OR 99 Rogue Valley Corridor Plan

(Garfield Street to S. Valley View Road)

June 2015

Oregon Department of Transportation

OR-99 Rogue Valley Corridor Plan:

Garfield Street to S. Valley View Road

Prepared for

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REFERENCE MATERIAL (COMPANION DOCUMENT)

Project Sheets

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List of Acronyms

ADT	Average Daily Traffic
APM	Analysis Procedures Manual
CDS	Crash Data System
CIA	Cooperative Improvement Agreement
CIP	Capital Improvement Program
CORP	Central Oregon and Pacific (Railroad)
DHV	Design Hourly Volume
EIS	Environmental Impact Statement
GBCVRP	Greater Bear Creek Valley Regional Plan
HDM	Highway Design Manual
ITS	Intelligent Transportation Systems
LOS	Level of Service
MP	Milepoint
MPO	Metropolitan Planning Organization
MTIP	Metropolitan Transportation Improvement Program
mvm	million vehicle miles
NHS	National Highway System
OAR	Oregon Administrative Rules
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
OPAL	Official Project Access List
OR	Oregon Route
OTC	Oregon Transportation Commission
ROW	Right of Way
RTP	Regional Transportation Plan
RVMPO	Rogue Valley Metropolitan Planning Organization
RVTD	Rogue Valley Transportation District
SPIS	Safety Priority Index System
STIP	Statewide Transportation Improvement Program
T&E	Threatened and Endangered
TDM	Transportation Demand Management
TIS	Traffic Impact Study
TMA	Transportation Management Association
TOEP	Traffic Operations Emergency Plan
TSM	Transportation System Management
TSP	Transportation System Plan
UGB	Urban Growth Boundary
v/c	volume-to-capacity

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EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

The *OR 99 Rogue Valley Corridor Plan* (Corridor Plan) focuses on the section of OR 99 that extends from Garfield Street in South Medford, through the communities of Phoenix and Talent, to S. Valley View Road at the north end of Ashland. This multimodal plan examines how the highway operates both now and over the next 20 years. It identifies strategies to preserve and improve highway safety and capacity consistent with a District Highway classification and local policies and it incorporates improvements for all travel modes.

Corridor Goals and Objectives

Four goals and associated objectives provide guiding principles for planning and programming future highway improvements, and managing the OR 99 corridor:

- **Goal 1: Mobility** – Improve the OR 99 corridor and identify potential local system enhancements that link communities, neighborhoods, and businesses and address the existing and future transportation needs of moving both people and goods throughout the corridor.
- **Goal 2: Multimodal System** – Provide a multimodal transportation system that accommodates the needs of all users.
- **Goal 3: Livability** – Provide a transportation system that enhances community livability and promotes economic development while minimizing environmental impacts.
- **Goal 4: Safety** – Promote the safety of current and future travel modes for all users.

Regulatory Framework

The OR 99 Corridor Plan establishes mobility and access management standards based on the Oregon Highway Plan (OHP) policies. The Highway Mobility Policy (1F) establishes maximum thresholds for peak hour congestion on highways in Oregon that should be maintained through a 20-year planning horizon. Mobility targets for a district highway apply to OR 99 through the study area. The OHP also addresses access management with the most recent revisions adopted in June 2014. Access spacing standards for the Corridor Plan were developed based on a District Highway Classification, posted speeds, and long-range estimates of traffic demand.

Baseline Conditions and Identified Deficiencies

Baseline conditions were evaluated to understand land use, identify potential environmental constraints, and determine existing (Year 2010) and future (Year 2034) transportation deficiencies. Identified deficiencies and their related goals include:

- Substandard shoulders on rural roadway sections from Phoenix to Talent and Talent to Ashland; *Related Goals – Mobility, Safety, Multimodal, Livability*

- Limited or substandard sidewalks in urban areas for much of the corridor (exceptions in downtown Phoenix and Talent); *Related Goals – Mobility, Safety, Multimodal, Livability*
- Limited bike facilities for much of the corridor (exceptions in Talent from Colver/ Suncrest Road to Rapp Road); *Related Goals – Mobility, Safety, Multimodal, Livability*
- High crash frequency on OR 99 segment from Northridge Terrace to Coleman Creek culvert including rating in worst 10 percent of the Safety Priority Index System (SPIS); *Related Goal – Safety*
- High crash intersections with OR 99 at Fern Valley Road, Garfield Street, W. Valley View Road, and South Stage Road; *Related Goal - Safety*
- Future operations of one (1) intersection (OR 99 at S. Valley View Road) would exceed applicable OHP mobility targets; *Related Goal – Mobility*

Corridor Plan Improvements

The OR 99 Corridor Plan improvements address highway deficiencies, improve the multimodal functionality of the corridor, and allow the corridor to accommodate traffic, including freight, safely and efficiently into the future. Figure ES-1 indicates the locations of Corridor Plan improvements and includes a brief description of the improvement project along with a general priority level. Detailed project sheets have been prepared for each highway improvement except for the transportation system management (TSM) improvements.

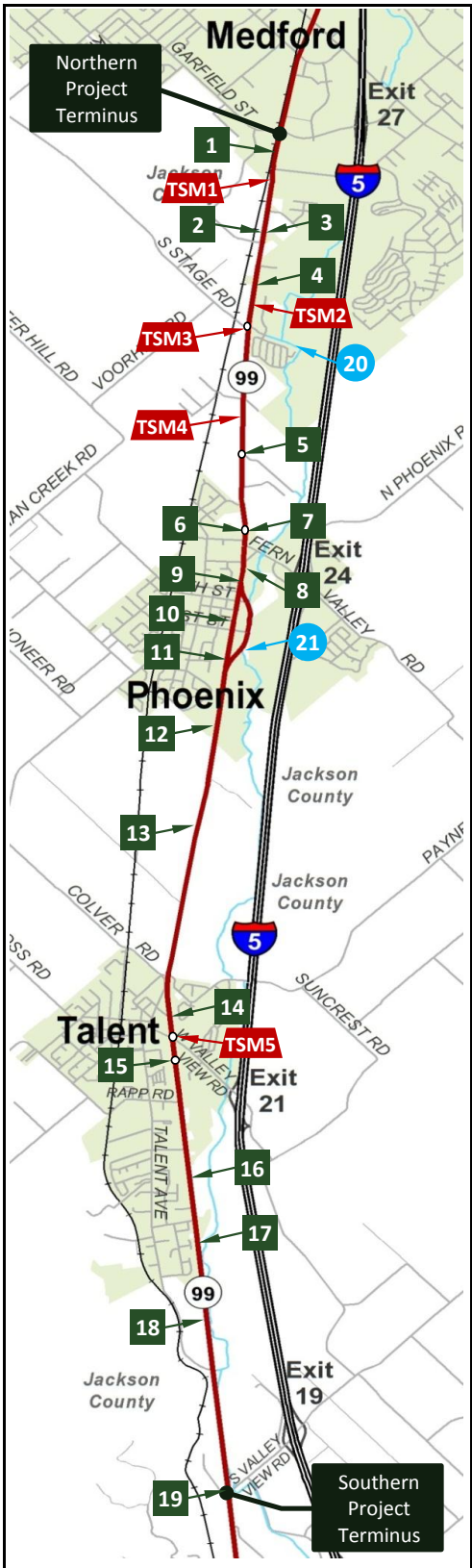
In addition to the highway improvements, other management actions are included to protect and extend the life of the corridor and provide for incremental implementation of highway improvements. These actions, summarized in *Section 6. Other Management Actions*, include: Transportation System Management Measures, Transportation Demand Management Measures, Bicycle and Pedestrian Facilities, and Transit Operations.

Access Management Plan

The Access Management Plan is an element of the Corridor Plan and presents actions that may be triggered as land use changes occur (new development or redevelopment), as future highway improvements are implemented, or as highway safety and operational issues arise. The Access Management Plan for OR 99 includes a variety of techniques that can be applied to the roadways and adjacent land use characteristics. Access management techniques would be implemented when one or more of the following triggers occur:

- Applications for land use changes or development are submitted
- Applications for a private road approach permit are submitted
- Future highway improvement projects move into design and construction phase
- Safety and/or operational problems arise

Note: Access management techniques shall be applied with a desire to move towards achieving applicable access spacing standards in accordance with OAR 734-051 over time.



1. **OR 99 - Garfield St to Charlotte Ann Rd (8.56-8.75)**: Construct sidewalks along the west side of OR 99 *(Medium Priority)*
2. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Modify striping of existing 5-lane roadway cross section to add bike lanes *(High Priority)*
3. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Construct continuous sidewalks on both sides of OR 99 *(Medium Priority)*
4. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Install median islands at multiple locations where pedestrian crossings occur *(Medium Priority)*
5. **OR 99/Northridge Terrace Intersection (10.58):** Improve turning radius on southeast corner and sight distance for exiting traffic *(Medium Priority)*
6. **OR 99/Coleman Creek Culvert (11.03-11.04):** Modify striping of existing roadway to add bike lanes and sidewalks while maintaining four through travel lanes (Interim) *(High to Medium Priority)*
7. **OR 99/Coleman Creek Culvert (11.03-11.04):** Replace culvert and widen roadway to add bike lanes and sidewalks *(High to Medium Priority)*
8. **OR 99 – Bolz Lane to South End of Couplet (11.33-11.93):** Provide sidewalk travel width of 6 feet around utility poles *(Ongoing Priority)*
9. **OR 99 in downtown Phoenix at north & south ends of Couplet (11.37 & 11.93):** Add gateway treatments to emphasize upcoming downtown area *(Phoenix TSP Priority)*
10. **OR 99 in downtown Phoenix (11.37-11.93):** Modify striping to add bike lanes *(Phoenix TSP Priority)*
11. **OR 99 in downtown Phoenix (11.37-11.93):** Enhance crossing opportunities with pedestrian-activated devices, curb extensions, and additional crosswalk striping *(Phoenix TSP Priority)*
12. **OR 99 - south of couplet to City Limits (11.93-12.36):** Add curbs and sidewalks and restripe roadway to provide a center turn lane, two through travel lanes, and bike lanes *(Medium Priority)*
13. **OR 99 - Phoenix City Limits to Talent City Limits (12.36-13.75):** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders *(Medium Priority)*
14. **OR 99 - Colver/Suncrest Rd to Rapp Rd (13.86-14.59):** Upgrade or fill in missing sidewalks *(Ongoing Priority)*
15. **OR 99 – Wagner Creek Trail (14.39):** Consider future midblock crossing with pedestrian-activated device *(Medium Priority)*
16. **OR 99 - Rapp Rd to Creel Rd (Talent City Limits) (14.71-15.67):** Add curbs and sidewalks and restripe roadway to provide a center turn lane, two through travel lanes, and bike lanes *(High Priority)*
17. **OR 99 - Creel Rd to Bear Creek Greenway connection (15.34-15.67):** Construct a multi-use path along the east side of the highway *(High Priority)*
18. **OR 99 - Talent City Limits to S Valley View (15.34-16.92):** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders *(Medium Priority)*
19. **OR 99/S. Valley View Rd Intersection (17.02):** Widen S Valley View Rd to provide dual westbound left-turn lanes at OR 99 *(Medium to Long Priority)*

20. **Bear Creek Greenway (8.56-17.02):** Enhance connections to OR 99 throughout corridor with wayfinding signage other amenities *(High Priority)*
21. **Bear Creek Greenway (11.33-11.92):** Enhance connections to OR 99/Bear Creek Dr at 4th St and Oak St to provide parallel and convenient bicycle and pedestrian facilities *(Medium Priority)*

TSM1 **OR Corridor (8.56-17.02):** Develop a traffic operations emergency plan *(High Priority)*

TSM2 **OR Corridor (8.56-17.02):** Conduct speed zone studies to reassess posted speeds when lane restriping, lane conversion, or pedestrian crossing projects are implemented *(Ongoing)*

TSM3 **OR 99/S. Stage Rd Intersection (9.79):** Modify traffic signal timing to add protected left-turn phases in the east-west direction *(High Priority)*

TSM4 **OR 99 – Northridge Terrace to Coleman Creek (10.58-11.04):** Evaluate potential access modifications to address high crash frequency *(High Priority)*

TSM5 **OR 99/W. Valley View Rd Intersection (14.2):** Modify traffic signal timing to add protected left-turn phases in the east-west direction *(High Priority)*

OR 99 Rogue Valley Corridor Plan

Legend

- # Corridor Improvement Projects
- X Other System Improvement Projects
- TSM# Transportation System Management Strategies

Figure ES-1

Locations of OR 99 Corridor Plan Improvements

Corridor Monitoring

The projects in this Corridor Plan include triggers that identify when a project and/or a strategy may be warranted. Although some priority has been assigned to the projects, periodic traffic monitoring should occur to identify when projects may be needed. In some cases priority may be elevated based on traffic volume trends or crash history, while others may be delayed. The monitoring program should include two elements:

1. **Systematic Agency Monitoring** of traffic and crash data used to identify the need for capacity and safety improvements. At a minimum, data collection should include:
   - *Intersection traffic volumes should be collected and analyzed every three (3) to five (5) years to identify the need for traffic signal timing modifications. Based on the forecasts in this document, new traffic signals, left-turn lanes, right-turn lanes, or other capacity improvements are not planned but could be triggered by new development or transportation network changes that were not previously identified as part of the financially-constrained Regional Transportation Plan.*
   - *Crash rates should be reviewed every two (2) to three (3) years and SPIS rankings should be reviewed annually to identify when safety improvements such as left-turn lanes, right-turn lanes, and access management measures may be necessary.*

2. **Developer Traffic Impact Studies** (TIS) for proposed development projects should be part of the monitoring process. Proposed developments could generate a sufficient number of trips to impact intersections and/or other public intersections along OR 99. Actions related to TIS preparation include:
   - *Minimum trip thresholds for when a TIS is required should be reviewed for consistency with monitoring needs of the OR 99 Corridor Plan.*
   - *Improvements that are triggered by development projects should be incorporated into local government conditions of approval.*

Oregon Transportation Commission (OTC) Actions

Adoption of this Corridor Plan will require the OTC to amend the OHP to adopt the OR 99 Rogue Valley Corridor Plan. This will establish policies for the corridor to guide management of the highway facility. It will also establish the performance targets and minimum access spacing standards for the corridor which are consistent with the current OHP.

Note: None of the OR 99 Rogue Valley Corridor Plan improvements are reasonably likely to be constructed and cannot be relied upon to mitigate significant effects unless they are funded by the State of Oregon, a local government, or a private entity or have been included in the RVMPO RTP financially constrained list of projects.

1. INTRODUCTION

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1. INTRODUCTION

The *OR 99 Corridor Plan* (Corridor Plan) focuses on the section of OR 99 that extends from Garfield Street in South Medford, through the communities of Phoenix and Talent, to S. Valley View Road at the north end of Ashland. This multimodal plan examines how the highway operates both now and over the next 20 years. It identifies strategies to preserve and improve highway safety and capacity consistent with a District Highway classification and local policies and incorporates improvements for all travel modes.

1.1. Study Area

OR 99 threads through a north-south transportation corridor that is bounded to the east by I-5 and to the west by the Central Oregon and Pacific (CORP) Railroad line (see Figure 1). Each community along this corridor is unique and diverse serving a wide range of development including commercial and industrial parks, downtown pedestrian-friendly commercial and residential development, greenways and parks, as well as acting as a thoroughfare for freight traffic. The OR 99 corridor can be broken into six segments that reflect the different characteristics of the highway and its environs. Traveling from north to south, the OR 99 segment characteristics as well as the community elements that it serves are described below.

***South Medford Segment**:* As the northernmost segment of the study area along OR 99, the south Medford segment extends from the Garfield Street intersection through South Stage Road. Adjacent land uses have urban characteristics which are primarily light industrial, business parks, and commercial but there are also several nearby parks and a golf course. This section of OR 99 is a typical five-lane urban arterial with a center left-turn lane, traffic signals at several intersections, and a posted speed of 45 miles per hour (mph). Sidewalks are discontinuous and there are no bike lanes. Development along this segment of OR 99 has access to I-5 at Exit 27 (South Medford) via Garfield Street.

OR 99 northbound near Garfield Road

***Transition Segment (Medford to Phoenix)**:* The transitional section of OR 99 between the Medford and Phoenix urban areas remains similar to the South Medford segment but with some differences in adjacent land uses. There is more residential along the corridor and many smaller commercial uses. Although Jackson County has no industrial zoning immediately adjacent to the highway, industrial uses are located along the rail line to the west. OR 99 has a five-lane cross-section with discontinuous sidewalks and a 45 mph posted speed.

OR 99 southbound near Glenwood Road

OR 99 southbound near 1st Street

***Phoenix Segment**:* This segment extends from Coleman Creek to north of Cabbage Lane. OR 99 transitions from a five-lane arterial to a downtown one-way couplet system and then a four-lane arterial. High density residential and commercial business parks are the primary uses to the north. Downtown Phoenix serves mixed use and office/commercial development as well as the Bear Creek Greenway. OR 99 splits traffic through downtown via a couplet, providing two southbound lanes with sidewalks on Main Street (30 mph) and two northbound lanes on Bear Creek Drive (35 mph). South of downtown, OR 99 is a four-lane, 40-mph facility (no sidewalks or bike lanes) abutted by residential and commercial land uses. Phoenix residents and businesses have access to I-5 at Exit 24 (Phoenix) via Fern Valley Road to become N. Phoenix Road with completion of the interchange improvements. The interchange project will also add bike lanes and sidewalks on OR 99.

OR 99 northbound near Hartley Road

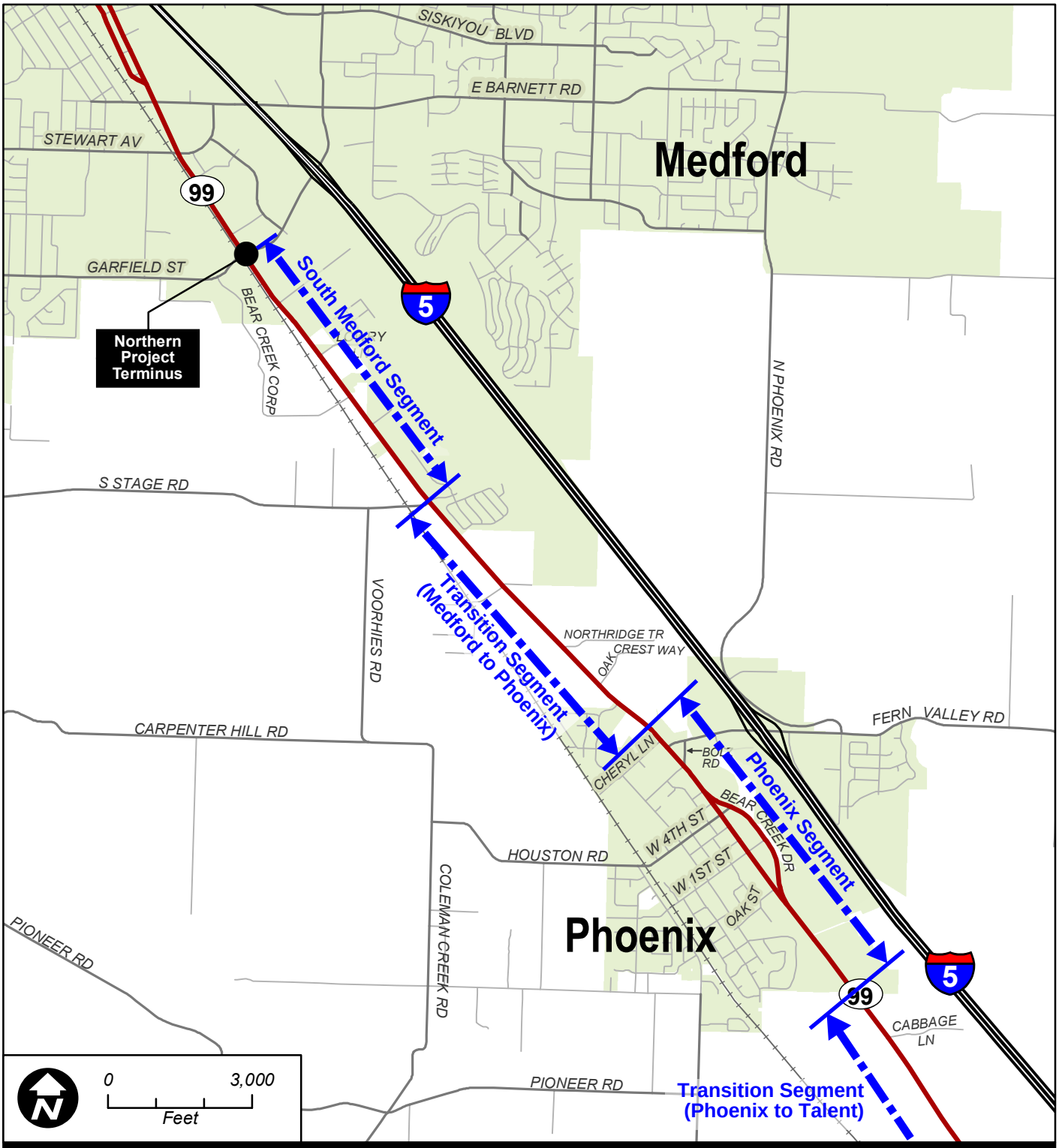
***Transition Segment (Phoenix to Talent)**:* The area between Phoenix and Talent is primarily farmland or rural residential with a few business and institutional uses. OR 99 is a four-lane rural facility with limited shoulder widths and a posted speed of 50 to 55 mph.

OR 99 southbound near Rapp Road

***Talent Segment**:* This segment extends from Colver/Suncrest Road to south of Creel Road. The northern end serves residential and commercial uses. Lands along OR 99 are less densely developed with commercial uses in southern Talent. Between Colver/Suncrest Road and Rapp Road, OR 99 is five lanes with a two-way center left-turn lane or a raised landscaped median, a posted speed of 40 to 45 mph, bicycle lanes on both sides, and sidewalks on the west side. The improvements end south of Rapp Road and the facility tapers to four lanes. Talent residents and businesses have access to I-5 at Exit 21 (West Valley View) via W. Valley View Road.

OR 99 northbound near Talent Avenue

***Transition Segment (Talent to Ashland)**:* The area between Talent and Ashland is primarily rural in nature with forest and commercial land uses and the Bear Creek Greenway. The roadway is a four-lane highway with limited shoulder widths and a posted speed of 55 mph. At the intersection with S. Valley View Road, OR 99 begins the transition from rural to urban arterial with a speed reduction to 45 mph and a five-lane cross-section. S. Valley View Road also connects to I-5 at Exit 19 (North Ashland).



OR 99 Rogue Valley Corridor Plan

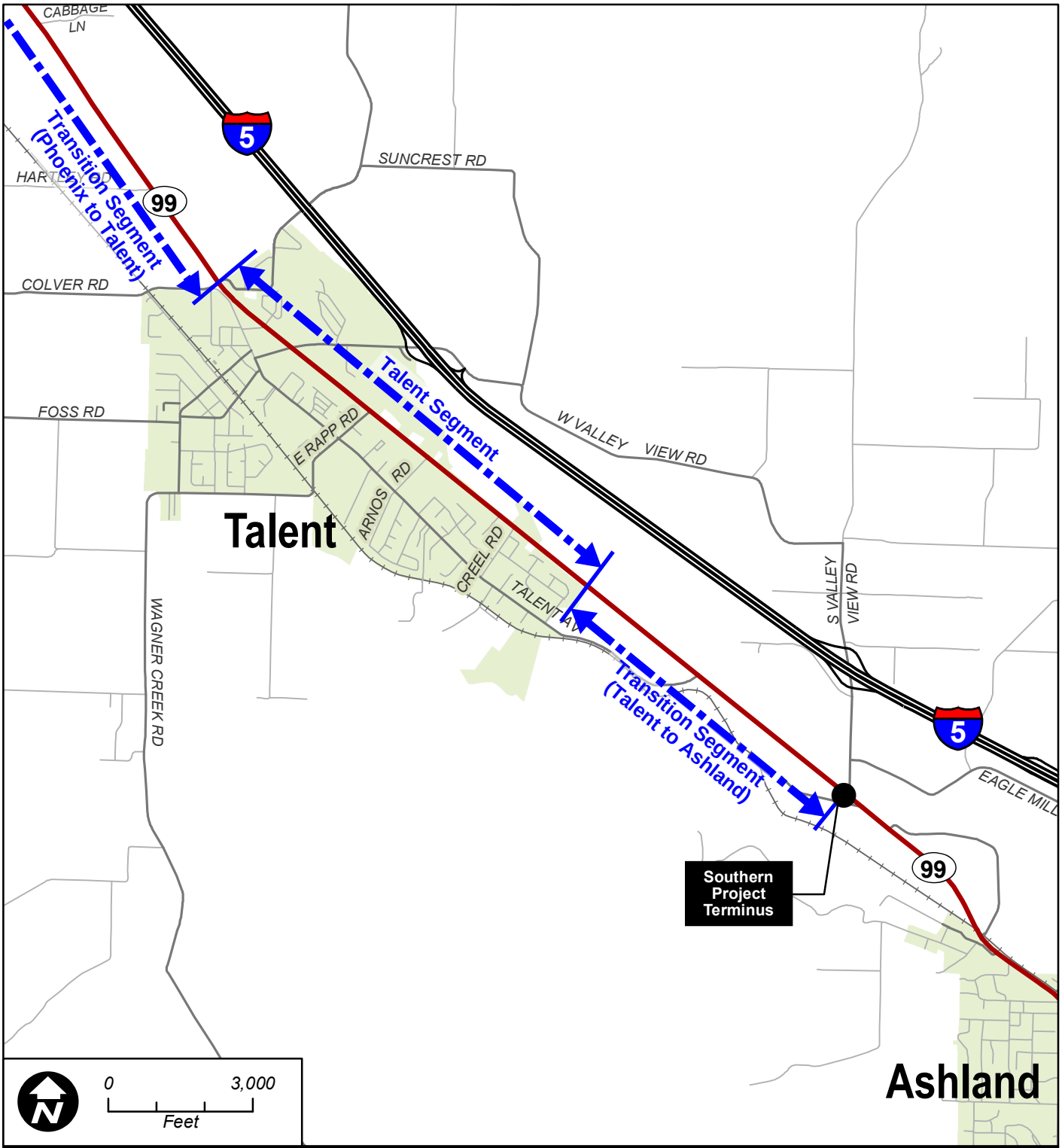
Legend

City Limits

Figure 1

Study Area
North Section

Source Data: Jackson County, ESRI, Oregon GEO



OR 99 Rogue Valley Corridor Plan

Legend

City Limits

Figure 1

Study Area
North Section

Source Data: Jackson County, ESRI, Oregon GEO

1.2. Corridor Goals and Objectives

The following goals and objectives provide guiding principles for planning, programming and managing the OR 99 corridor.

Goal 1: Mobility

Improve the OR 99 corridor and identify potential local system enhancements that link communities, neighborhoods, and businesses and address the existing and future transportation needs of moving both people and goods throughout the corridor.

Objectives:

- Maintain existing roadways and identify improvements to address existing operational and safety deficiencies.
- Facilitate freight travel by identifying key freight connections and maintaining efficient through movement in these corridors.
- Identify key street network connections and establish parallel routes for highway facilities during periods of high demand or when incidents affect through traffic operations.
- Provide for future growth through planning and management of the transportation corridor.
- Consider the transportation needs of both local and regional travelers (tourists) in the corridor.
- Coordinate with the Rogue Valley Metropolitan Planning Organization (RVMPO) efforts to develop strategies that reduce vehicular congestion and support economic development.
- Evaluate the need for capacity improvements based on the adopted comprehensive land use plans of Talent and Phoenix, Jackson County, and the RVMPO.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, and meets OHP requirements and the access spacing standards in Oregon Administrative Rule (OAR) 734-051.
- Incorporate the Greater Bear Creek Valley Regional Plan into the design and management systems for the corridor, including recommended strategies for land use control.

Goal 2: Multimodal System

Provide a multimodal transportation system that accommodates the needs of all users.

Objectives:

- Support efforts to maintain current transit service and plan for future expanded transit service.

- Plan safe and convenient bicycle and pedestrian networks that connect between residential areas, schools, and other activity centers.
- Incorporate bicycle and pedestrian elements, such as sidewalks and bike lanes or shoulders, in roadway upgrades.

Goal 3: Livability

Provide a transportation system that enhances community livability and promotes economic development while minimizing environmental impacts.

Objectives:

- Minimize congestion on OR 99 by maximizing efficiency of the existing system, providing a network of travel routes, and encouraging the use of alternative modes of travel.
- Balance the need for accessibility to adjacent land uses with the need to provide capacity on major travel routes.
- Work to preserve existing neighborhoods when developing roadway capacity improvements.
- Coordinate land use and transportation planning decisions to maximize the efficiency of public infrastructure investments.
- Provide a process to educate and involve the public in the planning and funding for future transportation system improvements.
- Avoid or minimize and effectively mitigate impacts to natural resources.
- Avoid impacts to archaeological, historic, and cultural resources as well as Section 4(f) and 6(f) resources.

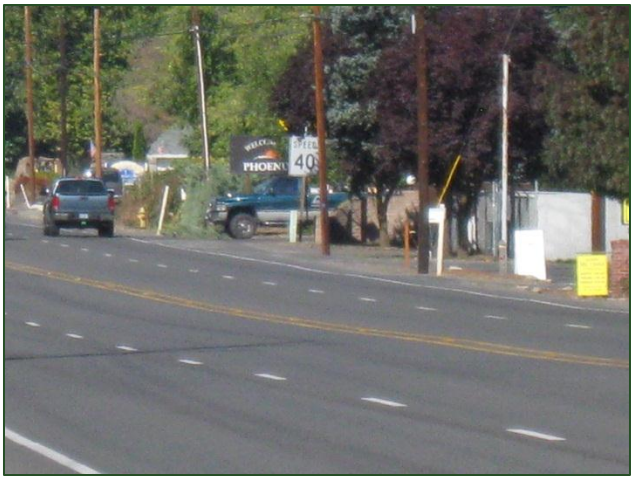
Goal 4: Safety

Promote the safety of current and future travel modes for all users.

Objectives:

- Review crash patterns and implement improvements at locations identified as priority through the state rating system.
- Identify and improve intermodal conflict points, including rail crossings and pedestrian/ bicycle crossings of major roadways near transit stops, schools, and other activity centers.
- Coordinate between transportation service providers to identify and address existing safety concerns and prevent the creation of future conflict points.
- Maintain existing emergency routes and identify improvements to the transportation system that support emergency vehicle access.
- Implement measures to better enable enforcement of traffic laws and expedite incident response times.

2. EVALUATION OF BASELINE CONDITIONS



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2. EVALUATION OF BASELINE CONDITIONS

This section summarizes baseline conditions, including an overview of the regulatory framework that guides the process. Land use is presented and potential land use or environmental constraints are identified. Existing (Year 2010) transportation system and traffic conditions are evaluated to identify deficiencies. Future (Year 2034) traffic operations and safety are then assessed to determine how baseline conditions may change over time.

2.1. Regulatory Framework

State and local regulations, policies, land use plans and transportation plans provide the legal framework for preparing the Corridor Plan. The language contained within these documents provides guidance to the state and local jurisdictions on how to manage transportation facilities and land uses to manage highway function, provide for safe and efficient operations, and minimize the need and expense for making major improvements to the corridor through the Year 2034 planning horizon. *(Refer to Technical Memorandum #1: Definition and Background in the Reference Material for a complete list of the guiding framework.)*

2.1.1. Operational Standards

The OHP has several policies aimed at maintaining highway mobility. The Highway Mobility Policy (1F) establishes maximum volume-to-capacity (v/c) ratio targets for peak hour operating conditions of highways in Oregon.[1] The OHP policy also specifies that the v/c ratio targets be maintained for ODOT facilities through a 20-year planning period. The v/c ratios that apply along the OR 99 study area are summarized in Table 1.

Table 1. Maximum V/C Ratio Targets for OR 99 Operations

Milepoints	Segment Description	Classification[1]	Maximum V/C Ratio Target[2]
MP 8.56 to 11.43	Garfield St to 5th St	District Highway	0.95
MP 11.43 to 11.85	5th St to Oak St	District Highway, Special Transportation Area (STA)	1.0
MP 11.85 to 17.02	Oak St to S. Valley View Rd	District Highway	0.95

Notes:
1. 1999 Oregon Highway Plan , Appendix D - Highway Classification by Milepoint, Revised August 22, 2013
2. Table 6: Maximum Volume to Capacity Ratio Targets for Peak Hour Operating Conditions, 1999 Oregon Highway Plan, OHP Policy 1F Revisions, Adopted December 21, 2011

[1] 1999 Oregon Highway Plan, OHP Policy 1F Revisions, Adopted December 21, 2011, Oregon Department of Transportation, website: http://www.oregon.gov/ODOT/TD/TP/docs/ohp11/policyadopted.pdf

2.1.2. Applicable Access Management Standards

The OR 99 access management plan governs ODOT's decisions of all road approaches to OR 99 from the Garfield Street intersection to the S. Valley View Road intersection with standards summarized in Table 2. These standards are based on the most recent revisions to OHP standards,[2] statewide highway classification, and future traffic demand. OAR 734-051 (Division 51): Highway Approaches, Access Control, Spacing Standards, and Medians[3] establishes the procedures and approval criteria used by ODOT to implement the OR 99 access management standards.

Table 2. Minimum Access Spacing Standards for OR 99

Milepoints	Segment Description		Posted Speed (mph)	Minimum Spacing[1] (feet)
South Medford and Transition to Phoenix Segments				
8.56 to 11.03	Garfield St to Phoenix North City Limits		45	500
Phoenix Segment				
11.03 to 11.43	Phoenix North City Limits to 5th St		30	350
11.43 to 11.85	Special Transportation Area (STA)	Main St (OR 99 SB) from 5th St to Oak St	30	175[2]
11.43 to 11.85		Bear Creek Dr (OR 99 NB) from 5th St to Oak St	35	175[2]
11.85 to 11.93	Main St (OR 99 SB) from Oak St to South End of Couplet		30	350
11.85 to 11.93	Bear Creek Dr (OR 99 NB) from Oak St to South End of Couplet		35	350
11.93 to 12.37	South End of Couplet to Phoenix South City Limits		40	500
Phoenix to Talent Transition Segment				
12.37 to 12.62	Phoenix South City Limits to End of Speed Zone		50	550
12.62 to 13.86	End of Speed Zone to Talent North City Limits (Colver/Suncrest Rd)		55	700
Talent Segment				
13.86 to 14.38	Colver/Suncrest Rd to Rapp Rd		40	500
14.38 to 15.38	Rapp Rd to End Speed Zone (Talent South City Limits)		45	500
Talent to Ashland Transition Segment				
15.38 to 16.77	Talent South City Limits to 0.25 miles north of S. Valley View Rd		55	700
16.77 to 17.02	0.25 miles north of S. Valley View Rd to S. Valley View Rd		45	500

Notes:
1. Table 6: Access Management Spacing Standards for District and Unclassified Highways with Annual Average Daily Traffic > 5,000, OAR 734-51 Effective June 30, 2014 (Table 15 in the revised OHP).
2. OHP Table 15, Note 6, " the minimum access management spacing for driveways is 175 feet or mid-block if the current city block is less than 350 feet." (Also OAR 734-051-4020, Standards and Criteria for Approval of Private Approaches, Section 8(b)(D))

[2] 1999 Oregon Highway Plan Revisions to Address Senate Bill 264 (2011) Policy 3A, website: http://www.oregon.gov/ODOT/TD/TP/docs/OHP/policyelement-5-28-13.pdf#nameddest=Policy_3A

[3] Oregon Administrative Rules Chapter 734, Division 51, Highway Approaches, Access Control, Spacing Standards, and Medians, Effective June 30, 2014, website: http://www.oregon.gov/ODOT/HWY/ACCESSMGT/docs/pdf/734-051_Perm_Rule.pdf

2.2. Land Use

The OR 99 corridor includes portions of Medford, Phoenix, Talent, and Ashland, as well as Jackson County. The Corridor Plan was developed using assumptions consistent with existing land use conditions from comprehensive plans and zoning ordinances of these five jurisdictions. The existing and planned land uses affect traffic patterns and the operations of highway facilities. *(For more detailed information regarding land use within the corridor, refer to Technical Memorandum #2: Environmental and Land Use Reconnaissance in the Reference Material.)*

2.2.1. Current Designations and Zoning

The Comprehensive Plan maps (see Figure 2) provide general guidelines for land uses in Jackson County and each city while the Zoning maps (see Figure 3) designate more specific uses and densities within the general land use categories. Figure 2 has been subdivided into two images mapping the north and south sections of the corridor. Figure 3 has been subdivided into four separate images, one for each community, in order to provide adequate zoning detail and legends.

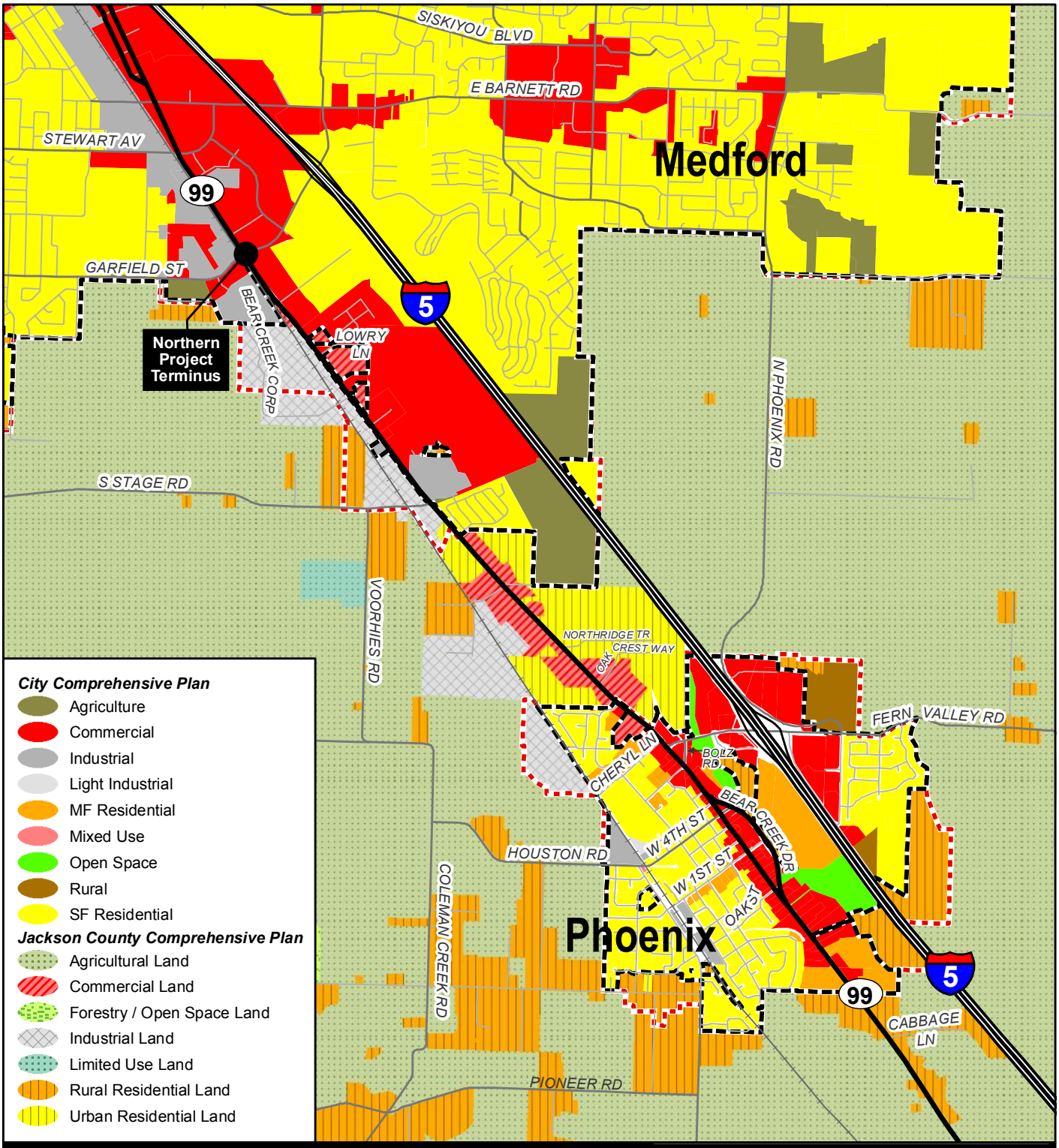
The study area passes linearly through the southern portion of Medford, and through Phoenix, Talent, and northern Ashland, with largely agricultural areas between each city except for between Medford and Phoenix, which is primarily urbanized. Zoned land uses in the study area range from agricultural to industrial, as displayed in Figure 3. Inside city limits, retail, wholesale, and professional service commercial uses dominate along the highway. Farm uses, interspersed with rural residential uses, occupy a majority of the area not in UGBs in the study area.

