



Oregon

John A. Kitzhaber, MD, Governor

Department of Transportation

Office of the Director, MS 11

355 Capitol St NE

Salem, OR 97301-3871

DATE: September 18, 2013
TO: Oregon Transportation Commission

FROM: Matthew L. Garrett
Director

SUBJECT: **Agenda H** – Amendment to 1999 Oregon Highway Plan Updating the Oregon 42 Corridor Plan and Adopt the Oregon 42 Expressway Management Plan

Requested Action:

Request to amend the 1999 Oregon Highway Plan (OHP) to update the Oregon 42 Corridor Plan by deleting all projects identified within the Oregon 42 Expressway (Mile Point 73.88 to Mile Point 76.22) and adopt the findings in support of this action. Amend the 1999 OHP to adopt the Oregon 42 Expressway Management Plan as a facility plan and adopt the findings in support of this action. Findings of compliance in support of these actions are found in Exhibits B and C.

Background:

The Oregon 42 Expressway Management Plan focuses on a 3.32-mile segment of Oregon 42 (Coos Bay-Roseburg Highway) designated as an expressway from Lookingglass Road, east through Douglas County's Green Urban Unincorporated Area, to Interstate 5, Exit 119 (Green Interchange). Although designated as an expressway, this highway segment has never been upgraded fully to meet expressway standards.

The Oregon 42 Expressway Management Plan refines the Oregon 42 Corridor Plan's projects. The expressway management plan was prepared in coordination with Douglas County, the City of Winston and Department of Land Conservation and Development (DLCD). Staff worked with these agencies to develop a facility plan that protects the function of the expressway and identifies needed improvements over a 20-year planning period (to year 2035). Updating the Oregon 42 Corridor Plan to delete projects within the expressway is necessary to assure consistency between both facility plans.

Staff also presented the expressway management plan to the State Freight Industry Stakeholders Committee and received support of the planning concepts. Staff sent a notice of adoption and copy of the expressway management plan to Douglas County, the City of Winston and DLCD for review and comment. Staff sent a separate letter identifying the access management key principles to all property owners abutting the expressway. Staff received no comments.



Attachments:

- Exhibit A – Staff Report
- Exhibit B – Update the OR 42 Corridor Plan Findings of Compliance
- Exhibit C – Adopt the OR 42 Expressway Management Plan Findings of Compliance
- Exhibit D – OR 42 Expressway Management Plan and Contact Information
(ftp://ftp.odot.state.or.us/outgoing/OTC_September13/)
- Project Vicinity Map
- Project Location Map
- PowerPoint Presentation

Copies (w/attachments) to:

Jerri Bohard	Dale Hormann	Patrick Cooney	Lisa Martinez
Paul MatheR	Frank Reading	Erik Havig	McGregor Lynde
Mike Baker	Kelly Jacobsen		

Exhibit A Staff Report

OR 42 Expressway Management Plan August 2013

Requested Action

Region 3 requests the OTC to: (1) update the OR 42 Corridor Plan by deleting all projects identified within the OR 42 expressway (Mile Point 73.88 to Mile Point 76.22); and (2) adopt the OR 42 Expressway Management Plan as a facility plan to implement Policy 3C of the Oregon Highway Plan. Findings of compliance in support of these actions are found in Exhibits B and C. The Corridor Plan update and adoption of the Expressway Management Plan will constitute amendments to the 1999 Oregon Highway Plan.

Background

In June 2001, the OTC adopted the OR 42 Corridor Plan as facility plan for managing OR 42 (Coos Bay-Roseburg Highway) between US 101, east through Coos and Douglas Counties, to I-5 Exit 119 (Green Interchange). The corridor plan recommended an expressway management plan be prepared for the OR 42 expressway from Lookingglass Road (Mile Point (73.88), east through Douglas County's Green Urban Unincorporated Area, to I-5 Exit 119 (Mile Point 76.22). The OR 42 Expressway Management Plan (EMP) focuses on a 3.32-mile segment of OR 42 designated as an expressway. Although designated as an expressway, this highway segment has never been fully upgraded to meet expressway standards.

The EMP was prepared in coordination with Douglas County, the City of Winston and DLCD. Staff worked with these agencies to develop a facility plan that protects the function of the expressway and identifies needed improvements over a 20 year planning period (Year 2035). Staff also presented the Plan to the State Freight Industry Stakeholders Committee and received support of the planning concepts.

A notice of adoption and copy of the EMP was sent to Douglas County, the City of Winston and DLCD for review and comment. A separate letter identifying the access management key principles was sent to all property owners abutting the expressway. No comments were received.

Plan Purpose and Function

This Plan identifies transportation needs and opportunities for all travel modes. It includes strategies to preserve and improve highway safety and capacity consistent with statewide highway and expressway standards, and Douglas County's land use and transportation policies. The Plan's goals and objectives identify and address the most pressing problems and community needs. The improvements and management measures meet ODOT's Mission Statement: Provide a safe, efficient transportation system that supports economic opportunity and livable communities for Oregonians.

Goals and Objectives

The following Goals were developed to address the expressway deficiencies:

- Improve safety and operations of the expressway for all modes of travel.
- Upgrade the expressway to meet expressway design standards and performance targets.
- Facilitate freight travel by maintaining efficient traffic movement through the expressway.

- Develop integrated transportation facilities and services that support economic development.
- Provide better accessibility to the Cities of Roseburg and Winston, and the Green Urban Unincorporated Area consistent with the adopted local comprehensive land use and transportation plans.

The following Objectives were developed to address the expressway deficiencies:

- Identify existing operational deficiencies based on the mobility targets prescribed in the Oregon Highway Plan (OHP) and the level-of-service standards in the Douglas County and City of Winston Transportation System Plans (TSP).
- Review crash patterns and the state rating systems (i.e. Safety Priority Index System and Safety Improvement Program) to identify safety deficiencies.
- Evaluate the need for capacity improvements based on the adopted comprehensive land use plans of Douglas County and the Green Urban Unincorporated Area, and the City of Winston.
- Develop concepts to upgrade the highway to Expressway design standards and performance targets, improve safety and increase capacity to address existing and future needs.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, while considering the economic needs of abutting properties, and meets OHP requirements and the access spacing standards in Oregon Administrative Rule (OAR) 734-051.
- Identify potential local system enhancements that maintain connectivity and complement the expressway upgrades.
- Incorporate bicycle and pedestrian elements, such as sidewalks, bike lanes and pathways, as well as corresponding roadway crossings.
- Coordinate planning efforts for OR 42 with other plans and projects in the study area.

Traffic Analysis

The EMP studied existing land use and transportation conditions along the expressway. Existing (Year 2011) traffic operations and conditions were evaluated to identify deficiencies. Future (Year 2035) traffic volumes, using the Greater Roseburg Area Travel Demand Model, were assessed to determine how traffic operations and conditions may change over time. The Plan also inventories existing land use and zoning; wildlife habitat and wetland resources; threatened and endangered species; floodplains and floodways; and historical, archaeological and Section 4(f) resources; and socioeconomic and environmental justice conditions.

Plan Improvements and Measures

The EMP identifies seventeen (17) improvements to: (1) upgrade the OR 42 expressway to meet expressway standards; and (2) improve future traffic operation and safety deficiencies along the expressway as traffic warrants are satisfied. Project sheets, including conceptual layouts, were developed for each of the improvements.

Access Management Measures

The access management plan provides the framework for ODOT decisions to permit approach roads along the OR 42 expressway. It inventories existing approach roads and establishes minimum spacing standards for future approaches. The Plan's minimum spacing standards are consistent with the 1999 OHP access management revisions adopted in March 2012. Ideally, future approach roads and/or driveways will be fully compliant with the Plan's minimum spacing

standards. When access requirements and standards cannot be met, reasonable further progress toward meeting the minimum standards must be demonstrated and justified by a deviation.

The access management plan met the spirit and intent of Senate Bill 408 in making sure that affected property owners, Douglas County and City of Winston were aware of the planning concepts, including implications to private approach roads, driveways and local street connections. Property owners were members of the Citizen Advisory Committee (CAC) and others participated in the public open houses. Douglas County and City of Winston staff was members of the Technical Advisory Committee (TAC) and attended the public open houses. Additionally, staff sent a direct mailing inviting all property owners abutting the OR 42 expressway to the public open house, and advising them that some of the planning concepts may impact their approach roads and/or driveways including, but limited to, closure, consolidation or realignment.

Management Measures

The EMP identifies other management measures to protect and extend the design life of expressway improvements and to support multi-modal opportunities throughout the expressway.

1. Transportation System Management (TSM) measures are intended to maximize the use of existing transportation facilities (e.g. Synchronizing Signal Timing and Permitted U Turns).
2. Transportation Demand Management (TDM) measures are intended to reduce vehicular demand (e.g. Carpooling, Vanpooling, Walking and Bicycling).
3. Bicycle and Pedestrian Facilities are identified to improve connectivity and safety for these travel modes.
4. A Park and Ride Facility is identified to support the Umpqua Transit District (UTD) Bus Routes.

Plan Monitoring and Project Funding

The EMP takes a snap-shot in time to forecast anticipated transportation deficiencies and identify improvements for a 20-year planning period. Many of the expressway improvements are dependent on traffic warrants being satisfied before they can be approved by the State Traffic Engineer for construction. This Plan prioritizes projects based on expected need, but also relies on periodic monitoring of traffic volumes, congestion and crash history data to identify when specific projects should be considered for the State Transportation Improvement Program (STIP) funding. In some cases, project priority may be elevated based on traffic volume and/or crash history trends, while other projects may be delayed.

Expressway improvements should be considered for STIP Enhance and Fix It funding opportunities when traffic conditions are within five (5) years of an identified traffic warrant and/or threshold being satisfied.

1. Intersection traffic volumes should be collected every three (3) to five (5) years to identify the need for traffic signals, turn lanes and other capacity or safety improvements.
2. Crash rates should be reviewed every two (2) to three (3) years and Safety Priority Index System (SPIS) rankings should be reviewed annually to identify the need for turns lanes and access management improvements.
3. Developer Traffic Impact Studies (TIS) should be reviewed to identify expressway traffic volumes, crash rates and the need for capacity or safety improvements.

4. Potential funding sources for expressway improvements include, but are not limited to, potential STIP funds, local government Capital Improvement Program (CIP) funds and Developer contributions.

Public Involvement

The EMP's public involvement process included a Technical Advisory Committee (TAC), a Citizen Advisory Committee (CAC) and general public outreach.

1. The TAC provided technical and policy guidance. The committee was composed primarily of ODOT and local jurisdiction staff.
2. The CAC provided stakeholder input and offered recommendations. The committee was composed of interested citizens, property owners, business representatives and other stakeholders.
3. General public outreach included web-accessible materials and two (2) public open houses on 12/1/11 and 1/9/13. The open houses included graphic presentations, and discussion to solicit public input.
4. The public meetings were advertised in the News Review and news releases were sent to the local media.
5. Public open house invitations were directly mailed to property owners abutting the OR 42 expressway.
6. The draft plan was presented to the State Freight Industry Stakeholder Committee on 7/17/13 and received support of the planning concepts.

Summary of Draft Findings

ODOT's State Agency Coordination Agreement requires that the OTC adopt findings of fact when adopting facility plans (OAR 731-015-0065). Pursuant to these requirements, ODOT has developed findings to support the OTC's: (1) updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway and (2) adopting the OR 42 Expressway Management Plan as a facility plan. For all applicable policies, the update of the corridor plan and adoption of the expressway management plan have been found to be compatible with adopted state and local policies.

Exhibits B and C Findings of Compliance for the update of the corridor plan, and adoption of the expressway management plan are attached and address compliance with state and local plans, policies, and ordinances/statutes/rules.

Exhibit B

Findings of Compliance with OAR 731-0015-0065 OR 42 Corridor Plan Update

ODOT's State Agency Coordination Agreement requires that the Oregon Transportation Commission (OTC) adopt findings of fact when adopting facility plans pursuant to OAR 731-015-0065. In June 2001, the OTC adopted the OR 42 Corridor Plan as facility plan for managing OR 42 (Coos Bay-Roseburg Highway) between US 101, east through Coos and Douglas Counties, to I-5 Exit 119 (Green Interchange). The corridor plan recommended an expressway management plan be prepared for the OR 42 expressway from Lookingglass Road (Mile Point 73.88), east through Douglas County's Green Urban Unincorporated Area, to I-5 Exit 119 (Mile Point 76.22). ODOT, in coordination with Douglas County, the City of Winston and Department of Land Conservation & Development (DLCD), developed an expressway management plan for a 3.32-mile segment of OR 42 designated as an expressway. Staff is requesting the OTC to update the OR 42 Corridor Plan by deleting all projects within the OR 42 expressway (Mile Point 76.22 to Mile Point 73.88) and adopt supporting findings.

Pursuant to these requirements, ODOT provides the following findings of facts to support the OTC amending the 1999 Oregon Highway Plan (OHP) to update the OR 42 Corridor Plan consistent with the OR 42 Expressway Management Plan. ODOT is not exceeding its authority. The OR 42 Expressway Management Plan, attached as Exhibit D, seeks to implement the OHP.

1. OAR 731-015-0065 - Coordination Procedures for Adopting Final Facility Plans

(1) Except in the case of minor amendments, the Department shall involve DLCD and affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and other interested parties in the development or amendment of a facility plan. This involvement may take the form of mailings, meetings or other means that the Department determines are appropriate for the circumstances. The Department shall hold at least one (1) public meeting on the plan prior to adoption.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan used an open and on-going public and agency involvement process that included Douglas County, the City of Winston, DLCD and numerous interested citizens. Representatives from each of these groups were invited to participate on the Technical Advisory Committee (TAC) and Citizen Advisory Committee (CAC), and were sent copies of the plan's reference materials as they became available. An integrated, inter-departmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public meetings, technical and citizen advisory committees, and meetings with stakeholders, property owners and interested citizens.*

Committees - *During development of this expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from Douglas County, the City of Winston, DLCD and sections within ODOT, was established specifically to guide preparation of this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC and CAC meetings were held during*

development of the plan. The draft plan was also presented to the State Freight Industry Stakeholder Committee and received support of the planning concepts.

Public Meetings - Public open houses were conducted on: December 1, 2011 to introduce the project, present the goals and objectives and discuss preliminary analysis of existing and future conditions, plan alternatives and evaluation criteria; and on January 9, 2013 to present the draft plan. The open houses included graphic presentations and an open-house format to answer questions of attendees. Comment cards were provided.

(2) The Department shall provide a draft of the proposed facility plan to planning representatives of all affected cities, counties and metropolitan planning organization and shall request that they identify any specific plan requirements, which apply, any general plan requirements, which apply, and whether the draft facility plan is compatible with the acknowledged comprehensive plan. If no reply is received from an affected city, county or metropolitan planning organization within 30-days of the Department's request for a compatibility determination, the Department shall deem that the draft plan is compatible with that jurisdiction's acknowledged comprehensive plan. The Department may extend the reply time if requested to do so by an affected city, county or metropolitan planning organization.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The OR 42 expressway lies within Douglas County's and City of Winston's jurisdiction. Douglas County, the City of Winston and DLCD were sent a Notice of Intent to Adopt, and compatibility determination request was sent by registered mail on August 14, 2013. No comments were received within the time limit. Therefore, ODOT deems the draft corridor plan compatible with Douglas County's and the City of Winston's Comprehensive Plans.*

(3) If any statewide goal or comprehensive plan conflicts are identified, the Department shall meet with the local government planning representatives to discuss ways to resolve the conflicts. These may include:

- (a) Changing the draft facility plan to eliminate the conflicts;
- (b) Working with the local governments to amend the local comprehensive plans to eliminate the conflicts; or
- (c) Identifying the conflicts in the draft facility plan and including policies that commit the Department to resolving the conflicts prior to the conclusion of the transportation planning program for the affected portions of the transportation facility.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. Douglas County, the City of Winston and DLCD were sent a Notice of Intent to Adopt, and compatibility determination request was sent by registered mail on August 14, 2013. No comments were received within the time limit. Therefore, ODOT deems the draft corridor plan compatible with Douglas County's and the City of Winston's Comprehensive Plans.*

(4) The Department shall evaluate and write draft findings of compatibility with acknowledged comprehensive plans of affected cities and counties, findings of compliance with any statewide planning goals which specifically apply as determined by OAR 660-030-0065(3)(d), and findings of compliance with all provisions of other statewide planning goals that can be clearly defined if the comprehensive plan of an affected city or county contains no conditions

specifically applicable or any general provisions, purposes or objectives that would be substantially affected by the facility plan.

Finding: *This document comprises the findings of compliance with the applicable statewide planning goals (See Section 3 below).*

(5) The Department shall present to the Transportation Commission the draft plan, findings of compatibility with the acknowledged comprehensive plans of the affected cities and counties and findings of compliance with applicable statewide planning goals.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The draft OR 42 Expressway Management Plan is attached as Exhibit D for the Commission's consideration. These findings address compliance with applicable statewide planning goals (See Section 3 below).*

(6) The Transportation Commission shall adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan.

Finding: *These draft findings are submitted for the Commission's consideration and adoption. These findings address compliance with applicable statewide planning goals and compatibility with the local comprehensive plan of the affected local jurisdictions.*

(7) The Department shall provide copies of the adopted final facility plan and findings to DLCD, to affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and to others who request to receive a copy.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. Staff will provide copies of the adopted OR 42 Expressway Management Plan, including all required findings, to DLCD, the affected local jurisdictions and others who request a copy. The following findings are organized into three (3) categories:*

- *Compatibility*
 - *Douglas County Transportation System Plan*
 - *City of Winston Transportation System Plan*
- *Compliance*
 - *Statewide Planning Goals which specifically apply*
 - *Other Statewide Planning Goals that can be clearly defined*
- *Consistency*
 - *Oregon Transportation Plan*
 - *Oregon Highway Plan*
 - *Highway Design Manual*

2. Compatibility with Acknowledged County and City Comprehensive Plans

Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The draft OR 42 Expressway Management Plan was sent to Douglas County and the City of Winston.

Douglas County Comprehensive Plan is the official long-range land use policy document for Douglas County. The plan sets forth general land use planning policies and allocates land uses to resource, residential, commercial, and industrial categories. The plan serves as the basis for coordinated development of physical resources and the development or redevelopment of the county land uses based on physical, social, economic and environmental factors. The comprehensive plan establishes the purpose, map designation, criteria and the basis for determining the appropriate zoning for each land use.

The Transportation System Plan (TSP) establishes a system of transportation facilities and mobility standards that are adequate to meet the County's transportation needs. The Douglas County TSP includes a determination of future transportation needs for road, transit, bicycle, pedestrian, air, water, rail and pipeline systems; policies and regulations for the implementation of the TSP; and a transportation-funding program.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan used the Douglas County Comprehensive Plan planned land uses and zoning designations as assumptions in identifying future traffic volumes and transportation facility needs. The plan also used the Douglas County TSP existing and planned roadway network as assumptions in identifying future traffic volumes and transportation facility needs. The expressway's improvements are tailored to the planned land uses contained within the Douglas County Comprehensive Plan, and the county's future transportation needs identified in the TSP.*

City of Winston Comprehensive Plan is the official long-range land use policy document for Winston. The plan sets forth general land use planning policies and allocates land uses to resource, residential, commercial, and industrial categories. The plan serves as the basis for coordinated development of physical resources and the development or redevelopment of the city land uses based on physical, social, economic and environmental factors. The comprehensive plan establishes the purpose, map designation, criteria and the basis for determining the appropriate zoning for each land use.

The Transportation System Plan (TSP) establishes a system of transportation facilities and mobility standards that are adequate to meet the City's transportation needs. The City of Winston TSP includes a determination of future transportation needs for road, transit, bicycle, pedestrian, air, water, rail and pipeline systems; policies and regulations for the implementation of the TSP; and a transportation-funding program.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan used the City of Winston Comprehensive Plan planned land uses and zoning designations as assumptions in identifying future traffic volumes and transportation*

facility needs. The plan also used the City's TSP existing and planned roadway network as assumptions in identifying future traffic volumes and transportation facility needs. The expressway's improvements are tailored to the planned land uses contained within the City of Winston Comprehensive Plan, and the city's future transportation needs identified in the TSP.

3. Compliance with Applicable Statewide Planning Goals

Relevant statewide planning goals adopted by the Land Conservation and Development Commission (LCDC) include Goal 1 (Citizen Involvement); Goal 2 (Land Use Planning); Goal 11 (Public Facilities Planning); Goal 12 (Transportation); and Goal 14 (Urbanization). The remaining fourteen (14) statewide planning goals were determined not applicable because the OR 140 corridor does not include any of the identified resources and/or the corridor improvements do not impact any of the identified resources.

Goal 1: Citizen Involvement.

Requirement: The opportunity for citizens to be involved in all phases of the planning process.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan process used an open and on-going public and agency involvement process that included Douglas County, the City of Winston, DLCD, sections within ODOT and numerous interested citizens. An integrated, inter-departmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public meetings, a citizen advisory committee and a technical advisory committee.*

Committees - *During development of this expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from Douglas County, the City of Winston, DLCD and sections within ODOT, was established specifically to guide preparation of this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC and CAC meetings were held during development of the plan. The draft plan was also presented to the State Freight Industry Stakeholder Committee and received support of the planning concepts.*

Public Meetings - *Public open houses were conducted on: December 1, 2011 to introduce the project, present the goals and objectives and discuss preliminary analysis of existing and future conditions, plan alternatives and evaluation criteria; and on January 9, 2013 to present the draft plan. The open houses included graphic presentations and an open-house format to answer questions of attendees. Comment cards were provided.*

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Goal 2: Land Use Planning.

Requirements: Establish a land use planning process and policy framework as the basis for all decisions and actions related to use of land and to assure an adequate factual basis for such decisions and actions.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. Comprehensive plans are incorporated into the Greater Roseburg Area Travel Demand Model, which was used extensively in developing the expressway management plan. Land use planning was coordinated with Douglas County, the City of Winston and DLCD through the TAC. Further, and as noted above, public input on the plan was solicited at a series of public open houses and committee meetings. The expressway management plan contains all information required for implementation, with supporting documentation in the reference materials. Preparation of the plan was based on an analysis of deficiencies along the expressway. Two (2) phases laid the foundation for the land use and transportation planning. The third and fourth phase identified expressway deficiencies and improvements for the draft plan.*

The first phase was development of a planning purpose, goals and objectives for the OR 42 expressway, and entailed an examination of the regulatory framework within which the expressway operates. The study area was set pursuant to OAR 734-051, with consideration of the local street network and local land uses. Further, state and local regulations, plans and policies were examined to ensure the expressway management plan was developed to be compatible, compliant, or consistent, as appropriate.

The second phase consisted of assembling existing and future conditions. Existing conditions inventoried include: transportation facilities operations; geometric conditions; safety and crash analyses; land uses abutting the highway; and natural and historic resources. Future conditions were forecasted using the Greater Roseburg Area Travel Demand Model to assess future traffic operations and deficiencies.

The third phase detailed expressway improvements to address traffic safety, operations and geometric deficiencies. The methodology for the expressway management plan included a multi-step approach. The first was to evaluate approximate development potential by land use category. The second involved approximating the peak hour traffic generation potential of those areas. The third step involved comparing the trip generation potential with the traffic growth indicated in the Greater Roseburg Area Transportation Demand Model.

The final phase identified necessary expressway improvements and management measures to accommodate existing conditions and anticipated future traffic demand (Year 2035) for the draft plan.

Goal 11: Public Facilities and Services.

Requirements: A timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan is intended to preserve the investments made to the expressway and to maintain the state highway's intended function of safely and efficiently accommodating future traffic demands. The plan documents the current and future transportation needs and identifies alternatives that detail appropriate future improvements to meet these needs. Expressway improvements were designed to be adequate to serve the future needs of the community, while conforming to the requirements of the OHP.*

Goal 12: Transportation

Requirements: Provide and encourage a safe, convenient and economic transportation system.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan inventories existing and future conditions for a 3.32-mile segment of OR 42 designated as an expressway. Improvements focus on upgrading the expressway to meet expressway standards, and improving the expressway to provide a safe, convenient and economic transportation system as traffic demand increases over the 20 year planning period.*

Six (6) deficiencies were identified along the OR 42 expressway through research, analysis and consultation with various stakeholders.

- 1. Eastbound bridge over the South Umpqua River is 26-feet wide and does not have any shoulders on either side of the roadway.*
- 2. Eastbound bridge over the South Umpqua River is identified as having a low service life and vertical clearance issues.*
- 3. No sidewalks or multi-use pathways on the south-side of OR 42.*
- 4. Two (2) unsignalized intersections have significant safety concerns related to turning movements.*
- 5. Two (2) signalized intersections are in the worst five (5) percent of the Safety Priority Index System (SPIS) rankings.*
- 6. Future operations of four (4) intersections exceed applicable mobility standards.*

The plan identifies seventeen (17) improvements to: (1) upgrade the existing OR 42 to meet the expressway standards; and (2) to improve future traffic operation and safety deficiencies when traffic warrants are satisfied. Project sheets, including conceptual cross-sections, were developed for each of the corridor improvements.

- 1. OR 42 - Lookingglass Rd. to Winston Section Rd. (73.88-74.35): Add two-way, buffered multi-use path on the south side of the expressway.*
- 2. OR 42/Winston Section Rd. (74.35-74.41): Connect Winston Section Rd. to path on north side with a multi-use path under-crossing.*
- 3. OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd., improve access road connecting to Jackie Ln. and restrict access to OR 42 from west of Rolling Hills Rd. through Jackie Ln.*
- 4. OR 42/Rolling Hills Rd. Intersection (74.77): Add eastbound and westbound right-turn deceleration lanes on OR 42.*
- 5. OR 42 – East of Rolling Hills Rd. through Landers Ave. (74.78-75.42): Add raised barrier to restrict turn movements to right-in/right-out.*
- 6. OR 42/Rolling Hills Rd. and OR 42/Landers Ave. Intersections (74.77 & 75.42): Add lighting at the unsignalized intersections.*
- 7. OR 42/Landers Ave. Intersection (75.42): Add westbound right-turn deceleration lane on OR 42.*
- 8. OR 42/Emils Way/Grange Rd. Intersection (75.53): Add raised median to restrict turn movements to left-in/right-in/right-out.*
- 9. OR 42/Emils Way/Grange Rd. Intersection (75.53): Add eastbound and westbound right-turn deceleration lanes on OR 42.*
- 10. OR 42/Carnes Rd./Roberts Creek Rd. Intersection (75.72): Add third westbound travel lane on west of the intersection and convert the westbound right-turn lane into a shared through-right lane.*

11. *OR 42/Carnes Rd/Roberts Creek Rd. Intersection (75.72): Add second southbound left-turn lane on Carnes Rd.*
12. *OR 42/Winery Ln. Intersection (76.07): Add raised barrier to restrict turn movements to right-in/right-out.*
13. *OR 42/OR 99/Grant Smith Rd Intersection (76.22): Add second eastbound left-turn lane on OR 42 and a second northbound receiving lane on OR 99.*
14. *Lookingglass Rd. and Pepsi Rd.: Extend Lookingglass Rd. eastward and Pepsi Rd. westward to connect at a 4-way signalized intersection; close current connections to OR 42; and connect other access points to extensions.*
15. *Local Network Connections: Extend Rolling Hills Rd. northward to Happy Valley Rd. and improve connectivity between Melody Ln., Cameron Ave., Chandler Dr., Stella St., and other local streets in the Douglas County TSP.*
16. *Grange Rd.: Create a new connection from the east end of Grange Rd. to Roberts Creek Rd. via Brittney Ave.*
17. *Winery Ln.: Extend Winery Ln. to Grant Smith Rd.*

Goal 14: Urbanization.

Requirements: An orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, ensuring efficient use of land, and providing for livable communities.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The OR 42 expressway abuts a small section of rural lands at the western terminus adjacent to Pepsi Road. The expressway traverses through Douglas County's Green Urban Unincorporated Area and identifies projects that support continued growth in the community. The expressway also serves as an east-west route between the Cities of Winston and Roseburg.*

The majority of the improvements can be constructed within existing right of way or use technology to improve the safety and efficiency of traffic along the corridor. As development occurs and traffic volumes increase, the expressway management plan recognizes the need to install a traffic signal at the Rolling Hills Rd./OR 42/Grange Rd. intersection, realign and install a traffic signal at the Pepsi Rd./OR 42/Lookingglass Rd. intersection to support future traffic demand along the expressway. Future projects requiring right of way acquisition through rural lands will require alternatives analysis pursuant to OAR 660-012-0065(5).

4. Consistency with the Oregon Transportation Plan and applicable modal plans, and the Highway Design Manual

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) is a policy document developed by ODOT in response to the federal and state mandates for systematic planning for the future of Oregon's transportation system. The OTP is intended to meet statutory requirements (ORS 184.618(1)) to develop a state transportation policy and comprehensive long-range plan for a multi-modal transportation system that addresses economic efficiency, orderly economic development, safety and environmental quality.

Finding: *The OTP does not specifically address improvements to the OR 42 expressway, but offers broad policy frameworks and standards for improving state highway system. Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan has been developed to be consistent the Oregon Highway Plan, which is an element of the OTP (see section below).*

Oregon Highway Plan

Goal 1: System Definition

Policy 1A – Highway Classification calls for ODOT to apply the state highway classification system to guide priorities for system investment and management.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. Oregon state highways are classified as Statewide, Regional, District or Local Interest based upon their current and planned function. Expressways are defined as a subset of highway classifications that may be applied to Statewide, Regional or District highways. The 1999 OHP classifies OR 42 (Coos Bay-Roseburg Highway) as a statewide highway and freight route, and designates a 3.2 3.32-mile segment of OR 42 as an expressway from Lookingglass Road (Mile Point 73.88), east through Douglas County’s Green Unincorporated Area, to I-5 Exit 119 (Mile Point 76.22).*

Action 1A.3 considers changing the classification of a state highway if the function of the highway has changed significantly since its original classification or the function does not fit the classification description. The classification change will be effective when the Oregon Transportation Commission adopts the change as part of a corridor plan or other planning process.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan does not recommend changing the highway classification or designation of the OR 42 expressway.*

Policy 1B – Land Use and Transportation policy recognizes the role of both the State and local governments related to the state highway system and calls for a coordinated approach to land use and transportation planning.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan has been prepared with the participation of the Technical Advisory Committee (TAC) representing Douglas County, the City of Winston, DLCDC and sections within ODOT. The committee provided guidance on both technical issues and policy issues. All TAC meetings were open public meetings. Preparation of the plan was also done with input from a variety of stakeholders and the general public.*

Policy 1C – State Highway Freight System policy recognizes the need for the efficient movement of freight through the state. OR 42 is a designated Freight Route.

Finding: *OR 42 is listed in the OHP as a designated Freight Route. Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan includes future improvements that will improve safety and mobility for freight movement. The project sheets and conceptual cross-sections are consistent with the Highway Design Manual mobility and design standards for an expressway and freight route.*

Policy 1D – Scenic Byways policy is intended to preserve and enhance scenic byways.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. There are no scenic byways within the OR 42 expressway.*

Policy 1E – Lifeline Routes policy is intended to provide a secure lifeline of transportation routes that facilitate emergency services response and support rapid economic recovery after a disaster.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway improvements are intended to improve the safety and efficiency of the OR 42 expressway. The improved safety and efficiency of the transportation system facilitates improved emergency services response and support economic recovery after a disaster.*

Policy 1F – Highway Mobility Standards policy addresses the state highway performance expectations, providing guidance for managing access and traffic control systems related to state highways. This policy sets mobility targets for ensuring a reliable and acceptable level of mobility on the highway system by identifying necessary improvements that would allow the state highway to function in a manner consistent with the OHP. The OHP sets volume-to-capacity ratios that are not to be exceeded for state highways.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan establishes uniform performance targets of the OR 42 expressway. It sets forth a 0.80 volume to capacity (v/c) performance target for the expressway. This performance target is drawn from Table 6 of the 1999 OHP.*

Policy 1G – Major Improvements policy directs ODOT to maintain highway performance and improve safety by improving system efficiency and management before adding capacity.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan's improvements to install turn lanes at high volume intersections along the expressway have been identified as necessary to improve the safe flow of traffic through the expressway. Future capacity improvements to install traffic signals at the Pepsi Rd./OR 42/Lookingglass Rd. and Rolling Hills Rd./OR 42/Grange Rd. intersections were determined to support traffic demand for improving system efficiency and management.*

Policy 1H – Bypasses policy provides guidance to ODOT and local governments in determining whether a bypass is justified.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan's improvements to install turn lanes at high volume intersections along the expressway have been identified as necessary to improve the safe flow of traffic through the expressway. Future capacity improvements to install traffic signals at the Pepsi Rd./OR 42/Lookingglass Rd. and Rolling Hills Rd./OR 42/Grange Rd. intersections were determined to support traffic demand for improving system efficiency and management. The expressway improvements are adequate for providing safe, efficient passage for through travelers and commerce, and a bypass was not needed to support future traffic demand along the corridor.*

Goal 2: System Management

Work with local jurisdictions and federal agencies to create an increasingly seamless transportation system with respect to the development, operation and maintenance of the highway and road system that:

- Safeguards the state highway system by maintaining functionality and integrity;
- Ensures that local mobility and accessibility needs are met; and
- Enhances system efficiency and safety.

Policy 2A – Partnerships policy directs ODOT to establish cooperative partnerships with state and federal agencies, regional governments, cities, counties, tribal governments and the private sector to make more efficient and effective use of limited resources to develop, operate, and maintain the highway and road system.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan process used an open and ongoing public and agency involvement process which included Douglas County, the City of Winston, DLCD, sections within ODOT and numerous interested citizens. An integrated, interdepartmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public and advisory committee meetings.*

Committees

During development of this corridor plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from the ODOT, DLCD, Douglas County, and the City of Winston was established specifically to guide this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC meetings were held during development of the corridor plan.

Public Meetings - *The first public meeting was held on December 1, 2011 at the Green School Annex. ODOT published a press release announcing the meeting on November 21, 2011. Nineteen (19) members of the public attended. ODOT and the consultant team briefed the audience on the planning process and provided an informal question and answer session of the display boards.*

A second public meeting was held on January 9, 2013 at the Green School Annex. ODOT published a press release announcing the meeting on December 17, 2012. Eighteen (18) members of the public attended. ODOT and the consultant team briefed the audience on the planning concepts and provided an informal question and answer session of the display boards.

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Policy 2B – Off-System Improvements policy identifies when the State of Oregon should provide financial assistance to local jurisdictions to develop, enhance and maintain improvements to local transportation systems when they are a cost-effective way to improve the operation of the state highway system.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan identifies cost-effective improvements that are eligible for the State Transportation Improvement Program (STIP) Enhance and Fix It funds.*

Policy 2C – Interjurisdictional Transfers policy provides standards for considering inter-jurisdictional transfers of roads and/or roadway segments between the State of Oregon and local governments.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan does not propose any roadway segments for transfer between the State of Oregon and local governments.*

Policy 2D – Public Involvement policy provides standards for ensuring that citizens, businesses, regional and local governments, state agencies, and tribal governments have opportunities to have input into decisions that impact the state highway system.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan process used an open and ongoing public and agency involvement process which included Douglas County, the City of Winston, DLCD, sections within ODOT and numerous interested citizens. An integrated, interdepartmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public and advisory committee meetings.*

Committees

During development of the expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from the ODOT, DLCD, Douglas County, and the City of Winston was established specifically to guide this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC meetings were held during development of the corridor plan.

