

# US-95 and SH-8 Palouse Region Studies: Level One Screening Results

The US-95 and SH-8 Palouse Region Studies are following the Planning and Environmental Linkages (PEL) process. The intent of the studies is to help ITD determine investments in the transportation network that will improve safety, mobility, and economic opportunity in the region.

Evaluation includes several levels of screening that consider the transportation problems, operational context, and surrounding environment. Through screening, the study team will identify reasonable alternative(s) that may progress into the National Environmental Policy Act (NEPA) review process.

#### **Current Phase**

Level One: Screen concepts for reasonability and Purpose & Need using available qualitative data.

We use generalized land use and planning, geotechnical, roadway engineering, traffic and safety, and environmental data at Level One so we can spend our time and funding wisely.

Level One will consider reasonability, draft Purpose & Need, and goals, resulting in concepts that are:

- Carried Forward: These concepts will progress to the next level of evaluation.
- **Eliminated:** These concepts do not meet Purpose & Need or have a fatal flaw (an impact or combination of impacts that prohibit a concept from being built).
- Carried Forward as an Element: These concepts do not fully meet Purpose & Need but will be evaluated as a packaged element of a larger-scale concept

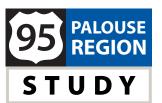
A No Build Alternative is required in NEPA environmental reviews and maintains the existing roadway network, without the proposed project. It serves as the baseline to which other alternatives are compared. For both studies, the No Build Alternative will be **Carried Forward in All Screening Levels**.

For more details and an online feedback survey, please visit **us95sh8.com**. Comments submitted by July 8 will be considered by the study teams.





### **US-95 PALOUSE REGION STUDY CONCEPTS**



### CONCEPT TERMINOLOGY

### **On-Alignment Concepts**

Improvements would be considered for the current highway system. While the details of specific improvement elements would be refined throughout the process, we want to forecast what is possible for updates on the current roadway system.

#### **Rural Improvements**

- Widening
- Targeted roadway improvements outside Moscow city limits

#### **Urban Improvements**

- Targeted roadway improvements in Moscow
- Standalone improvements for walking and biking

### **New Alignment Concepts**

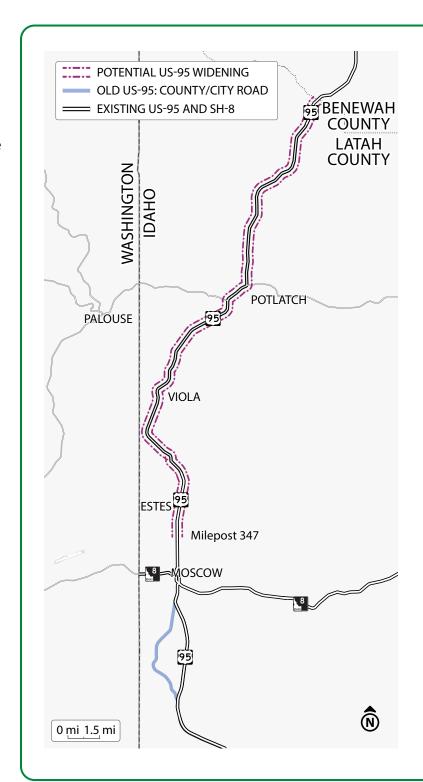
New connections and roadways would be considered off the current highway system. Because we build new roads to the latest design standards, many roadway elements would be determined by engineering best practices and technical data at the time of final design and construction.

#### **New Corridors**

 New roadway corridors could be created to address the problems on US-95 and SH-8

#### **New Routes for Urban Mobility**

• These concepts would help roadway users move around and through the Moscow area

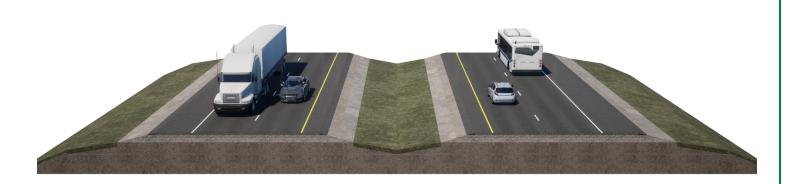


### **ON-ALIGNMENT CONCEPTS**

### **Concept:** Rural Widening

On-Alignment | Widening US-95 outside Moscow on the current highway alignment

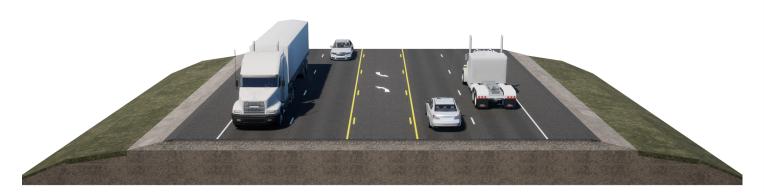
**Level One Screening Result: Carried Forward** 



### **Key Components**

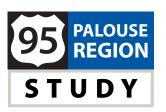
Consistent four-lane cross section would be considered on the existing highway system where possible. This would be considered north of Moscow (starting at milepost 347) to the Latah/Benewah county line.