2.2.2. Future Land Use

The OR 99 Corridor Plan is based on future land use assumptions that are consistent with Jackson County and regional forecasts by the RVMPO. The Oregon Office of Economic Analysis provides the long-term demographic forecasts for counties and the State that are the source for the more localized population forecasts.

In 2010, the base analysis year for the Corridor Plan, the Jackson County population was approaching 200,000 residents. Long-term forecasts anticipate that population will grow to almost 300,000. The Corridor Plan was developed assuming the area would achieve that milestone around the year 2040.

Recent trends indicate that Jackson County might reach 300,000 residents in a time frame closer to 2050. A slower growth rate may result in a longer time period for Corridor Plan implementation but the needs and projects themselves remain valid.



OR 99 Rogue Valley Corridor Plan

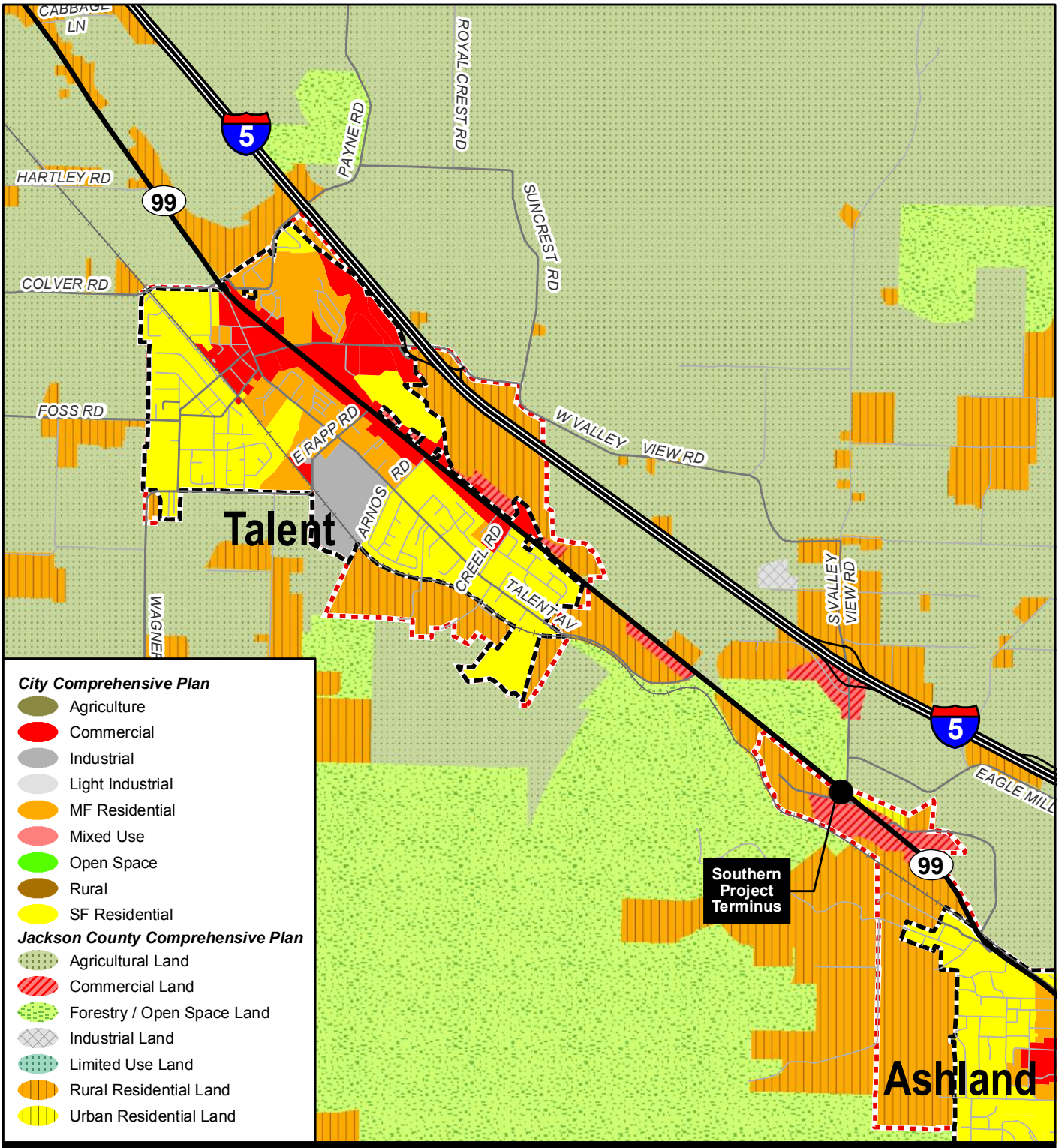
City Boundary
Urban Growth Boundary

Figure 2

Comprehensive Plan Designations
North Section

0 3,000
Feet

Source Data: Jackson County



OR 99 Rogue Valley Corridor Plan

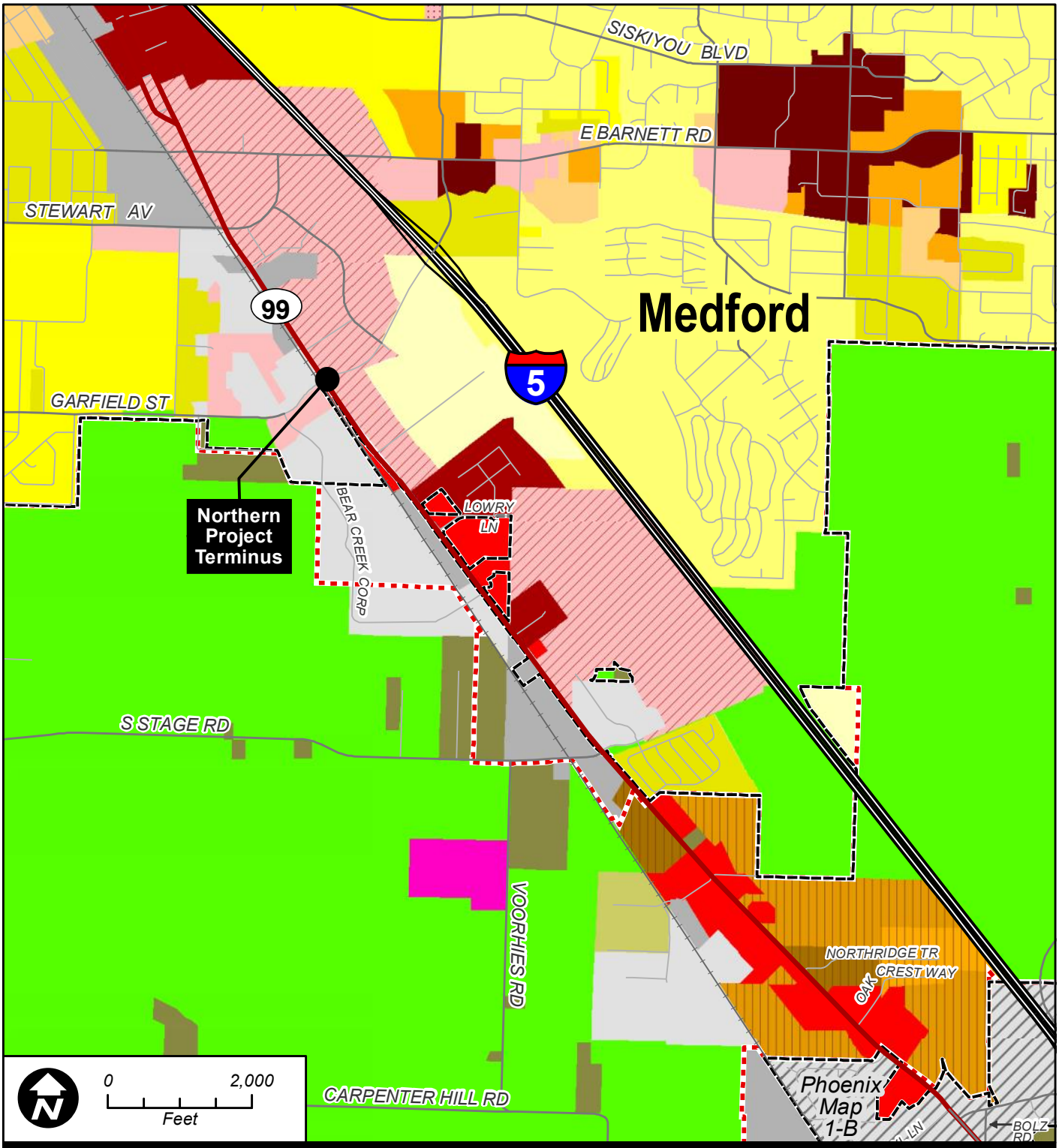
City Boundary
Urban Growth Boundary

Figure 2

Comprehensive Plan Designations
South Section

0 3,000
Feet

Source Data: Jackson County



OR 99 Rogue Valley Corridor Plan

City Boundary
Urban Growth Boundary

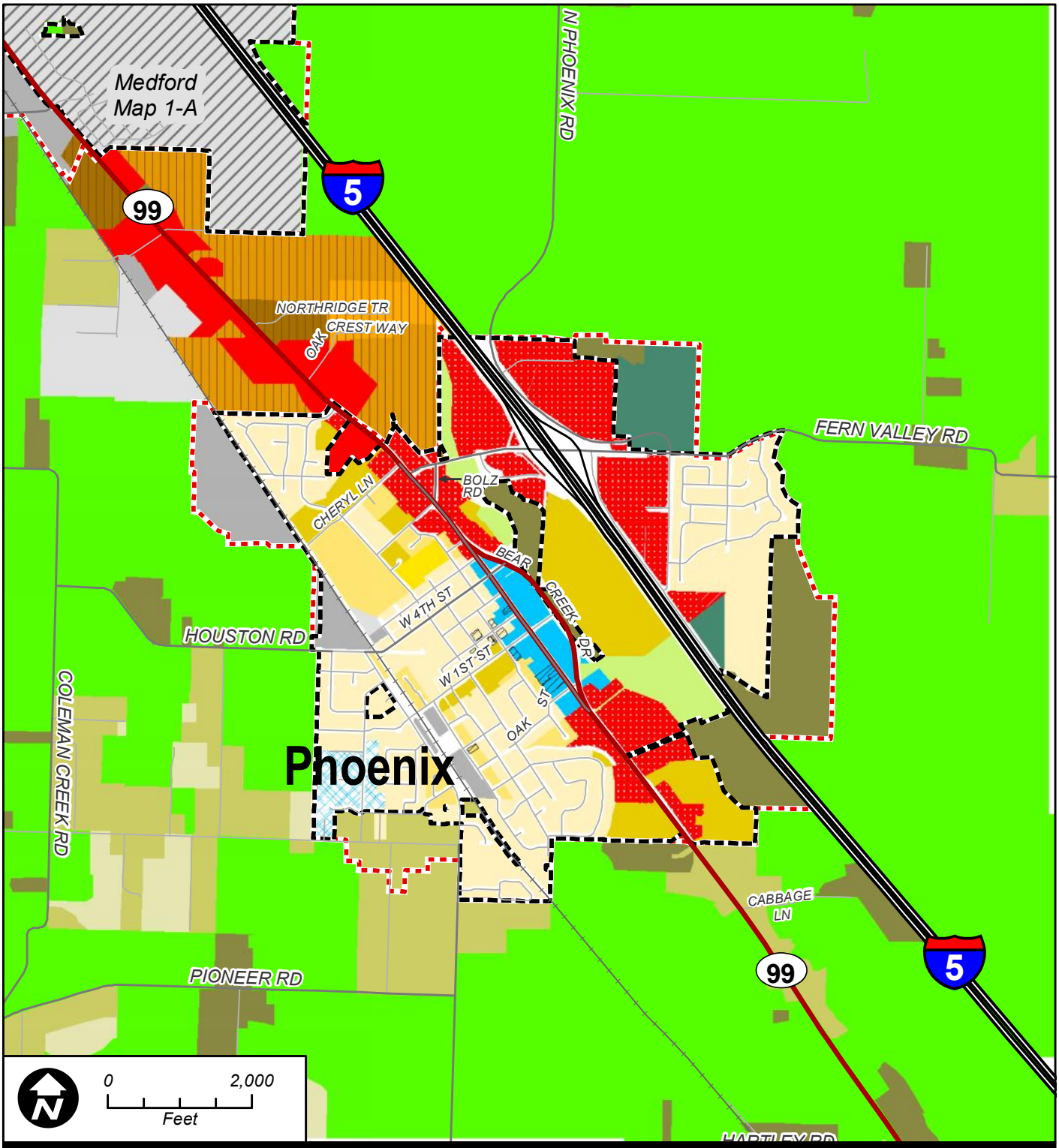
City of Medford Zoning
- Community Commercial (C-C)
- General Commercial (GC)
- Heavy Commercial (C-H)
- Neighborhood Commercial (C-N)
- Regional Commercial (C-R)
- Service Commercial/Prof. Office (C-S/P)
- Exclusive Farm Use (EFU)
- Light Industrial (I-L)
- General Industrial (I-G)
- MF Residential - 20 Units/Ac (MFR-20)
- MF Residential - 30 Units/Ac (MFR-30)
- Rural Residential - 5 Acre Min (RR-5)
- SF Residential - 1 dwelling unit/lot (SFR-00)
- SF Residential - 4 Units/Ac (SFR-4)
- SF Residential - 6 Units/Ac (SFR-6)
- SF Residential - 10 Units/Ac (SFR-10)
- Suburban Res. - 2.5 Acre Min (SR-2.5)

Jackson County Zoning
- Exclusive Farm Use (EFU)
- General Commercial (GC)
- General Industrial (GI)
- Light Industrial (LI)
- Limited Use (LU)
- Rural Residential - 2.5 (RR-2.5)
- Rural Residential - 5 (RR-5)
- Urban Residential - 8 (UR-8)
- Urban Residential - 10 (UR-10)
- Urban Residential - 30 (UR-30)

Figure 3

Zoning Designations
South Medford

Source Data: Jackson County



OR 99 Rogue Valley Corridor Plan

City Boundary
Urban Growth Boundary

City of Phoenix Zoning
- Bear Creek Greenway (BCG)
- City Center (C-C)
- Commercial Highway (C-H)
- Commercial Highway (R-1)
- Farm Residential (F-5)
- Hilsinger PUD (R-1)
- Industrial (I)
- Light Industrial (LI)
- Low Density Residential (R-1)
- Medium Density Residential (R-2)
- Medium Density Residential (R-3)
- High Density Residential (R-3)

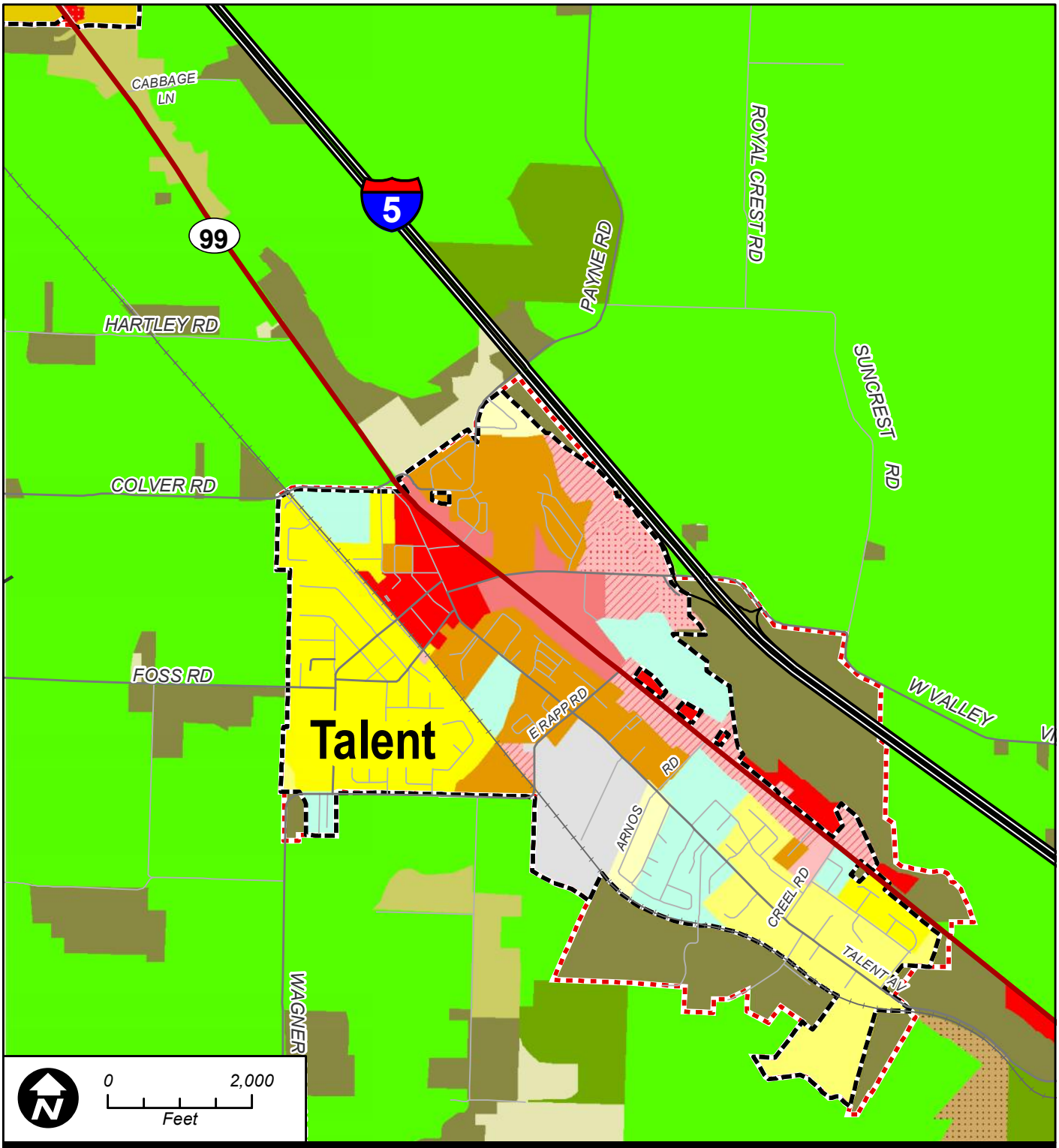
Jackson County Zoning
- Exclusive Farm Use (EFU)
- General Commercial (GC)
- General Industrial (GI)
- Light Industrial (LI)
- Limited Use (LU)
- Rural Residential - 00 (RR-00)
- Rural Residential - 2.5 (RR-2.5)
- Rural Residential - 5 (RR-5)
- Urban Residential - 8 (UR-8)
- Urban Residential - 10 (UR-10)
- Urban Residential - 30 (UR-30)

Zoning Overlays
- Historic Overlay

Figure 3

Zoning Designations
Phoenix

Source Data: Jackson County



OR 99 Rogue Valley Corridor Plan

City Boundary
Urban Growth Boundary

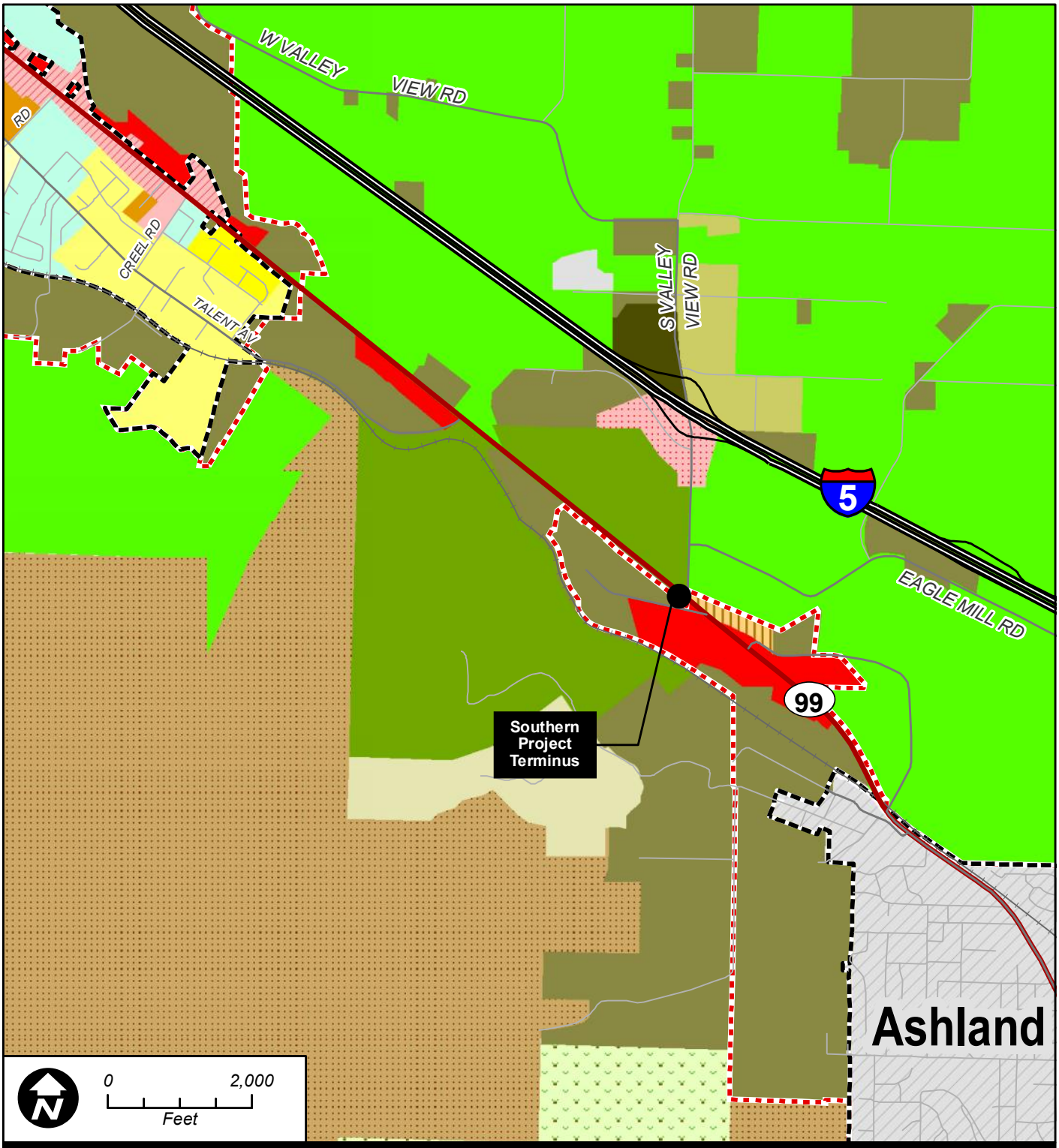
City of Talent Zoning
- Central Business District - Highway (CBH)
- Commercial (CBD)
- High Density Residential (RM-22)
- Interchange Commercial (CI)
- Light Industrial (IL)
- Low Density Residential - 6,000 sf Lot (RS-7)
- Low Density Residential - 8,000 sf Lot (RS-5)
- Low Density Residential - 8,000 sf Lot (RS-7)
- Mobile Home (RS-MH)
- Neighborhood Commercial (CN)
- Retail-Wholesale Commercial (CH)

Jackson County Zoning
- Exclusive Farm Use (EFU)
- General Commercial (GC)
- Open Space Reserve (OSR)
- Rural Residential - 00 (RR-00)
- Rural Residential - 2.5 (RR-2.5)
- Rural Residential - 5 (RR-5)
- Urban Residential (UR-1)
- Woodland Resource (WR)

Figure 3

Zoning Designations
Talent

Source Data: Jackson County



OR 99 Rogue Valley Corridor Plan

City Boundary
Urban Growth Boundary

City of Talent Zoning
- High Density Residential (RM-22)
- Low Density Residential - 6,000 sf Lot (RS-7)
- Low Density Residential - 8,000 sf Lot (RS-5)
- Low Density Residential - 8,000 sf Lot (RS-7)
- Mobile Home (RS-MH)
- Neighborhood Commercial (CN)
- Retail-Wholesale Commercial (CH)

Jackson County Zoning
- Exclusive Farm Use (EFU)
- Forest Resource (FR)
- General Commercial (GC)
- Interchange Commercial (IC)
- Light Industrial (LI)
- Open Space Reserve (OSR)
- Rural Residential - 00 (RR-00)
- Rural Residential - 2.5 (RR-2.5)
- Rural Residential - 5 (RR-5)
- Rural Residential - 10 (RR-10)
- Urban Residential (UR-1)
- Woodland Resource (WR)

Figure 3

Zoning Designations
North Ashland

Source Data: Jackson County

2.3. Environmental, Community, and Cultural Resources

Research and mapping of environmental features and community resources was used to identify known issues and those that may pose potential challenges or barriers to highway improvements. The information gathered was taken primarily from published documents and maps, GIS data, and conversations with appropriate professional contacts. Further resources may exist that are not yet documented or are not visually apparent. *(For more detailed information regarding this research, refer to Technical Memorandum #2: Environmental and Land Use Reconnaissance in the Reference Material.)*

Environmental features researched include:

- Goal 5 – Natural Resources
    - Riparian Corridors
    - Wetlands
    - Wildlife Habitat
    - Recreation Trails
- Threatened and Endangered Species
- Wildlife Crossings
- Floodplains and Floodways
- Air Quality
- Noise Quality
- Hazardous Materials
- Visual Resources

Community and cultural resources include:

- Parks and Recreation Areas
- Historic and Archaeological Resources
- Section 4(f) Resources
- Section 6(f) Resources

Socioeconomic data was also mapped to incorporate environmental justice considerations into the Corridor Plan development.

2.3.1. Potential Design Constraints

Table 3 summarizes resources that may present potential design constraints. Depending on the location of the preferred project, final design and construction details, there will be specific permits, regulatory requirements, or authorizations required prior to construction of the project. Additional design constraints not covered in this corridor plan could include fish passage requirements at stream crossings and storm water treatment requirements.

Table 3. Environmental and Land Use Summary

Feature	Summary of Key Resources and Concept Guidance	Key Potential Conflict Location(s)
Riparian Areas (Goal 5 Resource)	Bear Creek riparian corridor - *Disturbance to riparian corridors should be avoided where possible. Water quality impacts should also be avoided or mitigated through design.*	Medford, Central Phoenix, mid-Talent to end of study area
Wetlands (Goal 5 Resource)	Potential valley floor - unidentified wetlands associated with Bear Creek and its tributaries - *Wetland delineations should be conducted once concept footprints are identified. Impacts to wetlands should be avoided; mitigation and permitting will be necessary if impacts cannot be avoided. Best management practices incorporated into project design and construction can help minimize impacts.*	Phoenix, Talent to study area southern terminus, and undeveloped areas of corridor
Wildlife Habitat (Goal 5 Resource)	Deer and Elk winter range habitat and Bear Creek aquatic habitat (Coho and Chinook Salmon and Cutthroat Trout) - *Disturbance to undeveloped areas especially those* near *Bear Creek, other riparian corridors or the Deer Elk habitat should be avoided if possible.*	Bear Creek riparian area and small area south of Talent to study area southern terminus.
Recreation Trails (Goal 5 Resource)	Bear Creek Greenway - *Interference with recreation functions should be avoided.*	Southern Medford, Central Phoenix, South of Talent
Wildlife Crossings	Wildlife associated with Bear Creek riparian area and Deer and Elk winter range habitat - *Wildlife crossings should be considered during concept design.*	Small area south of Talent to study area southern terminus
Threatened and Endangered Species	Coho salmon - *Concepts should avoid water quality impacts and physical impediments in threatened and endangered species contributing waterways.*	Bear Creek riparian area and contributing waterways
Floodplains and Floodways	Wagner Creek Floodway, Bear Creek Floodway and 100-year floodplain - *Fill in floodways and floodplains should be avoided. No net rise will have to be demonstrated if improvements involve any sort of fill in floodways. Cut and fill requirements will need to be adhered to in floodplains.*	Medford, Downtown Talent, Southern Talent to study area southern terminus
Air Quality	Maintaining air quality standards - *Project will not increase congestion and will help continue to meet applicable air quality goals.*	None
Noise Quality	Sensitive noise receivers - *Further noise studies should be conducted once concept footprints are identified and relation to sensitive noise receivers can be established.*	Throughout corridor
Hazardous Materials	RCRA Generators, ERNS, ECSI, Fire Marshall Spill, Landfills, LUSTs, USTs - *Additional surveys should be completed once concept footprints are established.*	Medford to Talent and southern study area terminus
Visual Resources	Valley floor - *Consider overall visual effect during concept development, especially with respect to height of potential structures.*	Throughout corridor
Socioeconomic and Environmental Justice Impacts	Businesses, affected communities, minorities and low income populations - *Displacements should be avoided or minimized.*	Throughout corridor
Land Use and Zoning	EFU, Historical Overlays, Floodplain Overlays, Riparian Corridor Overlays, Open Space Reserve - *Impacts to resource zones should be avoided. Impacts to EFU and Open Space zones may require goal exception.*	Between Talent and southern study area terminus, between Talent and Phoenix, Downtown Phoenix
Community Features	Fire Stations, Police Stations, Schools - *Access to these facilities and their specific needs to provide their required level of service should be considered during concept development.*	Downtown Phoenix, Downtown Talent
Parks and Recreation	Bear Creek Greenway, Medford Sports Park, Blue Heron Park - *Impacts to parks and recreation resources should be minimized so that they can fulfill their intended purpose without loss of enjoyment by users and can realize goals of applicable Comprehensive Plans' elements.*	Throughout corridor
Historical and Archaeological Resources	Historical and cultural resources - *Further surveys will need to be completed, especially if improvements will include ground-disturbing activities and or right-of-way acquisition of lots with potential historical resources.*	Downtown Phoenix, Talent (Historical), Undeveloped Areas (Archaeological)
Section 4(f) Resources	Parks, Historical/Cultural Resources, Recreation areas, Wildlife and Wildfowl Refuges - *Avoid resources if possible. Any "use" of Section 4(f) lands will need to demonstrate that it is either a "de minimis" impact or that there was no alternative for the impact.*	Throughout corridor
Section 6(f) Resources	Parks funded by Land and Conservation Funds - *Avoid resources if possible. Use of Section 6(f) land needs to be mitigated in kind.*	Throughout corridor
Right-of-Way	Existing corridor area - *Acquisition and displacements should be avoided where practicable.*	Throughout corridor
Canals and Culverts	Phoenix and Talent Canals, Culverts - *Water quality impacts should be avoided.*	Throughout corridor

2.4. Transportation System Inventory

The transportation system inventory examines the highway, intersecting roadways, bridges, pavement conditions, bicycle and pedestrian facilities, transit facilities, Intelligent Transportation Systems and rail facilities. *(For more detailed system inventory information, refer to Technical Memorandum #3: Existing Transportation Facilities Inventory and Analysis in the Reference Material.)*

2.4.1. Roadway Inventory

The OR 99 corridor is part of the National Highway System (NHS) and is designated as a district highway in the Oregon classification system. It serves local and regional vehicular and freight traffic as well as transit, bicycles and pedestrians. Through the study area, OR 99 parallels Interstate 5 (I-5) to the west with occasional connections between the two facilities. Table 4 presents a summary of the corridor study area roadways and classifications. Additionally, the function of the OR 99 corridor will be influenced by the Phoenix Special Transportation Area[4] (STA) which includes Main Street and Bear Creek Drive from 5th Street to Oak Street.

The OR 99 corridor has four connections to I-5 in the study area:

1. **Interchange 27 (South Medford)** is an urban interchange that serves the entire southern part of Medford and connects I-5 with the city's commercial core and OR 99. The interchange is a Single Point Urban Interchange that brings the I-5 northbound and southbound ramps to a single Intersection with Garfield Street/Highland Drive.
2. **Interchange 24 (Fern Valley)** provides access to the City of Phoenix via signalized intersections on Fern Valley Road. The interchange is a standard diamond interchange with frontage roads on both sides of the freeway. Construction of a diverging diamond interchange configuration is underway. Improvements associated with the Fern Valley Interchange (FVI) upgrade extend to OR 99 and the Fern Valley Road and Bolz Road intersection will be reconstructed. Fern Valley Road will become N. Phoenix Road at OR 99 when construction is complete.
3. **Interchange 21 (West Valley View)** provides access to the City of Talent via STOP-controlled intersections on W. Valley View Road. The interchange has a gull wing configuration for the northbound freeway ramp terminals and a half-diamond configuration for the southbound terminals.
4. **Interchange 19 (North Ashland)** provides the main link between the I-5 corridor and the northern end of Ashland via OR-99, which intersects S. Valley View Road approximately

[4] "A Special Transportation Area (STA) is a designated district of compact development located on a state highway within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility except on designated OHP Freight Routes where through highway mobility has greater importance." Policy 1B, 1999 Oregon Highway Plan.

2,500 feet south of the interchange. Currently a two-lane facility, S. Valley View Road carries high volumes because of significant intraregional trips between Ashland and Medford as well as serving local residents and businesses in the interchange vicinity. S. Valley View Road is planned for expansion into a five-lane facility between the interchange and the OR 99 intersection.

Table 4. OR 99 Roadway Characteristics

Roadway/ Highway Name	ODOT[1]/Federal[2] Functional Classification	Posted Speed	No. of Lanes	Direction of Travel
South Medford Segment *(Garfield St to South Stage Rd)*				
Garfield St through South Stage Rd	District Highway/ Principal Arterial	45 mph	5	NB/SB
Medford to Phoenix Transition (South Stage Rd to Cheryl Ln)				
South Stage Rd to Coleman Creek	District Highway/ Principal Arterial	45 mph	5	NB/SB
Phoenix Segment *(Cheryl Ln to Phoenix S. City Limits)*				
Coleman Creek to Downtown Couplet	District Highway/ Principal Arterial	30 mph	4-5	NB/SB
Bear Creek Dr *(Downtown Couplet)*	District Highway & Special Transportation Area/ Principal Arterial	35 mph	2	NB
Main St *(Downtown Couplet)*		30 mph	2	SB
Downtown Couplet to Phoenix S. City Limits	District Highway/ Principal Arterial	40 mph	4	NB/SB
Phoenix to Talent Transition *(Phoenix S. City Limits to Colver/Suncrest Rd)*				
Phoenix S. City Limits to Cabbage Ln	District Highway/ Principal Arterial	50 mph	4	NB/SB
Cabbage Ln to Colver/ Suncrest Rd	District Highway/ Principal Arterial	55 mph	4	NB/SB
Talent Segment *(Colver/Suncrest Rd Talent S. City Limits)*				
Colver/Suncrest Rd to Wagner Creek	District Highway/ Principal Arterial	40 mph	5	NB/SB
Wagner Creek to Rapp Rd	District Highway/ Principal Arterial	45 mph	5	NB/SB
Rapp Rd to Talent S. City Limits	District Highway/ Principal Arterial	45 mph	4	NB/SB
Talent to Ashland Transition *(Talent S. City Limits to S. Valley View Rd)*				
Talent S. City Limits to S. Valley View Rd	District Highway/ Principal Arterial	55 mph	4	NB/SB

Notes:
1. 1999 Oregon Highway Plan
2. ODOT Transportation Maps, http://www.oregon.gov/ODOT/TD/TDATA/Pages/gis/citymaps.aspx

Lane and Shoulder Widths

Travel lanes are currently 12 feet or greater throughout the OR 99 corridor. Some of the curb lanes are as wide as 16 feet but must also accommodate bicycle traffic because there are no striped bike lanes in these areas. The FVI improvements will add 5-foot bike lanes on OR 99 by narrowing travel lane widths to 11 feet between Coleman Creek and 6th Street.

The OR 99 corridor has curbs from the northern project terminus in Medford through the couplet in Phoenix. South of the Phoenix couplet, OR 99 has four travel lanes with 1- to 2-foot shoulders which extend to the north city limits of Talent. From Rapp Road in Talent to the southern project terminus, the roadway also consists of four travel lanes with 1- to 2-foot shoulders.

Right of Way

Right of way (ROW) is constrained by adjacent development along much of OR 99. In some areas, particularly north of Phoenix, the ROW is only wide enough to accommodate the paved roadway surface and sidewalks, if they exist, are located outside the ROW. Other areas have sufficient ROW to accommodate existing infrastructure and planned improvements.

Access Inventory

Refer to *Section 5. Access Management Plan*.