Public Meetings - *The first public meeting was held on December 1, 2011 at the Green School Annex. ODOT published a press release announcing the meeting on November 21, 2011. Nineteen (19) members of the public attended. ODOT and the consultant team briefed the audience on the planning process and provided an informal question and answer session of the display boards.*

A second public meeting was held on January 9, 2013 at the Green School Annex. ODOT published a press release announcing the meeting on December 17, 2012. Eighteen (18) members of the public attended. ODOT and the consultant team briefed the audience on the planning concepts and provided an informal question and answer session of the display boards.

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Policy 2E – Intelligent Transportation Systems policy provides standards for the consideration of Intelligent Transportation Systems to improve system efficiency and safety in a cost-effective manner.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan identifies Transportation System Management (TSM), such as Synchronizing Signal Timing and Permitted U Turns, as a cost-effective measure to improve system efficiency and safety.*

Policy 2F – Traffic Safety policy directs the continual improvement of safety for all users of the highway system using solutions involving engineering, education, enforcement and emergency medical services.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan improves operations and safety for all users. Improvements to operations and safety of the state highway enhance the ability of emergency medical services' response times.*

Traffic engineering conducted for the expressway management plan identified improvements that provide better safety for all users. The addition of roadway delineation and intersection restriping will help improve the overall operation and safety of the expressway.

Policy 2G – Rail and Highway Compatibility policy directs the improvement of safety and transportation efficiency through the reduction and prevention of conflicts between railroad and highway users.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. One railroad line passes under OR 42 with a grade-separated crossing. The Central Oregon and Pacific (CORP) Railroad is a short line railroad owned by Rail America, Inc., which is based in Jacksonville, Florida. Currently, the railroad line is exclusively for freight, with 90 percent of their delivery consisting of forest products.*

Goal 3 – Access Management

Policy 3A – Classification and Spacing Standards:

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The access*

management plan provides the framework for ODOT decisions to permit approach roads along the OR 42 expressway. It inventories existing approach roads and establishes minimum spacing standards for future approaches. The plan's minimum spacing standards are consistent with the 1999 OHP access management revisions adopted in March 2012.

Policy 3B – Medians policy directs the management and placement of medians and the location of median openings to enhance the safety and efficiency of the highways and support land use development patterns that are consistent with approved transportation system plans.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan includes raised barriers and medians as safety improvements along the expressway. Staff also presented the draft plan to the State Freight Industry Stakeholders Committee and received support of the planning concepts.*

Policy 3C – Interchange Access Management Areas policy addresses the need to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan does not include an I-5 interchange and defers to the adopted Interchange Area Management Plan for Exit 119 (Green Interchange) for interchange improvements.*

Policy 3D – Deviations

Finding: *Deviations apply only to approach permitting and are not applicable.*

Policy 3E – Appeals

Finding: *Appeals apply only to approach permitting and are not applicable.*

Goal 4: Travel Alternatives

Policy 4A – Efficiency of Freight Movement policy emphasizes the State's role in managing access to highway facilities in order to maintain functional use, safety and to preserve public investment.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The access management plan is consistent with expressway standards. It inventories existing approach roads and establishes minimum spacing standards for future approaches to maintain functional use, safety and to preserve public investment. The plan's minimum spacing standards are consistent with the 1999 OHP access management revisions adopted in March 2012.*

Policy 4B – Alternative Passenger Modes policy advances and supports alternative passenger transportation systems where travel demand, land use, and other factors indicate the potential for successful and effective development of alternative passenger modes.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan includes bicycle and pedestrian facilities to improve connectivity for these travel modes along the expressway. It also includes a Park and Ride Facility to support the Umpqua Transit District (UTD) Bus Routes.*

Policy 4C – High Occupancy Vehicle (HOV) Facilities policy promotes the utilization of HOV facilities to improve the efficiency of the highway system in locates where travel demand, land use, transit, and other factors are favorable to their effectiveness.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan analysis does not justify High Occupancy Vehicle (HOV) lanes to support future traffic demand along the expressway.*

Policy 4D – Transportation Demand Management policy supports the efficient use of the state transportation system through investment in transportation demand management strategies.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan includes Traffic Demand Measures (TDM), such as Carpooling, Vanpooling, Transit, Walking and Bicycle programs, as management measures to reduce vehicular demand, especially for commuter trips in the peak periods.*

Policy 4E – Park-and-Ride Facilities policy encourages the efficient use of the existing transportation system and seeks cost-effective solutions to the highway system’s passenger capacity through development of park-and-ride facilities.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan includes a Park and Ride Facility as a cost-effective management measure to support the Umpqua Transit District (UTD) Bus Routes.*

Goal 5: Environmental and Scenic Resources

Policy 5A – Environmental Resources policy supports the natural and built environment by establishing standards for the design, construction, operation and maintenance of the state highway system.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan inventories existing land use and zoning; wildlife habitat and wetland resources; threatened and endangered species; floodplains and floodways; socioeconomic and environmental justice conditions; and historical, archaeological and Section 4(f) resources along the expressway.*

Policy 5B – Scenic Resources policy provides for scenic resources management.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan does not include transportation facility designs, and therefore does not include transportation facility aesthetics. Further, no scenic resources were identified.*

Oregon Bicycle and Pedestrian Plan

The Oregon Bicycle and Pedestrian Plan implements the actions recommended by the Oregon Transportation Plan to guide ODOT and local governments in developing bikeway and walkway systems. It explains the laws pertaining to the establishment of bikeways and walkways, fulfills the requirements of the Transportation Planning Rule and provides standards for planning, designing and maintaining bikeways and walkways.

Finding: *Updating the OR 42 Corridor Plan to delete all projects within the OR 42 expressway is necessary to assure consistency with the OR 42 Expressway Management Plan. The expressway management plan is consistent with the Oregon Bicycle and Pedestrian Plan by identifying bicycle and pedestrian facilities to improve connectivity for these travel modes along the expressway.*

Exhibit C

Findings of Compliance with OAR 731-0015-0065 OR 42 Expressway Management Plan

ODOT's State Agency Coordination Agreement requires that the Oregon Transportation Commission (OTC) adopt findings of fact when adopting facility plans pursuant to OAR 731-015-0065. In June 2001, the OTC adopted the OR 42 Corridor Plan as facility plan for managing OR 42 (Coos Bay-Roseburg Highway) between US 101, east through Coos and Douglas Counties, to I-5 Exit 119 (Green Interchange). The corridor plan recommended an expressway management plan be prepared for the OR 42 expressway from Lookingglass Road (Mile Point (73.88), east through Douglas County's Green Urban Unincorporated Area, to I-5 Exit 119 (Mile Point 76.22). ODOT, in coordination with Douglas County, the City of Winston and Department of Land Conservation & Development (DLCDD), developed an expressway management plan for a 3.32-mile segment of OR 42 designated as an expressway. Staff is requesting the OTC adopt the OR 42 Expressway Management Plan and supporting findings as a facility plan.

Pursuant to these requirements, ODOT provides the following findings to support the OTC amending the 1999 Oregon Highway Plan (OHP) to adopt the OR 42 Expressway Management Plan as a facility plan. ODOT is not exceeding its authority. This facility plan, attached as Exhibit D, seeks to implement the OHP.

1. OAR 731-015-0065 - Coordination Procedures for Adopting Final Facility Plans

(1) Except in the case of minor amendments, the Department shall involve DLCDD and affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and other interested parties in the development or amendment of a facility plan. This involvement may take the form of mailings, meetings or other means that the Department determines are appropriate for the circumstances. The Department shall hold at least one (1) public meeting on the plan prior to adoption.

Finding: *The expressway management plan used an open and on-going public and agency involvement process that included Douglas County, the City of Winston, DLCDD and numerous interested citizens. Representatives from each of these groups were invited to participate on the Technical Advisory Committee (TAC) and Citizen Advisory Committee (CAC), and were sent copies of the plan's reference materials as they became available. An integrated, inter-departmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public meetings, technical and citizen advisory committees, and meetings with stakeholders, property owners and interested citizens.*

Committees - *During development of this expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from Douglas County, the City of Winston, DLCDD and sections within ODOT, was established specifically to guide preparation of this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC and CAC meetings were held during development of the plan. The draft plan was also presented to the State Freight Industry Stakeholder Committee and received support of the planning concepts.*

Public Meetings - *Public open houses were conducted on: December 1, 2011 to introduce the project, present the goals and objectives, and discuss preliminary analysis of existing and future conditions, plan alternatives and evaluation criteria; and on January 9, 2013 to present the draft plan. The open houses included graphic presentations and an open-house format to answer questions of attendees. Comment cards were provided.*

(2) The Department shall provide a draft of the proposed facility plan to planning representatives of all affected cities, counties and metropolitan planning organization and shall request that they identify any specific plan requirements, which apply, any general plan requirements, which apply, and whether the draft facility plan is compatible with the acknowledged comprehensive plan. If no reply is received from an affected city, county or metropolitan planning organization within 30-days of the Department's request for a compatibility determination, the Department shall deem that the draft plan is compatible with that jurisdiction's acknowledged comprehensive plan. The Department may extend the reply time if requested to do so by an affected city, county or metropolitan planning organization.

Finding: *The OR 42 expressway lies within Douglas County's and City of Winston's jurisdiction. Douglas County, the City of Winston and DLCD were sent a Notice of Intent to Adopt, and compatibility determination request was sent by registered mail on August 14, 2013. No comments were received within the time limit. Therefore, ODOT deems the draft corridor plan compatible with Douglas County's and the City of Winston's Comprehensive Plans.*

(3) If any statewide goal or comprehensive plan conflicts are identified, the Department shall meet with the local government planning representatives to discuss ways to resolve the conflicts. These may include:

- (a) Changing the draft facility plan to eliminate the conflicts;
- (b) Working with the local governments to amend the local comprehensive plans to eliminate the conflicts; or
- (c) Identifying the conflicts in the draft facility plan and including policies that commit the Department to resolving the conflicts prior to the conclusion of the transportation planning program for the affected portions of the transportation facility.

Finding: *Douglas County, the City of Winston and DLCD were sent a Notice of Intent to Adopt, and compatibility determination request was sent by registered mail on August 14, 2013. No comments were received within the time limit. Therefore, ODOT deems the draft corridor plan compatible with Douglas County's and the City of Winston's Comprehensive Plans.*

(4) The Department shall evaluate and write draft findings of compatibility with acknowledged comprehensive plans of affected cities and counties, findings of compliance with any statewide planning goals which specifically apply as determined by OAR 660-030-0065(3)(d), and findings of compliance with all provisions of other statewide planning goals that can be clearly defined if the comprehensive plan of an affected city or county contains no conditions specifically applicable or any general provisions, purposes or objectives that would be substantially affected by the facility plan.

Finding: *This document comprises the findings of compliance with the applicable statewide planning goals (See Section 2 below).*

(5) The Department shall present to the Transportation Commission the draft plan, findings of compatibility with the acknowledged comprehensive plans of the affected cities and counties and findings of compliance with applicable statewide planning goals.

Finding: *The draft OR 42 Expressway Management Plan is attached as Exhibit D for the Commission's consideration. These findings address compliance with applicable statewide planning goals (See Section 2 below).*

(6) The Transportation Commission shall adopt findings of compatibility with the acknowledged comprehensive plans of affected cities and counties and findings of compliance with applicable statewide planning goals when it adopts the final facility plan.

Finding: *These draft findings are submitted for the Commission's consideration and adoption. These findings address compliance with applicable statewide planning goals and compatibility with the local comprehensive plan of the affected local jurisdictions.*

(7) The Department shall provide copies of the adopted final facility plan and findings to DLCD, to affected metropolitan planning organizations, cities, counties, state and federal agencies, special districts and to others who request to receive a copy.

Finding: *Staff will provide copies of the adopted OR 42 Expressway Management Plan, including all required findings, to DLCD, the affected local jurisdictions, and others who request a copy. The following findings are organized into three (3) categories:*

- *Compatibility*
 - *Douglas County Transportation System Plan*
 - *City of Winston Transportation System Plan*
- *Compliance*
 - *Statewide Planning Goals which specifically apply*
 - *Other Statewide Planning Goals that can be clearly defined*
- *Consistency*
 - *Oregon Transportation Plan*
 - *Oregon Highway Plan*
 - *Highway Design Manual*

2. Compatibility with Acknowledged County and City Comprehensive Plans

The draft OR 42 Expressway Management Plan was sent to Douglas County and the City of Winston.

Douglas County Comprehensive Plan is the official long-range land use policy document for Douglas County. The plan sets forth general land use planning policies and allocates land uses to resource, residential, commercial, and industrial categories. The plan serves as the basis for coordinated development of physical resources and the development or redevelopment of the county land uses based on physical, social, economic and environmental factors. The comprehensive plan establishes the purpose, map designation, criteria and the basis for determining the appropriate zoning for each land use.

The Transportation System Plan (TSP) establishes a system of transportation facilities and mobility standards that is adequate to meet the County's transportation needs. The Douglas County TSP includes a determination of future transportation needs for road, transit, bicycle, pedestrian, air, water, rail, and pipeline systems; policies and regulations for the implementation of the TSP; and a transportation-funding program.

Finding: *The expressway management plan used the Douglas County Comprehensive Plan planned land uses and zoning designations as assumptions in identifying future traffic volumes and transportation facility needs. The plan also used the Douglas County TSP existing and planned roadway network as assumptions in identifying future traffic volumes and transportation facility needs. The expressway's improvements are tailored to the planned land uses contained within the Douglas County Comprehensive Plan, and the county's future transportation needs identified in the TSP.*

City of Winston Comprehensive Plan is the official long-range land use policy document for the City of Winston. The plan sets forth general land use planning policies and allocates land uses to resource, residential, commercial, and industrial categories. The plan serves as the basis for coordinated development of physical resources and the development or redevelopment of the city land uses based on physical, social, economic and environmental factors. The comprehensive plan establishes the purpose, map designation, criteria and the basis for determining the appropriate zoning for each land use.

The Transportation System Plan (TSP) establishes a system of transportation facilities and mobility standards that is adequate to meet the City's transportation needs. The City of Winston TSP includes a determination of future transportation needs for road, transit, bicycle, pedestrian, air, water, rail, and pipeline systems; policies and regulations for the implementation of the TSP; and a transportation-funding program.

Finding: *The expressway management plan used the City of Winston Comprehensive Plan planned land uses and zoning designations as assumptions in identifying future traffic volumes and transportation facility needs. The plan also used the City's TSP existing and planned roadway network as assumptions in identifying future traffic volumes and transportation facility needs. The expressway's improvements are tailored to the planned land uses contained within the City of Winston Comprehensive Plan, and the city's future transportation needs identified in the TSP.*

3. Compliance with Applicable Statewide Planning Goals

Relevant statewide planning goals adopted by the Land Conservation and Development Commission (LCDC) include Goal 1 (Citizen Involvement); Goal 2 (Land Use Planning); Goal 11 (Public Facilities Planning); Goal 12 (Transportation); and Goal 14 (Urbanization). The remaining fourteen (14) statewide planning goals were determined not applicable because the OR 140 corridor does not include any of the identified resources and/or the corridor improvements do not impact any of the identified resources.

Goal 1: Citizen Involvement.

Requirement: The opportunity for citizens to be involved in all phases of the planning process.

Finding: *The expressway management plan process used an open and on-going public and agency involvement process that included Douglas County, the City of Winston, DLCD, sections within ODOT, and numerous interested citizens. An integrated, inter-departmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public meetings, a citizen advisory committee and a technical advisory committee.*

Committees - *During development of this expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from Douglas County, the City of Winston, DLCD and sections within ODOT, was established specifically to guide preparation of this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC and CAC meetings were held during development of the plan. The draft plan was also presented to the State Freight Industry Stakeholder Committee and received support of the planning concepts.*

Public Meetings - Public open houses were conducted on: December 1, 2011 to introduce the project, present the goals and objectives, and discuss preliminary analysis of existing and future conditions, plan alternatives and evaluation criteria; and on January 9, 2013 to present the draft plan. The open houses included graphic presentations and an open-house format to answer questions of attendees. Comment cards were provided.

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Goal 2: Land Use Planning.

Requirements: Establish a land use planning process and policy framework as the basis for all decisions and actions related to use of land and to assure an adequate factual basis for such decisions and actions.

Finding: *Comprehensive plans are incorporated into the Greater Roseburg Area Travel Demand Model, which was used extensively in developing the expressway management plan. Land use planning was coordinated with Douglas County, the City of Winston and DLCD through the TAC. Further, and as noted above, public input on the plan was solicited at a series of public open houses and committee meetings. The expressway management plan contains all information required for implementation, with supporting documentation in the reference materials. Preparation of the plan was based on an analysis of deficiencies along the expressway. Two (2) phases laid the foundation for the land use and transportation planning. The third and fourth phase identified expressway deficiencies and improvements for the draft plan.*

The first phase was development of a planning purpose, goals and objectives for the OR 42 expressway, and entailed an examination of the regulatory framework within which the expressway operates. The study area was set pursuant to OAR 734-051, with consideration of the local street network and local land uses. Further, state and local regulations, plans, and policies were examined to ensure the expressway management plan was developed to be compatible, compliant, or consistent, as appropriate.

The second phase consisted of assembling existing and future conditions. Existing conditions inventoried include: transportation facilities operations; geometric conditions; safety and crash analyses; land uses abutting the highway; and natural and historic resources. Future conditions were forecasted using the Greater Roseburg Area Travel Demand Model to assess future traffic operations and deficiencies.

The third phase detailed expressway improvements to address traffic safety, operations and geometric deficiencies. The methodology for the expressway management plan included a multi-step approach. The first was to evaluate approximate development potential by land use category. The second involved approximating the peak hour traffic generation potential of those areas. The third step involved comparing the trip generation potential with the traffic growth indicated in the Greater Roseburg Area Transportation Demand Model.

The final phase identified necessary expressway improvements and management measures to accommodate existing conditions and anticipated future traffic demand (Year 2035) for the draft plan.

Goal 11: Public Facilities and Services.

Requirements: A timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

Finding: *The expressway management plan is intended to preserve the investments made to the expressway and to maintain the state highway's intended function of safely and efficiently accommodating future traffic demands. The plan documents the current and future transportation needs and identifies*

alternatives that detail appropriate future improvements to meet these needs. Expressway improvements were designed to be adequate to serve the future needs of the community, while conforming to the requirements of the OHP.

Goal 12: Transportation.

Requirements: Provide and encourage a safe, convenient and economic transportation system.

Finding: *The expressway management plan inventories existing and future conditions for a 3.32-mile segment of OR 42 designated as an expressway. Improvements focus on upgrading the expressway to meet expressway standards, and improving the expressway to provide a safe, convenient and economic transportation system as traffic demand increases over the 20 year planning period.*

Six (6) deficiencies were identified along the OR 42 expressway through research, analysis and consultation with various stakeholders.

- 1. Eastbound bridge over the South Umpqua River is 26-feet wide and does not have any shoulders on either side of the roadway.*
- 2. Eastbound bridge over the South Umpqua River is identified as having a low service life and vertical clearance issues.*
- 3. No sidewalks or multi-use pathways on the south-side of OR 42.*
- 4. Two (2) unsignalized intersections have significant safety concerns related to turning movements.*
- 5. Two (2) signalized intersections are in the worst five (5) percent of the Safety Priority Index System (SPIS) rankings.*
- 6. Future operations of four (4) intersections exceed applicable mobility standards.*

The plan identifies seventeen (17) improvements to: (1) upgrade the existing OR 42 to meet the expressway standards; and (2) to improve future traffic operation and safety deficiencies when traffic warrants are satisfied. Project sheets, including conceptual cross-sections, were developed for each of the corridor improvements.

- 1. OR 42 - Lookingglass Rd. to Winston Section Rd. (73.88-74.35): Add two-way, buffered multi-use path on the south side of the expressway.*
- 2. OR 42/Winston Section Rd. (74.35-74.41): Connect Winston Section Rd. to path on north side with a multi-use path under-crossing.*
- 3. OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd., improve access road connecting to Jackie Ln. and restrict access to OR 42 from west of Rolling Hills Rd. through Jackie Ln.*
- 4. OR 42/Rolling Hills Rd. Intersection (74.77): Add eastbound and westbound right-turn deceleration lanes on OR 42.*
- 5. OR 42 – East of Rolling Hills Rd. through Landers Ave. (74.78-75.42): Add raised barrier to restrict turn movements to right-in/right-out.*
- 6. OR 42/Rolling Hills Rd. and OR 42/Landers Ave. Intersections (74.77 & 75.42): Add lighting at the unsignalized intersections.*
- 7. OR 42/Landers Ave. Intersection (75.42): Add westbound right-turn deceleration lane on OR 42.*
- 8. OR 42/Emils Way/Grange Rd. Intersection (75.53): Add raised median to restrict turn movements to left-in/right-in/right-out.*
- 9. OR 42/Emils Way/Grange Rd. Intersection (75.53): Add eastbound and westbound right-turn deceleration lanes on OR 42.*
- 10. OR 42/Carnes Rd./Roberts Creek Rd. Intersection (75.72): Add third westbound travel lane on west of the intersection and convert the westbound right-turn lane into a shared through-right lane.*
- 11. OR 42/Carnes Rd/Roberts Creek Rd. Intersection (75.72): Add second southbound left-turn lane on Carnes Rd.*

12. *OR 42/Winery Ln. Intersection (76.07): Add raised barrier to restrict turn movements to right-in/right-out.*
13. *OR 42/OR 99/Grant Smith Rd Intersection (76.22): Add second eastbound left-turn lane on OR 42 and a second northbound receiving lane on OR 99.*
14. *Lookingglass Rd. and Pepsi Rd.: Extend Lookingglass Rd. eastward and Pepsi Rd. westward to connect at a 4-way signalized intersection; close current connections to OR 42; and connect other access points to extensions.*
15. *Local Network Connections: Extend Rolling Hills Rd. northward to Happy Valley Rd. and improve connectivity between Melody Ln., Cameron Ave., Chandler Dr., Stella St., and other local streets in the Douglas County TSP.*
16. *Grange Rd.: Create a new connection from the east end of Grange Rd. to Roberts Creek Rd. via Brittney Ave.*
17. *Winery Ln.: Extend Winery Ln. to Grant Smith Rd.*

Goal 14: Urbanization.

Requirements: An orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, ensuring efficient use of land, and providing for livable communities.

Finding: *The OR 42 expressway abuts a small section of rural lands at the western terminus adjacent to Pepsi Road. The expressway traverses through Douglas County's Green Urban Unincorporated Area and identifies projects that support continued growth in the community. The expressway also serves as an east-west route between the Cities of Winston and Roseburg.*

The majority of the improvements can be constructed within existing right of way or use technology to improve the safety and efficiency of traffic along the corridor. As development occurs and traffic volumes increase, the expressway management plan recognizes the need to install a traffic signal at the Rolling Hills Rd./OR 42/Grange Rd. intersection, realign and install a traffic signal at the Pepsi Rd./OR 42/Lookingglass Rd. intersection to support future traffic demand along the expressway. Future projects requiring right of way acquisition through rural lands will require alternatives analysis pursuant to OAR 660-012-0065(5).

4. Consistency with the Oregon Transportation Plan and applicable modal plans, and the Highway Design Manual

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) is a policy document developed by ODOT in response to the federal and state mandates for systematic planning for the future of Oregon's transportation system. The OTP is intended to meet statutory requirements (ORS 184.618(1)) to develop a state transportation policy and comprehensive long-range plan for a multi-modal transportation system that addresses economic efficiency, orderly economic development, safety and environmental quality.

Findings: *The OTP does not specifically address improvements to the OR 42 expressway, but offers broad policy frameworks and standards for improving state highway system. The expressway management plan has been developed to be consistent the Oregon Highway Plan, which is an element of the OTP (see section below).*

Oregon Highway Plan

Goal 1: System Definition

Policy 1A – Highway Classification calls for ODOT to apply the state highway classification system to guide priorities for system investment and management.

Finding: *Oregon state highways are classified as Statewide, Regional, District or Local Interest based upon their current and planned function. Expressways are defined as a subset of highway classifications that may be applied to Statewide, Regional or District highways. The 1999 OHP classifies OR 42 (Coos Bay-Roseburg Highway) as a statewide highway and freight route, and designates a 3.2 3.32-mile segment of OR 42 as an expressway from Lookingglass Road (Mile Point 73.88), east through Douglas County’s Green Unincorporated Area, to I-5 Exit 119 (Mile Point 76.22).*

Action 1A.3 considers changing the classification of a state highway if the function of the highway has changed significantly since its original classification or the function does not fit the classification description. The classification change will be effective when the Oregon Transportation Commission adopts the change as part of a corridor plan or other planning process.

Finding: *The expressway management plan does not recommend changing the highway classification or designation of the OR 42 expressway.*

Policy 1B – Land Use and Transportation policy recognizes the role of both the State and local governments related to the state highway system and calls for a coordinated approach to land use and transportation planning.

Finding: *The expressway management plan has been prepared with the participation of the Technical Advisory Committee (TAC) representing Douglas County, the City of Winston, DLCD and sections within ODOT. The committee provided guidance on both technical issues and policy issues. All TAC meetings were open public meetings. Preparation of the plan was also done with input from a variety of stakeholders and the general public.*

Policy 1C – State Highway Freight System policy recognizes the need for the efficient movement of freight through the state. OR 42 is a designated Freight Route.

Finding: *OR 42 is listed in the OHP as a designated Freight Route. The expressway management plan includes future improvements that will improve safety and mobility for freight movement. The project sheets and conceptual cross-sections are consistent with the Highway Design Manual mobility and design standards for an expressway and freight route.*

Policy 1D – Scenic Byways policy is intended to preserve and enhance scenic byways.

Finding: *There are no scenic byways within the OR 42 expressway.*

Policy 1E – Lifeline Routes policy is intended to provide a secure lifeline of transportation routes that facilitate emergency services response and support rapid economic recovery after a disaster.

Finding: *The expressway improvements are intended to improve the safety and efficiency of the OR 42 expressway. The improved safety and efficiency of the transportation system facilitates improved emergency services response and support economic recovery after a disaster.*

Policy 1F – Highway Mobility Standards policy addresses the state highway performance expectations, providing guidance for managing access and traffic control systems related to state highways. This policy sets mobility targets for ensuring a reliable and acceptable level of mobility on the highway system by identifying necessary improvements that would allow the state highway to function in a manner consistent with the OHP. The OHP sets volume-to-capacity ratios that are not to be exceeded for state highways.

Finding: *The expressway management plan establishes uniform performance targets of the OR 42 expressway. It sets forth a 0.80 volume to capacity (v/c) performance target for the expressway. This performance target is drawn from Table 6 of the 1999 OHP.*

Policy 1G – Major Improvements policy directs ODOT to maintain highway performance and improve safety by improving system efficiency and management before adding capacity.

Finding: *The expressway management plan's improvements to install turn lanes at high volume intersections along the expressway have been identified as necessary to improve the safe flow of traffic through the expressway. Future capacity improvements to install traffic signals at the Pepsi Rd./OR 42/Lookingglass Rd. and Rolling Hills Rd./OR 42/Grange Rd. intersections were determined to support traffic demand for improving system efficiency and management.*

Policy 1H – Bypasses policy provides guidance to ODOT and local governments in determining whether a bypass is justified.

Finding: *The expressway management plan's improvements to install turn lanes at high volume intersections along the expressway have been identified as necessary to improve the safe flow of traffic through the expressway. Future capacity improvements to install traffic signals at the Pepsi Rd./OR 42/Lookingglass Rd. and Rolling Hills Rd./OR 42/Grange Rd. intersections were determined to support traffic demand for improving system efficiency and management. The expressway improvements are adequate for providing safe, efficient passage for through travelers and commerce, and a bypass was not needed to support future traffic demand along the corridor.*

Goal 2: System Management

Work with local jurisdictions and federal agencies to create an increasingly seamless transportation system with respect to the development, operation, and maintenance of the highway and road system that:

- Safeguards the state highway system by maintaining functionality and integrity;
- Ensures that local mobility and accessibility needs are met; and
- Enhances system efficiency and safety.

Policy 2A – Partnerships policy directs ODOT to establish cooperative partnerships with state and federal agencies, regional governments, cities, counties, tribal governments and the private sector to make more efficient and effective use of limited resources to develop, operate, and maintain the highway and road system.

Finding: *The expressway management plan process used an open and ongoing public and agency involvement process which included Douglas County, the City of Winston, DLCD, sections within ODOT and numerous interested citizens. An integrated, interdepartmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public and advisory committee meetings.*

Committees

During development of this corridor plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from the ODOT, DLCD, Douglas County, and the City of

Winston was established specifically to guide this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC meetings were held during development of the corridor plan.

Public Meetings - The first public meeting was held on December 1, 2011 at the Green School Annex. ODOT published a press release announcing the meeting on November 21, 2011. Nineteen (19) members of the public attended. ODOT and the consultant team briefed the audience on the planning process and provided an informal question and answer session of the display boards.

A second public meeting was held on January 9, 2013 at the Green School Annex. ODOT published a press release announcing the meeting on December 17, 2012. Eighteen (18) members of the public attended. ODOT and the consultant team briefed the audience on the planning concepts and provided an informal question and answer session of the display boards.

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Policy 2B – Off-System Improvements policy identifies when the State of Oregon should provide financial assistance to local jurisdictions to develop, enhance, and maintain improvements to local transportation systems when they are a cost-effective way to improve the operation of the state highway system.

Finding: *The expressway management plan identifies cost- effective improvements that are eligible for the State Transportation Improvement Program (STIP) Enhance and Fix It funds.*

Policy 2C – Interjurisdictional Transfers policy provides standards for considering inter-jurisdictional transfers of roads and/or roadway segments between the State of Oregon and local governments.

Finding: *The expressway management plan does not propose any roadway segments for transfer between the State of Oregon and local governments.*

Policy 2D – Public Involvement policy provides standards for ensuring that citizens, businesses, regional and local governments, state agencies, and tribal governments have opportunities to have input into decisions that impact the state highway system.

Finding: *The expressway management plan process used an open and ongoing public and agency involvement process which included Douglas County, the City of Winston, DLCD, sections within ODOT and numerous interested citizens. An integrated, interdepartmental (local and state) planning and decision-making procedure completed the public process. Public information and involvement were project priorities, as evidenced by public and advisory committee meetings.*

Committees

During development of the expressway management plan, a Technical Advisory Committee (TAC) was utilized. The TAC, which was composed of key staff members from the ODOT, DLCD, Douglas County, and the City of Winston was established specifically to guide this facility plan. The committee provided guidance on both technical issues and policy issues. A total of two (2) TAC meetings were held during development of the corridor plan.

Public Meetings - The first public meeting was held on December 1, 2011 at the Green School Annex. ODOT published a press release announcing the meeting on November 21, 2011. Nineteen (19) members of the public attended. ODOT and the consultant team briefed the audience on the planning process and provided an informal question and answer session of the display boards.

A second public meeting was held on January 9, 2013 at the Green School Annex. ODOT published a press release announcing the meeting on December 17, 2012. Eighteen (18) members of the public attended. ODOT and the consultant team briefed the audience on the planning concepts and provided an informal question and answer session of the display boards.

The team provided comment cards and asked members of the public to provide their names and addresses on an attendance sheet at all the public meetings.

Policy 2E – Intelligent Transportation Systems policy provides standards for the consideration of Intelligent Transportation Systems to improve system efficiency and safety in a cost-effective manner.

Finding: *The expressway management plan identifies Transportation System Management (TSM), such as Synchronizing Signal Timing and Permitted U Turns, as a cost-effective measure to improve system efficiency and safety.*

Policy 2F – Traffic Safety policy directs the continual improvement of safety for all users of the highway system using solutions involving engineering, education, enforcement, and emergency medical services.

Finding: *The expressway management plan improves operations and safety for all users. Improvements to operations and safety of the state highway enhance the ability of emergency medical services' response times.*

Traffic engineering conducted for the expressway management plan identified improvements that provide better safety for all users. The addition of roadway delineation and intersection restriping will help improve the overall operation and safety of the expressway.

Policy 2G – Rail and Highway Compatibility policy directs the improvement of safety and transportation efficiency through the reduction and prevention of conflicts between railroad and highway users.

Finding: *One railroad line passes under OR 42 with a grade-separated crossing. The Central Oregon and Pacific (CORP) Railroad is a short line railroad owned by Rail America, Inc., which is based in Jacksonville, Florida. Currently, the railroad line is exclusively for freight, with 90 percent of their delivery consisting of forest products.*

Goal 3 – Access Management

Policy 3A – Classification and Spacing Standards:

Finding: *The access management plan provides the framework for ODOT decisions to permit approach roads along the OR 42 expressway. It inventories existing approach roads and establishes minimum spacing standards for future approaches. The plan's minimum spacing standards are consistent with the 1999 OHP access management revisions adopted in March 2012.*

Policy 3B – Medians policy directs the management and placement of medians and the location of median openings to enhance the safety and efficiency of the highways and support land use development patterns that are consistent with approved transportation system plans.

Finding: *The expressway management plan includes raised barriers and medians as safety improvements along the expressway. Staff also presented the draft plan to the State Freight Industry Stakeholders Committee and received support of the planning concepts.*

Policy 3C – Interchange Access Management Areas policy addresses the need to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.

Finding: *The expressway management plan does not include an I-5 interchange and defers to the adopted Interchange Area Management Plan for Exit 119 (Green Interchange) for interchange improvements.*

Policy 3D – Deviations

Finding: *Deviations apply only to approach permitting and are not applicable.*

Policy 3E – Appeals

Finding: *Appeals apply only to approach permitting and are not applicable.*

Goal 4: Travel Alternatives

Policy 4A – Efficiency of Freight Movement policy emphasizes the State’s role in managing access to highway facilities in order to maintain functional use, safety and to preserve public investment.

Finding: *The access management plan is consistent with expressway standards. It inventories existing approach roads and establishes minimum spacing standards for future approaches to maintain functional use, safety and to preserve public investment. The plan’s minimum spacing standards are consistent with the 1999 OHP access management revisions adopted in March 2012.*

Policy 4B – Alternative Passenger Modes policy advances and supports alternative passenger transportation systems where travel demand, land use, and other factors indicate the potential for successful and effective development of alternative passenger modes.

Finding: *The expressway management plan includes bicycle and pedestrian facilities to improve connectivity for these travel modes along the expressway. It also includes a Park and Ride Facility to support the Umpqua Transit District (UTD) Bus Routes.*

Policy 4C – High Occupancy Vehicle (HOV) Facilities policy promotes the utilization of HOV facilities to improve the efficiency of the highway system in locates where travel demand, land use, transit, and other factors are favorable to their effectiveness.

Finding: *The expressway management plan analysis does not justify High Occupancy Vehicle (HOV) lanes to support future traffic demand along the expressway.*

Policy 4D – Transportation Demand Management policy supports the efficient use of the state transportation system through investment in transportation demand management strategies.

Finding: *The expressway management plan includes Traffic Demand Measures (TDM), such as Carpooling, Vanpooling, Transit, Walking and Bicycle programs, as management measures to reduce vehicular demand, especially for commuter trips in the peak periods.*

Policy 4E – Park-and-Ride Facilities policy encourages the efficient use of the existing transportation system and seeks cost-effective solutions to the highway system’s passenger capacity through development of park-and-ride facilities.

