APPENDIX F: FINAL UNIVERSE OF ALTERNATIVES (LEVEL 1) SCREENING REPORT

PROPEL US 31

Smarter Transportation. Stronger Communities.

US 31 South

Universe of Alternatives (Level 1) Screening Report

FINAL

March 27, 2024

Prepared By:

HNTB

This report was finalized prior to the issuance of several Executive Orders (EOs) and one United States Department of Transportation (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;*
- *USDOT Order 2100.7*

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EXECUTIVE SUMMARY

ProPEL is an Indiana Department of Transportation (INDOT) initiative for transportation planning that uses collaborative Planning and Environment Linkages (PEL) studies to consider environmental, community, and economic goals. This *Universe of Alternatives (Level 1) Screening Report* has been prepared for the ProPEL US 31 South study and is based on scoping and data collection efforts that began in August 2022, as well as from feedback received from ongoing public and stakeholder involvement received to date. The ProPEL US 31 South study area, which is shown in Figure ES-1, includes 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 ES-1.

Figure ES-1: ProPEL US 31 North and South Study Limits

As part of the Universe of Alternatives (Level 1) screening, fifty-five (55) transportation improvement concepts, including the no-build concept, have been considered for the ProPEL US 31 South study area. These concepts have been qualitatively evaluated against the study area purpose and need, as well as evaluated for practicality. The Level 2 screening process will qualitatively assess the location specific application of concepts advancing from the Level 1 screening process.

Thirteen (13) concepts do not meet any of the study area needs but are considered practical. These concepts do provide benefit but will not be evaluated in the Level 2 screening process as they do not meet any of the study area needs. They have been designated as Design Elements and may be incorporated, where applicable, into alternatives advancing from this PEL study.

Five concepts, which are outside the control of INDOT, cannot be fully assessed for practicality. These concepts will not be advanced to the Level 2 screening. Improvements considered as part of this study will not preclude others from pursuing or implementing these concepts within the study area. Although these concepts will no longer be considered as a stand-alone solution to the identified transportation needs in the study area, INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study.

Fourteen (14) concepts were found to meet one or more of the study area needs and are considered practical. Five (5) of these concepts met a majority of the transportation needs. These concepts are designated as Primary Concepts and will be evaluated as stand-alone alternatives in the Level 2 screening process. Nine (9) of these concepts addressed some of the transportation needs and are designated as Complementary Concepts. They will be evaluated in the Level 2 screening process, primarily as location-specific application(s) as part of a Primary Concept. Table ES-1 summarizes the Universe of Alternatives (Level 1) screening results. Those concepts advancing to the Level 2 screening are highlighted in green.

Table ES-1: US 31 South Universe of Alternatives (Level 1) – Screening Results

Concepts	Universe of Alternatives Screening Result	Categorization of Practical Concepts
No-Build	CARRIED FORWARD[1]	-
Corridor Improvements		
Added Travel Lanes	NOT CARRIED FORWARD	-
Elevated Lanes	NOT CARRIED FORWARD	-
Access Management	CARRIED FORWARD	Primary Concept
Auxiliary Lanes	CARRIED FORWARD	Complementary Concept
Freeway (Free Flow with Full Control of Access)	CARRIED FORWARD	Primary Concept
Roadway Shoulder Improvements	NOT CARRIED FORWARD	-
Bypass	NOT CARRIED FORWARD	-
Continuous Roadway Lighting	NOT CARRIED FORWARD	-
Median Safety Improvements	CARRIED FORWARD	Design Element
Signal Timing Updates/ Coordination	CARRIED FORWARD	Complementary Concept
Off-Corridor Improvements		
Adjacent Intersection Improvements	NOT CARRIED FORWARD	-
Parallel Route Improvements	NOT CARRIED FORWARD	-
Intersection Improvements		
Add/Lengthen Turn Lanes	CARRIED FORWARD	Complementary Concept
Realign Skewed Intersections	CARRIED FORWARD	Design Element
Add/Extend Acceleration Lanes	CARRIED FORWARD	Complementary Concept
Intersection Sight Distance Improvements	CARRIED FORWARD	Design Element
Traffic Control Visibility Upgrades	CARRIED FORWARD	Design Element
Unsignalized Intersection Improvements	CARRIED FORWARD	Primary Concept
Signalized Intersection Improvements	CARRIED FORWARD	Complementary Concept
Cross Road Overpass/Underpass	CARRIED FORWARD	Primary Concept
Convert to Interchange	CARRIED FORWARD	Primary Concept
Interchange Improvements		
Add Capacity to Movement(s)	NOT CARRIED FORWARD	-
Collector-Distributor System	NOT CARRIED FORWARD	-
Ramp Metering	NOT CARRIED FORWARD	-
Ramp Terminal Intersection Improvements	CARRIED FORWARD	Complementary Concept

[1] The No-Build Alternative meets two identified transportation needs in the study area and will be advanced throughout the study for comparison purposes.

Table ES-1: US 31 South Universe of Alternatives (Level 1) – Screening Results (cont.)

Concepts	Universe of Alternatives Screening Result	Categorization of Practical Concepts
Spot Improvements		
Pavement Marking Improvement	CARRIED FORWARD	Design Element
Roadway Signage Improvements	CARRIED FORWARD	Design Element
Accommodate Wildlife Crossing	CARRIED FORWARD	Design Element
Railroad Crossing Improvements	NOT CARRIED FORWARD	-
Geometric Improvements	CARRIED FORWARD	Design Element
Roadway Lighting	CARRIED FORWARD	Complementary Concept
Crash Investigation Sites	NOT CARRIED FORWARD	-
Roadway Drainage Improvement	CARRIED FORWARD	Design Element
Climbing lanes (Acceleration)	NOT CARRIED FORWARD	-
Gateway/Corridor Treatments	CARRIED FORWARD	Design Element
Transportation Systems Management & Operations (TSMO) Improvements		
Traveler Information Systems	NOT CARRIED FORWARD	-
Speed Management	CARRIED FORWARD	Design Element
Warning Systems	CARRIED FORWARD	Complementary Concept
Managed Lanes	NOT CARRIED FORWARD	-
Freight Priority System	CARRIED FORWARD	Complementary Concept
Improvements Requiring Policy Changes		
Tolling	NOT CARRIED FORWARD	-
Congestion Pricing	NOT CARRIED FORWARD	-
CAV Deployment	NOT CARRIED FORWARD	-
Enforcement (Speed, Red Light Running)	NOT CARRIED FORWARD[2]	-
Travel Demand Management	NOT CARRIED FORWARD	-
Roadside Assistance Services	NOT CARRIED FORWARD	-
Incident Management	NOT CARRIED FORWARD	-
Alternative Fuel/Electric Vehicle Considerations	CARRIED FORWARD	Design Element

[2] Implementation is outside the control of INDOT and would require actions on the part of others. Therefore, this concept will not be advanced to the Level 2 screening. Although these concepts will no longer be considered as a stand-alone solution to the identified transportation needs in the study area, INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study.

Table ES-1: US 31 South Universe of Alternatives (Level 1) – Screening Results (cont.)

Concepts	Universe of Alternatives Screening Result	Categorization of Practical Concepts
Transit & Non-Motorized Improvements		
Bicycle/ Pedestrian Facilities	CARRIED FORWARD	Design Element
Bus Transit	NOT CARRIED FORWARD[3]	-
Passenger Rail	NOT CARRIED FORWARD[3]	-
Freight Rail	NOT CARRIED FORWARD[3]	-
Improved Demand Based Transit Service	NOT CARRIED FORWARD[3]	-
Non-Motorized User Accommodations	NOT CARRIED FORWARD	-

[3] Implementation is outside the control of INDOT and would require actions on the part of others. Therefore, this concept will not be advanced to the Level 2 screening. Although these concepts will no longer be considered as a stand-alone solution to the identified transportation needs in the study area, INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study.

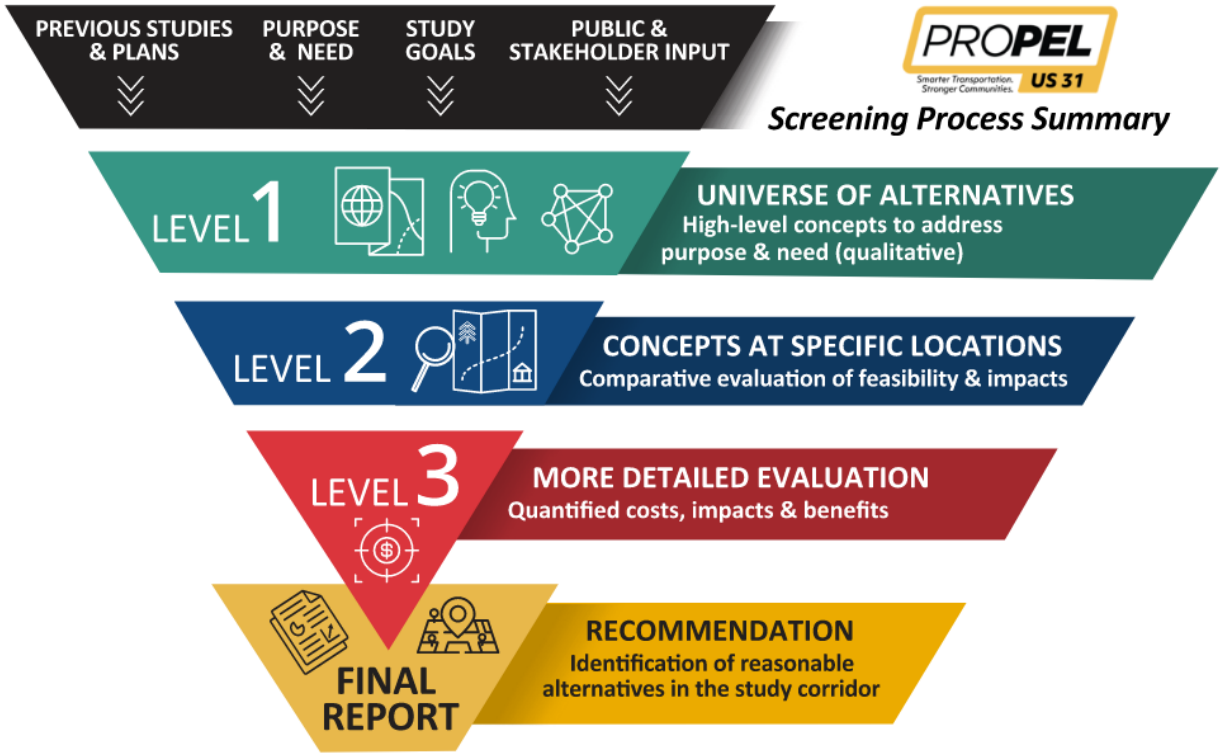
1. INTRODUCTION

1.1. BACKGROUND AND PURPOSE OF REPORT

This report documents the initial screening of concepts that may address the transportation needs identified in the *ProPEL US 31 South Purpose and Need Report* (https://propelus31.com/us-31-south/). The concepts evaluated herein are referred to as the Universe of Alternatives.

The Universe of Alternatives represents the initial step in a three level alternatives development and screening process, as depicted in Figure 1. Concepts contained in the Universe of Alternatives were subject to a high-level qualitative screening process to identify those that meet the purpose and need and are practical. Concepts that do not satisfy the screening criteria will be eliminated from consideration, while successful concepts will be carried forward and evaluated at specific locations in the US 31 South study corridor. As the study progresses, the screening and evaluation of the remaining alternatives in terms of feasibility and potential impacts will be performed in subsequently greater levels of detail – both qualitative and quantitative. Meeting the purpose, needs, and study goals will be confirmed in each subsequent screening, and public and stakeholder input will be sought at each level. The output of this process will be a set of reasonable alternatives.

Figure 1: ProPEL US 31 South Alternatives Development and Screening Process



The Universe of Alternatives for the ProPEL US 31 South study was developed utilizing information from the *ProPEL US 31 South Existing Transportation Conditions Report* and the *ProPEL US 31 South Purpose and Need Report* (https://propelus31.com/us-31-south/), previous studies, current plans, as well as input received from the public and study stakeholders.

2. PUBLIC INVOLVEMENT AND AGENCY COORDINATION

Data to inform the *Universe of Alternatives (Level 1) Screening Report* was obtained from the study's ongoing public involvement and stakeholder coordination. During the public comment period on the *Draft Universe of Alternatives (Level 1) Screening Report*, this outreach included those activities listed in Table 1.

Table 1: Universe of Alternatives (UOA) Outreach Efforts

Outreach Efforts		Date(s)
INDOT District Coordination Meeting	Virtual meeting	10/31/2023
Media Alert	ProPEL US 31 South media outlets	11/9/2023
Website Information	ProPELUS31.com	11/13/2023
Indiana Legislators Briefing	Virtual meeting	11/13/2023
Media Briefing	Virtual meeting	11/13/2023
GovDelivery E-bulletin	39% open rate and 9,129 recipients	11/13/2023
Press Release	ProPEL US 31 South media outlets	11/13/2023
US 30 & 31 Coalitions	Virtual meeting	11/13/2023; 11/16/2023
Resource Agency Coordination	Email	11/20/2023
Direct Mail Postcards	UoA postcard to residents, businesses 18,635 postcards mailed	11/15/2023
Hard Copy of Reports, Comment Forms	Tipton County Public Library	11/14/2023 – 12/22/2023
	Peru Public Library	11/14/2023 – 12/22/2023
	Kokomo Howard County Public Library, Main Branch	11/14/2023 – 12/22/2023
	Kokomo Howard County Public Library, South Branch	11/14/2023 – 12/22/2023
	Sharpsville Town Hall	11/14/2023 – 12/22/2023
Stakeholder Email Blasts	66% open rate and 480 recipients	11/14/2023
	61% open rate and 482 recipients	12/5/2023
	65% open rate and 481 recipients	12/21/2023
Public Notices	Tipton County Tribune	11/15/2023; 11/29/2023
	Peru Tribune	11/15/2023; 11/29/2023
	Kokomo Tribune	11/15/2023; 11/29/2023

Outreach Efforts		Date(s)
	Hamilton County Reporter	11/15/2023; 11/29/2023
Stakeholder Advisory Committees	Virtual meetings (x2)	11/17/2023
JJ's Travel Plaza + adjacent businesses	Virtual meeting (upon request)	11/21/2023
Social Media Posts	Universe of Alternatives milestone/study schedule	11/13/2023
	What is the Universe of Alternatives?	11/14/2023
	Introducing Alternatives: A to Z	11/16/2023
	Universe of Alternatives: Access Management	11/17/2023
	Universe of Alternatives: Added Travel Lanes	11/18/2023
	Universe of Alternatives: Auxiliary Lanes	11/20/2023
	Universe of Alternatives comment period	11/21/2023
	Universe of Alternatives: Bypass	11/21/2023
	Universe of Alternatives: Median U-Turn	11/22/2023
	Happy Thanksgiving	11/23/2023
	Universe of Alternatives: Collector-Distributor System	11/23/2023
	Universe of Alternatives: Overpass/Underpass	11/24/2023
	Community Office Hours event promotion	11/24/2023
	Universe of Alternatives: Free-Flow	11/25/2023
	Universe of Alternatives: Green T Intersection	11/27/2023
	Universe of Alternatives: Interchange	11/28/2023
	Universe of Alternatives: RCI	11/29/2023
	Universe of Alternatives: RIRO	11/30/2023
	Community Office Hours event promotion	12/1/2023
	Universe of Alternatives: Roundabout	12/1/2023
	Universe of Alternatives comment reminder	12/6/2023
	Happy Hanukkah	12/7/2023
	Community Office Hours event promotion	12/7/2023
	Universe of Alternatives screening levels	12/8/2023
	Universe of Alternatives comment period	12/9/2023
	Community office hours event promotion	12/10/2023
	Holiday Campaign: Annmarie's Boutique	12/13/2023
	Universe of Alternatives: RCI video #throwbackthursday	12/14/2023
	#feedbackfriday Universe of Alternatives comment reminder	12/15/2023
	Holiday Campaign: Tinkerhouse Trading Company	12/17/2023
	Universe of Alternatives comment reminder	12/19/2023