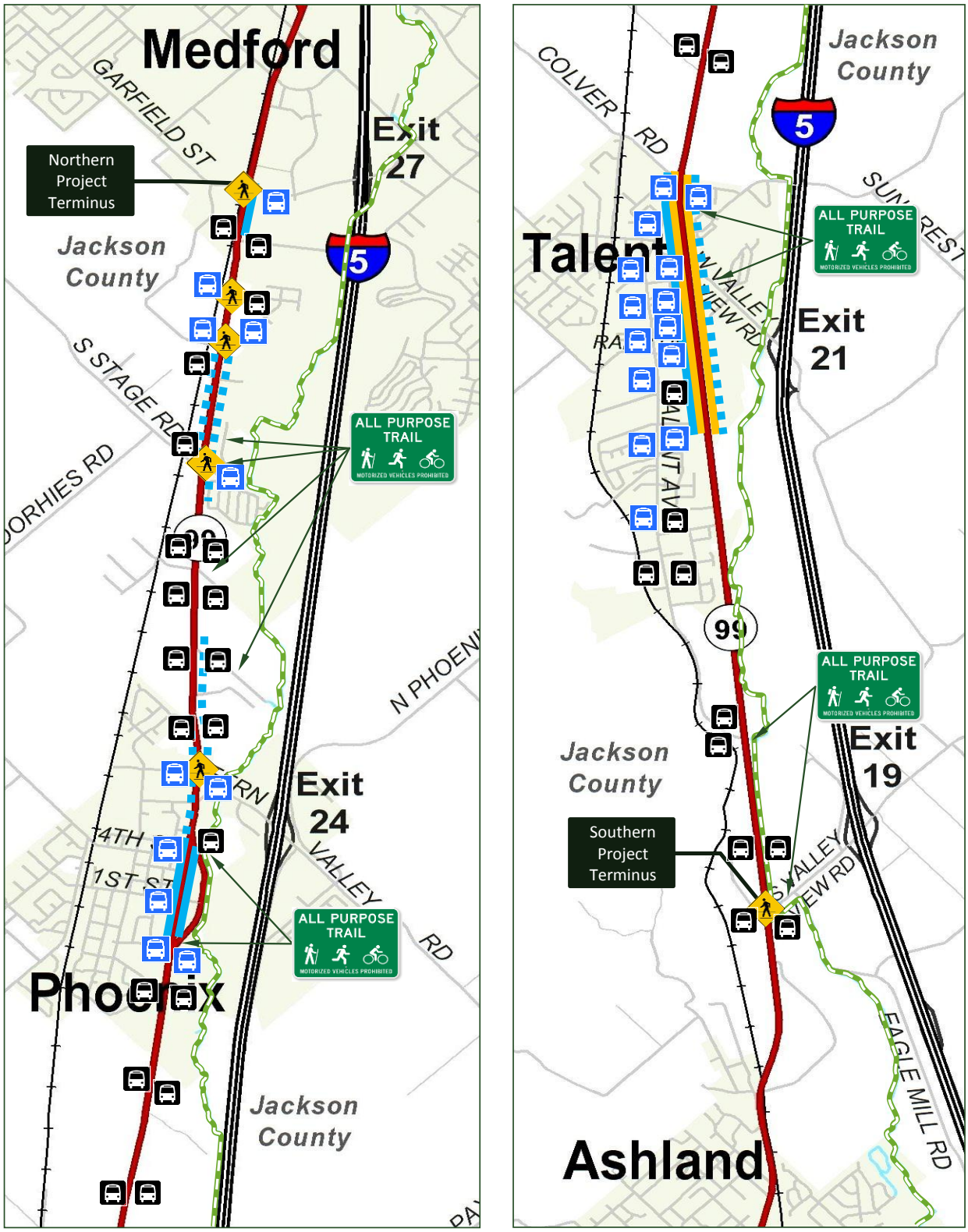
2.4.2. Pedestrian and Bicycle Facilities Inventory

The bicycle and pedestrian facilities along OR 99 are limited throughout the corridor area. The Bear Creek Greenway is a regional bicycle and pedestrian facility that generally parallels I-5. With recent completion of a segment of the greenway in the vicinity of Interchange 27 as part of the South Medford Interchange project, the multi-use trail is now a continuous 21-mile path between I-5 Exit 35 north of Central Point to Oak Street in Ashland. Figure 4 illustrates the location of existing facilities and Table 5 provides more detail regarding other pedestrian and bicycle facilities along OR 99.

Table 5. Corridor Pedestrian and Bicycle Inventory

Segment	Pedestrian Facilities	Bicycle Facilities
All Segments	• Access to Bear Creek Greenway northeast of OR 99	• Access to Bear Creek Greenway northeast of OR 99
South Medford Segment *(Garfield St to South Stage Rd)*	• Occasional marked crosswalks • Sidewalk on the northeastern side from Garfield St to Charlotte Anne Rd • Intermittent sidewalks often of substandard width or in poor condition	• No on-street bike facilities
Medford to Phoenix Transition *(South Stage Rd to Cheryl Ln)*	• Intermittent sidewalks often of substandard width or in poor condition	• Inadequate shoulders
Phoenix Segment[1] *(Cheryl Ln to Phoenix South City Limits)*	*North of Couplet:* • Continuous sidewalks on west side, sporadic sidewalks on east side of OR 99 • Crosswalks at Fern Valley Road and E. Bolz Road *Bear Creek/N. Main Couplet* • Continuous sidewalk on both sides of N. Main Street • No sidewalks along Bear Creek Drive • Crosswalk at 3rd Street and Main Street *South of Couplet:* • No sidewalks present	• No on-street bike facilities • Bike lanes will be striped (south of Coleman Creek through Bolz Road) with Fern Valley Interchange project
Phoenix to Talent Transition *(Phoenix South City Limits to Colver/Suncrest Rd)*	• No sidewalks present	• Inadequate shoulders
Talent Segment[2] *(Colver/Suncrest Rd Talent South City Limits)*	*Colver/Suncrest Rd to Rapp Rd* • Continuous sidewalks on southwest side • Incomplete sidewalks on northeast side • Crosswalks at Colver/Suncrest Rd, W. Valley View Rd, and Rapp Rd *South of Rapp Rd* • No sidewalks present	*Colver/Suncrest Rd to Rapp Rd* • Continuous bike facilities on both sides to south of Rapp Rd *South of Rapp Rd* • No on-street bike facilities
Talent to Ashland Transition *(Talent South City Limits to S. Valley View Rd)*	• No sidewalks present	• Inadequate shoulders

Notes:
1. The Fern Valley Interchange project will add bike lanes along OR 99 from Coleman Creek southward through Bolz Road and the OR 99 intersections with both Fern Valley Road (existing) and Bolz Road (future) will have traffic signals with crosswalks.
2. The Statewide Transportation Improvement Program project in Talent (Key Number 17478) will include sidewalks and bike lanes on both sides of OR 99 from Rapp Road southward through Creel Road.



OR 99 Rogue Valley Corridor Plan

Legend

- Signalized crosswalk
- Bus stop with connecting pedestrian facilities
- Bus stop with limited connecting pedestrian facilities
- Continuous bike lane
- Continuous sidewalk
- Substandard/discontinuous sidewalk
- Bear Creek Greenway
- Access to Bear Creek Greenway

Figure 4

Pedestrian, Bicycle, and Transit Facilities

2.4.3. Transit Inventory

Rogue Valley Transportation District (RVTD) operates one transit route through the study area: Route 10. Route 10 travels the entire length of the corridor Monday through Friday, three times each hour, between the hours of 5:00 am and 6:30 pm. The route runs along OR 99 in the study area except in Talent, where it runs along Talent Avenue. More than 30 stops are located within the study area, as shown in Figure 4.

RVTD is also exploring options for providing High Capacity Transit (HCT) and Transit Signal Priority (TSP) between Central Point and Ashland along the OR 99 corridor. The process is in the early stages of development focusing on community perception of transit enhancements. The goal of HCT and TSP would be to provide improved travel times and schedule reliability along the OR 99 corridor. HCT options could include express bus service, Bus Rapid Transit (BRT), and commuter rail service. TSP would reduce dwell time at signalized intersections.

In conjunction with the community perceptions work, RVTD is completing an Operational analysis to better understand the capital and funding requirements to implement HCT and has documented the schedule reliability and passenger capacity issues experienced along the corridor. RVTD has many of the HCT elements in place already, such as low-floor buses, an upcoming electronic fare collection system and a strong marketing program. RVTD is now pursuing transit signal priority along the corridor.

2.4.4. Highway Freight Inventory

Although not a designated freight route, OR 99 is part of the NHS and must provide freight access according to federal regulations. Historically, oversize or overweight trucks are occasionally routed along OR 99 and must be accommodated in the future as well. More information regarding the truck distribution throughout the study area can be found in the Freight Traffic discussion of this report.

2.4.5. Intelligent Transportation Systems (ITS) Inventory

The Rogue Valley region has a sizeable amount of ITS infrastructure currently in place[5]. Along the OR 99 corridor the predominant ITS systems are Automatic Traffic Recorders (ATRs) and Closed-Circuit Television (CCTV) Cameras. Additional ATRs and CCTV Cameras are planned in the next 20 years. Three of the ATRs are planned for the 6-10 year horizon, while the remaining one is planned for the 11-20 year horizon. The two new CCTV Cameras are also planned for the 11-20 year horizon.

[5] I-5 Rogue Valley Corridor Study Technical Memorandum #2 Data Collection and Review of Existing Plans Figure 9-1. David Evans and Associates, Inc. August 2009

2.4.6. Rail Inventory

The Central Oregon and Pacific Railroad (reporting mark "CORP") is a short line railroad owned by Genessee and Wyoming, Inc. The CORP line runs parallel to the OR 99 corridor throughout the study area. Currently, the railroad line exclusively carries freight with 90 percent of the delivery consisting of forest products.

No passenger rail service is available in the Rogue Valley; the closest available is AMTRAK located in Klamath Falls, Oregon. Maximum speeds on the CORP line are currently limited to 25 mph or less. Hence, improvements necessary to provide a competitive passenger rail service from Eugene south to Medford and beyond would require substantial reconstruction.

2.5. Existing Operations and Safety

Existing traffic analysis includes development of Year 2010 existing traffic volumes, traffic operations evaluation and a review of historical crash patterns. *(For more detailed data and evaluation results, refer to Technical Memorandum #3: Existing Transportation Facilities Inventory and Analysis in the Reference Material.)*

2.5.1. Existing Traffic Volumes

Existing traffic volume data is presented in Figure 5. Data provided by ODOT's Transportation Systems Monitoring Unit includes intersection traffic counts collected primarily in Year 2010.

Average Daily Traffic (ADT) Volumes

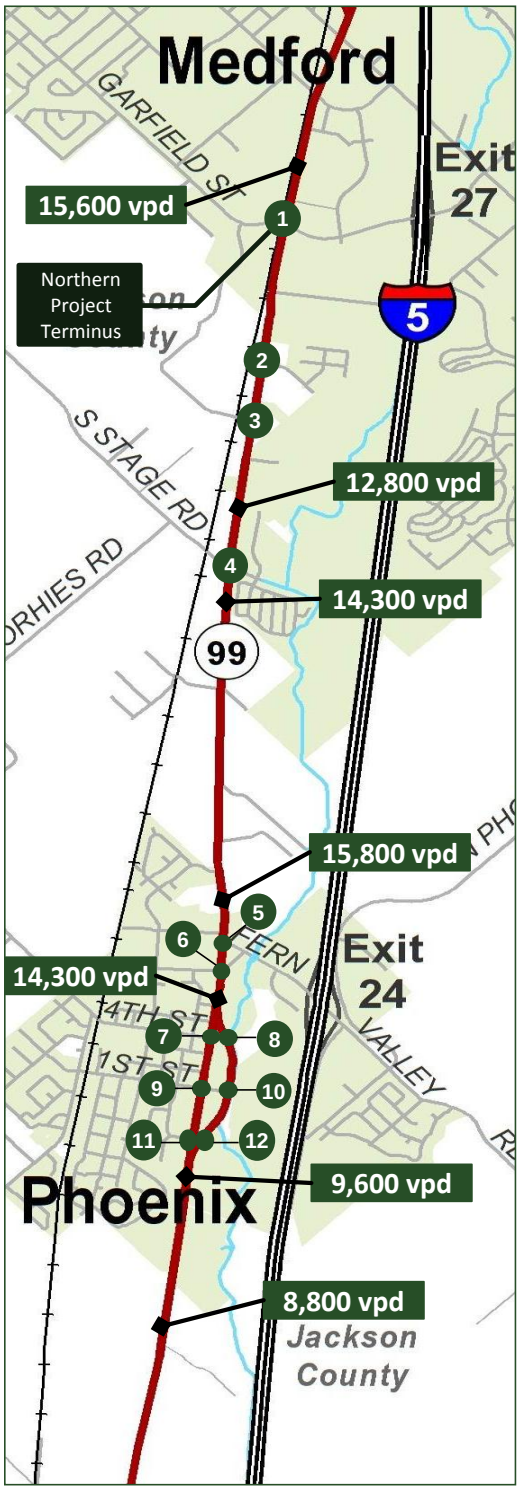
Annual traffic volumes on OR 99 have varied considerably over recent years.[6] Current volumes peak at nearly 16,000 vehicles per day (vpd) north of Fern Valley Road in Phoenix to a low of over 8,000 vpd near the north Talent city limits.

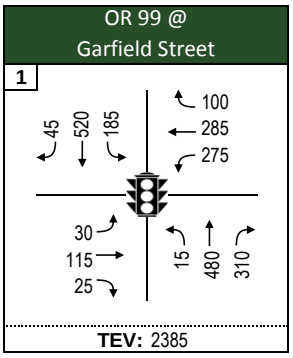
Design Hourly Volumes

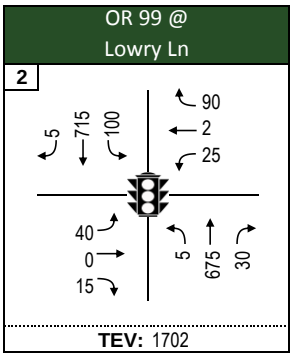
Turning movement count data was collected primarily in the summer of Year 2010. Traffic volumes were seasonally adjusted to correspond to traffic volumes that are seen during the peak months of the year (July/August), also known as the Design Hourly Volume[7] (DHV). Volumes were balanced to achieve a uniform dataset for analysis. Figure 5 shows the existing balanced PM peak hour volumes developed for this project.

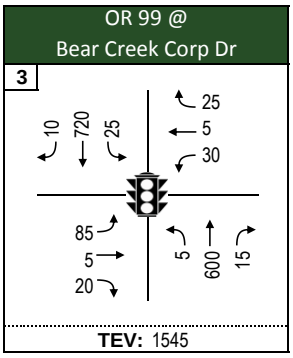
[6] Lower present-day traffic volumes on OR 99 are consistent with trends throughout the state and likely reflect the economic downturn that influenced driver behavior.

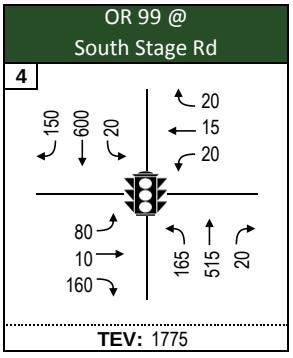
[7] Design hourly volumes were developed following the practices outlined in ODOT's Analysis Procedures Manual, website: http://www.oregon.gov/ODOT/TD/TP/pages/apm.aspx.

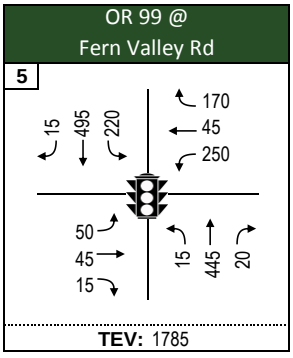


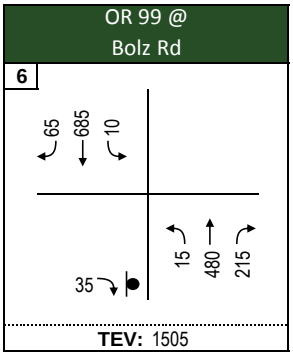


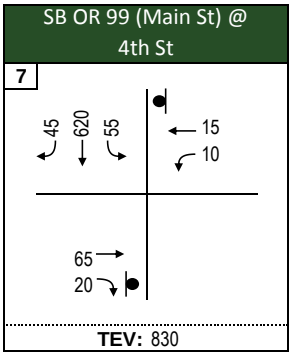


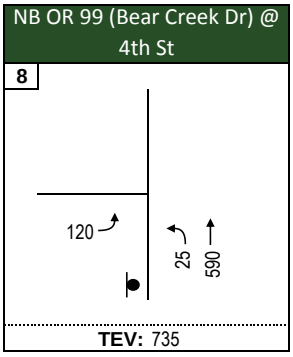


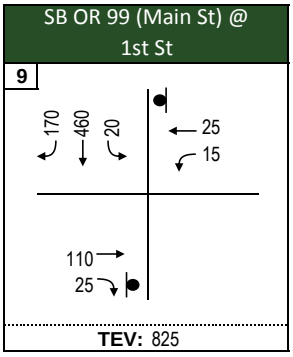


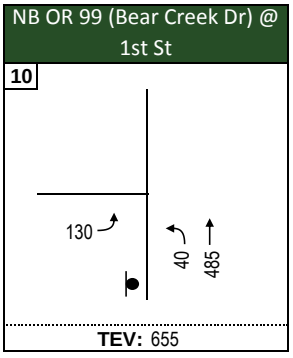


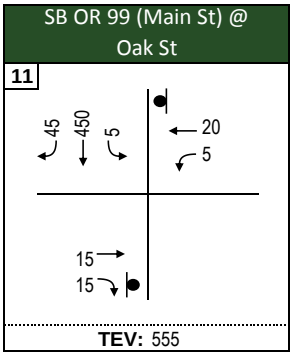


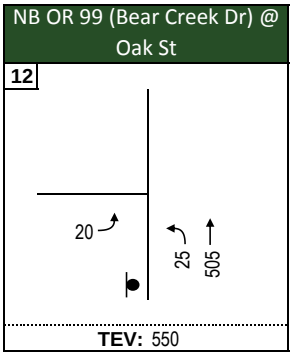












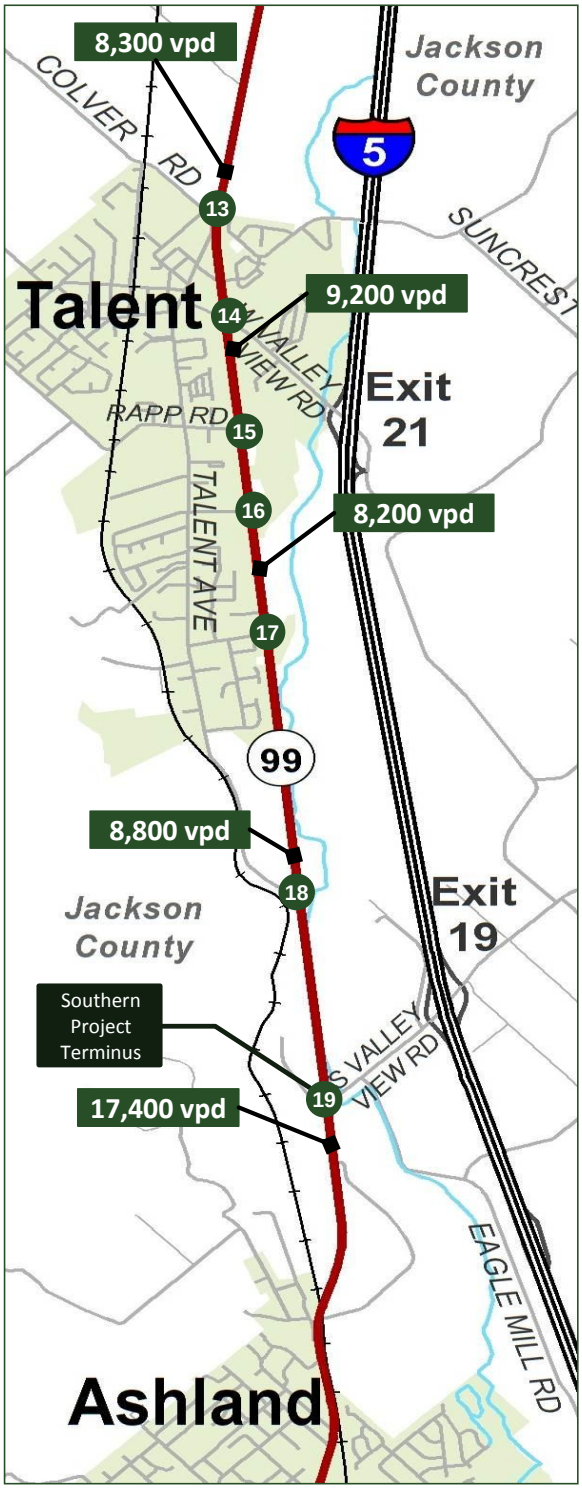
OR 99 Rogue Valley Corridor Plan

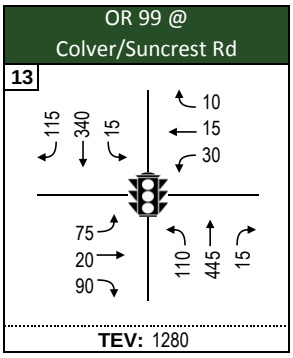
Legend

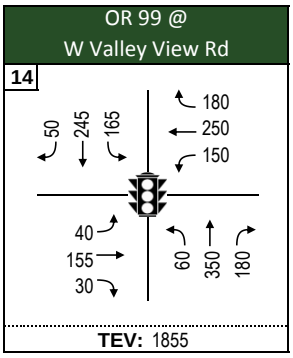
- Turning Movement
- ### PM Peak Hour Volume
- **TEV** Total Entering Volume
- # Intersection Number
- Signalized Intersection
- STOP Controlled Intersection
- **#,### vpd** Average Daily Traffic Volume
  vpd = vehicles per day

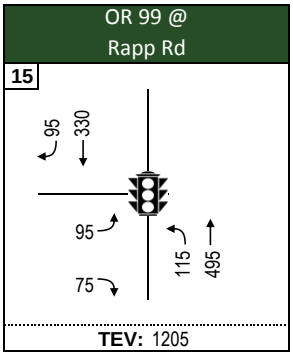
Figure 5

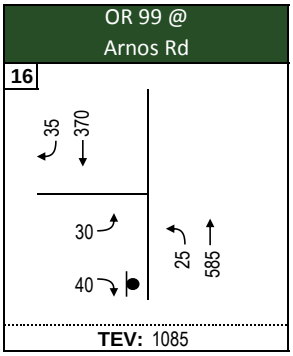
Existing (2010) Traffic Volumes
North Section

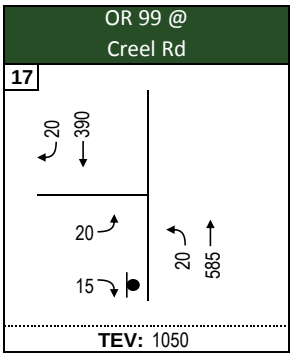


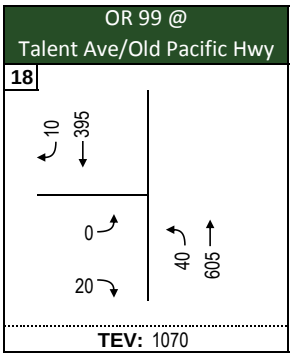


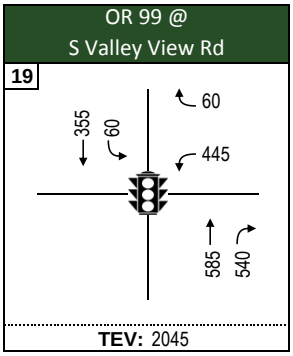












OR 99 Rogue Valley Corridor Plan

Legend

- ⟶ Turning Movement
- ### PM Peak Hour Volume
- **TEV** Total Entering Volume
- # Intersection Number
- Signalized Intersection
- STOP Controlled Intersection
- **#,### vpd** Average Daily Traffic Volume
  vpd = vehicles per day

Figure 5

Existing (2010) Traffic Volumes
South Section

Freight Traffic

Trucks are an important component of traffic for any corridor. According to the classification breakdown for ATR 15-014 (Talent), trucks comprise less than 4% of the total average annual daily traffic in the area. The intersection traffic counts also show relatively low truck percentages. However, this corridor is home to a major agricultural and manufacturing plant, Bear Creek Corporation (also known as Harry and David). Bear Creek Corporation is located between Medford and Phoenix. While it may bring in produce from a variety of sources, it also utilizes the agricultural land located in the Phoenix/Talent area. At harvest time (generally late summer/early fall) truck traffic between the crop sites and manufacturing facility peaks.

Fern Valley Road currently has weight restrictions at its crossing of Bear Creek. This bridge will be replaced as part of the FVI improvements. Without the weight restrictions, freight volumes between I-5 Exit 24 and OR 99 may increase but changes are not anticipated to be substantial. Any increase in volume would likely be the result of truck traffic shifting back from other connections between the freeway and OR 99 (Garfield Street at Exit 27 and W. Valley View Road at Exit 21).

2.5.2. Existing Traffic Operations

Traffic operations were evaluated at the 19 corridor intersections and summarized in Table 6. These findings reflect the 2010 signal timing plans implemented by ODOT at all signalized corridor intersections.

Traffic operations are acceptable under existing conditions throughout the corridor. The highest overall or critical movement v/c ratio throughout the corridor is 0.76, and the worst LOS is C. Furthermore, none of the study intersections currently exceed applicable mobility standards.

Only two intersections, OR 99 at Fern Valley Road and at S. Valley View Road, have queuing that either exceeds available storage or extends past the nearest upstream intersection.

2.5.3. Crash History Analysis

A crash history analysis was conducted to determine whether any significant, documented safety issues exist. As part of the crash analysis, historical crash data were reviewed, intersection and segment crash rates were calculated, and the state's SPIS (Safety Priority Index System) was examined. The crash analysis included a review of crash history data supplied by the ODOT Crash Data System (CDS) for the period between January 1, 2005, and December 31, 2009, which were the five (5) most recent full years for which crash data were available at the time of the analysis.

Table 6. Existing (2010) Design Hour Intersection Operations

Intersection	Critical[1] Movement	2010 PM Peak Hour			Operational Targets/Standards[3]	
		V/C Ratio[2]	LOS[2]	Delay[2] (sec.)	OHP	Local
Medford Segment						
1. OR 99 @ Garfield St (Signalized)	Overall	0.53	C	21	0.95	D
2. OR 99 @ Lowry Ln (Signalized)	Overall	0.47	A	8	0.95	D
3. OR 99 @ Bear Creek Corp Dr (Signalized)	Overall	0.35	A	6	0.95	D
4. OR 99 @ South Stage Rd (Signalized)	Overall	0.53	B	13	0.95	D
Phoenix Segment						
5. OR 99 @ Fern Valley Rd (Signalized)	Overall	0.63	C	38	0.95	0.90
6. OR 99 @ Bolz Rd	SB T/R	0.28	A	2	0.95	0.90
7. SB OR 99 (N Main St) @ 4th St	EB T/R	0.32	C	10	1.0	0.95
8. NB OR 99 (Bear Creek Dr) @ 4th St	NB L/T	0.25	A	1	1.0	0.95
9. SB OR 99 (N Main St) @ 1st St	EB T/R	0.40	C	9	1.0	0.95
10. NB OR 99 (Bear Creek Dr) @ 1st St	EB L	0.27	B	8	1.0	0.95
11. SB OR 99 (N Main St) @ Oak St	SB T/R	0.19	A	1	1.0	0.95
12. NB OR 99 (Bear Creek Dr) @ Oak St	NB L/T	0.22	A	2	1.0	0.95
Talent Segment						
13. OR 99 @ Colver/Suncrest Rd (Signalized)	Overall	0.41	A	8	0.95	NA
14. OR 99 @ W Valley View Rd (Signalized)	Overall	0.56	B	16	0.95	NA
15. OR 99 @ Rapp Rd (Signalized)	Overall	0.44	B	9	0.95	NA
16. OR 99 @ Arnos Rd	NB L/T	0.23	A	4	0.95	NA
17. OR 99 @ Creel Rd	NB L/T	0.24	A	5	0.95	NA
Talent to Ashland Transition						
18. OR 99 @ Talent Avenue/Old Pacific Hwy	NB L/T	0.25	A	8	0.95	--
19. OR 99 @ S Valley View Road (Signalized)	Overall	0.76	C	26	0.95	--

Acronyms: For intersection approaches NB = northbound, SB = southbound, EB = eastbound, and WB = westbound. At the intersection approach L = left-turn movement, T = through movement, and R right-turn movement. Some approaches have shared lanes where two or more travel movements may be permitted as indicated with a slash. NA = Not Available

Notes:

1. The critical movement at a signalized intersection is the overall operation of the intersection. The critical movement at an unsignalized intersection is the movement with the worst v/c ratio.
2. The v/c ratio and LOS are provided from Synchro HCM Intersection Analysis Reports, while delay and queuing values are from SimTraffic.
3. Mobility targets are drawn from Table 6 of the 1999 OHP and standards are from corresponding local TSPs. All study area intersections are within the UGB and MPO.

Shaded results indicate where mobility standards are not met

The CDS includes 294 crashes in the corridor, as shown in Figure 6. Thirteen (13) crashes, about 4 percent, resulted in incapacitating injuries. Another 147 crashes (50 percent) resulted in moderate or minor injuries. The remaining 134 crashes (46 percent) of the corridor crashes involved property damage only.

Crash Rates

The overall crash rate for the corridor is estimated at 1.75 crashes per million vehicle miles of travel (crashes/mvm). This rate is below the 2009 urban, non-freeway crash rate of 2.04[8]. Although portions of the corridor lie outside any city limits, the entire corridor lies within a major metropolitan planning area; thus, the analysis assumes the entire corridor is best described as urban.

Crashes by Collision Type and Location

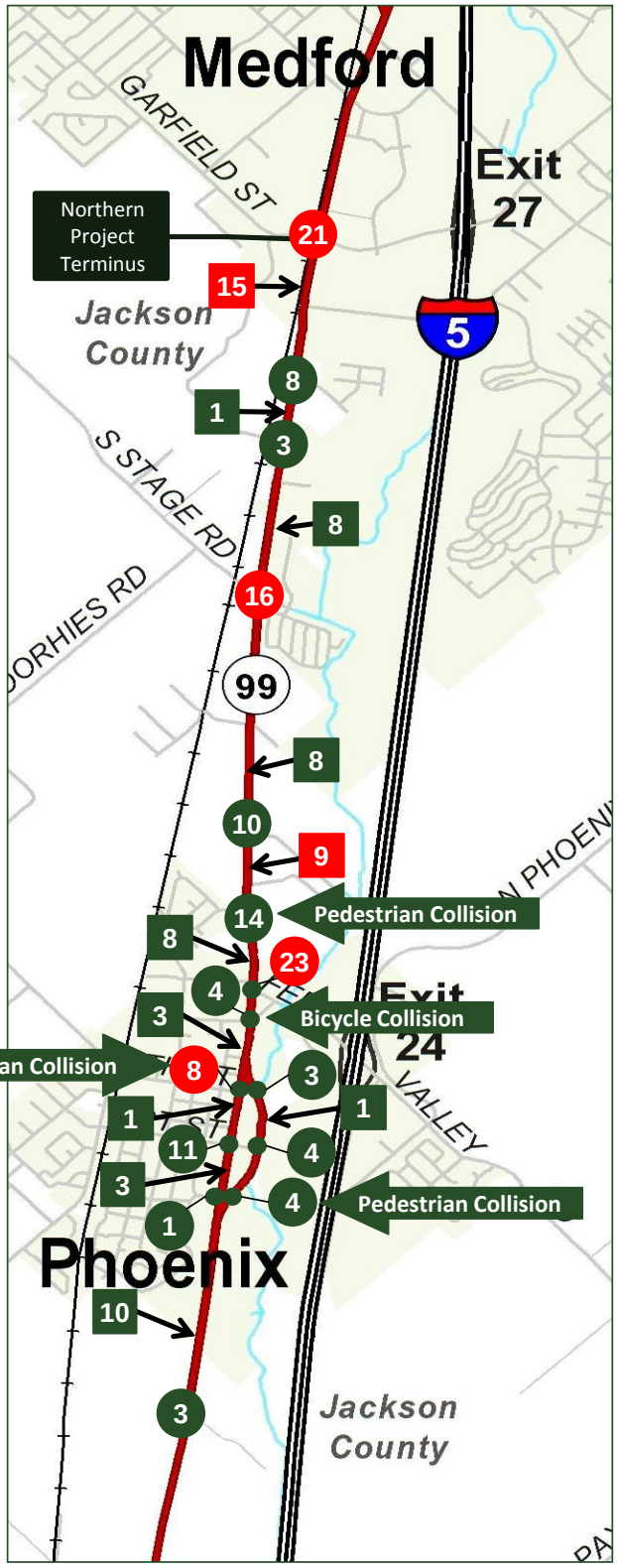
Approximately 40 percent of the corridor crashes occurred at one of the nine signalized intersections with OR 99. Rear end collisions occurred most frequently (50 percent) while turning collisions accounted for 29 percent and angle collisions accounted for 13 percent of the signalized intersection crashes. The remaining 8 percent of collisions are attributed to several other crash types. The locations with the greatest number of crashes include OR 99 at Fern Valley Road (23), Garfield Street (21), W. Valley View Road (21), and South Stage Road (16).

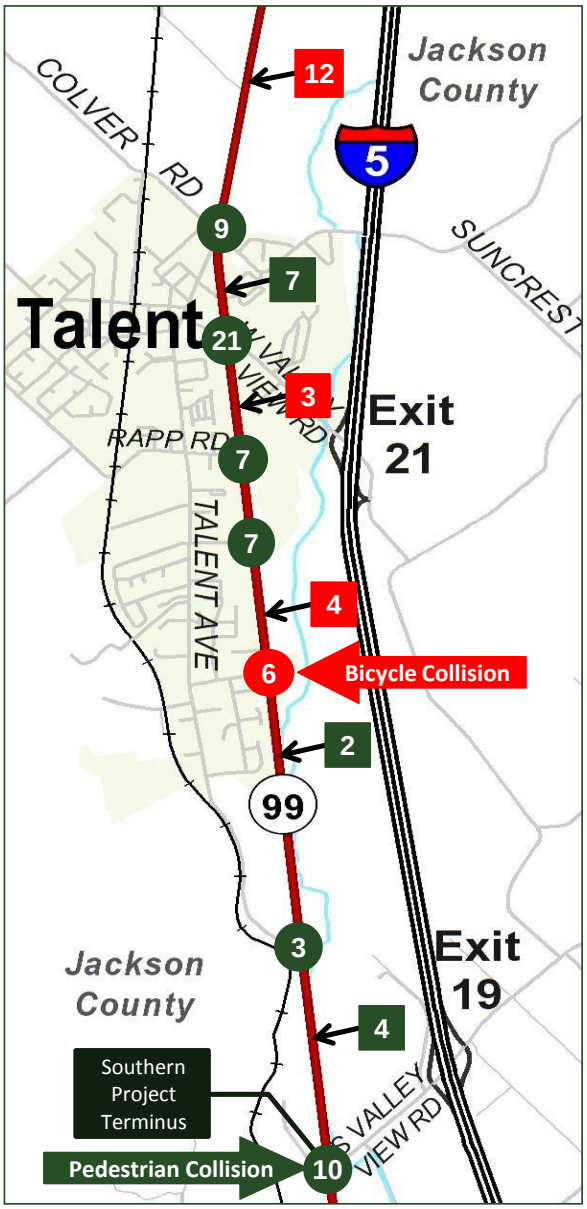
The remaining 60 percent of the corridor crashes occurred at unsignalized intersections or along roadway segments. Turning collisions related to unsignalized intersections or driveways accounted for 41 percent of these crashes while rear end collisions only accounted for 26 percent and angle collisions were 4 percent. Fixed object collisions (10 percent) and overtaking sideswipe collisions (9 percent) were more common on the sections where turning activity associated with driveways was not a factor. In general, the segment between South Stage Road and Fern Valley Road had a high frequency of crashes (49 total) with 14 located at or near Rose Street and 10 located at or near Northridge Terrace. Main Street (southbound OR 99) at 1st Street was another unsignalized location with a higher frequency of crashes (11 total).

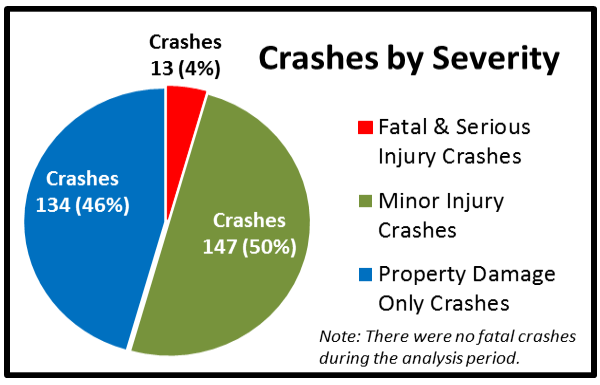
The corridor had four crashes involving pedestrians and two involving bicycles during the five-year analysis period. Two pedestrian collisions and one bicycle collision occurred within the Phoenix city limits where the posted speed is 30 miles per hour A third pedestrian collision occurred on Bear Creek Drive in Phoenix when the posted was 40 mph[9]. One bicycle collision occurred at the Creel Road intersection in Talent where the posted speed is 45 mph. One pedestrian collision occurred at S. Valley View Road, where the posted speed is 45 mph.

[8] 2009 Oregon State Highway Crash Rate Tables, p. 5, ODOT, August 2010.

[9] Posted speed on OR 99 was modified from 40 mph to 35 mph by Speed Zone Order J8717 on January 8, 2014.







OR 99 Rogue Valley Corridor Plan

Legend

- # Intersection Crashes
- # Crashes between Intersections
- Locations where a serious injury resulted
- Locations with minor injuries or propery damage only

Figure 6

Summary of Crash History (January 1, 2005 through December 31, 2009)

Safety Priority Index System (SPIS)

The SPIS is a method used in Oregon to identify safety problem areas along state highways. Highways are evaluated in approximately one-tenth mile increments (often grouped into larger segments). Each year these segments are ranked by assigning a SPIS score based on the frequency and severity of crashes observed, while taking traffic volume into account. When a segment is ranked in the worst 10 percent of the index, a crash analysis is typically warranted and corrective actions are considered. There were no segments identified in the worst 10 percent of the 2010 SPIS rankings within the corridor which coincides with the five-year crash analysis period.

The more recent Year 2012 and 2013 SPIS databases both include some segments in the OR 99 study corridor. A worst 5 percent ranking for OR 99 intersection with Garfield Street was identified in both databases. A worst 10 percent ranking was identified for segments around Northridge Terrace (2012) and Rose Street (2013) as well as the Fern Valley Road (2012) intersection. All of these locations showed as having a high number of crashes in the analysis of the five years of crash data from 2005 through 2009.

2.6. Future Baseline Conditions

The analysis of future baseline (Year 2034) conditions examines long-term highway operational and safety concerns. *(For more detailed data and evaluation results, refer to Technical Memorandum #4: Future Baseline Conditions in the Reference Material.)*

2.6.1. Transportation Network Assumptions

The network used in the forecasts for the OR 99 corridor is a future network that includes projects from the financially-constrained Tier 1 project lists in the RVMPO's Regional Transportation Plan (RTP). These projects have known funding sources or are likely to be funded in the next 20 years. Many of the projects identified in the RTP are sidewalk and bicycle projects that are not directly reflected in the traffic forecasts; however, the Fern Valley Interchange improvements (I-5 Exit 24) are incorporated into both the forecasts and the analysis. Additionally, Lithia Springs, a development in north Ashland which has recently added a new connection to OR 99 opposite S. Valley View Road, is also included in the forecasts and analysis.

2.6.2. Future Traffic Volumes

Turning movement traffic forecasts for intersections were developed for the Year 2034 using the RVMPO v1[10] forecasting model and the Year 2010 existing traffic data. The process followed the procedures from ODOT's Analysis Procedures Manual (APM). The resulting volumes are shown in Figure 7.

