, provide input, and receive regular updates at times and locations convenient for local residents. Community office hours were held at least twice per month at varying locations and times. Community members were also able to schedule an appointment to speak with the study team.

Due to the presence of sensitive communities in the study area, additional targeted outreach included community office hours at the three mobile home communities that have direct access to US 31. Coordination targeting minority and limited English proficiency (LEP) populations identified within the study area, included coordinating with a church (Iglesia de Cristo Pentecostes) that serves the Hispanic community within and adjacent to Kokomo. In addition, translation services were provided, such as translating the direct mail postcard and other study information to Spanish.

The team conducted outreach at each of the three alternatives development and screening steps to solicit public feedback.

The study team coordinated and staffed a total of 65 Community Office Hours events at a variety of times and locations across the corridor. Additional Community Office Hours are planned following completion of the *ProPEL US 31 South PEL Study Report*. In addition, the US 31 South study team coordinated participation at 18 community events, such as fairs and festivals, in various counties within the study area. Community Office Hours were held twice in November and December of 2022 in two different locations, provided twice per month from January to December of 2023 in 23 different locations. In 2024, Community Office Hours were offered from March to December at 10 different locations. In 2025, the study team hosted Community Office Hours at four different locations in the study area.

5.7. PUBLIC INFORMATION MEETINGS

The study team held public information meeting in both in-person and virtual/on-demand formats. The in-person public information meetings took place:

- December 7, 2022, at the Tipton County Fairgrounds from 5 to 7 p.m. ET (Vision and Scoping)
- December 8, 2022, at Peru Jr. High School from 5 to 7 p.m. ET (Vision and Scoping)
- June 14, 2023, at the Tipton County Fairgrounds (Purpose and Need)
- June 15, 2023, at Pipe Creek Elementary School (Purpose and Need)
- November 14, 2024, at the Tipton County Fairgrounds (Level 3 Screening)
- November 19, 2024, at Peru Jr./Sr. High School (Level 3 Screening)

The format of the meetings was an open house with a presentation from study team members. Informational boards, digital displays, and feedback opportunities were situated throughout the venues. Presentations were recorded and made available online on the ProPEL US 31 study website.

To further provide the public with the opportunity to give feedback and ask questions, virtual meeting experiences were designed to closely mimic the in-person meetings, and attendees navigated through the informational displays in the same way. The virtual experience allowed participants to interact with the feedback exercises in the same manner.

Virtual, on-demand meetings were available from December 9 until December 31, 2022 (Vision and Scoping); June 16 until July 31, 2023 (Purpose and Need); and November 15, 2024, until December 13, 2024 (Level 3 Screening).

5.8. PUBLIC COMMENTS

5.8.1. VISION AND SCOPING PHASE

Public comments were received from a variety of sources. All public comments received prior to January 1, 2023, were considered as part of the first RASPI Summary report. During the first public comment period, the study team received:

- Approximately 200 comments from the in-person and virtual public information meetings
- Approximately 60 additional comments were received via the community office hours and online comment form
- 37 public comments were received during the open comment period

The study team grouped the comments by general type of concern into one of the following categories: Access Points, Regional Mobility, Safety, Redevelopment, Environmental, Bike and Pedestrian, Economic Development, and Other.

5.8.2. PURPOSE AND NEED PHASE

All public comments received between January 1 and July 31, 2023, were considered as part of the second RASPI Summary report. During the second public comment period, outreach efforts generated:

- More than 100 public comments about the study
- Approximately 100 additional comments were received via community office hours, community outreach events and the online comment form
- 83 public comments were received during the open comment period

5.8.3. ALTERNATIVES ANALYSIS PHASE

All public comments received from August 1, 2023, through December 13, 2024, were considered as part of third RASPI Summary report. This phase of the study included the Universe of Alternatives (Level 1) screening, the Level 2 screening, and the Level 3 screening.

Public comments on the *Draft Universe of Alternatives (Level 1) Screening Report* were accepted from November 13, 2023, to December 22, 2023. During the third public comment period, outreach efforts generated 37 public comments. Individual replies were provided to all public comments received as part of the *Final Universe of Alternatives (Level 1) Screening Report*.