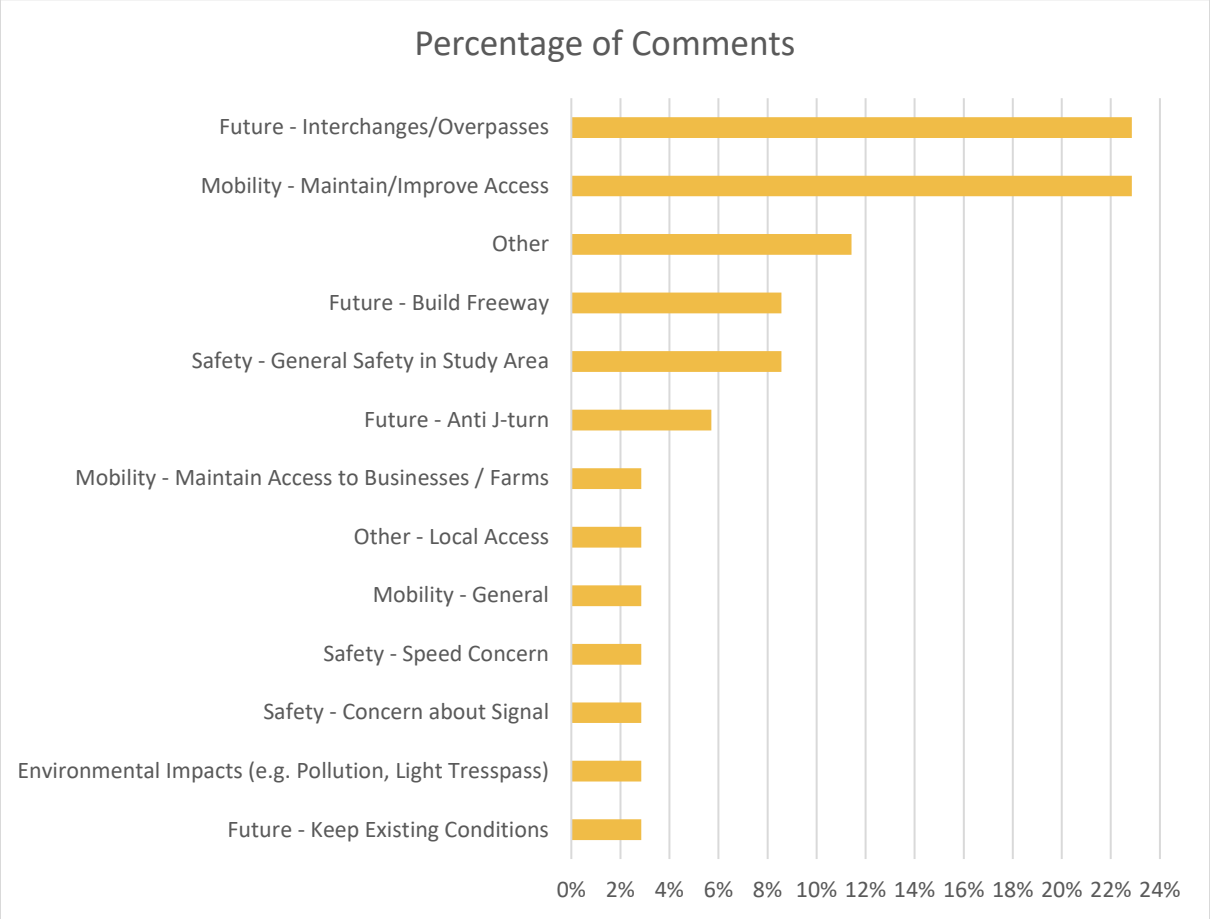
Outreach Efforts		Date(s)
	Holiday Campaign: Rockin' Js Boutique	12/19/2023
	Holiday Campaign: Pipe Creek Mercantile	12/21/2023
Grissom Air Reserve Base	Virtual meeting	11/29/2023
Community Office Hours	Pipe Creek Mercantile	12/6/2023
	Kokomo-Howard County Public Library	12/6/2023
	Tipton County Historical Society	12/12/2023
Local Elected Officials	Tipton Mayor Kegan Schmicker + Commissioner Nancy Cline	1/29/2024
	Peru Mayor Don Sturch + Peru City Council	2/5/2024

A full summary of public involvement and stakeholder coordination efforts related to the *Draft Universe of Alternatives (Level 1) Screening Report* will be included in the *Resource Agency, Stakeholder & Public Involvement Summary (RASPI) #3*, which will be available on the study website after the alternatives development and screening process is complete and a third public information meeting (PIM) for the study has occurred.

SUMMARY OF PUBLIC COMMENTS

During the Universe of Alternatives (Level 1) public comment period, which extended from November 13, 2023 through December 22, 2023, the US 31 South study team received 37 public comments. **Figure 2** below provides a summary of those comments. A list of all comments and their responses are included in Attachment 1.

Figure 2: Universe of Alternatives Comment Summary



Based on the comments received, there were no substantive changes to the *Draft Universe of Alternatives (Level 1) Screening Report*, including the screening results and the concepts carried to be carried forward for further analysis in the Level 2 screening. Location-specific feedback, such as suggested improvements at a certain property or crossroad, will be carried forward to be considered in the Level 2 and Level 3 screenings for the ProPEL US 31 South Study, as appropriate. Additionally, based on ongoing coordination with all ProPEL US 30 and US 31 study areas, clarifications were made to further explain several concepts, particularly Access Management (see Section 5.2.3) and Freeway (Free-Flow with Full Control of Access) (see Section 5.2.5). Minor updates were also made to assessment of the Tolling concept (see Section 5.8.1).

3. PURPOSE AND NEED

The *ProPEL US 31 South Purpose and Need Report* identifies the specific transportation problems or needs to be addressed and describes the specific desired outcomes or purposes for the study area. The purpose and need help to determine a reasonable range of alternatives. Potential alternatives determined not to meet the purpose and need will be eliminated from consideration. Additionally, project goals that are desirable, but not required outcomes, were also identified to help guide the development and screening of alternatives, along with other factors, such as environmental impacts, benefits, and cost. The needs, goals, and purpose identified in the *ProPEL US 31 South Purpose and Need Report* are summarized below.

3.1. TRANSPORTATION NEEDS

Detailed analysis has been conducted to identify transportation needs within the ProPEL US 31 South study area. Elected officials, the US 31 Coalition, study stakeholders (including residents, businesses, schools, and emergency services), and the general public have been engaged to help identify, confirm, and clarify transportation needs along the study corridor. The results of the analysis and engagement have identified the following transportation needs:

- Safety concerns due to high crash frequencies and/or high crash severities within the study area
- Operational issues at unsignalized intersections across the study area
- Lack of consistency with INDOT's Access Management Guidelines
- Mobility requirements across the US 31 corridor (east-west)
- Safe, high-quality mobility for long-distance passenger and freight trips through the study corridor

3.2. PURPOSE

As defined by, and to address the needs identified above, the purpose of the ProPEL US 31 South study is to:

- Improve safety along the US 31 by reducing the frequency 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.

3.3. GOALS

The *ProPEL US 31 South Purpose and Need Report* identifies multiple goals for the study corridor. These goals are elements that were not identified as primary transportation need elements because they were not specific or measurable with respect to the identified study area needs. Goals identified include:

- **Economic Development** – Provide transportation infrastructure to support local economies and economic development goals.
- **Equity In Transportation** – Provide equitable access and mobility for underserved communities.
- **Multimodal Access & Connections** – Accommodate non-motorized, transit, and active modes of travel in and across the study corridor.
- **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, including resources important to Tribal Nations.

4. SCREENING PROCESS

This section describes the screening approach that was used to evaluate the Universe of Alternatives for the ProPEL US 31 South study area. The purpose of this screening was to identify those concepts with a high probability of meeting the purpose and need for the study. Concepts must meet the purpose and need to be 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 Universe of Alternatives. 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.

4.1. EVALUATION OF NEEDS

Concepts were assessed based upon study area needs and performance measures from the *ProPEL US 31 South Purpose and Need Report*. Questions were developed for each performance measure that assessed the concept's ability to address each of the study area needs. Concepts with one or more positive responses to these questions are considered to have the ability to meet the associated study area need and were assigned a "YES" rating for the respective study area need. Concepts that do not have positive responses to these questions do not satisfy the need and were assigned a "NO" rating for the respective study area need. Additionally, concepts that are not an appropriate solution and expected to have no impact on an identified need were also assigned a "NO" rating. A "NEUTRAL" rating was assigned to concepts that either could not be assessed at this stage due to a lack of information or if there were both positive and negative characteristics to addressing purpose and need elements. The information needed to evaluate these concepts is expected to be available at later stages of this study, and for this reason, "NEUTRAL" ratings are treated as "YES" ratings in this screening process. Table 2 depicts the study area needs, corresponding performance measures, and questions used to evaluate each concept.

Table 2: Study Area Needs Assessment

Needs	Performance Measure	Does the concept…
Safety	Apply safety countermeasures to reduce crash rates and/or severity.	Reduce the risk of crashes occurring, OR Address documented safety issues?
Traffic Operations	Reduce delay at the unsignalized intersections where traffic volumes are substantial.	Reduce delays on crossroads at unsignalized intersections, where crossroad traffic volumes are substantial?
Access Control	Prioritize and consolidate access points on US 31.	Bring the study corridor closer to compliance with INDOT's Access Management Guidelines?
Cross Corridor Mobility at Important Crossing Locations	Maintain or improve safety, access, and mobility across the corridor for school buses, emergency services, and agricultural equipment by preserving the most important crossing locations[4].	Maintain or improve the ability to cross US 31?
Regional and Statewide Mobility	Improve operations along US 31 to enhance passenger and/or freight mobility.	Reduce travel time along US 31?

[4] Important crossing locations were defined through conversations with stakeholders and are documented in the *ProPEL US 31 South Purpose and Need Report.*

4.2. EVALUATION OF PRACTICALITY

A concept is considered practical (i.e., reasonable) if it could be accomplished without an extraordinarily high cost, is feasible from the standpoint of technology and logistics, is appropriate in scope and scale for the transportation problems identified and is not expected to create other unacceptable impacts such as severe operational or safety problems, or serious socioeconomic or environmental impacts[5]. Questions to determine the ability of each concept to meet these performance measures are provided in Table 3. Concepts that did not satisfy any of these questions were assigned a "NO" rating for practicality, while those that satisfied all questions were assigned a "YES" rating. A "NEUTRAL" rating was assigned to concepts that either could not be assessed at this stage due to a lack of information or if there were both positive and negative characteristics associated with the concept. The information needed to evaluate these concepts is expected to be available at later stages of this study, and for this reason, "NEUTRAL" ratings are treated as "YES" ratings in this screening process.

Table 3: Study Area Practicality Assessment Criteria

Number	Performance Measure	Is the concept…
(1)	Able to be accomplished without an extraordinarily high cost	Capable of being implemented after taking into consideration costs?
(2)	Technologically and logistically feasible to implement	Available and capable of being implemented after taking into consideration existing technology and logistics?
(3)	Appropriate in scope and scale for the transportation problems identified	Considered to be rational and not excessive given the needs of the corridor?
(4)	Not expected to create other unacceptable impacts	Likely to result in severe socioeconomic or environmental impacts, or create severe operational or safety problems?

4.3. CATEGORIZATION OF PRACTICAL CONCEPTS

Concepts that do not meet one or more study area needs and/or are not practical were eliminated from the Universe of Alternatives and will not be evaluated in the Level 2 screening process. The remaining concepts were placed into one of three categories for further consideration. These categories are described below.

Primary Concept - A practical transportation improvement concept that would address a majority of the identified transportation needs in the study area and/or that could be advanced to the Level 2 screening process as a stand-alone alternative. Primary concepts will be evaluated in the Level 2 screening process.

Complementary Concept - A practical transportation improvement concept that would address some of the identified transportation needs in the study area. Complementary Concepts may provide some benefit at specific locations. They may be added to a Primary Concept, which could enhance its ability to address the identified needs or may be used to address specific needs at specific locations. Complementary Concepts will be evaluated in the Level 2 screening process.

[5] The evaluation of alternatives must consider a reasonable range of options that could fulfill the project sponsor's purpose and need. Reasonable Alternatives includes those that "are practical or feasible from a technical and economic standpoint and using common sense, rather than simply desirable from the standpoint of the applicant" (Council on Environmental Quality, 1981).

Design Element - A practical transportation improvement concept that would not address any of the identified transportation needs in the study area; however, it may provide some benefit and should be considered and/or incorporated into an improvement concept where applicable. Design Elements will be carried forward for consideration; however, design concepts will not be explicitly evaluated in the Level 2 screening process as they do not address study area needs.

Some concepts, even if eliminated from further consideration in this screening, may appear as part of the alternatives considered in future screenings. For example, an adjacent intersection improvement or parallel route improvement may be implemented as part of the Convert to Interchange concept. This is because converting an intersection to an interchange could require improvements or modifications in other locations to address the potential adverse impacts caused by those improvements. Other concepts, which are outside the control of INDOT, could not be fully assessed for practicality and are therefore removed from further consideration in the alternatives development and screening process. Although these concepts will no longer be considered as a stand-alone solution to the identified transportation needs in the study area, INDOT will continue to coordinate with the appropriate agency/entity to share information, such as public input received during the study.

5. UNIVERSE OF ALTERNATIVES

This section provides a brief description of the fifty-five (55) Universe of Alternative improvement concepts, which include:

- 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.

Following the description of each concept are explanations of how each concept does or does not meet the study area needs, as well as an assessment of its practicality. These narratives also explain why a concept is advanced or eliminated from the screening process, as well as to what category the advancing concept is assigned.

5.1. NO-BUILD

The No-Build Alternative represents the conditions expected if no improvements are made to US 31 within the study area beyond routine maintenance activities and projects programmed in INDOT's Next Level Roads Construction Program and/or the Statewide Transportation Improvement Program. The No-Build Alternative is considered as the baseline condition that various build alternatives are compared against to evaluate their effectiveness in addressing the identified study area needs, as well as their impacts to the human and natural environments. The screening results for this concept are provided in Table 4.

Table 4: No-Build Alternative Screening Results

Need	Needs Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	Yes	Would maintain the ability to cross the corridor.
Regional and Statewide Mobility	No	Would not improve travel time along US 31.
Practical	Yes	The No-Build Alternative would meet all criteria identified in Section 3.2. Therefore, it is a practical option.

Result: The No-Build Alternative meets one study area need, but it will not address the substantial safety issues identified throughout the corridor. The No-Build Alternative is considered practical option as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration in the PEL study, as well as any subsequent reviews conducted in accordance with NEPA. The No-Build Alternative will serve as a baseline for comparison to build alternatives.

5.2. CORRIDOR IMPROVEMENTS

5.2.1. ADDED TRAVEL LANES

Additional travel lanes may be provided along the entire corridor or in select segments to address existing and/or future capacity needs. Additional lanes could be added to the inside of US 31, occupying the area currently used for a grass median. If additional lanes are added to the outside of US 31, acquisition of additional right-of-way (ROW) may be required. The screening results for this concept are provided in Table 5.

Table 5: Added Travel Lanes Screening Results

Need	Need Met?	Explanation
Safety	No	Would increase crash risk and would not address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would hinder the ability to cross the corridor through the addition of lanes and elimination of medians to use for two-stage crossings.
Regional and Statewide Mobility	No	Would not improve travel time along US 31.
Practical	No	The Added Travel Lanes concept would not meet Criteria 1, 3, and 4 identified in Section 3.2 as it would require extraordinarily high costs to add capacity to a roadway that does not require it in the existing and/or projected future conditions (2045). If the added travel lanes were added to the outside, it could also result in severe environmental and socioeconomic impacts. Therefore, it is not considered practical.

Result: The Added Travel Lanes concept will not be carried forward for further consideration as it does not meet any study area needs and it is not practical due to the extraordinarily high costs and potentially severe impacts to add capacity to a roadway that does not require it.

5.2.2. ELEVATED LANES

Elevated lanes are additional travel lanes that are built above ground level on structure. The primary purpose of elevated lanes is to separate highway traffic from local traffic, bikes/pedestrians, or obstacles/constraints at ground level. Access to/from the elevated lanes are provided only at select public roadways via interchanges. This condition is referred to as full control of access. The screening results for this concept are provided in Table 6.

Table 6: Elevated Lanes Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce traffic volumes at US 31 intersections, which reduces crash risk.
Traffic Operations	Yes	Would reduce traffic volumes at US 31 intersections, which would reduce delays at unsignalized intersections.

Table 6: Elevated Lanes Screening Results (cont.)

Need	Need Met?	Explanation
Access Control	No	Would not prioritize or consolidate access points.
Cross Corridor Mobility	Yes	Would reduce the north-south volume of traffic that impedes east-west movement.
Regional and Statewide Mobility	Yes	Would create free flow conditions for north-south traffic flow.
Practical	No	The Elevated Lanes concept would not meet Criteria 1 and 3 identified in Section 3.2 as it would require extraordinarily high costs to add capacity to a roadway that does not require it for the existing and/or projected future conditions (2045). Therefore, it is not considered appropriate in scope and scale given the identified transportation problems.

Result: The Elevated Lanes concept meets four study area needs; however, it is not practical due to its extraordinarily high costs to add capacity to a roadway that does not require it. The Elevated Lanes concept will not be carried forward for further consideration.

5.2.3. ACCESS MANAGEMENT

Access management improvements refer to strategies that control and optimize the way vehicles and pedestrians enter, exit, and interact with the highway, which is typically accomplished by eliminating conflict points. As shown in Table 7, there are three access management control types:

Table 7: Access Management Control Types

Access Management Control Type	Definition
Full control of access	Connections are provided only with select public roads through interchanges. Driveway connections (residential and commercial) are not permitted. Freeways have full control of access. The US 31 bypass around Kokomo is a freeway with full control of access.
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. US 31 within the study area has partial control of access; however, several areas do not meet INDOT's access management guidelines. US 24, which is located in the northern portion of the study area, also has partial control of access.
No control of access	No degree of access control exists; however, the number and location of roadway and driveway connections are typically limited by the minimum standards defined by INDOT and/or local access management guidelines. Most of the roadways intersecting US 31 within the study area, including Division Road and Business 31, have no control of access.

Access management improvements may include, but are not limited to, the following:

- Converting a driveway to a right-in / right-out configuration;
- Partial control of access, which allows connections with select public roads and driveways to serve adjacent properties;
- Construct and/or modify local access roads;
- Closure and/or consolidation of driveways;
- Cul-de-sac a road to eliminate an existing connection to US 31; and
- Closure of median openings along the study corridor; and
- Full control of access, which allows connections with select public roads via interchanges.

The screening results for this concept are provided in Table 8.