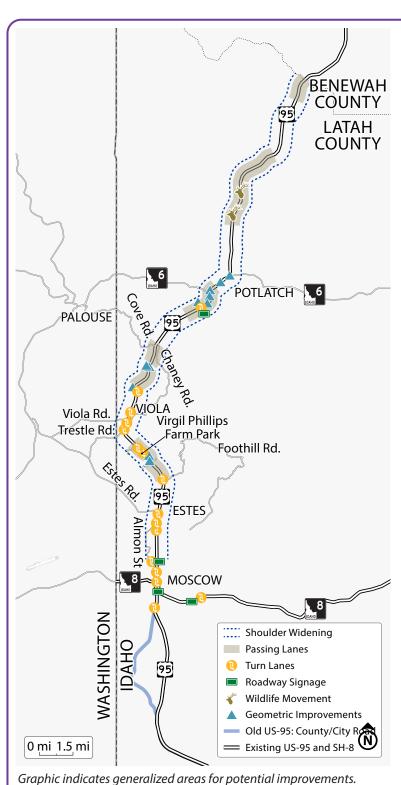
Four lanes may be divided (top image) or undivided (bottom image).



Graphics indicates generalized areas for potential improvements. Exact locations would be refined throughout the study.







Exact locations would be refined throughout the study.

# **Concept and Options:** Rural Improvements

On-Alignment | Targeted roadway improvements outside Moscow city limits

Level One Screening Result for Each Option: Carried Forward as an Element

We considered stand alone improvements to the existing roadway.

Each of the following options were carried forward as elements:

- Shoulder Widening
- Passing Lanes
- Turn Lanes
- Roadway Signage
- Wildlife Movement
- Geometric Improvements

#### **Passing Lanes**

Passing lanes may be considered in rural areas in a variety of configurations as dictated by geography and roadway engineering best practices.

#### **Turn Lanes**

Turn lanes may be added to facilitate heavy traffic movements and improve intersection operations.

#### **Geometric Improvements**

A geometric deficiency is a roadway element that doesn't meet current design standards. These deficiencies may not necessarily indicate higher levels of risk but are rather a way to note the difference in how the road was built in the past and how we would design it today. When we look at upgrading a roadway, we want to consider improving the road to current design standards where it makes sense.

These improvements may address:

- Curves in the road, both vertical and horizontal
- Sight distance

# **Concept and Options:** Urban Improvements

On-Alignment | Targeted roadway improvements in Moscow

**Option:** Lane Reallocations

**Level One Screening Result: Carried Forward** 

Some considerations we may look at for lane reallocations include:

#### Parking adjustments

 Third Street between Washington Street and Jackson Street could add an additional westbound lane

#### Turn lanes or minor widening

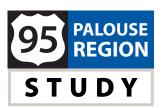
- · Washington state line to Line Street
- Jackson Street from Gritman Medical Center through the Washington Street intersection to maximize capacity within the existing roadway



Graphic above is for example purposes only to depict possible lane usage for parking adjustments.



Graphic above indicates generalized areas for potential improvements. Exact locations would be refined throughout the study.



# **Concept and Options:** Urban Improvements

On-Alignment | Targeted roadway improvements in Moscow

**Option:** Access Management

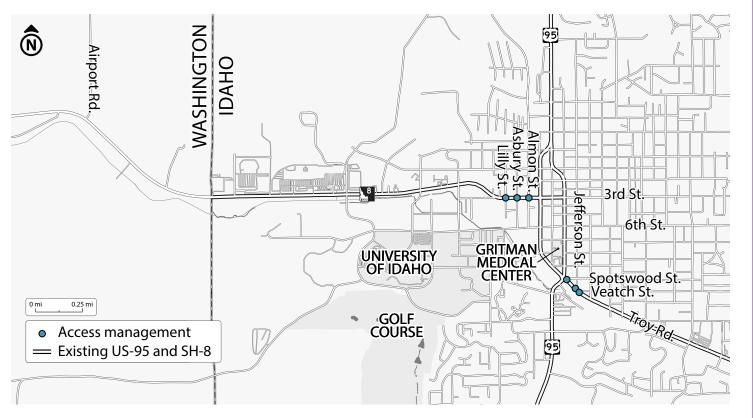
**Level One Screening Result: Carried Forward as an Element** 

Concentrating left turn movements to specific streets can increase safety and capacity on narrow, busy roadways.

