OR 42 US 101 PASSING LANES STUDY

CONCEPTS WORKSESSION

NOVEMBER 2024

SHAPING A SMARTER
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AGENDA

1 / WELCOME AND INTRODUCTIONS

2 / STUDY OVERVIEW/PURPOSE

3 / NEEDS ANALYSIS FINDINGS

4 / SCREENING PROCESS

5 / REVIEW SITES FOR ADDITIONAL EVALUATION

STUDY OVERVIEW

- PURPOSE
- GOALS
- OBJECTIVES

STUDY OVERVIEW: PURPOSE

OR 42 is a key east-west corridor between Interstate 5 and the Oregon coast, and US 101 is the primary north-south corridor along the Oregon coast. These roadways serve a high percentage of tourism and freight traffic. To improve mobility and safety on these corridors, passing lanes are essential to allow passenger vehicles to safely pass heavy vehicles, such as semitrucks and recreational vehicles.

Study Purpose:

- Determine where additional passing lanes would improve movement along the study corridors on OR 42 and US 101.

- Identify projects for funding and implementation.

STUDY GOALS & OBJECTIVES

GOAL 1: Corridor Mobility

- Provide mobility for all travelers including freight and tourism
- Minimize traffic disruptions and platooning
- Provide reliable travel times
- Ensure future traffic operations

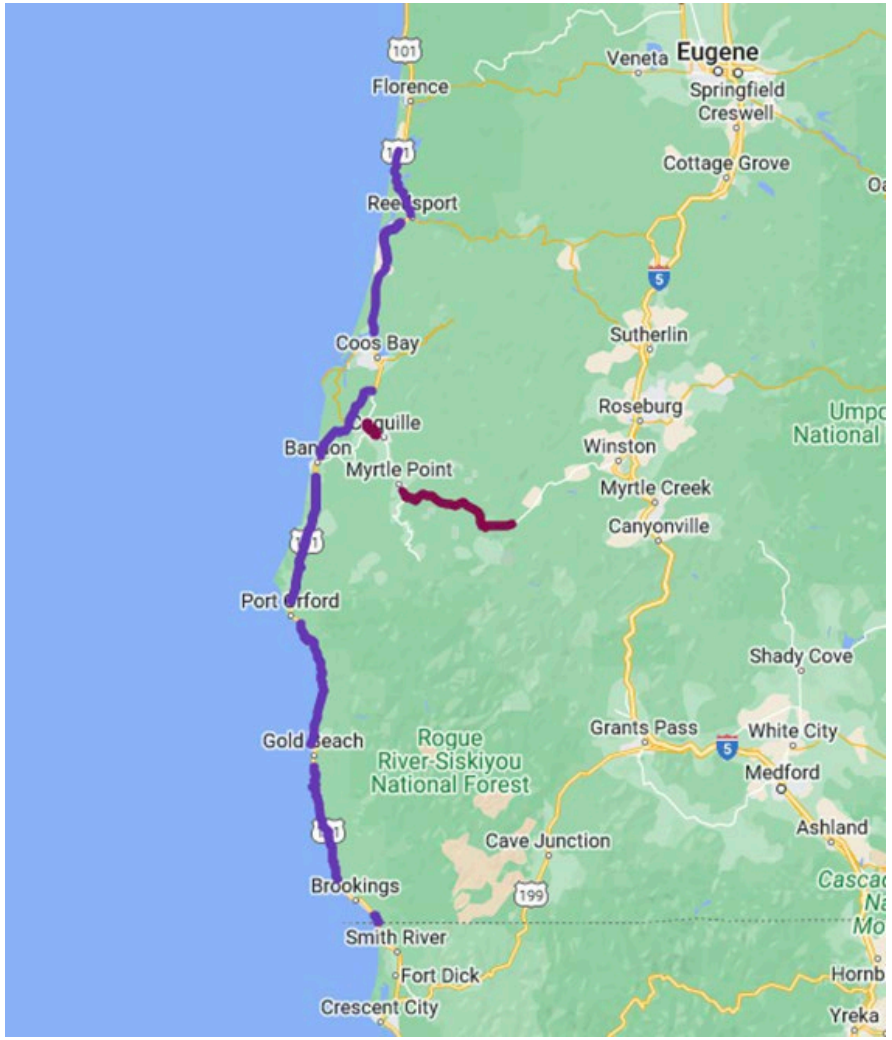
GOAL 2: Corridor Safety

- Provide safe travel opportunities for all users
- Reduce conflicts between heavy vehicles and passenger vehicles
- Assess and improve locations with a high risk of sideswipe and head-on crashes