Traffic volumes have seen a decline over the past several years due to recent fluctuations in the economy as well as other behavioral trends. Because of this decline, developing traffic volume forecasts based on the existing year counts and the travel demand model forecasts may result in lower volumes than would have been estimated just a few years ago. As such, a second future scenario was evaluated that applies a fifteen percent upward adjustment to the baseline scenario volumes to create a sensitivity analysis. These higher volumes allow for an analysis of operations under the assumption that we experience an economic rebound or other behavioral changes that results in an increase in traffic volumes, to examine the possibility of other system deficiencies. The resulting volumes are shown in Figure 7 in parentheses ().

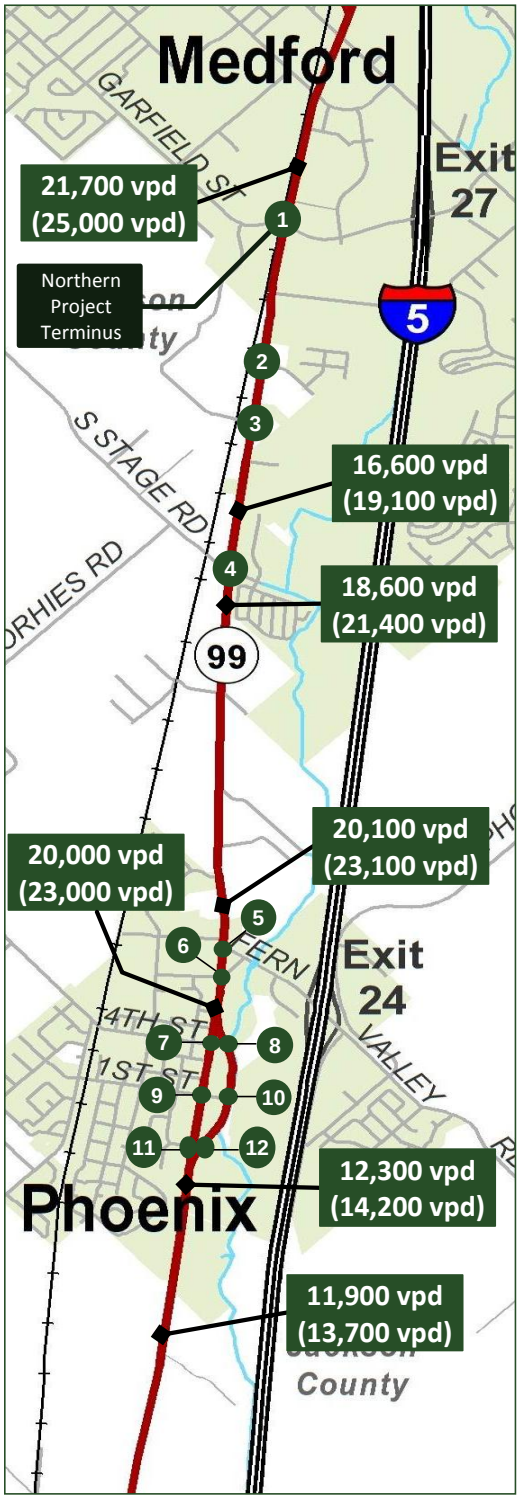
2.6.3. Future Traffic Operations

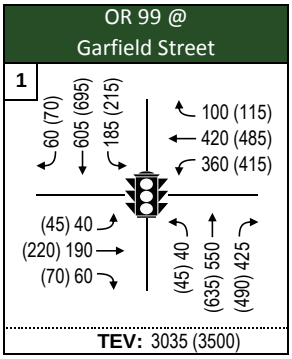
Future traffic operations were evaluated at the corridor intersections for the two future scenarios. All traffic signal timing and phasing was assumed to be optimized and coordinated (where applicable). Table 7 summarizes the results of the future traffic operations analysis.

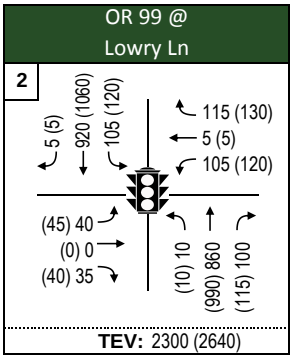
Traffic operations would be acceptable under future baseline conditions throughout the corridor. The worst LOS in the corridor would be E for the stopped side-street movement at two unsignalized intersections.

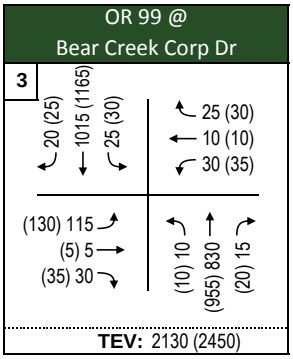
With the sensitivity volumes, traffic operations would be acceptable under future conditions throughout the corridor, with one exception. The signalized intersection of OR 99 at S Valley View Road would exceed OHP operational standards and capacity with a v/c ratio of 1.01 and an LOS of E. None of the other intersections would fail to meet v/c ratio standards. The worst LOS in the corridor would be F for stopped side-street movements at two unsignalized intersections.

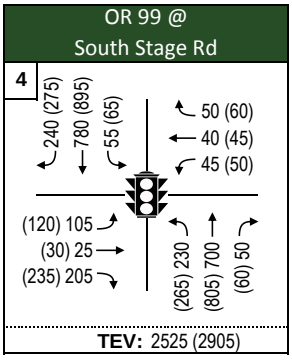
[1010] The RVMPO v1 has a base year of 2002 and a forecast year of 2030. While there was a newer version of the travel demand model (RVMPO v2) when the traffic forecasts for the Corridor Plan were developed, the v1 model provided the most consistent results for the OR 99 study area.

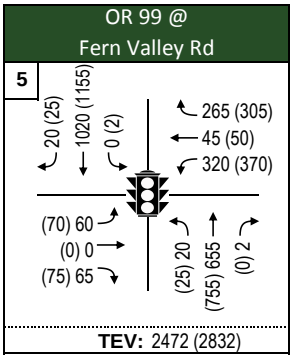


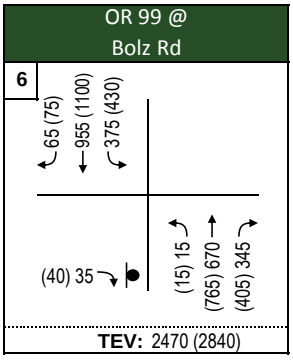


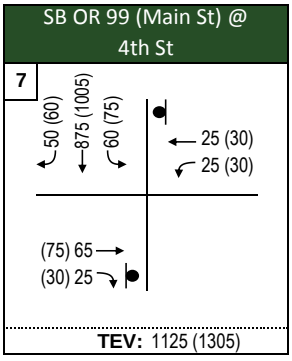


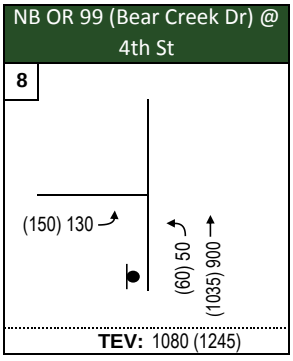


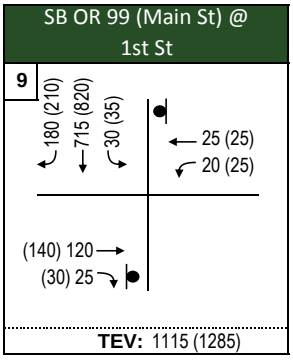


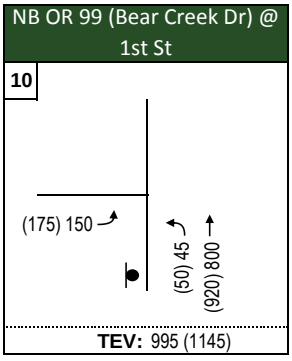


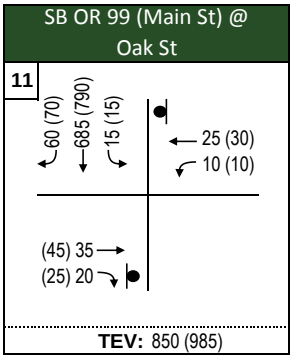


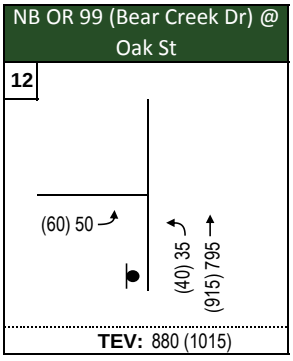












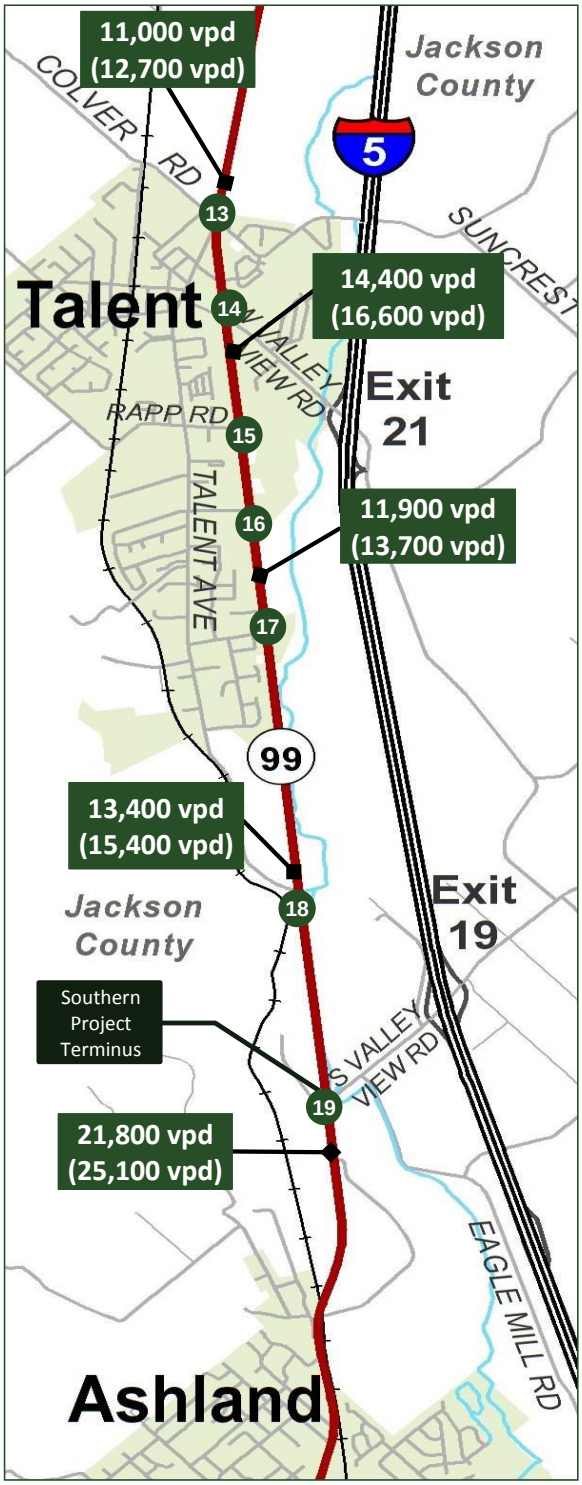
OR 99 Rogue Valley Corridor Plan

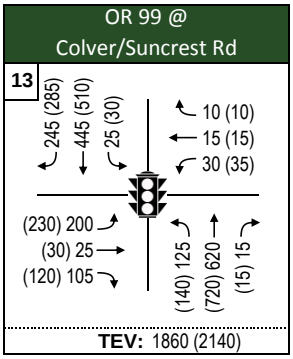
Legend

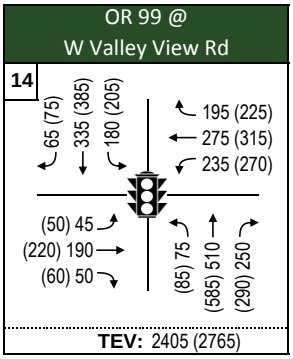
- Turning Movement
- ### PM Peak Hour Volume
- **TEV** Total Entering Volume
- # Intersection Number
- Signalized Intersection
- STOP Controlled Intersection
- **#,### vpd (#,###) vpd** Average Daily Traffic Volume Future Baseline Scenario (Future Sensitivity Scenario) vpd = vehicles per day

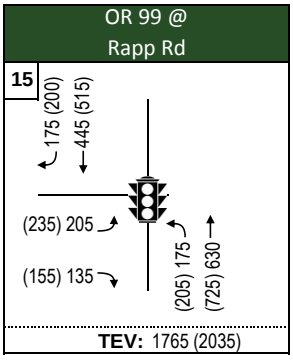
Figure 7

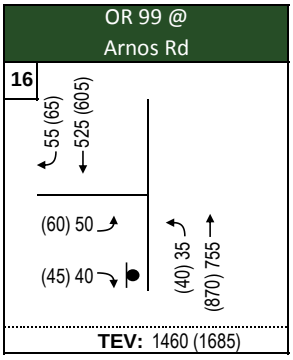
Future (2034) Baseline Traffic Volumes
North Section

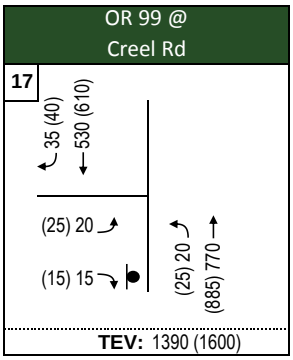


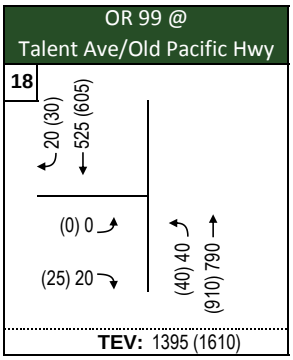


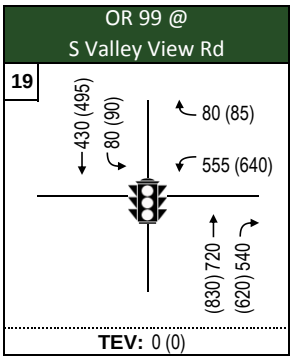












OR 99 Rogue Valley Corridor Plan

Legend

- Turning Movement
- ### PM Peak Hour Volume
- **TEV** Total Entering Volume
- # Intersection Number
- Signalized Intersection
- STOP Controlled Intersection
- **#,### vpd / (#,###) vpd** Average Daily Traffic Volume, Future Baseline Scenario (Future Sensitivity Scenario), vpd = vehicles per day

Figure 7

Future (2034) Baseline Traffic Volumes
South Section

Table 7. Future (2034) Baseline Scenario - Design Hour Intersection Operations

Intersection	Critical[1] Movement	2034 PM Peak Hour Baseline (Sensitivity)		Operational Targets/Standards[3]	
		V/C Ratio[2]	LOS[2]	OHP	City
Medford Segment					
1. OR 99 @ Garfield St (Signalized)	Overall	0.65 (0.75)	C (D)	0.95	D
2. OR 99 @ Lowry Ln (Signalized)	Overall	0.58 (0.66)	B (C)	0.95	D
3. OR 99 @ Bear Creek Corp Dr (Signalized)	Overall	0.46 (0.55)	A (A)	0.95	D
4. OR 99 @ South Stage Rd (Signalized)	Overall	0.75 (0.78)	C (C)	0.95	D
Phoenix Segment					
5. OR 99 @ Fern Valley Rd (Signalized)	Overall	0.61 (0.62)	B (B)	0.95	0.90
6. OR 99 @ Bolz Rd (Signalized)	Overall	0.43 (0.51)	B (B)	0.95	0.90
7. SB OR 99 (N Main St) @ 4th St	EB T/R	0.59 (0.73)	E (F)	1.0	0.95
8. NB OR 99 (Bear Creek Dr) @ 4th St	EB L	0.31 (0.42)	C (C)	1.0	0.95
9. SB OR 99 (N Main St) @ 1st St	EB T/R	0.59 (0.83)	E (F)	1.0	0.95
10. NB OR 99 (Bear Creek Dr) @ 1st St	EB L	0.33 (0.43)	A (C)	1.0	0.95
11. SB OR 99 (N Main St) @ Oak St	EB T/R	0.16 (0.24)	C (C)	1.0	0.95
12. NB OR 99 (Bear Creek Dr) @ Oak St	NB L/T	0.33 (0.14)	A (B)	1.0	0.95
Talent Segment					
13. OR 99 @ Colver/Suncrest Rd (Signalized)	Overall	0.57 (0.63)	B (B)	0.95	N.A.
14. OR 99 @ W Valley View Rd (Signalized)	Overall	0.83 (0.93)	D (C)	0.95	N.A.
15. OR 99 @ Rapp Rd (Signalized)	Overall	0.67 (0.76)	B (C)	0.95	N.A.
16. OR 99 @ Arnos Rd	EB L/R	0.29 (0.39)	C (D)	0.95	N.A.
17. OR 99 @ Creel Rd	EB L/R	0.11 (0.18)	C (C)	0.95	N.A.
Talent to Ashland Transition					
18. OR 99 @ Talent Ave/Old Pacific Hwy	EB L/R	0.04 (0.03)	B (B)	0.95	N.A.
19. OR 99 @ S Valley View Rd (Signalized)	Overall	0.87 **(1.01)**	D (E)	0.95	N.A.

Acronyms: For intersection approaches NB = northbound, SB = southbound, EB = eastbound, and WB = westbound. At the intersection approach L = left-turn movement, T = through movement, and R right-turn movement. Some approaches have shared lanes where two or more travel movements may be permitted as indicated with a slash.

Notes:

1. The critical movement at a signalized intersection is the overall operation of the intersection. The critical movement at an unsignalized intersection is the stopped (or yield) movement with the worst v/c ratio.
2. The v/c ratio and LOS are provided from Synchro HCM Intersection Analysis Reports, while delay and queuing values are from SimTraffic.
3. Mobility targets are drawn from Table 6 of the 1999 OHP and standards are from corresponding local TSPs. All study area intersections are within the UGB and MPO.

Shaded results indicate where mobility standards are not met

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3. SUMMARY OF HIGHWAY DEFICIENCIES

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3. SUMMARY OF HIGHWAY DEFICIENCIES

Deficiencies identified through the corridor inventory and operational analysis are summarized in Table 8.

Table 8. Summary of Deficiencies

Deficiency	Location	Related Goals
Roadway Inventory		
Substandard Shoulders	▪ Phoenix south city limits to Talent north city limits – Does not meet desired 8-ft shoulder or 4-ft minimum. ▪ Talent south city limits to Ashland north city limits – Does not meet desired 8-ft shoulder or 4-ft minimum.	▪ Mobility ▪ Safety ▪ Multimodal ▪ Livability
Pedestrian and Bicycle Facilities Inventory		
Limited Sidewalks	▪ Sidewalks are substandard (too narrow) or discontinuous for much of the corridor with some exceptions in downtown Phoenix and Talent. ▪ Utility poles in Phoenix are frequently located in the middle of existing sidewalks reducing the usable travel width.	▪ Mobility ▪ Safety ▪ Multimodal ▪ Livability
Limited Bike Facilities	▪ No bike lanes are striped on OR 99 except in Talent from Colver Rd to Rapp Rd ▪ Shoulders are generally too narrow to serve bicyclists. ▪ Bear Creek Greenway has limited function as a northbound bike facility from Talent Ave (south of the City of Talent) to S. Valley View Rd.	▪ Mobility ▪ Safety ▪ Multimodal ▪ Livability
Existing Traffic Operations and Safety		
Safety	▪ The locations with the greatest number of crashes include OR 99 at Fern Valley Rd (23), Garfield St (21), W. Valley View Rd (21), and South Stage Rd (16). ▪ High frequency of crashes along segments from Northridge Terrace to Coleman Creek culvert where there are several unsignalized intersections and numerous driveways ▪ Year 2012 & 2013 SPIS Rating in Worst 5% - Segment including Garfield St intersection ▪ Year 2012 SPIS Rating in Worst 10% - Segment around Northridge Terrace - Segment including Fern Valley Rd intersection ▪ Year 2013 SPIS Rating in Worst 10% - Segment around Rose Street	▪ Safety
Future Traffic Operations		
Operations	▪ One (1) intersection is expected to have a v/c ratio that would not meet the applicable mobility target under future conditions: - OR 99 @ S. Valley View Rd	▪ Mobility

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4. CORRIDOR PLAN IMPROVEMENTS

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4. CORRIDOR PLAN IMPROVEMENTS

The OR 99 Corridor Plan improvements address identified highway deficiencies, improve the functionality of the corridor, and allow the corridor to accommodate traffic, including freight, safely and efficiently into the future.

4.1. Improvement Development Process

After evaluating existing and future baseline conditions, an initial list of improvement concepts was created to address specific deficiencies, safety issues, or access concerns. These concepts focused on five areas for consideration within the OR 99 corridor:

- **Roadway Segment Improvements** consider systematic improvements throughout each segment of the corridor, including a variety of new cross sections that provide continuous bicycle and pedestrian facilities.
- **Safety Improvements** are targeted at locations with a high frequency of crashes, fatal and serious injuries, or at locations with roadway attributes and environmental factors that may contribute to future crashes.
- **Pedestrian Improvements** link continuous sidewalks with regular crossing opportunities and access to transit throughout the corridor.
- **Bicycle Facility and Shoulder Improvements** link continuous bicycle lanes/shoulders with regular crossing opportunities throughout the corridor.
- **Operational Improvements** address locations that fail to meet operational standards during the 20-year planning horizon or with the sensitivity analysis.

The concept analysis included an assessment of many factors such as:

- **Traffic Operations and Safety** – Traffic operations were evaluated for concepts that were identified to address operational deficiencies. Safety improvements also considered the potential to address historical crash patterns from the five-year analysis period (Years 2005 through 2009).
- **Basic Roadway Geometries and Right of way Requirements** – Illustrations of basic roadway geometry and right of way needs were developed for concepts that involve infrastructure improvements.
- **Environmental and Land Use Assessment** – Impacts or benefits to resources were qualitatively assessed based on the data assembled for the environmental and land use reconnaissance.
- **Concepts Cost Opinions** – Rough order of magnitude cost opinions were developed using present-day dollars and standard estimating methods. The estimates include a contingency factor but do not include right of way (ROW), utility relocation, environmental mitigation or hazardous material costs.

Note: For more detailed information regarding the alternatives evaluation and selection of the preferred improvements, refer to Technical Memorandum #5: Concept Development and Evaluation and Technical Memorandum #6: Preferred Alternative in the Reference Material.

4.2. Summary of Improvements

Table 9 summarizes the Corridor Plan improvements and Figure 8 identifies the location of the improvements. The corridor summary includes a brief description of the project improvement along with a general priority and triggers for the improvement. Some projects identify traffic volumes and safety (i.e. crash patterns) conditions that should be monitored to indicate when conditions may be approaching levels that could trigger an improvement. The proposed projects should be implemented based on need rather than a specific timeline; some may be constructed within the next 20 years while other projects may not be needed until sometime beyond the 20-year planning period.

The proposed projects include some projects, such as sidewalk improvements, where ODOT right of way is not sufficient to accommodate any additional infrastructure. The project sheets identify when additional right of way or easements may be needed. ODOT will maintain ownership of all existing right of way in the corridor.

Note: Only one project listed in Table 9 currently has identified funding but potential funding sources have been included in the table. Additional discussion of potential funding is included in Section 7.2 Potential Funding Sources.

4.3. Project Sheets

Project sheets have been prepared for each Corridor Plan improvement identifying:

- Name
- Location
- Recommended improvement
- Project purpose
- Roadway characteristics
- Existing/future deficiencies without project
- Result of improvements (i.e., how it addresses deficiencies)
- Additional considerations/potential impacts
- Cost opinion
- Implementation (priority, phasing, triggers)
- Illustration

Note: No project sheets have been prepared for the transportation system management (TSM) measures.

Table 9. Summary of OR 99 Corridor Plan Improvements

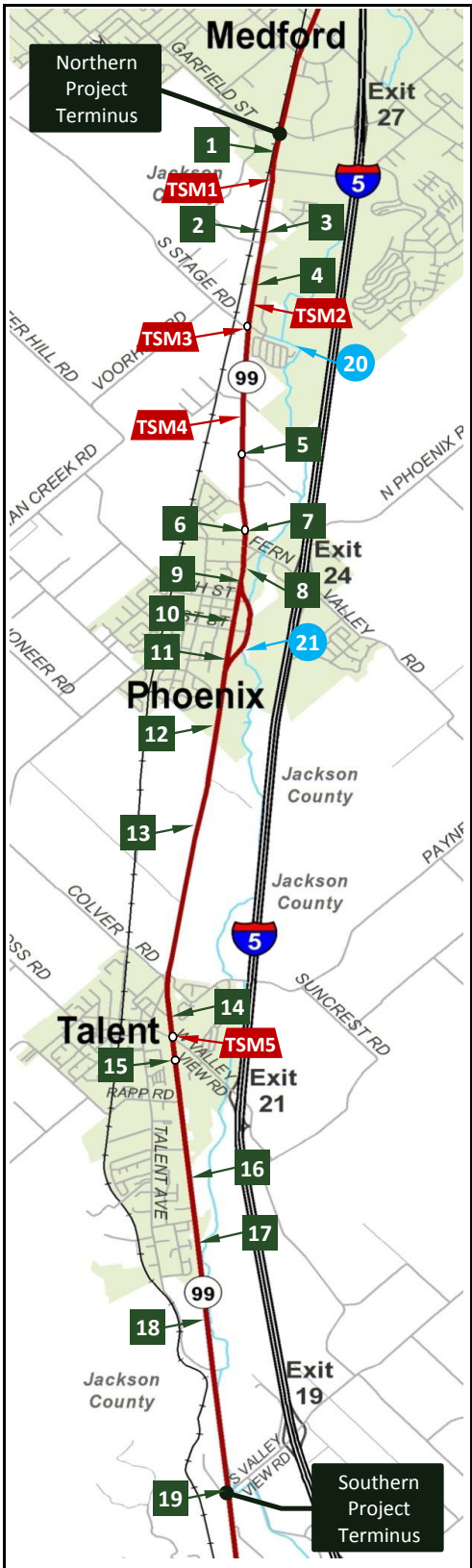
Concept ID	Description	Milepoint	Mobility	Multimodal	Livability	Safety	Implementation		Related Projects	Estimated Cost[1]	Potential STIP Funding Category		Other Funding[2]
							Priority	Trigger			Enhance[2]	Fix It[2]	
CORRIDOR IMPROVEMENTS													
1	**OR 99 - Garfield St to Charlotte Ann Rd:** Construct sidewalks along the west side of OR 99	8.56-8.75		✓	✓	✓	Medium	▪ Existing sidewalk deficiency	3: Sidewalks – Charlotte Ann to Coleman Creek	$165,000	◆	◆	
2	**OR 99 - Charlotte Ann Rd to Coleman Creek:** Modify striping of existing 5-lane roadway cross section to add bike lanes	8.75-11.03		✓	✓	✓	High	▪ Existing bike lane deficiency	3: Sidewalks – Charlotte Ann to Coleman Creek 4: Median Islands – Charlotte Ann to Coleman Creek	$300,000	◆		
3	**OR 99 - Charlotte Ann Rd to Coleman Creek:** Construct continuous sidewalks on both sides of OR 99	8.75-11.03		✓	✓	✓	Medium	▪ Existing sidewalk deficiency	1: Sidewalks – Garfield to Charlotte Ann 2: Striping – Charlotte Ann to Coleman Creek 4: Median Islands – Charlotte Ann to Coleman Creek	$3.3 million	◆	◆	
4	**OR 99 - Charlotte Ann Rd to Coleman Creek:** Install median islands at multiple locations where pedestrian crossings occur	8.75-11.03		✓	✓	✓	Medium	▪ Existing crossing deficiency	3: Sidewalks – Charlotte Ann to Coleman Creek	$50,000 per location	◆		
5	**OR 99/Northridge Terrace Intersection**: Improve turning radius on southeast corner	10.58				✓	Medium	▪ Crash pattern of rear end collisions	3: Sidewalks – Charlotte Ann to Coleman Creek	$125,000	◆	◆	
6	**OR 99/Coleman Creek Culvert:** Modify striping of existing roadway to add bike lanes and sidewalks while maintaining four through travel lanes (Interim)	11.03-11.04		✓	✓	✓	High to Medium	▪ Existing deficiency	3: Sidewalks – Charlotte Ann to Coleman Creek 7: Coleman Creek Culvert Replacement	$350,000	◆	◆	
7	**OR 99/Coleman Creek Culvert:** Replace culvert and widen roadway to add bike lanes and sidewalks	11.03-11.04	✓	✓	✓	✓	High to Medium	▪ Existing deficiency ▪ Fish passage & scouring concerns	3: Sidewalks – Charlotte Ann to Coleman Creek 6: Sidewalks & Bike Lanes – Coleman Creek	$2-3 million		◆	
8	**OR 99 – Bolz Lane to South End of Couplet**: Provide sidewalk travel width of 6 feet around utility poles	11.33-11.93	✓	✓	✓		Ongoing	▪ Concurrent with other projects ▪ With redevelopment	11: Downtown Phoenix crossing enhancements 21: Improved greenway connections in Phoenix	TBD			◆
9	**OR 99 – Downtown Phoenix:** Add gateway treatments at north and south ends of Couplet to emphasize upcoming downtown area	11.37 & 11.93		✓	✓	✓	Phoenix TSP	▪ Downtown Phoenix redevelopment ▪ Available funding	10: Downtown Phoenix bike lane striping 11: Downtown Phoenix crossing enhancements 21: Enhanced greenway connections in Phoenix	TBD			◆
10	**OR 99 - Downtown Phoenix:** Modify striping to add bike lanes	11.37-11.93		✓	✓	✓	Phoenix TSP	▪ Existing bike lane deficiency	9: Downtown Phoenix gateway treatments 10: Downtown Phoenix crossing enhancements 21: Enhanced greenway connections in Phoenix	TBD	◆	◆	◆
11	**OR 99 - Downtown Phoenix:** Enhance crossing opportunities with pedestrian-activated devices, curb extensions, and additional crosswalk striping	11.37-11.93		✓	✓	✓	Phoenix TSP	▪ Downtown Phoenix redevelopment ▪ Crash pattern involving pedestrians	9: Downtown Phoenix gateway treatments 10: Downtown Phoenix bike lane striping 21: Enhanced greenway connections in Phoenix	$300,000	◆	◆	◆
12	**OR 99 - South of couplet to City Limits:** Add curbs and sidewalks and restripe roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes	11.93-12.36	✓	✓	✓	✓	Medium	▪ Existing bike and sidewalk deficiency ▪ 20-year forecast ADT below 18,000 vpd	9,10,11: Downtown Phoenix improvements 13: Lane conversion – Phoenix to Talent	$1.2 million	◆	◆	
13	**OR 99 - Phoenix City Limits to Talent City Limits:** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders	12.36-13.75	✓	✓	✓	✓	Medium	▪ Existing shoulder deficiency ▪ 20-year forecast ADT below 18,000 vpd	12: Sidewalks & lane conversion – south Phoenix	$225,000	◆	◆	
14	**OR 99 - Colver/Suncrest Rd to Rapp Rd:** Upgrade or fill in missing sidewalks	13.86-14.59		✓	✓	✓	Ongoing	▪ Adjacent development	15: Midblock crossing at Wagner Creek Trail 16: Sidewalks & lane conversion – Rapp to Creel	NA			◆
15	**OR 99 - Wagner Creek Greenway Trail:** Consider future midblock crossing with pedestrian-activated device	14.39		✓	✓	✓	Medium	▪ Completion of trail connections	14: Sidewalk infill – east side of OR 99	$100,000	◆	◆	◆
16	**OR 99 – Rapp Rd to Creel Rd (Talent City Limits):** Add curbs and sidewalks and restripe existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes (**STIP Key Number 17478)**	14.71-15.67	✓	✓	✓	✓	High	▪ Currently identified in STIP (Key Number 17478)	14: Sidewalk infill – east side of OR 99 15: Midblock crossing at Wagner Creek Trail 18: Lane conversion – Talent to Ashland	$3.3 million[3]	◆		

Table 9. Summary of OR 99 Corridor Plan Improvements

Concept ID	Description	Milepoint	Mobility	Multimodal	Livability	Safety	Implementation		Related Projects	Estimated Cost[1]	Potential STIP Funding Category		Other Funding[2]
							Priority	Trigger			Enhance[2]	Fix It[2]	
17	**OR 99 – Creel Rd to Bear Creek Greenway connection:** Construct a multi-use path along the east side of the highway	15.34-15.67		✓	✓	✓	High	▪ Existing shoulder deficiency	16: Sidewalks & lane conversion – Rapp to Creel 20: Enhanced greenway connections & wayfinding	$250,000	◆	◆	◆
18	**OR 99 – Creel Rd (Talent City) Limits to S Valley View:** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders	15.34-16.92	✓	✓	✓	✓	Medium	▪ Existing shoulder deficiency ▪ 20-year forecast ADT below 18,000 vpd	16: Sidewalks & lane conversion – Rapp to Creel	$700,000	◆	◆	
19	**OR 99/S Valley View Rd Intersection:** Widen S Valley View Rd to provide dual westbound left-turn lanes at OR 99	17.02	✓	✓	✓	✓	Medium to Low	▪ Persistent congestion (v/c > 0.95)		$15 million[4]	◆	◆	
OTHER SYSTEM IMPROVEMENTS													
20	**Bear Creek Greenway:** Enhance connections to OR 99 throughout corridor with wayfinding signage and other amenities	8.56-17.02		✓	✓		High	▪ Available funding	17: Multi-use path from Creel to Greenway 21: Improved greenway connections in Phoenix	$50,000[5]			◆
21	**Bear Creek Greenway:** Improve connections to OR 99/Bear Creek Dr at 4th St and Oak St to provide parallel and convenient bicycle and pedestrian facilities	11.33-11.92		✓	✓	✓	Medium	▪ Existing bike lane and sidewalk deficiency	9,10,11: Downtown Phoenix improvements 20: Enhanced greenway connections & wayfinding	$450,000	◆	◆	◆
TRANSPORTATION SYSTEM MANAGEMENT STRATEGIES													
TSM1	**OR 99 Corridor:** Develop a traffic operations emergency plan	8.56-17.02	✓				High	▪ Available funding		$25,000			◆
TSM2	**OR 99 Corridor:** Conduct speed zone studies to reassess posted speeds when lane restriping, lane conversion, or pedestrian crossing projects are implemented	8.56-17.02	✓				Ongoing	▪ Completion of lane restriping, lane conversion, or pedestrian crossing projects	2: Striping – Charlotte Ann to Coleman Creek 4: Median Islands – Charlotte Ann to Coleman Creek 12: Sidewalks & lane conversion – south Phoenix 13: Lane conversion – Phoenix to Talent 15: Midblock crossing at Wagner Creek Trail 16: Sidewalks & lane conversion –Rapp to Creel 18: Lane conversion – Talent to Ashland	$10,000-15,000 per location		◆	◆
TSM3	**OR 99/South Stage Rd Intersection:** Modify traffic signal timing to add clearance intervals and protected left-turn phases in the east-west direction	9.79	✓			✓	High	▪ Continued pattern of turning & angle collisions in east-west direction		$25,000		◆	
TSM4	**OR 99 – Northridge Terrace to Coleman Creek:** Evaluate potential access modifications to address high crash frequency	10.58-11.04	✓			✓	High	▪ Continued pattern of turning & angle collisions ▪ Identified in worst 10% of SPIS		TBD		◆	
TSM5	**OR 99/W Valley View Rd Intersection:** Modify traffic signal timing to add clearance intervals and protected left-turn phases in the east-west direction	14.20	✓			✓	High	▪ Continued pattern of turning & angle collisions in east-west direction		$25,000		◆	

Acronyms: TBD = To be determined, ADT = Average Daily Traffic, vpd = vehicles per day

Notes:
1. Estimated costs exclude right of way acquisition, hazardous materials mitigation, natural resource mitigation, and utilities relocation.
2. Assumes projects that involve both state and local agency participation will have costs split at 70% funding from state/federal sources and 30% from local match. Assumes ODOT will fund 100% of state highway projects. Assumes local agencies will fund projects that are not within state jurisdiction.
3. Cost estimate from 2012-2015 Statewide Transportation Improvement Program Amended as of April 25, 2014.
4. Cost estimate from Table 5.6.1, Project Number 951 – South Valley View Bridge Replacement [and roadway widening], 2013-2038 Rogue Valley Regional Transportation Plan, March 26, 2013
5. Cost estimate for enhanced connections only. New connections are included as Project 17: Multi-use path from Creel to Greenway and Project 21: Improved greenway connections in Phoenix.