Finding: *The expressway management plan includes a Park and Ride Facility as a cost-effective management measure to support the Umpqua Transit District (UTD) Bus Routes.*

Goal 5: Environmental and Scenic Resources

Policy 5A – Environmental Resources policy supports the natural and built environment by establishing standards for the design, construction, operation and maintenance of the state highway system.

Finding: *The expressway management plan inventories existing land use and zoning; wildlife habitat and wetland resources; threatened and endangered species; floodplains and floodways; socioeconomic and environmental justice conditions; and historical, archaeological and Section 4(f) resources along the expressway.*

Policy 5B – Scenic Resources policy provides for scenic resources management.

Finding: *The expressway management plan does not include transportation facility designs, and therefore does not include transportation facility aesthetics. Further, no scenic resources were identified.*

Oregon Bicycle and Pedestrian Plan

The Oregon Bicycle and Pedestrian Plan implements the actions recommended by the Oregon Transportation Plan to guide ODOT and local governments in developing bikeway and walkway systems. It explains the laws pertaining to the establishment of bikeways and walkways, fulfills the requirements of the Transportation Planning Rule, and provides standards for planning, designing, and maintaining bikeways and walkways.

Finding: *The expressway management plan is consistent with the Oregon Bicycle and Pedestrian Plan by identifying bicycle and pedestrian facilities to improve connectivity for these travel modes along the expressway.*

Exhibit D

OR 42 Expressway Management Plan

Copies of the OR 42 Expressway Management Plan can be obtained by downloading it at:

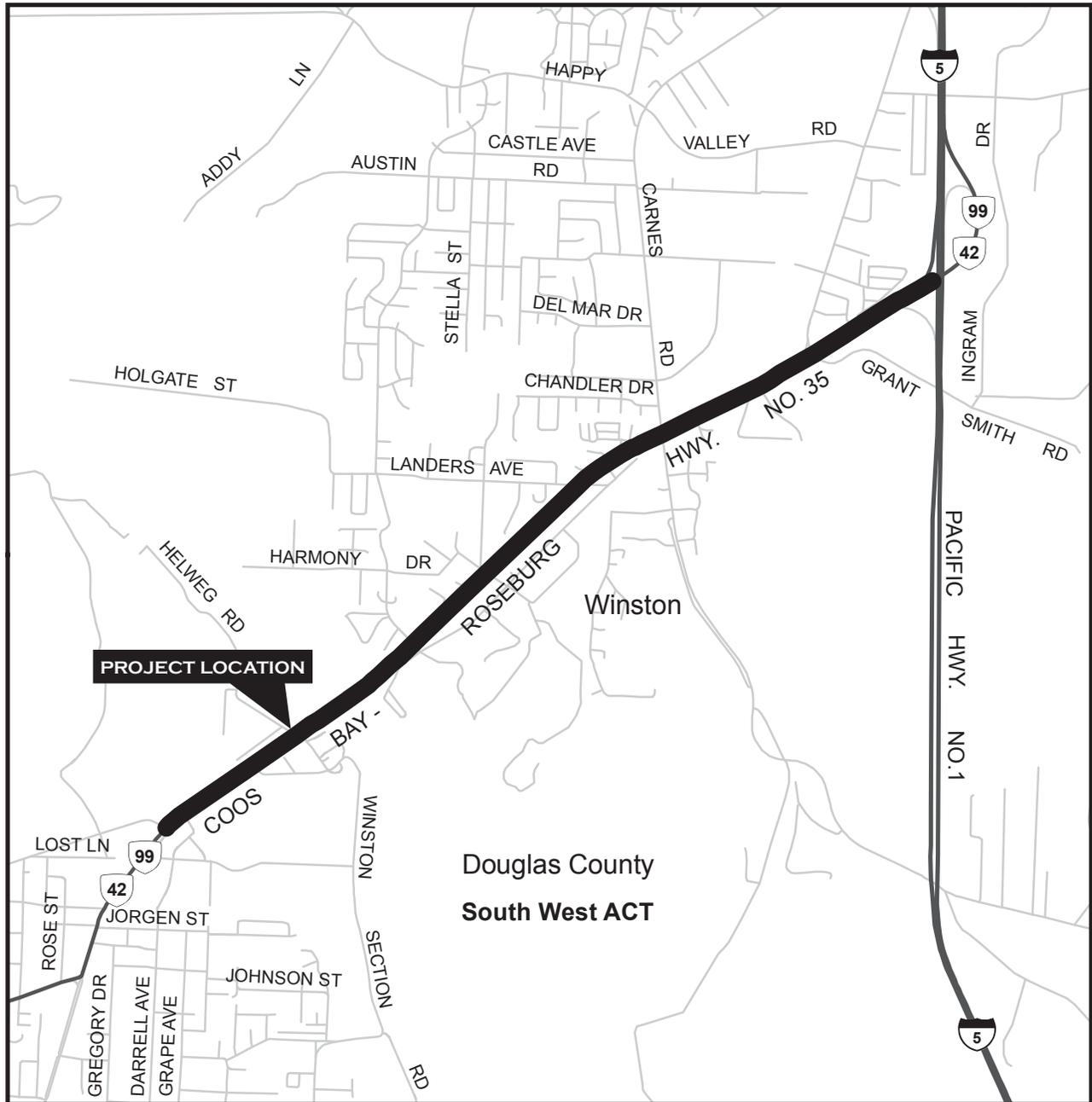
ftp://ftp.odot.state.or.us/outgoing/OR42_expressway_plan/

Or contacting:

Thomas Guevara Jr., Senior Transportation Planner
ODOT Region 3
Planning and Programming Unit
3500 NW Stewart Parkway
Roseburg, OR 97470
Thomas.Guevara@odot.state.or.us
(541) 957-3692

PROJECT LOCATION

ODOT REGION 3



LEGEND

-  PROJECT LOCATION
- STATE HIGHWAY CLASSIFICATION
-  INTERSTATE
-  STATEWIDE
-  REGIONAL / DISTRICT
-  REGIONAL BOUNDARY
-  COUNTY BOUNDARY
-  ACT BOUNDARY

OR 42 EXPRESSWAY MANAGEMENT PLAN

"This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information."



0 0.4 Miles
 PRODUCED BY ODOT - GIS UNIT
 (503) 986-3154 - APRIL 2013
 GIS No. 23-52

OR 42 Expressway Management Plan

Lookingglass Road to I-5 Exit 119



August 2013



Prepared by:



Prepared for:



OR 42 Expressway Management Plan:

Lookingglass Road to I-5 Exit 119

Prepared for

Oregon Department of Transportation, Region 3
3500 NW Stewart Parkway
Roseburg, Oregon 97470

Prepared by

David Evans and Associates, Inc.
2100 SW River Parkway
Portland, Oregon 97201

August 2013

Acknowledgements

The development of this Expressway Management Plan has been the collective effort of the following people:

Project Management Team

Thomas Guevara Jr., ODOT Project Manager
Jennifer Danziger, PE, David Evans and Associates, Inc.
Joshua Rohani, PE, PTOE, David Evans and Associates, Inc.

Technical Advisory Committee

John Boyd – Douglas County Planning	Ronald Hughes – ODOT Access Management
Mike Luttrell – Douglas County Public Works	Michael Morris – ODOT Roadway
Jennifer Sikes – City of Winston Public Works	John Oltman – ODOT Traffic Engineer
Scott Adams – ODOT Local Government Liaison	Jarvis Pennington – ODOT
Leslie Elbon – ODOT Motor Carrier	Peter Schuytema – ODOT TPAU
Susan Chase – ODOT Motor Carrier	Joe Thomas – ODOT Survey
Roxanne Hanneman – ODOT ROW	Chris Hunter – ODOT Assistant District Manager

Citizen Advisory Committee

Susan Morgan – Douglas County Commissioner	Pete Carhart – Knife River Materials
Christie Glen-Knutson – Winston City Councilor	Brant Boyer – Terrain Tamers
Valynn Currie – Currieco Real Estate	Kathleen Smith – Land Owner/Developer
Chris Baker – Roseburg Forest Products	Tom Loomis – Pepsi Co.
Dave Ewert – New Hope Church	

Consultant Team

Jennifer Danziger, Project Manager	Joshua Rohani, Traffic Engineer
Angela Rogge, Traffic Analyst	Anneke Van der Mast, Planner
Ted Stewart, Civil Engineer	Angie Jones, Assistant
Dan Ilyin, Designer	



Table of Contents

EXECUTIVE SUMMARY V

1 INTRODUCTION 1

 1.1 Study Area 3

 1.2 Expressway Management Plan Goal and Objectives 6

2 EVALUATION OF BASELINE CONDITIONS..... 7

 2.1 Regulatory Framework 9

 2.2 Land Use and Environmental Resources 10

 2.3 Transportation System Inventory 14

 2.4 Existing Operations and Safety 17

 2.5 Future Baseline Conditions..... 23

3 SUMMARY OF EXPRESSWAY DEFICIENCIES 27

4 EXPRESSWAY MANAGEMENT PLAN IMPROVEMENTS 31

 4.1 Improvement Development Process..... 33

 4.2 Summary of Improvements..... 34

 4.3 Project Sheets 34

5 ACCESS MANAGEMENT PLAN..... 73

 5.1 Access Management Standards 75

 5.2 Access Inventory..... 75

 5.3 Key Principles of Access Management Plan 76

 5.4 Access Management Actions..... 77

6 OTHER MANAGEMENT ACTIONS 81

 6.1 Transportation System Management Measures..... 83

 6.2 Transportation Demand Management Measures..... 84

 6.3 Bicycle and Pedestrian Facilities..... 84

 6.4 Park-and-Ride Facility 84

7 PLAN MONITORING AND FUNDING..... 85

 7.1 Traffic Conditions Monitoring 87

 7.2 Potential Funding Sources 88

Note: When viewing an electronic version of this document, items in the Table of Contents are hyperlinks that will direct you to the specified materia. References to figures, tables, and appendices are also hyperlinks that will direct you to the referenced item.

Table of Contents (continue)

REFERENCE MATERIAL (COMPANION DOCUMENT)

- Technical Memorandum #1: Review of Adopted Plans, Rules, and Regulations
- Technical Memorandum #2: Study Area Definition, Goals and Objectives
- Technical Memorandum #3: Existing Conditions
- Technical Memorandum #4: Future Baseline Conditions
- Technical Memorandum #5: Concept Development and Evaluation
- Technical Memorandum #6: Public Involvement Summary

Project Sheets

Project 1. OR 42 – Lookingglass Rd to Winston Section Rd: Add Multi-Use Path on South Side of OR 42.....	39
Project 2. Winston Section Rd: Add Multi-Use Undercrossing.....	41
Project 3. OR 42/Rolling Hills Rd: Install Traffic Signal and Restrict Access to OR 42	43
Project 4. OR 42/Rolling Hills Rd: Add Eastbound & Westbound Right-Turn Deceleration Lanes	45
Project 5. East of Rolling Hills Rd through Landers Ave: Add Raised Barrier.....	47
Project 6. Install Roadway Lighting at Key Locations.....	49
Project 7. OR 42/Landers Ave: Add Westbound Right-Turn Deceleration Lane	50
Project 8. OR 42/Emils Way/Grange Rd: Add Raised Median	52
Project 9. OR 42/Emils Way/Grange Rd: Add Eastbound & Westbound Right-Turn Deceleration Lanes.....	55
Project 10. OR 42/Carnes Rd/Roberts Creek Rd: Add Third Westbound Through Lane	57
Project 11. OR 42/Carnes Rd/Roberts Creek Rd: Add Second Southbound Left-Turn Lane	59
Project 12. OR 42/Winery Ln: Add Raised Barrier	61
Project 13. OR 42/OR 99/Grant Smith Rd: Add Second Eastbound Left-Turn Lane.....	63
Project 14. Lookingglass Rd and Pepsi Rd: Realign to Create 4-way Signalized Intersection.....	65
Project 15. Local Network Connectivity (Douglas County TSP)	67
Project 16. Grange Rd: Create New Connection from Grange Rd to Roberts Creek Rd (Douglas County TSP).....	69
Project 17. Winery Ln: Extend to Grant Smith Rd	71

List of Tables

Table 1. Environmental and Land Use Summary..... 13

Table 2. OR 42 Roadway Inventory..... 14

Table 3. OR 42 Corridor Cross-Street Inventory 15

Table 4. Existing (2011) Design Hour Intersection Operations..... 20

Table 5. Future Baseline (2035) Design Hour Intersection Operations..... 25

Table 6. Summary of Deficiencies..... 29

Table 7. Summary of Expressway Management Plan Improvements 35

Table 8. Existing Access Inventory 76

Table 9. Access Management Plan 78

Table 10. Monitoring for System Improvements..... 88

List of Figures

Figure ES-1. Expressway Management Plan Improvements ix

Figure 1. Study Area 5

Figure 2. Zoning Map Designations 11

Figure 3. Existing (2011) Design Hour Traffic Volumes..... 18

Figure 4. Summary of Crash History (January 1, 2005 through December 31, 2010) 22

Figure 5. Future Baseline (2035) Scenario – Design Hour Traffic Volumes 26

Figure 6. Expressway Management Plan Improvements 37

Figure 7. Access Management Plan 80

List Acronyms

ADT	Average Daily Traffic
CDS	Crash Data System
CORP	Central Oregon and Pacific Railroad
DHV	Design Hourly Volume
HDM	Highway Design Manual
IAMP	Interchange Area Management Plan
ITS	Intelligent Transportation Systems
MP	Milepoint
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
OTC	Oregon Transportation Commission
ROW	Right of Way
SPIS	Safety Priority Index System
STIP	Statewide Transportation Improvement Program
TDM	Transportation Demand Management
TIS	Traffic Impact Study
TSM	Transportation System Management
UGB	Urban Growth Boundary
UUA	Urban Unincorporated Area
v/c	volume-to-capacity

EXECUTIVE SUMMARY

Corridor Goal and Objectives.....vii
Regulatory Frameworkvii
Baseline Conditions and Identified Deficiencies.....vii
Expressway Plan Improvementsviii
Access Management Planviii
Corridor Monitoring.....x
Oregon Transportation Commission (OTC) Actions.....x



This page left intentionally blank.

EXECUTIVE SUMMARY

This *Oregon Route (OR) 42 Expressway Management Plan (EMP)* focuses on the section of OR 42 that extends from I-5, through the Green Urban Unincorporated Area (UUA), to Lookingglass Road. The plan examines how the expressway operates both now and over the next 20 years. It identifies strategies to preserve and improve safety and capacity consistent with an expressway route designation.

Corridor Goal and Objectives

Five (5) goals provide guiding principles for planning, programming and managing the OR 42 expressway corridor:

- Improve safety and operations of the expressway corridor for all modes of travel.
- Upgrade the corridor to meet Expressway design and performance standards.
- Facilitate freight travel by maintaining efficient traffic movement through the corridor.
- Develop integrated transportation facilities and services that support economic development.
- Provide better accessibility to the Cities of Roseburg and Winston and the Green UUA consistent with the adopted local comprehensive land use and transportation plans.

Regulatory Framework

The OR 42 EMP establishes mobility and access management standards based on policy in the Oregon Highway Plan (OHP). The Highway Mobility Policy (1F) establishes maximum thresholds for peak hour congestion on highways in Oregon which should be maintained through a 20-year planning horizon. Mobility targets (or standards) for a statewide expressway apply to OR 42 through the corridor. The OHP also addresses access management with the most recent revisions adopted in March 2012. Access spacing standards for the EMP were developed based on a statewide expressway designation.

Baseline Conditions and Identified Deficiencies

Baseline conditions were evaluated to understand land use, identify potential environmental constraints, and determine existing (year 2011) and future (year 2035) transportation deficiencies. Identified deficiencies and related goals include:

- Eastbound bridge over the South Umpqua River is 26-feet wide and does not have any shoulders on either side of the roadway; *Related Goals – Mobility, Freight, Safety, Multimodal*
- Eastbound bridge over the South Umpqua River is identified as having a low service life and vertical clearance issues; *Related Goals – Mobility, Freight, Safety*

- No sidewalks or multi-use pathways on the south side of OR 42; *Related Goals – Multimodal, Safety*
- Two unsignalized intersections have significant safety concerns related to turning movements; *Related Goal – Safety*
- Two signalized intersections are in the worst five (5) percent of the Safety Priority Index System database; *Related Goal – Safety*
- Future operations of four (4) intersections exceed applicable mobility standards; *Related Goals – Mobility, Freight, Economic, Safety*

Expressway Plan Improvements

The OR 42 EMP improvements address identified 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 location of EMP improvements and includes a brief description of the project along with a general priority. Detailed project sheets have been prepared for each expressway improvement.

All travel modes were considered in the development of the EMP improvements. Several bicycle and pedestrian facility improvements were identified to augment the existing multi-use path and minimum 8-foot shoulders were included in the improvements. Considerations for existing and future transit needs were also incorporated into the EMP.

In addition to the EMP improvements, other management actions are included to protect and extend the life of the expressway and provide for incremental implementation of EMP improvements. These actions are summarized in Section 6. Other Management Actions and include: Transportation System Management (TSM) Measures, Transportation Demand Management (TDM) Measures, Bicycle and Pedestrian Facilities, and Park-and-Ride Facilities.

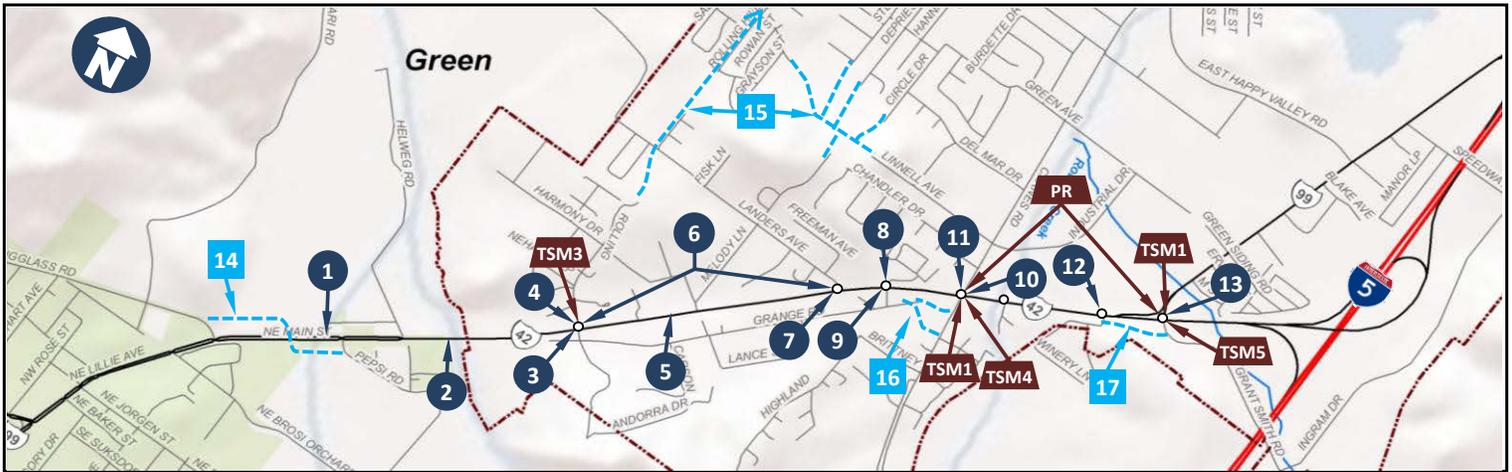
Access Management Plan

The Access Management Plan includes a combination four (4) types of actions:

- EMP improvement projects related to raised barriers and turning restrictions
- Local street network improvements
- Transportation system management measures
- Private access control measures

The actions were developed balancing the key principles of safety and mobility for all users with regional and local economic vitality, which is consistent with the overarching EMP goals. Actions may be triggered as future EMP improvements are implemented, as safety and operational issues arise, or as land use changes occur (new development or redevelopment).

Note: All access management measures shall be applied with a desire to move towards achieving applicable access spacing standards over time.



- 1** OR 42 - Lookingglass Rd to Winston Section Rd (73.88-74.35): Add two-way, buffered multi-use path on the south side of the expressway (High to Medium Priority)
- 2** OR 42/Winston Section Rd (74.35-74.41): Connect Winston Section Rd to path on north side with a multi-use path undercrossing (High to Medium Priority)
- 3** OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd, improve access road connecting to Jackie Ln and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Ln (High Priority)
- 4** OR 42/Rolling Hills Rd Intersection (74.77): Add eastbound and westbound right-turn deceleration lanes on OR 42 (Medium Priority)
- 5** OR 42 – East of Rolling Hills Rd through Landers Ave (74.78-75.42): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)
- 6** OR 42/Rolling Hills Rd and OR 42/Landers Ave Intersections (74.77 & 75.42): Add lighting at the unsignalized intersections (High Priority)
- 7** OR 42/Landers Ave Intersection (75.42): Add westbound right-turn deceleration lane on OR 42 (Medium Priority)
- 8** OR 42/Emils Way/Grange Rd Intersection (75.53): Add raised median to restrict turn movements to left-in/right-in/right-out (High Priority)
- 9** OR 42/Emils Way/Grange Rd Intersection (75.53): Add eastbound and westbound right-turn deceleration lanes on OR 42 (Medium Priority)
- 10** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Add third westbound travel lane on west of the intersection and convert the westbound right-turn lane into a shared through-right lane (Medium to Low Priority)
- 11** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Add second southbound left-turn lane on Carnes Rd (Medium Priority)
- 12** OR 42/Winery Ln Intersection (76.07): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)
- 13** OR 42/OR 99/Grant Smith Rd Intersection (76.22): Add second eastbound left-turn lane on OR 42 and a second northbound receiving lane on OR 99 (Medium Priority)
- 14** Lookingglass Rd and Pepsi Rd: Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at a 4-way signalized intersection; close current connections to OR 42; and connect other access points to extensions (Low Priority)
- 15** Local Network Connections: Extend Rolling Hills Rd northward to Happy Valley Rd and improve connectivity between Melody Ln, Cameron Ave, Chandler Dr, Stella St, and other local streets in the Douglas County TSP (RH: High Priority; Other: Medium Priority)
- 16** Grange Rd: Create a new connection from the east end of Grange Rd to Roberts Creek Rd via Brittney Ave (High Priority)
- 17** Winery Ln: Extend Winery Ln to Grant Smith Rd (Medium Priority)
- TSM1** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction (High Priority)
- TSM2** OR 42/OR 99/Grant Smith Road Intersection (76.22): Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction (High Priority)
- TSM3** OR 42/Rolling Hills Rd Intersection (74.77): Permit U-turns for passenger vehicles with protected left-turn arrow
- TSM4** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Permit U-turns for passenger vehicles with protected left-turn arrow
- TSM5** OR 42/OR 99/Grant Smith Rd Intersection (76.22): Permit U-turns for passenger vehicles with protected left-turn arrow
- PR** OR 42 Park-and-Ride Lot: Create facility using an existing underutilized parking lot, a future shared-use development, or a standalone parking lot

OR 42 Expressway Management Plan

Legend

- Expressway Improvements
- Local System Improvements
- Other Improvements
- Future Roadway Connection

Figure ES-1
Expressway Management
Plan Improvements

Corridor Monitoring

Both the projects in the Expressway Management Plan and the Access Management Plan include triggers that identify when a project or a strategy may be warranted. Although some priority has been assigned to the projects, periodic 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. **Periodic corridor monitoring** of traffic and crash data can be used to identify the need for capacity and safety improvements in the corridor. 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 signals, left-turn lanes, right-turn lanes, and other capacity and safety improvements identified in the EMP.*
 - *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 traffic signals, left-turn lanes, right-turn lanes, and access management measures may be necessary.*
2. **Traffic impact studies (TIS)** for proposed development should be part of the monitoring process. Proposed developments that could generate a sufficient number of trips to impact the corridor intersections or other public intersections along OR 42 should be required to prepare a TIS. 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 EMP.*
 - *Improvements that are triggered by development should be incorporated into the conditions of approval for the proposal.*

Oregon Transportation Commission (OTC) Actions

Adoption of this EMP will require the OTC to amend the 1999 Oregon Highway Plan to adopt the OR 42 Expressway Management Plan: Lookingglass Road to I-5 Exit 119 and amend the OR 42 Corridor Plan improvements for the OR 42/Pepsi Road/Helweg Road intersection. This will establish consistent policies for the corridor to guide management of the expressway facility. It will also establish performance targets and minimum access spacing standards for the corridor.

1 INTRODUCTION

1.1	Study Area	3
1.2	Expressway Management Plan Goal and Objectives	6



This page left intentionally blank.

1. INTRODUCTION

This *Oregon Route (OR) 42 Expressway Management Plan (EMP)* focuses on the section of OR 42 designated as an Expressway which begins at Lookingglass Road in the City of Winston and travels through the Green Urban Unincorporated Area (UUA) in Douglas County to the ramps at I-5 Exit 119.¹ The plan examines how the expressway operates both now and over the next 20 years. It identifies strategies to preserve and improve safety and capacity consistent with an expressway route designation.

1.1 Study Area

The study area focuses on a 3.32-mile segment of OR 42 designated as an Expressway which extends from Lookingglass Road to the ramps at I-5 Exit 119 (see Figure 1). Although designated as an Expressway, the highway has never been fully upgraded to meet Expressway design and performance standards. The Oregon Highway Plan (OHP)² describes Expressways as complete routes or segments of existing highways and planned highways that offer safe and efficient high speed and high volume traffic movements. Their primary function is to provide for intercity travel and connections to ports and major recreation areas with minimal interruptions. In urban areas, speeds are moderate to high. Usually there are no pedestrian facilities, and bikeways may be separated from the roadway. Private access is discouraged and public road connections are highly controlled.

Like many highways in Oregon, OR 42 must serve both regional traffic and local traffic generated by the adjacent communities. It must also serve the varied needs of the commuters, recreational users, and freight as well as accommodating different modes of travel (i.e., vehicles, bicycles, pedestrians, transit). These diverse users and demands must be balanced both the length of the corridor and within the study area.

1.1.1 Regional Perspective

OR 42 plays an important role in the communities of Coos and Douglas Counties. This highway works together with I-5, US 101, and a number of other state and local roads to form a regional transportation system that serves both the traveling public and freight travel. OR 42 also serves as an alternate route to OR 38 through the coast range. Both routes are designated as statewide highways and freight routes, and are part of the National Highway System, because they serve an important economic role in terms of freight movement between the coast and the interstate.

¹ The entire OR 42, also known as “Coos Bay-Roseburg Highway”, connects to Interstate 5 (I-5) at Exit 119 and extends to US 101 in Coos County.

² 1999 Oregon Highway Plan, Oregon Department of Transportation, Salem, OR, 2006.

The overall management focus for the entire OR 42 corridor,³ including this EMP study area, is to balance:

- **Safety:** ODOT is charged with ensuring the traveling public is provided a safe and efficient transportation system.
- **Freight movements and economic development:** In serving as a primary link between the South Coast and I-5 corridor, the freight function of the OR 42 corridor must be protected and enhanced. Specifically, maintaining travel times and highway capacity will ensure efficient freight movement and therefore support the regional economy.
- **Local transportation needs:** The highways will continue to serve as primary arterials in the communities along the corridor. Providing access to local land uses and adequate pedestrian facilities will continue to be a consideration in the operation of both facilities.

1.1.2 Local Perspective

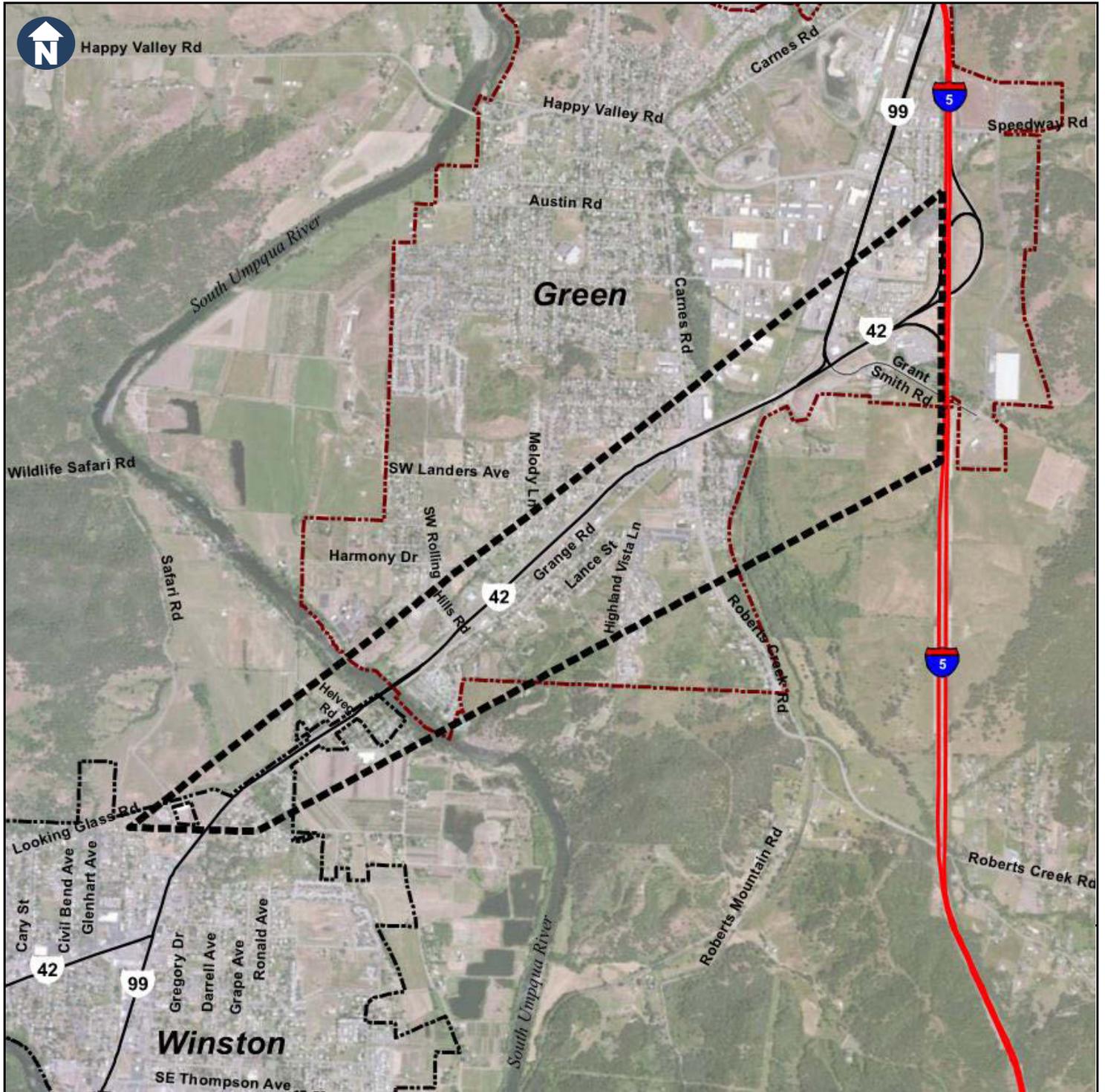
This EMP study area focuses on the section of OR 42 classified as an Expressway beginning at Lookingglass Road (Mile point 73.88) and ending at I-5 Exit 119 (Mile Point 77.17).

The western portion of the corridor, from Lookingglass Road to the South Umpqua River, lies within the City of Winston. OR 42 provides the Winston area with the major east-west access to the Roseburg Urban Area, Oregon Coast port facilities, regional recreation areas, and provides a connection to I-5 for north-south travel through the county. Most private access is restricted along this stretch of expressway but there are a number of public access points.

From the South Umpqua River to the bridge crossing the Central Oregon and Pacific (CORP) Railroad line, OR 42 is surrounded by a mix of land uses. Commercial and retail developments are primarily focused around Kelly's Corner, (i.e., the signalized intersection of OR 42 with Carnes Road and Roberts Creek Road). This section of the expressway contains numerous private accesses and local road connections.

The eastern portion of the corridor extends from the bridge crossing the CORP rail line to the ramps at I-5 Exit 119. The south side of the Exit 119 ramp terminal is largely comprised of undeveloped land, with the exception of a truck stop. The north side of the exit is comprised of a dense mix of commercial, industrial, and residential developments. Access is restricted to public roads including the signalized intersection with Old Highway 99S, which extends northward through the Green UUA and into Roseburg.

³ Corridor Plans for the OR 38 and OR 42 Corridors, Volume 1. Oregon Department of Transportation, Region 3, Roseburg, OR, June 2001.



Legend

-  Study Area
-  City of Green UUA Boundary
-  Winston City Limits
-  Interstate
-  Oregon Routes

OR 42 Expressway Management Plan

Figure 1
Study Area

Data Sources:

- ESRI, 2011
- Oregon Department of Transportation (ODOT), 2009
- Oregon Geospatial Enterprise Office (GEO), 2009

1.2 Expressway Management Plan Goal and Objectives

The following goals and objectives provide the guiding principles for planning, programming, and managing the OR 42 corridor.

1.2.1 Goals

The goals of this EMP are to develop a plan for expressway improvements that can be implemented over time to:

- Improve safety and operations of the expressway corridor for all modes of travel.
- Upgrade the corridor to meet Expressway design and performance standards.
- Facilitate freight travel by maintaining efficient traffic movement through the corridor.
- Develop integrated transportation facilities and services that support economic development.
- Provide better accessibility to the Cities of Roseburg and Winston and the Green UUA consistent with the adopted local comprehensive land use and transportation plans.

1.2.2 Objectives

The objectives of the EMP are to:

- Identify existing operational deficiencies based on the mobility standards prescribed in the Oregon Highway Plan (OHP) and the level-of-service standards in the Douglas County and City of Winston Transportation System Plans (TSP).
- Review crash patterns and the state rating systems (Safety Priority Index System and Safety Improvement Program) to identify safety deficiencies.
- Evaluate the need for capacity improvements based on the adopted, comprehensive land use plans of Douglas County and the Green Urban Unincorporated Area and the City of Winston.
- Develop concepts to upgrade the corridor to Expressway design and performance standards, improve safety, and increase capacity to address existing and future needs.
- Develop an access management plan that provides for safe and acceptable operations on the transportation network, while considering the economic needs of abutting properties, and meets OHP requirements and the access spacing standards in Oregon Administrative Rule (OAR) 734-051.
- Identify potential local system enhancements that maintain connectivity and complement the expressway upgrades.
- Incorporate off-road bicycle and pedestrian elements, such as sidewalks, bike lanes, and pathways, as well as corresponding roadway crossings.
- Coordinate planning efforts for OR 42 with other plans and projects in the study area.

2 EVALUATION OF BASELINE CONDITIONS

2.1	Regulatory Framework	9
2.2	Land Use and Environmental Resources	10
2.3	Transportation System Inventory	14
2.4	Existing Operations and Safety	17
2.5	Future Baseline Conditions	23



This page left intentionally blank.

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 2011) transportation system and traffic conditions are evaluated to identify deficiencies. Future (year 2035) 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 protect highway function, provide for safe and efficient operations, and minimize the need and expense for making major improvements to the corridor through the year 2035 planning horizon. *(Refer to Technical Memorandum #1: Review of Adopted Plans, Rules, and Regulations 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) ratios for peak hour operating conditions of highways in Oregon.⁴ The OHP policy also specifies that the v/c ratios be maintained for ODOT facilities through a 20-year planning horizon.