Table 8: Access Management Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk.
Traffic Operations	Neutral	May reduce or increase delay on crossroads. Impacts are site specific and cannot be determined at this stage.
Access Control	Yes	Would improve compliance with access management guidelines.
Cross Corridor Mobility	Neutral	May improve or worsen the ability to cross US 31. Impacts are site specific and cannot be determined at this stage.
Regional and Statewide Mobility	Yes	Would improve travel time along US 31.
Practical	Yes	The Access Management concept would meet Criteria 1, 2, and 3 identified in Section 3.2. The ability of this concept to meet Criteria 4 is location specific, which will be evaluated in subsequent screening processes.

Result: The Access Management concept meets three study area needs and is practical as it meets the practicality criteria in Section 3.2. The Access Management concept will be carried forward for further consideration as a Primary Concept as it meets a majority of the study area needs and is practical.

Note: Decisions regarding access management will be made during project development and will be analyzed and documented as part of the NEPA environmental review process. These activities would occur after the PEL study is completed. For the purposes of this PEL study, INDOT will develop and evaluate a range of access management approaches for roadway sections in the study area to better understand costs, benefits, and impacts of different access management strategies.

5.2.4. AUXILIARY LANES

Auxiliary lanes are additional lanes on a highway used to improve traffic flow and safety where there is a high volume of traffic entering and/or exiting the highway between two points. They are intended to provide additional capacity on the mainline between two access points to improve traffic flow for merging, exiting, and through traffic movements. These lanes can help reduce congestion and the likelihood of accidents caused by abrupt lane changes between these locations. Auxiliary lanes are not intended to serve as continuous right turn lanes or provide access to multiple driveways. The screening results for this concept are provided in Table 9.

Table 9: Auxiliary Lane Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	Neutral	Could improve compliance with access management guidelines. Impacts are site specific and cannot be determined at this stage.
Cross Corridor Mobility	No	Would worsen cross corridor mobility through the addition of lanes.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	Yes	The concept meets all criteria identified in Section 3.2.

Result: The Auxiliary Lanes concept meets one study area need, is neutral on another need, and is practical as it meets the practicality criteria in Section 3.2. The Auxiliary Lanes concept will be carried forward for further consideration as a Complementary Concept since it meets one study area need and is practical.

5.2.5. FREEWAY (FREE-FLOW FACILITY WITH FULL CONTROL OF ACCESS)

A freeway would provide for free flow[6] of traffic along the mainline travel lanes by eliminating all at-grade intersections and driveways within the study corridor. Access to adjacent areas would be provided via interchanges with select public roads (i.e., full control of access). 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.

The screening results for this concept are provided in Table 10.

Table 10: Freeway (Free-Flow with Full Control of Access) Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk and address documented existing safety issues.
Traffic Operations	Neutral	May reduce delays on crossroads by shifting these movements to interchanges with low intersection delays; however, this would also increase travel distance (and time) for some users. Impacts are site specific and cannot be determined at this stage.
Access Control	Yes	Would improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would hinder the ability to cross the corridor through closing of crossroads and consolidation of movements at interchanges.
Regional and Statewide Mobility	Yes	Would improve travel time along US 31.

[6] A free-flow facility is a road that has no traffic signals, stop signs, or yield signs. These traffic control devices introduce periodic delay that interrupts travel. A freeway is one example of a free-flow facility. Another example is a road with no traffic signals, stop signs, or yield signs that has no or partial control of access.

Table 10: Freeway (Free-Flow with Full Control of Access) Screening Results (cont.)

Need	Need Met?	Explanation
Practical	Neutral	As noted in the description, a freeway is a specific facility type that could be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document (e.g., Access Management, Convert to Interchange, Underpass/Overpass). Although this concept could require extraordinarily high costs for implementation and may create severe socioeconomic and/or environmental impacts, additional information is required to fully assess its practicality. Furthermore, there is a high level of public and stakeholder interest in this facility type and further information is needed to understand potential benefits, impacts, and costs relative to other potential facility types (e.g., free flow (with partial control of access), expressway, etc.). This information will be available in the Level 3 screening analysis.

Result: The Freeway concept will address four of the five study area needs and additional information is needed to assess practicality. This information will be available in the Level 3 screening analysis. Therefore, the Freeway concept will be carried forward for further consideration as a Primary Concept.

Note: A freeway is a specific facility type that could be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document (e.g., Access Management, Convert to Interchange, Underpass/Overpass). Other facility types (e.g., free flow with no or partial access control, expressway [i.e., no direct residential driveway connections]) could also be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document in different ways. These facility types would provide a range of options to address safety, mobility, and access needs in the study area. A major defining characteristic of facility type is the level of access management (see Section 5.2.3 for further details).

A common theme of the public comments received to date (including those received during the Universe of Alternatives screening comment period) is that maintaining local access to/from US 31 (i.e., alternatives with less control of access) is important and should be considered as part of the PEL study.

As a result, the Level 2 alternatives screening will focus on Primary Intersection improvements. The options for potential facility types in the US 31 South study area will be evaluated in the Level 3 alternatives screening.

Because it is possible to have varying facility types in the study area, the ProPEL US 31 South study area may be divided into smaller pieces or focus areas as part of future alternatives development and screening activities. This approach will enable maximum flexibility to combine improvements in different ways to meet the transportation needs, support study area goals, as well as to reflect community-specific context regarding fit and function.

5.2.6. ROADWAY SHOULDER IMPROVEMENTS

Adequate shoulders provide space for emergency stops and emergency vehicle access, provide the driver with a sense of comfort in congested areas, accommodate oversized loads and vehicle breakdowns, and improve the capacity of the mainline travel lanes. This concept would increase the width of shoulders in the corridor, where needed, to current design standards. Screening results for this concept are provided in Table 11.

Table 11: Roadway Shoulder Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would not improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since there is lack of documented safety or operational issues associated with the existing roadway shoulders and widening of shoulders is not expected to address any documented safety or operational issues. Therefore, it is not appropriate in scope and scale.

Result: The Roadway Shoulder Improvements concept addresses none of the study area needs and will not be carried forward for further consideration as it is not practical due to the lack of documented safety or operational issues associated with the existing roadway shoulders.

5.2.7. BYPASS

A roadway bypass is a new road or highway constructed to route through-traffic around a specific area, helping to reduce traffic congestion and provide a more efficient route for longer distance trips. This concept would construct a bypass route on new alignment with full control of access (i.e., connections provided with select public roads via interchanges). The screening results for this concept are provided in Table 12.

Table 12: Bypass Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk along the existing US 31 corridor.
Traffic Operations	Yes	Would reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	Neutral	Would improve the ability to cross the existing US 31 corridor by reducing the volume on US 31 that cross traffic must contend with, but the bypass itself is an additional barrier to east-west mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	No	The concept does not meet Criteria 1, 3 or 4 of Section 3.2 as the cost of a bypass is expected to be extraordinarily high, it is not appropriate in scope and scale for the identified transportation problems, and it is likely to result in severe socioeconomic and/or environmental impacts.

Result: The Bypass concept will address three needs but will not be carried forward for further consideration as it is not practical based on its extraordinarily high cost of construction, the expected environmental impacts, and because it is not appropriate in scope and scale.

5.2.8. CONTINUOUS ROADWAY LIGHTING

Continuous Roadway Lighting would provide consistent lighting conditions along the entire study corridor. Lighting the entire corridor would generally give drivers more time to react to obstructions, such as deer, in the roadway at night. The screening results for this concept are provided in Table 13.

Table 13: Continuous Roadway Lighting Screening Results

Need	Need Met?	Explanation
Safety	No	Would not decrease crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	No	The concept does not meet Criteria 3 of Section 3.2 since it is not appropriate in scope and scale for the identified transportation problems as the ratio of nighttime to daytime crashes is low and does not warrant continuous roadway lighting.

Result: This alternative does not address any study area needs and is not practical in scope and scale for the identified problems given the low ratio of nighttime to daytime crashes. The Continuous Roadway Lighting concept will not be carried forward for further consideration.

5.2.9. MEDIAN SAFETY IMPROVEMENTS

This concept would identify one or more areas on US 31 in the study corridor where medians would be widened or otherwise improved (e.g., adding barriers where justified). Closure of median openings are covered under the Access Management Concept in Section 4.2.3. The screening results for this concept are provided in Table 14.

Table 14: Median Safety Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.

Table 14: Median Safety Improvements Screening Results (cont.)

Need	Need Met?	Explanation
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility as this concept does not include closure of median openings.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2. This concept proactively enhances safety and supports FHWA's zero deaths vision at a low impact (Criteria 4).

Result: The Median Safety Improvements will be carried forward as a Design Element as this concept does not meet any study area needs but is practical as it meets the practicality criteria in Section 3.2. This concept supports the shared vision of INDOT and the Federal Highway Administration (FHWA's) for zero deaths on the transportation system.

5.2.10. SIGNAL TIMING UPDATES/COORDINATION

Signal timing is a collection of logic and criteria that directs movements for users at a signalized intersection. This concept would improve traffic signal timing and coordination between signals, which can improve traffic flow and safety. The screening results for this concept are provided in Table 15.

Table 15: Signal Timing Updates/Coordination Screening Results

Need	Need Met?	Explanation
Safety	Neutral	Would not reduce crash risk but could address some documented safety issues. Impacts are site specific and cannot be determined at this stage.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no substantial impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Signal Timing Updates/Coordination concept will be carried forward for further consideration as a Complementary Concept since it addresses one study area need and is deemed practical.

5.3. OFF-CORRIDOR IMPROVEMENTS

5.3.1. ADJACENT INTERSECTION IMPROVEMENTS

Existing intersections near to US 31 may cause operational issues at US 31 intersections due to long queues, limited sight distance, limited stopping distance, and/or other issues. This concept would reconfigure or reconstruct adjacent intersections further away from the study corridor, which can positively influence operations and safety at intersections with US 31. These improvements may also require additional local access road modifications. The screening results for this concept are provided in Table 16.

Table 16: Adjacent Intersection Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as no identified transportation problems along US 31 result from off-corridor intersections.

Result: The Adjacent Intersection Improvements concept will not be carried forward as it does not meet any study area needs and is not practical because it is not appropriate in scope and scale to address the transportation problem identified; however, this concept will be considered, as needed, during the alternatives development and screening process to minimize and/or mitigate impacts associated with another improvement concept.

5.3.2. PARALLEL ROUTE IMPROVEMENTS

Existing roadways parallel to US 31 would be improved to provide better local travel options and reduce the demand on US 31. Such improvements may include, but may not be limited to, shoulder improvements, widening of existing travel lanes, and intersection improvements or realignment of existing local roads to provide a facility that is functional for users. The screening results for this concept are provided in Table 17.

Table 17: Parallel Route Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on travel time along US 31.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as there are no existing parallel routes that could attract substantial volumes of traffic away from US 31.

Result: The Parallel Route Improvements concept addresses one study area need but will not be carried forward as it is not practical due to a lack of existing parallel routes that would meaningfully affect safety and operations along US 31. This concept will be considered, as needed, during the alternatives development and screening process to mitigate impacts associated with another improvement concept.

5.4. INTERSECTION IMPROVEMENTS

5.4.1. ADD OR LENGTHEN TURN LANES

Left and/or right turn lanes would be added to existing intersections in the study corridor, as needed, to separate turning vehicles from through traffic. In locations where they currently exist, turn lanes would be evaluated to determine if adequate deceleration and storage lengths are provided. Depending on the volume of traffic served, dual turn lanes may be appropriate for some intersections. The screening results for this concept are provided in Table 18.

Table 18: Add or Lengthen Turn Lanes Screening Results

Need	Need Met?	Explanation
Safety	Neutral	May address documented safety issues associated with rear end crashes at signalized intersections. Impacts are site specific and cannot be determined at this stage.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	Yes	Would improve compliance with access management guidelines by adding turn lanes to select median openings.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	Yes	This concept meets all four criteria identified in Section 3.2.

Result: The Add or Lengthen Turn Lanes concept meets two study area needs and is practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Solution.

5.4.2. REALIGN SKEWED INTERSECTIONS

Skewed intersections occur when local roadways intersect US 31 at angles other than 90 degrees. At these locations, the angle of the intersection of the crossing road (skew) would be reduced and the intersection would be made more perpendicular to US 31. This concept would involve reconstruction of a limited length of the approach roadway and may require acquisition of additional ROW to improve safety on the corridor. The screening results for this concept are provided in Table 19.

Table 19: Realign Skewed Intersections Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.

Table 19: Realign Skewed Intersections Screening Results (cont.)

Need	Need Met?	Explanation
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility as the only intersection with substantial skew (US 31 & Business 31) does not provide for an east-west movement.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	This concept meets Criteria 1, 2, and 3 identified in Section 3.2. The ability of this concept to meet Criteria 4 is location specific and must be evaluated in the Level 2 Screening process.

Result: The Realign Skewed Intersections concept does not address any study area need but will be carried forward for further consideration as a Design Element since it is deemed practical as it satisfies the practicality criteria in Section 3.2.

5.4.3. ADD/EXTEND ACCELERATION/DECELERATION LANES

Acceleration and deceleration lanes are components of highways and roads that allow motorist to enter and exit mainline travel lanes at or near the same speed of through traffic. An acceleration lane is an additional lane on a roadway, typically found at on-ramps or entrances to highways or freeways. Its purpose is to allow vehicles entering the main road to accelerate and match the speed of the traffic already on the road before merging. By having this separate lane, drivers can safely and smoothly merge into the flow of traffic minimizing disruptions or hazards to other vehicles. A deceleration lane is a designated lane that allows vehicles to pull out of the mainline lanes before slowing to exit the facility. This concept would add or extend acceleration or deceleration lanes for vehicles entering or exiting US 31. Depending on the site specifics, this concept may require acquisition of additional ROW. The screening results for this concept are provided in Table 20.

Table 20: Add/Extend Acceleration Lanes Screening Results

Need	Need Met?	Explanation
Safety	Neutral	May address documented safety issues associated with rear end crashes at signalized intersections. Impacts are site specific and cannot be determined at this stage.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Add/Extend Acceleration Lanes concept addresses one study area needs and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Solution.

5.4.4. INTERSECTION SIGHT DISTANCE IMPROVEMENTS

Intersection sight distance refers to the distance needed for a driver approaching an intersection to have a clear and unobstructed view of any potential conflicting traffic. This ensures that drivers have enough time to react to unexpected situations. Intersection sight distance is influenced by factors such as the location and height of obstructions, road curvature, and the design of the intersection itself. This concept would involve realignment of the approach roadway or driveway to provide adequate sight distance along US 31. The screening results for this concept are provided in Table 21.

Table 21: Intersection Sight Distance Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no substantial impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	While there are no documented intersection sight distance transportation problems, this concept meets all four Criteria identified in Section 3.2.

Result: The Intersection Sight Distance Improvements concept does not meet any study area need but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Design Element.

5.4.5. TRAFFIC CONTROL VISIBILITY UPGRADES

Traffic control directs the movement of people and vehicles by using a mixture of devices such as signs, pavement markings, and signals. This concept would upgrade the visibility of these devices by providing more conspicuous direction or warning to the user at all times, including during inclement weather or in unlit conditions. The screening results for this concept are provided in Table 22.

Table 22: Traffic Control Visibility Upgrades Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.

Table 22: Traffic Control Visibility Upgrades Screening Results (cont.)

Need	Need Met?	Explanation
Practical	Yes	This concept meets all four Criteria identified in Section 3.2.

Result: The Traffic Control Visibility Upgrades concept does not meet any study area need but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Design Element.

5.4.6. UNSIGNALIZED INTERSECTION IMPROVEMENTS

Existing unsignalized intersections would be reconfigured to improve safety and efficiency within the study area, which could enhance connectivity to regional and national markets. Unsignalized intersection improvement configurations may include, but may not be limited to, the intersection types listed below:

- Convert to Reduced Conflict Intersections (RCI);
- Convert to roundabout; or
- Convert to signalized intersection.

The screening results for this concept are provided in Table 23.

Table 23: Unsignalized Intersection Improvements Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk and address documented safety issues associated with right angle and left turn crashes.
Traffic Operations	Neutral	May increase or reduce crossroad delay. Impacts are site specific and cannot be determined at this stage.
Access Control	Yes	Would improve compliance with access management guidelines by restricting access and eliminating conflict points or by signalizing uncontrolled movements.
Cross Corridor Mobility	Yes	Would maintain or improve cross corridor mobility.
Regional and Statewide Mobility	Neutral	Impacts are site specific and cannot be determined at this stage.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Unsignalized Intersection Improvements concept meets three study area needs and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Primary Concept.

5.4.7. SIGNALIZED INTERSECTION IMPROVEMENTS

A signalized improvement would include improvements to an existing signalized intersection. Varying configurations of traffic signals are possible under this concept. Potential configurations may include, but may not be limited to, those listed below.

- Continuous Flow Intersection;
- Boulevard Left Turn Intersection;

- Restricted Crossing U-Turn Intersections (RCUT);
- Green Tee Intersection;
- Signal Modernization;
- Consolidation of signalized intersections.

The screening results for this concept are provided in Table 24.

Table 24: Signalized Intersection Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues with rear end collisions, which are the predominant crash types in the corridor.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines as no conflict points would be eliminated or access consolidated.
Cross Corridor Mobility	Yes	Would maintain or improve cross corridor mobility.
Regional and Statewide Mobility	Neutral	May marginally reduce delay for US 31 movements. Impacts are site specific and cannot be determined at this stage.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Signalized Intersection Improvements concept meets one study area needs and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Solution.