1. **OR 99 - Garfield St to Charlotte Ann Rd (8.56-8.75)**: Construct sidewalks along the west side of OR 99 *(Medium Priority)*
2. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Modify striping of existing 5-lane roadway cross section to add bike lanes *(High Priority)*
3. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Construct continuous sidewalks on both sides of OR 99 *(Medium Priority)*
4. **OR 99 - Charlotte Ann Rd to Coleman Creek (8.75-11.03):** Install median islands at multiple locations where pedestrian crossings occur *(Medium Priority)*
5. **OR 99/Northridge Terrace Intersection (10.58):** Improve turning radius on southeast corner and sight distance for exiting traffic *(Medium Priority)*
6. **OR 99/Coleman Creek Culvert (11.03-11.04):** Modify striping of existing roadway to add bike lanes and sidewalks while maintaining four through travel lanes (Interim) *(High to Medium Priority)*
7. **OR 99/Coleman Creek Culvert (11.03-11.04):** Replace culvert and widen roadway to add bike lanes and sidewalks *(High to Medium Priority)*
8. **OR 99 – Bolz Lane to South End of Couplet (11.33-11.93):** Provide sidewalk travel width of 6 feet around utility poles *(Ongoing Priority)*
9. **OR 99 in downtown Phoenix at north & south ends of Couplet (11.37 & 11.93):** Add gateway treatments to emphasize upcoming downtown area *(Phoenix TSP Priority)*
10. **OR 99 in downtown Phoenix (11.37-11.93):** Modify striping to add bike lanes *(Phoenix TSP Priority)*
11. **OR 99 in downtown Phoenix (11.37-11.93):** Enhance crossing opportunities with pedestrian-activated devices, curb extensions, and additional crosswalk striping *(Phoenix TSP Priority)*
12. **OR 99 - south of couplet to City Limits (11.93-12.36):** Add curbs and sidewalks and restripe roadway to provide a center turn lane, two through travel lanes, and bike lanes *(Medium Priority)*
13. **OR 99 - Phoenix City Limits to Talent City Limits (12.36-13.75):** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders *(Medium Priority)*
14. **OR 99 - Colver/Suncrest Rd to Rapp Rd (13.86-14.59):** Upgrade or fill in missing sidewalks *(Ongoing Priority)*
15. **OR 99 – Wagner Creek Trail (14.39):** Consider future midblock crossing with pedestrian-activated device *(Medium Priority)*
16. **OR 99 - Rapp Rd to Creel Rd (Talent City Limits) (14.71-15.67):** Add curbs and sidewalks and restripe roadway to provide a center turn lane, two through travel lanes, and bike lanes *(High Priority)*
17. **OR 99 - Creel Rd to Bear Creek Greenway connection (15.34-15.67):** Construct a multi-use path along the east side of the highway *(High Priority)*
18. **OR 99 - Talent City Limits to S Valley View (15.34-16.92):** Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders *(Medium Priority)*
19. **OR 99/S. Valley View Rd Intersection (17.02):** Widen S Valley View Rd to provide dual westbound left-turn lanes at OR 99 *(Medium to Long Priority)*

20. **Bear Creek Greenway (8.56-17.02):** Enhance connections to OR 99 throughout corridor with wayfinding signage other amenities *(High Priority)*
21. **Bear Creek Greenway (11.33-11.92):** Enhance connections to OR 99/Bear Creek Dr at 4th St and Oak St to provide parallel and convenient bicycle and pedestrian facilities *(Medium Priority)*

TSM1 **OR Corridor (8.56-17.02):** Develop a traffic operations emergency plan *(High Priority)*

TSM2 **OR Corridor (8.56-17.02):** Conduct speed zone studies to reassess posted speeds when lane restriping, lane conversion, or pedestrian crossing projects are implemented *(Ongoing)*

TSM3 **OR 99/S. Stage Rd Intersection (9.79):** Modify traffic signal timing to add protected left-turn phases in the east-west direction *(High Priority)*

TSM4 **OR 99 – Northridge Terrace to Coleman Creek (10.58-11.04):** Evaluate potential access modifications to address high crash frequency *(High Priority)*

TSM5 **OR 99/W. Valley View Rd Intersection (14.2):** Modify traffic signal timing to add protected left-turn phases in the east-west direction *(High Priority)*

OR 99 Rogue Valley Corridor Plan

Legend

- # Corridor Improvement Projects
- X Other System Improvement Projects
- TSM# Transportation System Management Strategies

Figure 8

Locations of OR 99 Corridor Plan Improvements

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Project 1. OR 99 – Garfield St to Charlotte Anne Rd: Sidewalk Improvements

Milepoint	8.56 to 8.75
Description	Construct sidewalks along the west side of OR 99 with fencing to separate from the railroad tracks.
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns ▪ Bring roadway closer to standard
Roadway Characteristics	▪ Existing roadway width is 72-99' ▪ Available ROW is 70-100' ▪ Posted speed on OR 99 is 45 mph ▪ 5-lane cross-section ▪ Sidewalk present on east side of roadway ▪ Transit stop opposite Charlotte Anne Rd ▪ Current (2010) ADT = 16,000 to 17,000 ▪ Forecast (2034) ADT = 23,000 to 24,000 ▪ Sensitivity Forecast ADT = 26,000 to 27,000

How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Pedestrians have no sidewalk on the west side of OR 99 on this segment ▪ Transit stop has no pedestrian connectivity **With Improvement** ▪ Sidewalk would improve safety of pedestrians along the corridor ▪ Sidewalk would provide access to the existing transit stop ▪ Improved pedestrian and transit access benefits disadvantaged populations
Additional Considerations	▪ Additional ROW or sidewalk easements may be needed ▪ A fence could be located between the sidewalk and railroad tracks to separate pedestrians from rail traffic and discourage them from crossing the tracks ▪ Assumes curb and drainage already in place ▪ Additional storm water treatment needed with impervious surface
Cost Option	▪ $165,000 (excluding any ROW acquisition, hazardous materials mitigation, natural resource mitigation, or utilities relocation)
Implementation	▪ Medium priority ▪ Based on existing sidewalk deficiency ▪ Related to Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements

Preliminary Alignment Concept

Proposed Sidewalk

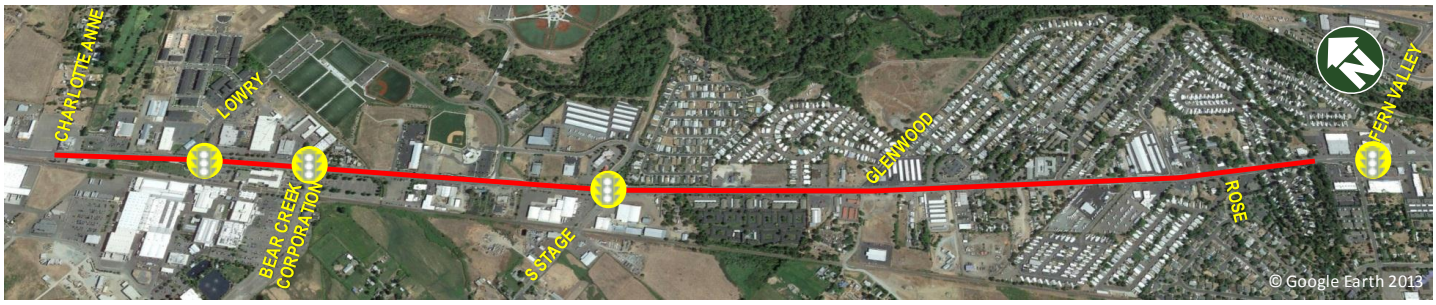
Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping

Milepoint	8.75 to 11.03
Description	Modify striping of existing 5-lane roadway cross section to add bike lanes
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns
Roadway Characteristics	▪ Existing roadway width 66-72' ▪ Available ROW is minimum 70' with some sections up to 100' ▪ Posted speed on OR 99 is 45 mph ▪ 5-lane cross-section ▪ Current (2010) ADT = 13,000 to 17,000 ▪ Forecast (2034) ADT = 17,000 to 24,000 ▪ Sensitivity Forecast ADT = 19,000 to 27,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Bicyclists have no bike lanes in either direction of OR 99 on this segment ▪ Outside through travel lanes are 14-18' ▪ Inside through travel lanes are 12' ▪ Center median lane is 14' ▪ Sidewalks are substandard or non-existent in many locations **With Improvement** ▪ Maintains 5-lane urban section ▪ Provides 5-6' bike lanes for entire segment ▪ Provides 11-12' through travel lanes ▪ Center median lane is 12-14' ▪ Could result in minor reduction in capacity ▪ Speeds could potentially be slower with narrower travel lanes ▪ No change in "hole in the air" for freight
Additional Considerations	▪ Bike lane striping should be implemented according to ODOT guidelines and should be completed through to Garfield Street (bring shoulder lane striping to bike standard) ▪ Consider reduction in posted speed to 40 mph, especially where 11' travel lanes are present ▪ Grated drainage inlets should meet current standard and be bicycle safe and all new inlets or existing inlets that need replacement or modification should consider curb drain inlets as an option ▪ Bike and travel lane widths are consistent with the OR 99 cross section associated with the Fern Valley Interchange improvements ▪ Design exceptions may be required
Cost Option	▪ $300,000 ▪ Assumes restriping and signage, no pavement overlay
Implementation	▪ High priority ▪ Based on existing bike facility deficiency ▪ Related to Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements ▪ Related to Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands

Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping

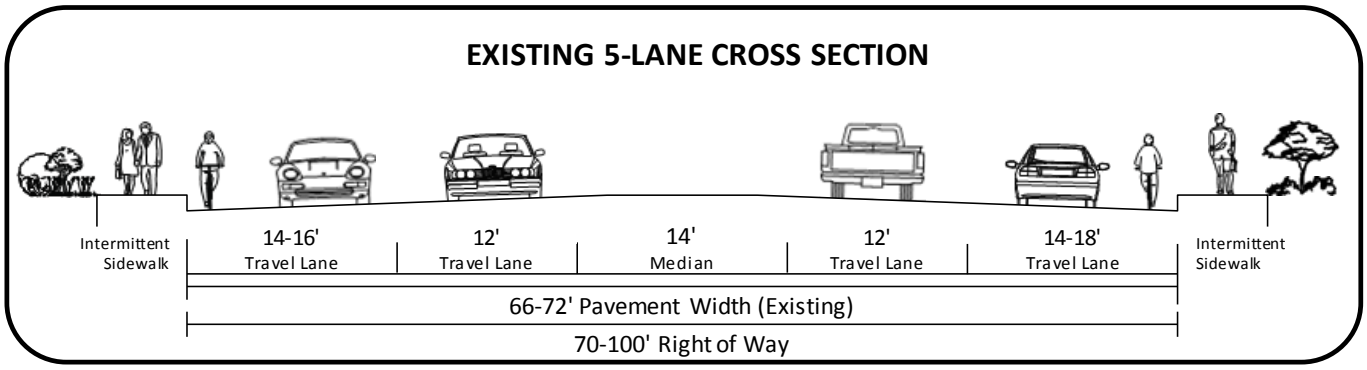
OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

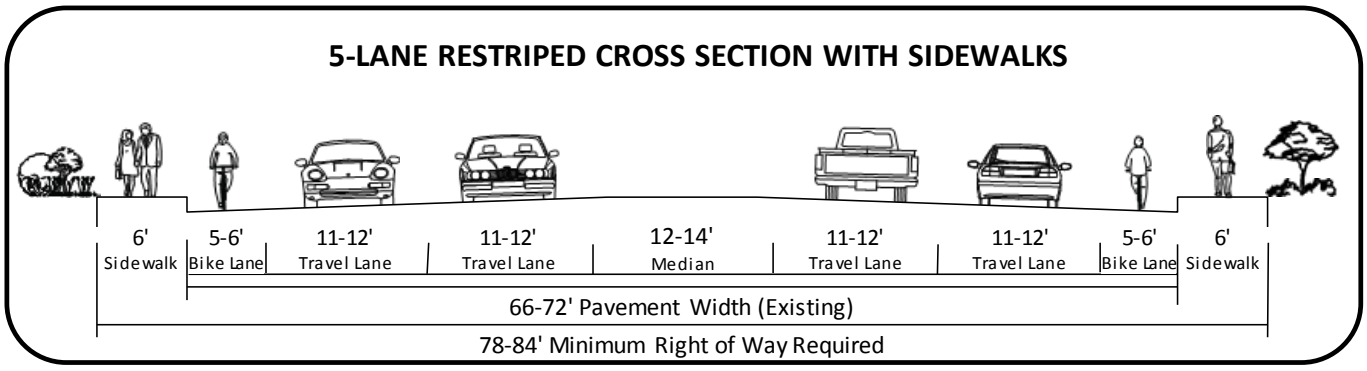
Preliminary Alignment Concept



Existing Traffic Signal — Extent of Improvements

Potential Roadway Cross Section





Notes:

1. *Bike lane striping should be implemented according to ODOT guidelines and should be completed through to Garfield St.*
2. *All grated drainage inlets should meet current standard and be bicycle safe. All new inlets or existing inlets that need replacement or modification should consider curb drain inlets as an option; however, curb and gutter pans can be more problematic for bicyclists than grates where only 5' bike lanes can be provided.*
3. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

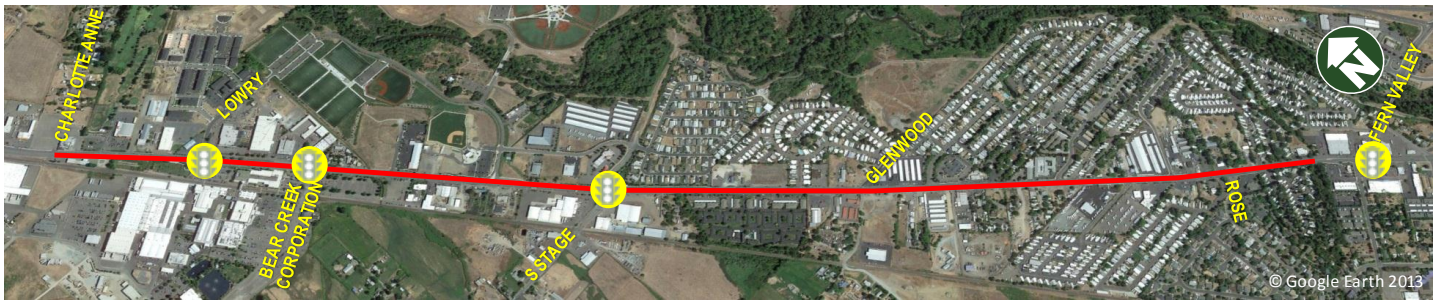
Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements

Milepoint	8.75 to 11.03
Description	Construct continuous sidewalks on both sides of OR 99
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns ▪ Bring roadway closer to highway design standard
Roadway Characteristics	▪ Existing roadway width 66-72' ▪ Available ROW is minimum 70' with some sections up to 100' ▪ Posted speed on OR 99 is 45 mph ▪ 5-lane cross-section ▪ Transit stops throughout segment ▪ Current (2010) ADT = 13,000 to 17,000 ▪ Forecast (2034) ADT = 17,000 to 24,000 ▪ Sensitivity Forecast ADT = 19,000 to 27,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Existing sidewalks are intermittent and many are substandard width or in poor condition ▪ Pedestrians must sometimes walk in street ▪ Wheelchairs or scooters cannot travel on many existing sidewalks and must use roadway ▪ Many transit stops have no pedestrian connectivity **With Improvement** ▪ Improves safety of pedestrians along the corridor from continuous sidewalks ▪ Provides access to transit stops ▪ Accommodates wheelchairs or scooters with ADA width sidewalks and curb cuts ▪ Improved pedestrian and transit access benefits disadvantaged populations
Additional Considerations	▪ Paved width remains same as existing (66-72') ▪ Some culvert extensions needed ▪ Additional ROW (up to 16' depending on location) or easements appear needed to accommodate sidewalks ▪ Some property impacts (including parking lots) to add sidewalks but no building impacts anticipated; some existing substandard sidewalks may remain to avoid building impacts) ▪ Requires better access definition in some areas ▪ Additional storm water treatment needed with increased impervious surface
Cost Option	▪ $3.3 million (excluding any ROW acquisition, hazardous materials mitigation, natural resource mitigation, or utilities relocation)
Implementation	▪ Medium priority ▪ Based on existing sidewalk deficiency ▪ Related to Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping ▪ Related to Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands ▪ Related to Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements & Project 7. OR 99/Coleman Creek Crossing: Replacement

Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements

OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

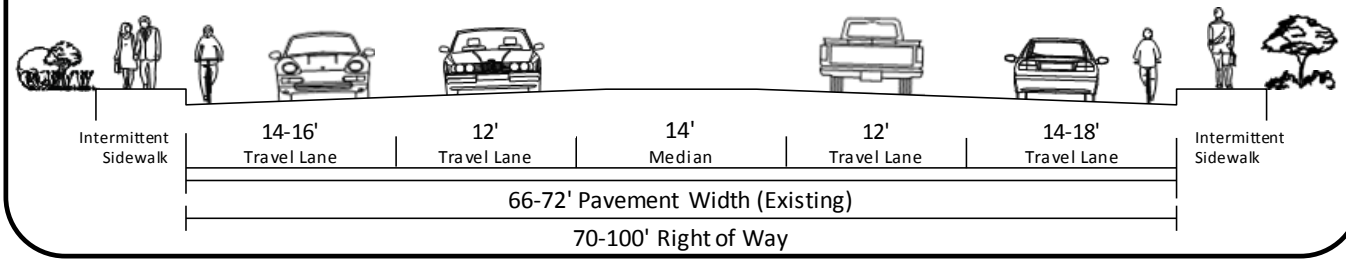
Preliminary Alignment Concept



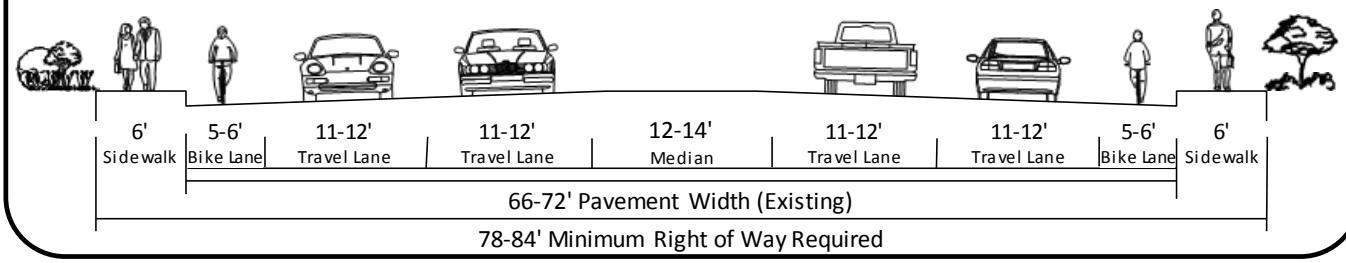
Existing Traffic Signal — Extent of Improvements

Potential Roadway Cross Section

EXISTING 5-LANE CROSS SECTION



5-LANE RESTRIPED CROSS SECTION WITH SIDEWALKS



Notes:

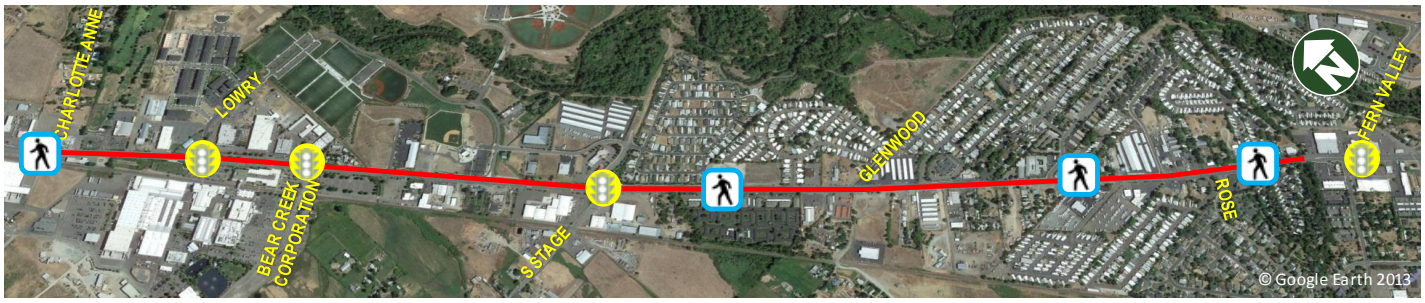
1. *Sidewalk should be wide enough to provide 6' travel width around street furniture (i.e., mailboxes, power poles, etc.). This may require that sidewalks are wider than 6' in some locations or that a landscape strip that can accommodate street furniture is incorporated into the design for some segments.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	8.75 to 11.03	
Description	Install median islands at multiple locations where pedestrian crossings occur – potential locations include: ▪ Near Charlotte Anne Rd (MP 8.81) ▪ Near Alder St (MP 10.03) ▪ Near Birch St (MP 10.35) ▪ Near Northridge Terrace (MP 10.58) ▪ Near Walnut Way (MP 10.91)	
Purpose	▪ Enhance safety for pedestrians crossing midblock or at unsignalized locations	
Roadway Characteristics	▪ Existing roadway width 66-72' ▪ Posted speed on OR 99 is 45 mph ▪ 5-lane cross-section ▪ Transit stops throughout segment ▪ 1 pedestrian collision (MP 10.95) during 5-year analysis period ▪ Current (2010) ADT = 13,000 to 17,000 ▪ Forecast (2034) ADT = 17,000 to 24,000 ▪ Sensitivity Forecast ADT = 19,000 to 27,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Protected crossing opportunities limited to five signalized intersections in 2.3 miles ▪ Currently 9 bus stops along segment not located at or near a signalized intersection ▪ Most bus riders need to cross the highway at either the beginning or end of a round trip made by transit	
	With Improvement ▪ More substantial mid-street refuge for pedestrians crossing roadway ▪ Provide transit users or other pedestrians with opportunity to break up crossing movement into two stages ▪ No impacts to traffic operations ▪ Raised medians that eliminate some left-turn movements can improve vehicular safety ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ Some locations could include pedestrian-activated crossing devices ▪ Locations focused on nearby transit access and types of adjacent land use - transit stop relocation should be considered to better coordinate with refuge islands ▪ Designs would need to be coordinated with future access management plans ▪ Could affect access at some driveway locations – might limit movements to right-in/right-out ▪ No ROW impacts	
Cost Option	▪ $50,000 per location (excluding utilities relocation)	
Implementation	▪ Medium priority ▪ Based on limited crossing opportunities on existing higher speed roadway ▪ Related to Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping ▪ Related to Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements	

Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands

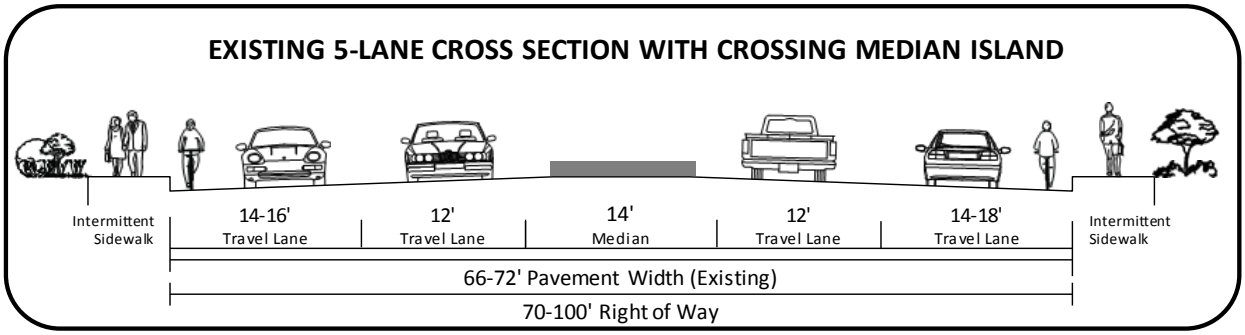
OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

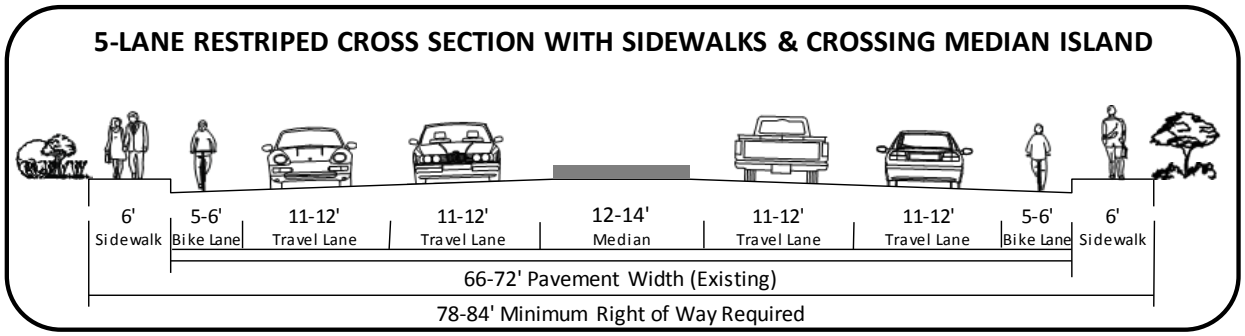
Preliminary Alignment Concept



Potential Median Location | Existing Traffic Signal | Extent of Improvements

Potential Roadway Cross Section

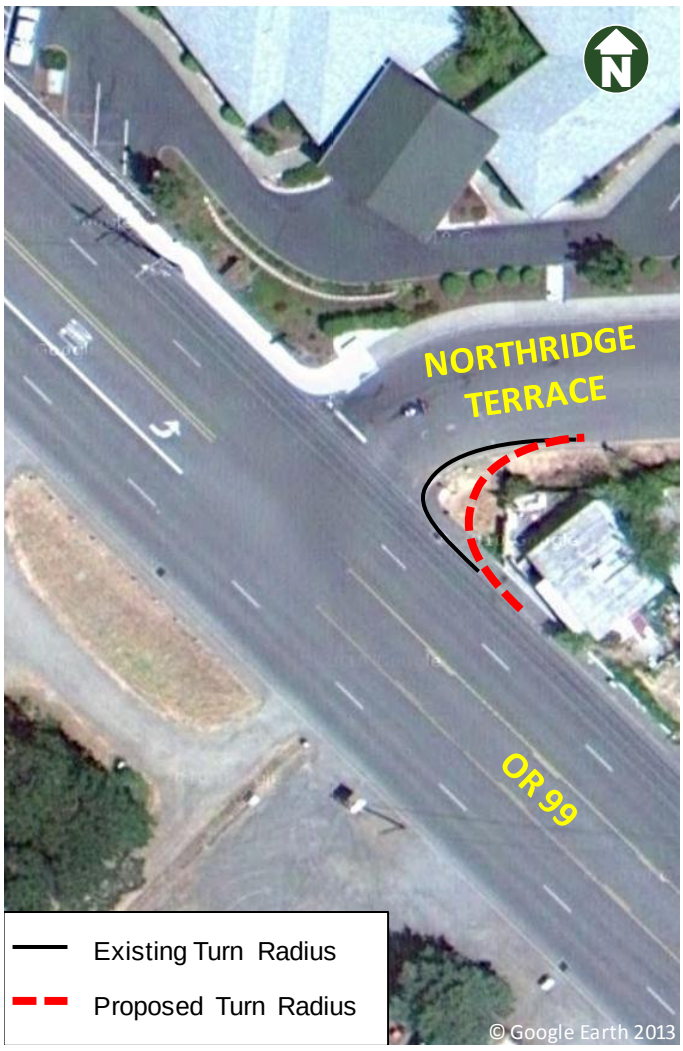


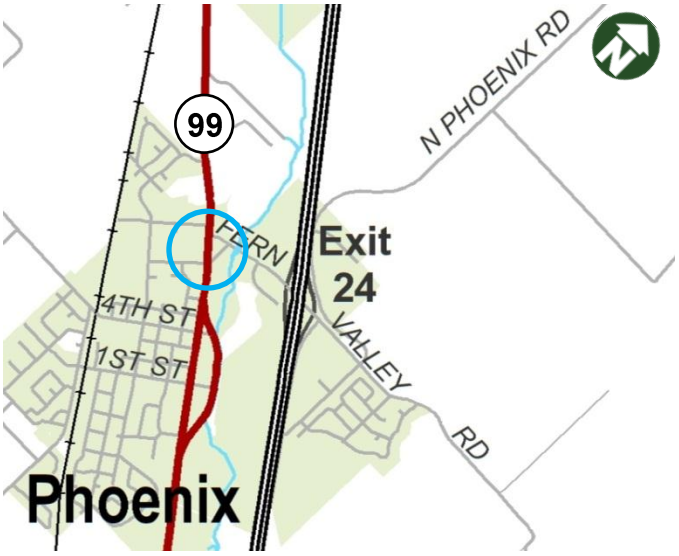


Notes:

1. *Sidewalk should be wide enough to provide 6' travel width around street furniture (i.e., mailboxes, power poles, etc.). This may require that sidewalks are wider than 6' in some locations or that a landscape strip that can accommodate street furniture is incorporated into the design for some segments.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

Crossing Median Images

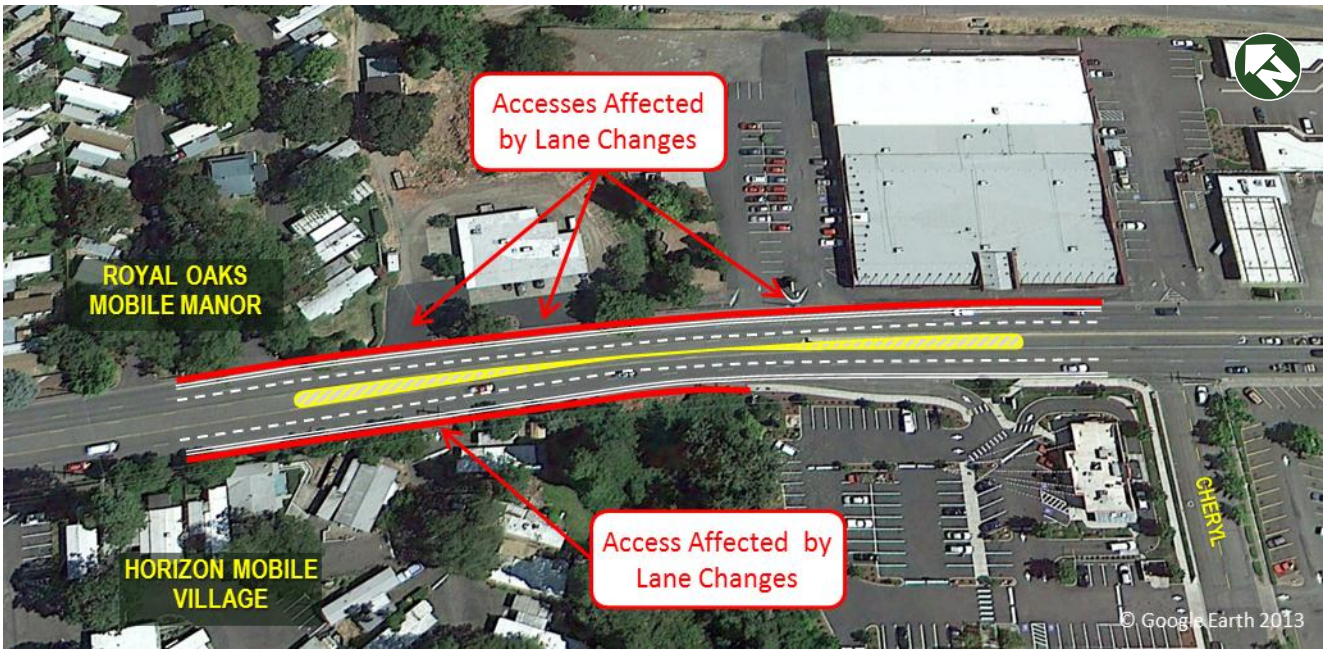
Project 5. OR 99/Northridge Terrace Intersection: Safety Improvements		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	10.58	
Description	Improve turning radius on southeast corner	
Purpose	▪ Address existing safety concerns	
Roadway Characteristics	▪ 9 crashes near MP 10.58 during 5-year analysis period, mostly turning collisions ▪ 2 rear-end collisions involving the northbound-right turn movement. ▪ Existing roadway width 66' ▪ Available ROW is 70' ▪ Posted speed on OR 99 is 45 mph ▪ 5-lane cross-section ▪ Current (2010) ADT = 16,000 to 17,000 ▪ Forecast (2034) ADT = 23,000 to 24,000 ▪ Sensitivity Forecast ADT = 26,000 to 27,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Current turn radius is approximately 10' **With Improvement** ▪ Improves current turn to approximately 25' ▪ Allows for a higher-speed turn and less slowing on OR 99	**Preliminary Alignment Concept** 
Additional Considerations	▪ Potential ROW impacts to be determined at time of design ▪ Would not impact structures but would require relocating/replacing existing fencing	
Cost Option	▪ $125,000 ▪ Includes minimal ROW acquisition but excludes hazardous materials mitigation, natural resource mitigation, or utilities relocation	
Implementation	▪ Medium priority ▪ Continued crash pattern of rear end collisions related to northbound right turns ▪ Related to Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements	

Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.03 to 11.04	
Description	Modify striping of existing roadway to add bike lanes and sidewalks while maintaining four through travel lanes (Interim)	
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns	
Roadway Characteristics	▪ Existing surface between curbs is 66' ▪ Coleman Creek culvert under OR 99 is 75' supporting ~70' of roadway structure ▪ ROW is 90' near Creek and ~70' to north and ~75' to south ▪ Posted speed on OR 99 is 30 mph ▪ 5-lane cross-section ▪ Current (2010) ADT = 15,000 to 16,000 ▪ Forecast (2034) ADT = 20,000 to 21,000 ▪ Sensitivity Forecast ADT = 23,000 to 24,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ No sidewalks or bike lanes on structure ▪ Pedestrians must walk on 2' curbed area or in the street ▪ Wheelchairs or scooters must use roadway ▪ Bicycles traveling in 14' curb lane with traffic	
	With Improvement	
	▪ Provides 6' sidewalks on both sides of roadway ▪ Provides 5' bike lanes on both sides of roadway ▪ Provides 11-12' through travel lanes ▪ Narrows center turn lane to 4' which would affect 4 accesses ▪ Could result in minor reduction in capacity when vehicles turn left from through travel lane ▪ Provides 29' wide "hole in the air" for freight ▪ Improves safety of pedestrians along the corridor with continuous sidewalks ▪ Provides access to transit stops ▪ Accommodates wheelchairs or scooters with ADA width sidewalks and curb cuts ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ Minimum transitions extend 150' to south and 225' to north ▪ Loss of center turn lane would affect 4 private accesses; turn restrictions or other measures could be considered ▪ Retains existing structure which has fish passage and scouring issues ▪ Narrower travel lanes match cross section for Fern Valley Interchange striping on OR 99 ▪ Design exceptions may be required	
Cost Option	▪ $350,000 ▪ Excludes ROW acquisition or utilities relocation.	
Implementation	▪ High to Medium priority ▪ Addresses existing sidewalk and bike lane deficiencies ▪ Related to Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping ▪ Related to Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands ▪ Related to Project 7. OR 99/Coleman Creek Crossing: Replacement	

Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements

OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

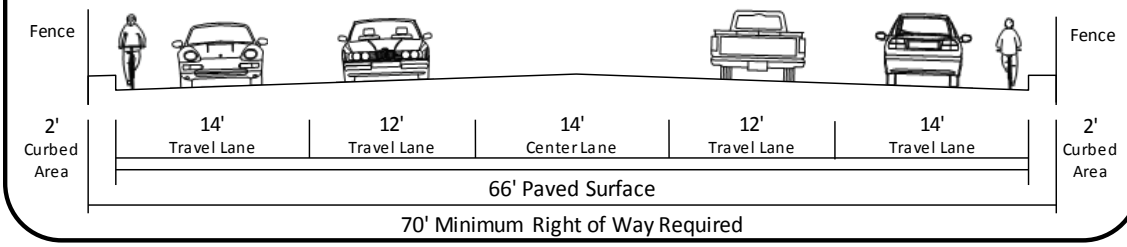
Preliminary Alignment Concept



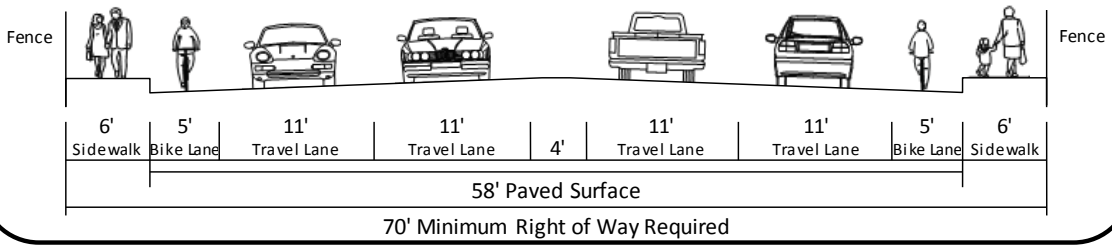
Center Median Bike Lane Sidewalks

Potential Roadway Cross Section

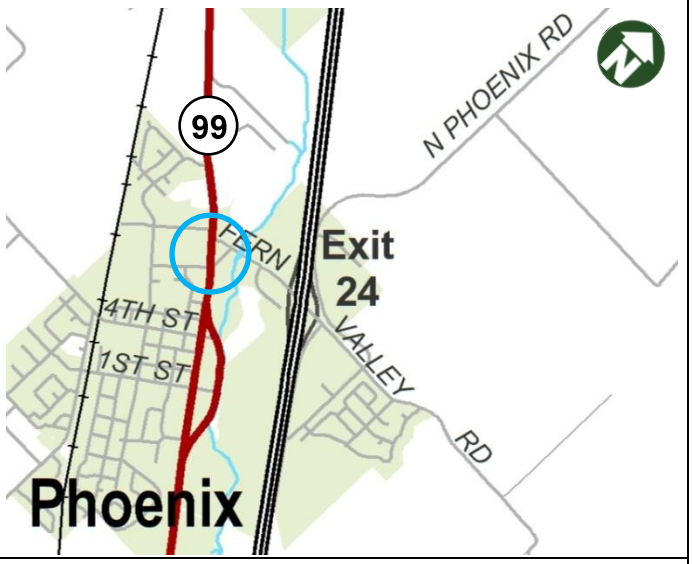
EXISTING COLEMAN CREEK CROSSING



MODIFIED COLEMAN CREEK CROSSING WITH BIKE LANES & SIDEWALKS



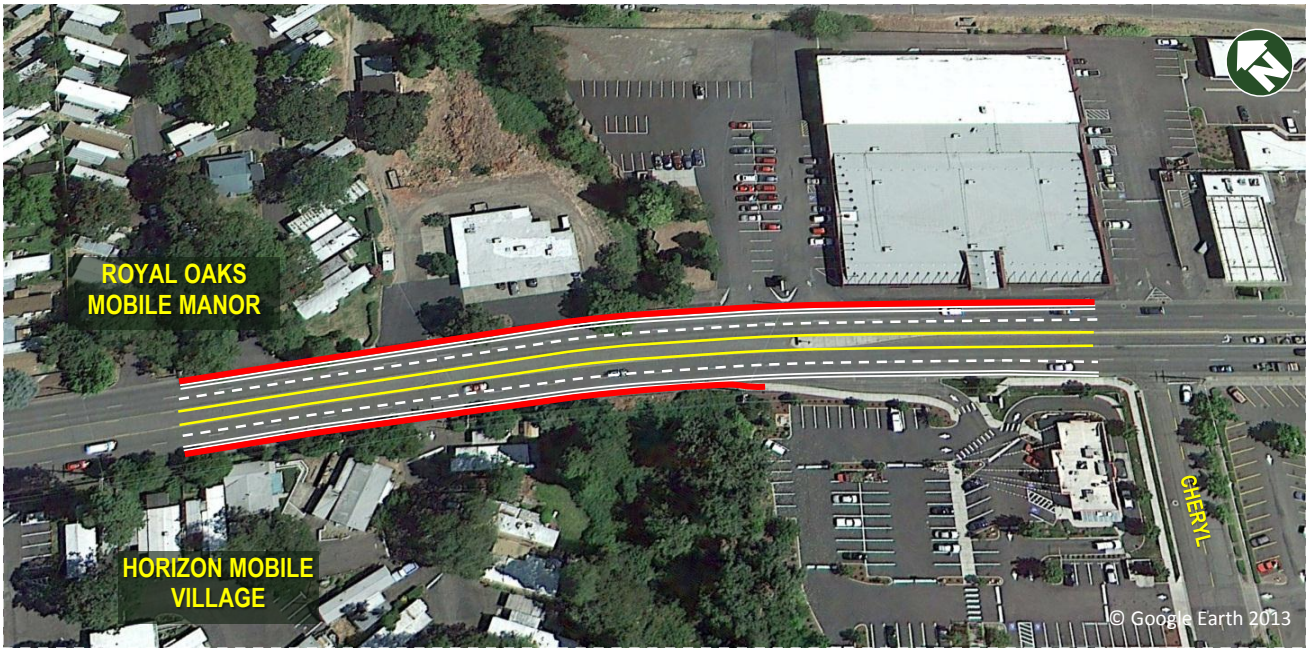
Note: The cross section shown presents suggested widths; actual widths may vary when project is implemented.