Goal 3: Cost and Risk

- Identify locations that minimize cost and risk
- Identify and prioritize feasible project locations
- Maximize benefit-cost ratio on proposed projects
- Ensure proposed passing lane spacing meets Highway Design Manual recommendations
- Identify and minimize potential project risks related to environmental, geotechnical, archaeological, or other known factors

STUDY AREA



- Rural unincorporated areas between communities
- US 101 (115 miles) CA border to Douglas County line north of Reedsport
- OR 42 (28 miles)west of Coquille and east of Myrtle Point

NEEDS ANALYSIS FINDINGS

OVERVIEW OF NEEDS ANALYSIS

- Purpose: Identify locations that have a safety and/or operational need
  - > Five years of crash data – Where have crashes been occurring?
  - > 30HV Traffic analysis (conducted by direction) – Where is current and future congestion that could contribute to poor driver decisions?
- Divided corridors into approximately 180 smaller segments for analysis

SAFETY RESULTS

- Looked at crash data a variety of ways
  - > Crash rates
  - > Crash severity
  - > SPIS sites
  - > Passing related crashes (some occur in passing lanes)
- Flagged locations where crash rates exceeded critical crash rates
  - > 21 segment locations identified

OPERATIONAL RESULTS

- Conducted HCM rural roadway analysis for existing and future traffic volumes
- The volume to capacity (V/C) ratio is the mobility target
- Also considered level of service (LOS) to capture driver experience
- 3 segments identified that operate at LOS D or worse

DISCUSSION: NEEDS ANALYSIS

- 23 total segments flagged for consideration based on safety and/or operational needs
  - > 20 segments flagged for only safety
  - > 2 segments flagged for only operations
  - > 1 segment flagged for both safety and operations
- **Question: Should additional safety or operational locations be added to the list?**
  - > Unique locations?
  - > Other general screening criteria (e.g., all fatalities)