5.4.8. CROSS ROAD UNDERPASS/OVERPASS

This concept would convert an existing at-grade intersection to a crossroad overpass or underpass, which would separate the local crossroad from US 31 via a bridge. It would remove the existing at-grade intersection with US 31 and provide unimpeded access across US 31 with no connection between the two roadways. The screening results for this concept are provided in Table 25.

Table 25: Cross Road Underpass/Overpass Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk and may address documented safety issues.
Traffic Operations	Neutral	May reduce delays on crossroads at unsignalized intersections but may also increase crossroad delays if movements are eliminated.
Access Control	Yes	Would improve compliance with access management guidelines.
Cross Corridor Mobility	Yes	Would improve cross corridor mobility through grade separation.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Cross Road Underpass/Overpass concept meets four study area needs and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Primary Concept.

5.4.9. CONVERT TO INTERCHANGE

Improvements to an at-grade intersection may not be practical due to the volume of traffic the intersection must accommodate in existing or projected conditions. Interchanges may be used in these situations to physically separate traffic flows, reduce delay, and improve safety by reducing conflict points within the study area, which could enhance connectivity to regional and national markets. Examples of interchange types that are applicable to at-grade intersections in the study corridor may include, but may not be limited to, the following (and variations thereof):

- A Diamond Interchange;
- A Cloverleaf Interchange;
- A Single Point Urban Interchange (SPUI); and
- A Diverging Diamond Interchange (DDI).

In some cases, additional interchange configurations are possible to accomplish the primary objective of access, while also avoiding and/or minimizing impacts to community and environmental resources. The screening results for this concept are provided in Table 26.

Table 26: Convert to Interchange Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk and address documented safety issues.
Traffic Operations	Yes	Would reduce delays on crossroads at unsignalized intersections.
Access Control	Neutral	May increase compliance with access control guidelines, depending upon the location of implementation. Impacts are site specific and cannot be determined at this stage.
Cross Corridor Mobility	Yes	Would improve cross corridor mobility through grade separation.
Regional and Statewide Mobility	Yes	Would improve travel time along US 31.
Practical	Neutral	This concept meets Criteria 2, as identified in Section 3.2. Location specific screening is needed to determine the ability of this concept to be accomplished at a reasonable cost, if it is appropriate in scope and scale for the identified transportation problems, and if it creates unacceptable impacts.

Result: The Convert to Interchange concept meets four study area needs and is deemed practical as three of the four practicality screening criteria are unable to be determined until a location specific screening is performed. Therefore, it will be carried forward for further consideration as a Primary Concept.

5.5. INTERCHANGE IMPROVEMENTS

5.5.1. ADD CAPACITY TO MOVEMENT(S)

This concept would add capacity to an existing interchange by adding lanes, improving geometry, lengthening merge/diverge areas, or travel lane/shoulder widening. Capacity improvements may also require bridge widening or other associated improvements. The screening results for this concept are provided in Table 27.

Table 27: Added Capacity to Movement(s) Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as no existing interchanges in the study area were found to need additional capacity.

Result: The Add Capacity to Movement(s) concept meets one study area need but is not deemed practical since no existing interchanges in the study area were found to need additional capacity. Therefore, it will not be carried forward for further consideration.

5.5.2. COLLECTOR-DISTRIBUTOR SYSTEM

Collector-Distributor (C-D) roads consist of local access lanes, usually parallel to, but separated from the existing corridor, where weaving movements between vehicles entering and exiting the mainline lanes occur. This concept would eliminate weaving movements from the mainline, allowing through traffic to flow more freely. The screening results for this concept are provided in Table 28.

Table 28: Collector-Distributor System Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 as it is not appropriate in scope and scale since no existing interchanges in the study area will benefit from the addition of C-D roadways.

Result: The Collector-Distributor System concept meets one study area need but is not deemed practical since no existing interchanges in the study area will benefit from the addition of C-D roadways. Therefore, it will not be carried forward for further consideration.

5.5.3. RAMP METERING

Ramp metering is a means of controlling a freeway entrance ramp to manage the volume of traffic entering the mainline lanes. Ramp metering is used to reduce or prevent bottlenecks that occur where large volumes of traffic enter the roadway. The screening results for this concept are provided in Table 29.

Table 29: Ramp Metering Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31 as there is no congestion to mitigate.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 as it is not appropriate in scope and scale since no existing interchanges in the study area were found to have operational or safety issues related to merging traffic volumes.

Result: The Ramp Metering concept does not meet any study area need and is not deemed practical since no existing interchanges were found to have operational, or safety issues related to merging traffic volumes. Therefore, it will not be carried forward for further consideration.

5.5.4. RAMP TERMINAL INTERSECTION IMPROVEMENTS

A ramp terminal intersection connects a free-flow roadway interchange ramp with a crossroad at an intersection with the local road. This concept would improve ramp terminals, as needed, at both signalized and unsignalized ramp terminal intersections. The screening results for this concept are provided in Table 30.

Table 30: Ramp Terminal Improvements Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would address documented safety issues at the US 31 southbound & SR 28 intersection.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.

Table 30: Ramp Terminal Improvements Screening Results (cont.)

Need	Need Met?	Explanation
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: Ramp Terminal Intersection Improvements meet one study area need and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Concept.

5.6. SPOT IMPROVEMENTS

5.6.1. PAVEMENT MARKING IMPROVEMENTS

This concept would include reapplying and/or reconfiguring roadway pavement markings to be more prominent, more frequent, more reflective, brighter, and more informative/intuitive to help guide traffic. The screening results for this concept are provided in Table 31.

Table 31: Pavement Marking Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Pavement Marking Improvement concept does not meet any study area need but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward as a Design Element.

5.6.2. ROADWAY SIGNAGE IMPROVEMENTS

This concept would upgrade roadway signage, as needed, to improve a motorist's ability to navigate the area. Enhanced signage could include larger, more informative, better/internally illuminated signs accompanied by flashing lights to gain the attention of drivers. The screening results for this concept are provided in Table 32.

Table 32: Roadway Signage Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.

Table 32: Roadway Signage Improvements Screening Results (cont.)

Need	Need Met?	Explanation
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Roadway Signage Improvements concept does not meet any study area need but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward as a Design Element.

5.6.3. ACCOMMODATE WILDLIFE CROSSINGS

Wildlife, especially deer, are present throughout the study corridor and sometimes interact with users causing crashes. Wildlife crossings can be managed by providing a dedicated location where wildlife can cross the roadway without interacting with motorists. This concept would utilize grade separated crossings for wildlife or other technologies to limit risk associated with wildlife attempting to cross US 31. The screening results for this concept are provided in Table 33.

Table 33: Accommodate Wildlife Crossings Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues. No substantial concentrations of animal crashes can be targeted with this solution.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Accommodate Wildlife Crossings concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Design Element.

5.6.4. RAILROAD CROSSING IMPROVEMENTS

Railroad crossing improvements would modify existing at-grade railroad crossings of US 31 by improving sight distances, installing new active warning signals, or grade separating the crossing with an overpass/underpass bridge. This concept may also include adding an auxiliary lane outside the through traffic lanes for vehicles required to stop at railroad crossings when trains are not present, such as buses and semi-trucks. Such auxiliary lanes would also require adequate deceleration and acceleration tapers, as well as marking and signing tailored to the location. There are no existing at-grade crossings of US 31 in the study area.

The screening results for this concept are provided in Table 34.

Table 34: Railroad Crossing Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope. No at-grade crossings exist within the study area.

Result: The Railroad Crossing Improvements concept does not meet any study area needs and is not deemed practical since no at-grade crossings exist within the study area. Therefore, it will not be carried forward for further consideration.

5.6.5. GEOMETRIC IMPROVEMENTS

The screening results for this concept are provided in Table 35. This concept would improve roadway geometry, as needed, to meet current design standards and/or address documented issues. Such improvements may include, but may not be limited to, the following:

- Horizontal or vertical curve improvements;
- Superelevation rate improvements;
- Superelevation rate transition improvements; and
- Sight distance Improvements.

Table 35: Geometric Improvements Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Geometric Improvements concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Design Element.

5.6.6. ROADWAY LIGHTING

This concept would provide roadway lighting at spot locations such as:

- Intersections;
- Interchanges;
- Horizontal curves; and
- Locations with frequent wildlife crossings.

The screening results for this concept are provided in Table 36.

Table 36: Roadway Lighting Screening Results

Need	Need Met?	Explanation
Safety	Yes	May reduce crashes at select locations. May generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Roadway Lighting concept meets one study area need and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Concept.

5.6.7. CRASH INVESTIGATION SITES

This concept would implement crash investigation sites, which are designated zones where motorists involved in a crash can pull off the roadway to safely investigate a minor crash. These zones are typically placed along high-speed facilities in locations where crashes frequently occur. The screening results for this concept are provided in Table 37.

Table 37: Crash Investigation Sites Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.

Table 37: Crash Investigation Sites Screening Results (cont.)

Need	Need Met?	Explanation
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as there are no documented issues of secondary crashes resulting from a lack of areas to safely investigate crashes.

Result: The Crash Investigation Sites concept does not meet any study area needs and is not practical since there are not documented issues of secondary crashes resulting from a lack of areas to safely investigate crashes. Therefore, it will not be carried forward for further consideration.

5.6.8. ROADWAY DRAINAGE IMPROVEMENT

Roadway drainage infrastructure removes storm water runoff from roadways by directing the runoff into designated systems for discharge, storage, or infiltration. This concept would improve roadway drainage infrastructure, as needed, to address documented issues such as flooding, ponding water, or hydroplaning vehicles. The screening results for this concept are provided in Table 38.

Table 38: Roadway Drainage Improvement Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Roadway Drainage Improvement concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Design Element.

5.6.9. CLIMBING LANES

Climbing lanes are additional lanes provided for trucks and other slow-moving vehicles to get up to the posted speed in specific areas with steep uphill grades. This concept would add climbing lanes, as needed, in areas with steep uphill grades. Adding climbing lanes may require acquisition of additional ROW. The screening results for this concept are provided in Table 39.

Table 39: Climbing Lanes Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.

Table 39: Climbing Lanes Screening Results (cont.)

Need	Need Met?	Explanation
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would not substantially improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as the study corridor is relatively flat and there are no documented issues associated with grades or vertical curves.

Result: The Climbing Lanes concept does not meet any study area needs and is deemed not practical since there are no documented issues associated with grades or vertical curves. Therefore, it will not be carried forward for further consideration.

5.6.10. GATEWAY/CORRIDOR TREATMENTS

Aesthetic treatments would be incorporated for key destinations along the study corridor. For the US 31 corridor, potential key destinations would include Peru, Indiana, or other points of interest in the study corridor. This concept would intend to focus on a specific access point for these destinations. The screening results for this concept are provided in Table 40.

Table 40: Gateway/Corridor Treatments Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Gateway/Corridor Treatments concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward as a Design Element.

5.7. TRANSPORTATION SYSTEM MANAGEMENT AND OPERATIONS (TSMO) IMPROVEMENTS

5.7.1. TRAVELER INFORMATION SYSTEMS

Traveler information systems consist of tools to collect and distribute traffic conditions, work zone information, road, and weather conditions to motorists via smart phones, in addition to radio, message boards, websites or other devices. The screening results for this concept are provided in Table 41.

Table 41: Traveler Information Systems Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on regional or statewide mobility as there are no viable alternate routes to the US 31 South corridor.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as such systems are beneficial when alternate routes exist. There are no viable alternate routes for the study corridor.

Result: The Traveler Information Management concept does not meet any study area needs and is deemed impractical since no viable alternate routes exist for the study corridor. Therefore, it will not be carried forward for further consideration.

5.7.2. SPEED MANAGEMENT

Reducing vehicle speeds can improve safety in areas where substantial volumes of traffic are entering, exiting, or crossing the study corridor. Speed management techniques include engineering countermeasures using pavement markings, signing, geometric changes, as well as permanent or temporary reductions to posted speed limits. Variable speed limits can be used to temporarily reduce speeds when demand is high and/or when congestion is present. The active speed limit is displayed to motorists using dynamic messaging signs and/or dynamic speed limit signs. Successful speed management techniques would be expected to reduce speed differentials, reduce the severity of rear end crashes, reduce red light running (in signalized areas), and maintain the smooth flow of traffic. The screening results for this concept are provided in Table 42.

Table 42: Speed Management Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no substantial impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2. Additional law enforcement resources may be needed.

Result: The Speed Management concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Additionally, speeds along US 31 have been documented as being in excess of the posted speed limit. Therefore, it will be carried forward as a Design Element.

5.7.3. WARNING SYSTEMS

Intersection warning systems can alert motorists to a stop condition that lies ahead at a signalized intersection. Warning systems can also be used at unsignalized intersections to alert motorists on the mainline of a vehicle that is present at a downstream crossroad or alert the motorist on the crossroad of approaching mainline vehicles. The screening results for this concept are provided in Table 43.

Table 43: Warning Systems Screening Results

Need	Need Met?	Explanation
Safety	Yes	Would reduce crash risk and may address documented safety issues. May generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no substantial impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no substantial impact on statewide mobility.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Warning Systems concept meets one study area need and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Concept.

5.7.4. MANAGED LANES

Managed lanes are travel lanes that are provided for exclusive use by high occupancy vehicles, trucks, tolled vehicles, or some combination of these vehicles. Managed lanes may also include options such as reversible lanes to address unbalanced traffic flows or shoulder running which can intermittently allow the use of existing shoulders as travel lanes. Managed lanes provide a means to reduce congestion and commonly provide a higher level of service to users than the general-purpose lanes. Managed lanes may require added travel lanes along the study corridor, which may require acquisition of additional ROW and/or changes in access to/from the study corridor. The screening results for this concept are provided in Table 44.

Table 44: Managed Lanes Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would worsen cross corridor mobility through closure of medians.
Regional and Statewide Mobility	Yes	Would improve travel time along US 31.

Table 44: Managed Lanes Screening Results (cont.)

Need	Need Met?	Explanation
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale for the identified transportation problems as there is no documented congestion in the study corridor.

Result: The Managed Lanes concept meets one study area need, but it is not practical as there is no documented congestion in the corridor. Therefore, it will not be carried forward for further consideration.

5.7.5. FREIGHT PRIORITY SYSTEM

A freight priority system is a traffic signal modification that extends the traffic signal phase length to provide additional green time for approaching trucks. This would allow trucks to make it through an intersection when they would otherwise be forced to stop. The screening results for this concept are provided in Table 45.

Table 45: Freight Priority System Screening Results

Need	Need Met?	Explanation
Safety	Neutral	Would reduce right angle crashes, which is a documented safety issue at several at signalized intersections. Right angle crashes typically result from red light running, which this type of system should reduce.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would improve travel time along US 31 for trucks by reducing the number of red lights trucks encounter.
Practical	Yes	This concept meets all criteria identified Section 3.2. This concept is only appliable at signalized intersections.

Result: The Freight Priority System concept meets one study area need and is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward for further consideration as a Complementary Concept. This concept is only applicable at signalized intersections.

5.8. IMPROVEMENTS REQUIRING POLICY CHANGES

5.8.1. TOLLING

This concept would involve charging a toll (fee) when a driver uses a road or a bridge. Although tolling encourages some drivers to seek an alternative route, the main purpose of tolling is to generate revenue. Funds gathered via tolling can be used to fund ongoing roadway maintenance, additional future roadway improvements, or manage debt for previous improvements. The screening results for this concept are provided in Table 46.

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Table 46: Tolling Screening Results

Need	Need Met?	*Explanation*
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would not reduce travel time along US 31 as travel speeds currently exceed the posted speed limit.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2. Tolling would not meet the study area needs. Therefore, this concept would only be practical if implemented as part of a regional or statewide transportation funding program. Such a program does not currently exist.

Result: The Tolling concept does not meet any study area needs and is not practical in the absence of a regional or statewide transportation funding program. Therefore, it will not be carried forward for further consideration.

5.8.2. CONGESTION PRICING

Similar to tolling, congestion pricing imposes a toll (fee) to use a facility; however, the price of the toll may vary depending on location, traffic congestion, time of day, or other factors. The screening results for this concept are provided in Table 47.

Table 47: Congestion Pricing Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	Yes	Would marginally improve travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as there is no congestion issues to mitigate.

Result: The Congestion Pricing concept meets one study area need but is not practical since there is no documented congestion in the corridor to mitigate. Therefore, it will not be carried forward for further consideration.

5.8.3. CAV DEPLOYMENT

Connected and Autonomous Vehicles (CAV) is an emerging technology that can replace the driver for some or all of the driving tasks. Technological advancements and increasing CAV penetration into automobiles and the

transportation infrastructure has the potential to improve safety and efficiency of the roadways. This concept would include roadway modifications and technology installations to help accommodate increased CAV deployment along US 31 within the study corridor. The screening results for this concept are provided in Table 48.

Table 48: CAV Deployment Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	No	This concept does not meet Criteria 2 and 3 identified in Section 3.2. The concept is not appropriate in scope and scale as there is no current way for INDOT to implement CAV technologies due to low market rates of CAV adoption and standardization.

Result: The CAV Deployment concept does not meet any study area needs and is not practical due to low market rates of CAV adoption and standardization, as well as existing logistical issues associated with implementation. Therefore, it will not be carried forward for further consideration. Although CAV deployment will not be carried forward, care will be taken to ensure that nothing considered in this study will preclude CAV deployment at a future time.

5.8.4. ENFORCEMENT

Speed enforcement can provide an effective means of reducing speed differentials in the study corridor. This can lead to fewer crashes and fewer instances of red light running.