- Approximately 32 comments gathered via the online comment form
- Five comments received during Community Office Hours

Public comments on the *Draft Level 2 Screening Report* were accepted from March 27, 2024, to April 30, 2024. During the fourth public comment period, outreach efforts generated 83 public comments. Individual replies were provided to all public comments received as part of the *Final Level 2 Screening Report*.

- Approximately 70 comments gathered via the online comment form
- Approximately 13 comments received during Community Office Hours

Public comments on the *Draft Level 3 Screening Report* were accepted from November 12, 2024, to December 13, 2024. Feedback exercises were integrated into the public information meetings that included planning segment stations and customized comment cards for attendees to provide specific input. During the fifth public comment period, outreach efforts generated:

- More than 65 comments were collected using customized comment cards
- Approximately 60 comments from the in-person and virtual public information meetings
- Approximately 100 additional comments were received via community office hours, community outreach events, and the online comment form
- 105 public comments were received during the open comment period

Individual replies were provided to all public comments received as part of the *Final Level 3 Screening Report*.

During the ProPEL US 31 South study, more than 930 stakeholders engaged with the study and approximately 800 public comments were received.

6. NEXT STEPS AND FUTURE CONSIDERATIONS

6.1. INTRODUCTION

Recommendations from the ProPEL US 31 South study will be evaluated for potential implementation as part of INDOT's call for projects. The call for projects is an annual process through which proposals to address transportation needs compete for funding. Proposals for projects can originate from cities, towns, Regional and/or Rural Planning Organizations (RPOs) and Metropolitan Planning Organizations (MPOs). As part of the process, INDOT evaluates proposals for new projects and identifies potential priorities based on cost-effective resolution of the identified transportation needs to ensure that the correct improvements are constructed at the greatest number of locations possible. The call for projects covers a five-year period, which means that a selected project typically has at least a five-year development timeline.

The following summarizes key considerations for future project teams.

6.2. ALTERNATIVES

A stated goal of the ProPEL US 31 study is the identification of a range of reasonable alternatives. Given the needs identified within the study area, a reasonable alternative could consist of improvements at a single intersection; it could also consist of improvements at multiple intersections and/or the roadway sections in between them (i.e., access management). Depending on multiple factors, including statewide priorities and funding availability, improvements considered as part of this PEL study could be combined in different ways in the future to address the identified transportation needs and support the goals of the study area.

The Level 3 screening, which was the final step in the alternatives development and evaluation, considered cohesive Improvement Packages based on certain access management strategies to show potential interoperability between intersections and to be able to assess potential impacts. Improvement Packages are not intended to be completely rigid, and improvements from different packages could be mixed and matched across planning segments in future studies. As a result, access management strategies could vary throughout the study area; however, as part of that decision-making process (which will occur after this PEL study), an assessment would be completed to consider factors such as driver expectation and continuity across the planning segments, as well as the relationship and potential impacts upon other intersections and/or planning segments.

The ProPEL US 31 South study considered a range of improvements that provide INDOT with the flexibility needed to incrementally move toward a long-term vision of a free-flow facility. The improvements include more immediate, lower-cost improvements, as well as higher-cost improvements that require funding beyond what is currently available.

The study concludes that implementation of an entirely free-flow facility on US 31 in the study area will likely extend beyond the study's planning horizon of 2045. In the interim, the study provides INDOT with a flexible guide to incrementally upgrade US 31 in the study area to a free-flow facility.

As noted in the Level 2 and Level 3 screening reports, all design concepts evaluated during the ProPEL US 31 South study are considered preliminary and subject to change. Future project development studies will determine the actual configuration, right-of-way acquisition needs, and impacts to resources in the study area.

6.3. KEY STAKEHOLDER CONCERNS

More than 800 comments were received from stakeholders over the course of this study. The study team carefully considered this feedback, and it informed the analysis and recommendations summarized in this PEL Study Report. There were several themes in those comments that warrant further coordination and consideration as part of any future projects in the study corridor, including:

- Multiple stakeholders, including residents, businesses, and the farming community, expressed concern regarding the potential for loss of access to/from/across US 31. Concerns were also expressed regarding the impacts to the local street system due to changes in access to US 31. Residents expressed concern that changes in access could negatively impact response times for emergency services.
 - Note: In response to these concerns, INDOT developed and evaluated the expressway lite facility type in the Level 3 screening. The expressway lite facility type was developed to combine the driveway access aspects of arterial without signals (free flow) with the increased access management of expressway (free flow). The expressway lite facility would have properly designed median U-turn opening(s) at select locations to reduce how far drivers must travel when turning movements are limited to right-in/right-out and/or directional medians.
- Multiple concerns were expressed regarding the implementation of Reduced Conflict Intersections (RCIs) as a potential solution for the identified transportation issues. The concerns included:
 - The perceived inability of RCIs to accommodate semi-trailers and large farming equipment.
 - Traffic required to complete a U-turn movement at the RCI will not be able to find a gap in the opposing traffic and will experience delays.
 - Traffic required to complete a U-turn movement at the RCI will not be able to safely merge into high-speed traffic.
- The US 31 Coalition was an active and engaged study stakeholder. The US 31 Coalition was formed in 2000 to promote upgrade of the US 31 corridor from Indianapolis to South Bend, Indiana to a freeway. Throughout the study, the US 31 Coalition provided comments for consideration, including requests to further consider the economic benefits of upgrading US 31 to a freeway.
- Grissom Air Reserve Base, which is located in Miami County, employs approximately 400 people and more than 1,000 reservists travel to the base once per month. A portion of US 31 falls within the Grissom ARB runway Clear Zone and Accident Potential Zone (APZ) I. These are areas where the potential of an aircraft accident is higher. Within these areas, there are height restrictions associated with development. No feasibility issues were identified by Grissom ARB during the PEL study; however, this consideration should be reviewed in greater detail during any subsequent project development studies.

6.4. CONSIDERATIONS FOR FUTURE NEPA & PROJECT DEVELOPMENT

- Air Quality – Prior to approval of any future NEPA document, the applicable regional/state planning and conformity documents – Transportation Improvement Program (TIP), Statewide TIP (STIP), and the Metropolitan Planning Organization (MPO) Metropolitan Transportation Plan (MTP) – must be updated to reflect the anticipated scope and cost of any improvements. Coordination with KHCGCC and INDOT will occur during NEPA.
- Noise – A noise analysis will be required for any Type I projects.
- Reasonably Foreseeable Effects – The ProPEL US 31 South study considers potential impacts to the human and natural environment – specifically those effects that occur at the same time and place as the alternatives evaluated. During subsequent NEPA reviews, consideration may be warranted for impacts that have a reasonably foreseeable close causal relationship to the alternatives evaluated.

- Section 106 – The ProPEL US 31 South study included a review of existing literature and documentation related to potential above-ground and archaeological resources within the study area. Formal determinations of National Register of Historic Places (NRHP) eligibility will occur, as needed, as part of the Section 106 process in future NEPA environmental reviews.
- Wetlands, Streams, and other Natural Resources – Field surveys and formal delineations of water resources will be required in all areas of potential disturbance to confirm the presence of any sensitive natural resources.
- Agency Coordination – As part of the NEPA process for any future projects resulting from the study, coordination with agencies will be completed to ensure that all potential impacts and procedural requirements are addressed.
- Access Management – Should improvements to US 31 increase the level of access control in the study area, future project development studies should consider whether alternative access is feasible and cost-effective for impacted properties. Additional traffic studies and analysis of impacts to the local roadway network may also be needed if future improvements proposed to restrict access to/from/across US 31.
- Design Elements – As part of the Universe of Alternatives (Level 1) screening, improvement concepts were identified as Primary Concepts, Complementary Concepts, or Design Elements. Design elements were concepts that did not meet the transportation needs of the study area, but were considered practical and provided some benefit to the study area. Although some design elements were not considered in detail as part of the PEL study, they are recommended for consideration as part of any future projects that result from the study.

6.5. ANTICIPATED PERMITTING REQUIREMENTS

The need for the following permits will be evaluated during the NEPA for any potential projects resulting from this PEL study:

- Section 404 Permit from the US Army Corps of Engineers (USACE)
- Section 401 Water Quality Certification from the Indiana Department of Environmental Management (IDEM)
- Section 10 Permit from the USACE
- Section 9 Permit from the US Coast Guard (USCG)
- Construction in a Floodway Permit from the Indiana Department of Natural Resources (IDNR)
- Construction Stormwater General Permit from IDEM
- Indiana Tall Structures Permit from the Indiana Department of Transportation (INDOT)
- Obstruction Evaluation/Airport Airspace Analysis from the Federal Aviation Administration (FAA)