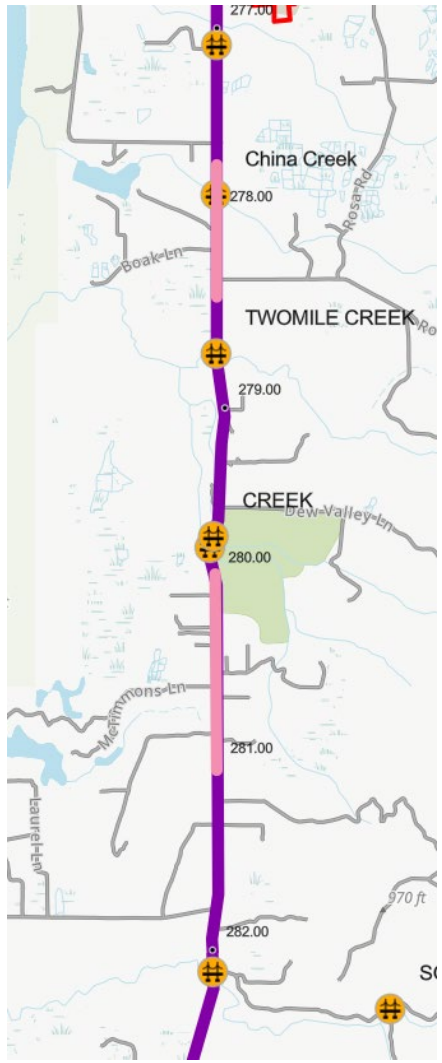
SCREENING PROCESS

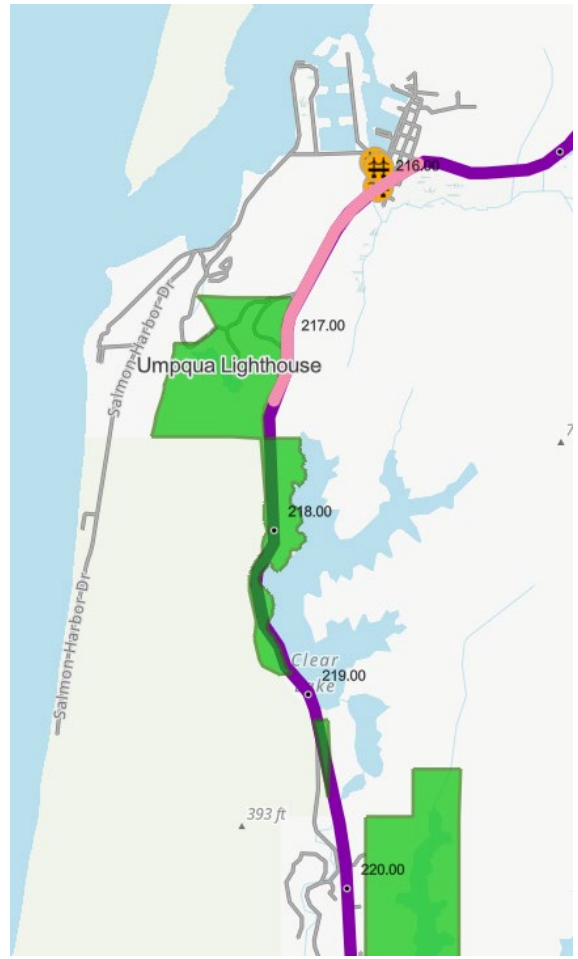
OVERALL EVALUATION PROCESS

- The following process is used to identify, screen, and evaluate the benefits of potential passing lane improvements:
  1. Identify locations that need improvements to address safety/operations
  2. Use general criteria (bridges, slides, etc.) to screen for feasibility
  3. Additional evaluation to determine benefit and cost
  4. Prioritize improvements based on Step 3
- Today we are focusing on Step 2 before moving ahead to Step 3

SCREENING PROCESS

- Segments that were determined to have an operational or safety deficiency were further screened by examining:
  1. Structures
     Presence of bridges
  2. Access
     Intersections or driveways
  3. Right-of-way
     Adjacent railroad or state park
  4. Potential risks
     High geotechnical hazard





Examples of segments eliminated from consideration

SCREENING PROCESS

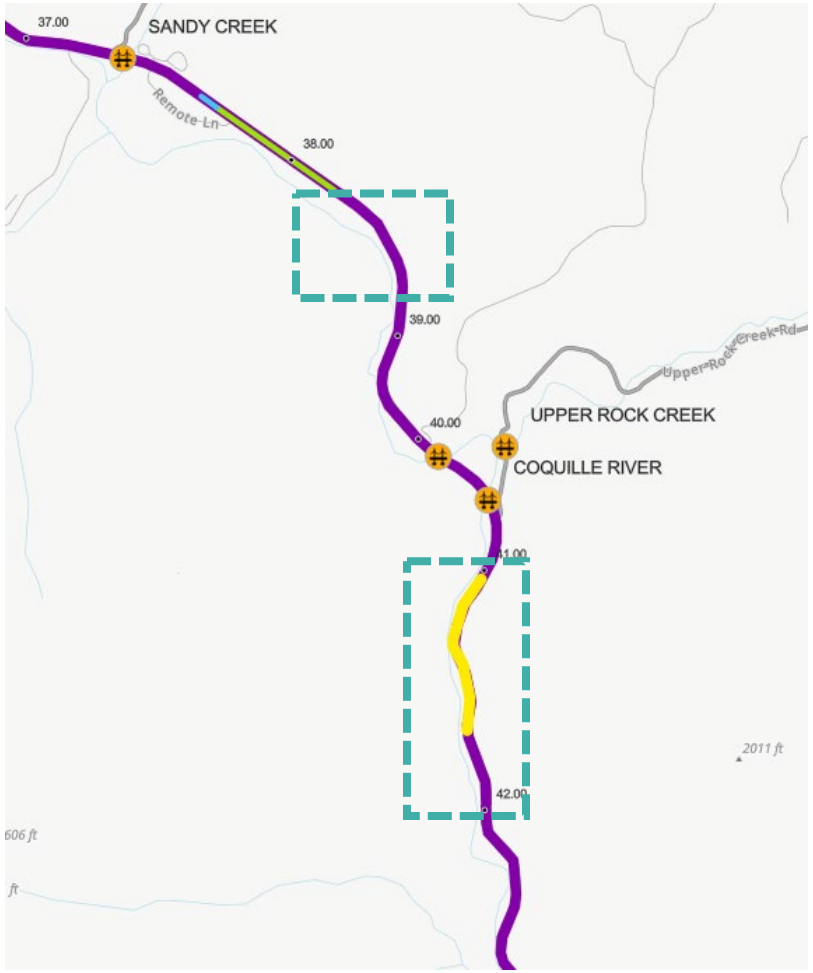
- The screening process reduced the number of identified segments from 23 to 8.
- **Question: Should more/less restrictive screening criteria be applied?**