Project 7. OR 99/Coleman Creek Crossing: Replacement		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.03 to 11.04	
Description	Replace Coleman Creek Culvert and widen roadway to add bike lanes and sidewalks	
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns	
Roadway Characteristics	▪ Existing surface between curbs is 66' ▪ Coleman Creek culvert under OR 99 is 75' supporting ~70' of roadway structure ▪ ROW is 90' near Creek and ~70' to north and ~75' to south ▪ Posted speed on OR 99 is 30 mph ▪ 5-lane cross-section ▪ Current (2010) ADT = 15,000 to 16,000 ▪ Forecast (2034) ADT = 20,000 to 21,000 ▪ Sensitivity Forecast ADT = 23,000 to 24,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ No sidewalks or bike lanes on structure ▪ Pedestrians must walk on 2' curbed area or in the street ▪ Wheelchairs or scooters must use roadway ▪ Bicycles traveling in 14' curb lane with traffic	
	With Improvement	
	▪ Provides 7' sidewalks on both sides of roadway ▪ Provides 5-6' bike lanes on both sides of roadway ▪ Provides 11-12' through travel lanes ▪ Provides 13-14' center median lane ▪ Provides 34-37' wide "hole in the air" for freight ▪ Improves safety of pedestrians along the corridor with continuous sidewalks ▪ Provides access to transit stops ▪ Accommodates wheelchairs or scooters with ADA width sidewalks and curb cuts ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ Can be constructed to full standard with 88' cross section or with narrower cross section of 81' matching roadway striping to either side ▪ Assumes full structure replacement with adequate width to accommodate a 81-88' roadway structure ▪ Addresses existing fish passage concerns and stream scouring ▪ Design exceptions may be required	
Cost Option	▪ $2-3 million ▪ Assumes full structure replacement but detailed estimate not prepared ▪ Excludes ROW acquisition, hazardous materials mitigation, or utilities relocation	
Implementation	▪ High to Medium priority ▪ Addresses existing sidewalk and bike lane deficiencies ▪ Related to Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping ▪ Related to Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements	

Project 7. OR 99/Coleman Creek Crossing: Replacement

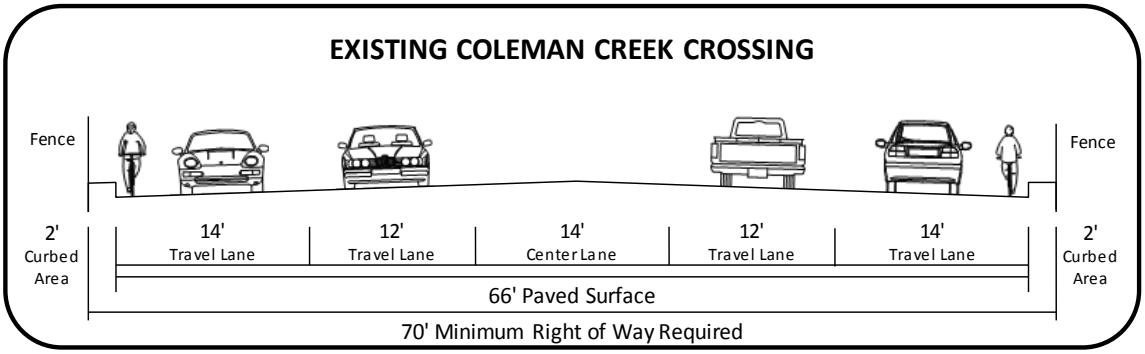
OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

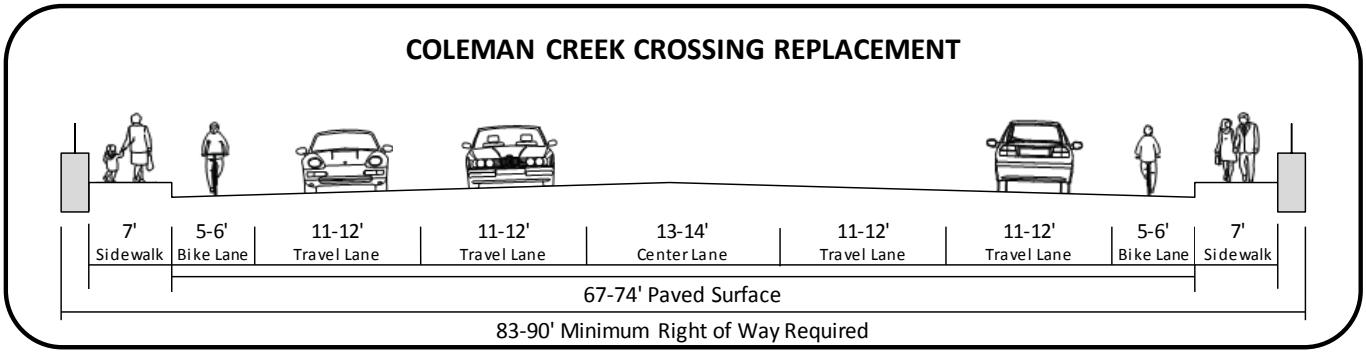
Preliminary Alignment Concept



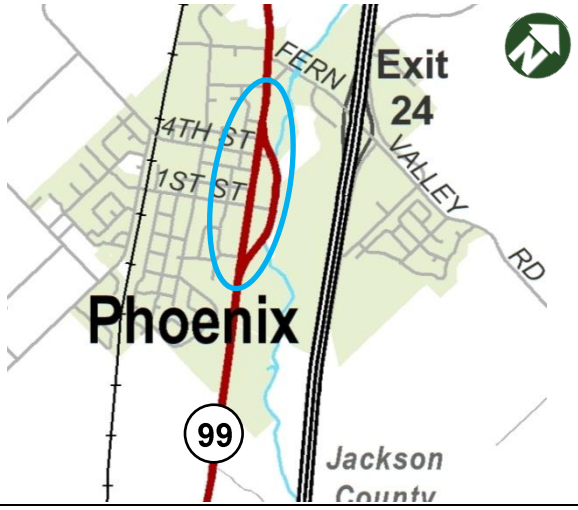
Center Median Bike Lane Sidewalks

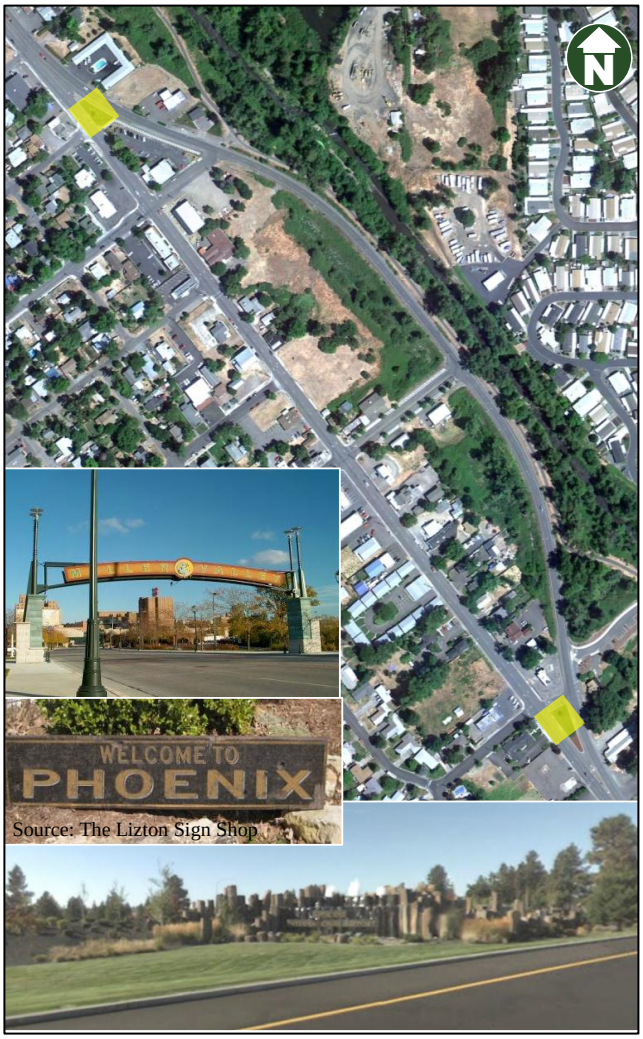
Potential Roadway Cross Section

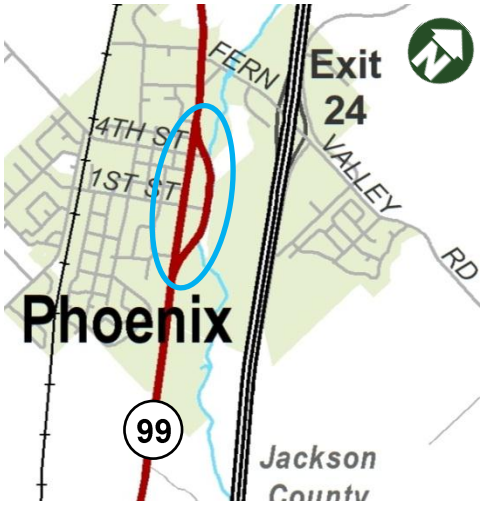


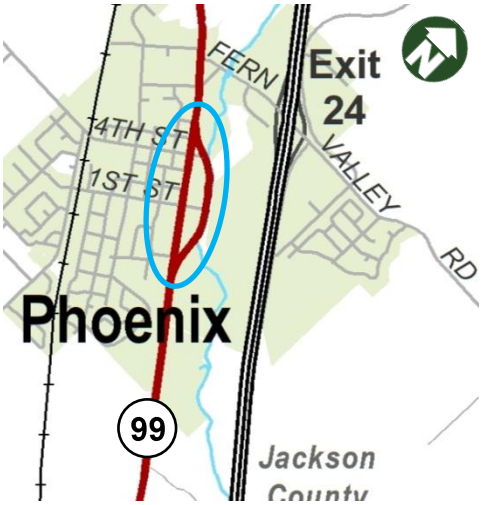


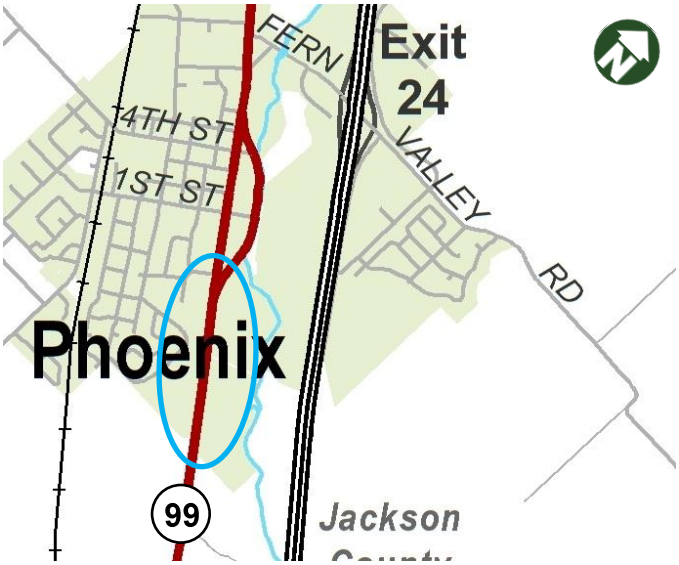
Note: The cross section shown presents suggested widths; actual widths may vary when project is implemented.

Project 8. OR 99 – Bolz Ln to South End of Couplet: Pedestrian Facility Improvements		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.33 to 11.93	
Description	Relocate utility poles outside of the sidewalk area or widen sidewalks to provide a travel width of 6' around utility poles in coordination with other planned projects or new development	
Purpose	▪ Enhance functionality of pedestrian facilities	
Roadway Characteristics	▪ Sidewalks generally complete on OR 99 and Main Street ▪ Current (2010) ADT = 9,500 to 15,000 ▪ Forecast (2034) ADT = 13,000 to 20,000 ▪ Sensitivity Forecast ADT = 14,000 to 23,000 ▪ Volumes are approximately half in each direction on couplet	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ Utility poles are located in the middle of the sidewalk and sometimes in the corner ramps limiting the effective travel width	
	With Improvements	
	▪ Relocated utility poles would increase the available sidewalk width for pedestrians, and improve the pedestrian level-of-service ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ Additional ROW or a utility easement may be needed depending on the roadway cross-section ▪ Should be coordinated with other planned projects and new development Construction assumed to occur with development or redevelopment of adjacent properties ▪ City Code modification/stipulations for lighting/utility placement	
Cost Option	▪ Costs will be incorporated into other infrastructure or development projects over time	
Implementation	▪ Concurrent with other projects ▪ With redevelopment ▪ Related to Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements	

Project 9. OR 99 – Downtown Phoenix: Gateway Treatments		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.37 & 11.93	
Description	Add gateway treatments to emphasize upcoming downtown area	
Purpose	▪ Reduce travel speeds ▪ Enhance downtown environment	
Roadway Characteristics	▪ Downtown couplet with 2 lanes in each direction ▪ Posted speed on Main St (OR 99 SB) is 30 mph and Bear Creek Dr (OR 99 NB) is 35 mph ▪ 21 crashes on Main St and 16 crashes on Bear Creek Dr during 5-year analysis period ▪ Current (2010) ADT = 9,500 to 15,000 ▪ Forecast (2034) ADT = 13,000 to 20,000 ▪ Sensitivity Forecast ADT = 14,000 to 23,000 ▪ Volumes are approximately half in each direction on couplet	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Downtown has higher vehicular and pedestrian crossing volumes than other roadway segments ▪ Speed transition on NB OR 99 south of downtown **With Improvement** ▪ Improves safety by alerting drivers of change in roadway function and environment (entering a downtown community)	**Preliminary Alignment Concept** 
Additional Considerations	▪ Focus improvements within existing public ROW ▪ Construct features that will not interfere with sight distance of pedestrian visibility	
Cost Option	▪ To be determined based on features selected by City of Phoenix	
Implementation	▪ Priority determined by City of Phoenix in TSP ▪ Related to urban renewal projects ▪ Related to Project 10. OR 99 – Downtown Phoenix: Bike Facilities ▪ Related to Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements ▪ Related to Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion	

Project 10. OR 99 – Downtown Phoenix: Bike Facilities		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.37 to 11.93	
Description	Modify striping to add bike lanes	
Purpose	▪ Provide facilities for all modes of travel ▪ Enhance downtown environment ▪ Address existing safety concerns	
Roadway Characteristics	▪ Downtown couplet with 2 lanes in each direction ▪ Main St (OR 99 SB) is 44’ with on-street parking and posted speed of 30 mph ▪ Bear Creek Dr (OR 99 NB) is 28’ with posted speed of 35 mph ▪ 21 crashes on Main St and 16 crashes on Bear Creek Dr during 5-year analysis period ▪ Current (2010) ADT = 9,500 to 15,000 ▪ Forecast (2034) ADT = 13,000 to 20,000 ▪ Sensitivity Forecast ADT = 14,000 to 23,000 ▪ Volumes are approximately half in each direction on couplet	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ Main St is wide with no definition of travel lanes or parking other than center line ▪ Bear Creek Dr is not wide enough to accommodate two travel lanes and a bike lane	
	Main St (OR 99 SB) with Improvement	
	▪ Main St can be restriped to add bike lanes while maintaining 1 or 2 travel lanes and on-street parking ▪ Clearly defined travel lanes may encourage slower travel speeds through downtown ▪ 6’ bike lane provides clearly defined travel way for bicyclists ▪ Parking lane striping helps define boundary between travel lane and parking lane ▪ Reduction to 1 through travel lane may cause longer delays on side streets and parking maneuvers may interfere with traffic flow	
	Bear Creek Dr (OR 99 NB) with Improvements	
	▪ Bear Creek Dr can be restriped to add bike lanes while maintaining 1 travel lane or improved connections to Bear Creek Greenway (Project 21) can accommodate bicyclists and 2 travel lanes can be maintained ▪ Adding 6’ bike lane provides clearly defined travel way for bicyclists ▪ Using Bear Creek Greenway for bicycle traffic provides a slightly less convenient route but allows two travel lanes to be maintained on Bear Creek Dr ▪ Reduction to 1 through travel lane may cause longer delays on side streets.	
Additional Considerations	▪ Adding bike lanes on Main St does not require changing roadway width and can be achieved with restriping ▪ Adding bike lanes on Bear Creek Dr requires a reduction in through travel lanes ▪ Any changes in cross section must still accommodate oversize freight loads ▪ Using Bear Creek Greenway as an alternate route for bicycle traffic is identified as Project 21 and has both engineering and environmental considerations that would need to be addressed ▪ Providing bicycle facilities can be combined with any of the downtown improvement concepts under consideration by the City of Phoenix for the OR 99 couplet	
Cost Option	▪ To be determined based on features selected by City of Phoenix	
Implementation	▪ Priority determined by City of Phoenix in TSP ▪ Related to urban renewal projects ▪ Related to Project 9. OR 99 – Downtown Phoenix: Gateway Treatments ▪ Related to Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements ▪ Related to Project 12. OR 99 –South of Couplet to Phoenix City Limits: ▪ Related to Project 21. Bear Creek Greenway: Improve Connections in Downtown Phoenix	

Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.37 to 11.93
Description	Enhance crossing opportunities with pedestrian-activated devices, curb extensions, and additional crosswalk striping
Purpose	▪ Provide facilities for all modes of travel ▪ Enhance downtown environment ▪ Address existing safety concerns
Roadway Characteristics	▪ Downtown couplet with 2 lanes in each direction ▪ Main St (OR 99 SB) is 44' with 30 mph posted speed ▪ Bear Creek Dr (OR 99 NB) is 28' with 35 mph posted speed ▪ 2 pedestrian collisions occurred during 5-year analysis period ▪ Current (2010) ADT = 9,500 to 15,000 ▪ Forecast (2034) ADT = 13,000 to 20,000 ▪ Sensitivity Forecast ADT = 14,000 to 23,000 ▪ Volumes are approximately half in each direction on couplet
	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**
	▪ Main St is wide with some curb extensions and a crosswalk striped on the south side of 3rd St ▪ Bear Creek Dr is narrower with higher travel speeds than Main St and some sight distance issues
	Main St (OR 99 SB) with Improvement
	▪ Crosswalk striping with or without curb extensions could be implemented at 5th, 4th, 1st, and Oak Sts ▪ Crosswalks on north side of intersection have higher pedestrian visibility for motorists on cross streets ▪ Pedestrian-activated crossing devices such as the Rectangular Rapid Flashing Beacon (RRFB) with crosswalk striping should be considered at 4th St and a location near Oak St ▪ Curb extensions shorten crossing distance, increase pedestrian visibility, and further enhance downtown ▪ Marked crosswalks identify the presence of pedestrian activity in the area ▪ Improved pedestrian and transit access benefits disadvantaged populations
	Bear Creek Dr (OR 99 NB) with Improvements
	▪ Crosswalk striping should be considered at 4th St and a location near the entrance to Blue Heron Park ▪ Crosswalks on south side of intersection have higher pedestrian visibility for motorists on cross streets ▪ Pedestrian-activated crossing devices such as the RRFB should be considered at both crosswalk locations ▪ Marked crosswalks identify the presence of pedestrian activity in the area ▪ Improved pedestrian and transit access benefits disadvantaged populations
Additional Considerations	▪ Use striping or materials that maximize crosswalk visibility ▪ A short sidewalk connection would be required on the east side of the 5th Street crossing location ▪ Drainage and freight routes must be considered in design of curb extensions ▪ Landscaping and lighting must allow for the movement of oversize freight loads on the adjacent roadway ▪ RRFBs can be solar-powered pole-mounted units but an overhead sign could be provided by a mast arm ▪ RRFBs can include advance warning signage and beacons as well ▪ Limited sight distance on Bear Creek Dr near Blue Heron Park would need to be addressed ▪ Improving pedestrian facilities can be combined with any of the downtown improvement concepts under consideration by the City of Phoenix for the OR 99 couplet
Cost Option	▪ To be determined based on features selected by City of Phoenix
Implementation	▪ Priority determined by City of Phoenix in TSP ▪ Related to urban renewal projects ▪ Related to Project 9. OR 99 – Downtown Phoenix: Gateway Treatments ▪ Related to Project 10. OR 99 – Downtown Phoenix: Bike Facilities ▪ Related to Project 12. OR 99 –South of Couplet to Phoenix City Limits:

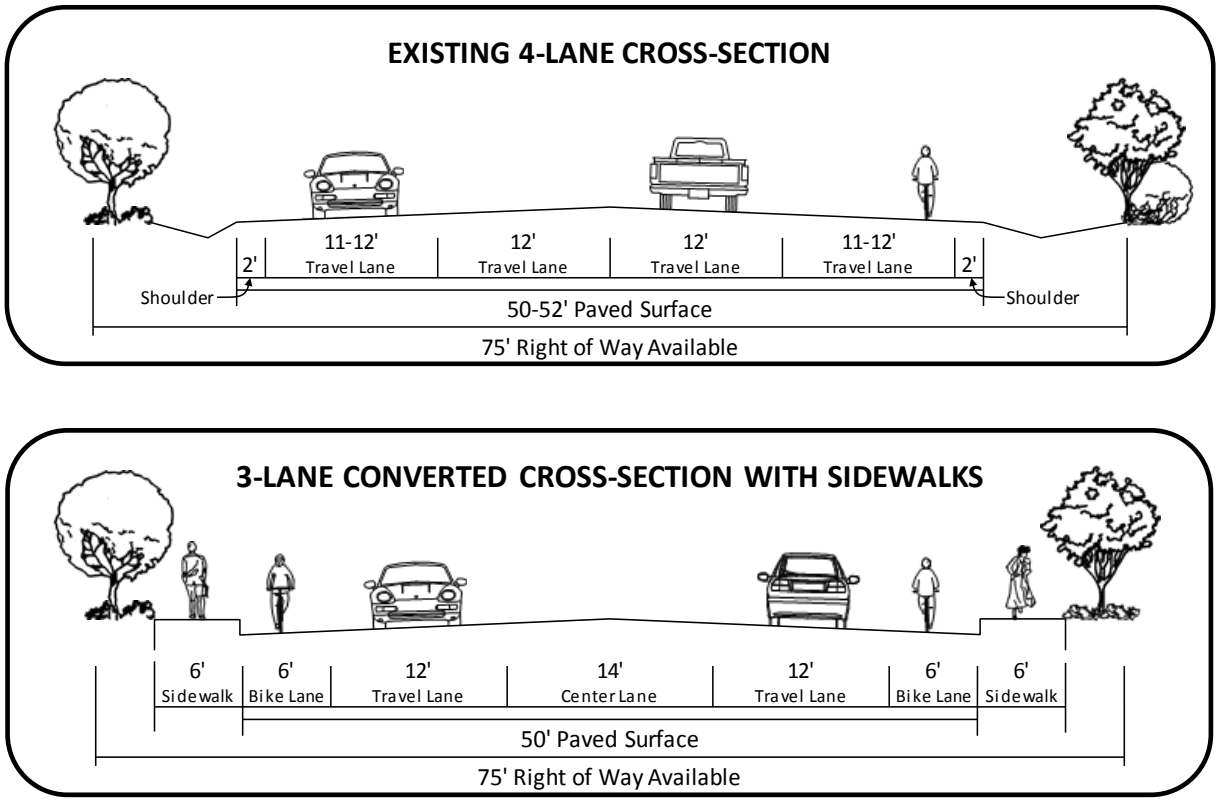
Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.93 to 12.36	
Description	Add curbs and sidewalks and restripe existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes	
Purpose	▪ Provide facilities for all travel modes ▪ Address existing safety concerns	
Roadway Characteristics	▪ Existing roadway width 50-52' ▪ Available ROW is 75' ▪ Posted speed on OR 99 is 40 mph ▪ 4-lane cross-section ▪ Current (2010) ADT = 9,000 to 10,000 ▪ Forecast (2034) ADT = 12,000 to 13,000 ▪ Sensitivity Forecast ADT = 13,000 to 15,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ No curbs, sidewalks, or bike lanes ▪ No center lane; left-turns from through travel lanes	
	With Improvement	
	▪ 6' bike lanes provide clearly defined travel way for bicyclists ▪ 6' sidewalks improve pedestrian safety and access to transit ▪ Improved pedestrian and transit access benefits disadvantaged populations ▪ Center median lane improves safety with buffer between travel lanes and refuge for turning vehicles and pedestrians ▪ Meets HDM V/C ratio standard of 0.85 and OHP target of 0.95 on mainline and side streets ▪ Shorter crossing distances than widening roadway to add bike lanes ▪ 3-lane cross-section has lower predicted crash rate than 4- or 5-lane cross-section ▪ Maintains existing "hole in the air" of 25' for freight	
Additional Considerations	▪ Can be constructed within existing 75' ROW ▪ No change in roadway surface – can add bike lanes with reduction from 4 lanes to 3 lanes ▪ Curbs and sidewalks can be added with or without landscape buffer ▪ Can potentially be completed in phases with restriping occurring prior to adding curbs and sidewalks ▪ Need to consider transitions between 3-lane and 4-lane cross sections ▪ No impacts to adjacent properties ▪ Addition of curbs and sidewalks will require storm water treatment ▪ Addition of sidewalks could require extension of culverts and fish passage may need to be considered ▪ Need to consider how transit and school bus stops will be accommodated	
Cost Option	▪ $1.2 million ▪ Excludes hazardous materials mitigation, natural resources mitigation, or utilities relocation ▪ Phased construction is feasible (i.e., lane conversion in first phase and curbs and sidewalks in second phase)	
Implementation	▪ Medium priority ▪ Based on existing sidewalk and bike facility deficiency ▪ 20-year forecast ADT must be below 18,000 ▪ Related to Project 9. OR 99 – Downtown Phoenix: Gateway Treatments ▪ Related to Project 10. OR 99 – Downtown Phoenix: Bike Facilities ▪ Related to Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements ▪ Related to Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion	

Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion

OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

Preliminary Alignment Concept

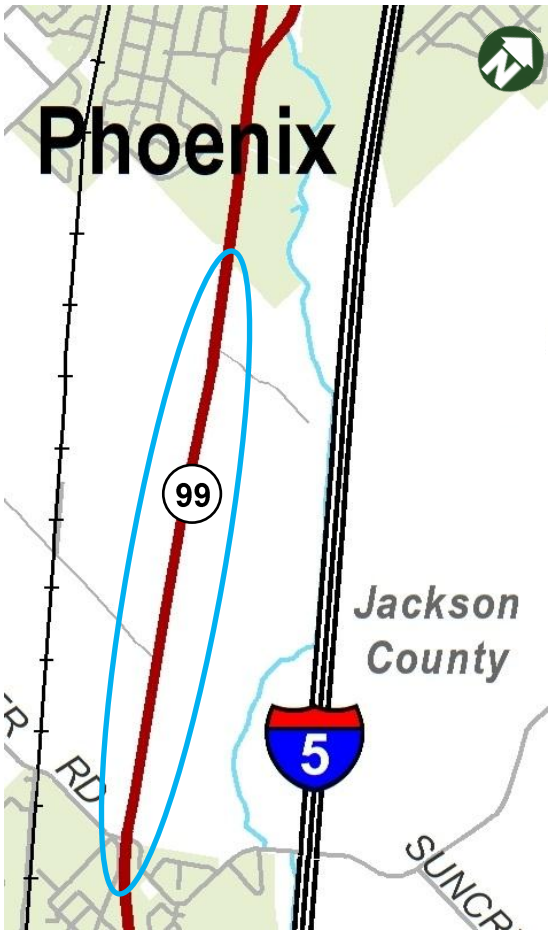
Potential Roadway Cross Section



Notes:

1. *Sidewalk should be wide enough to provide 6' travel width around street furniture (i.e., mailboxes, power poles, etc.). This may require that sidewalks are wider than 6' in some locations or that a landscape strip that can accommodate street furniture is incorporated into the design for some segments.*
2. *ODOT will not relinquish ROW even if a cross-section does not need as much as what is available.*
3. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

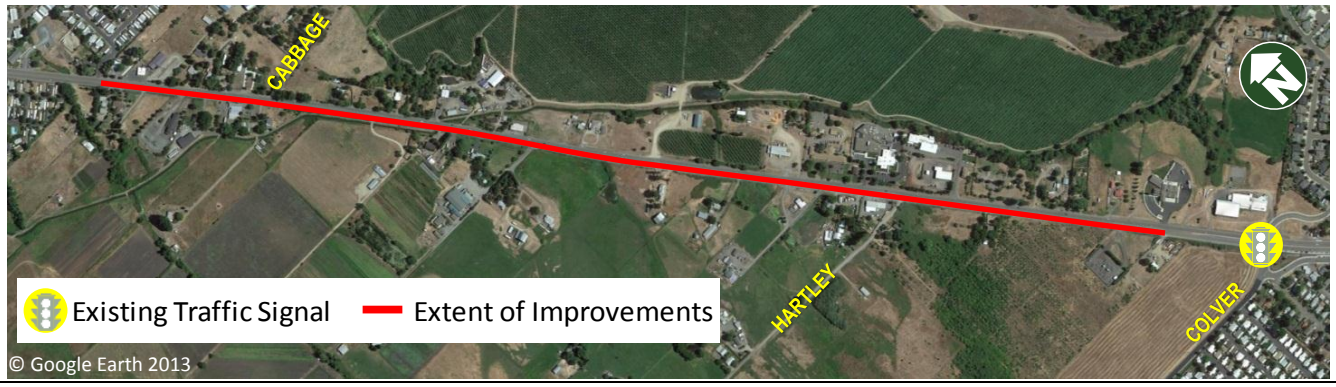
Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	12.36 to 13.75
Description	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders
Purpose	▪ Improve safety ▪ Provide facilities for all travel modes
Roadway Characteristics	▪ Existing roadway width 52’ ▪ Available ROW is 70’ minimum ▪ Posted speed on OR 99 is 50 to 55 mph ▪ 4-lane cross-section ▪ Current (2010) ADT = 8,000 to 9,000 ▪ Forecast (2034) ADT = 11,000 to 12,000 ▪ Sensitivity Forecast ADT = 13,000 to 14,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Shoulder widths are narrow (2’) for most of the segment widening to 6’ near Colver/Suncrest Rd ▪ Bicyclists (and pedestrians) must use the outer lane to travel through the area ▪ Transit buses may stop in travel lane **With Improvement** ▪ Project will restripe roadway to include a 14’ center turn lane, two 12’ through travel lanes (one in each direction), and 7’ shoulders ▪ Wider shoulders accommodate bicyclists or pedestrians and allow vehicles to pull off the roadway, if necessary ▪ Center median lane improves safety with buffer between travel lanes and refuge for turning vehicles and pedestrians ▪ Center median lane can be striped as a left-turn lane at intersections ▪ Shorter crossing distances ▪ Improved pedestrian and transit access benefits disadvantaged populations ▪ 3-lane cross-section has lower predicted crash rate than 4-lane cross-section ▪ Meets HDM V/C ratio standard of 0.85 and OHP target of 0.95 on mainline and side streets ▪ Maintains existing “hole in the air” of 26’ for freight
Additional Considerations	▪ No change in roadway surface – can widen shoulders with reduction from 4 lanes to 3 lanes ▪ Need to consider transitions between cross sections with 2 travel lanes and 4 travel lanes ▪ Need to consider how transit and school bus stops will be accommodated ▪ No impacts to adjacent properties
Cost Option	▪ $225,000 ▪ Assumes restriping and signage, no pavement overlay
Implementation	▪ Medium priority ▪ Based on existing shoulder deficiency ▪ 20-year forecast ADT must be below 18,000 ▪ Related to Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion



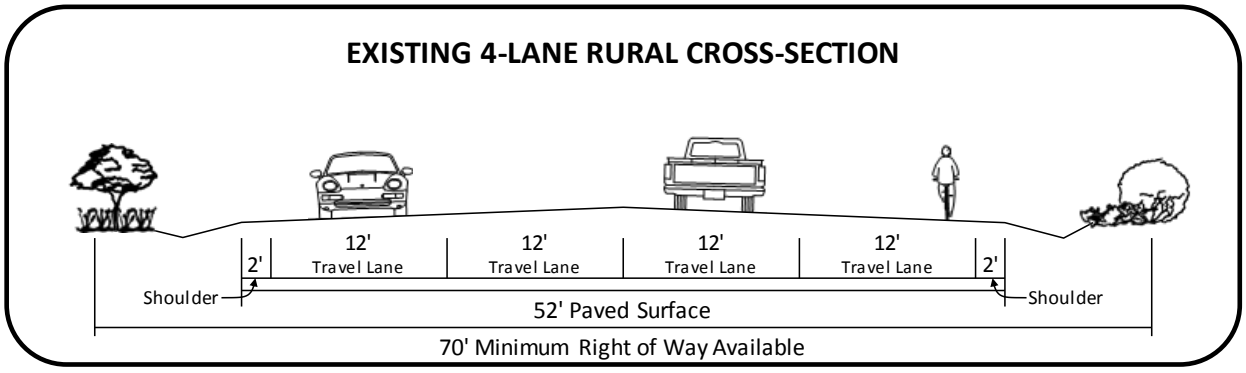
Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion

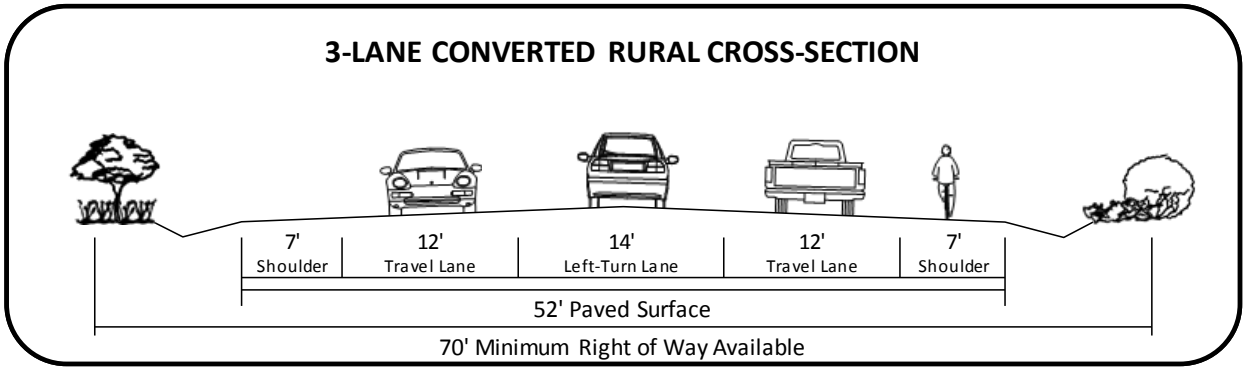
OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

Preliminary Alignment Concept



Potential Roadway Cross Section





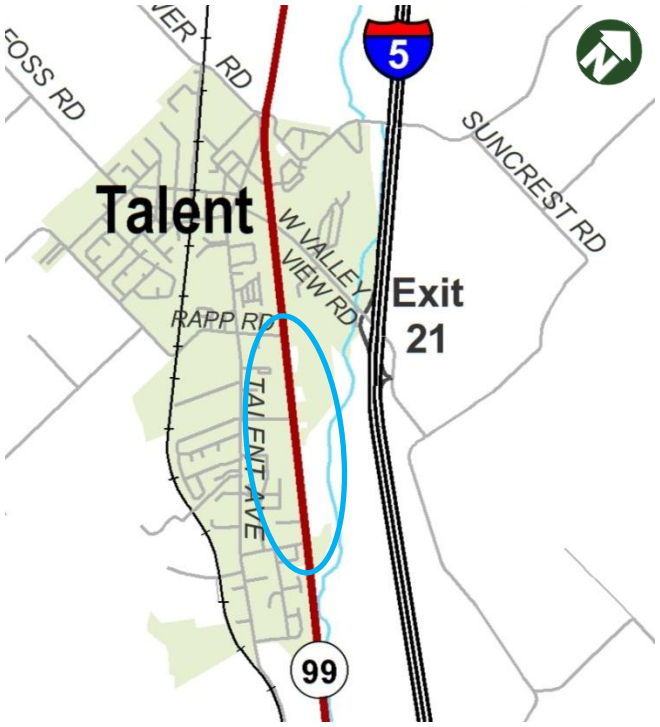
Notes:

1. *ODOT will not relinquish ROW even if a cross-section does not need as much as what is available.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

Project 14. OR 99 – Colver/Suncrest Rd to Rapp Rd: Pedestrian Facility Improvements		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	13.86 to 14.59	
Description	Upgrade or fill in missing sidewalks	
Purpose	▪ Complete pedestrian system	
Roadway Characteristics	▪ 5-lane cross section with bike lanes ▪ Sidewalks complete on west side of OR 99 ▪ Current (2010) ADT = 8,000 to 9,500 ▪ Forecast (2034) ADT = 11,000 to 15,000 ▪ Sensitivity Forecast ADT = 12,000 to 17,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ Spot locations have been paved to standard sidewalk width as development has occurred ▪ Some narrow sidewalks due to existing development restrictions ▪ Remaining area is dirt or narrow asphalt path	
	With Improvements	
	▪ Continuous paved sidewalks improve pedestrian safety ▪ Continuous sidewalk supports walking within community ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ Development on existing parcels may not allow for a full-width sidewalk ▪ Some easements or additional ROW may be required ▪ Construction assumed to occur with development or redevelopment of adjacent properties	
Cost Option	▪ Costs assumed to be incurred by adjacent development or redevelopment over time	
Implementation	▪ Ongoing ▪ Related to Project 15. OR 99 at Wagner Creek Greenway Trail: Midblock Crossing ▪ Related to Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion	