Red-light running enforcement frequently uses monitoring systems to detect and issue violations to red light runners. Red light running on a high-speed arterial like US 31 frequently lead to severe crashes with fatalities and incapacitating injuries.

Automated forms of speed and red-light running enforcement are available for use but require approval by the Indiana legislature. The screening results for this concept are provided in Table 49.

Table 49: Enforcement Screening Results

Need	Need Met?	Explanation
Safety	Neutral	Would not prevent red light running or excessive speeding but may reduce frequency of such events. Impacts of this concept cannot be determined until implementation.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.

Table 49: Enforcement Screening Results (cont.)

Need	Need Met?	Explanation
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would not improve travel time along US 31.
Practical	Neutral	Outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed.

Result: The enforcement concept does not meet any study area needs. Implementation is outside the control of INDOT and would require actions on the part of others. Therefore, practicality cannot be fully assessed. For these reasons, enforcement will not be carried forward for further consideration. INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study. Improvements considered as part of this study will not preclude the implementation of enforcement by others within the study area.

5.8.5. TRAVEL DEMAND MANAGEMENT

This concept includes adjusting working hours, telecommuting (i.e., working from home), ridesharing, and other commute mode adjustments to reduce the traffic demand along the study corridor. These concepts are largely dependent upon whether or not employers allow for non-traditional work hours and/or the job responsibilities are conducive to telecommuting. The screening results for this concept are provided in Table 50.

Table 50: Travel Demand Management Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31 as there is no congestion to mitigate.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale as US 31 is not a commuter route and a majority of the study area has relatively low densities of residential and employment land uses.

Result: The Travel Demand Management concept does not meet any study area needs and is deemed not practical as US 31 is not a commuter route and majority of the study area has relatively low densities of residential and employment land uses. Therefore, it will not be carried forward for further consideration.

5.8.6. ROADSIDE ASSISTANCE SERVICES

Roadside assistance, such as the Hoosier Helpers, is a service provided to help stranded motorists return to the roadway and reduce the likelihood of secondary crashes. These services are typically provided on interstates or other high volume, high-speed roadways. Screening results for this concept are provided in Table 51.

Table 51: Roadside Assistance Services Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale for the identified transportation problems given existing and forecasted traffic conditions.

Result: The Roadside Assistance Services concept does not meet any study area needs and is not practical given existing and forecasted traffic conditions. Therefore, it will not be carried forward for further consideration.

5.8.7. INCIDENT MANAGEMENT

Incident management combines a strategy of unified policies, procedures, operations, and communication systems for traffic incident responders to clear incidents in a timely manner in a safe and organized way. The screening results for this concept are provided in Table 52.

Table 52: Incident Management Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues but may generally improve safety.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale for the identified transportation problems given lack of congestion and incident rates to support incident management programs.

Result: The Incident Management concept does not meet any study area needs and is not practical given lack of congestion and incident rates to support incident management programs. Therefore, it will not be carried forward for further consideration.

5.8.8. ALTERNATIVE FUEL/ELECTRIC VEHICLE CONSIDERATIONS

Additional messaging would be provided along the corridor to direct users to alternative fueling / charging locations. The screening results for this concept are provided in Table 53.

Table 53: Alternative Fuel/Electric Vehicle Considerations Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2. US 31 is designated as an Alternative Fuel Corridor.

Result: The Alternative Fuel/Electric Vehicle Considerations concept does not meet any study area needs but is deemed practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward as a Design Element.

5.9. TRANSIT & NON-MOTORIZED IMPROVEMENTS

5.9.1. BICYCLE/PEDESTRIAN FACILITIES

This concept would add bike/pedestrian facilities including bike lanes, sidewalks, and other features, as dedicated facilities or as enhancements to existing roadways to improve mobility by accommodating alternate modes of travel. In general, this concept would provide the greatest benefit in urban areas with higher population densities and where non-motorized travel origin and destinations are more frequent. The screening results for this concept are provided in Table 54.

Table 54: Bicycle / Pedestrian Facilities Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility for school buses, emergency services, and agricultural equipment. May improve cross corridor mobility for cyclists and pedestrians.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Yes	This concept meets all criteria identified in Section 3.2.

Result: The Bike/Pedestrian Facilities concept does not meet any study area needs but is considered practical as it meets the practicality criteria in Section 3.2. Therefore, it will be carried forward as a Design Element.

5.9.2. BUS TRANSIT

Bus transit is a fixed route system that can improve mobility by providing an option to those that are not physically able or who choose not to drive. Bus transit can also improve mobility by providing a mode of transportation that is more economical than owning a car. Bus transit can target local trips within a community or commuter trips between communities. This concept would provide new bus transit service along existing roadways. The screening results for this concept are provided in Table 55.

Table 55: Bus Transit Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Neutral	Outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed.

Result: The Bus Transit concept does not meet any study area needs. Implementation is outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed. For these reasons, it will not be carried forward for further consideration. INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study. Improvements considered as part of this study will not preclude the implementation and/or operation of bus transit by others within the study area.

5.9.3. PASSENGER RAIL

Passenger rail service connects regions, city centers, and suburbs. This type of service generally operates on existing freight rail corridors. The screening results for this concept are provided in Table 56.

Table 56: Passenger Rail Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.

Table 56: Passenger Rail Screening Results (cont.)

Need	Need Met?	Explanation
Practical	Neutral	Outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed.

Result: The Passenger Rail concept does not meet any study area needs. Implementation is outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed. For these reasons, it will not be carried forward for further consideration. Improvements considered as part of this study will not preclude the implementation and/or operation of passenger rail by others within the study area.

5.9.4. FREIGHT RAIL

Freight rail refers to the transportation of goods and commodities by train. It involves the movement of large quantities of freight, such as raw materials, finished products, and various types of cargo, over long distances using specially designed rail infrastructure and rolling stock. This concept may require acquisition of dedicated ROW, if no such rail infrastructure exists. The screening results for this concept are provided in Table 57.

Table 57: Freight Rail Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Neutral	Outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed.

Result: The Freight Rail concept does not meet any study area need. Implementation is outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed. For these reasons, it will not be carried forward for further consideration. Improvements considered as part of this study will not preclude the implementation and/or operation of freight rail by others within the study area.

5.9.5. IMPROVED DEMAND BASED TRANSIT SERVICE

A transportation service that adapts to specific needs and requests of passengers. Unlike traditional fixed-route transit systems, which operate on predetermined routes and timetables, demand-based transit services aim to provide more flexibility and convenience to passengers by allowing them to request or schedule rides on an as-needed basis. The on-demand service can be accommodated through a combination of shuttle buses, taxi service, and private ride share companies. The screening results for this concept are provided in Table 58.

Table 58: Improved Demand Based Transit Service Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.
Practical	Neutral	Implementation of improved demand-based service is outside of INDOT's control and would require actions on the part of others. Therefore, practicality cannot be fully assessed.

Result: The Improved Demand Based Transit Service concept does not meet any study area need. Implementation is outside the control of INDOT and would require actions on the part of others. Therefore, practicality cannot be fully assessed. For these reasons, it will not be carried forward for further consideration. INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study. Improvements considered as part of this study will not preclude the implementation and/or operation of demand-based transit service by others within the study area.

5.9.6. NON-MOTORIZED USER ACCOMMODATIONS

This concept would add accommodations to provide for enhanced use of the study corridor by non-motorized users. These accommodations may include, but are not limited to, the following:

- Warning signage;
- Grade separated crossings;
- Dedicated median cuts for non-motorized users;
- Improved signal loop detectors; and
- Shoulder infrastructure and warning signage for horse-drawn vehicles.

The screening results for this concept are provided in Table 59.

Table 59: Non-Motorized User Accommodations Screening Results

Need	Need Met?	Explanation
Safety	No	Would not reduce crash risk or address documented safety issues.
Traffic Operations	No	Would not reduce delays on crossroads at unsignalized intersections.
Access Control	No	Would not improve compliance with access management guidelines.
Cross Corridor Mobility	No	Would have no impact on cross corridor mobility.
Regional and Statewide Mobility	No	Would have no impact on travel time along US 31.

Table 59: Non-Motorized User Accommodations Screening Results (cont.)

Need	Need Met?	Explanation
Practical	No	This concept does not meet Criteria 3 identified in Section 3.2 since it is not appropriate in scope and scale since there is no known Amish population within the study area which could create demand for non-motorized facility accommodation.

Result: The Non-Motorized User Accommodations concept does not meet any study area need and is not practical since there is no known Amish population within the study area which could create demand for non-motorized facility accommodation. Therefore, it will not be carried forward for further consideration.

5.10. SUMMARY OF SCREENING RESULTS

A summary of the Universe of Alternatives (Level 1) screening results is contained in Table 60. Concepts that will be carried forward to the Level 2 screening process are highlighted in green.

Table 60: Universe of Alternatives (Level 1) – Summary of Screening

Concepts	Needs					Practical for Study Corridor?	Universe of Alternatives Screening Result	Categorization of Practical Concepts	Notes
	Safety	Traffic Operations	Access Control	Cross-Corridor Mobility	Statewide & Regional Mobility				
No-Build	NO	NO	NO	YES	YES	YES	CARRIED FORWARD[7]	-	Does not meet Purpose and Need, but procedurally required.
Corridor Improvements									
Added Travel Lanes	NO	NO	NO	NO	YES	NO	NOT CARRIED FORWARD	-	Maintains existing travel time along US 31. No need for additional capacity on US 31 in the study area.
Elevated Lanes	YES	YES	NO	YES	YES	NO	NOT CARRIED FORWARD	-	Extraordinarily high cost. No need for additional capacity on US 31 in the study area.
Access Management	YES	NEUTRAL	YES	NEUTRAL	YES	YES	CARRIED FORWARD	Primary Concept	Compliance with access management guidelines is poor.
Auxiliary Lanes	NO	NO	NEUTRAL	NO	YES	YES	CARRIED FORWARD	Complementary Concept	May improve safety and north-south mobility and can be implemented only where needed.
Freeway (Free Flow with Full Control of Access)	YES	NEUTRAL	YES	NO	YES	Neutral	CARRIED FORWARD	Primary Concept	Addresses multiple needs but could result in severe socioeconomic and/or environmental impacts. Further information is needed to understand potential benefits, impacts, and costs relative to other facility types.
Roadway Shoulder Improvements	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No documented issues associated with shoulder width.
Bypass	YES	YES	NO	NEUTRAL	YES	NO	NOT CARRIED FORWARD	-	Not practical due to lack of congestion along US 31, substantial cost to construct and expected socioeconomic and/or environmental impacts.
Continuous Roadway Lighting	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Night to day crash ratios do not justify continuous lighting.
Median Safety Improvements	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Low cost, proactive concept to enhance safety. Aligns with FHWA's vision of zero deaths on the transportation system.
Signal Timing Updates/ Coordination	NEUTRAL	NO	NO	NO	YES	YES	CARRIED FORWARD	Complementary Concept	May provide benefits at signalized intersections.

[7] The No-Build Alternative meets two identified transportation needs in the study area and will be advanced throughout the study process for comparison purposes.

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Table 60: Universe of Alternatives (Level 1) – Summary of Screening (cont.)

Concepts	Needs					Practical for Study Corridor?	Universe of Alternatives Screening Result	Categorization of Practical Concepts	Notes
	Safety	Traffic Operations	Access Control	Cross-Corridor Mobility	Statewide & Regional Mobility				
Off-Corridor Improvements (cont.)									
Adjacent Intersection Improvements	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Does not meet the needs identified on US 31 in the study area. Will be considered, as needed, to minimize and/or mitigate impacts of other improvement concepts.
Parallel Route Improvements	NO	NO	NO	NO	YES	NO	NOT CARRIED FORWARD	-	Improving parallel routes will not meaningfully affect safety and operations along US 31 in the study area. Will be considered, as needed, to minimize and/or mitigate impacts of other improvement concepts.
Intersection Improvements									
Add/Lengthen Turn Lanes	NEUTRAL	NO	YES	NO	YES	YES	CARRIED FORWARD	Complementary Concept	Low cost, minimal impact to address some needs at select locations.
Realign Skewed Intersections	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	US 31 & Business 31 is the only severely skewed intersection within in the study corridor.
Add/Extend Acceleration Lanes	NEUTRAL	NO	NO	NO	YES	YES	CARRIED FORWARD	Complementary Concept	May improve the ability to safely enter and/or exit US 31.
Intersection Sight Distance Improvements	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element-	Improved intersection sight distance should be provided wherever practical.
Traffic Control Visibility Upgrades	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Does not meet needs. Low-cost, practical concept for all signalized intersections.
Unsignalized Intersection Improvements	YES	NEUTRAL	YES	YES	NEUTRAL	YES	CARRIED FORWARD	Primary Concept	Practical concept that can provide free flow conditions.
Signalized Intersection Improvements	NO	NO	NO	YES	NEUTRAL	YES	CARRIED FORWARD	Complementary Concept	Practical, cost-effective concept that addresses some needs.
Cross Road Overpass/Underpass	YES	NEUTRAL	YES	YES	YES	YES	CARRIED FORWARD	Primary Concept	Addresses multiple needs when implemented at select locations.
Convert to Interchange	YES	YES	NEUTRAL	YES	YES	Neutral	CARRIED FORWARD	Primary Concept	Addresses multiple needs when implemented at select locations.
Interchange Improvements									
Add Capacity to Movement(s)	NO	NO	NO	NO	YES	NO	NOT CARRIED FORWARD	-	Existing interchanges do not have capacity needs.
Collector-Distributor System	NO	NO	NO	NO	YES	NO	NOT CARRIED FORWARD	-	Existing interchanges will not benefit from this concept.
Ramp Metering	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Existing interchanges do not have deficiencies for this concept to address.
Ramp Terminal Intersection Improvements	YES	NO	NO	NO	NO	YES	CARRIED FORWARD	Complementary Concept	May address crash frequency at US 31 southbound & SR 28 interchange.

Table 60: Universe of Alternatives (Level1) – Summary of Screening (cont.)

Concepts	Needs					Practical for Study Corridor?	Universe of Alternatives Screening Result	Categorization of Practical Concepts	Notes
	Safety	Traffic Operations	Access Control	Cross-Corridor Mobility	Statewide & Regional Mobility				
Spot Improvements									
Pavement Marking Improvement	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	May provide benefits at select locations but does not address needs.
Roadway Signage Improvements	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	May provide benefits at select locations but does not address needs.
Accommodate Wildlife Crossings	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	May provide benefits, but site is not evident based on crash data.
Railroad Crossing Improvements	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No at-grade crossings exist in the study corridor.
Geometric Improvements	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	May address safety concerns at the intersection of US 31 south and SR 28.
Roadway Lighting	YES	NO	NO	No	NO	YES	CARRIED FORWARD	Complementary Concept	May provide benefits and address some needs at select locations.
Crash Investigation Sites	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No documented issues of secondary crashes to be addressed by this concept.
Roadway Drainage Improvement	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Despite no documented drainage issues in the study corridor, improvements to drainage may improve safety.
Climbing lanes (Acceleration)	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No documented issues associated with grades or vertical curves.
Gateway/Corridor Treatments	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Does not address needs but is wanted by one or more communities.
Transportation Systems Management & Operations (TSMO) Improvements									
Traveler Information Systems	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No viable alternate routes to direct motorists to.
Speed Management	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Requires additional enforcement, which is not provided by INDOT.
Warning Systems	YES	NO	NO	NO	NO	YES	CARRIED FORWARD	Complementary Concept	Low-cost concept to improve safety at select locations.
Managed Lanes	NO	NO	NO	NO	YES	NO	NOT CARRIED FORWARD	-	No measurable benefit to implementing managed lanes in the study corridor.
Freight Priority System	NEUTRAL	NO	NO	NO	YES	YES	CARRIED FORWARD	Complementary Concept	Low-cost concept to address some safety needs and improve statewide mobility at select locations.

Table 60: Universe of Alternatives (Level 1) – Summary of Screening (cont.)

Concepts	Needs					Practical for Study Corridor?	Universe of Alternatives Screening Result	Categorization of Practical Concepts	Notes
	Safety	Traffic Operations	Access Control	Cross-Corridor Mobility	Statewide & Regional Mobility				
Improvements Requiring Policy Changes									
Tolling	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Requires legislative action to allow tolling. Not appropriate in scope or scale for the identified transportation problems.
Congestion Pricing	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No documented congestion issues.
CAV Deployment	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	CAV penetration rates are low in the corridor.
Enforcement (Speed, Red Light Running)	NEUTRAL	NO	NO	NO	NO	NEUTRAL	NOT CARRIED FORWARD[8]	-	Outside of INDOT control.
Travel Demand Management	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Not appropriate for this corridor.
Roadside Assistance Services	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Not cost effective for Hoosier Helpers to patrol the study corridor.
Incident Management	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	Not appropriate given lack of congestion and low incident rates.
Alternative Fuel/Electric Vehicle Considerations	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	US 31 is an Alternative Fuel Corridor.
Transit & Non-Motorized Improvements									
Bicycle/ Pedestrian Facilities	NO	NO	NO	NO	NO	YES	CARRIED FORWARD	Design Element	Appropriate for all locations. Does not address needs.
Bus Transit	NO	NO	NO	NO	NO	NEUTRAL	NOT CARRIED FORWARD[7]	-	Outside of INDOT control.
Passenger Rail	NO	NO	NO	NO	NO	NEUTRAL	NOT CARRIED FORWARD[7]	-	Outside of INDOT control.
Freight Rail	NO	NO	NO	NO	NO	NEUTRAL	NOT CARRIED FORWARD[7]	-	Outside of INDOT control.
Improved Demand Transit Based Service	NO	NO	NO	NO	NO	NEUTRAL	NOT CARRIED FORWARD[7]	-	Outside of INDOT control.
Non-Motorized User Accommodations	NO	NO	NO	NO	NO	NO	NOT CARRIED FORWARD	-	No demand for this concept in the study corridor.