The v/c ratio target is 0.80 for the OR 42 entire expressway corridor. This standard applies to the intersections within the City of Winston Urban Growth Boundary (UGB) and the Green Urban Unincorporated Area (UUA) boundary which form a nearly continuous urban area.

2.1.2 Applicable Access Management Standards

The OHP also addresses access management with the most recent revisions adopted in March 2012.⁵ **The OR 42 expressway corridor standard is 2,640 feet (½ mile) between intersections.** More detailed requirements, action definitions, and the access spacing standards for state

⁴ 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, Oregon Department of Transportation, website: <http://www.oregon.gov/ODOT/TD/TP/docs/ohp11/policyadopted.pdf>

⁵ 1999 Oregon Highway Plan Revisions to Address Senate Bill 264 (2011) Policy 3A, website: http://www.oregon.gov/ODOT/TD/TP/docs/ohp_am/accesssm.pdf

highways are specified in OAR 734-051 (Division 51): Highway Approaches, Access Control, Spacing Standards, and Medians.⁶

2.2 Land Use and Environmental Resources

To understand the potential existing environmental and land use issues, and to help inform the conceptual alternatives development process in a subsequent phase of planning for improvements in the study area, this section identifies and reviews the existing land use and environmental conditions in the study area. *(For more detailed information regarding these topics, refer to Technical Memorandum #3: Existing Conditions in the Reference Material.)*

2.2.1 Current Designations and Zoning

The OR 42 EMP was developed consistently with existing land use conditions from the Comprehensive Plans and Land Use and Development Ordinances for Douglas County and the City of Winston. The existing and planned land uses affect traffic patterns and the operations of the expressway.

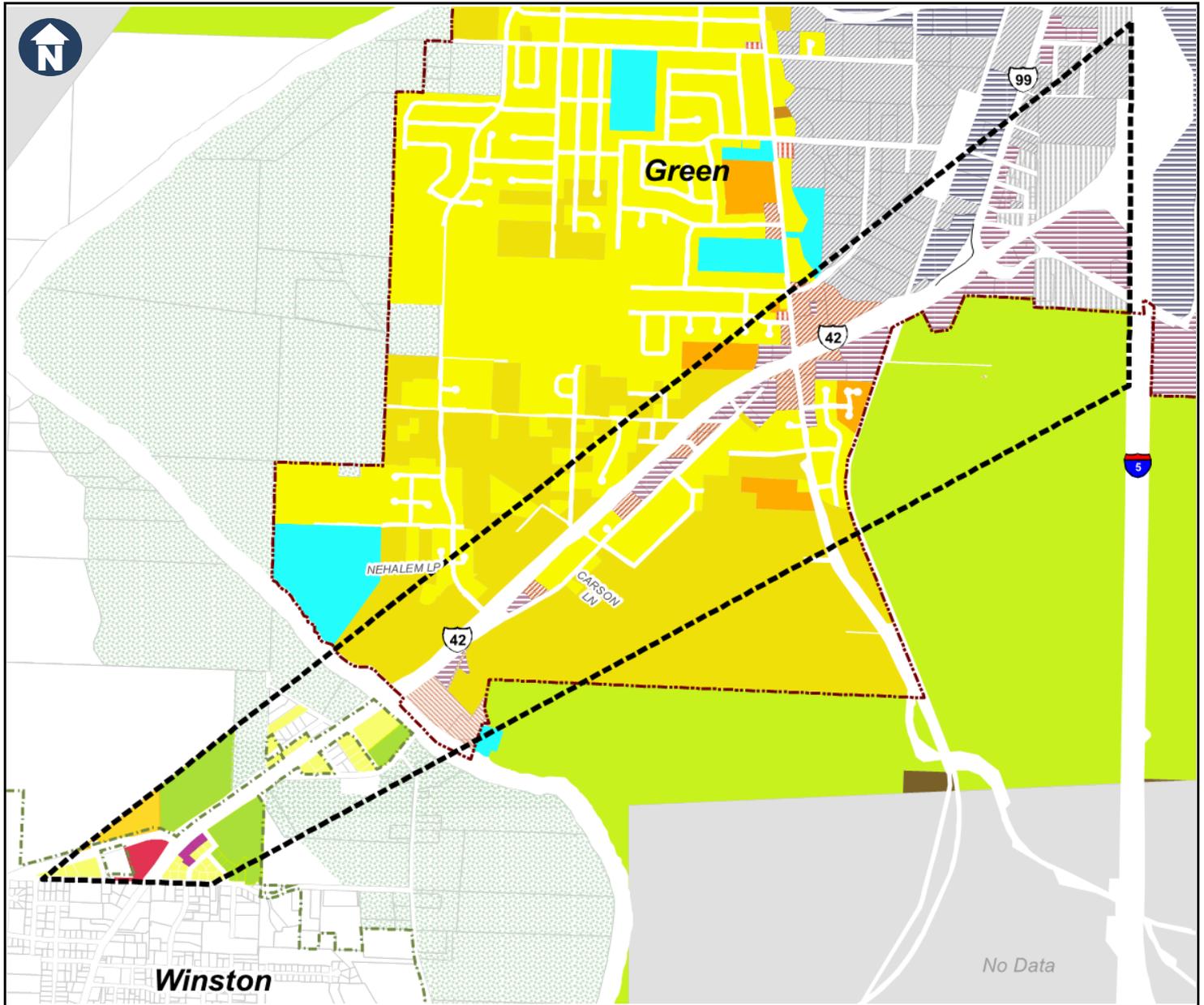
Most of the study area is located within the Douglas County Green UUA. The portion of the study area west of the South Umpqua River is in the City of Winston. Although Green is not incorporated, it is developed with higher densities than typical rural areas with industrial, commercial, and residential development.

Comprehensive plan maps were not available digitally. However, Comprehensive plan designations are in most areas consistent with the zoning designations for the study area. Comprehensive plan land use policies for Green UUA applicable to the study area include:

- **Policy 3. (Commercial)** Future commercial development should be located along Carnes Road, at Kelley's Corner, and along Grange Road.
- **Policy 4. (Commercial/Industrial)** A mix of light industrial and heavy commercial uses are encouraged in the designated portions of the area bounded by Carnes Road, OR 42, and I-5.

The Zoning map is illustrated in Figure 2.

⁶ Oregon Administrative Rules Chapter 734, Division 51, Highway Approaches, Access Control, Spacing Standards, and Medians, Temporary Rules Effective January 1, 2012, Amended May 3, 2012, website: <http://www.oregon.gov/ODOT/HWY/ACCESSMGT/docs/pdf/734-051.pdf>



Legend

Study Area

Green UUA Boundary

Winston City Limits

City of Winston Zoning

Ag - Open Space (A-O)

Office Professional/Commercial (C-OP)

General Commercial (GC)

Residential Low Density (RLA)

Residential High Density (RH)

Douglas County Zoning

Exclusive Farm Use - Grazing (FG)

Exclusive Farm Use - Cropland (F1)

Rural Residential - 5 (5R)

Rural Residential - 2 (RR)

Suburban Residential (RS)

Rural Residential - 1 (R1)

Rural Residential - 2 (R2)

Rural Residential - 3 (R3)

Tourist Commercial (CT)

Limited Commercial (C1)

Community Commercial (C2)

General Commercial (C3)

Light Industrial (M1)

Medium Industrial (M2)

Heavy Industrial (M3)

Public Reserve (PR)

OR 42 Expressway Management Plan

Data Sources:

Douglas County, Oregon 2011

Oregon Department of Transportation (ODOT), 2009

Oregon Geospatial Enterprise Office (GEO), 2009

Figure 2
Zoning Map Designations

Following the general guidelines of the Comprehensive Plan, the Zoning map designates more specific uses and densities within the general land use categories. Zoning designations along the corridor include a variety of industrial, commercial, and residential uses. A mix of commercial zoning (Tourist Commercial – CT, Community Commercial – C2, and General Commercial – C3) is present predominantly on the south side of the expressway although there is some commercial zoning on the north side around Carnes Road. Beyond the commercial zoning, Light (M1), Medium (M2), and Heavy (M3) Industrial uses are located at the eastern end of the corridor. Suburban (RS) and Rural Residential (R1 and R2) are located east of the South Umpqua River. In Winston, adjacent uses include Residential Low Density (RLA) and Ag-Open Space (A-O). There is also some lands designated Exclusive Farm Use (EFU) that abut the expressway west of the South Umpqua River.

2.2.2 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 expressway improvements. The information gathered was taken primarily from published documents and maps, GIS data, and conversations with appropriate professional contacts. The analysis is limited to “visual windshield validation.” Further resources may exist that are not yet documented or are not visually apparent.

Environmental features researched in the corridor include:

- Goal 5 - Natural Resources
 - Wildlife Habitat
 - Wetlands
 - Recreation Trails
- Threatened and Endangered Species
- Floodplains and Floodways

Community and cultural resources identified in the corridor 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 EMP.

2.2.3 Potential Design Constraints

Table 1 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 report could include the location of Hazardous Material sites, fish passage requirements at stream crossings, and storm water treatment requirements.

Table 1. Environmental and Land Use Summary

Feature	Summary of Key Resources and Concept Guidance	Key Potential Conflict Location(s)
Wildlife Habitat & Wetlands	Riparian corridors, aquatic habitat, wildlife habitat and wetlands along the South Umpqua River and Roberts Creek. <i>Disturbance to undeveloped areas especially should be avoided if possible. 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. BMPs incorporated into project design and construction can help minimize impacts.</i>	South Umpqua River and Roberts Creek
Threatened and Endangered Species	T&E Species are found in the study area - <i>Concepts should avoid disturbance of areas where the species are found and water quality impacts and physical impediments in T&E species contributing waterways.</i>	South Umpqua River and Roberts Creek
Floodplains and Floodways	Umpqua Floodway – Floodway is over 2,000 feet wide. <i>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.</i>	South Umpqua River and Roberts Creek
Socioeconomic and Environmental Justice	Businesses and affected communities - <i>Displacements should be avoided or minimized.</i>	None
Land Use and Zoning	EFU, Floodplain Overlays, Riparian Corridor Overlays, - <i>Impacts to resource zones should be avoided. Impacts to EFU and Open Space zones may require goal exception.</i>	Eastern and western ends of study area.
Historical and Archaeological Resources	Historical and cultural resources - <i>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.</i>	Throughout corridor
Parks and Recreation and Section 4(f) Resources	Parks and Historical/Cultural Resources - <i>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.</i>	Throughout corridor
Section 6(f) Resources	County Bikeway Parks funded by Land and Conservation Funds - <i>Avoid resources if possible. Use of Section 6(f) land needs to be mitigated in kind.</i>	Throughout corridor

2.3 Transportation System Inventory

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

2.3.1 Roadway Inventory

OR 42 is an expressway, statewide highway, and freight route in the study area. It is also part of the National Highway System (NHS).

Table 2 summarizes the roadway characteristics for OR 42 within the study area. The inventory reviews the state and local (Douglas County) functional classification as well as posted speed, number of lanes, and widths of the travel lanes, total surface, and right of way. The majority of the inventory was constructed from ODOT mapping and online databases.

Table 2. OR 42 Roadway Inventory

OR 42 Segment	Functional Classification		Posted Speed (mph)	No. of Lanes ³	Width (ft)	
	State ¹	Douglas County ²			Surface ³	Travel Lane ³
Brosi Orchard Rd to Lookingglass Rd (MP 73.76 to 73.88)	Rural Principal Arterial, Expressway, NHS, FR	Principal Highway	45	5	70	48
Lookingglass Rd to Helweg Rd (MP 73.88 to 74.36)	Rural Principal Arterial, FR	Principal Highway	55	5	84-96	48
Helweg Rd to End of Structure (MP 74.36 to 74.52)	Urban Principal Arterial, FR	Principal Highway	55	4	48-52	48-52
End of Structure to Carnes Rd (MP 74.52 to 75.72)	Urban Principal Arterial, FR	Principal Highway	55	5	80-85	48
Carnes Rd to Roberts Creek (MP 75.72 to 75.81)	Urban Principal Arterial, FR	Principal Highway	55	5	96	48
Roberts Creek to Winery Ln (MP 75.81 to 76.07)	Urban Principal Arterial, FR	Principal Highway	50	6	88-96	60
Winery Ln to Grant Smith Rd (MP 76.07 to 76.22)	Urban Principal Arterial, FR	Principal Highway	50	5	78-92	48
Grant Smith Rd to I-5 (MP 76.22 to 76.64)	Urban Principal Arterial, FR	Principal Highway	50	4	42-68	24-48

NHS – National Highway System, FR – Freight Route

Notes:

1. Functional Classification and National Highway System Status on Oregon State Highways, Prepared by the Road Inventory and Classification Services Unit of ODOT 1/26/2011, <http://www.oregon.gov/ODOT/TD/TDATA/rics/docs/ORStateHwysFCandNHS.pdf>
2. Douglas County Transportation System Plan, Adopted February 14, 1998
3. Highway Inventory Summary Report, http://highway.odot.state.or.us/cf/highwayreports/aml_summary_report_by_route_no.cfm

Lane and Shoulder Widths

Existing lane and shoulder widths were compared with the ODOT standards in the 2012 Highway Design Manual (HDM) for new or reconstruction projects. Travel lanes meet the desired width standards throughout the corridor. Shoulders are generally 10 feet wide with a few exceptions. The bridge across the railroad tracks has 6-foot shoulders, which is acceptable but narrower than the 8-foot desired width. The eastbound bridge over the South Umpqua River is 26-feet wide and does not have any shoulders on either side of the roadway.

Right of Way

Right of way for the OR 42 expressway ranges from a minimum of 80 feet to more than 200 feet in some sections.

Cross Street Characteristics

Table 3 summarizes characteristics for some of the key intersecting roadways along OR 42 within the study area. The inventory reviews the functional classification as well as posted speed and number of lanes.

Table 3. OR 42 Corridor Cross-Street Inventory

Intersecting Roads	Functional Classification ¹	Jurisdiction	Traffic Control at OR 42	Posted Speed (mph)	No. of Lanes
Lookingglass Road	Minor Arterial	City of Winston	STOP Sign	40	2
Umpqua Safari RV Park	Private	Private	STOP Sign	20	2
Pepsi Road	Local	Douglas County	STOP Sign	20	2
Helweg Road	Local	Douglas County	STOP Sign	20	2
Winston Section Road	Major Collector	Douglas County	STOP Sign	20	2
Rolling Hills Road	Minor Collector	Douglas County	STOP Sign	20	2
Grange Road/Andorra Drive	Minor Collector	Douglas County	STOP Sign	20	2
Landers Avenue	Minor Collector	Douglas County	STOP Sign	20	2
Emils Way	Local	Douglas County	STOP Sign	20	2
Grange Road	Minor Collector	Douglas County	STOP Sign	20	2
Carnes Road	Major Collector	Douglas County	Traffic Signal	30	2
Roberts Creek Road	Major Collector	Douglas County	Traffic Signal	30	2
Art Mill Lane	Private	Private	STOP Sign	30	2
Winery Lane	Local	ODOT	STOP Sign	30	2
OR 99	Arterial	Douglas County	Traffic Signal	30	2
Grant Smith Road	Minor Collector	Douglas County	Traffic Signal	30	2

Notes:

1. Functional classification as identified in the Douglas County and City of Winston Transportation System Plans

Bridge Facilities

The 2012 bridge inventory data for OR 42 was obtained from ODOT's Bridge Maintenance Section and reviewed. Five (5) bridges are located on OR 42; only one (1) has any identified deficiencies. The eastbound bridge over the South Umpqua River is identified as having a low service life and vertical clearance issues; although, recent work in year 2009 was conducted to strengthen piers, improve the vertical clearance, and provide a seismic and bridge rail retrofit.

Pavement Conditions

The ODOT Pavement Services Unit surveyed pavement conditions on the highway system in year 2010. With the exception of structures, OR 42 is constructed of asphalt concrete pavement. All of the pavement is rated as Good or Very Good condition.

Access Inventory

Refer to *Section 5. Access Management Plan*.

2.3.2 Pedestrian and Bicycle Facilities Inventory

Limited on-roadway bicycle and pedestrian facilities are expected along the expressway corridor. Rather, off-system bicycle and pedestrian elements such as pathways, as well as alternate parallel routes are acceptable.

There are a few sections of the expressway with sidewalks or marked bike lanes and only two (2) intersections with marked crosswalks (Carnes Road/OR 42 and Grant Smith Road/OR 42). On the north side OR 42, a multi-use path extends the length of the expressway. On the south side of OR 42, sidewalks and bike lanes are present on OR 42 southwest of Lookingglass Rd but these facilities end where the expressway begins. Some isolated segments of bike lanes and sidewalks are also present at the intersections of Carnes Road, and Roberts Creek Road.

2.3.3 Transit Inventory

Umpqua Transit serves the expressway and adjacent community with paratransit, fixed route, and commuter bus service on weekdays. Paratransit, or dial-a-ride, service is provided five (5) days per week between 6:50 a.m. and 6:30 p.m. for people with qualifying disabilities who cannot use the fixed route service. South County Route 99 extends from the City of Roseburg to the City of Canyonville and runs along OR 42 between I-5 and the City of Winston with a stop on Carnes Road. Morning service includes two (2) northbound bus runs and three (3) southbound bus runs that stop at Carnes Road. Afternoon service includes three (3) northbound bus runs and two (2) southbound bus runs that stop at Carnes Road. The Winston Commuter Route extends from the City of Roseburg to the City of Winston and also uses OR 42

and the stop on Carnes Road. The commuter service includes nine northbound bus runs and eight southbound bus runs each day.

2.3.4 Rail Inventory

One railroad line passes under OR 42 with a grade-separated crossing. The Central Oregon and Pacific (CORP) Railroad is a short line railroad owned by RailAmerica, Inc., which is based in Jacksonville, Florida. Currently, the railroad line is exclusively for freight, with 90 percent of their delivery consisting of forest products.

2.4 Existing Operations and Safety

Existing traffic analysis includes development of year 2011 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 Conditions in the Reference Material.)*

2.4.1 Existing Traffic Volumes

Existing traffic volume data is presented in Figure 3. Data were provided by ODOT's Transportation Systems Monitoring Unit and include intersection traffic counts collected in 2010 and 2011 in the study area.

Average Daily Traffic (ADT) Volumes

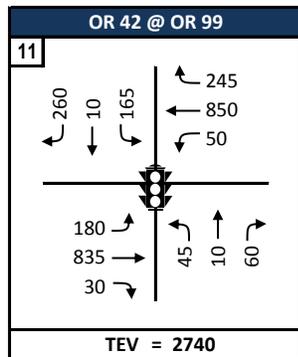
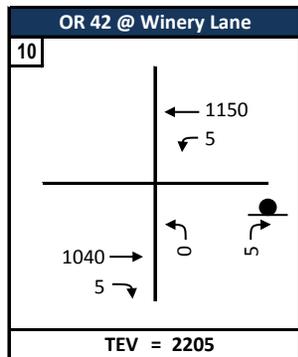
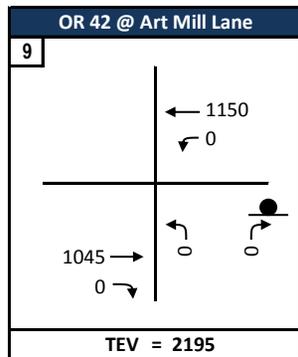
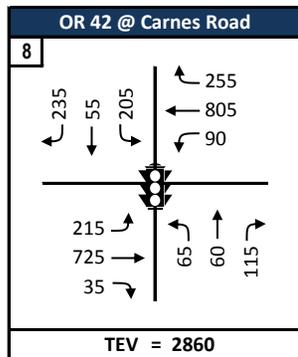
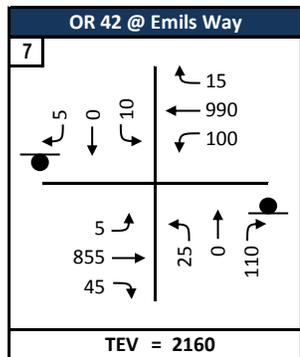
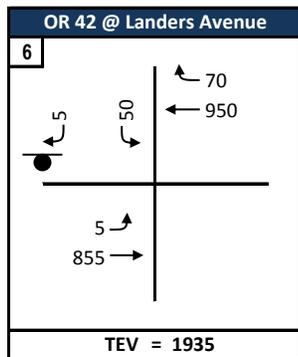
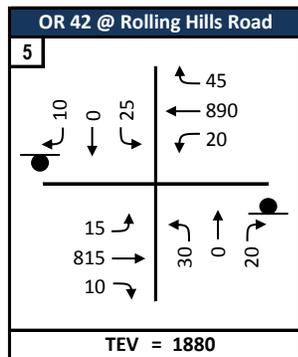
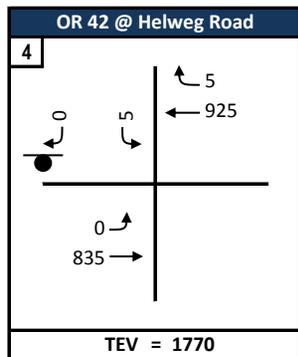
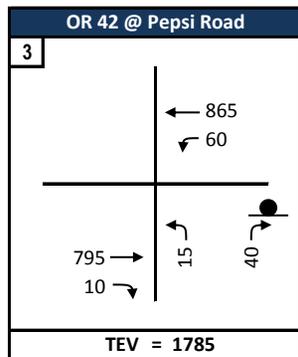
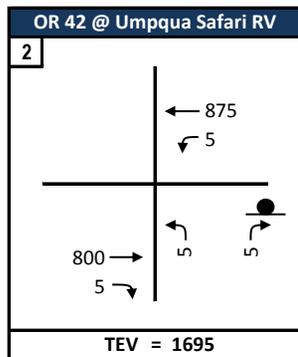
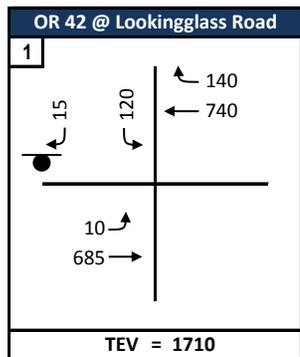
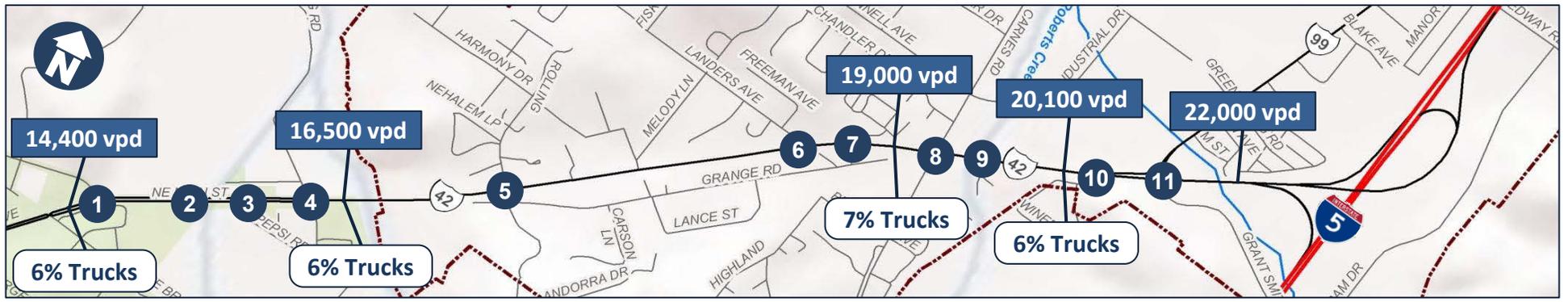
Annual traffic volumes on OR 42 have varied considerably over recent years.⁷ Current data shows that volumes range from 14,400 vehicles per day (vpd) near Lookingglass Road to 22,000 vpd just west of I-5 ramps.

Design Hourly Volumes

Turning movement count data were collected primarily in May and June of 2010 and 2011. 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 Volume⁸ (DHV). Volumes were balanced to achieve a uniform dataset for analysis. Figure 3 shows the existing balanced PM peak hour volumes developed for this project.

⁷ Lower present day traffic volumes on OR 42 are consistent with trends throughout the state and likely reflect the economic downturn that influenced driver behavior.

⁸ 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 42 Expressway Management Plan

Legend

- Turning Movement
- Signalized Intersection
- ### PM Peak Hour Volume
- STOP-Controlled
- TEV: Total Entering Volume
- # Intersection Number

vpd

2011 Average Daily Traffic Volume (vehicles per day)

% Trucks

Truck Percentage of Total Traffic (Single Unit and Semi-Trailer)

Figure 3
Existing (2011)
Design Hour Traffic Volumes

Freight Traffic

OR 42 is designated as a freight route throughout the study area. However, trucks are a moderate component of traffic along the corridor, with a range of approximately 4 to 7 percent in the eastbound direction, and 4 to 6 percent in the westbound direction during the peak hour. Most truck traffic continues through the entire corridor (very little local traffic), with approximately half of the vehicles turning to or from OR 99/Grant Smith Road, and the other half traveling to or from I-5. Some of the traffic coming to or from OR 99/Grant Smith Road is related to the dense mix of commercial, industrial, and residential developments north of I-5 Exit 119.

Similar truck percentages are evident when averaged over the course of a day, although the truck activity generally peaks earlier in the day than overall traffic volumes.

Traffic Behavior

A significant imbalance develops in the eastbound direction as drivers destined for I-5 begin to make lane choices as they travel through the OR 42 corridor. Ramp volumes from ODOT's Transportation Volume Tables show that approximately 85 percent of the traffic from OR 42 at Exit 119 is traveling northbound on I-5 and only 15 percent is traveling southbound.

The two travel lanes on OR 42 currently split after the OR 99/Grant Smith intersection with the left through lane destined for I-5 northbound and the right through lane destined for I-5 southbound. Observations indicate that after drivers cross the river, they begin to shift towards the left of the two through travel lanes in preparation for the freeway ramps. The lane imbalance builds throughout the length of the corridor until the lane utilization resembles the distribution of ramp volumes with 80 to 85 percent of the traffic in the left lane and 15 to 20 percent of the traffic in the right lane as drivers approach OR 99/Grant Smith Road.

This lane imbalance is present throughout the day but is particularly acute during peak commuting hours, when traffic volumes on the roadway are greatest.

2.4.2 Existing Traffic Operations

Traffic operations⁹ were evaluated at the 11 study area intersections. Table 4 summarizes the results of the existing conditions traffic operations analysis. The current lane imbalance in the eastbound direction is reflected in the analysis by modifying the factors that represent lane utilization for the eastbound travel lanes.

⁹ Current signal timing plans implemented by ODOT were used at all signalized intersections.

Table 4. Existing (2011) Design Hour Intersection Operations

Intersection	Critical ¹ or Controlling Movement		2011 PM Peak Hour			Operational Standards ³
			V/C Ratio ²	LOS ²	Delay ² (sec.)	
	Approach	Movement				
1. OR 42 @ Lookingglass Rd	Local	SB L	0.37	C	29	0.80
	Expressway	WB T	0.23	-	-	
2. OR 42 @ Umpqua Safari RV Park	Local	NB L/R	0.03	B	9	0.80
	Expressway	EB T	0.34	-	-	
3. OR 42 @ Pepsi Rd	Local	WB L	0.09	B	5	0.80
	Expressway	WB T	0.29	-	-	
4. OR 42 @ Helweg Rd/Winston Section Rd	Local	SB L/R	0.02	C	14	0.80
	Expressway	WB T	0.39	-	-	
5. OR 42 @ Rolling Hills Rd/Grange Rd	Local	NB L/T/R	0.17	C	13	0.80
	Expressway	WB T	0.37	-	-	
6. OR 42 @ Landers Ave	Local	SB L	0.20	C	36	0.80
	Expressway	WB T	0.40	-	-	
7. OR 42 @ Emils Way/SW Grange Rd	Local	NB L/T/R	0.56	E	20	0.80
	Expressway	WB T	0.40	-	-	
8. OR 42 @ Carnes Rd/Roberts Creek Rd (Signalized)	Overall		0.77	C	30	0.80
9. OR 42 @ Art Mill Ln	Local	NB L/R	0.02	A	20	0.80
	Expressway	EB T	0.45	-	-	
10. OR 42 @ Winery Ln	Local	WB L	0.01	B	23	0.80
	Expressway	EB T	0.44	-	-	
11. OR 42 @ OR 99/Grant Smith Rd (Signalized)	Overall		0.78	C	24	0.80

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 controlling 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 values are from SimTraffic.
3. Mobility standards are drawn from Table 6 of the 1999 OHP.

SHADED – results indicate where operational standards are not met

Vehicular traffic operations meet mobility standards under existing conditions throughout the corridor. The signalized intersection of OR 42 at Carnes Road approaches mobility standards with a v/c ratio of 0.77 and LOS C. The signalized intersection of OR 42 at Grant Smith Road approaches mobility standards with an overall v/c of 0.78 and LOS C.

2.4.3 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 Safety Priority Index System (SPIS) 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, 2010, which were the six (6) most recent full years for which crash data were available at the time of the analysis.

The CDS includes records for 166 crashes in the corridor. Of these crashes, 8 resulted in a fatality or incapacitating injury (Type A), 89 resulted in minor injuries (Type B), and the 69 resulted in property damage only (PDO). The distribution of crashes is illustrated in Figure 4.

Segment Crash Rate

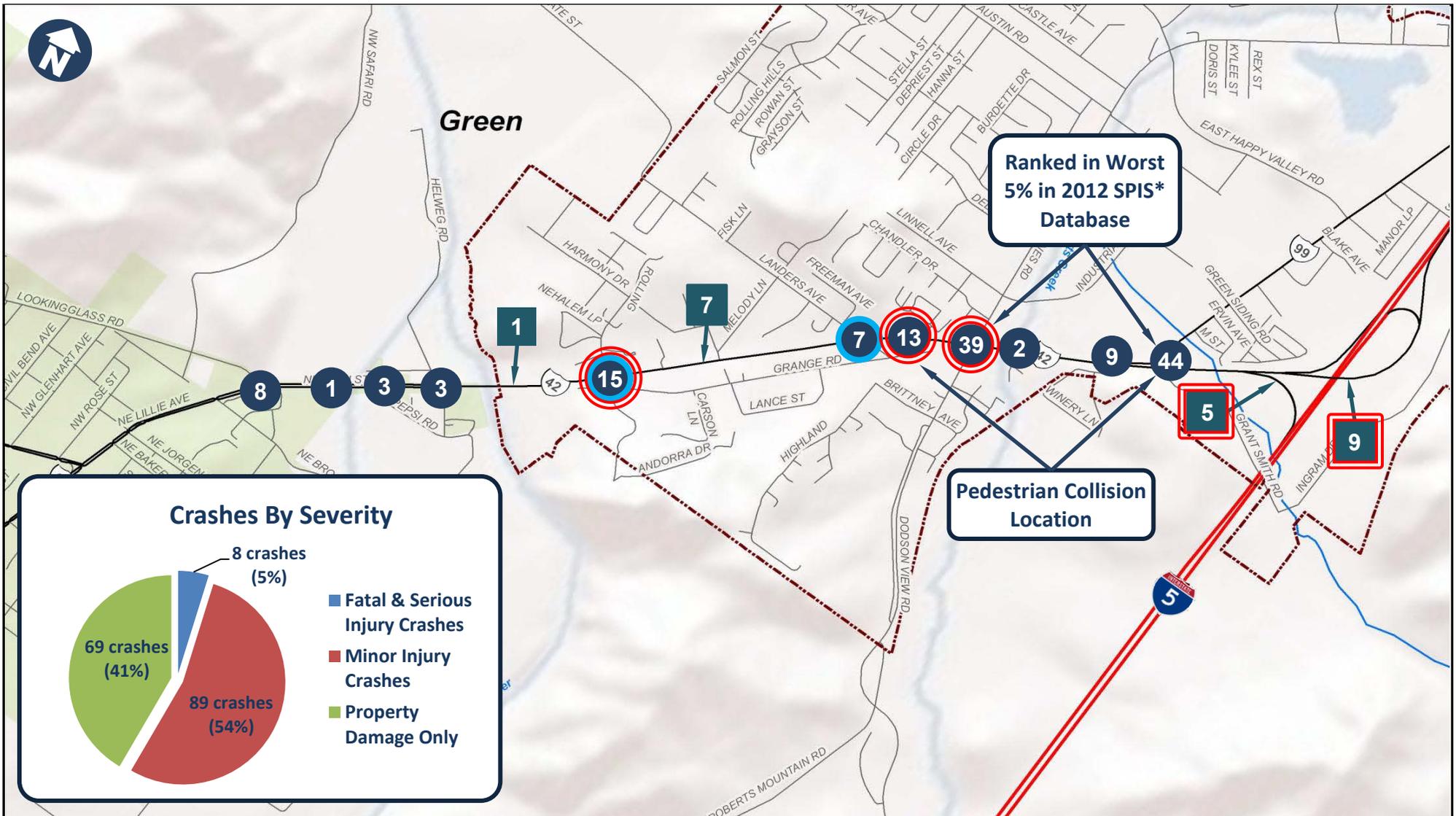
Crash rates were calculated for the expressway intersections and entire corridor segment. For the corridor, the crash rate is calculated as the number of crashes per million vehicle miles traveled (crashes/mvm). The overall segment crash rate was calculated at 1.21. This rate is compared with the 2010 average statewide crash rates for expressways in the suburban highway system of 1.33.¹⁰

Intersection Crash Rates

Two unsignalized intersections were identified as safety concerns based on the Highway Safety Manual (HSM)¹¹ critical crash rate analysis: OR 42/Rolling Hills/Andorra Drive and OR 42/Emils Way/Grange Road. At the OR 42/Rolling Hills Road/Andorra Drive intersection, 16 crashes were reported over the 6-year analysis period including 1 crash that resulted in a fatality, 2 crashes that resulted in severe injuries, and 8 other crashes that resulted in minor injuries. Thirteen (13) of the crashes were related to vehicles turning to or from Rolling Hills Road/Andorra Drive. At the OR 42/Emils Way/Grange Road intersection, 12 crashes were over the 6-year analysis period including 8 minor injury crashes. Eight (8) of the crashes were related to vehicles turning to or from Emils Way/Grange Road. One (1) crash involved a collision with a pedestrian.

¹⁰ 2010 Oregon State Highway Crash Rate Tables, p. 5, ODOT, August 2011.

¹¹ Highway Safety Manual, 1st Edition, 2010, Section 4.4.2.5 Critical Rate, American Association of State Highway and Transportation Officials, 2010.



Legend

- Number of crashes at an intersection
- Number of crashes on a segment between intersections
- Indicates an incapacitating injury occurred in one or more crashes
- Indicates a fatality occurred in one or more crashes

**The Safety Priority Index System (SPIS) is a method used in Oregon to identify safety issues along state highways. Each year these locations are ranked by assigning a SPIS score based on the frequency and severity of crashes observed. The worst 10% of the index warrant additional analysis.*

Figure 4
Summary of Crash History
 (January 1, 2005 through
 December 31, 2010)

The two signalized intersections on OR 42 had the greatest number of crashes and the highest crash rates. OR 42/OR 99/Grant Smith Road had 44 reported crashes; most were rear end (31) and turning-related (8) collisions. However, one of the reported crashes resulted in a pedestrian fatality, approximately 600 feet west of the intersection. This fatal crash resulted from an impact of an eastbound vehicle with a pedestrian crossing OR 42 from the north side to the south side of the expressway, and was attributed to low pedestrian visibility at night. The OR 42/Carnes Road/Roberts Creek Road intersection had 39 reported crashes; most were also rear-end (23) and turning-related (14) collisions. One fatal crash was reported at this intersection involving a vehicle turning from Carnes Road that was hit by a vehicle on OR 42 that disregarded the traffic light.