Left turn access management (potential removal of left turn movements) would be considered at the following streets:

Spotswood StreetJefferson Street

- Veatch Street
- Lilly Street
- Almon Street
- Alsbury Street



Graphic indicates generalized areas for potential improvements. Exact locations would be refined throughout the study.

# **Concept and Options:** Urban Improvements

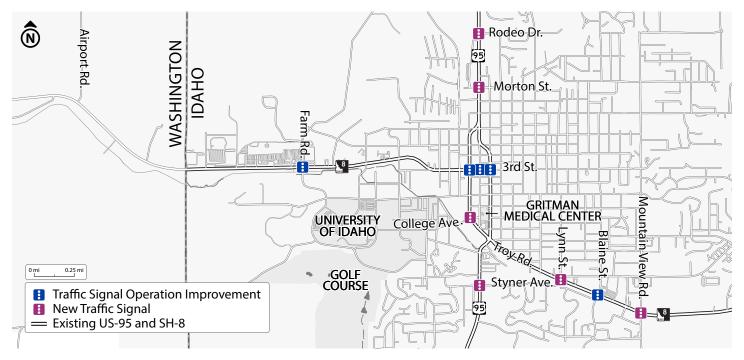
On-Alignment | Targeted roadway improvements in Moscow

**Option:** Signal Operation Improvements

**Level One Screening Result: Carried Forward as an Element** 

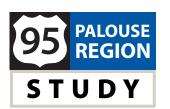
Optimization of **signal timing**, including queue management and a review of flashing operation, will be analyzed.

Potential **new traffic signal** locations will be analyzed throughout the process. New traffic signals may be warranted dependent on future traffic growth and other planning efforts.



Graphic indicates generalized areas for potential improvements. Exact locations would be refined throughout the study.





# **Concept and Options:**

# Urban Walking & Bike Improvements

On-Alignment | Standalone improvements for walking and biking in Moscow

**Options may include:** Improved Connection to Latah Trail, Bike Lanes on Roadway, Enhanced Pedestrian Crossing, Mid-Block Crossing

**Level One Screening Result: Carried Forward as an Element** 

Targeted improvements for walking and biking facilities would be considered for the current highway system. While the details of specific improvement elements would be identified and refined in Level Two, we anticipate considering **options** such as:

- Improved Connection to Latah Trail
- Bike Lanes on Roadway



- Enhanced Pedestrian Crossing
- Mid-Block Crossing



#### **Option:** Marked Crosswalk **Level One Screening Result: Eliminated**

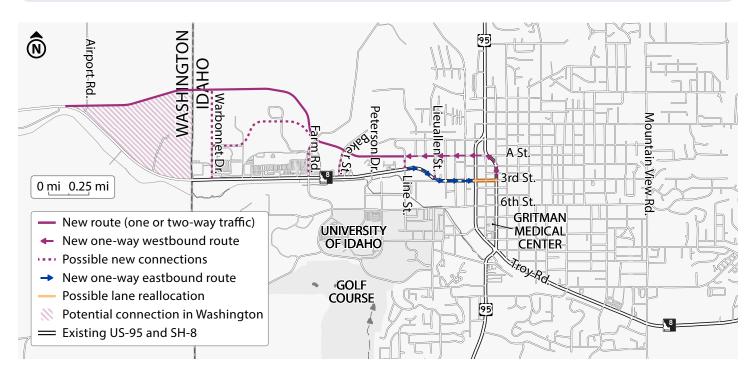
- Marked crosswalks were considered but eliminated. At the current highway speeds and volumes, marked crosswalks without supporting infrastructure are less safe for pedestrians.
- As shown above, other walking and biking improvement options will be carried forward as elements.

### **NEW ALIGNMENT CONCEPTS**

# **Concept and Options:** A Street

New Alignment | New Routes for Urban Mobility

**Level One Screening Result: Carried Forward as an Element** 



Linework is intended to show movements and is not representative of lane widths or footprint. Certain concepts may require additional right of way.