SITES FOR ADDITIONAL EVALUATION

REMAINING LOCATIONS TO ADVANCE FOR ADDITIONAL EVALUATION

- The screening process reduced the number of identified segments from 23 to 8
- The following slides review each of the 8 segments
- Segments include at least one potential concept to advance for additional evaluation
  - > Identify specific MP and treatment
  - > Assess benefits
  - > Estimate cost/impacts

1 OR 42 – OR 542 JUNCTION TO OR 42 COUPLET MP 41.03 TO 41.53



PROBLEM: Safety Deficiency

DESCRIPTION:

- Existing passing lane in both directions (green line) about 3 miles west/north
- Some bridges, one intersection
- Moderate geotechnical hazard

POTENTIAL PASSING LANE LOCATIONS:

Extend existing passing lane east of MP 38

New passing lane MP 40.90 to 42.00

2 OR 42 – OR 542 JUNCTION TO OR 42 COUPLET MP 42.99 TO 43.65

PROBLEM:

Safety Deficiency

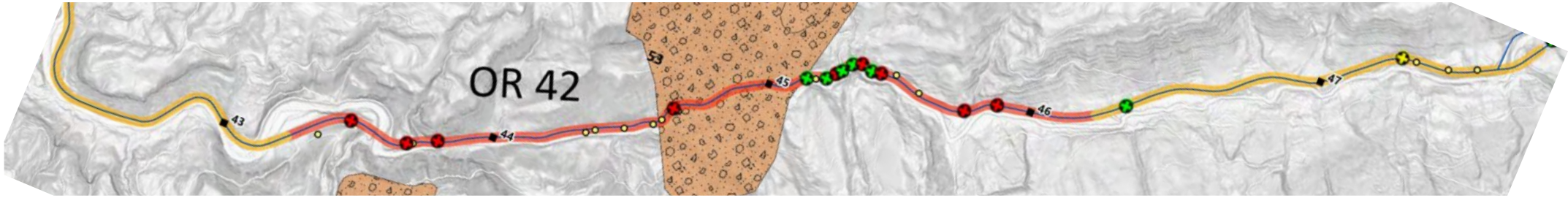
DESCRIPTION:

- Horizontal curves before MP 43
- Must avoid bridges, intersections, and high geotechnical hazard areas