Safety Priority Index System (SPIS)

There are two segments within the corridor identified in the worst 5% of the 2012 SPIS¹² database rankings. These locations are at OR 42/Carnes Road/ Roberts Creek Road intersection and the OR 42/OR 99/Grant Smith Road intersection.

2.5 Future Baseline Conditions

The analysis of future baseline (year 2035) conditions examines long-term expressway operational and safety concerns. *(For more detailed data and evaluation results, refer to Technical Memorandum #4: Future Baseline Conditions in the Reference Material.)*

2.5.1 Transportation Network Assumptions

The network used in the forecasts for the OR 42 expressway is a future network that includes two improvement projects currently identified in the 2012-2015 Statewide Transportation Improvement Program (STIP), as Amended:

1. OR 42: Grant Smith Road to I-5 northbound on-ramp – Extend the outside lane across I-5; Adjust the entrance to the southbound ramp (*STIP Key 17918*)
2. OR 99: I-5 Exit 120 to Happy Valley Road – Add signalization, add dual left-turn lanes, widen OR 99 (*STIP Key 17121*)

¹² 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 crashes observed, while taking traffic volume into account. When a segment is ranked in the worst 10% of the index, a crash analysis is typically warranted and corrective actions are considered.

2.5.2 Future Traffic Volumes

Turning movement traffic forecasts for intersections were developed from the year 2009 and year 2035 forecasting models and the year 2011 existing traffic data. The process followed the procedures from ODOT's APM; however, due to anticipated congestion and network changes, some additional adjustments to traffic volumes were made. The resulting volumes are shown in Figure 5 for the year 2035.

A revised land use forecast model was recently developed based on the recent changes to the City of Roseburg growth forecasts. To address the proposed growth forecast changes, an annual growth rate of 1.2 percent within the City of Roseburg and 1.0 percent outside the City (compared to the previous 2.0 and 2.5 percent growth rates) has been incorporated into the land use forecast model. This revised model was used to develop year 2035 forecasts for this EMP.

2.5.3 Future Traffic Operations

Traffic operations were evaluated at the 11 corridor intersections. All existing traffic signal timing and phasing was assumed to be optimized and coordinated (where applicable). Table 5 summarizes the results of the future baseline traffic operations analysis.

Vehicular traffic operations would meet OHP performance standards under future baseline, with three exceptions. The unsignalized intersection of OR 42 at Emils Way/Grange Road would exceed standards with a v/c ratio of 1.59 and LOS F on the southbound side street approach. The signalized intersection of OR 42 at Carnes Road/Roberts Creek Road would exceed standards with a v/c ratio of 0.95 and LOS D. The signalized intersection of OR 42 at OR 99/Grant Smith Road would exceed standards with an overall v/c of 0.98 and LOS D.

Significant queuing would occur at the signalized intersections of Carnes Road and OR 99/Grant Smith Road at OR 42. Both intersections would have queues that spill out of the available storage in turn lanes which would impact flow in the adjacent through travel lanes. These conditions would be present on multiple approaches at these intersections.

The nearness of Grange Road on the south side of OR 42 also creates some queuing concerns. The northbound approach of Rolling Hills Road at OR 42 would have queues that extend well past Grange Road as would the northbound approach on Grange Road opposite Emils Way.

Although intersection operations would exceed OHP performance standards, the second through-lane on OR 42 in the eastbound direction, from OR 99/Grants Smith Road to the I-5 NB On Ramp, would improve v/c ratios and reduce queuing from OR 99/Grants Smith Road to Carnes Road/Roberts Creek Road. A more equal distribution of vehicles between the left and right through-lanes is expected.

Table 5. Future Baseline (2035) Design Hour Intersection Operations

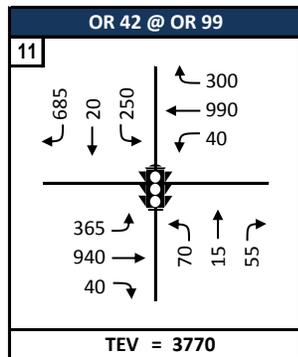
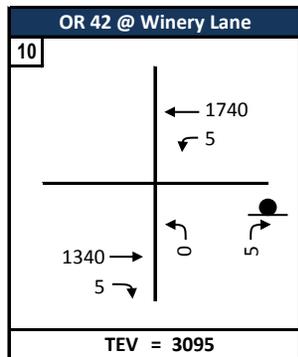
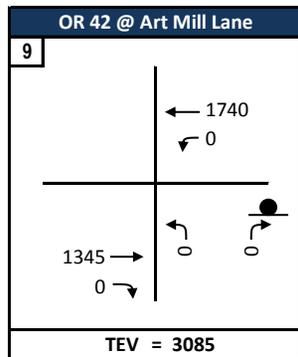
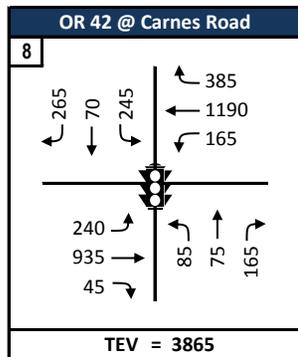
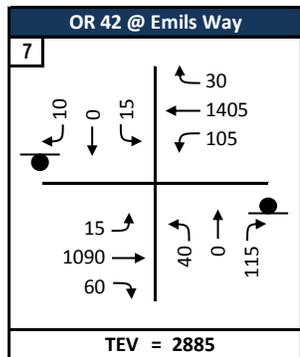
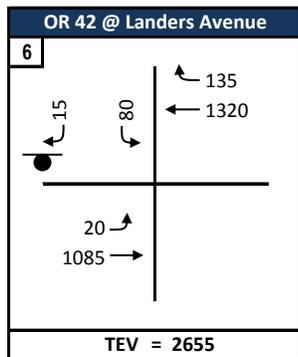
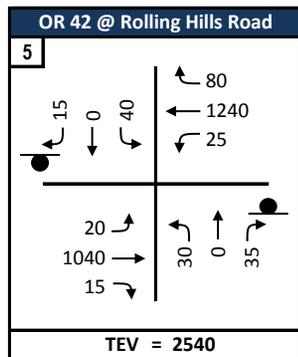
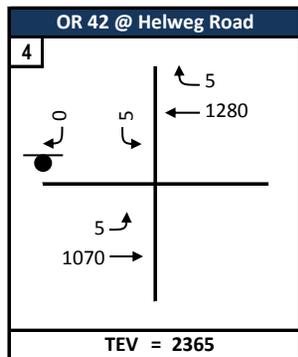
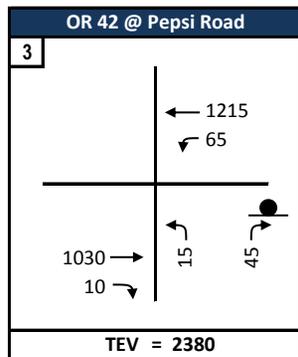
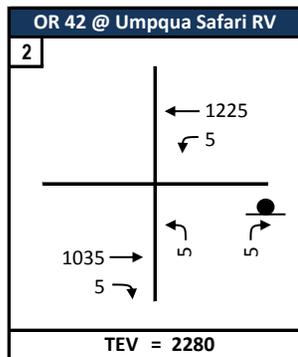
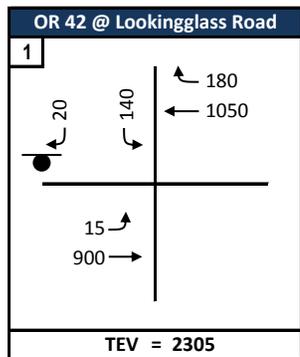
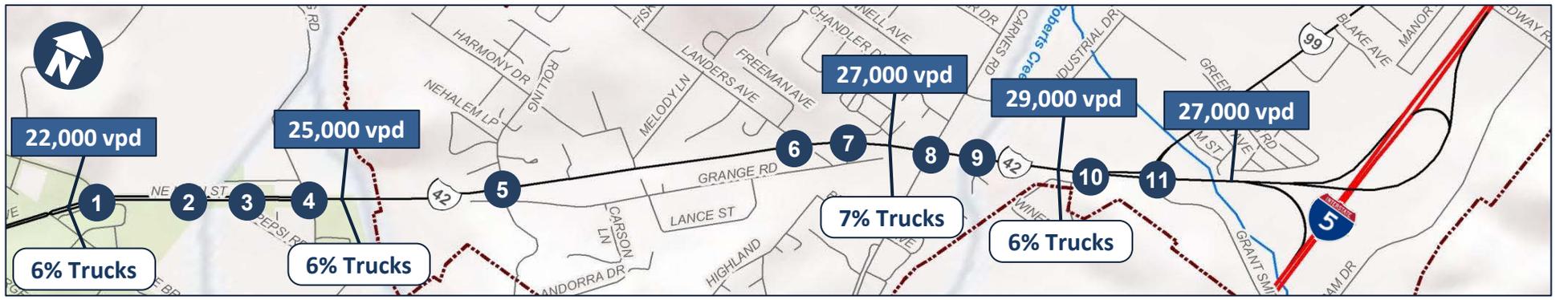
Intersection	Critical ¹ or Controlling Movement		2035 PM Peak Hour			Operational Standards ³
	Approach	Movement	V/C Ratio ²	LOS ²	Delay ² (sec.)	
1. OR 42 @ Lookingglass Rd	Local	SB L	0.62	E	> 200	0.80
	Expressway	WB T	0.33	-	-	
2. OR 42 @ Umpqua Safari RV Park	Local	NB L/R	0.03	C	13	0.80
	Expressway	EB T	0.43	-	-	
3. OR 42 @ Pepsi Rd	Local	NB L	0.10	C	39	0.80
	Expressway	WB T	0.39	-	-	
4. OR 42 @ Helweg Rd/Winston Section Rd	Local	SB L/R	0.03	C	51	0.80
	Expressway	WB T	0.53	-	-	
5. OR 42 @ Rolling Hills Rd/Grange Rd	Local	SB L/T/R	0.38	E	46	0.80
	Expressway	WB T	0.51	-	-	
6. OR 42 @ Landers Ave	Local	SB L	0.51	E	>200	0.80
	Expressway	WB T	0.54	-	-	
7. OR 42 @ Emils Way/Grange Rd	Local	NB L/T/R	1.59	F	>200	0.80
	Expressway	WB T	0.57	-	-	
8. OR 42 @ Carnes Rd/Roberts Creek Rd (Signalized)	Overall		0.95	D	51	0.80
9. OR 42 @ Art Mill Ln	Local	NB L/R	0.01	A	12	0.80
	Expressway	EB T	0.56	-	-	
10. OR 42 @ Winery Ln	Local	WB L	0.01	B	24	0.80
	Expressway	EB T	0.55	-	-	
11. OR 42 @ OR 99/Grant Smith Rd (Signalized)	Overall		0.98	D	50	0.80

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 controlling 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 values are from SimTraffic.
3. Mobility standards are drawn from Table 6 of the 1999 OHP.

SHADED – results indicate where operational standards are not met



OR 42 Expressway Management Plan

Legend

↶ Turning Movement

Signalized Intersection

PM Peak Hour Volume

STOP-Controlled

TEV: Total Entering Volume

Intersection Number

vpd

2035 Average Daily Traffic Volume (vehicles per day)

% Trucks

Truck Percentage of Total Traffic (Single Unit and Semi-Trailer)

Figure 5
Future Baseline (2035)
Design Hour Traffic Volumes

3 SUMMARY OF EXPRESSWAY DEFICIENCIES



This page left intentionally blank.

3. SUMMARY OF EXPRESSWAY DEFICIENCIES

Deficiencies identified through the expressway inventory and operational analyses are summarized in Table 6.

Table 6. Summary of Deficiencies

Deficiency	Location	Related Goals
Roadway Inventory		
Substandard Shoulders	<ul style="list-style-type: none"> The eastbound bridge over the South Umpqua River is 26-feet wide and does not have any shoulders on either side of the highway. 	<ul style="list-style-type: none"> Mobility Freight Safety
Bridge Deficiency	<ul style="list-style-type: none"> The eastbound bridge over the South Umpqua River is identified as having a low service life and vertical clearance issues; although, recent work in year 2009 was conducted to strengthen piers, improve the vertical clearance, and provide a seismic and bridge rail retrofit. 	<ul style="list-style-type: none"> Mobility Freight Safety
Pedestrian and Bicycle Facilities Inventory		
Limited Sidewalks	<ul style="list-style-type: none"> There are no sidewalks or multi-use pathways on the south side of OR 42. 	<ul style="list-style-type: none"> Multimodal
Limited Bike Lanes	<ul style="list-style-type: none"> The eastbound bridge over the South Umpqua River does not have any shoulders to accommodate bicycle traffic on the roadway. 	<ul style="list-style-type: none"> Multimodal
Existing Traffic Operations & Safety		
Safety	<ul style="list-style-type: none"> OR 42/Rolling Hills/Andorra Drive intersection had 15 reported crashes (in 6 years) including 2 crashes that resulted in severe injuries, and 8 other crashes that resulted in minor injuries. OR 42/Emils Way/Grange Road intersection had 13 reported crashes (in 6 years) including 1 crash that resulted in a fatality and 8 minor injury crashes. One (1) crash involved a collision with a pedestrian. OR 42/OR 99/Grant Smith Road intersection had 44 reported crashes including a pedestrian fatality, approximately 600 feet west of the intersection. OR 42/Carnes Road/Roberts Creek Road intersection had 39 reported crashes including 1 fatal crash was reported at this intersection involving a vehicle turning from Carnes Road hit by a vehicle on OR 42. 	<ul style="list-style-type: none"> Safety
Future Traffic Operations		
Operations	<ul style="list-style-type: none"> Four (4) intersections are expected to have v/c ratios that would exceed the applicable OHP target v/c ratios under future baseline conditions: <ul style="list-style-type: none"> - OR 42 at Rolling Hills Rd - OR 42 at Emils Way/Grange Rd - OR 42 at Carnes Rd/Roberts Creek Rd - OR 42 at OR 99/Grant Smith Rd 	<ul style="list-style-type: none"> Mobility Freight Safety Economic

This page left intentionally blank.

4 EXPRESSWAY MANAGEMENT PLAN IMPROVEMENTS

4.1	Improvement Development Process.....	33
4.2	Summary of Improvements.....	34
4.3	Project Sheets.....	34



This page left intentionally blank.

4. EXPRESSWAY MANAGEMENT PLAN IMPROVEMENTS

The OR 42 EMP improvements address identified deficiencies and allows the expressway 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 operational deficiencies. These concepts focused on three (3) areas for consideration:

- **Multi-Modal Improvements** – These concepts identify potential improvements to enhance bicycle, pedestrian, and transit facilities along the OR 42 corridor.
- **Intersection Improvements** – These concepts identify potential improvements to improve traffic flow, provide additional capacity, or address safety concerns at individual intersections within the OR 42 corridor.
- **Network Connectivity and Access Control** – These concepts identify potential roadway connections that would improve access for local traffic, address conformity to access control standards along OR 42, and improve safety.

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 six-year analysis period (Years 2005 through 2010).
- **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 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 and preliminary engineering but do not include ROW, utility relocation, 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 in the Reference Material).

4.2 Summary of Improvements

Table 7 summarizes the EMP improvements and Figure 6 identifies the location of the improvements. The summary includes a brief description of the project along with a general priority and triggers for the improvement. Traffic volumes and safety (crash patterns) in the corridor should be monitored to identify 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 horizon.

None of the projects listed in Table 7 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 EMP improvements identifying:

- Name
- Location
- Recommended Improvement
- Project purpose
- Existing/Future Deficiencies without project
- Result of improvements (i.e., how it addresses deficiencies)
- Considerations/potential impacts
- Cost opinion
- Implementation (priority, phasing, triggers)
- Illustration

Project sheets were prepared for the 17 expressway and local network improvement projects; none were prepared for the TSM improvement or the park-and-ride facility.

Table 7. Summary of Expressway Management Plan Improvements

Concept		Milepoint	Mobility	Freight	Safety	Multimodal	Economic	Implementation			Estimated Cost ¹	Potential STIP Funding Category		Other Funding ^{3,4}
ID	Description							Priority	Triggers	Related Projects		Enhance ^{2,3}	Fix It ³	
EXPRESSWAY IMPROVEMENTS														
1	OR 42 - Lookingglass Rd to Winston Section Rd: Add two-way, buffered multi-use path on the south side of the expressway	73.88-74.35			✓	✓		High to Medium	▪ Current deficiency	#2: OR 42 undercrossing	\$750,000	◆	◆	
2	OR 42/Winston Section Rd: Connect Winston Section Rd to path on north side with a multi-use path undercrossing	74.35-74.41			✓	✓		High to Medium	▪ Current deficiency	#1: Multi-use path	\$450,000	◆	◆	
3	OR 42/Rolling Hills Rd Intersection: Install traffic signal at OR 42/Rolling Hills Rd, improve access road connections to Jackie Lane, and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Lane	74.77	✓		✓	✓	✓	High	▪ Traffic signal warrants ▪ Continued pattern of turning and angle collisions	#4: Rolling Hills Rd deceleration lanes #5: Raised barrier/turn restrictions #6: Rolling Hills lighting #15: Local network connections	\$1,200,000	◆	◆	◆
4	OR 42/Rolling Hills Rd Intersection: Add eastbound and westbound right-turn deceleration lanes on OR 42	74.77	✓		✓			Medium	▪ Right-turn lane warrants (met now) ▪ Increased crash frequency related to right turns	#3: Rolling Hills Rd traffic signal #6: Rolling Hills lighting	\$500,000		◆	
5	OR 42 – East of Rolling Hills Rd through Landers Ave: Add raised barrier to restrict turn movements to right-in/right-out	74.88-75.46	✓	✓	✓			Medium	▪ Continued pattern of turning and angle collisions	#3: Rolling Hills Rd traffic signal #15: Local network connections #TSM3-5: U-turns at signals	\$350,000		◆	
6	OR 42/Rolling Hills Rd and OR 42/Landers Ave Intersections: Add lighting at unsignalized intersections	74.77 & 75.42			✓	✓		High	▪ Current deficiency ▪ Continued pattern of turning and angle collisions	#3: Rolling Hills Rd traffic signal #4: Rolling Hills Rd deceleration lanes #7: Landers Ave deceleration lanes	\$40,000		◆	
7	OR 42/Landers Ave Intersection: Add westbound right-turn deceleration lane on OR 42	75.42	✓	✓	✓			Medium	▪ Right-turn lane warrants (met now) ▪ Increased crash frequency related to right turns	#5: Raised barrier/turn restrictions #6: Landers Ave lighting #10: Third westbound through lane	\$250,000		◆	
8	OR 42/Emils Way/Grange Rd Intersection: Add raised median to restrict turn movements to left-in/right-in/right-out	74.46-75.60			✓			High	▪ Continued pattern of crashes related to left turns	#3: Rolling Hills traffic signal #16: Grange Rd extension #TSM3-5: U-turns at signals	\$300,000		◆	
9	OR 42/Emils Way/Grange Rd Intersection: Add eastbound and westbound right-turn deceleration lanes on OR 42	75.53	✓	✓	✓			Medium	▪ Right-turn lane warrants (met now) ▪ Increased crash frequency related to right turns	#8: Raised median/turn restrictions #10: Third westbound through lane	\$500,000		◆	
10	OR 42/Carnes Rd/Roberts Creek Rd Intersection: Add third westbound travel lane west of Carnes Rd and convert the westbound right-turn lane into a shared through-right lane	75.72	✓	✓	✓	✓		Medium	▪ Persistent congestion (v/c ratio > 0.80)	#7: Landers Ave deceleration lane #9: Emils Way deceleration lane #11: Second southbound left-turn lane	\$1.0 million	◆	◆	
11	OR 42/Carnes Rd/Roberts Creek Rd Intersection: Add second southbound left-turn lane on Carnes Rd approach to OR 42	75.72	✓	✓	✓	✓		Low	▪ Persistent congestion (v/c ratio > 0.80)	#10: Third westbound through lane #TSM1: Modified signal timing	\$1.3 million	◆	◆	◆
12	OR 42/Winery Ln Intersection: Add raised barrier to restrict turn movements to right-in/right-out	76.03-76.12	✓	✓	✓			High to Medium	▪ Continued pattern of turning and angle collisions	#17: Winery Lane extension #TSM4-5: U-turns at signals	\$75,000		◆	
13	OR 42/OR 99/Grant Smith Rd Intersection: Add second eastbound left-turn lane on OR 42 and a second northbound receiving lane on OR 99	76.22	✓	✓	✓	✓		Medium	▪ Persistent congestion (v/c ratio > 0.80)	#TSM2: Modified signal timing #TSM5: U-turns at signals	\$1.0 million	◆	◆	◆

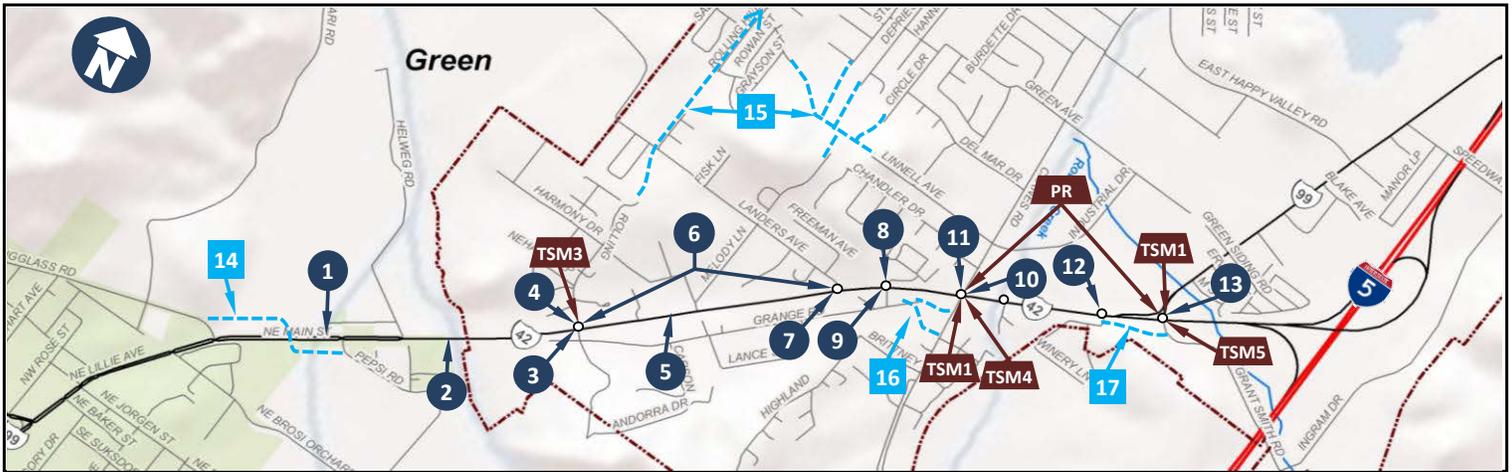
Table 7. Summary of Expressway Management Plan Improvements

Concept		Milepoint	Mobility	Freight	Safety	Multimodal	Economic	Implementation			Estimated Cost ¹	Potential STIP Funding Category		Other Funding ^{3,4}
ID	Description							Priority	Triggers	Related Projects		Enhance ^{2,3}	Fix It ³	
LOCAL SYSTEM IMPROVEMENTS														
14	Lookingglass Rd and Pepsi Rd: Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at 4-way intersection, close current connections to OR 42, connect other access points to extensions; and install traffic signal	NA	✓		✓			Low	<ul style="list-style-type: none"> Traffic signal warrants Persistent congestion and queuing on side streets Crash pattern of turning and angle collisions 	#1: Multi-use path	\$6.0 million	◆		◆
15	Local Network Connections: Extend Rolling Hills Rd(RH) northward to Happy Valley Rd and improve connectivity between Cameron Ave, Melody Ln, Chandler Dr, Stella St and other local streets as identified in the Douglas County TSP	NA	✓		✓			RH: High Other: Medium to low	<ul style="list-style-type: none"> Phased with development Access restrictions on OR 42 	#3: Rolling Hills Rd traffic signal #5: Raised barrier/turn restrictions	RH: \$3.5 million Other: TBD			◆
16	Grange Rd: Create a new connection from the east end of Grange Rd to Roberts Creek Rd via Brittney Ave as identified in the Douglas County TSP.	NA	✓		✓			High	<ul style="list-style-type: none"> Access restrictions on OR 42 	#8: Raised median/turn restrictions	\$2.1 million	◆		◆
17	Winery Lane: Extend Winery Lane to Grant Smith Rd	NA	✓		✓			Medium	<ul style="list-style-type: none"> Phased with development Continued pattern of turning and angle collisions at Winery Lane 	#12: Winery Lane turn restrictions	\$600,000	◆		
OTHER IMPROVEMENTS														
TSM1	OR 42/Carnes Rd/Roberts Creek Rd Intersection: Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction	75.72			✓			High	<ul style="list-style-type: none"> Crash pattern of turning and angle collisions 	#10: Third westbound through lane #11: Second southbound left-turn lane	\$25,000	◆	◆	
TSM2	OR 42/OR 99/Grant Smith Rd Intersection: Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction	76.22			✓			High	<ul style="list-style-type: none"> Crash pattern of turning and angle collisions 	#13: Second eastbound left-turn lane	\$25,000	◆	◆	
TSM3	OR 42/Rolling Hills Rd Intersection: Permit U-turns for passenger vehicles with protected left-turn arrow.	74.77	✓		✓			NA	<ul style="list-style-type: none"> Access restrictions on OR 42 (Projects #5 & #8) Concurrent with Project #3 	#3: Rolling Hills Rd traffic signal #5: Raised barrier/turn restrictions #8: Raised median/turn restrictions	\$10,000	◆	◆	
TSM4	OR 42/Carnes Rd/Roberts Creek Rd Intersection: Permit U-turns for passenger vehicles with protected left-turn arrow.	75.72	✓		✓			NA	<ul style="list-style-type: none"> Access restrictions on OR 42 (Projects #5 & #8) 	#5: Raised barrier/turn restrictions #8: Raised median/turn restrictions #12: Raised barrier/turn restrictions	\$10,000	◆	◆	
TSM5	OR 42/OR 99/Grant Smith Rd Intersection: Permit U-turns for passenger vehicles with protected left-turn arrow.	76.22	✓		✓			NA	<ul style="list-style-type: none"> Access restrictions on OR 42 (Project #17) 	#12: Raised barrier/turn restrictions	\$10,000	◆	◆	
PR	OR 42 Park-and-Ride Lot: Create a facility using an existing underutilized parking lot, a future shared-use development, or a standalone parking lot.	TBD				✓		NA	<ul style="list-style-type: none"> Existing demand along Umpqua Transit routes 		\$1.0 million	◆		

Acronyms: NA = Not applicable, TBD = To be determined

Notes:

1. Estimated costs exclude right of way acquisition, hazardous materials mitigation, and natural resource mitigation.
2. Assumes projects that involve both state and county participation will have costs split at 70% funding from state/federal sources and 30% from local match.
3. Assumes ODOT will fund 100% of all state highway projects in the EMP.
4. Assumes Douglas County will fund all projects identified in the Green Transportation System Plan (December 2009).



- 1** OR 42 - Lookingglass Rd to Winston Section Rd (73.88-74.35): Add two-way, buffered multi-use path on the south side of the expressway (High to Medium Priority)
- 2** OR 42/Winston Section Rd (74.35-74.41): Connect Winston Section Rd to path on north side with a multi-use path undercrossing (High to Medium Priority)
- 3** OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd, improve access road connecting to Jackie Ln and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Ln (High Priority)
- 4** OR 42/Rolling Hills Rd Intersection (74.77): Add eastbound and westbound right-turn deceleration lanes on OR 42 (Medium Priority)
- 5** OR 42 – East of Rolling Hills Rd through Landers Ave (74.78-75.42): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)
- 6** OR 42/Rolling Hills Rd and OR 42/Landers Ave Intersections (74.77 & 75.42): Add lighting at the unsignalized intersections (High Priority)
- 7** OR 42/Landers Ave Intersection (75.42): Add westbound right-turn deceleration lane on OR 42 (Medium Priority)
- 8** OR 42/Emils Way/Grange Rd Intersection (75.53): Add raised median to restrict turn movements to left-in/right-in/right-out (High Priority)
- 9** OR 42/Emils Way/Grange Rd Intersection (75.53): Add eastbound and westbound right-turn deceleration lanes on OR 42 (Medium Priority)
- 10** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Add third westbound travel lane on west of the intersection and convert the westbound right-turn lane into a shared through-right lane (Medium to Low Priority)
- 11** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Add second southbound left-turn lane on Carnes Rd (Medium Priority)
- 12** OR 42/Winery Ln Intersection (76.07): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)
- 13** OR 42/OR 99/Grant Smith Rd Intersection (76.22): Add second eastbound left-turn lane on OR 42 and a second northbound receiving lane on OR 99 (Medium Priority)
- 14** Lookingglass Rd and Pepsi Rd: Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at a 4-way signalized intersection; close current connections to OR 42; and connect other access points to extensions (Low Priority)
- 15** Local Network Connections: Extend Rolling Hills Rd northward to Happy Valley Rd and improve connectivity between Melody Ln, Cameron Ave, Chandler Dr, Stella St, and other local streets in the Douglas County TSP (RH: High Priority; Other: Medium Priority)
- 16** Grange Rd: Create a new connection from the east end of Grange Rd to Roberts Creek Rd via Brittney Ave (High Priority)
- 17** Winery Ln: Extend Winery Ln to Grant Smith Rd (Medium Priority)
- TSM1** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction (High Priority)
- TSM2** OR 42/OR 99/Grant Smith Road Intersection (76.22): Modify signal timing to provide protected left-turn phases and clearance intervals in the north-south direction (High Priority)
- TSM3** OR 42/Rolling Hills Rd Intersection (74.77): Permit U-turns for passenger vehicles with protected left-turn arrow
- TSM4** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Permit U-turns for passenger vehicles with protected left-turn arrow
- TSM5** OR 42/OR 99/Grant Smith Rd Intersection (76.22): Permit U-turns for passenger vehicles with protected left-turn arrow
- PR** OR 42 Park-and-Ride Lot: Create facility using an existing underutilized parking lot, a future shared-use development, or a standalone parking lot

OR 42 Expressway Management Plan

Legend

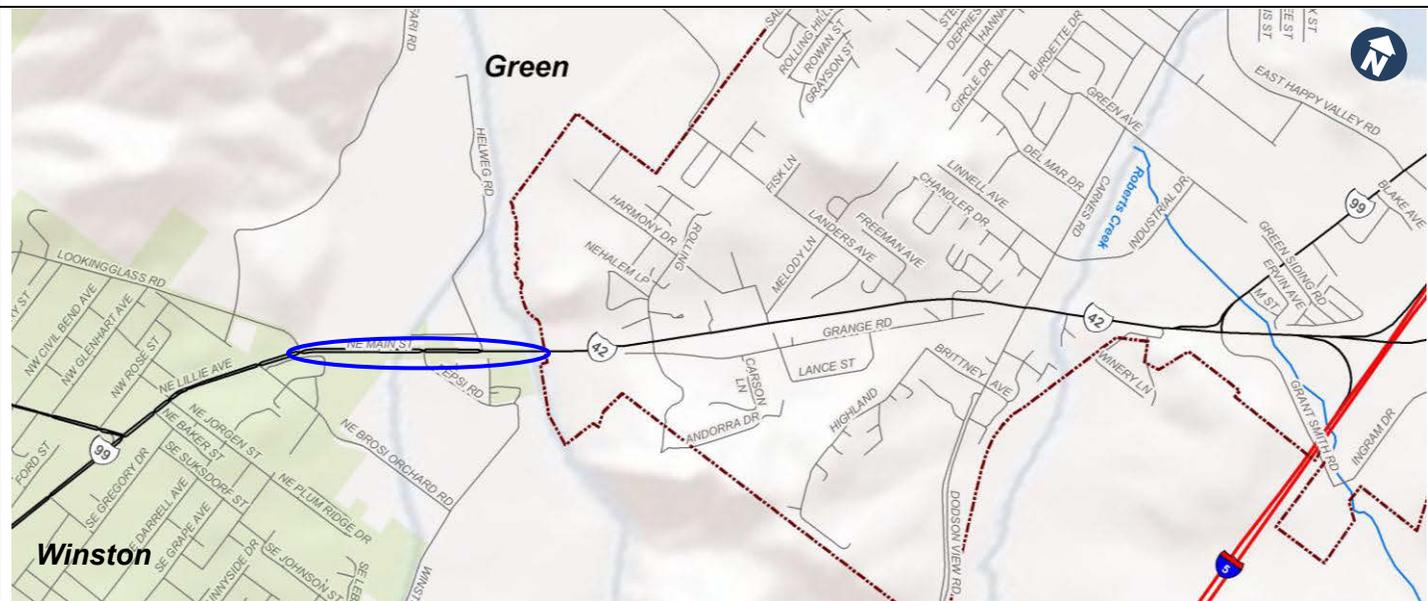
- Expressway Improvements
- Local System Improvements
- Other Improvements
- Future Roadway Connection

Figure 6
Expressway Management
Plan Improvements

This page left intentionally blank.