### **Key Components**

- Westbound SH-8 traffic would route north on the current highway alignment and west on A Street
- Eastbound SH-8 would update to one-way between Line Street and US-95
- North-south connections would be considered at various streets

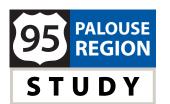
#### **Options include:**

- Lieuallen Street
- Line Street
- Peterson Drive
- Baker Street

- Farm Road
- Warbonnet Drive
- · Potential connection in

Washington

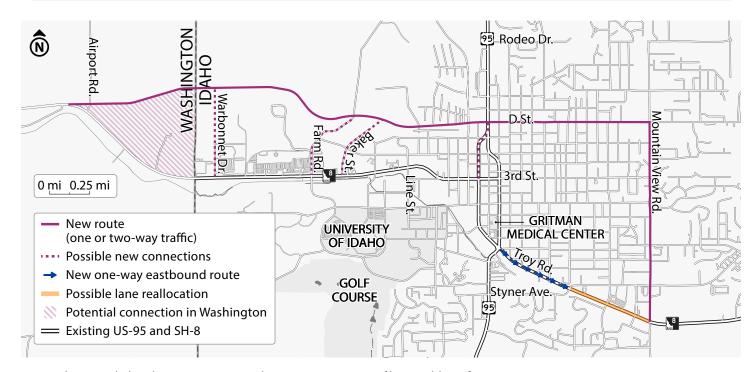




# **Concept and Options:**Mountain View Drive to D Street

New Alignment | New Routes for Urban Mobility

**Level One Screening Result: All Options Eliminated** due to significant right of way impacts, including a cemetery



Linework is intended to show movements and is not representative of lane widths or footprint.

### **Key Components**

- Westbound SH-8 traffic to route north on Mountain View Drive and west on D Street
- Eastbound SH-8 would update to one-way between US-95 and Mountain View Drive
- North-south connections would be considered at various streets

#### **Options include:**

- Jackson Street
- Baker Street

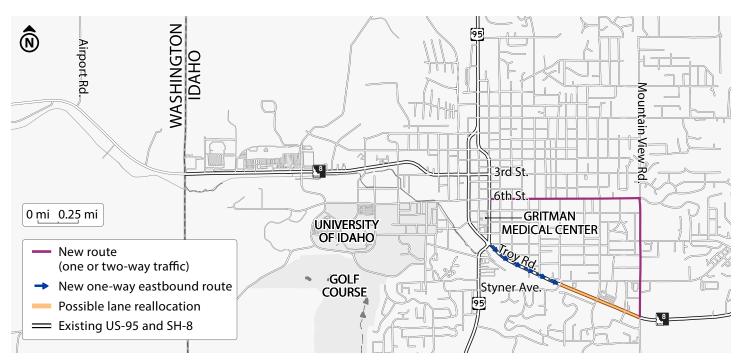
- Warbonnet Drive
- Potential connection in Washington

Farm Road

# **Concept:** Mountain View Drive to 6th Street

New Alignment | New Routes for Urban Mobility

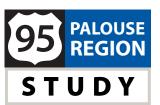
**Level One Screening Results: Eliminated** due to significant right of way impacts, including a cemetery



Linework is intended to show movements and is not representative of lane widths or footprint.

### **Key Components**

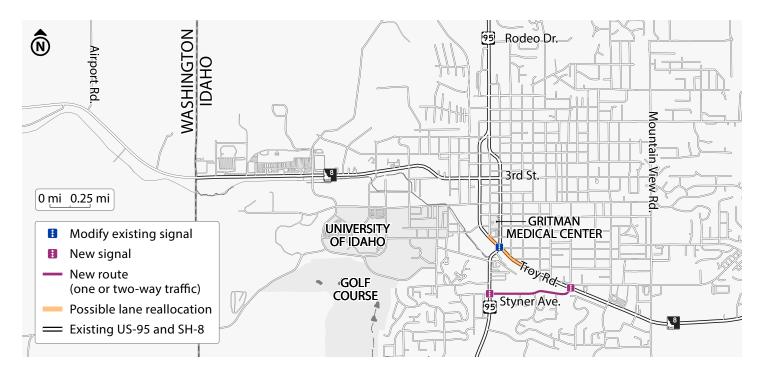
- Westbound SH-8 traffic to route north on Mountain View Drive and west on 6th Street
- Eastbound SH-8 could accommodate lane reallocation, including an additional eastbound lane



# **Concept:** Styner Avenue

New Alignment | New Routes for Urban Mobility

**Level One Screening Results: Carried Forward as an Element** 



Linework is intended to show movements and is not representative of lane widths or footprint. Certain concepts may require additional right of way.