[8] Implementation is outside the control of INDOT and would require actions on the part of others. Therefore, practicality cannot be fully assessed, and this concept will not be advanced to the Level 2 screening. INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study.

6. GOALS

There are five goals identified as part of the ProPEL US 31 study. The following subsection provides a brief description of each goal, as well as a qualitative assessment of how concepts carried forward for further consideration (i.e., Primary Concepts, Complementary Concepts, and Design Elements) will support each goal. Goals did not influence the screening process but will be considered in the Level 2 and Level 3 alternatives development and screening processes.

6.1. ECONOMIC DEVELOPMENT

Economic Development is defined as providing the transportation infrastructure to support local economies and economic development goals. US 31 is a statewide corridor that connects local communities and businesses to regional and national markets. Within the study area, the ability of US 31 to support the local economy – including, more specifically, the operations of the farming industry and access to local businesses – were recurring themes expressed by public and study stakeholders. In general, the US 31 South ProPEL study purpose of improving safety, as well as efficiency and reliability of the US 31 study corridor are expected to benefit local and regional economic development. Therefore, improvements that meet the identified transportation needs are consistent with and will support the established economic development goals of the communities in the study area. To meet the Economic Development goal, a concept must support the existing economy and/or planned economic development through improved safety, mobility and/or access. The concepts listed below support this goal:

- Unsignalized Intersection Improvements: Would improve safety and mobility within the study area, which could enhance connectivity to regional and national markets.
- Cross Road Overpass/ Underpass: Would provide more efficient crossings of US 31. Lack of access to/from US 31 could affect local residents and businesses; however, additional information is needed to better understand these considerations.
- Convert to Interchange: Would provide more efficient access to/from US 31, as well as across it. Would improve safety and mobility within the study area, which could enhance connectivity to regional and national markets.
- Auxiliary Lanes: Would improve traffic flow on US 31 within the study area.
- Signal Timing Updates: Would improve traffic flow on US 31 within the study area.
- Add or Lengthen Turn Lanes: Would improve traffic flow within the study area.
- Add/Extend Acceleration Lanes: Would improve traffic flow on US 31 within the study area.
- Signalized Intersection Improvements: Would improve operational efficiency at intersections.
- Freight Priority System: Would improve mobility of goods through and to/from the corridor which would support the existing economy that requires connections to/from the corridor.
- Freeway (Limited Access): Would improve safety and mobility along US 31, which could enhance connectivity to regional and national markets. Limited access could negatively impact local communities and businesses; however, additional information is needed to better understand these considerations.

Other alternatives may also support this goal; however, additional information is needed to make this determination. This information will be developed and considered during the Level 2 and Level 3 alternatives development and screening.

Based on the information available at this time, none of the alternatives carried forward for further consideration would preclude the ability to achieve the economic development goal.

6.2. EQUITY IN TRANSPORTATION

Equity in Transportation is defined as equitable solutions that consider the needs of underserved communities in the study area. To support this goal, the concept must improve safety, mobility, or access for underserved communities. The concepts listed below support this goal:

- Bicycle/Pedestrian Facilities: Would improve multi-modal mobility by providing alternative modes of transportation, as well as options for active recreation.

Other concepts may also support this goal; however, additional information is needed to make this determination. This information will be developed and considered during the Level 2 and Level 3 alternatives development and screening.

Based on the information available at this time, none of the alternatives carried forward for further consideration would preclude the ability to achieve the goal of equity in transportation.

6.3. MULTI-MODAL ACCESS & CONNECTIONS

Multimodal Access & Connections are defined as accommodation of non-motorized, transit, and active modes of travel within and crossing the study corridor. The Multimodal Access & Connections goal is considered to be met when the concept has the potential to include sidewalk, trails or other non-motorized methods of travel, and transit. The concepts listed below support this goal:

- Cross Road Overpasses / Underpass: Would improve access across US 30 for non-motorized vehicles and active modes of travel.
- Bicycle and Pedestrian Facilities: Would improve multi-modal mobility by providing alternative modes of transportation, as well as options for active recreation.

Because considerations for bicycle and pedestrian facilities will be incorporated into improvement concepts where applicable, other alternatives may support this goal. However, additional information is needed to make this determination. This information will be developed and considered during the Level 2 and Level 3 alternatives development and screening.

Based on the information available at this time, none of the alternatives carried forward for further consideration would preclude the ability to achieve the multi-modal access and connections goal.

6.4. EMERGING TECHNOLOGIES

Emerging Technologies and related infrastructure include alternative fuel and autonomous or connected vehicles. To support this goal, the concept must have the potential to interact with connected vehicles and/or support alternative fuel initiatives. The concepts listed below support this goal:

- Speed Management: Would improve safety of the roadway through communicating safe travel speeds along the corridor.
- Warning Systems: Would improve safety at intersections by using technology to alert of conditions that lie ahead.
- Freight Priority System: Would use technology to detect trucks carrying freight that are approaching a signalized intersection and would extend the green time to minimize stops for this type of vehicle.
- Alternative Fuel/Electric Vehicle Considerations: Would promote the use of vehicles using alternative fuels and/or electric vehicles by providing additional messaging directing such vehicles to refueling facilities along the corridor.

Other alternatives may also support this goal; however, additional information is needed to make this determination. This information will be developed and considered during the Level 2 and Level 3 alternatives development and screening.

Based on the information available at this time, none of the alternatives carried forward for further consideration would preclude the ability to achieve the goal of supporting emerging technologies.

6.5. FISCAL & ENVIRONMENTAL PRACTICALITY

Fiscal & Environmental Practicality is defined as fiscally responsible improvements that avoid/minimize impacts to the human and natural environment, including resources important to Tribal Nations, while also maximizing the return on the transportation investment. The concepts listed below support this goal as each of these concepts are expected to have minimal negative environmental impacts (positive impacts in some cases) and are expected to have good returns on the investments.

- Access Management: Would improve compliance with access management through a series of low-cost improvements targeting driveways and median openings. Higher levels of access control could result in more severe environmental impacts, including relocations of homes and businesses as well as the need to construct and/or modify local access roads.
- Unsignalized Intersection Improvements: Would provide cost-effective intersection improvements at lower volume intersections.
- Signal Timing Updates: Would increase efficiency of existing infrastructure.
- Add or Lengthen Turn Lanes: Would increase efficiency of existing infrastructure.
- Add/Extend Acceleration Lanes: Would improve operations at intersections.
- Signalized Intersection Improvements: Would increase efficiency of at-grade intersections through modifications to or reconfigurations of the intersections.
- Spot Roadway Lighting: Would improve safety at select locations.
- Warning Systems: Would improve safety at select intersections.
- Freight Priority System: Would reduce the number of stops for freight traffic traveling along US 31.
- Accommodate Wildlife Crossings: Appropriately designed crossings at select locations would reduce animal crashes.
- Alternative Fuel/Electric Vehicle Considerations: Potential positive environmental impacts through support of electric or alternative fuel as a potential means to support carbon reduction.
- Bicycle/Pedestrian Improvements: Potential for positive environmental and health impacts through improved modal choices, as well as options for active recreation.

Other alternatives may also support this goal; however, additional information is needed to make this determination. This information will be developed and considered during the Level 2 and Level 3 alternatives development and screening.

Based on the information available at this time, none of the alternatives carried forward for further consideration would preclude the ability to achieve the fiscal and environmental practicality goal.

7. NEXT STEPS

As part of the Universe of Alternatives (Level 1) screening, fifty-five (55) transportation improvement concepts, including the No-Build concept, have been considered for the ProPEL US 31 South study area. These concepts have been qualitatively evaluated against the study area purpose and need, as well as evaluated for practicality.

Thirteen (13) concepts do not meet any of the study area needs but are considered practical. These concepts do provide benefit but will not be evaluated in the Level 2 screening process as they do not meet any of the study area needs. These concepts have been designated as Design Elements and may be incorporated, where applicable, into alternatives advancing from this PEL study.

Five (5) concepts, which are outside the control of INDOT, cannot be fully assessed for practicality. These concepts will not be advanced to the Level 2 screening. Although these concepts will no longer be considered as a stand-alone solution to the identified transportation needs in the study area, INDOT will continue to coordinate with the appropriate agency/entity to share information, including public input received during the study.

Fourteen (14) concepts were found to meet one or more of the study area needs and are considered practical. Five (5) of these concepts met a majority of the transportation needs. These concepts are designated as Primary Concepts and will be evaluated as stand-alone alternatives in the Level 2 screening process. Nine (9) of these concepts addressed some of the transportation needs and may provide some benefit at specific locations. These concepts are designated as Complementary Concepts and will be evaluated in the Level 2 screening process, primarily as location-specific application(s) as part of a Primary Concept.

All practical concepts are listed in Table 61. **Only Primary and Complementary Concepts will be evaluated in the subsequent Level 2 screening process.**

Table 61: Universe of Alternatives (Level 1) Screening: Practical Concepts

Primary Concepts (5)	Complementary Concepts (9)	Design Elements (13)
• Access Management • Freeway (Free Flow with Full Control of Access) • Unsignalized Intersection Improvements • Cross Road Overpass/ Underpasses • Convert to Interchange	• 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	• 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 Improvement • Gateway/Corridor Treatment • Speed Management • Alternative Fuel/Electric Vehicle Considerations • Bicycle/Pedestrian Facilities

The No-Build Alternative meets two transportation needs of the study area and will be advanced throughout the PEL study and throughout any ensuing NEPA analysis for comparison purposes.

APPENDIX A. UNIVERSE OF ALTERNATIVES COMMENT PERIOD RESPONSES

The table provided in this appendix list all comments received through the active Universe of Alternatives comment period from November 13, 2023 through December 22, 2023. *Please note that comment text in the table reflects submission content verbatim.*

Table A-1 – Responses to Comments Received during the Universe of Alternatives Comment Period

#	Date	Topic	Comment	Response
1	11/15/2023	Safety, Overall US 31 Corridor	US 31 will be a barrier in Tipton County between US 26 and US 28 and south when it is turned into a limited access road. The 600 N overpass provides limited cross traffic, but is a problem for farm equipment access due to the sight lines and the narrowness of 600 N. There is a very strong need for more overpasses and at least one if not more additional access points between the two state roads. School busses, farm equipment, and emergency vehicles being the most important reasons for the overpasses and access points. With school busses, they will be asked to cross into and out of neighboring school districts to gain access to their school which increases the time kids are on the school buses. With farm equipment, an undue burden and greater safety risk will be placed on farmers with fields on both sides of US 31 as they try to navigate a way across the road. The biggest issue is response time of emergency vehicles to the community and US 31. With no overpasses and access to US 31, emergency vehicles will have to travel longer routes adding to their response times which could be the difference between life and death. I am sure these are not new issues, but they are important issues to the community that must be addressed moving forward. Thank you.	At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at US 26, US 28, and CR 600 N. Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
2	11/15/2023	Mobility	Although there are access requirements, it is crucial for access on the US 31 South project for an intersection at US 31 and Division Road in Tipton County from an economic and public safety standpoint. Also, as the state has obtained right of way in Tipton County, it would be great if the houses on the purchased land are demolished and cleaned up appropriately.	The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at Division Road. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and Division Road intersection in Tipton County. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. More specifically, the Draft Level 2 Screening Report will be published for public review and comment on the study website (www.propelus31.com). Hard copies will also be made available at locations throughout the study area, as well as at scheduled community office hours events. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com). Please note that property acquisition is not part of the ProPEL US 31 South study; however, we have relayed your comments regarding demolition of structures and cleanup of properties purchased to the appropriate contacts within INDOT for review and consideration.
3	11/17/2023		If you wanted my input, why didn't you supply copies of the study at the library? You left one copy for us to read from. Sounds like you really did not want a reply to your study. Why should I have to make a copy and pay for it?	Copies of all reports are available on the study website (https://propelus31.com/31doclibrary/), as well as at several libraries across the study area during the public comment period(s). A printed copy of the report will be provided, if requested. Should you desire a printed copy of a report, please submit your request through the comment form found on the study website. Your feedback is an integral part of the study, and your comments are important to the study team. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
4	11/17/2023	Overall US 31 Corridor	I live at 276th Street. INDOT did not follow what the majority of current landowners wanted within the 31 corridor south of 276th Street, why would we think that the "wants and needs" of the super majority of landowners will be any different north of 276th Street? IU Kelly School of Business	The study, which is looking at transportation needs through the year 2045, has identified the following transportation needs for the ProPEL US 31 South study area: safety concerns due to a high number and severity of crashes; operational issues at intersections; lack of consistency with INDOT's Access Management Guidelines;

			demographic study forecasts that every county US 31 passes through north of Hamilton County will decline in population over the next 30 years. And history shows that little to no growth has occurred over the last 50 years. For example, Howard County has only grown by just under 500 residents (urban to rural shift but no growth). Young people do not wish to move here nor stay here. First it is the weather. You cannot change this fact. Second it is jobs. Companies are not relocating and growing here. Third, the Indiana GOP is chasing our young, educated folks away. The GOP's anti-diversity, anti-choice, white nationalist, Christian nationalist policies will only exacerbate and complete that exodus preference. Stop spending our money hoping you can change what will be. Largely, just leave things alone except for a very few specific urban locations. Even those should be minimalist revisions rather than larger.	mobility requirements across the corridor (east-west); and safe, high-quality mobility for long-distance passenger and freight trips through the study corridor. For further information and details, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). Public and stakeholder engagement is critical to the ProPEL US 31 South study. The study team has engaged the public throughout the study and will continue to throughout the remainder of the study. A summary of the engagement and coordination efforts completed to date can be found in the Resource Agency, Stakeholder & Public Involvement Summary #1 and Summary #2, which can be found on the study website (https://propelus31.com/31doclibrary/). Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website as soon as it is available (www.propelUS31.com).
5	11/17/2023	Safety, Overall US 31 Corridor	First off, you mention the intent is to reduce accidents on 31. How many of the accidents that occur on 31 are due to someone being on their cell phone? My guess is quite a few have cell phone use involved at the time of the accident. So, a solution to that would be stiffer penalties for people who are involved in accidents while on their cell phone. Second, don't reconfigure the highway with cut-in bottlenecks. If you are going to widen the road, widen it all the way from point A to point B. And third, we the taxpayers would like to know whose back pocket is being filled with the kickbacks that occur with these government induced projects(?). We are tired of being used up by representatives who are supposed to be working for us.	Maximizing the safety of our roads is a priority for INDOT. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. This information can be found in the ProPEL US 31 South Existing Transportation Conditions Report, which is available on the study website (propelus31.com/31doclibrary/). Based on the analysis, safety was identified as a concern throughout the study area. As a result, the study team will evaluate alternatives to improve safety along US 31 by reducing the number and severity of crashes in the study area. The analysis also indicated that no additional roadway capacity (i.e., additional travel lanes) is required on US 31 within the 2045 planning horizon of the study. Therefore, adding travel lanes for the entirety of the study area was eliminated from further consideration as part of the Universe of Alternatives (Level 1) Screening Report. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com). Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
6	11/18/2023	Environmental, Safety, Overall US 31 Corridor, Universe of Alternatives	I am writing to express my growing concern about the increasing light pollution in Hamilton County, particularly due to the expansion and development projects such as the recent additions to the US 31 corridor. As our county continues to expand further north, the excessive amount of lighting at intersections is significantly contributing to the degradation of our once-pristine night sky. The current expansion, particularly along US 31, has already altered the natural beauty of the night with the glow from stadium-style lighting visible from several miles away. In light of these developments, I strongly urge the consideration of a comprehensive light pollution study before implementing any further additions of lighting to intersections. Preserving our night sky is not only an aesthetic concern but also crucial for the well-being of our environment and the diverse ecosystems that depend on natural light cycles. By conducting a thorough study, we can identify sustainable lighting solutions that balance the need for safety and visibility at intersections with the imperative to minimize the impact on our night environment. Collaborative efforts in this regard will ensure that future expansions maintain a delicate balance between progress and preservation.	The study team has noted your comment regarding the US 31 corridor and light pollution in the study area. Because this is a planning study, there are no projects that have yet been scoped or funded. Environmental impacts related to any future projects would be evaluated and analyzed during the National Environmental Protection Act (NEPA) environmental review process once a project has been scoped and funded. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
7	11/18/2023	Mobility, Safety	Very important for continued use of Division Road. Emergency services need use of this road to get to people on the west side of the county. Also buses need use of this road for the students that live on the west side of the county.	Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (https://propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed.

				The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at Division Road. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and Division Road intersection in Tipton County. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
8	11/18/2023		My concern is persons living west of US 31 in Tipton Co. We have only one volunteer fire department with both public schools located east of 31 and no other essential services located to the west. Currently there are only two ways to cross 31. The simple fact is there needs to be at least one more crossing, and I would think Division Road with interchange would reunite Tipton County.	Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at Division Road. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and Division Road intersection in Tipton County. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
9	11/20/2023	Safety	My main concern is J-turns. They have no place on US 31. There is too much traffic, most driving 70 mph+. School busses, semi-trucks, other large delivery vehicles and especially farm equipment that have a very slow take-off ability struggle to cross 2 lanes of traffic while doing a U-turn. There have always been "No U-turn" signs on 31, and now you want to promote it? Makes no sense. Yes, J-turns will reduce T-bone accidents but creates other problems. Either leave the intersections alone or invest the money to do it right with overpasses. My comments hold true for all of 31, from Indy to South Bend.	As part of Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of Reduced Conflict Intersections (RCIs) and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) would address a majority of the identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis. Public feedback is critical to the success of the study, and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
10	11/22/2023	Economic Development, Safety	Interchange to enter into Dutch Cafe and the other businesses on the east side of 31 to keep our customers and employees safe.	As part of Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. The document does not contain location-specific recommendations for any concepts, including US 31 at Hoosier Boulevard (which also provides access to the Dutch Café).