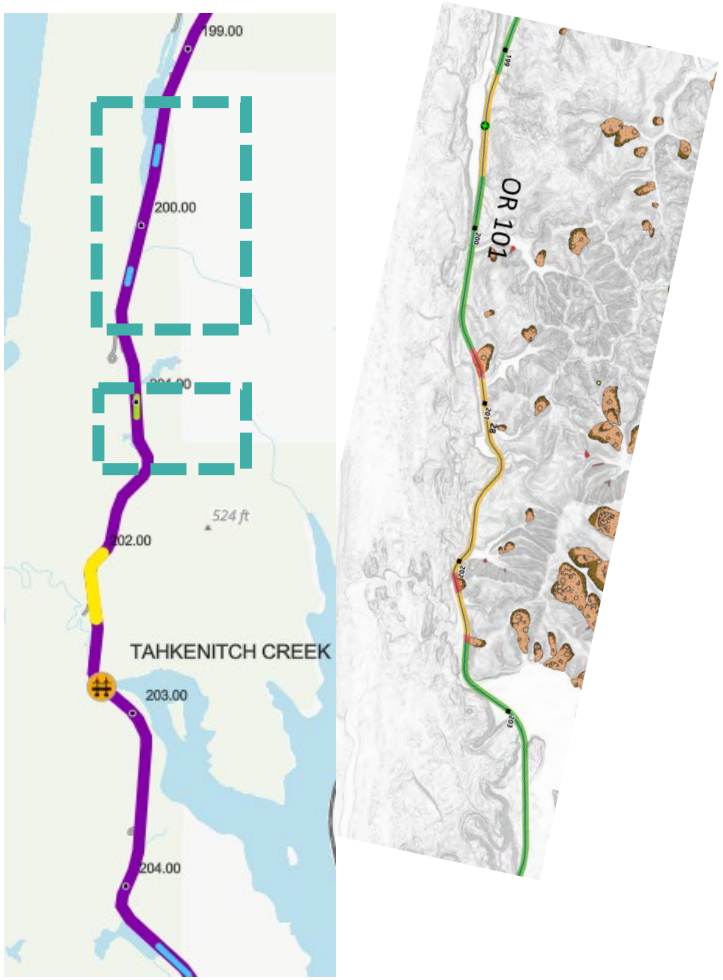
POTENTIAL PASSING LANE LOCATIONS:

New passing lane

MP 46.30-47.60



3 US 101 – DUNES CITY TO REEDSPORT MP 201.95 TO 202.33



PROBLEM: Safety Deficiency

DESCRIPTION:

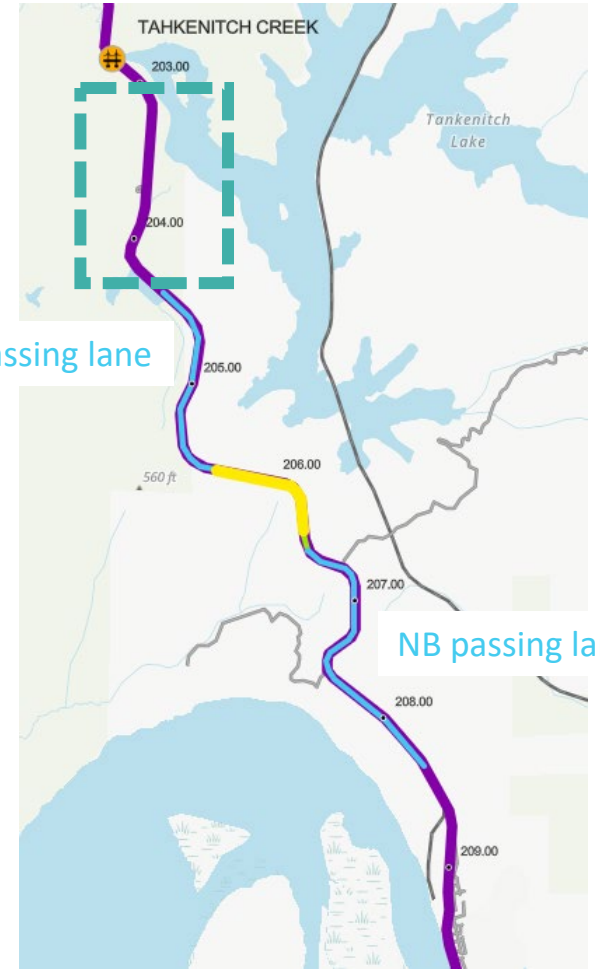
- Roadway is narrow and on hillside; would require extensive cut and fill
- Two short SB passing lanes (blue line) from MP 199-201
- Short passing lanes in both directions (green line) near MP 201
- Must avoid small areas of high geotechnical hazard and intersections near MP 201.40 and MP 202.28

POTENTIAL PASSING LANE LOCATIONS:

Extend/connect existing passing lanes

MP 199.40-200.60 and MP 200.80-201.40

4 US 101 – DUNES CITY TO REEDSPORT MP 205.68 TO 206.45



PROBLEM: Safety Deficiency

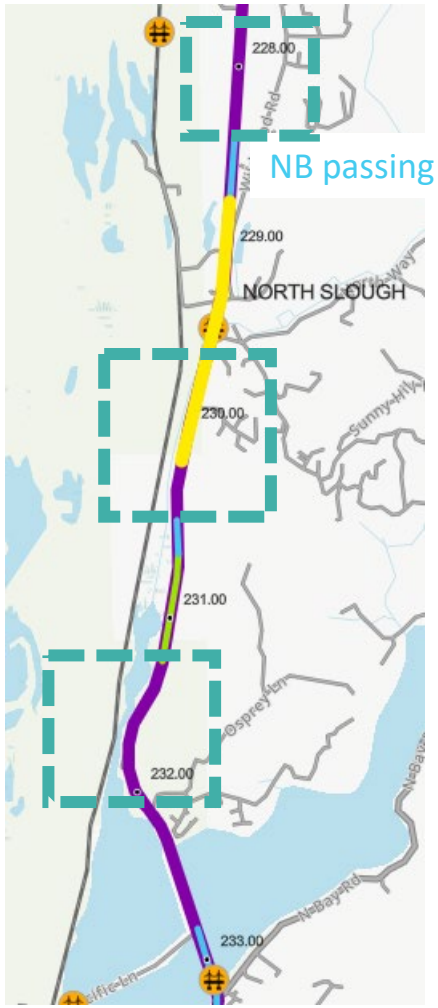
DESCRIPTION:

- There are already long (1.5+ miles) passing lanes in both directions near this location in an area with high geotechnical hazard
- Low or moderate geotech hazard MP 202.50-204.30
- Crash history:
  - 1 passing related crash (possible injury)
  - 2 non-passing related crashes (both fatal/serious injury)

POTENTIAL PASSING LANE LOCATIONS:

Extend existing SB passing lane north of MP 204.30

5 US 101 – LAKESIDE TO NORTH BEND MP 228.73 TO 230.16



PROBLEM: Safety Deficiency

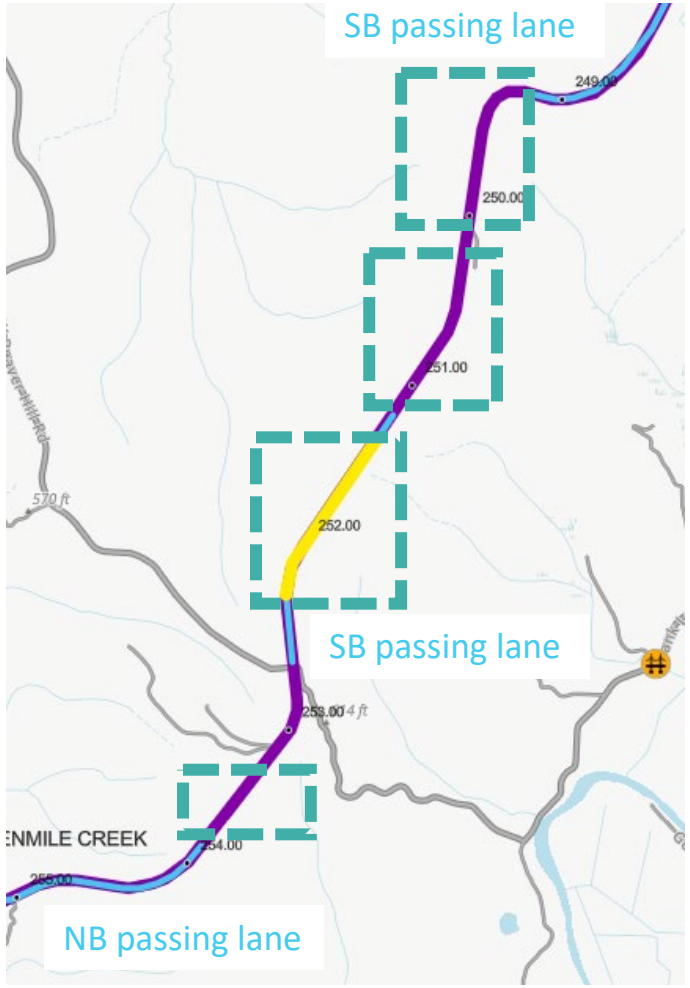
DESCRIPTION:

- Must avoid bridge, driveways and intersections
- Existing passing lanes in both directions on or near segment
- Low or moderate geotechnical hazard

POTENTIAL PASSING LANE LOCATIONS:

Extend existing NB passing lane north of MP 228.5
Extend existing NB or SB passing lanes north of MP 230.5
Extend existing NB or SB passing lanes south of MP 231.3

6 US 101 – COOS BAY TO BANDON MP 251.30 TO 252.28



PROBLEM: Safety Deficiency

DESCRIPTION:

- Several nearby passing opportunities in both directions
- Existing SB passing lane directly on segment
- Need to confirm geotechnical hazard condition

POTENTIAL PASSING LANE LOCATIONS:

Extend existing SB passing lane south of MP 249.4

Extend existing SB passing lane north of MP 251.2

New NB passing lane MP 251.30 to 252.28

Extend existing NB passing lane north of MP 253.9

7 US 101 – PORT ORFORD TO GOLD BEACH MP 306.50 TO 308.07

PROBLEM: Safety Deficiency

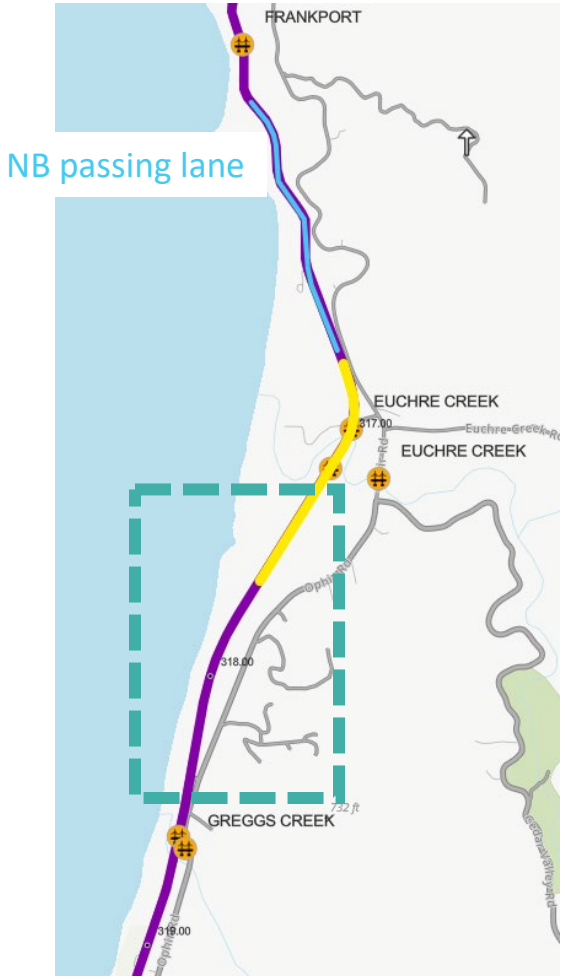
DESCRIPTION:

- There are existing NB and SB passing opportunities on north end of Humbug Mountain State Park
- Must avoid bridges south of park boundaries
- Low or moderate geotechnical hazard south of MP 307.70

POTENTIAL PASSING LANE LOCATIONS:

New passing lane MP 308.10 to 308.80

8 US 101 – PORT ORFORD TO GOLD BEACH MP 316.75 TO 317.62



PROBLEM: Safety Deficiency

DESCRIPTION:

- Must avoid one intersection near MP 317.0 and several bridges
- Must avoid high geotechnical hazard area north of MP 316.80
- Existing NB passing lane directly north of segment that cannot be extended due to bridges

POTENTIAL PASSING LANE LOCATIONS:

New SB passing lane MP 317.14 to 318.50

SUMMARY

- All screened segments were identified due to a safety deficiency
- Total of 15 potential improvements
  - 5 opportunities for new passing lanes
  - 10 opportunities to extend/connect existing passing lanes

5

DISCUSSION
- NEXT STEPS

NEXT STEPS

- Development of Conceptual Improvements – 2024-2025
- Online Open House – Spring 2025
- Final Oregon 42 and U.S. 101 Passing Lanes Study Report – Summer 2025

THANK YOU

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