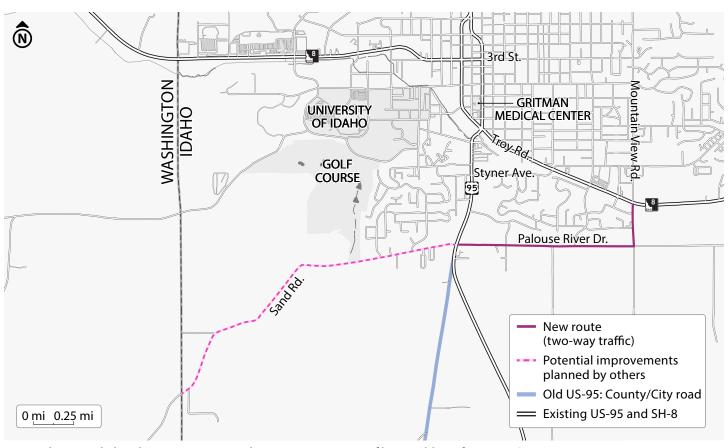
### **Key Components**

- Westbound SH-8 would use Styner Avenue to turn south on US-95.
- Currently, there are two westbound left-turn lanes from SH-8 to US-95. With at least one left-turn lane removed, an extra eastbound lane may be possible through the SH-8 intersection with Washington Street.

# **Concept:** Palouse River Drive

New Alignment | New Routes for Urban Mobility

**Level One Result: Carried Forward** 

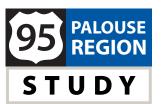


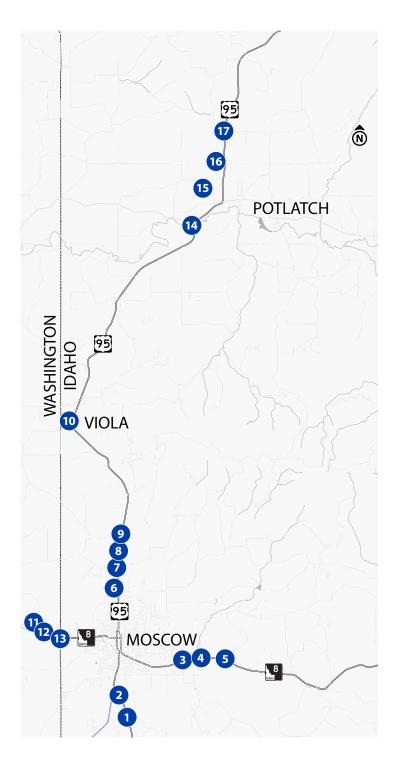
Linework is intended to show movements and is not representative of lane widths or footprint. Certain concepts may require additional right of way.

### **Key Components**

- Westbound SH-8 would use Mountain View Drive south and Palouse River Drive west to connect with US-95
- Upcoming and current city and county studies are evaluating improvements and freight route alternatives along Sand Road in Idaho and Washington







### **New Corridor Concepts**

### **Level One Concept**

### **Development Overview**

When considering potential areas for new corridors, the study team used conceptual engineering and public input to determine reasonable paths.

From there, 17 key intersections were identified as helpful starting points for studying potential new corridors.

To organize data, concepts are presented based on the intersections leaving and joining with US-95 from south to north. Thus, concepts will note starting at Intersection 1 or 2 for the Moscow area and Intersection 14 for the Potlatch area.

# **Graphic Examples of New Alignment Roadway Elements**

Because we build new roads to the latest design standards, many roadway elements would be determined by engineering best practices and technical data at the time of final design and construction. Specific roadway elements for a new alignment will be refined as we progress through the process.



**Four-Lane Highway with Center Turn Lane** 



**Four-Lane Divided Highway** 

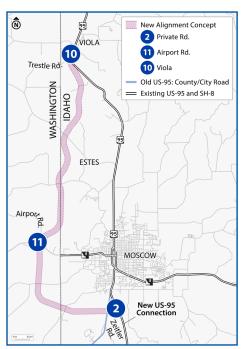
Routes are preliminary in Level One and are meant to be illustrative of potential paths between Intersections.

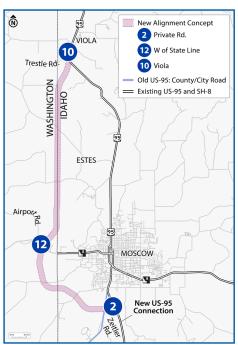
As an example, the Concept: Private Road (Intersection 2) to Viola (Intersection 10) illustrates three different north-south routes: one over Moscow Mountain, one up the state line, and one around Moscow Mountain.

As we study additional data for each proposed route in Level Two, one route may prove to be more feasible or have other advantages. If that is true, then that specific route may be **Carried Forward as an Element** that could apply across the entire concept.