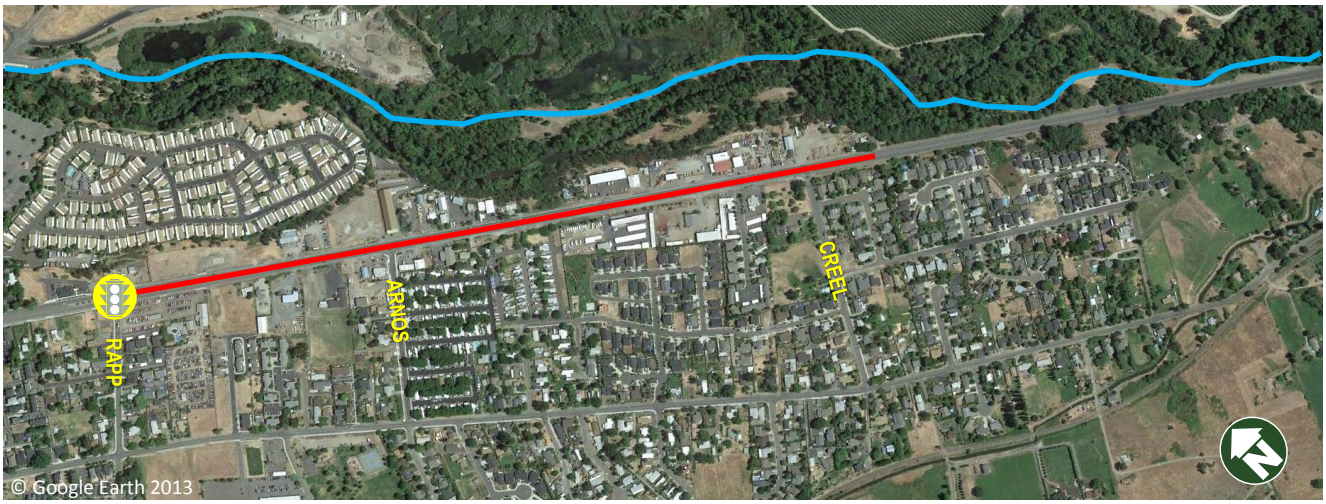
Project 15. OR 99 at Wagner Creek Greenway Trail: Midblock Crossing		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	14.39	
Description	Consider future midblock crossing with pedestrian activated devices	
Purpose	▪ Facilitate future trail crossing at OR 99	
Roadway Characteristics	▪ OR 99 has a 5-lane cross section with bike lanes and sidewalks ▪ Current (2010) ADT = 8,000 to 9,500 ▪ Forecast (2034) ADT = 11,000 to 15,000 ▪ Sensitivity Forecast ADT = 12,000 to 17,000 ▪ Wagner Creek Greenway Trail is a planned 1.5-mile multimodal connection between Talent residential areas and the Bear Creek Greenway	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ Wagner Creek Greenway Trail will eventually cross OR 99 midway between the W. Valley View Rd and Rapp Rd. intersections ▪ Short-term recommendation from the *Wagner Creek Greenway Connection Conceptual Plan* calls for signage requiring pedestrians/cyclists to turn right and use the sidewalk/bike lane to access the signalized intersections at Rapp Rd and W. Valley View Rd	
	With Improvements	
	▪ Long-term recommendation from the *Wagner Creek Greenway Connection Conceptual Plan* calls for a mid-block crossing with a center refuge island ▪ Pedestrian-activated crossing devices such as the RRFB should be considered at the future crossing (RRFBs increase driver awareness of pedestrian presence at a crossing and have higher driver compliance than striped crosswalks alone) ▪ Improved pedestrian and transit access benefits disadvantaged populations	
Additional Considerations	▪ RRFBs should be installed on both sides of the road and on the center refuge island ▪ RRFBs can be solar-powered pole-mounted units or an overhead sign could be provided by a mast arm ▪ Advance warning RRFBs should be considered with posted speed of 40 mph	
Cost Option	▪ $100,000 ▪ Assumes installation of solar-powered pole-mounted RRFBs and median island ▪ Interconnected advance warning RRFBs were not included in cost ▪ Excludes ROW acquisition	
Implementation	▪ Medium priority ▪ Coordinated with completion of Wagner Creek Greenway Trail connections ▪ Related to Project 14. OR 99 – Colver/Suncrest Rd to Rapp Rd: Pedestrian Facility Improvements	

Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	14.71 to 15.67
Description	Add curbs and sidewalks and restripe existing roadway to provide a center turn lane, two through travel lanes (one in each direction), and bike lanes (**STIP Key Number 17478)**
Purpose	▪ Improve safety ▪ Provide facilities for all travel modes
Roadway Characteristics	▪ Existing roadway width 50-52' ▪ Available ROW is 100' ▪ Posted speed on OR 99 is 45 mph ▪ 4-lane cross-section ▪ Current (2010) ADT = 8,000 to 9,000 ▪ Forecast (2034) ADT = 11,000 to 12,000 ▪ Sensitivity Forecast ADT = 13,000 to 14,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ No curbs, sidewalks, or bike lanes ▪ No center lane; left-turns from through travel lanes
	With Improvement ▪ STIP project will restripe roadway to include a center turn lane, two through travel lanes (one in each direction), as well as bike lanes and add curbs, and sidewalks ▪ 6' bike lanes provide clearly defined travel way for bicyclists ▪ 6' sidewalks improve pedestrian safety and access to transit ▪ Improved pedestrian and transit access benefits disadvantaged populations ▪ Center median lane improves safety with buffer between travel lanes and refuge for turning vehicles and pedestrians ▪ Meets HDM V/C ratio standard of 0.85 and OHP target of 0.95 on mainline and side streets ▪ 3-lane cross-section has lower predicted crash rate than 4- or 5-lane cross-section ▪ Maintains existing "hole in the air" of 25-26' for freight
Additional Considerations	▪ Can be constructed within existing 75' ROW ▪ No change in roadway surface – can add bike lanes with reduction from 4 lanes to 3 lanes ▪ Curbs and sidewalks can be added with or without landscape buffer ▪ Can potentially be completed in phases ▪ Need to consider transitions between 3-lane and 4-lane cross sections ▪ No impacts to adjacent properties ▪ Addition of curbs and sidewalks will require storm water treatment ▪ Addition of sidewalks could require extension of culverts and fish passage may need to be considered
Cost Option	▪ $3.3 million ▪ Cost estimate from 2012-2015 STIP Amended as of April 25, 2014
Implementation	▪ High priority - Funded ▪ Related to Project 14. OR 99 – Colver/Suncrest Rd to Rapp Rd: Pedestrian Facility Improvements ▪ Related to Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway ▪ Related to Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion

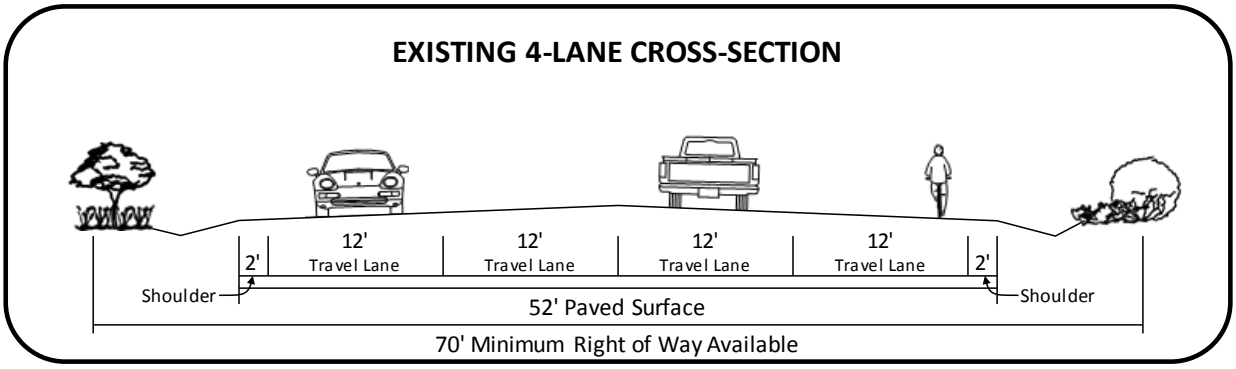


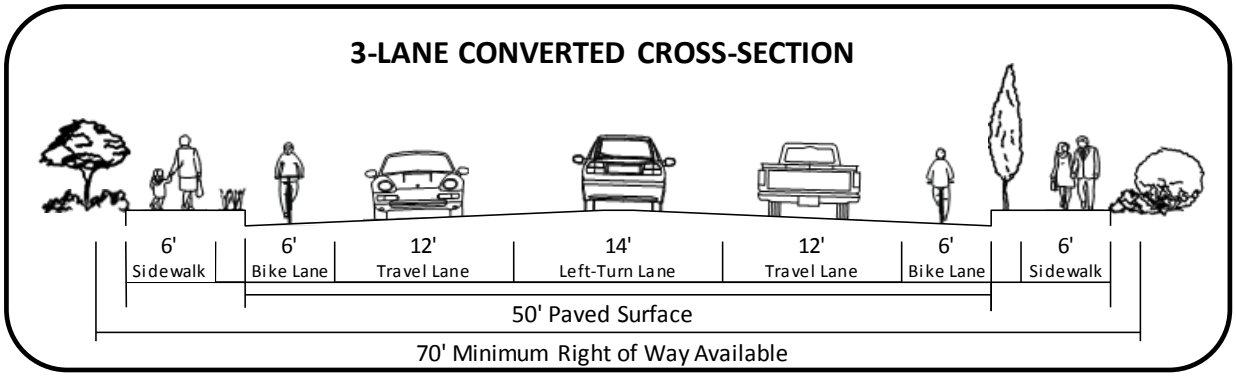
Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion

Preliminary Alignment Concept



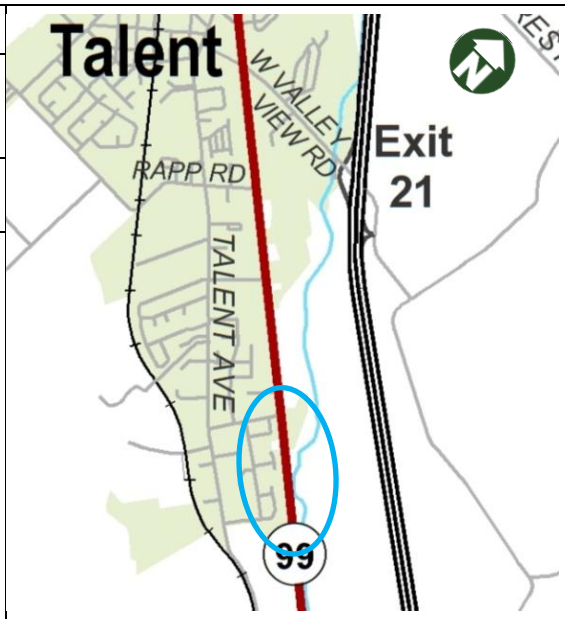
Potential Roadway Cross Section





Notes:

1. *ODOT will not relinquish ROW even if a cross-section does not need as much as what is available.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

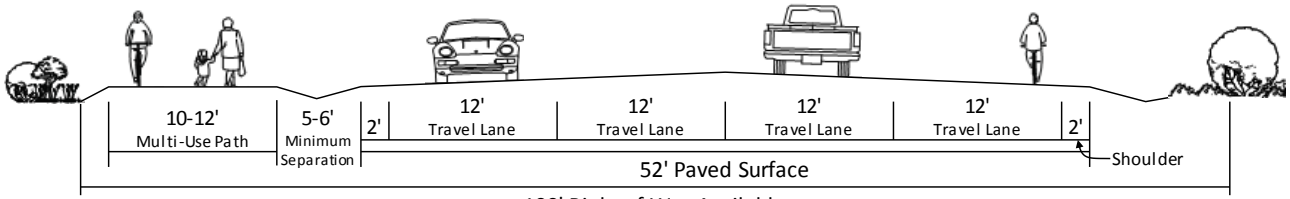
Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	15.34 to 15.67	
Description	Construct a multiuse path along the east side of OR 99 between Creel Rd and the first paved connection with Bear Creek Greenway	
Purpose	▪ Improve safety ▪ Provide facilities for all travel modes	
Roadway Characteristics	▪ Existing roadway width 50-52' ▪ Available ROW is 100' ▪ Posted speed on OR 99 is 45 mph transitioning to 55 mph ▪ 4-lane cross-section ▪ Current (2010) ADT = 8,000 to 9,000 ▪ Forecast (2034) ADT = 11,000 to 12,000 ▪ Sensitivity Forecast ADT = 13,000 to 14,000	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**	
	▪ Shoulder widths are narrow (2') ▪ Bicyclists and pedestrians must use the outer lane on OR 99 to access the Bear Creek Greenway south of Talent	
	With Improvement	
	▪ 10-12' paved multi-use trail connection from Creel Rd and OR 99 to Bear Creek Greenway ▪ Pedestrians can cross OR 99 at signal at Rapp Rd or at unsignalized intersections (Arnos Rd and Creel Rd) and have continuous off-street connection to Bear Creek Greenway south of Talent ▪ Bicyclists can cross at Creel Rd and use multi-use path to connect to Bear Creek Greenway south of Talent ▪ Minimum desired separation between path and highway is 5-6'	
Additional Considerations	▪ Can be constructed within existing ROW ▪ Trail connection benefits pedestrians and bicyclists destined for the Bear Creek Greenway even with lane conversion that would provide shoulders on OR 99 ▪ Driveway/trail interactions may require some access modifications for adjacent properties ▪ Addition of multi-use path will require storm water treatment considerations ▪ Section 4(f) and 6(f) consideration for Trail connections	
Cost Option	▪ $250,000 ▪ Excludes hazardous materials mitigation, or utilities relocation	
Implementation	▪ High priority ▪ Existing shoulder deficiency ▪ Related to Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion ▪ Related to Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion	

Preliminary Alignment Concept

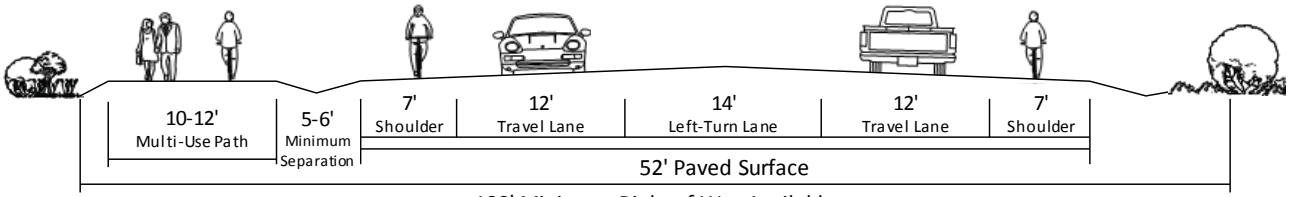
Existing Traffic Signal — Extent of Improvements — Bear Creek Greenway

Potential Roadway Cross Section

EXISTING 4-LANE RURAL CROSS-SECTION WITH MULTI-USE PATH



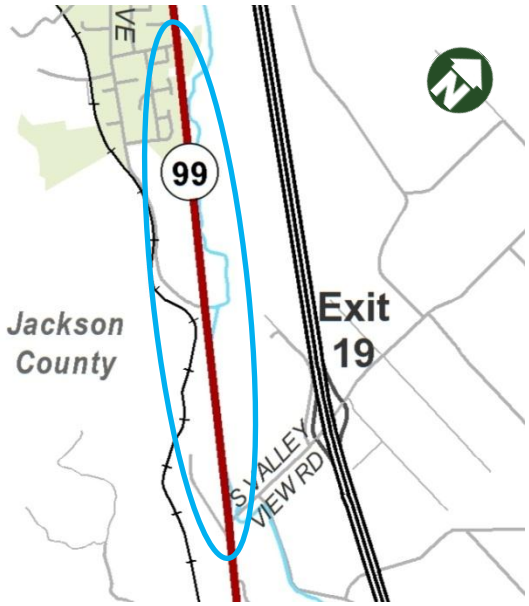
3-LANE CONVERTED RURAL CROSS-SECTION WITH MULTI-USE PATH



Notes:

1. *ODOT will not relinquish ROW even if a cross-section does not need as much as what is available.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

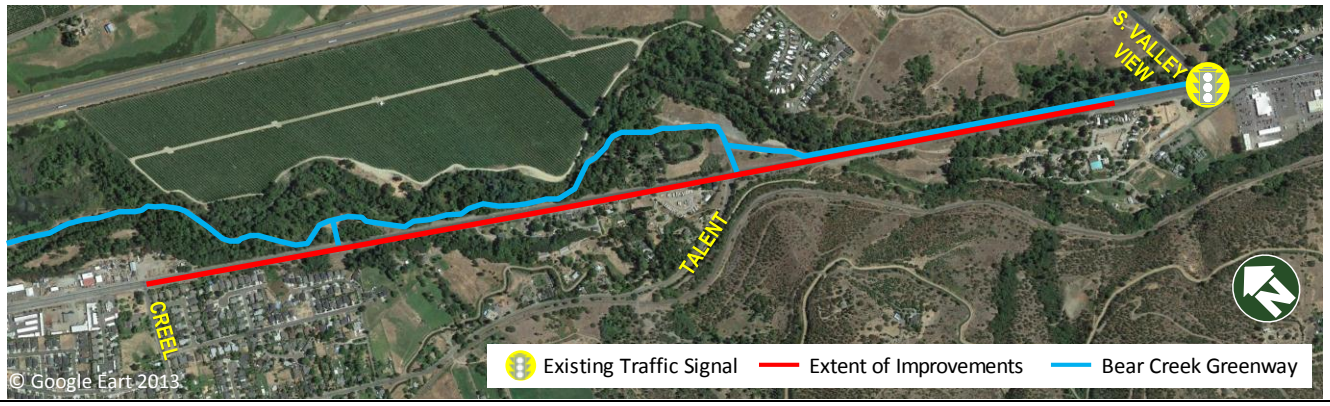
Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	15.34 to 16.92
Description	Restripe roadway to include a center turn lane, two through travel lanes (one in each direction), and shoulders
Purpose	▪ Improve safety ▪ Provide facilities for all travel modes
Roadway Characteristics	▪ Existing roadway width 50-52' ▪ Available ROW is 100' ▪ Posted speed on OR 99 is 55 mph ▪ 4-lane cross-section ▪ Multiuse path on east side of OR 99 from milepoint 16.26 to 17.02 ▪ Current (2010) ADT = 8,000 to 9,000 ▪ Forecast (2034) ADT = 13,000 to 14,000 ▪ Sensitivity Forecast ADT = 15,000 to 16,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Shoulder widths are narrow (2') ▪ Bicyclists (and pedestrians) must use the outer lane to travel through the area ▪ Transit buses may stop in travel lane
	With Improvement ▪ Project will restripe roadway to include a 14' center turn lane, two 12' through travel lanes (one in each direction), and 7' shoulders ▪ Wider shoulders accommodate bicyclists or pedestrians and allow vehicles to pull off the roadway, if necessary ▪ Center median lane improves safety with buffer between travel lanes and refuge for turning vehicles and pedestrians ▪ Left-turn lanes can be striped on OR 99 at its intersection with Talent Ave and the future Wrangler's Arena parking area/trailhead access road which will be aligned opposite Talent Ave ▪ Shorter crossing distances ▪ Improved pedestrian and transit access benefits disadvantaged populations ▪ 3-lane cross-section has lower predicted crash rate than 4-lane cross-section ▪ Maintains existing "hole in the air" of 26' for freight
Additional Considerations	▪ No change in roadway surface – can widen shoulders with reduction from 4 lanes to 3 lanes ▪ Need to consider transitions between cross sections with 2 travel lanes and 4 travel lanes ▪ No impacts to adjacent properties
Cost Option	▪ $750,000 ▪ Assumes restriping and signage, relocation of automatic traffic counter, and thin pavement overlay
Implementation	▪ Medium priority ▪ Based on existing shoulder deficiency ▪ 20-year forecast ADT must be below 18,000 ▪ Related to Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion ▪ Related to Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway



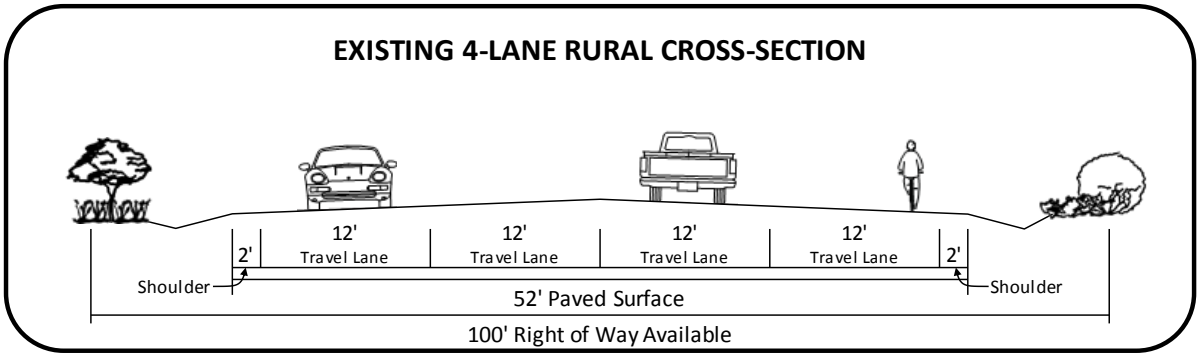
Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion

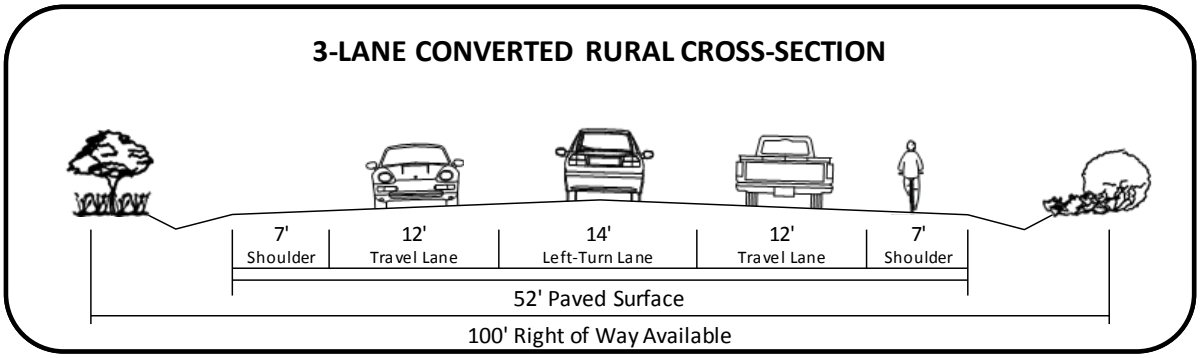
OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

Preliminary Alignment Concept



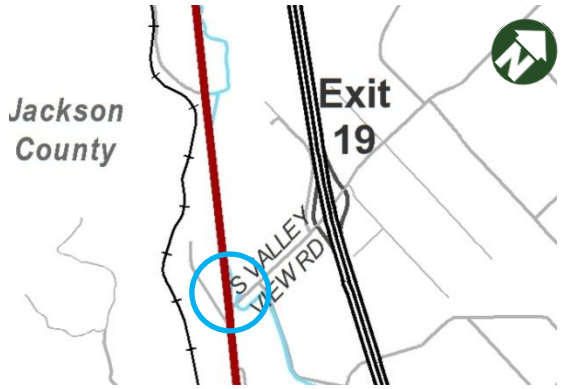
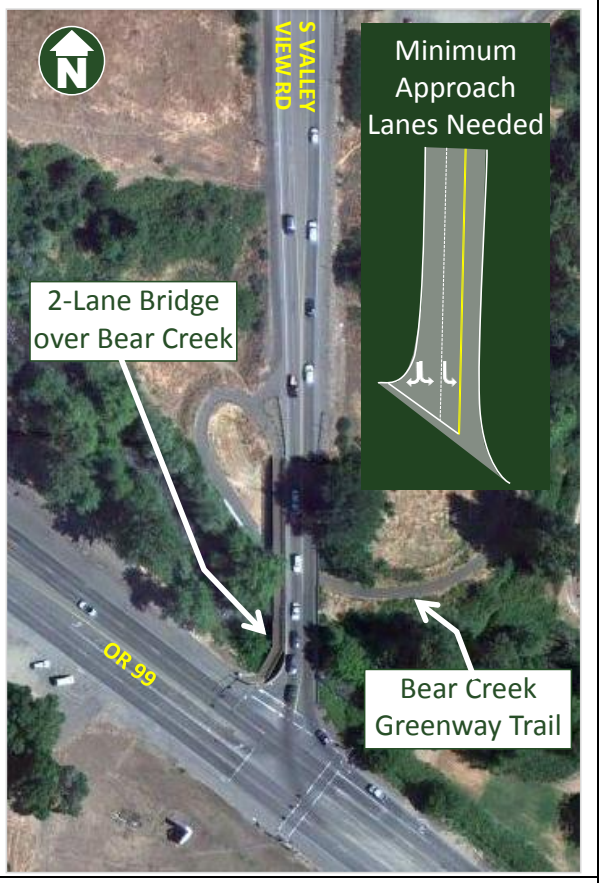
Potential Roadway Cross Section





Notes:

1. *ODOT will not relinquish ROW even if a cross-section does not need as much as what is available.*
2. *The cross section shown presents suggested widths; actual widths may vary when project is implemented.*

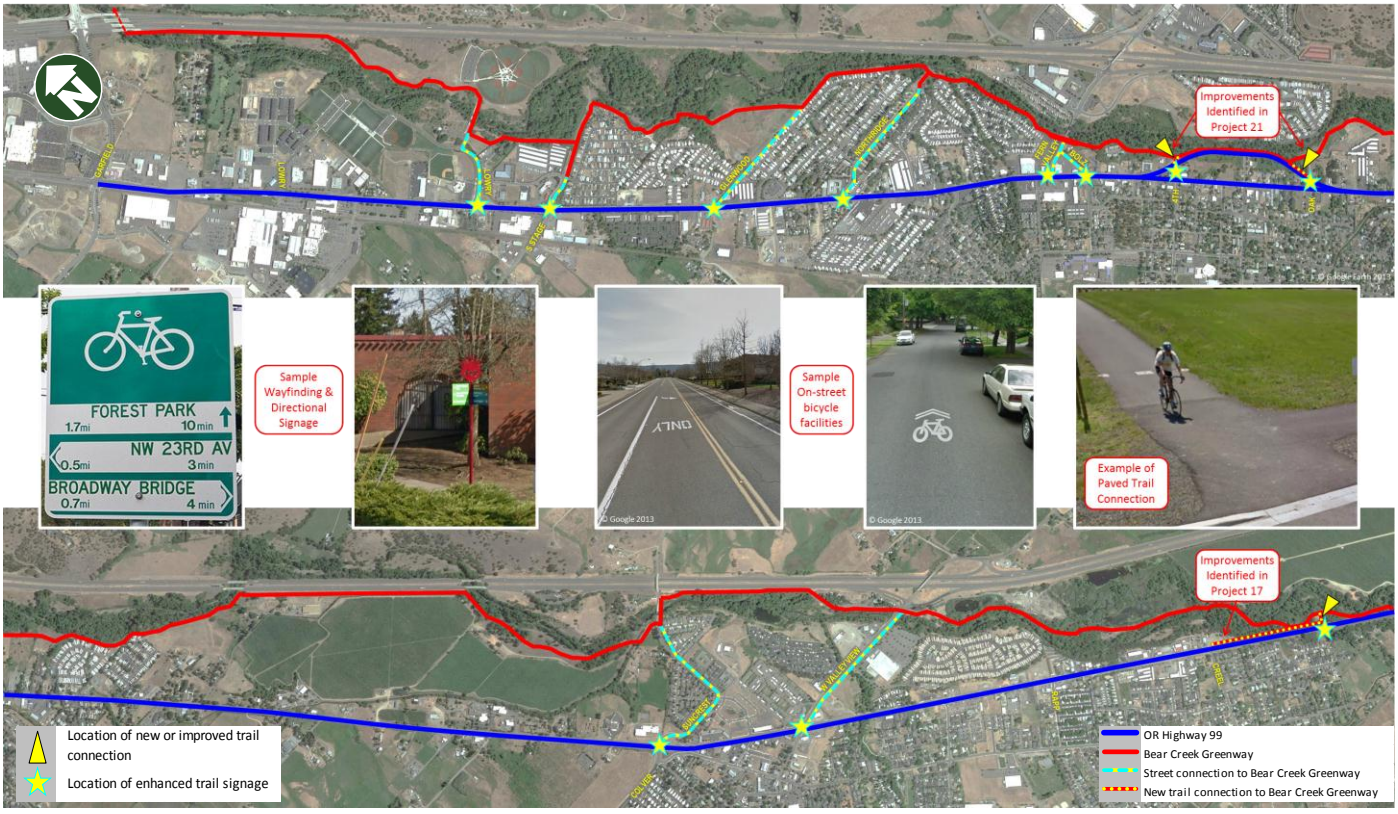
Project 19. OR 99/S. Valley View Rd Intersection: Dual Left-Turn Lanes on S. Valley View Rd		***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	17.02	
Description	Widen S. Valley View Rd to provide dual southbound left-turn lanes onto OR 99	
Purpose	▪ Increase capacity ▪ Improve safety	
Roadway Characteristics	▪ Current (2010) v/c =0.76 ▪ Forecast baseline (2034) v/c=0.87 ▪ Sensitivity analysis indicates intersection would be over capacity in 2034 ▪ 10 crashes in 5-year analysis period including 3 rear end and 2 turning collisions	
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Intersection capacity is constrained by single lane approach on S. Valley View Rd arising from Bear Creek bridge ▪ Future demand will eventually exceed capacity and long queues will form on S. Valley View Rd **With Improvement** ▪ Forecast baseline (2034) v/c = 0.62 with dual southbound left-turn lanes ▪ Improved operations could mean fewer stops at the intersection thus reducing rear end collision potential	**Preliminary Alignment Concept** 
Additional Considerations	▪ Jackson County zoning is open space reserve and exclusive farm use along S Valley View Rd ▪ S Valley View Bridge crosses Bear Creek and the Greenway Trail ▪ Section 4(f) and 6(f) impacts to Greenway Trail ▪ Impacts to Bear Creek and wildlife associated with bridge replacement ▪ Additional storm water treatment needed with increased impervious surface ▪ Consideration of Statewide Planning Goals needed ▪ ROW impacts anticipated	
Cost Option	▪ $15 million from Table 5.6.1 of the 2013-2038 RTP	
Implementation	▪ Medium to Low priority ▪ Persistent congestion (v/c > 0.95) ▪ Related to Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion	

Project 20. Bear Creek Greenway: Enhance Connections to OR 99	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	8.56 to 17.02
Description	Enhance connections to OR 99 throughout corridor with wayfinding signage and other amenities at existing and new trail access points
Purpose	Increase visibility of, and connections to, the Bear Creek Trail
Roadway Characteristics	▪ Nine existing street connections between OR 99 and the Bear Creek Greenway
How Improvement Addresses Deficiencies	**Existing/Future Deficiency**
	▪ Most connections have no wayfinding signage on OR 99 indicating proximity to trail ▪ Some but not all existing connections have sidewalks on at least one side of the street ▪ Most connections have bikes and motor vehicles sharing travel lanes
	With Improvement
	▪ 3 new or improved connections to Bear Creek Greenway ▪ Bike indicators such as sharrows or bike lanes on existing connections ▪ Paved trail connections rather than gravel ▪ Wayfinding signage on both OR 99 and Bear Creek Greenway
Additional Considerations	▪ No roadway geometry changes are anticipated ▪ Enhanced signage along OR 99 placed within ODOT ROW ▪ Any striping or signage that may also be added to local streets be placed within public ROW ▪ New path connections may require additional ROW or easements ▪ New access points may require some additional ROW - could be addressed with easement or public/private partnership ▪ One connection would require wetlands mitigation (See Project 21. Bear Creek Greenway: Improve Connections in Downtown Phoenix)
Cost Option	▪ $50,000 for enhanced greenway connections ▪ $700,000 for new connections ▪ Excludes ROW acquisition, hazardous materials mitigation, natural resources mitigation, or utilities relocation
Implementation	▪ High priority ▪ Available funding ▪ Related to Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway ▪ Related to Project 21. Bear Creek Greenway: Improve Connections in Downtown Phoenix

Project 20. Bear Creek Greenway: Enhance Connections to OR 99

OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road

Preliminary Concept

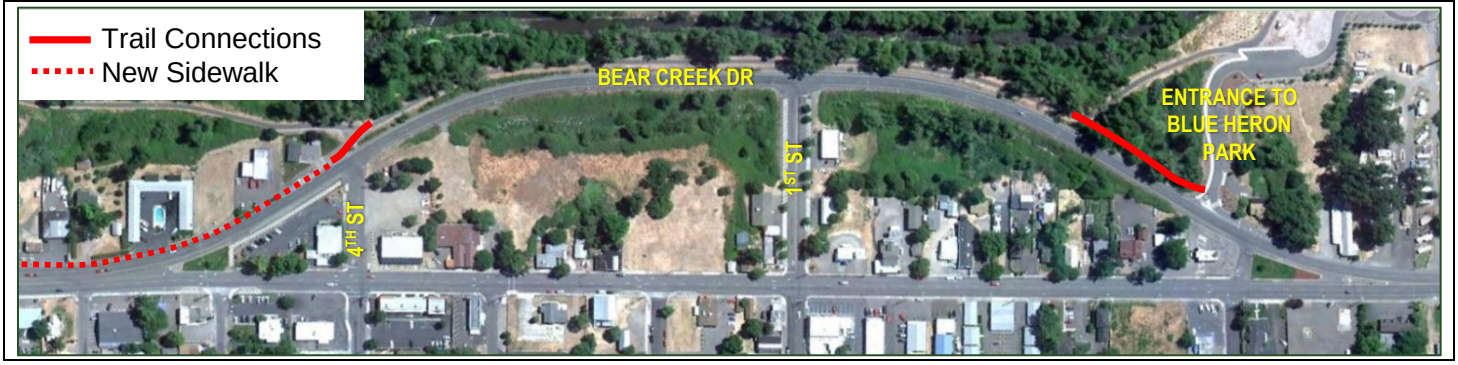


Potential Improvements

Locations	Existing Facilities	Potential Improvements
Enhanced Trail Signage		
OR 99 at Lowry Ln	Sidewalks on north side	Could add bicycle sharrows
OR 99 at South Stage Rd	Existing bike lanes & sidewalks	No changes
OR 99 at E. Glenwood Rd	Unpaved easement	Consider paving to trail
OR 99 at Northridge Try	Sporadic sidewalks	Could add bicycle sharrows
OR 99 at Fern Valley Rd (N. Phoenix Rd)	Bike lanes & sidewalks constructed as part of Interchange project	No changes
OR 99 at Bolz Rd		
OR 99 at 4th St	Sidewalks on north side	Could add bicycle sharrows or possible bike lane striping
OR 99 at Oak St	No facilities	Could add bike lane striping and sidewalks
OR 99 at Suncrest Rd	Some bike lane striping, continuous sidewalk on one side	Could add bicycle sharrows
OR 99 at W. Valley View Rd	Existing bike lanes & sidewalks	No changes
New Connection Opportunities		
Connection to Bear Creek Dr opposite 4th St	Currently unpaved	Project 21 includes paving gravel connection
Connection to Bear Creek Dr at entrance to Blue Heron Park	Currently use park entrance to connect to trail	Project 21 includes constructing a new direct connection
Connection to OR 99 south of Creel Rd	Currently informal connection	Pave connection and include signage
Connection to Creel Rd	Currently use OR 99	Project 17 includes new multi-use path

Project 21. Bear Creek Greenway: Improve Connections in Downtown Phoenix	***OR 99 Rogue Valley Corridor Plan: Garfield Street to S. Valley View Road***
Milepoint	11.33 to 11.92
Description	Improve connections to OR 99/Bear Creek Dr at 4th St and Oak St/Blue Heron Park to provide parallel and convenient bicycle and pedestrian facilities
Purpose	Provide facilities along OR 99 for all modes of travel
Roadway Characteristics	▪ Bear Creek Dr is 28' and carries northbound traffic only ▪ Current (2010) ADT = 5,000 to 8,000 ▪ Forecast (2034) ADT = 7,000 to 10,000
How Improvement Addresses Deficiencies	**Existing/Future Deficiency** ▪ Bear Creek Dr is not wide enough to accommodate two travel lanes and multimodal facilities (i.e., bike lane and/or sidewalks) **With Improvement** ▪ South Connection: 10-12' paved multi-use path connection from Bear Creek Dr to Greenway at park entrance ▪ North Connection: 10-12' paved multi-use connection from Trail to Bear Creek Dr at 4th St ▪ From North Connection: Sidewalk added on OR 99 to extent of Fern Valley Interchange Improvements ▪ Provides convenient connections to off-street trail for bicycles/pedestrians traveling on east side of OR 99 ▪ Adds some travel time for a bicyclist when compared to traveling on roadway, but provides safety benefits ▪ Existing street lighting along Bear Creek Dr illuminates Greenway Trail but additional lighting may be desirable ▪ New OR 99 sidewalks would widen around existing utility poles or poles would need to be relocated ▪ Improved pedestrian and transit access benefits disadvantaged populations
Additional Considerations	▪ South connection would include short retaining wall and protective railing ▪ South connection through wetland area would require mitigation ▪ Section 4(f) and 6(f) consideration for Trail connections
Cost Option	▪ $400,000 for south connection ▪ $50,000 for north connection ▪ Excludes ROW acquisition, hazardous materials mitigation, or utilities relocation
Implementation	▪ Medium priority ▪ Existing bicycle and pedestrian deficiency ▪ Related to urban renewal projects ▪ Related to Project 11. OR 99 – Downtown Phoenix: Pedestrian Facility Improvements ▪ Related to Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion

Preliminary Concept



5. ACCESS MANAGEMENT PLAN

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5. ACCESS MANAGEMENT PLAN

The Access Management Plan represents actions that may be triggered as (1) land use changes occur (new development or redevelopment); (2) applications for a private road approach permit are submitted; (3) future highway improvements are implemented; or (4) highway safety and operational issues arise.

5.1. Access Management Standards

The OR 99 Access Management Plan governs ODOT's decisions of all road approaches to OR 99 from the Garfield Street intersection to the S. Valley View Road intersection. Table 10[11] establishes the standards applicable to the OR 99 corridor. These standards are based on roadway OHP standards, district highway classification, and future traffic demand.

Table 10. Access Spacing Standards for OR 99

Milepoints	Segment Description		Posted Speed (mph)	Minimum Spacing[1] (feet)
South Medford and Transition to Phoenix Segments				
8.56 to 11.03	Garfield St to Phoenix North City Limits		45	500
Phoenix Segment				
11.03 to 11.43	Phoenix North City Limits to 5th St		30	350
11.43 to 11.85	Special Transportation Area (STA)	Main St (OR 99 SB) from 5th St to Oak St	30	175[2]
11.43 to 11.85		Bear Creek Dr (OR 99 NB) from 5th St to Oak St	35	175[2]
11.85 to 11.93	Main St (OR 99 SB) from Oak St to South End of Couplet		30	350
11.85 to 11.93	Bear Creek Dr (OR 99 NB) from Oak Street to South End of Couplet		35	350
11.93 to 12.37	South End of Couplet to Phoenix South City Limits		40	500
Phoenix to Talent Transition Segment				
12.37 to 12.62	Phoenix South City Limits to End of Speed Zone		50	550
12.62 to 13.86	End of Speed Zone to Talent North City Limits (Colver/Suncrest Rd)		55	700
Talent Segment				
13.86 to 14.38	Colver/Suncrest Rd to Rapp Rd		40	500
14.38 to 15.38	Rapp Rd to End Speed Zone (Talent South City Limits)		45	500
Talent to Ashland Transition Segment				
15.38 to 16.77	Talent South City Limits to 0.25 miles north of S. Valley View Rd		55	700
16.77 to 17.02	0.25 miles north of S. Valley View Rd to S. Valley View Rd		45	500

Notes:
1. Table 6: Access Management Spacing Standards for District and Unclassified Highways with Annual Average Daily Traffic > 5,000, OAR 734-51 Effective June 30, 2014 (Table 15 in the revised OHP).
2. OHP Table 15, Note 6, " the minimum access management spacing for driveways is 175 feet or mid-block if the current city block is less than 350 feet." (Also OAR 734-051-4020, Standards and Criteria for Approval of Private Approaches, Section 8(b)(D))

[11] Table 10 is the same as Table 2 presented in *Section 2.1.2. Applicable Access Management Standards*.

Ideally, a project includes provisions by which access can be made fully compliant with the OR 99 Corridor Plan spacing standards established in Table 2 (repeated in Table 10). In many instances, access needed for existing development will not allow these standards to be met. When the requirements and standards cannot be met, progress toward meeting the applicable standards must be demonstrated or a deviation must be justified and approved by the ODOT Region Access Management Engineer or Region Manager.