				For the ProPEL US 31 South study area, converting intersections to interchanges would address a majority of identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis for Primary Intersections. Please note, however, that Hoosier Boulevard is not a Primary Intersection. Secondary Intersections, which includes Hoosier Boulevard, will be analyzed as part of the Level 3 screening. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional information will be posted on the study website when it is available (www.propelUS31.com).
11	11/22/2023	Economic Development, Safety	With the wedding venue we have at the Dutch cafe we are booking 2025 weddings. Just curious if there will be an option that you would buy us out instead of putting in access to our property? Trying to think of the ppl that book weddings with us and what that would look like if that was to happen.	At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. The PEL study is scheduled for completion in late 2024. Any projects identified from the PEL study recommendations would then enter into INDOT's statewide call for projects, which is typically a 5-year process.
12	11/25/2023	Overall US 31 Corridor	The state has rerouted SR 28 to go around Tipton. This takes semi traffic heading east down Division Road in Tipton County. It only makes since to put an interchange at Division Road. Trucks driving south on 31 that need to go east on 28 will have to do a 2-mile drive back north to go around Tipton. Will there be an interchange at Division Road in Tipton County?	As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. The document does not contain location-specific recommendations for any concepts, including US 31 at Division Road. For the ProPEL US 31 South study area, converting intersections to interchanges would address a majority of identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and Division Road intersection in Tipton County. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional information will be posted on the study website when it is available (www.propelUS31.com).
13	11/25/2023	Safety	Overhead lighting at all interchanges. Better reflective markers at cement road dividers.	Maximizing the safety of our roads is a priority for INDOT. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. This information can be found in the ProPEL US 31 South Existing Transportation Conditions Report, which is available on the study website (propelus31.com/31doclibrary/). Based on the analysis, safety was identified as a concern throughout the study area. As a result, the study team will evaluate alternatives to improve safety along US 31 by reducing the number and severity of crashes in the study area. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional information will be posted on the study website when it is available (www.propelUS31.com).

14	11/29/2023	Universe of Alternatives	Move 218 to 500 South. Larger and straighter road that still connects to 19. It would avoid the 90 degree turns through Bunker Hill.	As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. The document does not contain location-specific recommendations for any concepts, including US 31 at SR 218 and CR 500 S. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 PEL study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and SR 218 intersections. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
15	12/4/2023	Safety, Overall US 31 Corridor	So many red lights are run at the Business 31 and 31 intersection in Peru, and the 31 and 218 intersection.	Maximizing the safety of our roads is a priority for INDOT. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. This information can be found in the ProPEL US 31 South Existing Transportation Conditions Report, which is available on the study website (https://propelus31.com/31doclibrary/). Based on the analysis, safety was identified as a concern throughout the study area. As a result, the study team will evaluate alternatives to improve safety along US 31 by reducing the number and severity of crashes in the study area. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at Business 31 and SR 218. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional information will be posted on the study website when it is available (www.propelUS31.com).
16	12/6/2023		400 S is an extremely busy intersection, not only for customers of Pipe Creek Mercantile but also for residents on the road. Shutting off access to the road would be a nightmare. We have farmers driving semis with full loads and difficult to stop, so a J-turn would create more accidents than what you are trying to prevent. A ramp seems like a solution with plenty of roadway to access it, coming off 31. Making this road a superhighway with high-speed will cause more fatalities.	Maximizing the safety of our roads is a priority for INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of Reduced Conflict Intersections (RCIs) and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) would address a majority of the identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and CR 400 S intersection. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).

17	12/6/2023	Universe of Alternatives	Grissom ARB access is a concern. Think this should be an exit or interchange, something more formal that will reduce the safety concerns. A j-turn will work if it has an extended footprint. It would be fine if it is not cramped together and is large and has extended lanes. From a J-turn perspective, are there different options for one? Discussion was given to the different options. Participant wants J-turns included in Level 2. Pipe Creek Elementary intersection needs to remain for the school as well as the community access. Railroad bridge crossing was recently hit - how does this go into the project? Coordination with the railroad was described as well. He saw the railroad bridge get struck and wants to make sure that it was looked at for a safety concern. He used to be a delivery person and the clearance of the bridge was a concern. This was for the construction trusses and grazed the bottom of the bridge clearance.	Maximizing the safety of our roads is a priority for INDOT. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of Reduced Conflict Intersections (RCIs) and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) and converting intersections to interchanges would address a majority of the identified transportation needs. As a result, these improvement concepts were advanced to the Level 2 screening for further analysis. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including multiple intersections near the Grissom ARB, as well as the US 31 and CR 400 S intersection at Pipe Creek Elementary School. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. The damage at the railroad bridge crossing has been noted and will be shared with INDOT asset management staff. The Existing Transpiration Conditions Report, which can be found on the study website (https://propelus31.com/31doclibrary/), identified the vertical clearance at the railroad bridge near Grissom ARB as substandard. This consideration will be included as part of any alternatives evaluated in this area as part of the PEL study. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
18	12/6/2023	Universe of Alternatives	Pipe Creek Elementary School access point needs to be looked at. There are a lot of crashes, semi-trucks can't stop quick enough, people also don't look in the cars. You can't see the stop light at the intersection until you are right up on it, you can only see the flashing yellow lights. This intersection could be a small access point that doesn't need a large turn off so other locations can have the larger treatments. It doesn't take long to get Kokomo to Indy, the traffic patterns and lights in this stretch are easy to maneuver with the free flow and limited access. Intersection at SR 18 has been improved but still has some issues, but 218 needs drastic improvement. The road that takes you to Mississinewa campground has people trying to get their RVs out, being able to see both directions as well as fitting in the lanes is a safety concern.	Cross-corridor mobility has been identified as one of the needs for the US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and CR 500 S/SR 218/CR 800 S/SR 18 intersections. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
19	12/7/2023	Overall US 31 Corridor	(I grew up in Indiana and often visit family there). 1) I believe US 31 should be limited access, or at least traffic signal free, between South Bend and Indianapolis. We need interchanges at various intersections particularly where there are currently three-color traffic signals. This is consistent with much of US 31 in Michigan. 2) Do any of the current interchanges need upgrading? 3) Where would new interchanges be located? 4) Kokomo, should we have an interchange at SR 931 at US 35? 5) (Kokomo) Would any improvements be made to make travel easier and safer along nearby US 35 at its junction with SR 931 and at the north junction of US 31? 6) (Bunker Hill) What is the plan for the area around Grissom Air Force Base/ SR 218? 7) Would diverging diamond interchanges, single-point interchanges, or interchanges with roundabouts (or dog bone roundabouts, like in Carmel) be considered? 8) How will access to local communities be addressed?	At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. Access management, which would include limiting connections to the US 31, would address a majority of the identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis. The ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area during the Level 2 screening. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental

				planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
20	12/7/2023	Economic Development, Universe of Alternatives	1. The US 31 corridor needs to be improved to full interstate standards for its full length. It will provide economic development benefits. Local government leaders have heard too often from state economic development folks that nobody wants to locate their new factory in towns not within 50 miles of an interstate. As is the case for US 31 communities north of Kokomo. 2. There should not be an interchange in the Sharpsville area. It will encourage sprawl type growth which will weaken Kokomo and lead to demands for further US 31 improvements to accommodate the sprawl. 3. Consider as an alternative to a Division Rd. interchange, making intersection and directional signage improvements at Co. Rd. 550W/560W intersections with Division Rd and Co Rd 200 S (old SR 28). Co. Rd. 550W/560W is the road east of the Stellantis Transmission Plant. It was built to serve the trucks serving the plant. It would make a good connection for truck traffic that Tipton would prefer use Division Rd to access their industries on their north side.	At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. A freeway (free-flow facility with full control of access) would address a majority of study area transportation needs and was advanced to the Level 2 screening for further analysis. A freeway may be designated an interstate if certain conditions are met; however, not all freeways are interstates. INDOT is not currently considering an interstate designation for the study corridor and the PEL study is not considering interstate standards in the alternatives analysis. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 near Sharpsville, Division Road, and CR 550 N. Secondary Intersections, which includes CR 200 N, will be analyzed as part of the Level 3 screening. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
21	12/9/2023	Economic Development, Safety, Overall US 31 Corridor, Universe of Alternatives	In experiencing some of the J type turns on roadways recently installed on US 24 near Peru and Wabash areas - it would be beneficial in my opinion to provide some information signage indicating what is available at the J turn. Something like you see on main highways at exits. This may help to allow drivers knowledge of what is available if the J turn is taken. Thinking of intersection information, city access, small business access that will be driven by before realization of what was passed. Signage and information are important.	The study team has noted your comment regarding the use of reduced conflict intersections (RCIs) and signage along U.S. 31 corridor, and it has been documented as part of the official study record. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of Reduced Conflict Intersections (RCIs) and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) and converting intersections to interchanges would address a majority of the identified transportation needs. As a result, these improvement concepts were advanced to the Level 2 screening for further analysis. Because this is a planning study, there are no projects that have yet been scoped or funded. Additionally, details regarding signage will be considered as part of subsequent project development activities.
22	12/9/2023	Safety, Overall US 31 Corridor, Universe of Alternatives	This is a well thought through document. Since this is the longest county in the state, it does present problems such as Grissom ARB and the prison with some type of interchange to service this area and functions, city of Peru and the businesses along US 31, US 24 and the gas and McDonald's just north of US 24 and the state police post. J turns do not seem to be a practical alternative because of the acceleration time required by large semis.	The study team has noted your comment regarding the use of reduced conflict intersections (RCIs) along US 31 corridor, and it has been documented with the official study record. As part of the Universe of Alternatives (Level 1) screening, and all potential solutions that address the Purpose & Need were evaluated. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of RCIs and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) and converting intersections to interchanges would address a majority of the identified transportation needs. As a result, these improvement concepts were advanced to the Level 2 screening for further analysis. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including multiple intersections near Grissom ARB, as well as US 24 and Business 31. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South PEL study are holistically considered by a team of engineers, traffic and environmental

				planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional information will be posted on the study website, www.propelUS31.com.
23	12/10/2023	Safety	An overpass needs to be built going over 31 at old 31 in Fulton Co. There have been too many accidents.	Maximizing the safety of our roads is a priority for INDOT. Fulton County is within the ProPEL US 31 North study area, and this comment has been forwarded to the appropriate study team.
24	12/14/2023	Mobility, Safety, Overall US 31 Corridor	Writing to please encourage you to put a full interchange at Division Road & 31 in Tipton County. Eliminating accessibility there would be detrimental for several reasons. Total Seed Production has over 5,000 semis a year travel to their company who use Division Road. If that is taken away, those semis would be redirected to smaller county roads and towns, like Goldsmith that will eventually damage those roads and would be a safety concern for families with children who live on those roads. Buses, ambulances, fire trucks, police etc. need an interchange there to access the entire county easily and safely. Tipton has 2 main travel arteries: SR 28 and Division Road. Eliminating one of those would be detrimental to our county. There is a large fertilizer hub and elevator located in Scircleville, Indiana that services the entire county, plus other counties east of US 31. They rely heavily on Division Road to transport products east and west of 31. There are millions of bushels of corn, soybeans and wheat transported north and south on US 31 that turn east to Cargill or west that use Division Road. If a full interchange is not added, I believe businesses, the safety of our residents and the county's overall transportation infrastructure would be negatively impacted by that decision. Thank you for reading my concerns.	Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and Division Road intersection in Tipton County. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
25	12/15/2023		US 31 and CR 400 S is an extremely busy intersection, not only for the customers of Pipe Creek Mercantile but also for residents on the road. Shutting off access to this road would be a nightmare. We have farmers driving semis with full loads that are difficult to stop, so a J-turn would create more accidents than what are you trying to prevent. A ramp seems like a solution with plenty of roadway to access it coming off of US 31. Making this road a "super highway" with higher speeds would cause more fatalities.	Maximizing the safety of our roads is a priority for INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. "J-turns" are one of several alternatives that fall within the family of Reduced Conflict Intersections (RCIs) and are one example of unsignalized intersection improvements. For the ProPEL US 31 South study area, unsignalized intersection improvements (including RCIs) would address a majority of the identified transportation needs. As a result, this improvement concept was advanced to the Level 2 screening for further analysis. During the Level 2 screening, the study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 and CR 400 S intersection. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. You are encouraged to stay engaged as the study moves forward. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
26	12/15/2023	Universe of Alternatives	We attended a recent meeting for US 31 South held at Pipe Creek Mercantile. We currently own a business located in the complex between SR 218E and 218W located on the east side of US 31. We were confused to see there were no studies being done on this area of US 31. We have been in this location for 30 years and have seen many changes along this corridor of US 31. One main change was when the stoplight was replaced with a flashing light. We have many concerns with the proposed upcoming changes. One of our main concerns are the speeds at which vehicles travel on this highway and that will only worsen when there are no longer any stops or reason for motorists to slow down. This then brings up another major concern, which is trying to enter or exit our establishment. Before any changes are made, it can be quite dangerous trying to enter or exit, and	Maximizing the safety of our roads is a priority for INDOT. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at SR 218E or SR 218W. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including both US 31 and SR 218 intersections.

			we fear that this will only increase with this or any proposed changes. Thank you for taking into consideration our concerns.	Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
27	12/17/2023	Economic Development, Safety, Overall US 31 Corridor	600 South of Tipton County or 296th Street of Hamilton County needs to have an interchange. Why? It is the only Tipton County road south of SR 28 that is the best road for county residents. Tipton County, over the years, has made major improvements to it. It has a lot of traffic for a county road. On the other hand, CR 500 South would need a lot of work to handle the traffic that an interchange would create. Another problem with 500 South is it easily floods on the east side of US31. 400 and 300 South T one mile from US31 in both directions.	The ProPEL US 31 South study team will use input regarding the need for local mobility and regional mobility solutions throughout the study process. In addition, specific problems and suggestions will be considered in the development and evaluation of potential solutions for the corridor. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
28	12/20/2023	Economic Development, Mobility, Safety, Overall US 31 Corridor, Universe of Alternatives	I own a workwear and work boot retail store on US 31 across from Grissom Air Reserve Base in Miami County. My concerns regarding US 31 are the speed limits being proposed through "our" stretch of US 31. Entering US 31 from our retail store currently has a flashing light to warn motorists to slow down. I understand that it is being proposed to eliminate this light and increase the speed limit. I am concerned that this will increase accidents. I am asking that the speed limit remain as it is through this stretch and the flashing light be left as is. Thank you for your consideration.	Maximizing the safety of our roads is a priority for INDOT. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. This information can be found in the ProPEL US 31 South Existing Transportation Conditions Report, which is available on the study website (propelus31.com/31doclibrary/). Based on the analysis, safety was identified as a concern throughout the study area. As a result, the study team will evaluate alternatives to improve safety along US 31 by reducing the number and severity of crashes in the study area. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including those around Grissom ARB. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
29	12/21/2023		Please find attached a PDF that shows three concept plans for the intersection of US 31 and 296th Street. I would be interested in having these plans submitted to INDOT for consideration as the ProPEL study continues. I am also happy to discuss each plan in detail at the next public meeting for the 31 ProPEL study. Could you please submit these plans to INDOT on my behalf. If there is another person that I should send these concepts to at INDOT, would you please either send me an email address to send them or forward them please. Also, if there is a way to submit these plans online to INDOT, I would appreciate it if you could pass along that information on how I could upload. If you could also please send me a quick reply email so that I can verify that the drawings have reached you. Thank you and have a great weekend.	The ProPEL US 31 South study team has noted your comment regarding the 296th Street and US 31 intersection, and it has been entered into the official study record. The study team will use input regarding the need for local mobility and regional mobility solutions throughout the study process. In addition, specific problems and suggestions will be considered in the development and evaluation of potential solutions for the corridor. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at 296th Street. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the intersection of US 31 and 296th Street. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
30	12/21/2023	Overall US 31 Corridor	What are your plans for the Business 31 intersection with US 31 in Miami County?	No specific plan or improvement alternative has been developed yet for the intersection of US 31 with Business 31.