Project 1. OR 42 – Lookingglass Rd to Winston Section Rd: Add Multi-Use Path on South Side of OR 42

OR 42 Expressway Management Plan: Lookingglass Road to I-5 Exit 119



Location	Lookingglass Rd to Winston Section Rd (MP 73.88-74.35)	
Description	Provide two-way, multi-use path with buffer from expressway traffic along the south side of OR 42 between Lookingglass Rd and proposed Winston Section Rd undercrossing (Project 2)	
Purpose	<ul style="list-style-type: none"> Provide facilities along OR 42 for all modes of travel 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 15,000; Forecast ADT: 22,000 Posted speed is 55 mph 5-lane roadway cross section Bridges and culverts are present along OR 42 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Existing bicycle and pedestrian facilities not present on south side of OR 42 east of Lookingglass Rd Bicyclists and pedestrians have no crossing opportunities between Lookingglass Rd and Winston Section Rd 	<ul style="list-style-type: none"> 10-ft multi-use path would be added along south side of OR 42 with 8-10-ft buffer separating path from traffic (consistent with the Oregon Bicycle and Pedestrian Design Guidelines recommendations) Connection to proposed Winston Section Rd multi-use undercrossing (Project 2) would allow users to cross under OR 42 to access the path on north side Would increase safety for vulnerable users
Additional Considerations	<ul style="list-style-type: none"> Could be constructed within available ROW Pathway would need to return to shoulder at S Umpqua Overflow Channel otherwise structure would need to be widen or a separate path crossing would be needed Would include illumination for new facilities Drainage improvements would be required Assumes no retaining walls would be required 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$750,000 Does not include costs for widening bridges/culvert over S Umpqua Overflow Channel; a separate path crossing may be needed 	
Implementation	<ul style="list-style-type: none"> High to medium priority Related to Project 2 – OR 42 undercrossing at Winston Section Rd 	

Preliminary Alignment Concept



Site Photo

View of South Side of OR 42 – Pedestrian walking on shoulder near proposed multi-use pathway



Project 2. Winston Section Rd: Add Multi-Use Undercrossing



Location	Winston Section Rd to north side of Green Bridge (MP 74.35-74.41)	
Description	Provide two-way, multi-use path connection the south side of OR 42 at Winston Section Rd to the multi-use path on the north side of OR 42 near the South Umpqua River (under bridges)	
Purpose	<ul style="list-style-type: none"> Provide facilities along OR 42 for all modes of travel 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 15,000; Forecast ADT: 22,000 Posted speed is 55 mph 5-lane roadway cross section Bridges and culverts are present along OR 42 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Bicyclists and pedestrians have no controlled (signalized) or grade-separated crossing opportunities between the City of Winston and traffic signal at Carnes Rd/Roberts Creek Rd 	<ul style="list-style-type: none"> Users would be able to safely cross OR 42 and access the multi-use path on the north side of OR 42 Undercrossing could be connected to multi-use path on south side of OR 42 (Project 1) Could minimize pedestrian & bicycle crossings at unsignalized locations Would increase safety for vulnerable users
Additional Considerations	<ul style="list-style-type: none"> Would involve some out-of-direction travel Could be constructed within available ROW Would include illumination for new facilities under the bridge South Umpqua River is riparian corridor with aquatic habitat, wildlife habitat, and wetlands Existing area underneath the bridges is already heavily disturbed 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$450,000 Assumes no retaining walls would be required and minimal excavation would be needed because of the existing terrain Drainage improvements would be required 	
Implementation	<ul style="list-style-type: none"> High to medium priority Related to Project 1 – multi-use path on the south side of OR 42 	

Preliminary Alignment Concept

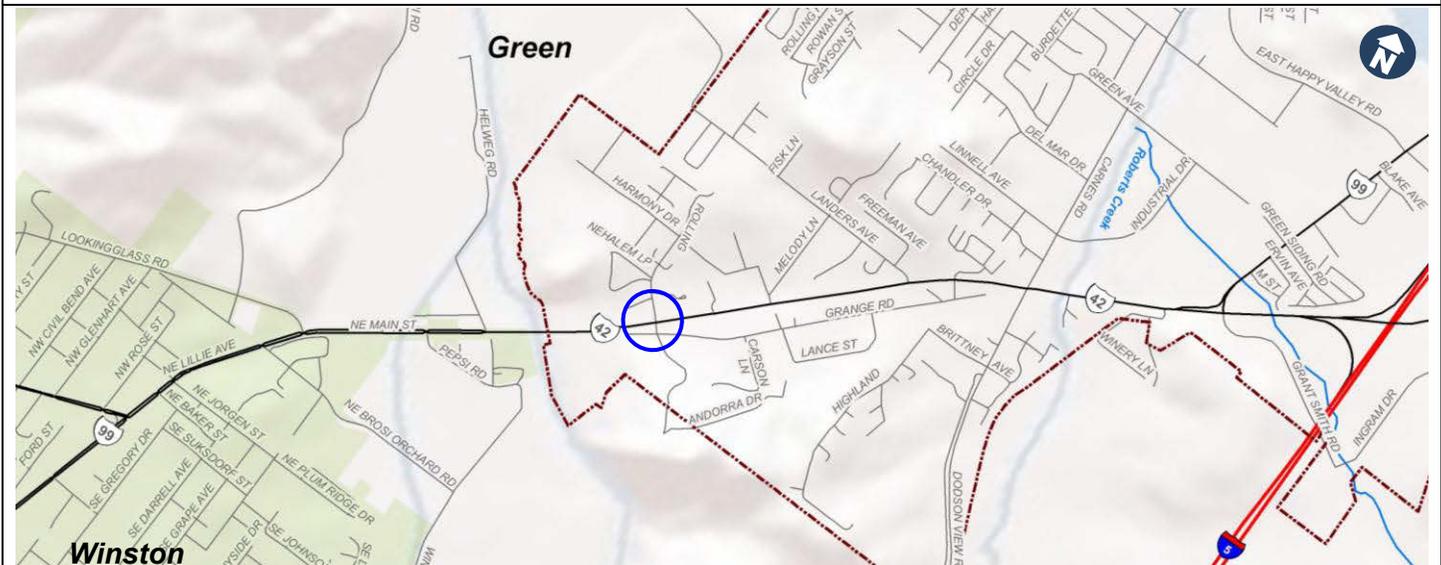


Site Photo



Project 3. OR 42/Rolling Hills Rd: Install Traffic Signal and Restrict Access to OR 42

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**

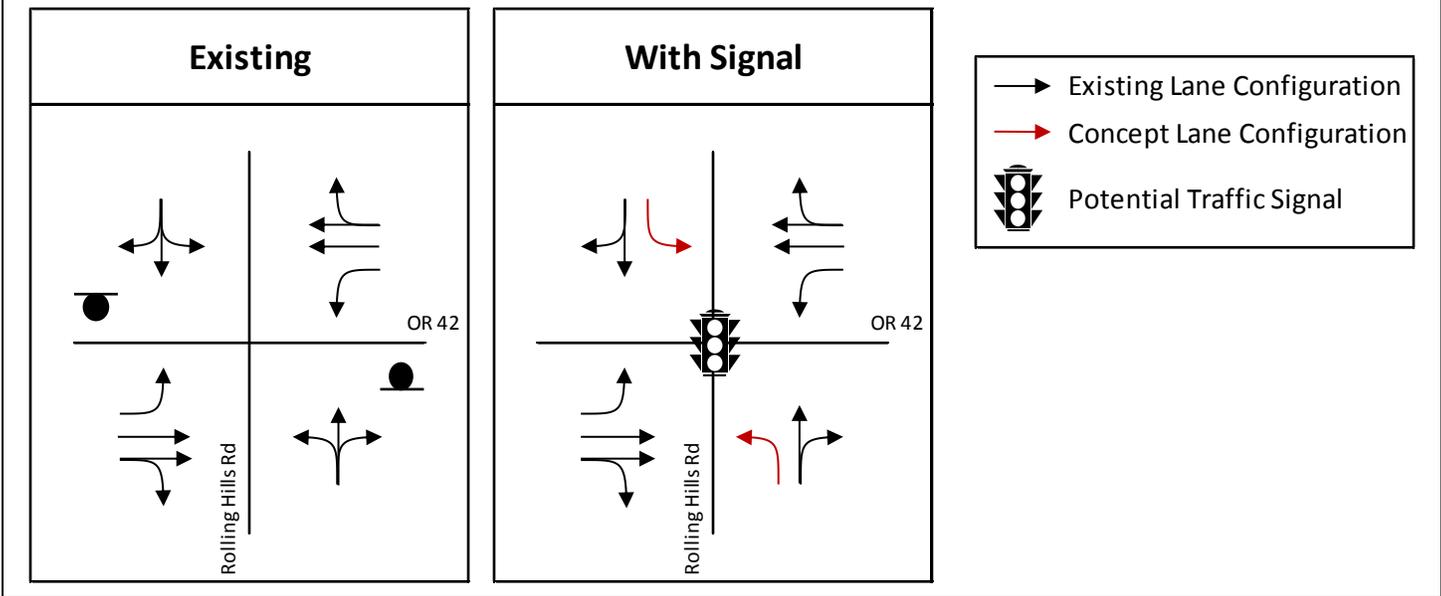


Location	Rolling Hills Rd Intersection (MP 74.77)	
Description	Install traffic signal at OR 42/Rolling Hills Rd, improve local road connections to Jackie Lane, and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Lane	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 19,000 vpd; Forecast ADT: 27,000 vpd Rolling Hills Rd- Current ADT: 500 vpd; Forecast ADT: 5,000 vpd (with extension to Happy Valley Rd) Posted speed: 55 mph 15 crashes reported at Rolling Hills Rd intersection (2005-2010) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Current (2011) v/c ratio = 0.17 on Rolling Hills Rd; 0.37 on OR 42 Future (2035) v/c ratio = 0.38 on Rolling Hills Rd; 0.57 on OR 42 No existing traffic signals for over two miles between Carnes Rd and City of Winston 13 crashes were turning (12) or angle (1) collisions Longer delays for left turns onto OR 42 will worsen as traffic volumes on the expressway grow Jackie Ln and private properties have direct access onto OR 42 	<ul style="list-style-type: none"> Future (2035) v/c ratio = 0.67 (intersection) Traffic signal would reduce delays and queues for Rolling Hills Rd but increase delays on OR 42 Traffic signal would likely reduce the frequency and severity of the turning and angle collisions but it may increase the number of rear-end collisions (generally less severe) Additional turn lane delineation would separate left- and right-turns on side street approaches
Additional Considerations	<ul style="list-style-type: none"> Preliminary signal warrants are not currently met If access management east of this intersection directs more traffic to this location, or if Rolling Hills extends to Happy Valley Rd, signal would be warranted within approximately 5 to 10 years Without other improvements, a signal would still be warranted at this location within the horizon year (2035) Local network improvements identified in the Douglas County TSP (p. 4-22) and Green Circulation Plan (p. 81) would provide alternate access for Jackie Ln and private property and allow access restrictions to OR 42 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$1.2 million Estimated cost based on 2012-2015 STIP project 	
Implementation	<ul style="list-style-type: none"> High priority due to current crash frequency/severity and side street delay Related to Project 4 (right-turn deceleration lane at Rolling Hills Rd), Project 5 (access control from east of Rolling Hills Rd through Landers Ave), and Project 15 (local network enhancements) 	

Project 3. OR 42/Rolling Hills Rd: Install Traffic Signal and Restrict Access to OR 42

*OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119*

Preliminary Alignment Concept



Preliminary Design Schematic



Project 4. OR 42/Rolling Hills Rd: Add Eastbound & Westbound Right-Turn Deceleration Lanes

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**

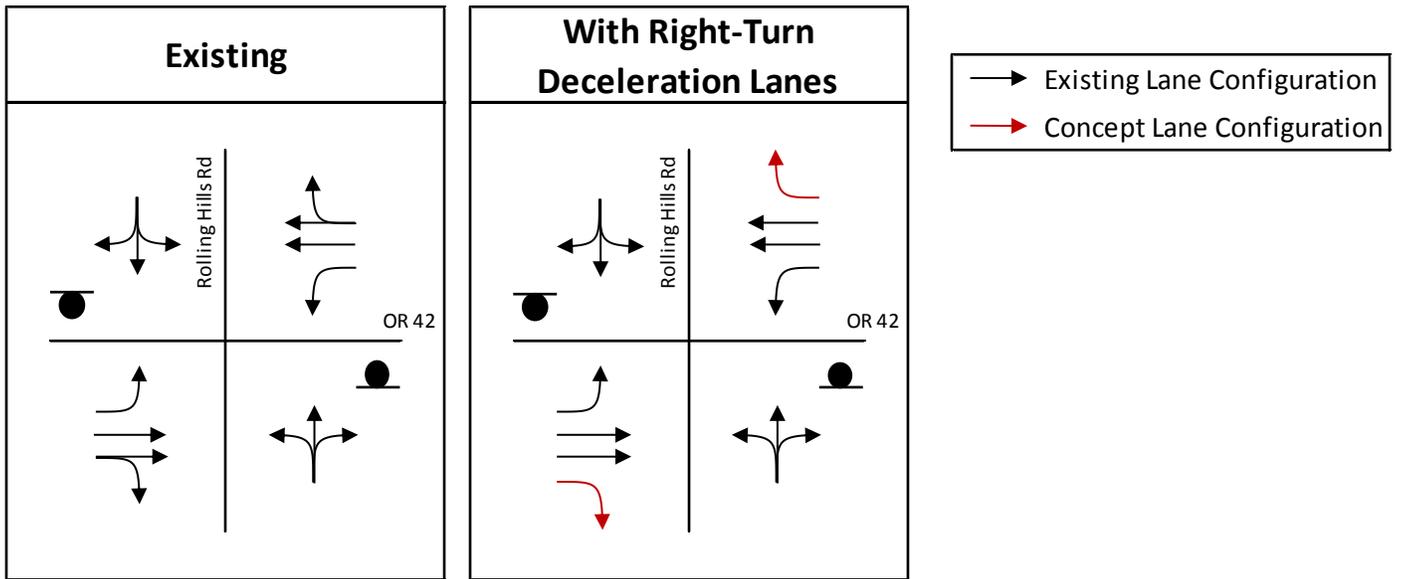


Location	Rolling Hills Rd Intersection (MP 74.77)	
Description	Add right-turn deceleration lanes on OR 42 in the eastbound and westbound directions	
Purpose	Address existing safety concerns and decrease delay	
Roadway Characteristics	<ul style="list-style-type: none"> ▪ OR 42 - Current ADT: 19,000 vpd; Forecast ADT: 27,000 vpd ▪ Rolling Hills Rd – Current ADT: 500 vpd; Forecast ADT: 5,000 vpd (with extension to Happy Valley Rd) ▪ Posted speed: 55 mph ▪ 15 crashes reported at Rolling Hills Rd intersection (2005-2010) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> ▪ Existing OR 42 does not have right-turn deceleration lanes at Rolling Hills Rd ▪ Vehicles making right turns must either decelerate in the high-speed travel lane which can result in rear-end collisions ▪ No documented crashes related to right-turning vehicles 	<ul style="list-style-type: none"> ▪ Proposed addition of eastbound and westbound right-turn deceleration lanes ▪ Right-turn deceleration lanes would improve safety by allowing vehicles to decelerate in a lane separated from high-speed through traffic ▪ Would provide minor increase in through capacity with separate turn lane
Additional Considerations	<ul style="list-style-type: none"> ▪ Existing volumes are sufficient to warrant right-turn deceleration lanes for both the eastbound and westbound approaches of OR 42 at Rolling Hills Rd ▪ Can be accommodated within the existing ROW ▪ Adjacent drainage and multi-use path on the northeast quadrant would need to be shifted to the north 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> ▪ \$500,000 ▪ Would modify only the northeast and southwest corners of the intersection to provide a deceleration lane of appropriate length to allow vehicles to slow to an appropriate turning speed 	
Implementation	<ul style="list-style-type: none"> ▪ Medium priority ▪ Related to Project 3 (Rolling Hills Rd signalization and access control) and Project 15 (local network enhancements) 	

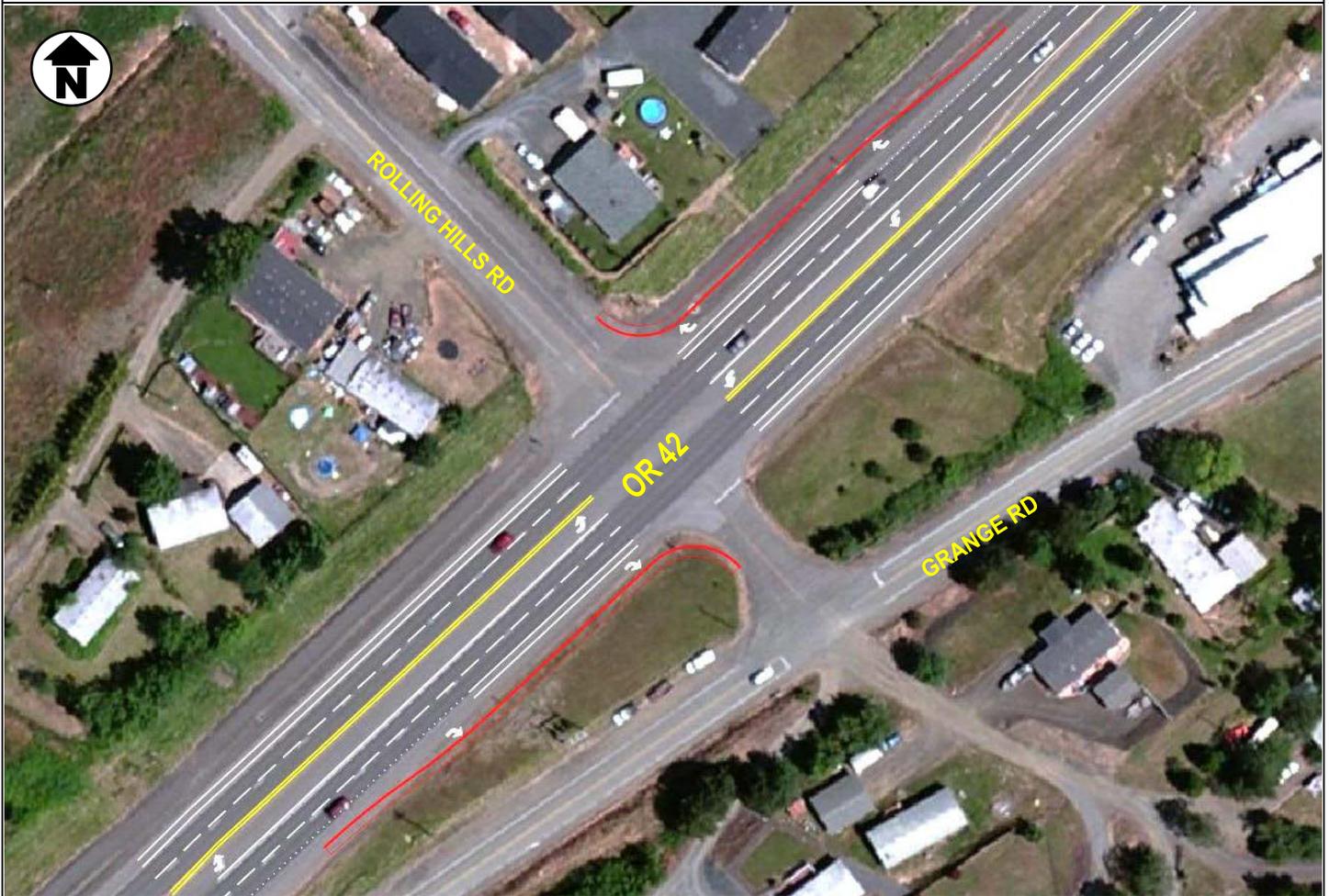
Project 4. OR 42/Rolling Hills Rd: Add Eastbound & Westbound Right-Turn Deceleration Lanes

*OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119*

Preliminary Alignment Concept

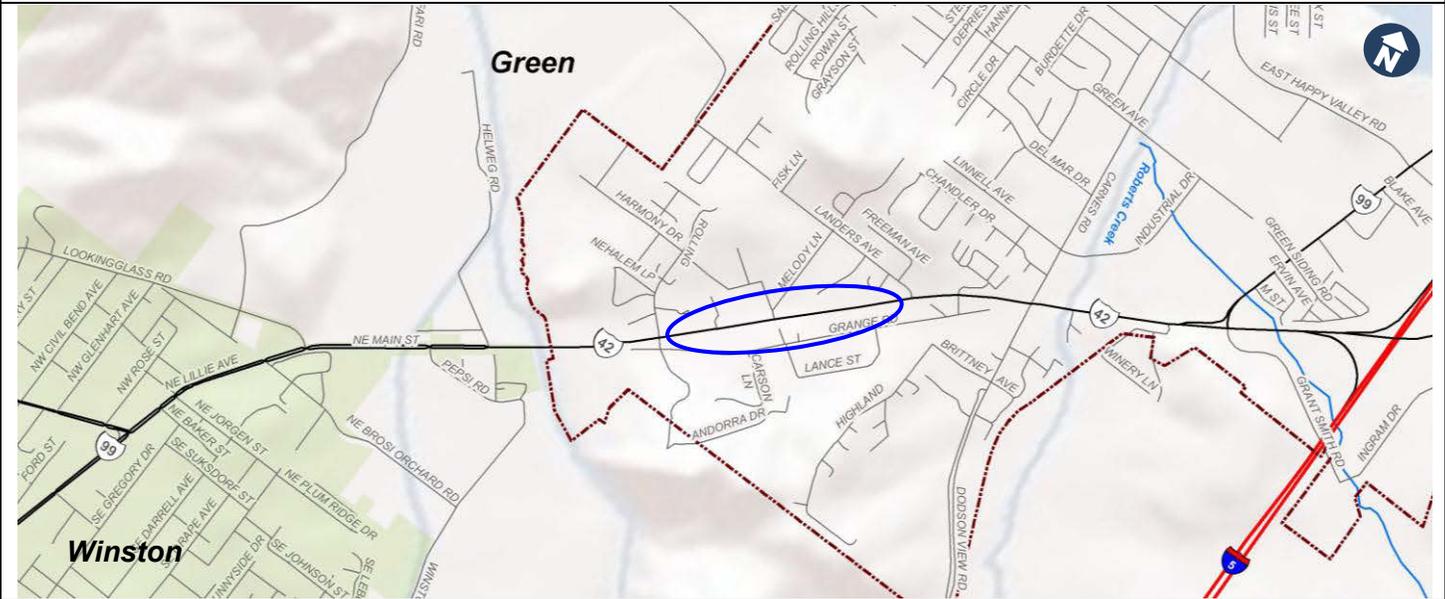


Preliminary Design Schematic



Project 5. East of Rolling Hills Rd through Landers Ave: Add Raised Barrier

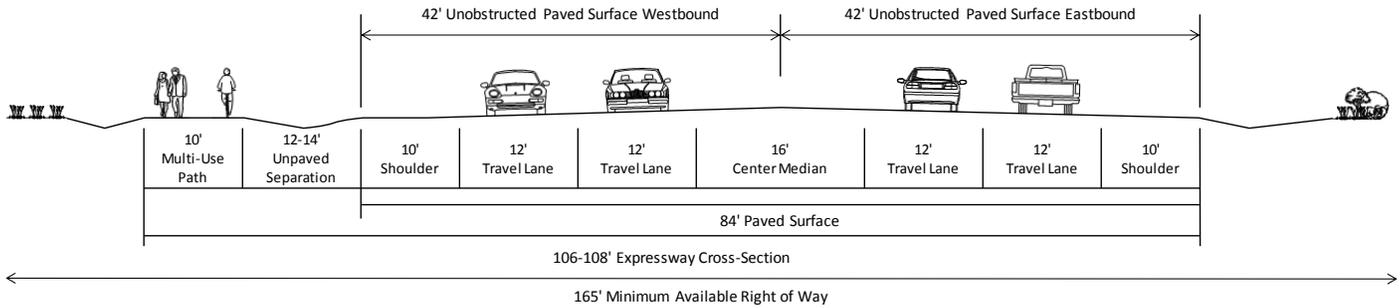
**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	East of Rolling Hills Rd through Landers Ave (MP 74.88-75.46)	
Description	Install raised concrete barrier to restrict turn movements to right-in/right-out	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 17,000 vpd; Forecast ADT: 24,000 vpd 7 crashes reported on segment between Rolling Hills Rd and Landers Ave (2005-2010) 7 crashes reported at Landers Ave intersection (2005-2010) Posted speed: 55 mph Existing unobstructed roadway is 42 ft in both eastbound and westbound directions 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Does not meet expressway standards for access spacing (1/2 mile between access points) Left turns permitted at unsignalized side streets on a 55 mph segment of the expressway Pattern of turning (7) and angle (1) collisions at access points 1 head-on collision 	<ul style="list-style-type: none"> Would eliminate left turns onto OR 42 at unsignalized intersections Safety for all vehicles would be improved by directing turning vehicles to targeted and signalized locations where they can be accommodated with lower crash risk Raised barrier would also reduce head-on collisions
Additional Considerations	<ul style="list-style-type: none"> Would require U-turns at signalized intersections and/or local street connectivity to support traffic circulation May result in some out of direction travel for side street traffic Depending on barrier type, transitions may require impact attenuators Proposed unobstructed roadway would be 41 ft in both eastbound and westbound directions which is wider than the restricted eastbound bridge cross section over the S Umpqua River (26 ft) and westbound off-ramp from I-5 Exit 119 (29 ft) 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$350,000 Concrete barrier would be placed in existing striped median; no roadway widening would be needed 	
Implementation	<ul style="list-style-type: none"> Medium priority Related to Project 3 (Rolling Hills Rd traffic signal and access restrictions), TSM3 (U-Turns at Rolling Hills Rd traffic signal) Should not be implemented until at least one Douglas County local enhancement connection (Project 15) has been constructed unless an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) 	

Existing Roadway Cross-Section

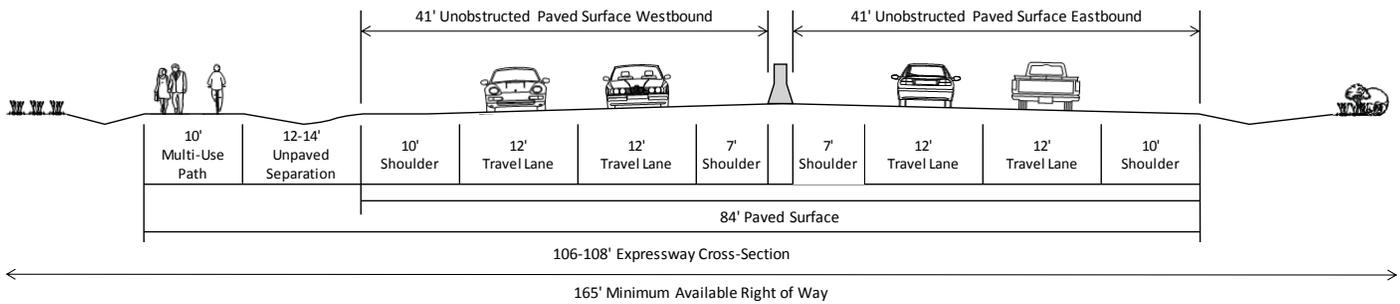
EXISTING 4-LANE EXPRESSWAY CROSS-SECTION



Note: This is the minimum cross-section on OR 42 between MP 74.88 and MP 75.46.

Potential Roadway Cross-Section

4-LANE EXPRESSWAY CROSS-SECTION WITH RAISED BARRIER



Note: This would be the minimum cross-section on OR 42 between MP 74.88 and MP 75.46.

Project 6. Install Roadway Lighting at Key Locations

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Rolling Hills Rd and Landers Ave Intersections with OR 42 (MP 74.77 & 75.42)	
Description	Install roadway lighting at key locations	
Purpose	<ul style="list-style-type: none"> Enhance visibility and safety in the corridor near intersections and conflict points 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 15,000 to 23,000 vpd; Forecast ADT: 22,000 to 31,000 vpd Posted speed ranges from 45 to 55 mph 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Currently unlit intersections can make it difficult for vehicles turning to/from OR 42 to see bicycles and pedestrians using the multi-use path after dusk Reduced visibility may increase the potential for crashes Limited visibility may reduce the attractiveness of pedestrian and bicycle facilities after dusk 	<ul style="list-style-type: none"> Lighting would improve visibility of bicycles and pedestrians traveling along the multi-use path along the north side of OR 42 and reduce potential intermodal conflicts Visibility of side street traffic would also be improved May also increase the attractiveness of pedestrian and bicycle facilities after dusk
Additional Considerations	<ul style="list-style-type: none"> No anticipated environmental or land use impacts associated with the proposed lighting improvements Lighting spillover and skyglow may reach adjacent properties 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$40,000 	
Implementation	<ul style="list-style-type: none"> High priority Related to Project 3 (Rolling Hills Rd signalization and access restrictions), Project 4 (Rolling Hills Rd right-turn deceleration lanes), and Project 7 (Landers Ave right-turn deceleration lanes) If a traffic signal is installed at Rolling Hills Rd (Project 3) prior to improvement, lighting should be included at that time 	

Project 7. OR 42/Landers Ave: Add Westbound Right-Turn Deceleration Lane

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**

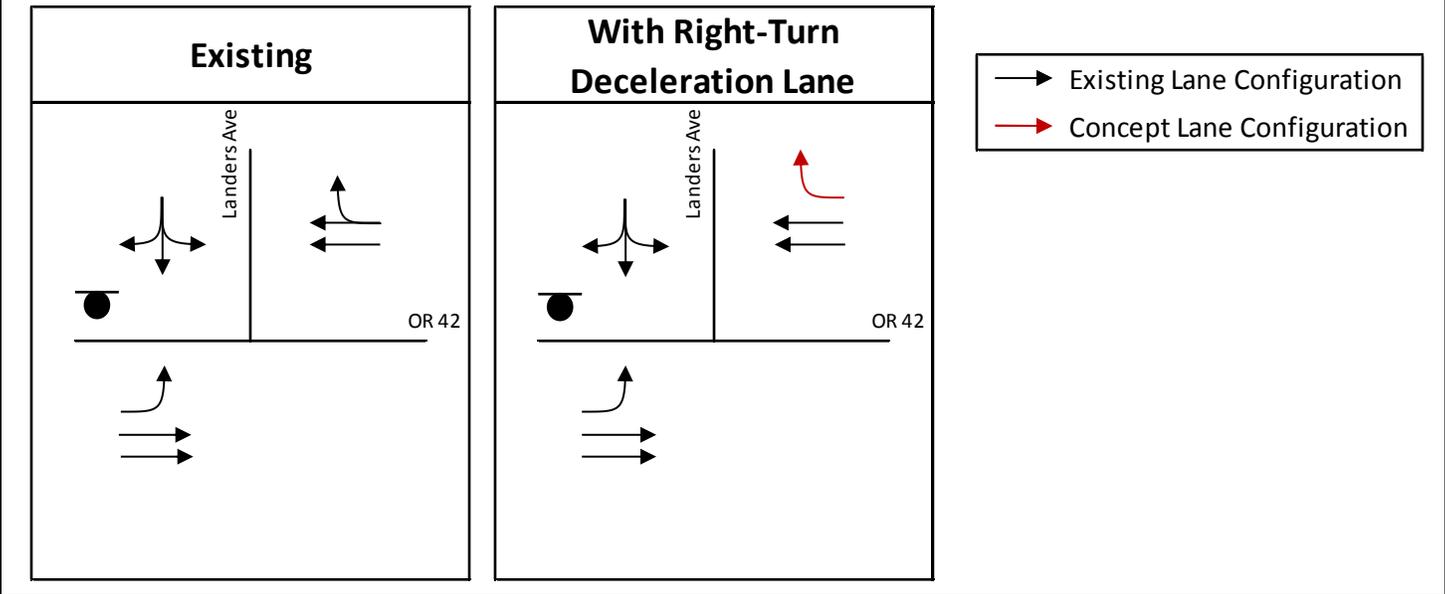


Location	Landers Avenue (MP 75.42)	
Description	Add right-turn deceleration lane on OR 42 in the westbound direction	
Purpose	Address existing safety concerns and decrease delay	
Roadway Characteristics	<ul style="list-style-type: none"> ▪ Current OR 42 ADT: 19,000 vpd - Forecast ORADT: 27,000 vpd ▪ Posted speed: 55 mph ▪ 7 crashes reported at Landers Ave intersection (2005-2010) 	
How Improvement Addresses Deficiencies	<p style="text-align: center;">Existing/Future Deficiency</p> <ul style="list-style-type: none"> ▪ Existing OR 42 does not have right-turn deceleration lanes at Landers Ln ▪ Vehicles making right turns must either decelerate in the high-speed travel lane which can result in rear-end collisions ▪ 1 serious injury crash related to right-turning vehicles was reported 	<p style="text-align: center;">With Improvement</p> <ul style="list-style-type: none"> ▪ Proposed addition of eastbound and westbound right-turn deceleration lanes ▪ Right-turn deceleration lanes would improve safety by allowing vehicles to decelerate in a lane separated from high-speed through traffic ▪ Would provide minor increase in through capacity with separate turn lane
Additional Considerations	<ul style="list-style-type: none"> ▪ Existing volumes are sufficient to warrant a right-turn deceleration lane ▪ Would modify the northeast corner of the intersection to provide a deceleration lane of appropriate length to allow vehicles to slow to an appropriate turning speed 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> ▪ \$250,000 ▪ Can be accommodated within the existing ROW ▪ Adjacent drainage and multi-use path on the northeast quadrant would need to be shifted to the north 	
Implementation	<ul style="list-style-type: none"> ▪ Medium priority ▪ Implementation of Project 10 (extension of third westbound through lane west of Carnes Rd) would require converting deceleration lane into through lane that would need 500-ft taper on west side of Landers Ave (not included in cost) 	

**Project 7. OR 42/Landers Ave: Add Westbound Right-Turn
Deceleration Lane**

*OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119*

Preliminary Alignment Concept



Preliminary Design Schematic



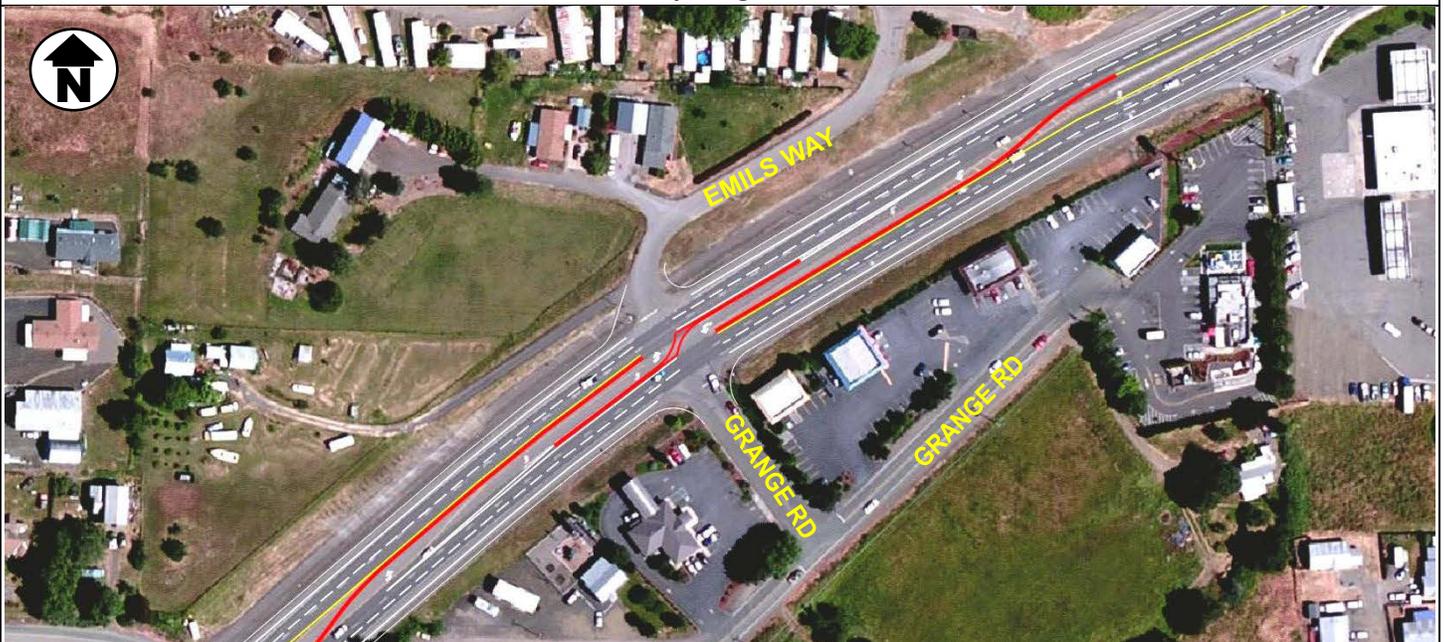
Project 8. OR 42/Emils Way/Grange Rd: Add Raised Median