Through these early corridor concept illustrations, we would like to gather feedback from agencies, the public, and invested and interested parties on:

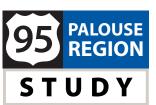
- East vs. west alignments
- Intersection points
- Preliminary routes







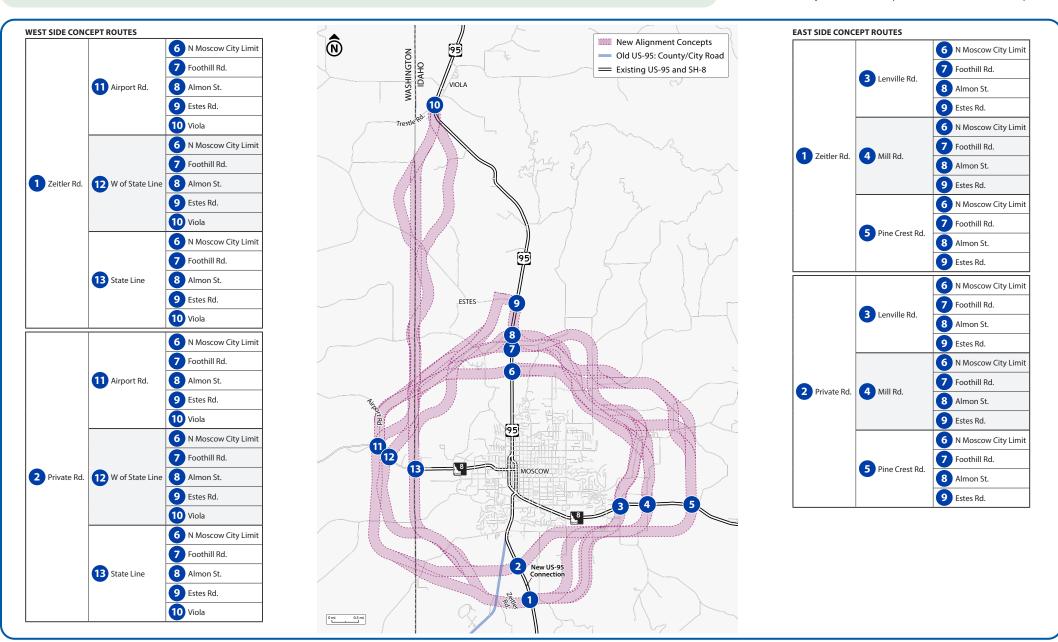




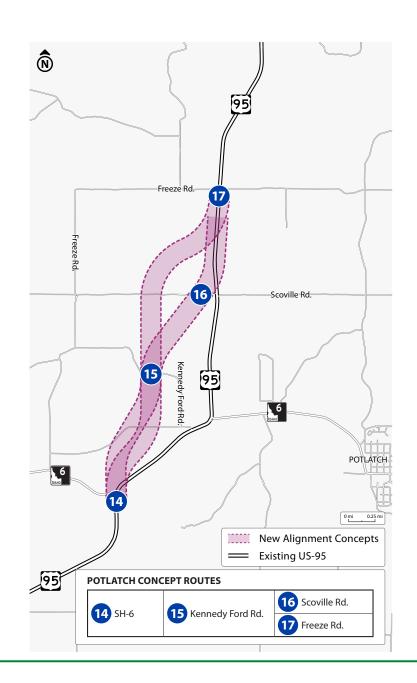
# **New Corridor Concepts and Options**

**New Alignments** 

**Level One Results for All Options: Carried Forward** 

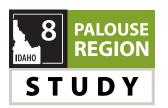


Map linework is intentionally oversized and drawn at 1,000-feet wide for potential new corridors in rural areas. This allows our team to consider new alignments within a general area while we collect specific traffic, environmental, refined geometrics, safety and operational analyses, as well as public and stakeholder input.





### **SH-8 PALOUSE REGION STUDY CONCEPTS**



### **ON-ALIGNMENT CONCEPTS**

# **Rural Improvement Concepts**

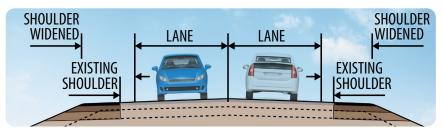
On-Alignment | Targeted roadway improvements outside of Moscow and Troy

#### **Options may include:**

- Shoulder widening
- Clear zone improvements
- Passing lanes

- Geometric improvements
- Slow vehicle pull-out
- Intersection improvements
- Turn lanes
- Wildlife movement
- Improved connection to Latah Trail

#### Level One Screening Result for All Options: Carried Forward as an Element



Graphic is for example purposes only to depict possible improvements.