				During the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. This was the first step in a three-step alternatives evaluation process. The document does not contain location-specific recommendations for any concepts, including US 31 at Business 31. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the intersection of US 31 and Business 31. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
31	12/21/2023		I would like to see service roads for people's homes.	The ProPEL US 31 South study team has documented your comment regarding the use of service roads along US 31 in order to maintain residential access, and it has been entered into the official study record. During the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. This was the first step in a three-step alternatives evaluation process. The document does not contain location-specific recommendations for any concepts, including service roads which are constructed as part of access management improvements. Access management details will be considered during Level 3 of the alternatives analysis. Please note, however, that decisions regarding access management will be made during project development and will be analyzed and documented as part of the NEPA environmental review process (i.e., after this PEL study is completed). For the purposes of this PEL study, INDOT will develop and evaluate basic access management criteria for roadway sections in the study area to better understand costs, benefits, and impacts of different access management strategies. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
32	12/21/2023	Economic Development, Environmental, Mobility, Safety	I am concerned about access to our two farms located on both sides of US 31 just between Business 31 and Pipe Creek Elementary School. Will the state provide an access route into our acreages?	Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (https://propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including service roads which are constructed as part of access management improvements. Access management details will be considered during Level 3 of the alternatives analysis. Please note, however, that decisions regarding access management will be made during project development and will be analyzed and documented as part of the NEPA environmental review process (i.e., after this PEL study is completed). For the purposes of this PEL study, INDOT will develop and evaluate basic access management criteria for roadway sections in the study area to better understand costs, benefits, and impacts of different access management strategies. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
33	12/21/2023	Bike and Pedestrian,	Combine Grissom 218 East and 218 West into one interchange instead of dealing with them separately. Interchange at Division Road for 28 bypass.	The ProPEL US 31 South study team has documented your comments regarding the SR 218 intersections, as well as the intersection with Division Road in Tipton County, and it has been entered into the official study record.

		Safety, Overall US 31 Corridor		The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. It identifies practical alternative improvement concepts that meet the Purpose & Need for the study to be carried forward for additional evaluation. The document does not contain location-specific recommendations for any concepts, including US 31 at SR 218E and SR 218W. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 intersections with SR 218 and Division Road. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
34	12/21/2023	Economic Development, Mobility, Safety, Overall US 31 Corridor	Freeway status is the only concept that will address public safety and work towards zero fatalities. Our surrounding states have many miles of non-interstate freeways. How is this? Any comprise is not in the best interests of the citizens.	Maximizing the safety of our roads is a priority for INDOT. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. A freeway (free-flow facility with full control of access) would address a majority of study area transportation needs and was advanced to the Level 2 screening for further analysis. A freeway may be designated an interstate if certain conditions are met; however, not all freeways are interstates. INDOT is not currently considering an interstate designation for the study corridor and the PEL study is not considering interstate standards in the alternatives analysis. A freeway is a specific facility type that could be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document (e.g., Access Management, Convert to Interchange, Underpass/Overpass). Other facility types (e.g., free flow with no or partial access control, Expressway [i.e., no direct residential driveway connections]) could also be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document in different ways. These facility types would provide a range of options to address safety, mobility, and access needs in the study area. A major defining characteristic of facility type is the level of access management. A common theme of the public comments received to date (including those received during the Universe of Alternatives screening comment period) is that maintaining local access to/from US 31 (i.e., alternatives with less access control) is important and should be considered as part of the PEL study. The Level 2 alternatives screening will focus on Primary Intersection improvements. The options for potential facility types in the US 31 South study area will be evaluated in the Level 3 alternatives screening. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
35	12/21/2023	Economic Development, Mobility, Safety, Overall US 31 Corridor, Universe of Alternatives	For Tipton County, my suggestion is to leave County Line Road (shared with Hamilton County) and Division Road open to at least cross under or over US 31, if not set up as intersections, to allow access across US 31. I'm not sure either locale warrants a full interchange, but a stoplight based on the amount of cross-traffic waiting to cross on County Line or Division might work, too. Regardless, Tipton County will need more than just SR 28 as a means to cross US 31 east/west, as that would create a severe bottleneck for traffic, especially in the event of an emergency. As for economic development, I'm fine with it happening close to the US 31 corridor but would prefer it be constrained to within a half mile of 31. That's probably not going to happen given the penchant for	The ProPEL US 31 South study team has documented your comments regarding the 296th Street and Division Road intersections, as well as economic development considerations, and it has been entered into the official study record. Cross-corridor mobility has been identified as one of the needs for the ProPEL US 31 South Study, specifically for local school districts and their students, residents with need for emergency care, and farmers. For further information and details on this topic, please see the ProPEL US 31 South Purpose and Need Report that is available on the study website (propelus31.com/31doclibrary/). As part of developing the Purpose and Need Report, additional outreach was conducted with school districts, emergency service providers, and farm bureaus within the study area to identify important crossings for them to provide their services. The study team will continue to coordinate with these stakeholders throughout the study as potential alternatives are developed and analyzed.

			suburban sprawl along 31 I've seen around Westfield and now Cicero, but I figured I'd state it for the record.	As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. The document does not contain location-specific recommendations for any concepts, including US 31 at 296th Street, Division Road, and SR 28. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area, including the US 31 intersections with 296th Street and Division Road. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing US 31 PEL study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
36	12/22/2023	Economic Development, Safety, Overall US 31 Corridor	As you know, traffic counts continue to increase throughout the catchment area of the US 31 region from South Bend to Indianapolis. Therefore, this integral highway facility as part of the Indiana's core through highway infrastructure becomes even more important as a conduit to move traffic throughout this multi county region. Plymouth to Rochester to Peru to Kokomo to Westfield must be provided the same safe traffic flow as South Bend and Indianapolis! And allllllll points in between! Terrible and horrific accidents due to AT-GRADE intersections must be eliminated ENTIRELY! Only grade-separated interchanges for higher traffic cross movement. Only grade separated bridges for all other important city or county roads! Absolutely NO NO NO driveways or field access or private access points of any sort on our US 31. US 31 to be rebuilt and resigned as FREEWAY Interstate #67.	At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. A freeway (free-flow facility with full control of access) would address a majority of study area transportation needs and was advanced to the Level 2 screening for further analysis. A freeway may be designated an interstate if certain conditions are met; however, not all freeways are interstates. INDOT is not currently considering an interstate designation for the study corridor and the PEL study is not considering interstate standards in the alternatives analysis. A freeway is a specific facility type that could be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document (e.g., Access Management, Convert to Interchange, Underpass/Overpass). Other facility types (e.g., free flow with no or partial access control), expressway [i.e., no direct residential driveway connections]) could also be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document in different ways. These facility types would provide a range of options to address safety, mobility, and access needs in the study area. A major defining characteristic of facility type is the level of access management. A common theme of the public comments received to date (including those received during the Universe of Alternatives screening comment period) is that maintaining local access to/from US 31 (i.e., alternatives with less access control) is important and should be considered as part of the PEL study. As a result, the Level 2 alternatives screening will focus on Primary Intersection improvements. The options for potential facility types in the US 31 South study area will be evaluated in the Level 3 alternatives screening. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
37	12/22/2024	Universe of Alternatives	As Executive Director of the US 31 Coalition, I appreciate the opportunity to comment on the Universe of Alternatives document for the Propel 31 study. Given the length and the complexity of the corridor, we appreciate the time and attention given to the determining the best type of improvement for it. However, there are some general observations about the Alternatives	In the Universe of Alternatives (Level 1) screening report, no specific threshold or definition was provided for the term “extraordinarily high cost”. In general, INDOT compares the costs of an alternative against its potential benefits and impacts to determine whether something is practical or reasonable. Should INDOT decide that potential costs are “extraordinarily high” when compared against the potential benefits and impacts of other alternatives, they may

			documents (for both 31 North and 31 South) that I would like to submit. When considering the practicality of the improvement type, there are several perspectives I would like to offer: 1. It is stated that (regarding a freeway improvement), “Although this concept could require extraordinarily high costs for implementation and may create severe socioeconomic and/or environmental impacts, additional information is required to fully assess its practicality.” There are two issues with this statement – first is the “extraordinarily” high costs for a freeway. The descriptor is subjective and doesn’t consider the cost-benefit ratio that can be achieved with a freeway. Studies have shown that the most realistic CBI for a freeway US 31 is 4.83 (discounted at 3%). While it is true that the components of an interchange cost more than other solutions, it is not “extraordinarily” high considering the growth that is taking place in the corridor. Second, the “severe socioeconomic and/or environmental impacts” comment does not consider the impacts that exist today with an unreliable road that has tremendous safety challenges. The reality is that population and employment are a challenge in some un-improved US 31 corridor counties, but a study has shown that the construction of a freeway road is consequential for rural and rural transitional counties by reversing the negative or stagnant growth rates. The “severe” socioeconomic impacts are already occurring, in part, because of lack of confidence in the current transportation network. But we’ve already seen the impacts of a freeway attracting tremendous economic development with the new electric vehicle battery plants locating in Howard and St. Joseph Counties and the supplier plants locating nearby. With a US 31 freeway, the growth is assured throughout the corridor. Furthermore, the counties along the US 31 corridor have spent years working on their comprehensive plans to ensure that a freeway will improve safety and reliability and blend seamlessly into their communities, making sure that any negative impacts are minimized. The Universe of Alternatives document, and in particular, this portion of it, should fully incorporate the local plans to assess the viability of a freeway.	decide that an alternative is no longer considered reasonable and, therefore, should be eliminated from further consideration. While nothing in the Universe of Alternatives (Level 1) screening reports was eliminated solely based on costs, it was identified as a contributing factor in some cases. Costs will remain an important consideration during the Level 2 and Level 3 screenings. This approach will enable INDOT to make an informed planning decision that considers all relevant factors associated with a potential alternative (i.e., costs, benefits, and impacts). Socioeconomic and environmental constraints have been and will continue to be considered throughout the study. The ProPEL US 30 and US 31 studies are a "clean slate”, and all options are under consideration. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the study process, previous plans and studies were collected and reviewed by the study team to provide a baseline of background information and knowledge. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 PEL study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development. As part of the Universe of Alternatives (Level 1) screening, all potential solutions that address the Purpose & Need were evaluated. The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area. The public will have opportunities to comment at each of the three steps within the alternatives analysis process. Please continue to check the website to stay informed about the study. Upcoming public meetings, community office hours, and additional study information will be posted on the study website when it is available (www.propelUS31.com).
38	12/22/2024	Universe of Alternatives	2. The comment on practicality, “Considered to be rational and not excessive given the needs of the corridor?” is not the best measure to use in this circumstance. While the Department certainly want to determine if a project choice is “overbuild”, I would argue that an “under build” is just as problematic. Freight tonnage and miles have more than doubled in the corridor between 2011-2021 and the Indiana Multimodal Freight Plan Update projects another increase of at least 50% in freight tonnage by 2045. In addition, the US 31 corridor is identified as a critical mobility corridor in at least three INDOT reports. Simplifying the solution to wait for another day will not serve this corridor well.	Practicality (i.e., reasonableness) is an important consideration for PEL and any subsequent NEPA studies. Typically, a screening process involves identifying a broad range of potential alternatives and then applying a standard set of evaluation criteria to eliminate alternatives that do not meet the purpose and need or are otherwise found to be unreasonable. Even if an alternative meets or potentially meets the purpose and need, it can still be rejected as unreasonable based on one or more other factors, including environmental impacts, engineering, and cost, as well as limited ability to meet the purpose and need. Stakeholder and public engagement are also an important part of the study process and help determine what alternatives move forward. The ProPEL US 30 and US 31 studies are evaluating existing and projected (i.e., year 2045) roadway operating conditions. The year 2045 traffic projections were generated by a traffic model created specifically for the ProPEL US 30 and US 31 studies (PEL studies model). The PEL studies model was created by taking INDOT's statewide model, which is a state-of-the-art traffic model used to predict traffic throughout the state and adding more detail around US 30 and US 31. The enhancements included adding local roads, calibrating the model based on traffic counts at over 350 locations, and accounting for future land development. This model helps us understand current traffic volumes and how traffic will increase in the future on US 31.
39	12/22/2024	Universe of Alternatives	3. I would like to point out that INDOT has already found that US 31 in Tipton County should be a limited access roadway according to the 2020 study performed by the Department. In addition, several other locations on US 31 have been designated as interchange locations in recent years (SR18 and Business 31 in Miami County, for example). These studies have already shown that the benefit of the limited access/underpass/overpass improvement is the correct solution, with the benefit outweighing any concerns. I hope that these will be updated accordingly moving into the 2nd screening.	The ProPEL US 30 and US 31 studies are a "clean slate”, and all options are under consideration. At this time, no decisions have been made about the future of US 31, and no projects related to the PEL study have been funded by INDOT. As part of the study process, previous plans and studies were collected and reviewed by the study team to provide a baseline of background information and knowledge. A freeway (free flow facility with full control of access) is a specific facility type that could be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document (e.g., Access Management, Convert to Interchange, Underpass/Overpass). Other facility types (e.g., free flow with no or partial

				access control, Expressway [i.e., no direct residential driveway connections]) could also be created by combining multiple improvement concepts identified in this Universe of Alternatives screening document in different ways. These facility types would provide a range of options to address safety, mobility, and access needs in the study area. A major defining characteristic of facility type is the level of access management. A common theme of the public comments received to date (including those received during the Universe of Alternatives screening comment period) is that maintaining local access to/from US 31 (i.e., alternatives with less access control) is important and should be considered as part of the PEL study. The Level 2 alternatives screening will focus on Primary Intersection improvements. The options for potential facility types in the US 31 South study area will be evaluated in the Level 3 alternatives screening. Public feedback is critical to the success of the study and your comment, along with other public and stakeholder input, will help to inform the next step in the alternatives analysis process. All of the suggestions which arise from the ongoing ProPEL US 31 South study are holistically considered by a team of engineers, traffic and environmental planners, and other industry professionals to include considerations for safety, mobility, impacts to the environment, and future economic development.
40	12/22/2024	Universe of Alternatives	As freeway improvements have been made in four of the counties in the seven-county corridor, the Coalition is very concerned about maintained driver consistency and expectations. Having a mixture of solutions in different areas will lead to driver confusion and serve as an impediment to the commercial vehicle intensive industries that are locating or looking for opportunities to locate in the corridor. In just the last two years, there has been an investment of over $9b in Howard and St. Joseph Counties for electric vehicle battery plants, with numerous suppliers locating nearby. Leadership in the state has predicting that this investment will triple over the next several years, in addition to the other types of facilities that have located here in the last several years. The heavy vehicle traffic from these facilities will be interacting with the existing traffic by 2027, and having a reliable and predictable freeway is imperative for the safety of the drivers. Thank you for the opportunity to comment on the Universe of Alternatives document. Don't hesitate to let me know if you have any questions about any of the data presented here.	Maximizing the safety of our roads is a priority for INDOT. Driver expectation is a factor that affects safety and will be considered as part of the PEL studies. Current and projected (i.e., year 2045) roadway operating conditions were analyzed as part of the study. This information can be found in the ProPEL US 31 South Existing Transportation Conditions Report, which is available on the study website (https://propelus31.com/31doclibrary/). The Universe of Alternatives (Level 1) screening was the first step in a three-step alternatives evaluation process. As part of the Level 2 screening, the ProPEL US 31 South study team will be analyzing potential alternatives at all primary intersections within the study area. The public will have opportunities to comment at each of the three steps within the alternatives analysis process.
41	1/18/2024	Universe of Alternatives	This [study goals] does not seem to include any section with Tribal Resources in mind.	As discussed in our meeting of July 17, 2023, INDOT is engaging Tribes early in the transportation planning process via the ProPEL US 30 and US 31 studies. These studies are being conducted in accordance with Planning and Environment Linkages (PEL) process authorities articulated in federal law. Although this is a planning process and is not yet a Section 106 undertaking, INDOT is following the intent of the 2017 MOU between FHWA, Indiana State Historic Preservation Office (IN SHPO), INDOT, and Tribal Nations to "involve the Tribes' cultural experts to a greater extent and at an early point" and to "devote the time and energy needed to identify relevant transportation problems threatening cultural resources important to Tribes." This coordination effort is also consistent with general considerations required for a PEL study process. In general, the purpose and need for each of the four study areas includes a goal focused on fiscal & environmental practicality. More specifically, this goal articulates an emphasis on providing fiscally responsible improvements, as well as avoidance/minimization of impacts to the human and natural environment. Although Tribal Resources are not specifically identified, they are certainly applicable and intended to be considered as part of this goal. Due to the consideration outlined above, Tribal coordination and preservation of cultural resources considered important to Tribal Nations was not specifically articulated as a goal. We propose to update the language associated with the fiscal & environmental practicality goal for each study area to specifically refer to "…avoidance/minimization of impacts to the human and natural environment, including resources important to Tribal Nations."
42	1/18/2024	Universe of Alternatives	I always like for things to be defined, what is an extraordinarily high cost?	No specific threshold or definition was provided for the term "extraordinarily high cost". In general, INDOT compares the costs of an alternative against its potential benefits and impacts to determine whether something is practical or reasonable. Should INDOT decide that potential costs are "extraordinarily high" when compared against the

				potential benefits and impacts of other alternatives, they may decide that an alternative is no longer considered reasonable and, therefore, should be eliminated from further consideration. While nothing in the Universe of Alternatives (Level 1) screening reports was eliminated solely based on costs, it was identified as a contributing factor in some cases. Costs will remain an important consideration during the Level 2 and Level 3 screenings. This approach will enable INDOT to make an informed planning decision that considers all relevant factors associated with a potential alternative (i.e., costs, benefits, and impacts). Tribal Nations will be provided the Level 2 and Level 3 screening reports for review and comment.
43	1/18/2024	Universe of Alternatives	Do we get to help determine what is unacceptable?	Tribal coordination is an important part of the ProPEL US 30 and US 31 studies. As part of this coordination, FHWA and INDOT would appreciate input from the Tribal Nations regarding potential resources of concern and whether unavoidable impacts to these resources would be considered “unacceptable”. This will help us identify potential constraints and help us to proactively incorporate avoidance and/or minimization measures into the alternatives development and analysis. While PEL studies enable planning decisions to be carried forward into project development, it is important to note that Tribal consultation will continue to occur during the Section 106 and NEPA processes.