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**

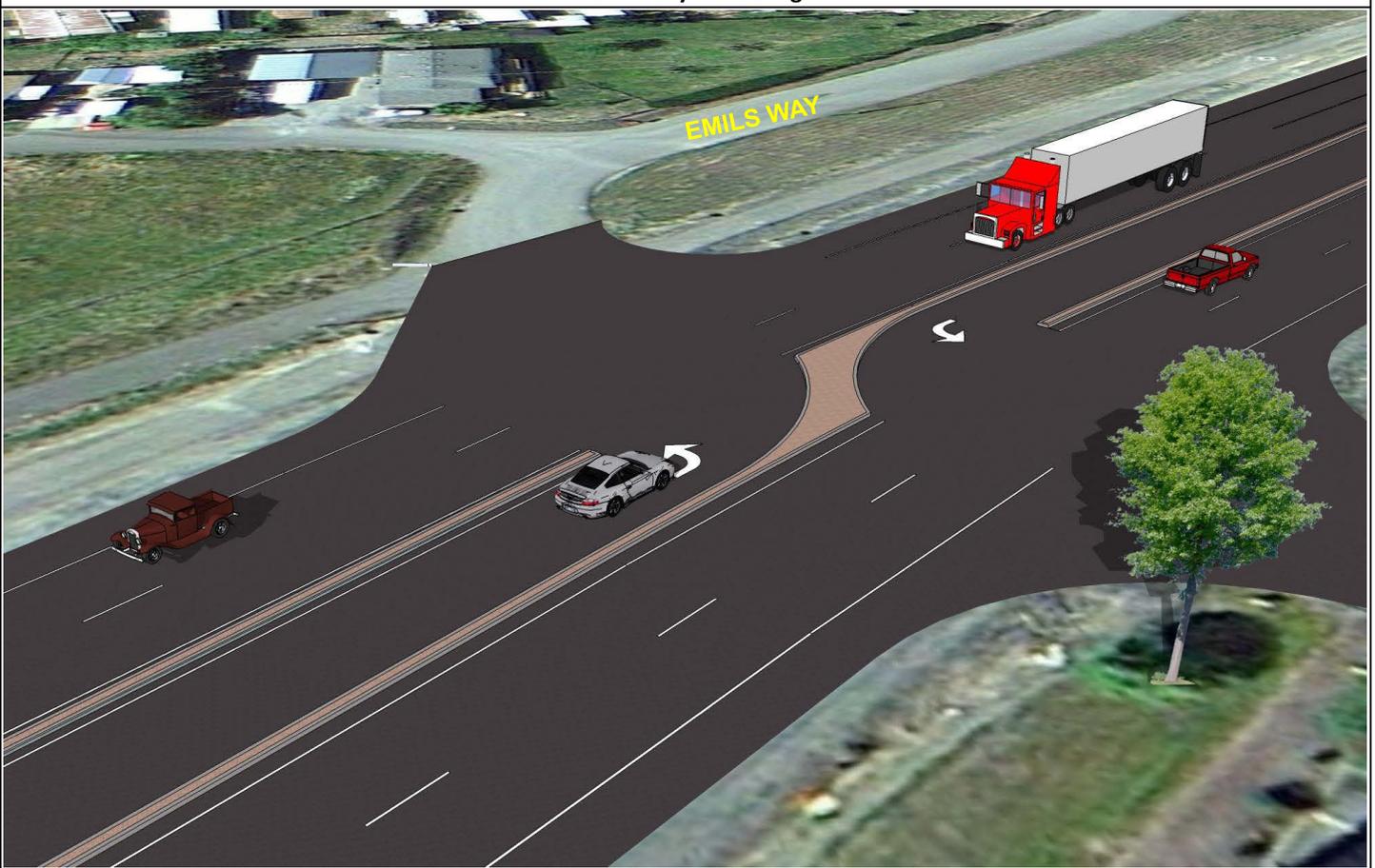


Location	OR 42/Emils Way/Grange Rd Intersection (MP 74.46-75.60)	
Description	Install raised median to restrict turn movements to left-in/right-in/right-out	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 19,000 vpd; Forecast ADT: OR 42 - 27,000 vpd Grange Rd - Current ADT: 2,500-3,000 vpd; Forecast ADT: 3,000-3,500 vpd Emils Way - Current ADT: <500 vpd; Forecast ADT: <500 vpd Posted speed: 50 mph 13 crashes reported at Emils Way/Grange Rd Intersection including one fatality (2005-2010) Existing unobstructed roadway is 42 ft in both eastbound and westbound directions (total pavement 84 ft) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Left turns are permitted from Emils Way/Grange Rd onto OR 42 at this location within close proximity to Carnes Rd Continued pattern of turning collisions (4 related to left turns from Grange Rd) Congestion and queuing occurs at this location due to vehicles waiting to make left turns onto OR 42 	<ul style="list-style-type: none"> Eliminates left turns onto OR 42 at this unsignalized intersection Still allow ingress to local businesses, but would require some egress to use alternative routing Improves safety along the expressway by directing left-turning vehicles to targeted and signalized locations with lesser crash risk
Additional Considerations	<ul style="list-style-type: none"> May result in some out of direction travel for traffic from Grange Rd and Emils Way Would require U-turns at signalized intersections (TSM3 at Rolling Hills Rd and TSM4 at Carnes Rd) Connection to Roberts Creek Rd (Project 16) would provide alternate route for traffic from Grange Rd Proposed unobstructed roadway would be a minimum 33 ft in both eastbound and westbound directions which is wider than the restricted eastbound bridge cross section over the S Umpqua River (26 ft) and westbound off-ramp from I-5 Exit 119 (29 ft) 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$300,000 Would require some pavement widening and/or reduction in shoulder width to add median Does not include shifting multi-use path if paved roadway surface is widened 	
Implementation	<ul style="list-style-type: none"> High priority Should not be implemented until the Douglas County local enhancement connection (Project 16) has been constructed unless an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) Restriction of all left-turn movements may be re-evaluated if an identified safety hazard prevails 	

Preliminary Design Schematic

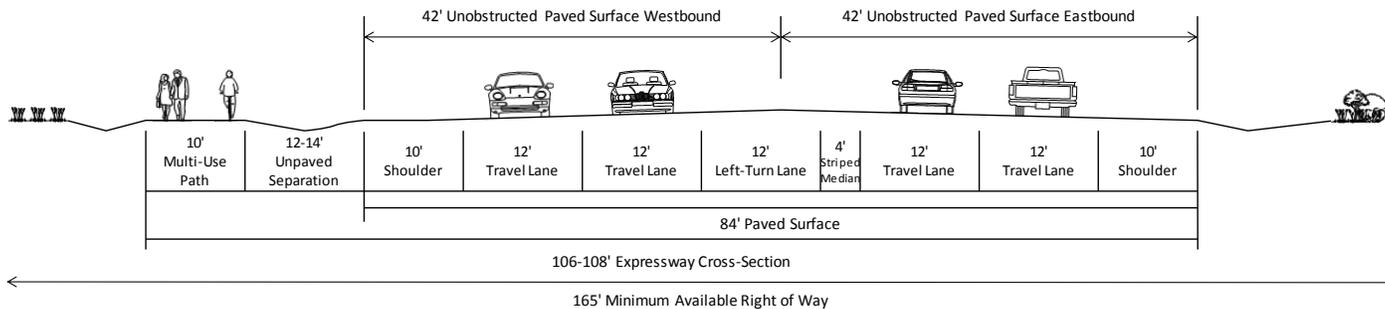


Preliminary Rendering



Existing Roadway Cross-Section

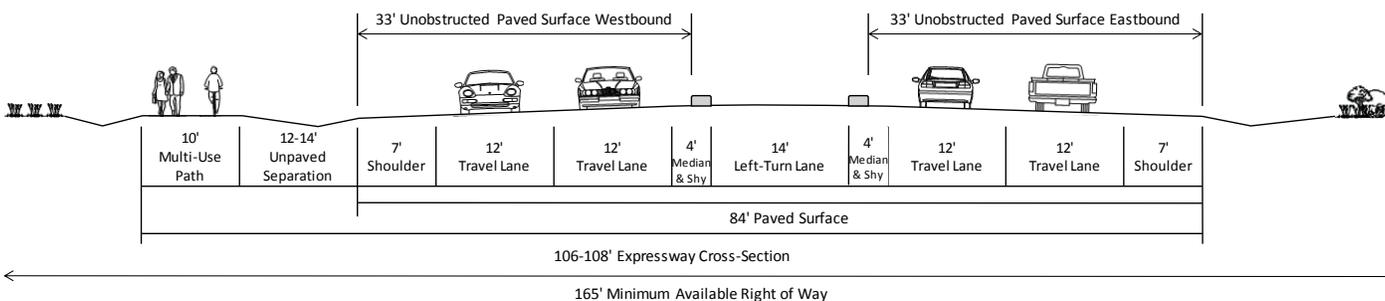
EXISTING 4-LANE EXPRESSWAY CROSS-SECTION



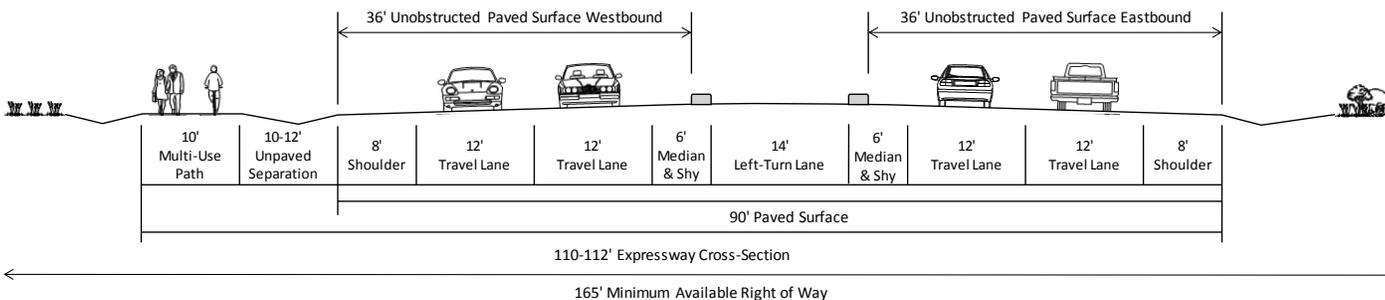
Note: This is the minimum cross-section on OR 42 between MP 74.46 and MP 75.60.

Potential Roadway Cross-Sections

4-LANE EXPRESSWAY CROSS-SECTION WITH RAISED MEDIAN (NO WIDENING)



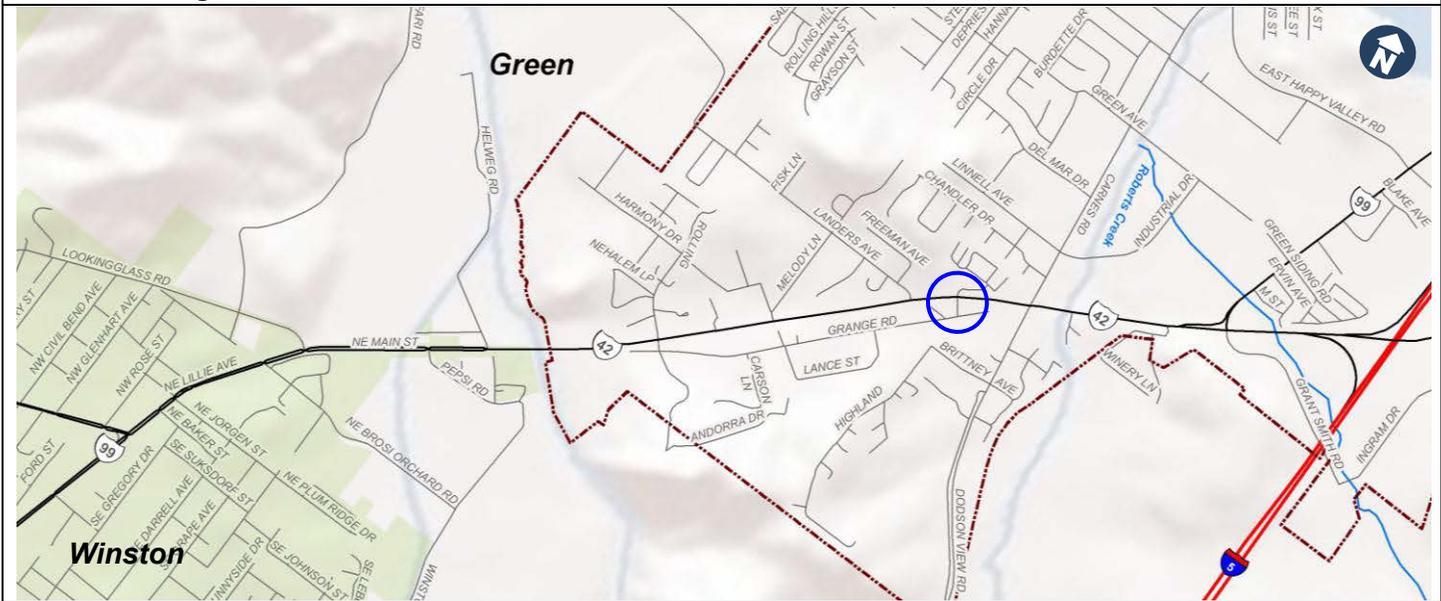
4-LANE EXPRESSWAY CROSS-SECTION WITH RAISED MEDIAN (WIDENING)



Note: This would be the minimum cross-section on OR 42 between MP 74.46 and MP 75.60.

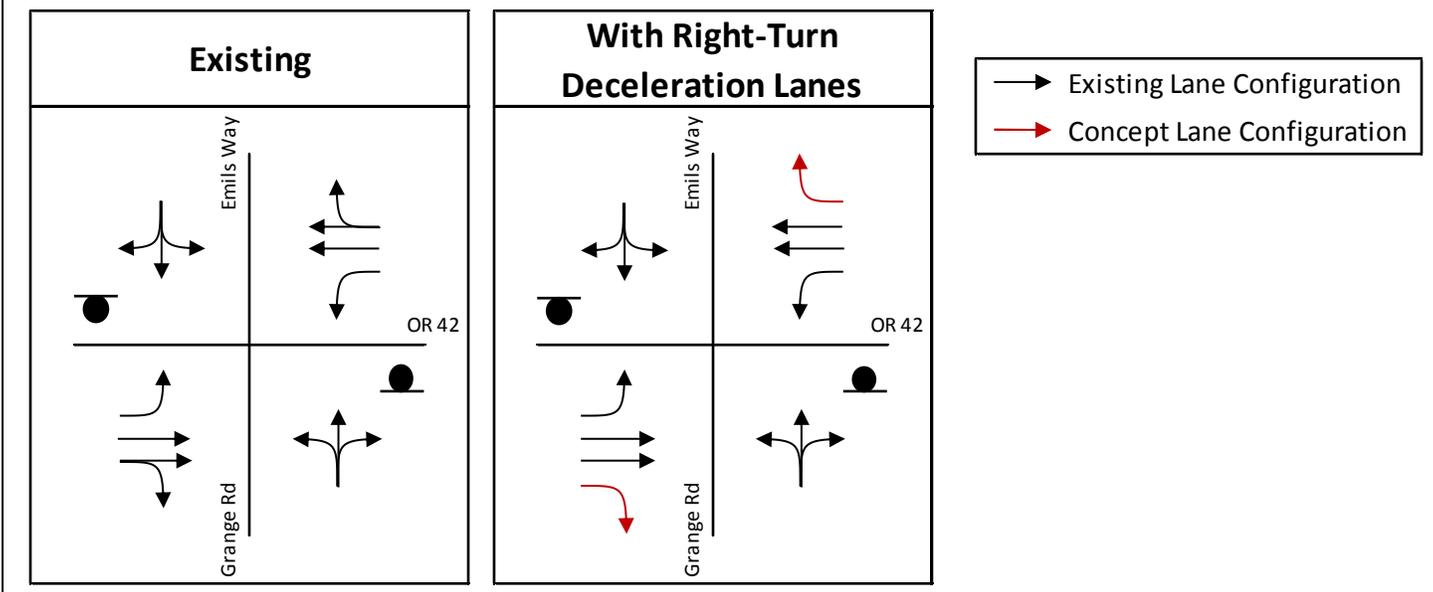
Project 9. OR 42/Emils Way/Grange Rd: Add Eastbound & Westbound Right-Turn Deceleration Lanes

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Emils Way/Grange Rd (MP 75.53)	
Description	Add right-turn deceleration lanes on OR 42 in the eastbound and westbound directions	
Purpose	Address existing safety concerns and decrease delay	
Roadway Characteristics	<ul style="list-style-type: none"> ▪ OR 42 - Current ADT: 19,000 vpd; Forecast ADT: OR 42 - 27,000 vpd ▪ Grange Rd - Current ADT: 2,500-3,000 vpd; Forecast ADT: 3,000-3,500 vpd ▪ Emils Way - Current ADT: <500 vpd; Forecast ADT: <500 vpd ▪ Posted speed: 50 mph ▪ 13 crashes reported at Emils Way/Grange Rd Intersection including one fatality (2005-2010) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> ▪ Existing OR 42 does not have right-turn deceleration lanes at Grange Rd/Emils Way ▪ Vehicles making right turns must either decelerate in the high-speed travel lane which can result in rear-end collisions ▪ 1 documented crash related to right-turning vehicles 	<ul style="list-style-type: none"> ▪ Proposed addition of eastbound and westbound right-turn deceleration lanes ▪ Right-turn deceleration lanes would improve safety by allowing vehicles to decelerate in a lane separated from high-speed through traffic ▪ Would provide minor increase in through capacity with separate turn lane
Additional Considerations	<ul style="list-style-type: none"> ▪ Existing volumes are sufficient to warrant right-turn deceleration lanes for both the eastbound and westbound approaches of OR 42 at Emils Way/Grange Rd ▪ Can be accommodated within the existing ROW ▪ Adjacent drainage and multi-use path on the northeast quadrant would need to be shifted to the north 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> ▪ \$500,000 ▪ Would modify only the northeast and southwest corners of the intersection to provide a deceleration lane of appropriate length to allow vehicles to slow to an appropriate turning speed 	
Implementation	<ul style="list-style-type: none"> ▪ Medium priority ▪ Related to Project 8 (raised median/turn restrictions at Emils Way/Grange Rd) ▪ Implementation of Project 10 (third westbound through lane west of Carnes Rd) would convert the westbound right-turn deceleration lane into a through travel lane 	

Preliminary Alignment Concept



Preliminary Design Schematic



Project 10. OR 42/Carnes Rd/Roberts Creek Rd: Add Third Westbound Through Lane

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Carnes Rd/Roberts Creek Rd Intersection (MP 75.72)	
Description	Add third westbound travel lane west of Carnes Rd and convert the westbound right-turn lane into a shared through-right lane	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> Intersection - Current total entering volume: 28,000 vpd; Forecast total entering volume: 40,000 vpd Top 5% of statewide Safety Priority Index System rankings (2012) 39 crashes including 1 fatal crash and 19 crashes resulting in injuries (2005-2010) Posted speed: 50 mph 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Current (2011) v/c ratio = 0.77 Future (2035) v/c ratio = 0.95 Would exceed OHP target v/c ratio of 0.80 	<ul style="list-style-type: none"> Future (2035) v/c ratio = 0.84 (assuming Rolling Hills Rd extension to Happy Valley Rd) Future (2035) v/c ratio = 0.80 when combined/phased with Project 11 Would reduce peak hour delay and queuing
Additional Considerations	<ul style="list-style-type: none"> Would still exceed the OHP target v/c ratio of 0.80 and require adoption of an alternative mobility standard unless combined with other improvements such as Project 11 (dual left-turn lanes on southbound Carnes Rd) When combined with Project 11, would still require a design exception to meet OHP target v/c ratio of 0.80 but exceed HDM v/c ratio standard of 0.70 Could be accommodated within existing ROW Multi-use path would need to be shifted northward to allow for third travel lane on OR 42 west of Carnes Rd 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$1.0 million Extend an additional westbound through lane 1,500 ft west of Carnes Rd to allow for typical lane reduction, including taper, matching into the existing alignment by Landers Ave 	
Implementation	<ul style="list-style-type: none"> Medium priority due to current congestion Should be considered when v/c ratio exceeds OHP target v/c ratio of 0.80 Should be considered with TSM1 (signal phasing changes at Carnes Rd/Roberts Creek Rd intersection) Could be paired with Project 11 (dual left-turn lanes on southbound Carnes Rd) as a phased solution (Project 10 – Phase 1, Project 11 – Phase 2) Implementation of this project would likely make westbound right-turn decelerations lanes in Project 7 (Landers Ave) and Project 9 (Emils Way) infeasible 	

Preliminary Design Schematic



Project 11. OR 42/Carnes Rd/Roberts Creek Rd: Add Second Southbound Left-Turn Lane

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Carnes Rd/Roberts Creek Rd Intersection (MP 75.72)	
Description	Add second southbound left-turn lane on the Carnes Rd approach to OR 42	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> Intersection - Current total entering volume: 28,000 vpd; Forecast total entering volume: 40,000 vpd Top 5% of statewide Safety Priority Index System rankings (2012) 39 crashes including 1 fatal crash and 19 crashes resulting in injuries (2005-2010) Posted speed: 50 mph 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Current (2011) v/c ratio = 0.77 Future (2035) v/c ratio = 0.95 Would exceed OHP target v/c ratio of 0.80 	<ul style="list-style-type: none"> Future (2035) v/c ratio = 0.88 (assuming Rolling Hills Rd extension to Happy Valley Rd) Future (2035) v/c ratio = 0.80 when combined/phased with Project 10 Would reduce peak hour delay and queuing
Additional Considerations	<ul style="list-style-type: none"> Would still exceed the OHP target v/c ratio of 0.80 and require adoption of an alternative mobility standard unless combined with other improvements such as Project 10 (third westbound through lane on OR 42 at Carnes Rd/Roberts Creek Rd) When combined with Project 10, would still require a design exception to meet OHP target v/c ratio of 0.80 but exceed HDM v/c ratio standard of 0.70 Would impact ROW in the northeast or northwest quadrant to add dual southbound lefts on Carnes Rd All widening on Carnes Rd could occur on only one side to minimize property impacts Implements planned improvement in the Douglas County TSP Assumes Rolling Hills Rd extension occurs as identified in the Douglas County TSP 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$1.3 million (not including ROW) Improvement assumes Carnes Rd would be widened approximate 700 ft to add second southbound left-turn lane and that 6-ft sidewalks would be included on the east side of Carnes Rd 	
Implementation	<ul style="list-style-type: none"> Low priority due to potential ROW impacts Should be considered when v/c ratio exceeds the OHP target v/c ratio of 0.80 Should be include signal phasing changes at OR 42/Carnes Rd/Roberts Creek Rd intersection Could be paired with Project 10 (third westbound through lane on OR 42 at Carnes Rd/Roberts Creek Rd) as a phased solution (Project 10 – Phase 1, Project 11 – Phase 2) 	

Preliminary Design Schematic



Project 12. OR 42/Winery Ln: Add Raised Barrier

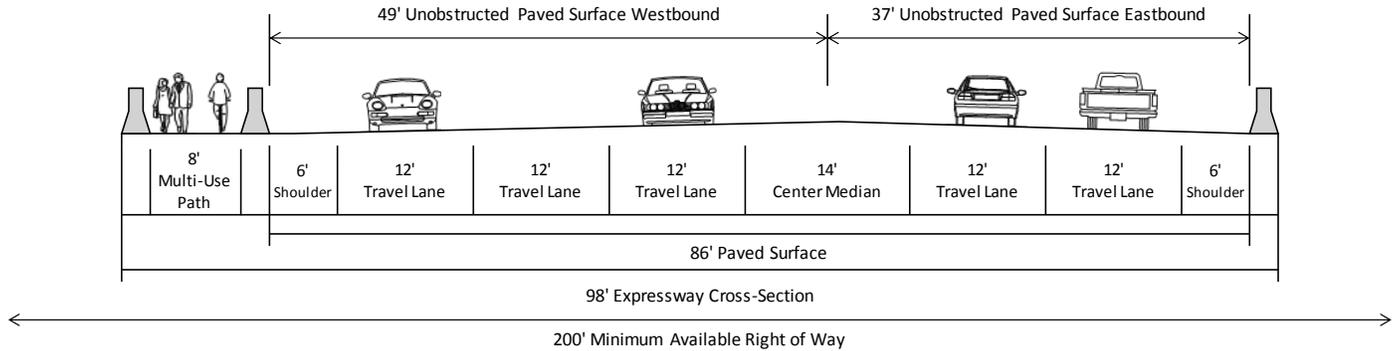
**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Winery Ln (MP 76.03-76.12)	
Description	Install raised barrier to restrict turn movements to right-in/right-out	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 20,100 vpd; Forecast ADT: 29,200 vpd 9 crashes reported at or near Winery Ln intersection (2005-2010) Posted speed: 50 mph Existing unobstructed roadway is 37 ft in the eastbound direction and 49 ft in the westbound direction 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Does not meet expressway standards for access spacing (1/2 mile between access points) Left turns permitted at unsignalized side streets on a 50 mph segment of the expressway Pattern of turning (3) collisions at access point 1 head-on collision and 1 sideswipe collision between vehicles traveling in opposite directions 	<ul style="list-style-type: none"> Would eliminate left turns onto OR 42 at unsignalized intersections Safety would be improved by directing turning vehicles to targeted and signalized locations where they can be accommodated with lower crash risk Raised barrier would also reduce head-on and sideswipe collisions
Additional Considerations	<ul style="list-style-type: none"> Would require U-turns at signalized intersections (TSM4 and TSM5) and/or local street connectivity (Project 17) to support traffic circulation May result in some out of direction travel for side street traffic Depending on barrier type, transitions may require impact attenuators Proposed unobstructed roadway would be 36 ft eastbound and 48 ft westbound which is wider than the restricted eastbound bridge over the S Umpqua River (26 ft) and westbound off-ramp from I-5 Exit 119 (29 ft) Could be extended westward to include turn restrictions at Art Mill Ln 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$75,000 Concrete barrier would be placed in existing striped median; no roadway widening would be needed 	
Implementation	<ul style="list-style-type: none"> High to medium priority Related to TSM4 (U-turns at Carnes Rd) and TSM5 (U-turns at OR 99) Should not be implemented until the Winery Ln connection (Project 17) has been constructed unless an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) If extended to Art Mill Ln, a median that permits left turns into Art Mill Ln could be considered as an alternative to a barrier when the project is implemented (design exception may be required for median vs. barrier) 	

Existing Roadway Cross-Section

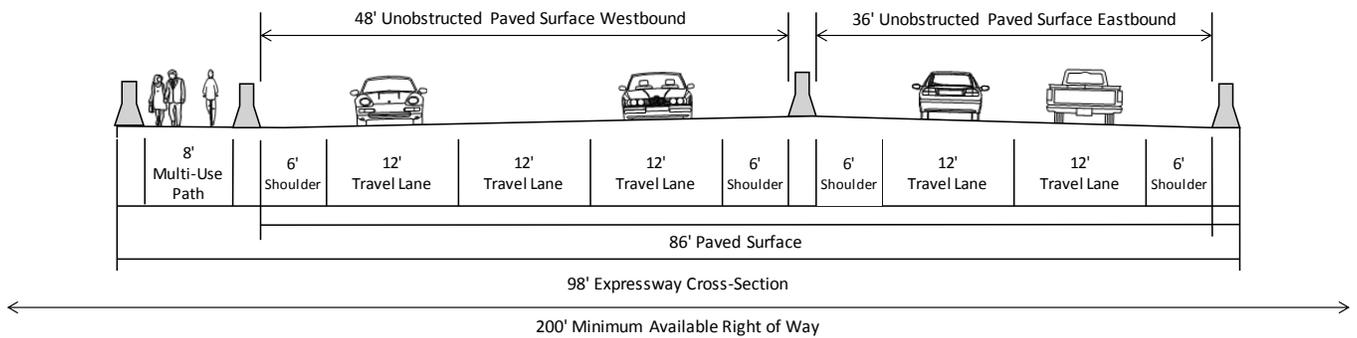
EXISTING 5-LANE EXPRESSWAY CROSS-SECTION EAST OF CENTRAL OREGON & PACIFIC OVERCROSSING



Note: This is the minimum cross-section on OR 42 between MP 76.03 and MP 76.12.

Potential Roadway Cross-Section

5-LANE EXPRESSWAY CROSS-SECTION WITH RAISED BARRIER EAST OF CENTRAL OREGON & PACIFIC RAILROAD OVERCROSSING



Note: This would be the minimum cross-section on OR 42 between MP 76.03 and MP 76.12.

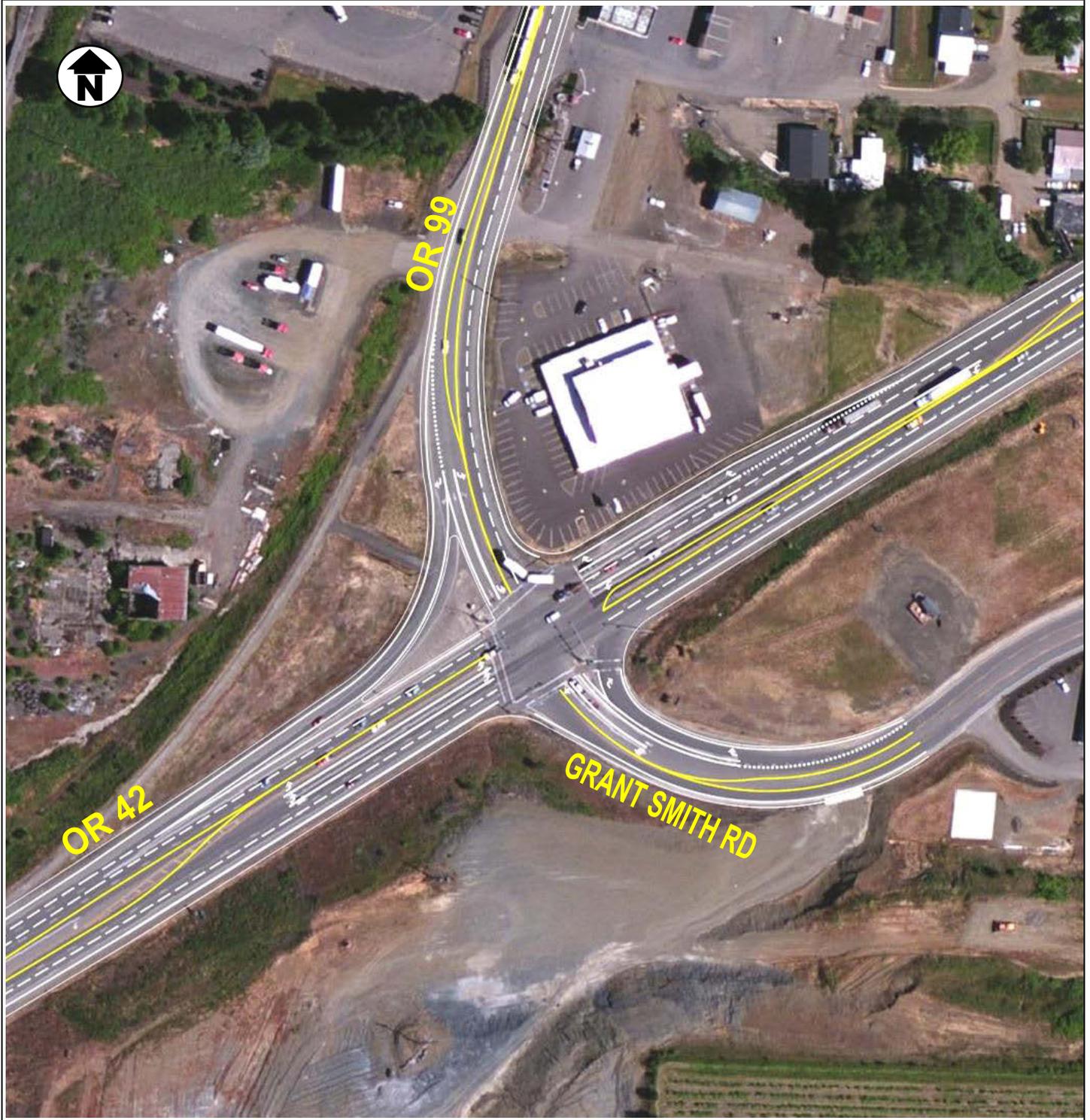
Project 13. OR 42/OR 99/Grant Smith Rd: Add Second Eastbound Left-Turn Lane

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	OR 42/OR 99/Grant Smith Rd Intersection (MP 76.22)	
Description	Increase intersection capacity by installing dual left turns on the eastbound approach and modifying traffic signal to provide protected left turns on all approaches	
Purpose	<ul style="list-style-type: none"> Improve traffic operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> Intersection - Current total entering volume: 28,000 vpd; Forecast total entering volume: 38,000 vpd Top 5% of statewide Safety Priority Index System rankings (2012) 44 crashes including 1 fatal crash and 24 crashes resulting in injuries (2005-2010) Posted speed: 50 mph 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Current (2011) v/c ratio = 0.78 Future (2035) v/c ratio = 0.98 Would exceed OHP v/c ratio target of 0.80 	<ul style="list-style-type: none"> Future (2035) v/c ratio = 0.88 (assuming Rolling Hills Rd extension to Happy Valley Rd) Would meet OHP target v/c ratio of 0.80 but would exceed HDM v/c ratio standard of 0.70 Would reduce peak hour delay and queuing
Additional Considerations	<ul style="list-style-type: none"> Would require a design exception to meet OHP target v/c ratio of 0.80 but exceed HDM v/c ratio standard of 0.70 Assumes Rolling Hills Rd extension occurs as identified in the Douglas County TSP Could impact adjacent properties but would not impact existing structures Widening could occur on each side of both facilities to minimize impacts 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$1.0 million (not including ROW on OR 99) Improvement assumes OR 42 would be widened to add a second eastbound left-turn lane and OR 99 would be widened to add a second receiving lane 	
Implementation	<ul style="list-style-type: none"> Medium priority due to current congestion Should be considered when v/c ratio exceeds the OHP target v/c ratio of 0.80 Related projects include TSM2 (protected left-turn phasing on OR 99/Grant Smith Rd) and TSM4 (U-turns permitted) Consider combining as phase of current STIP project (STIP Key 17918) 	

Preliminary Design Schematic



Project 14. Lookingglass Rd and Pepsi Rd: Realign to Create 4-way Signalized Intersection