**Improved Two-Lane Cross Section** 

### **Urban Improvement Concepts**

On-Alignment | Targeted roadway improvements within Moscow and Troy

#### **Options may include:**

- Two-way left-tern lane
- Five-lane cross section

Access management

- Lane reallocation
- Geometric improvements
- Intersection improvements
- Turn lanes

- Improved connection to Latah Trail
- Enhanced pedestrian crossing
- Bike lanes on roadway

#### Level One Screening Result for All Options: Carried Forward a Element



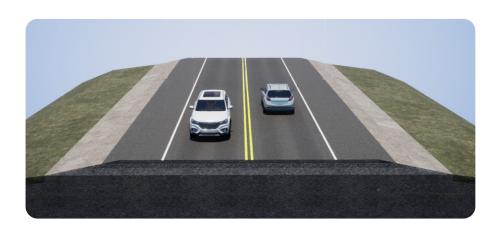
Graphic is for example purposes only to depict possible improvements.

**Two-Way Left-Turn Lane** 

### **NEW ALIGNMENT CONCEPTS**

# **New Corridor Concepts**

Construction of new SH-8 highway alignment in rural area between Moscow and Troy with a consistent two-lane or four-lane cross section with shoulders and clear zone to current design standards. Other concepts, such as passing lanes, vehicle pullout areas, and turn lanes, would be installed with the new highway alignment to optimize traffic operations and safety.

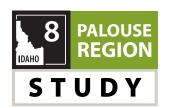


**Two-Lane Highway (Rural)** 



**Four-Lane Divided Highway (Rural)** 

Graphics are for example purposes only to depict possible improvements.

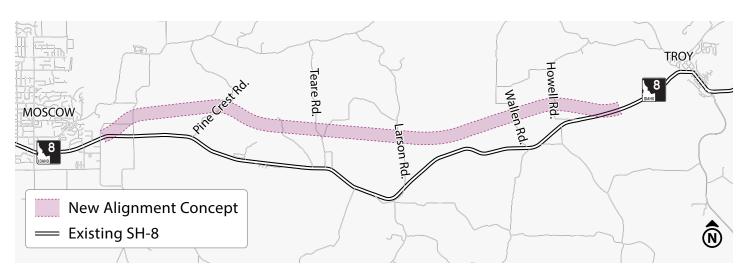


# **SH-8 New Corridor Concepts**

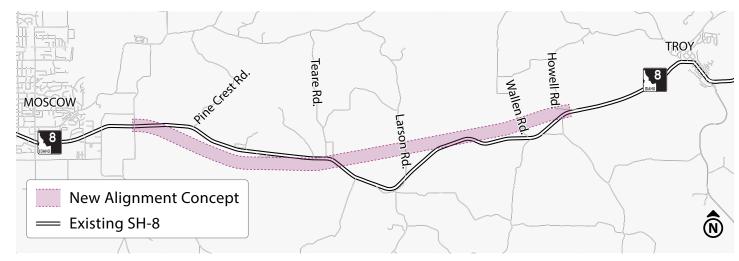
**New Alignments** 

**Level One Screening Results: Carried Forward** 

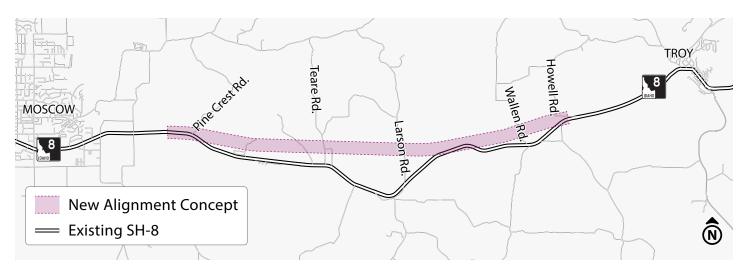
Map linework is intentionally oversized and drawn wide for potential new corridors in rural areas. This allows our team to consider new alignments within a general area while we continue to gather data and community input.