5.2. Access Inventory

Access inventory data was obtained from ODOT's Official Project Access List (OPAL) for OR 99 from just south of South Stage Road (MP 9.97) to Jackson Road (MP 17.80). These data include public street intersections and public/private approaches to OR 99. Some additional (non-OPAL) data was provided between Garfield Street (MP 8.56) and South Stage Road (MP 9.97); however, the majority of the streets/approaches in this section of roadway were identified by visual assessment of an aerial and do not include milepoint or coordinates (latitude/longitude). A total of 434 accesses were identified (219 on the left side, 215 on the right side).

ODOT requires approach permits for approaches to highways under its jurisdiction, but many driveways and public streets predate the permitting process or have come into existence without permits. Of the accesses that have permits, some have been cancelled or are expired. Existing access permits were found for 110 accesses along the corridor, four of which are public roadways. Based on the revised OAR 734-051, ODOT does not require a "Permit to Operate and Maintain" a public approach. The permit is optional for the local agency.

Along the OR 99 corridor, speeds and traffic volumes vary as do the adjacent lands uses (urban or rural). Table 11 summarizes the driveway access spacing between the public roadways that intersect OR 99. Because access spacing is measured along one side of the roadway without regard for connections on the opposite side Table 11 considers spacing on the "right" and "left" sides of the roadway when traveling from south to north (ascending mile points).

Table 11. Driveway Access Spacing between Public Roadways

Segment on OR 99	Begin MP	Distance (miles)	Posted Speed (mph)	Spacing Standard (feet)	No. of Driveway Accesses	No. of Accesses Meeting Standard
ACCESS POINTS ON RIGHT SIDE OF OR 99 (Ascending Milepoints)						
Garfield St to Bear Creek Corp	8.56	0.71	45	500	2	2
Bear Creek Corp to South Stage Rd	9.27	0.52			6	1
South Stage Rd to E. Glenwood St	9.79	0.64			8	0
E. Glenwood St to Rose St	10.23	0.62			32	0
Rose St to Posted Speed Change	10.86	0.17			3	0
Posted Speed Change Cheryl Ave	11.03	0.08	30	350	1	0
Cheryl Ave to Bolz Ln	11.11	0.14			3	0
Bolz Ln to 6th St	11.25	0.11			4	0
6th St to 5th St *(Main St/Bear Creek Dr)*	11.36	0.06	30/35	350	2 *(2/0)*	0

Table 11. Driveway Access Spacing between Public Roadways

Segment on OR 99	Begin MP	Distance (miles)	Posted Speed (mph)	Spacing Standard (feet)	No. of Driveway Accesses	No. of Accesses Meeting Standard
5th St to 4th St *(Main St/Bear Creek Dr)*	11.43	0.06	30/35	175	4 *(3/1)*	1 *(0/1)*
4th St to 3rd St *(Main St/Bear Creek Dr)*	11.49	0.06			2 *(1/1)*	2 *(1/1)*
3rd St to 2nd St *(Main St/Bear Creek Dr)*	11.55	0.06			3 *(3/0)*	0
2nd St to 1st St *(Main St/Bear Creek Dr)*	11.61	0.06			2 *(2/0)*	0
1st St to Oak St *(Main St/Bear Creek Dr)*	11.67	0.18			11 *(11/0)*	0
Oak St to Couplet End *(Main St/Bear Creek Dr)*	11.85	0.08	30/35	350	6 *(5/1)*	0
Couplet End to Phoenix City South Limits	11.93	0.44	35	500	13	0
Phoenix South City Limits to End Speed Zone	12.37	0.25	50	550	10	0
End Speed Zone to Hartley Rd	12.62	0.75	55	700	13	1
Hartley Rd to Colver Rd	13.37	0.49			3	1
Colver Rd to New St	13.86	0.21	40	500	5	0
New St to W. Valley View Rd	14.07	0.13			5	0
W. Valley View Rd to Rapp Rd	14.20	0.39			12	0
Rapp Rd to Arnos Ln	14.59	0.31	45	500	10	1
Arnos Ln to Tulipan Rd	14.90	0.36			9	0
Tulipan Rd to Creel Rd	15.26	0.08			1	0
Creel Rd to End Speed Zone	15.34	0.04			0	1
End Speed Zone to Talent Ave	15.38	0.89	55	700	20	0
Talent Ave to Begin Speed Zone	16.26	0.51			5	2
Begin Speed Zone to S. Valley View Rd	16.77	0.25	45	500	2	0
ACCESS POINTS ON LEFT SIDE OF OR 99 (Ascending Milepoints)						
Garfield St to Charlotte Anne Rd	8.56	0.25	45	700	2	1
Charlotte Anne Rd to Lowry Ln	8.81	0.26			3	1
Lowry Ln to Matt Loop	9.07	0.33			3	1
Matt Loop to Lowry Rd	9.41	0.19			1	1
Lowry Rd to South Stage Rd	9.59	0.20			0	NA
South Stage Rd to W. Glenwood St	9.79	0.45			9	1
W. Glenwood St to Northridge Terrace	10.24	0.35			12	0
Northridge Terrace to Oak Crest Way	10.58	0.19			5	0
Oak Crest Way to Posted Speed Change	10.77	0.26			11	0
Posted Speed Change to Fern Valley Rd	11.03	0.12	30	350	6	0
Fern Valley Rd to Bolz Ln	11.15	0.10			2	0
Bolz Ln to 5th St *(Main St/Bear Creek Dr)*	11.25	0.18	30/35	350	9 *(5/4)*	0
5th St to 4th St *(Main St/Bear Creek Dr)*	11.43	0.06	30/35	175	3 *(1/2)*	1 *(1/0)*
4th St to 1st St *(Main St/Bear Creek Dr)*	11.49	0.18			10 *(10/0)*	0
1st St to W. Oak St *(Main St/Bear Creek Dr)*	11.67	0.18			13 *(13/0)*	0
Oak St to Couplet End *(Main St/Bear Creek Dr)*	11.85	0.08	30/35	350	4 *(1/3)*	1
Couplet End to Phoenix South City Limits	11.93	0.44	40	500	16	0
Phoenix South City Limits to Cabbage Ln	12.37	0.22	50	550	11	0
Cabbage Ln to End Speed Zone	12.59	0.03	55	700	0	0
End Speed Zone to Suncrest Rd	12.62	1.24			29	1
Suncrest Rd to Fairview Dr	13.86	0.21	40	500	3	0
Fairview Dr to W. Valley View Rd	14.07	0.13			1	0
W. Valley View Rd to Rapp Rd	14.20	0.18			7	1
Rapp Rd to End Speed Zone	14.38	1.00	45	500	29	0
End Speed Zone to Begin Speed Zone	15.38	1.39	55	700	5	3
Begin Speed Zone to S. Valley View Rd	16.77	0.25	45	500	1	0

Note: Spacing standard is based on Table 6: Access Management Spacing Standards for District and Unclassified Highways with Annual Average Daily Traffic > 5,000, OAR 734-51 Effective June 30, 2014 (Table 15 in the revised OHP).

Source David Evans and Associates, Inc.:

The Fern Valley Interchange Project is reconstructing the portion of OR 99 from south of Coleman Creek to north of 6th Street. The project includes access changes that are not reflected in the access inventory presented in Table 11 but move towards compliance with access spacing standards.

5.3. Key Principles of Access Management Plan

The Access Management Plan was developed balancing the key principles of safety and mobility for all users with regional and local economic vitality, which is consistent with the overarching corridor plan goals. These principles were applied in the following manner:

1. **Safety:** Crash data was evaluated to identify locations where turning or angle collisions have occurred at accesses along the highway. These types of collisions generally result in more frequent and severe injuries.
   - *Recommended Actions: Evaluate potential access modifications to address high crash frequency (Northridge Terrace to Coleman Creek is specifically identified as an existing segment of concern).*
   - *Triggers: Access modifications would be considered when a location is in the worst 10% in the SPIS and access restrictions could potentially reduce crash frequency, especially those collision types that more often result in injuries.*
   - *Economic Considerations: Raised median islands have been identified to support pedestrian crossings near unsignalized transit stops but are not identified for access control in the Access Management Plan. ODOT may not impose non-traversable medians as a mitigation measure for approach permit applications unless the department first establishes that no other mitigation measures are effective or available under the circumstances.*
2. **Mobility:** Projects were identified that improve corridor mobility for all system users while maximizing the use of existing infrastructure.
   - *Recommended Actions: Projects include creating a complete sidewalk system along OR 99, adding bike facilities along OR 99, adding center turn lanes where none currently exist, and widening shoulders. Access management would be considered with implementation of each project.*
   - *Triggers: Most of the improvements address existing deficiencies of the corridor. Lane conversions would be considered where the 20-year forecast ADT is less than 18,000 vpd.*
   - *Economic Considerations: Multimodal accessibility to businesses and residences throughout the corridor realizes numerous economic benefits (improved land values, health, and equity; reduced congestion, vehicle costs, energy usage, and pollution). Projects that maximize the use of existing infrastructure can have fewer property impacts and may trigger fewer access changes. The identified projects do not reduce the vehicle-carrying capacity required for freight movement on the highway.*

5.4. Access Management Plan Implementation

The Access Management Plan for OR 99 includes a variety of measures that may be implemented when one or more of the following triggers occur:

1. Applications for land use changes or development are submitted
2. Applications for a private road approach permit are submitted
3. Future highway improvement projects move into design and construction
4. Safety and/or operational problems arise

The plan consists of policies that guide when and how access management measures would be implemented along with specific actions associated with projects along the OR 99 corridor. Ultimately, approval or delay of implementation may be determined by the Region Access Management Engineer and Region Manager.

5.4.1. General Policy

General access management policies that apply to the OR 99 corridor between Garfield Street and S. Valley View Road include:

- **Policy 1:** Access management measures shall be applied with a desire to move towards achieving applicable access spacing standards over time.
- **Policy 2:** Consolidation, closure, or modification of driveways in an effort to move towards achieving applicable access spacing standards in accordance with OAR 734-051 shall be considered when any of the following conditions are met:
    - *Property develops or redevelops and when reasonable access can be provided with a single access point or via a local street.*
    - *An application for a private road approach permit is submitted.*
    - *Future roadway improvements move into design and construction.*
    - *The annual accident rate is 20 percent greater than the statewide rate for similar roadways or a section has an ODOT SPIS rating in the worst 10 percent.*
- **Policy 3:** Turn limitations shall be considered when any of the following conditions are met:
    - *Future roadway improvements move into design and construction.*
    - *The annual accident rate is 20 percent greater than the statewide rate for similar roadways or a section has an ODOT SPIS rating in the worst 10 percent.*
- **Policy 4**: Opportunities to construct local network connections should be considered with adjacent development to expand access options for both future and existing parcels.

5.4.2. Specific Actions

Specific access management actions are recommended below. One action is related to existing safety concerns and could be taken independently of project implementation. The other actions should be taken when OR 99 Corridor Plan projects are implemented; that is, they are funded to move into design and construction. At the time of implementation, an access management strategy for the specific project should be developed. These actions are summarized by roadway segment.

Segment 1: OR 99 from South Medford to Phoenix

The OR 99 Corridor Plan includes seven projects along the segment of OR 99 between Garfield Street and the Coleman Creek culvert. Most of these projects include modifications to the roadway cross section such as new sidewalks, median island installation, intersection improvements, and culvert reconstruction or replacement. Project 2 only modifies lane striping and is not anticipated to include access management measures.

Recommended access management actions, identified in Figure 9, include:

- **Action 1:** Monitor crash patterns and SPIS ratings for the segment of OR 99 between Northridge Terrace and Coleman Creek culvert (MP 10.58-11.03) which is called out with a red circle on Figure 9. If a continued pattern of turning and angle collisions persists and/or the segment maintains a rating in the worst 10% of the SPIS, access management measures should be evaluated to determine if crash rates and severity can be reduced. Development of a management strategy should then be prioritized, even if other improvements take longer to implement.
- **Action 2:** When design begins for Project 1. OR 99 – Garfield St to Charlotte Anne Rd: Sidewalk Improvements (MP 8.56-8.75), consider consolidation, closure, or modification of driveways on the west side of OR 99 in the vicinity of Charlotte Anne Road to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 3:** When design begins for design begins for Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements (MP 8.87-11.03), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 4:** When design begins for Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands (assorted locations MP 8.75-11.03), consider turn limitations in the vicinity of the median islands to improve the function and safety of the crossings, especially for pedestrians.
- **Action 5:** When design begins for Project 5. OR 99/Northridge Terrace Intersection: Safety Improvements (MP 10.58), consider consolidation, closure, or modification of

driveways in the vicinity of the intersection to improve the safety and function of the intersection for all travelers (motorists, bicyclists, and pedestrians).

- **Action 6:** When design begins for Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements (MP 11.03-11.04), consider turn limitations where the center lane is narrowed to maintain the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 7:** When design begins for Project 7. OR 99/Coleman Creek Crossing: Replacement (MP 11.03-11.04), consider consolidation, closure, or modification of driveways in the vicinity of the culvert to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 2: OR 99 Phoenix Segment

The OR 99 Corridor Plan includes five projects along the segment of OR 99 between the Coleman Creek culvert and Cabbage Lane. One of these (Project 8) assumes sidewalk improvements that would occur with other projects or as adjacent parcels develop/redevelop and access management would be guided by the policies in this plan. Three projects (Project 9 through Project 11) are downtown improvements on the section of OR 99 designated as an STA that will transfer to City of Phoenix jurisdiction with the completion of the Fern Valley Interchange project. As project elements such as curb extensions or pedestrian crossings are implemented, measures to maintain safety for all travelers should be incorporated. Only one of these projects includes modifications to the roadway cross section which would likely result in an access management strategy during project development.

Recommended access management actions, identified in Figure 9, include:

- **Action 8:** When design begins for Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion (MP 11.96-12.36), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 3: OR 99 from Phoenix to Talent

The OR 99 Corridor Plan includes one project along the segment of OR 99 between north of Cabbage Lane and Culver/Suncrest Road which includes modifications to the roadway cross section.

Recommended access management actions, identified in Figure 9, include:

- **Action 9:** When design begins for Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion (MP 12.37-13.86), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 4: OR 99 Talent Segment

The OR 99 Corridor Plan includes four projects along the segment of OR 99 between the city limits (Colver/Suncrest Road and south of Creel Road). One of these (Project 14) assumes sidewalk infill along the east side of the highway as adjacent parcels develop and access management would be guided by the policies. Two of these projects focus on pathway or pedestrian crossing improvements. The other project is a STIP project that would improve the highway from Rapp Road southward through Creel Road.

Recommended access management actions, identified in Figure 9, include:

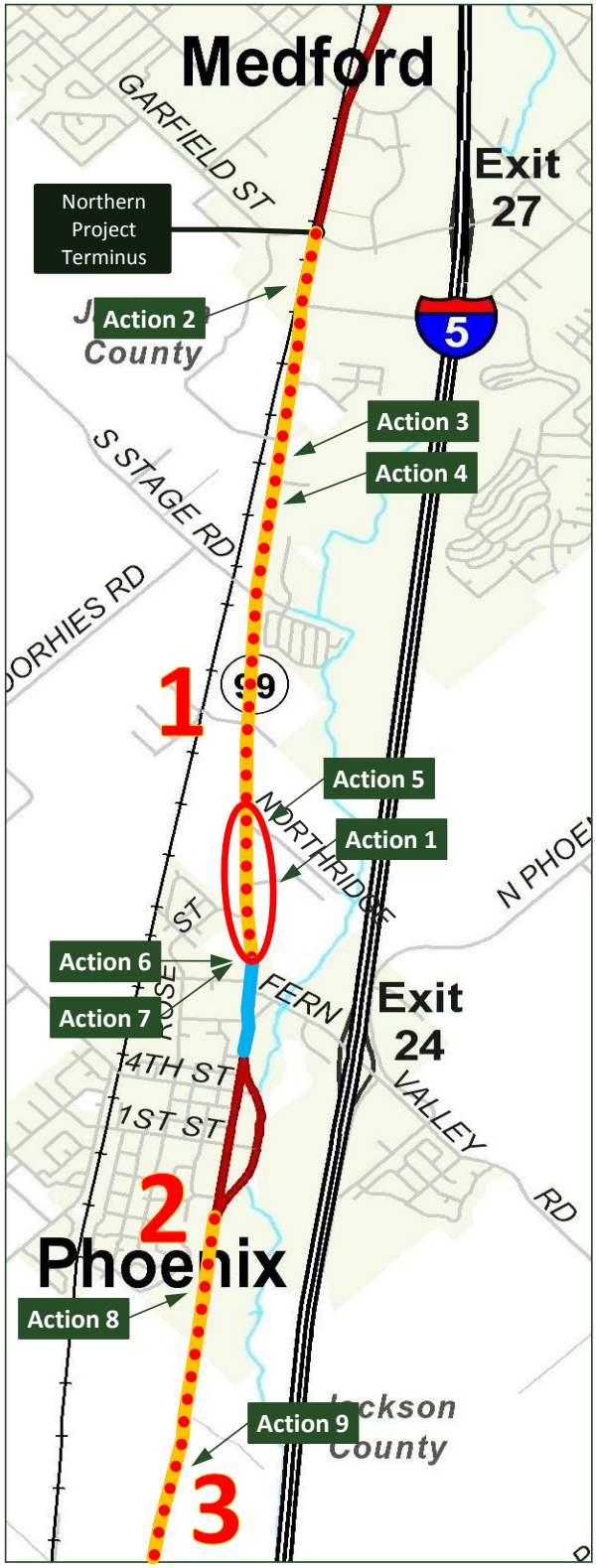
- **Action 10:** When design begins for Project 15. OR 99 at Wagner Creek Greenway Trail: Midblock Crossing (MP 14.39), include raised median as part of crossing and assess whether turn limitations in the vicinity of the crossing would improve the function and safety for pedestrians.
- **Action 11:** As Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion (MP 14.71-15.67) is implemented through the current STIP (Key Number 17478), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 12:** When design begins for Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway (MP 15.34-15.67), consider consolidation, closure, or modification of driveways on the east side of the highway for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 5: OR 99 from Talent to Ashland

The OR 99 Corridor Plan includes two projects along the segment of OR 99 between the southern city limits (south of Creel Road) to S. Valley View Road. Both projects on this segment include roadway modifications such as intersection turn lanes, providing a wider bike lane/shoulder, and additional lane capacity.

Recommended access management actions, identified in Figure 9, include:

- **Action 13:** When design begins for Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion (MP 15.34-16.92), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 14:** When design begins for Project 19. OR 99/S. Valley View Rd Intersection: Dual Left-Turn Lanes on S. Valley View Rd (MP 17.02), consider consolidation, closure, or modification of driveways in the vicinity of the intersection to improve the safety and function of the intersection for all travelers (motorists, bicyclists, and pedestrians).



Recommended Access Management Actions

Segment 1: OR 99 from South Medford to Phoenix

- **Action 1:** Monitor crash patterns and SPIS ratings for the segment of OR 99 between Northridge Terrace and Coleman Creek culvert (MP 10.58-11.03). If a continued pattern of turning and angle collisions persists and/or the segment maintains a rating in the worst 10% of the SPIS, access management measures should be evaluated to determine if crash rates and severity can be reduced. Development of a management strategy should then be prioritized, even if other improvements take longer to implement.
- **Action 2:** When design begins for Project 1. OR 99 – Garfield St to Charlotte Anne Rd: Sidewalk Improvements (MP 8.56-8.75), consider consolidation, closure, or modification of driveways on the west side of OR 99 in the vicinity of Charlotte Anne Road to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 3:** When design begins for Project 3. OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements (MP 8.87-11.03), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 4:** When design begins for Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands (assorted locations MP 8.75-11.03), consider turn limitations in the vicinity of the median islands to improve the function and safety of the crossings, especially for pedestrians.
- **Action 5:** When design begins for Project 5. OR 99/Northridge Terrace Intersection: Safety Improvements (MP 10.58), consider consolidation, closure, or modification of driveways in the vicinity of the intersection to improve the safety and function of the intersection for all travelers (motorists, bicyclists, and pedestrians).
- **Action 6:** When design begins for Project 6. OR 99/Coleman Creek Crossing: Interim Sidewalk and Bike Lane Improvements (MP 11.03-11.04), consider turn limitations where the center lane is narrowed to maintain the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 7:** When design begins for Project 7. OR 99/Coleman Creek Crossing: Replacement (MP 11.03-11.04), consider consolidation, closure, or modification of driveways in the vicinity of the culvert to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 2: OR 99 Phoenix Segment

- **Action 8:** When design begins for Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion (MP 11.96-12.36), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 3: OR 99 from Phoenix to Talent

- **Action 9:** When design begins for Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion (MP 12.37-13.86), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

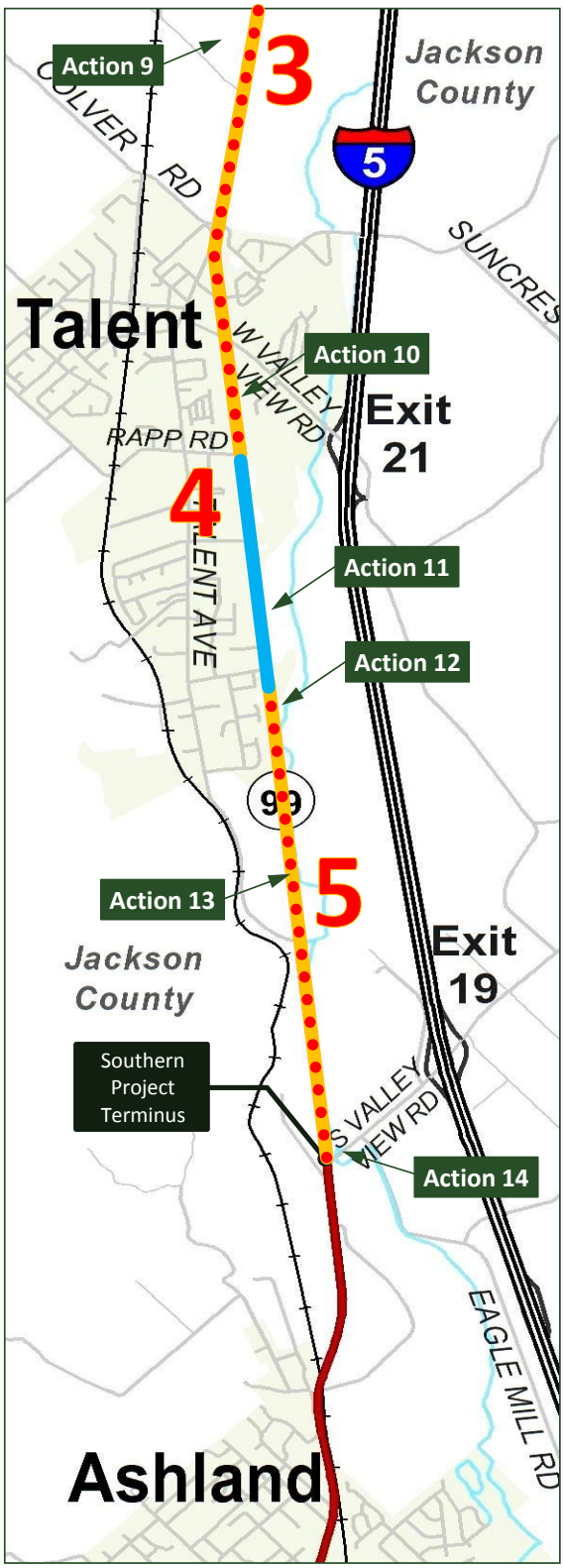
OR 99 Rogue Valley Corridor Plan

Legend

- Segment with Recommended Improvement Project
- Potential Access Consolidation/Closure/Turn Restriction
- Near-Term Funded Improvement Project
- Area with High Crash Rate Associated with Access Turning Movements

Figure 9

OR 99 Access Management Plan
North Section



Recommended Access Management Actions

Segment 3: OR 99 from Phoenix to Talent

- **Action 9:** When design begins for Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion (MP 12.37-13.86), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 4: OR 99 Talent Segment

- **Action 10:** When design begins for Project 15. OR 99 at Wagner Creek Greenway Trail: Midblock Crossing (MP 14.39), consider raised median as part of crossing and assess whether turn limitations in the vicinity of the crossing would improve the function and safety for pedestrians.
- **Action 11:** As Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion (MP 14.71-15.67) is implemented through the current STIP (Key Number 17478), consider consolidation, closure, or modification of driveways on the east side of the highway for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 12:** When design begins for Project 17. OR 99 – Creel Rd to Bear Creek Greenway Connection: Multiuse Pathway (MP 15.34-15.67), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).

Segment 5: OR 99 from Talent to Ashland

- **Action 13:** When design begins for Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion (MP 15.34-16.92), consider consolidation, closure, or modification of driveways for the length of the improvement to improve the flow of highway traffic and the safety of all travelers (motorists, bicyclists, and pedestrians).
- **Action 14:** When design begins for Project 19. OR 99/S. Valley View Rd Intersection: Dual Left-Turn Lanes on S. Valley View Rd (MP 17.02), consider consolidation, closure, or modification of driveways in the vicinity of the intersection to improve the safety and function of the intersection for all travelers (motorists, bicyclists, and pedestrians).

OR 99 Rogue Valley Corridor Plan

Legend

- Segment with Recommended Improvement Project
- Access Consolidation/Closure/Turn Restriction
- Near-Term Funded Improvement Project
- Area with High Crash Rate Associated with Access Turning Movements

Figure 9

OR 99 Access Management Plan
South Section

6. OTHER MANAGEMENT ACTIONS

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6. OTHER MANAGEMENT ACTIONS

Other management actions are included to protect and extend the life of the corridor and provide for all modes of travel in the OR 99 corridor.

6.1. Transportation System Management Measures

Transportation System Management (TSM) measures are intended to maximize the safety and efficiency of existing transportation facilities.

6.1.1. Traffic Operations Emergency Plan

The OR 99 corridor is a vital element for north-south travel between Ashland and Medford especially when travel on I-5 is limited by traffic incidents (i.e., crashes). A traffic operations emergency plan (TOEP) would provide guidance to area response teams to maximize efficiency along OR 99 when it must carry traffic routed from the freeway. Guidance elements could include detour signing from I-5, signal timing/flagging at key locations, standard messages to deploy with area ITS, and other measures.

The TOEP would need to be periodically updated to reflect the current roadway conditions in the OR 99 corridor. In areas where lane conversion projects to implement complete streets result in through travel lane reductions, the plan should be updated as part of the project development process.

6.1.2. Traffic Signal Timing Modifications

To address existing safety issues at two of the signalized intersections in the corridor, the following signal timing modifications are suggested:

- **OR 99/South Stage Road:** Evaluate the need for protected left-turn phases in the east-west direction (South Stage Road) to address turning collision patterns.
- **OR 99/W. Valley View Road**: Evaluate the need for protected left-turn phases in the east-west direction (W. Valley View Road) to address turning collision patterns.

Current signal timing provides for protected left-turn phasing in the north-south direction (OR 99) but only permitted (i.e., left-turning vehicles must look for breaks in the oncoming traffic stream) left-turn phasing in the east-west direction. The addition of protected left-turn phasing in the east-west direction would potentially decrease the number of turning collisions that are occurring at these intersections by allocating time for vehicles to turn left from the side

streets to OR 99 without any conflicting vehicular movements. Any changes to signal phasing would need to conform to Chapter 4 of the ODOT Traffic Signal Policy and Guidelines.[12]

6.1.3. Speed Zone Studies

ODOT is responsible for establishing the posted speeds or speed zones on all highways in Oregon[13]. These speed zones reflect "a reasonable balance between the needs of drivers, pedestrians and bicyclists using public roads for travel and for those who live along these roads." Studies have shown that traffic moving at a speed "that is reasonable for the road and weather conditions results in fewer accidents. Drivers are more patient because a reasonably uniform speed allows progress with less passing, less delay, and fewer rear-end collisions."

As projects are implemented to create a multimodal OR 99 that serves all transportation users, current posted speeds may no longer reflect driver behavior. Many drivers may travel more slowly because of narrower travel lanes or a reduction in through travel lanes (i.e., lane conversions). Speed zone studies should be conducted to reassess posted speeds when the following projects are completed:

- Project 2. OR 99 – Charlotte Anne Rd to Coleman Creek: Modified Lane Striping (MP 8.75-11.03) – Current posted speed is 45 mph
- Project 12. OR 99 –South of Couplet to Phoenix City Limits: Sidewalk Improvements and Lane Conversion (MP 11.93-12.36) – Current posted speed is 35 mph
- Project 13. OR 99 – Phoenix City Limits to Talent City Limits: Lane Conversion (MP 12.36-13.75) – Current posted speed is 50 to 55 mph
- Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion (MP 14.71-15.67) – Current posted speed is 45 mph
- Project 18. OR 99 – Creel Rd (Talent City Limits) to S. Valley View Rd: Lane Conversion (MP 15.34-16.92) – Current posted speed is 55 mph

Speed zone studies should also be considered when pedestrian crossing improvements are implemented, such as:

- Project 4. OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands (MP 8.75-11.03) – Current posted speed is 45 mph
- Project 15. OR 99 at Wagner Creek Greenway Trail: Midblock Crossing (MP 14.39) – Current posted speed is 45 mph

[12] Traffic Signal Policy and Guidelines, November 2013, Oregon Department of Transportation, website: http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/docs/pdf/traffic_signal_policy_and_guidelines.pdf.

[13] Speed Zoning Program, Oregon Department of Transportation, website: http://www.oregon.gov/ODOT/hwy/traffic-roadway/Pages/speed_zone_program.aspx

Speed reductions would be carried out if a change would be appropriate for the roadway geometry and consistent with driver behavior. ODOT's Traffic-Roadway Section would initiate the investigation following nationally accepted traffic engineering procedures. Factors taken into consideration would be "accident history, roadside culture, traffic volumes, and roadway alignment, width and surface" as well as measured travel speeds.

6.1.4. Access Management Evaluation

The section of OR 99 from Northridge Terrace to Coleman Creek has a higher than average crash rate associated with unsignalized streets and driveways. The Access Management Plan indicates that access consolidation/closure/turn restrictions should be considered on this segment when Projects 3 (OR 99 – Charlotte Anne Rd to Coleman Creek: Sidewalk Improvements), 4 (OR 99 – Charlotte Anne Rd to Coleman Creek: Median Islands), or 5 (OR 99/Northridge Terrace Intersection: Safety Improvements) are implemented. However, because parts of this segment is also identified in the worst 10% locations in the 2012 and 2013 SPIS, evaluation of potential access management measures and possible development of a strategy should be prioritized, even if other improvements take longer to implement. Triggers for this improvement include a continued pattern of turning and angle collisions and an ongoing rating in the worst 10% locations in the SPIS.

6.2. Transportation Demand Management Measures

Transportation Demand Management (TDM) measures are designed to reduce vehicular demand, especially for commuter trips in the peak periods. Goals and policies of the State, the RVMPO, and Jackson County contain provisions that embrace TDM measures. TDM measures include strategies that shift modes away from the single-occupancy vehicle, such as carpooling, vanpooling, transit, bicycling, and walking programs; strategies that shift trips to non-peak periods, such as flexible work schedules and off-peak shifts; and telecommuting, which eliminates trips.

Generally, TDM strategies are easiest to implement where there are large employers or where a Transportation Management Association (TMA) has been established to pool the efforts of many smaller employers. The Rogue Valley TMA, which encompasses the Medford metropolitan area, was established in Year 2002 but has been inactive in recent years. Funds for the program are identified in the RTP and are programmed in the current Metropolitan Transportation Improvement Program (MTIP). The funding would come from a Congestion Mitigation and Air Quality (CMAQ) grant. Coordinating with the Rogue Valley TMA or revitalizing it, and educating employers about it may help reduce congestion along the OR 99 corridor.

The OR 99 Corridor Plan supports TDM efforts through improvements to the bicycle and pedestrian system and support for the transit system with improved accessibility and safety.

6.3. Bicycle and Pedestrian Facilities

The addition of improved bicycle and pedestrian facilities throughout the OR 99 corridor improves connectivity for these travel modes and can reduce traffic demand on the highway. More importantly, these facilities serve the portion of the population who do not have access to a personal means of motorized transportation and rely on walking, bicycling, and transit for mobility.

In addition to improving or adding new facilities to the system, the plan supports improved connections to the Bear Creek Greenway. These improvements will involve partnering with Jackson County, the Cities of Medford, Phoenix, and Talent, and greenway proponents.

6.4. Transit Operations

In support of the existing RVTD Bus Route 10 that travels along the OR 99 corridor, this plan includes projects that:

- Provide sidewalks to every urban transit stop on the highway
- Provide medians, crosswalks, and some pedestrian-activated crossing devices to facilitate crossing the highway near many of the urban transit stops
- Widen shoulders on rural sections of the highway

When implementing projects, particularly those that involve restructuring the roadway, consideration should be given to including transit pullouts, if appropriate.

7. PLAN MONITORING AND FUNDING

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7. PLAN MONITORING AND FUNDING

The OR 99 Corridor Plan relies on monitoring of traffic volumes, congestion, and crash history to identify when specific projects should be considered for implementation. When traffic conditions are within five (5) years of an identified traffic threshold, funding opportunities for specific projects should be pursued. Project funding is briefly summarized in this section along with other opportunities that could be considered.

7.1. Traffic Conditions Monitoring

The projects identified in both the Corridor Plan and the Access Management Plan include triggers that identify when a project and/or strategy may be warranted. Although some priority has been assigned to the projects, periodic monitoring by the agency should occur to identify when specific projects may be needed. In some cases, project priority may be elevated based on traffic volume trends or crash history, while other projects may be delayed.

The Monitoring Program includes two elements:

1. **Systematic Agency Monitoring** of traffic and crash data used to identify the need for capacity and safety improvements. Table 12 summarizes the types of projects and data collection that should be monitored. At a minimum, data collection should include:
   - *Intersection traffic volumes should be collected and analyzed every three (3) to five (5) years to identify the need for traffic signal timing modifications. Based on the forecasts in this document, new traffic signals, left-turn lanes, right-turn lanes, or other capacity improvements are not planned but could be triggered by new development or transportation network changes that were not previously identified as part of the financially-constrained Regional Transportation Plan.*
   - *Crash rates should be reviewed every two (2) to three (3) years and SPIS rankings should be reviewed annually to identify when safety improvements such as left-turn lanes, right-turn lanes, and access management measures may be necessary.*

2. **Developer Traffic Impact Studies** (TIS) for proposed development projects should be part of the monitoring process. Proposed developments could generate a sufficient number of trips to impact intersections and/or other public intersections along OR 99. Actions related to TIS preparation include:
   - *Minimum trip thresholds for when a TIS is required should be reviewed for consistency with monitoring needs of the OR 99 Corridor Plan.*
   - *Improvements that are triggered by development projects should be incorporated into local government conditions of approval.*

Table 12. Monitoring for System Improvements

Project Type	Potential Locations	Monitoring
Traffic Signal Phasing	▪ OR 99/South Stage Rd Intersection ▪ OR 99/W. Valley View Rd Intersection	▪ Monitor for continued pattern of turning and angle collisions in the east-west direction
Roadway Restructuring	▪ OR 99 – South of Couplet to South Phoenix City Limits ▪ OR 99 – Phoenix to Talent City Limits ▪ OR 99 – Talent City Limits to S. Valley View Rd	▪ Monitor for pattern of crashes related to vehicles stopping in the through travel lane ▪ Monitor existing and 20-year forecast traffic volumes to determine which improvements are most applicable
Left-Turn Lanes	▪ OR 99/Talent Ave Intersection	▪ Monitor for pattern of rear-end crashes related to left-turn movements ▪ Monitor intersection traffic volumes to determine if left-turn lane warrants are met or will soon be met
Other Safety Improvements	▪ OR 99/Northridge Terrace Intersection	▪ Monitor crash patterns for increased frequency of crashes related to northbound right -turn movement
Access Management	▪ All roadway segments	▪ Monitor crash rates to identify when the annual crash rate is 20% higher than the statewide rate for similar roadways ▪ Monitor ODOT SPIS database to identify segments with a rating in the worst 10%. ▪ Monitor for development
Bicycle/ Pedestrian Improvements	▪ OR 99 – Garfield St to Charlotte Anne Rd ▪ OR 99 – Charlotte Anne Rd to Coleman Creek ▪ OR 99 – Coleman Creek Culvert ▪ OR 99 – Bolz Ln to South End of Couplet ▪ OR 99 – Colver/Suncrest Rd to Rapp Rd ▪ OR 99 – Creel Rd to Bear Creek Greenway Connection	▪ Current Deficiencies ▪ Monitor for continued bicycle and pedestrian activity along OR 99 ▪ Monitor for development
Highway Pedestrian/ Bicycle Crossing Improvements	▪ OR 99 – Charlotte Anne Rd to Coleman Creek ▪ OR 99 – Couplet in Downtown Phoenix ▪ OR 99 – Wagner Creek Greenway Trail Crossing	▪ Monitor segment traffic volumes including pedestrians and cyclists to determine if crossing warrants are met ▪ Monitor transit stop ridership

7.2. Potential Funding Sources

Only one of the projects listed in *Section 4. Corridor Plan Improvements* currently has an identified funding source (Project 16. OR 99 – Rapp Rd to Creel Rd (Talent City Limits): Sidewalk Improvements and Lane Conversion). Funding for plan projects is anticipated to come from a variety of public and private sources as projects develop during the planning period.

The inclusion of an improvement in the OR 99 Corridor Plan does not represent a commitment by ODOT to fund, allow, or construct the project. Projects on OR 99 are not considered "planned" projects until they are programmed into the Statewide Transportation Improvement

Program (STIP). As such, **local governments and/or private developers cannot rely upon the projects proposed in the OR 99 Corridor Plan to mitigate significant traffic effects unless they are programmed into the STIP; included in the RVMPO RTP financially-constrained list of projects or a local Capital Improvement Program (CIP); or funded privately though a Cooperative Improvement Agreement (CIA) with ODOT.** Highway projects that are programmed in the STIP to be constructed may have to be altered or cancelled at a later time to meet changing budgets or unanticipated conditions such as environmental constraints.

7.2.1. STIP Funding

Recent changes in the STIP process have shifted funding from pools dedicated to specific modes or specialty programs to two funding categories:

1. **Enhance**: Activities that enhance, expand, or improve the transportation system
2. **Fix-It**: Activities that fix or preserve the transportation system

The **Fix-It** portion receives the majority of the STIP funding which reflects an emphasis on preserving the existing system. Selection of projects is primarily based on needs identified through ODOT's asset management systems.

The **Enhance** portion is a multimodal program that makes investment decisions based on a systemic approach than has moved away from siloes of funding targeted towards modes or types of projects. Development of the **Enhance** project list considers projects submitted for proposal based on the benefits versus costs, multimodal and freight aspects, potential access to economic opportunities, ability to address system bottlenecks, and consistency with statewide and local plans. Through an iterative process, a final list of projects is identified that reflects available funding.

Note: Table 9 (Summary of Corridor Plan Improvements) identifies the potential funding STIP category that could apply to each project based on general descriptions of eligibility for Enhance and Fix-It funds.

7.2.2. Other Project Funding

Other project funding may come from public or private sources. Public funding opportunities could include local government Capital Improvement Programs (CIPs) and possible agency partnerships with local governments to combine funding resources for related projects. Private development could be another source for funding through required mitigation and/or public/private partnerships with local governments and developer contributions to a larger project.