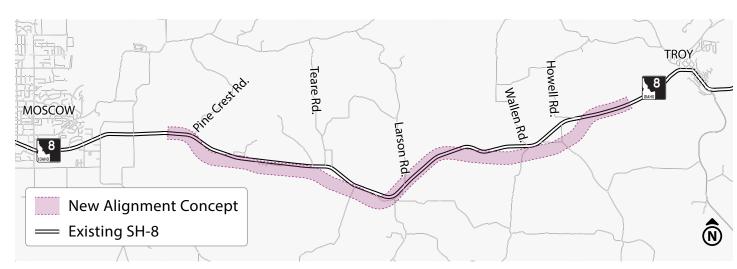
**SH-8 Re-Alignment to North - Concept 1** 



**SH-8 Re-Alignment to South - Concept 3** 

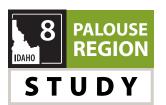


**SH-8 Re-Alignment in Central Corridor - Concept 2** 



**SH-8 Re-Alignment South of Railway Corridor - Concept 5** 

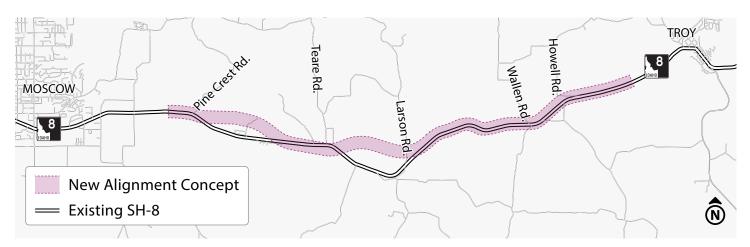




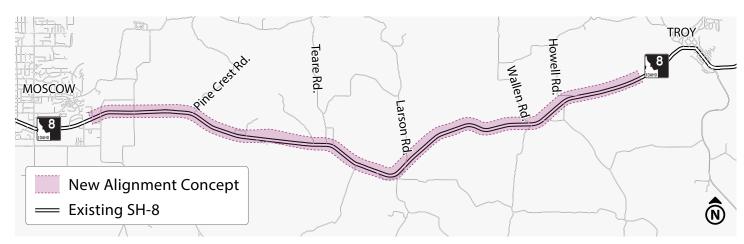
# **SH-8 New Corridor Concepts**

**New Alignments** 

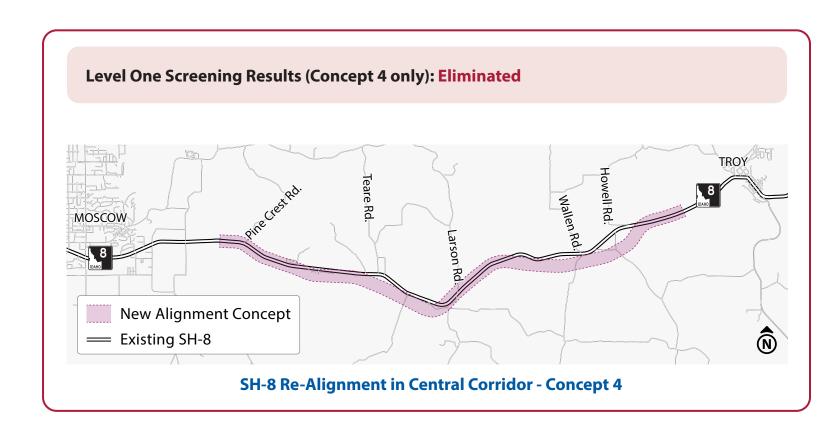
#### **Level One Screening Results: Carried Forward (continued)**



SH-8 Re-Alignment to North - Concept 6

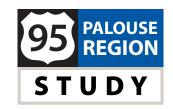


SH-8 Re-Design on Existing Alignment - Concept 7



Map linework is intentionally oversized and drawn wide for potential new corridors in rural areas. This allows our team to consider new alignments within a general area while we continue to gather data and community input.





# US-95 Study Level Two Screening - Draft Evaluation Criteria

These criteria were developed to address the study Purpose & Need and will guide the study team through the next level of concept screening.

# Reduce congestion through improved travel time reliability

- Traffic Operations
  - Traffic volume (2050) to roadway capacity (volume-to-capacity ratio)
- Optimized future (2050) vehicular travel time along the existing or new corridors and routes
  - Reduced intersection delay during future (2050) peak hours

# Enhance regional north-south connection between Lewiston and Coeur d'Alene

- Travel times as documented by combined delay through multiple intersections along the corridor
- Refine travel time reliability criteria as it relates to freight, safety, and potential impacts for concepts

# Accommodate walking and biking where appropriate on the U.S. highway system

- Multimodal Mobility
  - Accommodation of enhanced walking and biking US-95 crossings where appropriate
- Accommodation of expanded walking and biking opportunities where appropriate

# Promote safety by addressing geometric and operational deficiencies

- Safety Measurements
  - Potential crash reduction (for identified predominant crash pattern)
- Reduced potential conflict points (vehicular, pedestrian/bicyclists, and animals)
- Community
  - Property access modifications



For more details and an online feedback survey, please visit **us95sh8.com**. Comments submitted by July 8 will be considered by the study teams.