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



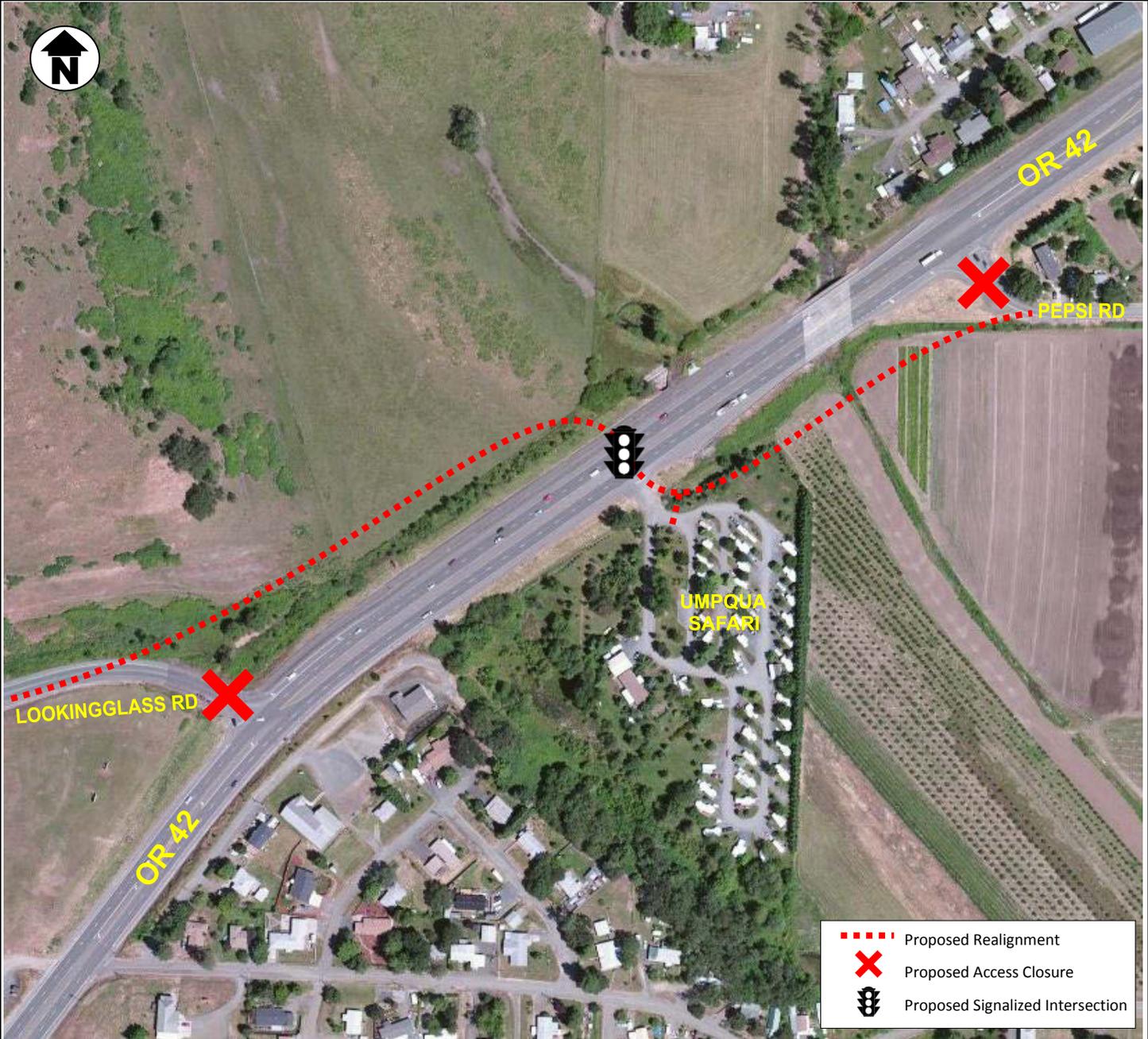
Location	Lookingglass Rd and Pepsi Rd (MP 73.88 and 74.19)	
Description	Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at 4-way intersection, close current connections to OR 42, connect other access points to extensions; and install traffic signal	
Purpose	<ul style="list-style-type: none"> Improve operations and safety 	
Roadway Characteristics	<ul style="list-style-type: none"> OR 42 - Current ADT: 15,000 vpd; Forecast ADT: 22,000 vpd Lookingglass Rd - Current ADT: 2,500-3,000 vpd; Forecast ADT: 3,500-4,000 vpd Pepsi Rd - Current ADT: 1,000-1,200 vpd; Forecast ADT: 1,200-1,400 vpd Posted speed: 45 mph west of Lookingglass Rd and 55 mph east of Lookingglass Rd 8 crashes reported at Lookingglass Rd intersection and 3 crashes reported at Pepsi Rd intersection (2005-2010) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Current (2011) v/c ratio = 0.37 on Lookingglass Rd; 0.09 on Pepsi Rd; 0.23-0.29 on OR 42 Future (2035) v/c ratio = 0.62 on Lookingglass Rd 0.10 on Pepsi Rd; 0.33-0.39 on OR 42 Delays for left turns from Lookingglass onto OR 42 expected to exceed 2 minutes in future 6 crashes on Lookingglass Rd and 2 crashes on Pepsi Rd were turning collisions Lookingglass Rd volumes meet ODOT preliminary signal warrants 	<ul style="list-style-type: none"> Future (2035) v/c ratio = 0.69 (intersection) Traffic signal would reduce delays and queues for Lookingglass Rd but increase delays on OR 42 Traffic signal would likely reduce the frequency and severity of the turning collisions but it may increase the number of rear-end collisions (generally less severe)
Additional Considerations	<ul style="list-style-type: none"> Lookingglass Rd would extend to OR 42/Pepsi Rd at level location so truck traffic does not stop on an upgrade Pepsi Rd should extend to OR 42/ Lookingglass Rd at location that avoids impacts to homes north of OR 42 Pepsi Rd extension as shown would require a new crossing of the S Umpqua Overflow Channel Would cross lands outside of City of Winston UGB and Green UUA boundary that are zoned as Exclusive Farm Use; alternatives analysis to meet TPR requirements and a goal exception would likely be needed Proximity to S Umpqua River habitats, floodplain, and floodway would need to be addressed Potential for cultural resources especially due to proximity to the river Requires OTC amendment to OR 42 Corridor Plan for planned realignment of Pepsi Rd/Helwig Rd intersection 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$6.0 million (Includes costs for bridge and culvert improvements) 1,000' of new roadway for Lookingglass Rd extension and 1,100' of new roadway for Pepsi Rd extension 	
Implementation	<ul style="list-style-type: none"> Low priority Should be considered when persistent congestion (delays > 1 minute for more than 2 hours/day) and queuing on side streets is present or an identified hazard that adversely affects public health, safety, or welfare prevails 	

Project 14. Lookingglass Rd and Pepsi Rd: Realign to Create 4-way Signalized Intersection

*OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119*

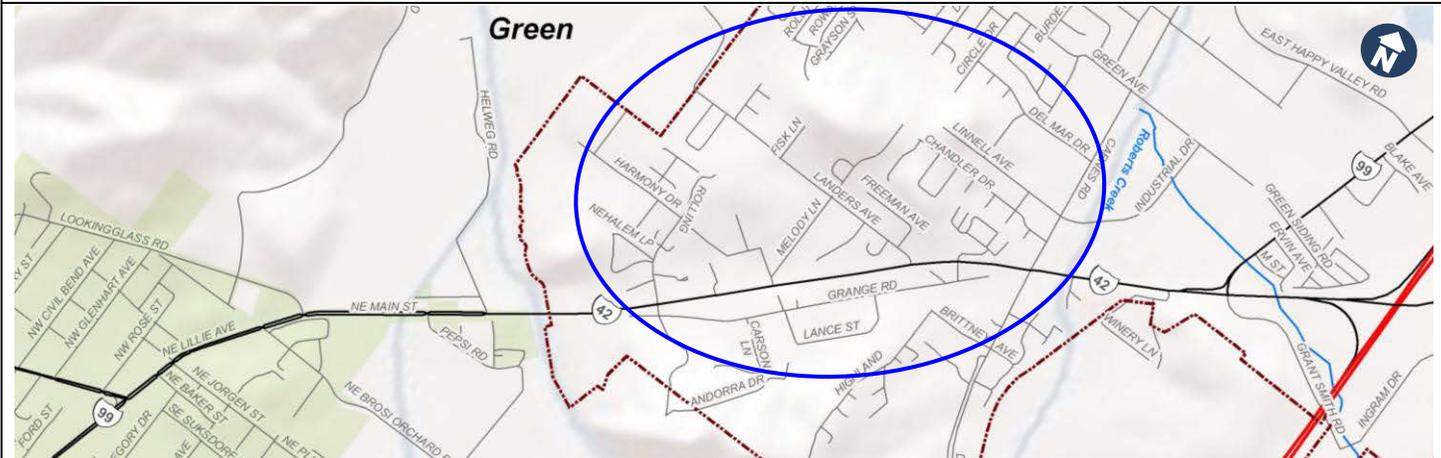
(i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS)

Preliminary Alignment Concept



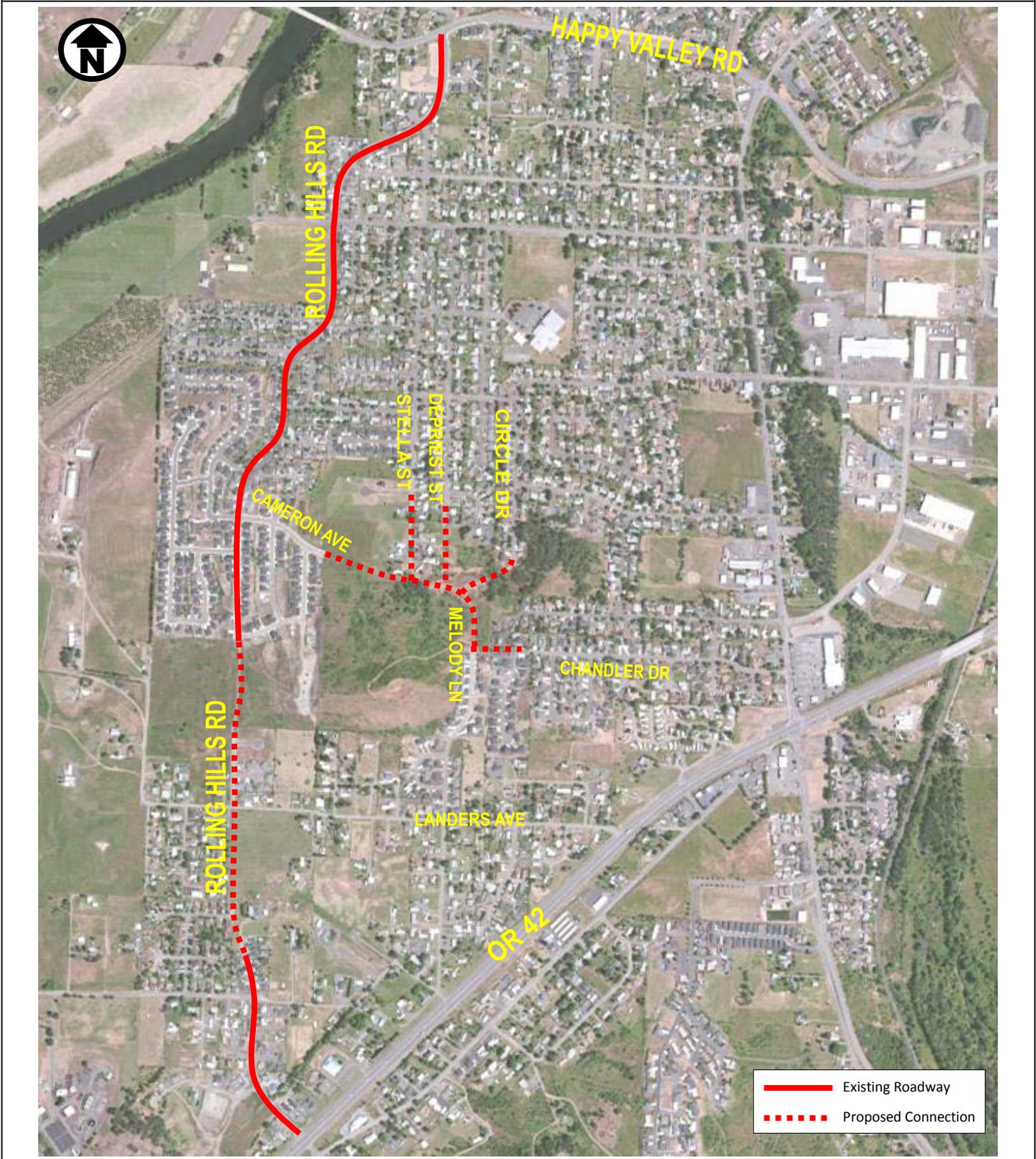
Project 15. Local Network Connectivity (Douglas County TSP)

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Local Network Connectivity	
Description	Extend Rolling Hills Rd northward to Happy Valley Rd and improve connectivity between Cameron Ave, Melody Ln, Chandler Dr, Stella St and other local streets as identified in the Douglas County TSP	
Purpose	<ul style="list-style-type: none"> Improve connectivity to enhance safety and operations on OR 42 	
Roadway Characteristics	<ul style="list-style-type: none"> Rolling Hills Rd, Cameron Ave, Chandler Dr, Melody Ln, and Stella Street identified as Minor Collector roads in the Douglas County TSP Rolling Hills Rd - Current ADT: 500 vpd; Forecast ADT with extension to Happy Valley Rd: 5,000 vpd 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvements
	<ul style="list-style-type: none"> Roadway system is missing links where land is currently undeveloped Without network connections, some neighborhoods must use OR 42 to serve their local access needs Traffic signal warrants not currently met 	<ul style="list-style-type: none"> Rolling Hills Rd connection would provide more direct route to OR 42 for many neighborhoods and reduce demand on Carnes Rd Increased demand on Rolling Hills Rd would help meet warrants for traffic signal at OR 42 Connected roadway system would allow neighborhood access to signalized intersections on OR 42 (Carnes Rd and Rolling Hills Rd) and would potentially improve safety for turning traffic
Additional Considerations	<ul style="list-style-type: none"> All projects are identified in the Douglas County TSP (Transportation Element for Green, p.4-22) Some of these connections are in approved development plans but have not yet been constructed Traffic signal warrants will not likely be met without Rolling Hills Rd connection 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> Rolling Hills Rd: \$3.5 million (not including ROW) Rolling Hills Rd would require approximately 2,400 feet of additional roadway primarily outside of existing ROW, and would include a 42-foot paved roadway with 6 foot sidewalks (Douglas County Urban Collector) Other Connections: Costs would be dependent upon chosen alignments and functional classification and should meet Douglas County road standards for urban areas 	
Implementation	<ul style="list-style-type: none"> Rolling Hills Rd Connection: High priority Other Connections: Medium to low priority Related to Project 3 (Rolling Hills Rd signalization and access control) and Project 5 (access control on OR 42 from east of Rolling Hills Rd through Landers Ave) Some connections must be constructed prior to or concurrently with Project 5 unless access restrictions are implemented because an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) 	

Preliminary Alignment Concept



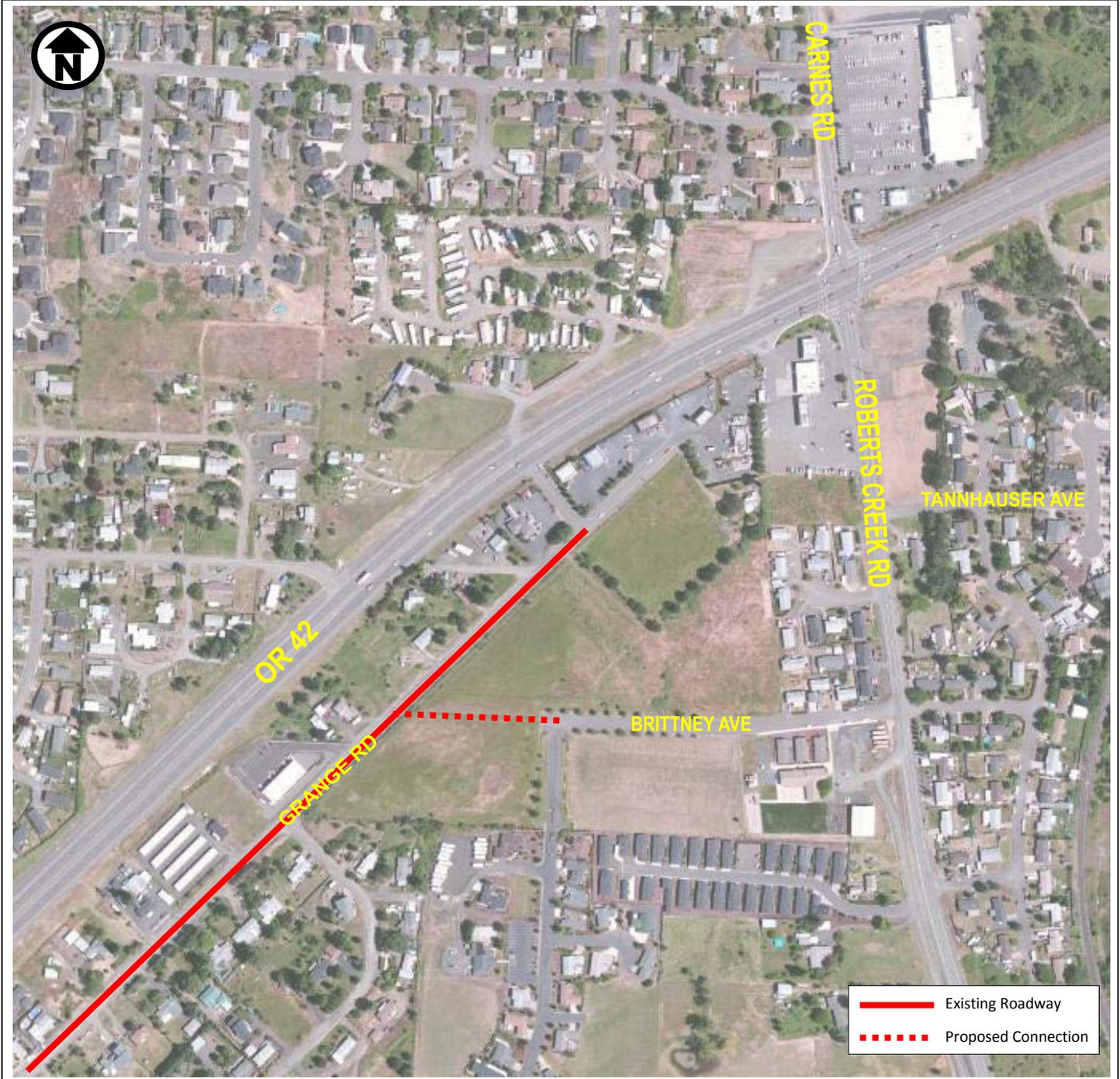
Project 16. Grange Rd: Create New Connection from Grange Rd to Roberts Creek Rd (Douglas County TSP)

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Grange Rd	
Description	Connect Grange Rd to Brittney Ave as identified in the Douglas County TSP	
Purpose	<ul style="list-style-type: none"> Improve connectivity to enhance safety on OR 42 	
Roadway Characteristics	<ul style="list-style-type: none"> Grange Rd - Current ADT: 2,500-3,000 vpd; Forecast ADT: 3,000-3,500 vpd Grange Rd and Brittney Ave identified as Minor Collector roads in the Douglas County TSP 13 crashes reported at Grange Rd/Emils Way/OR 42 Intersection including one fatality (2005-2010) 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	With Improvement
	<ul style="list-style-type: none"> Left turns are permitted from Emils Way/Grange Rd onto OR 42 at this location within close proximity to Carnes Rd intersection Continued pattern of turning collisions (4 related to left turns from Grange Rd) Congestion and queuing occurs at this location due to vehicles waiting to make left turns onto OR 42 	<ul style="list-style-type: none"> Would provide connection between Grange Rd and Roberts Creek Rd allowing access to traffic signal on OR 42 Would provide alternative access for vehicles unable to turn left onto OR 42 from Grange Rd
Additional Considerations	<ul style="list-style-type: none"> Should be ultimately considered in conjunction with Project 8 (raised median at OR 42/Emils Way/Grange Rd) Would include impacts to an existing structure, Would be in agreement with long-term Douglas County plans 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$2.1M (Not including ROW) Assumes 1,200 feet of new (500 ft) or improved (700 ft) roadway that would meet Douglas County design standards for urban roadways (12-ft travel lanes, 8-ft shoulders, 6-ft sidewalks) 	
Implementation	<ul style="list-style-type: none"> High priority Must be constructed prior to or concurrently with Project 8 (raised median at OR 42/Emils Way/Grange Rd) unless access restrictions are implemented because an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) 	

Preliminary Alignment Concept



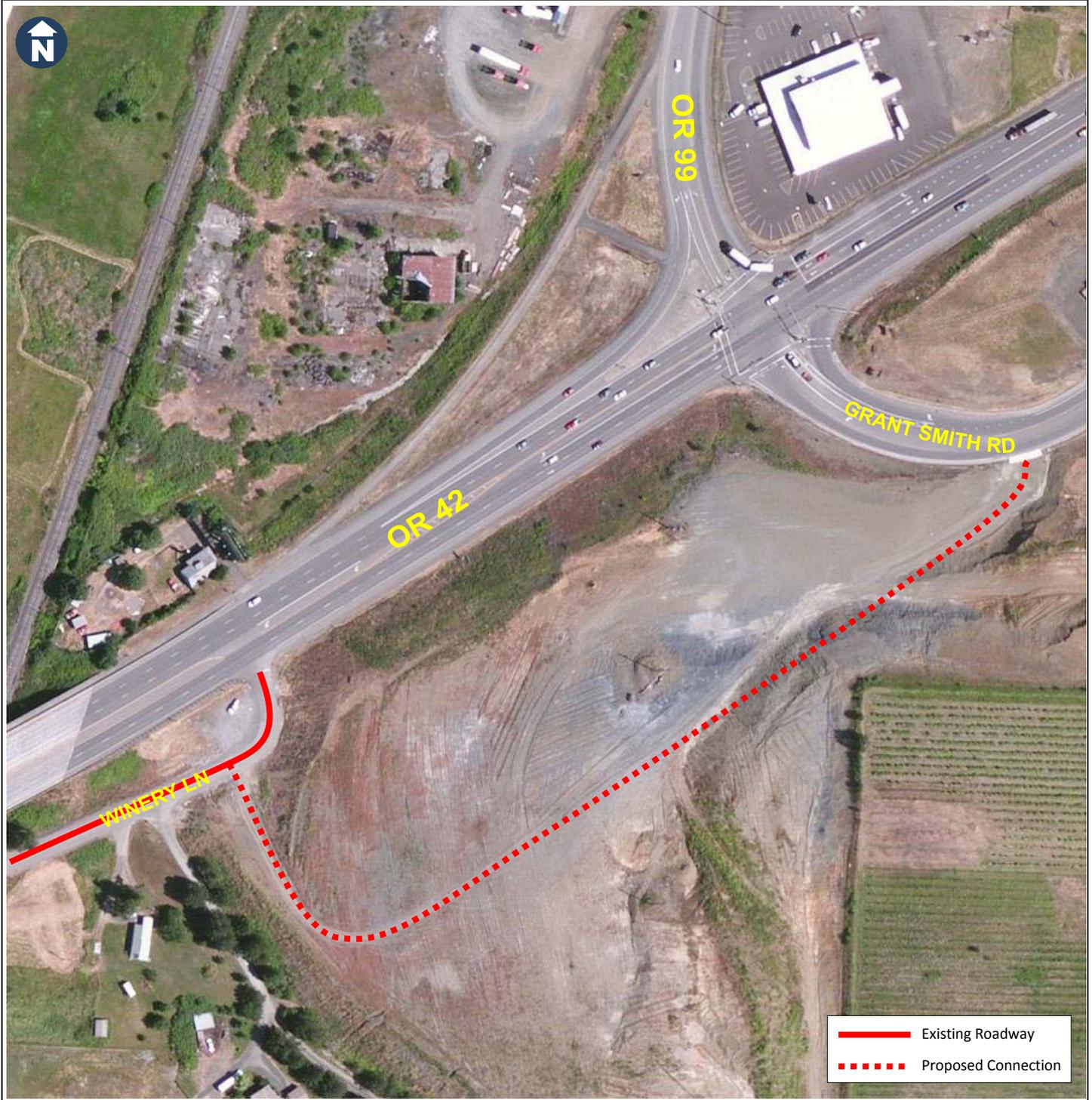
Project 17. Winery Ln: Extend to Grant Smith Rd

**OR 42 Expressway Management Plan:
Lookingglass Road to I-5 Exit 119**



Location	Winery Ln	
Description	Extend Winery Ln to Grant Smith Rd	
Purpose	Provide alternative access to improve safety and access management along OR 42	
Roadway Characteristics	<ul style="list-style-type: none"> 9 crashes reported at/near Winery Ln (2005-2010) Posted speed: 50 mph 	
How Improvement Addresses Deficiencies	Existing/Future Deficiency	Existing/Future Deficiency
	<ul style="list-style-type: none"> Does not meet expressway standards for access spacing (1/2 mile between access points) Pattern of turning (2) collisions at access point No alternate access available for land served by Winery Ln 	<ul style="list-style-type: none"> Diverts Winery Ln traffic to Grant Smith Rd and signalized intersection with OR 42 where turning movements can be accommodated with lower crash risk than unsignalized intersection Low demand on Winery Lane would result in limited impact on Grant Smith Rd intersection operations
Additional Considerations	<ul style="list-style-type: none"> Not currently identified in Douglas County TSP ROW would need to be acquired for connection Roadway alignment would need to be coordinated with affected tax lots 	
Cost Estimate & Assumptions	<ul style="list-style-type: none"> \$600k (Not including ROW) Assumes construction of Winery Ln connection to Douglas County local road standards (11-ft travel lanes and 3-ft shoulders) 	
Implementation	<ul style="list-style-type: none"> Low priority Must be constructed prior to or concurrently with Project 12 (raised barrier at OR 42/Winery Ln) unless access restrictions are implemented because an identified hazard that adversely affects public health, safety, or welfare prevails (i.e., continued pattern of turning and angle collisions or identified worst 10% in SPIS) 	

Preliminary Alignment Concept



5 ACCESS MANAGEMENT PLAN

5.1	Access Management Standards	75
5.2	Access Inventory	75
5.3	Key Principles of Access Management Plan	76
5.4	Access Management Actions.....	77



This page left intentionally blank.

5. ACCESS MANAGEMENT PLAN

The Access Management Plan represents 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.

5.1 Access Management Standards

The Access Management Plan governs ODOT's decisions of all future road approaches to OR 42 from the Lookingglass Road intersection to the I-5 Exit 119 ramps. The OHP also addresses access management with the most recent revisions adopted in March 2012.¹³ **The OR 42 expressway corridor standard is 2,640 feet (½ mile) between intersections.**

Ideally, a project includes provisions by which access can be made fully compliant with the OR 42 expressway spacing standards. 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 Region Access Management Engineer.

5.2 Access Inventory

Access inventory data was obtained from ODOT and from field observations for OR 42 from Lookingglass Road to the I-5 Exit 119 ramps. These data include public street intersections and public/private approaches to OR 42. Twenty-two (22) accesses were identified (13 on the left side and 9 on the right side when traveling eastward). Table 8 summarizes the existing access inventory.

ODOT has almost continuous access control along the expressway. All of the existing access points are either public roads that have a break or opening in the access control line or the access point has an existing reservation of access. In addition, there are 10 additional reservations that do not currently have connections to the expressway.

A review of the existing access spacing Table 8 shows that only two sections of the expressway currently meet the access spacing standard of 2,640 feet.

¹³ 1999 Oregon Highway Plan Revisions to Address Senate Bill 264 (2011) Policy 3A, website: http://www.oregon.gov/ODOT/TD/TP/docs/ohp_am/accesssm.pdf

Table 8. Existing Access Inventory

Access ID	Milepoint	Distance to Next Access	Access Type	Reservation of Access	Purpose
ACCESS POINTS ON LEFT SIDE OF OR 42					
1	73.88	2,429 ft	Public	Open	Lookingglass Rd
4	74.34	1,478 ft	Public	Open	Helweg Rd
5	74.62	792 ft	Private	Yes	Residence
6	74.77	686 ft	Public	Yes	Rolling Hills Rd
8	74.90	53 ft	Private	Yes	New Hope Church Access
9	74.91	845 ft	Private	Yes	Heatherwood Ln
10	75.07	1,848 ft	Public	Open	Jackie Ave
11	75.42	581 ft	Public	Open	Landers Ave
13	75.53	739 ft	Public	Open	Emils Way
15	75.67	264 ft	Private	Yes	Vacant
17	75.72	1,901 ft	Public	Open	Carnes Rd
20	76.08	739 ft	Private	Yes	Residence
21	76.22	-	Public	Open	Old Highway 99
ACCESS POINTS ON RIGHT SIDE OF OR 42					
2	74.04	792 ft	Private	Yes	Umpqua Safari Rd
3	74.19	3,062 ft	Public	Open	Pepsi Rd
7	74.77	4,013 ft	Public	Open	Andorra Dr
12	75.53	739 ft	Public	Open	Grange Access Rd
14	75.67	422 ft	Private	Yes	Gas Station (RIRO)
16	75.75	422 ft	Public	Open	Roberts Creek Rd
18	75.83	1,267 ft	Public	Yes	Art Mill Ln
19	76.07	792 ft	Public	Open	Winery Ln
22	76.22	-	Public	Yes	Grant Smith Rd

SHADING indicates that expressway access spacing is met.

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 EMP 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 expressway. These types of collisions generally result in more frequent and more severe injuries.
 - *Recommended Actions:* Restrict some or all movements to/from OR 42 at selected access points. Provide alternate local system connections to signalized intersections and allow U-turns (autos only) at existing and future traffic signals.

- *Triggers: Continued pattern of turning and angle collisions that can be reduced through access restrictions or location is identified in the worst 10% in SPIS.*
 - *Economic Considerations: Access restrictions would not be implemented without construction of local network improvements that provide reasonable alternate access unless an identified hazard that adversely affects public health, safety, or welfare prevails. Less restrictive access control (median options that permit left-in movements to maintain business access) were incorporated into the plan in response to concerns raised by local property owners. Raised medians and barriers that would be used to enforce turning restrictions would not reduce the vehicle-carrying capacity of the expressway for regional freight movement.*
2. **Mobility:** Traffic operations on both OR 42 and the intersecting side streets were assessed to determine where long delays could affect mobility of either mainline or local traffic.
- *Recommended Actions: Add a new traffic signal at the intersection of OR 42 and Rolling Hills Rd combined with access closures and local connections. Extend Lookingglass Rd and Pepsi Rd to connect at a single 4-way signalized intersection combined with access closures. Local network connections would provide additional access to signalized intersections.*
 - *Triggers: Meets traffic signal warrants based on traffic volumes or crash patterns.*
 - *Economic Considerations: While traffic signals may increase delay for through traffic, coordination between signals along the expressway could minimize those delays. The addition of signals would provide safer access to the expressway with less delay for side streets. Although the traffic signals would be combined with some direct access restrictions, reduced delays and improved safety provide both localized and regional economic benefits. Raised medians and barriers that would be used to enforce turning restrictions would not reduce the vehicle-carrying capacity of the expressway for regional freight movement.*

5.4 Access Management Actions

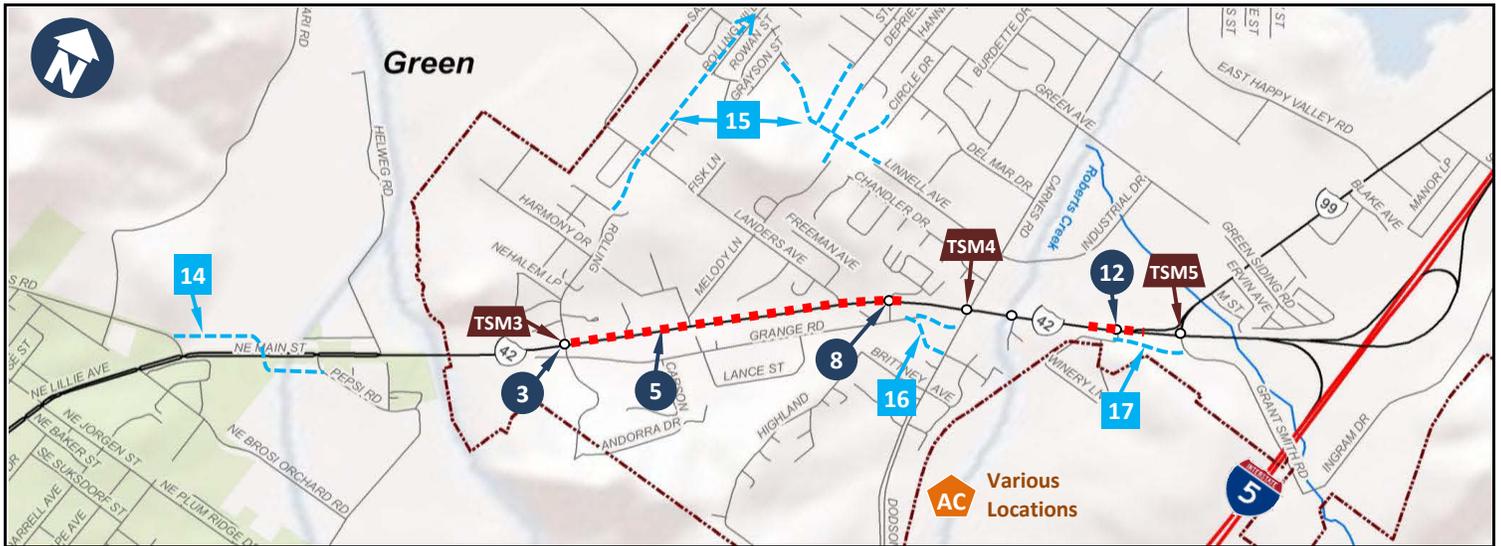
The recommended access management actions are illustrated in Figure 7 and summarized in Table 9. These actions include implementing four expressway projects partnered with local street network improvements, transportation system management measures, and private access control measures. Actions may be triggered as future EMP improvements are implemented, as safety and operational issues arise, or as land use changes occur (new development or redevelopment).

Table 9. Access Management Plan

ID	Description	Triggers	Priority
ACCESS MANAGEMENT MEASURES			
3	OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd, improve access road connections to Jackie Lane, and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Lane	<ul style="list-style-type: none"> ▪ Traffic signal warrants ▪ Continued pattern of turning and angle collisions ▪ Identified in worst 10% in SPIS 	High
5	OR 42 – East of Rolling Hills Rd through Landers Ave (74.88-75.46): Add raised barrier to restrict turn movements to right-in/right-out	<ul style="list-style-type: none"> ▪ Continued pattern of turning and angle collisions ▪ Identified in worst 10% in SPIS 	Medium
8	OR 42/Emils Way/Grange Road Intersection (74.46-75.60): Add raised median to restrict turn movements to left-in/right-in/right-out	<ul style="list-style-type: none"> ▪ Continued pattern of crashes related to left turns ▪ Identified in worst 10% in SPIS 	High
12	OR 42/Winery Ln Intersection (76.03-76.12): Add raised barrier to restrict turn movements to right-in/right-out	<ul style="list-style-type: none"> ▪ Continued pattern of turning and angle collisions ▪ Identified in worst 10% in SPIS 	Medium
LOCAL NETWORK IMPROVEMENTS			
14	Lookingglass Rd and Pepsi Rd: Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at 4-way intersection, close current connections to OR 42, connect other access points to extensions; and install traffic signal	<ul style="list-style-type: none"> ▪ Traffic signal warrants ▪ Persistent congestion and queuing on side streets ▪ Crash pattern of turning and angle collisions 	Low
15	Local Network Connections: Extend Rolling Hills Rd (RH) northward to Happy Valley Rd and improve connectivity between Cameron Ave, Melody Ln, Chandler Dr, Stella St and other local streets as identified in the Douglas County TSP	<ul style="list-style-type: none"> ▪ Phased with development ▪ Access restrictions on OR 42 (Projects 3 and 5) ▪ Douglas County implements TSP project 	RH: High Other: Medium to low
16	Grange Rd: Create a new connection from the east end of Grange Rd to Roberts Creek Rd via Brittney Ave as identified in the Douglas County TSP	<ul style="list-style-type: none"> ▪ Access restrictions on OR 42 (Project 8) ▪ Douglas County implements TSP project 	High
17	Winery Lane: Extend Winery Lane to Grant Smith Rd	<ul style="list-style-type: none"> ▪ Phased with development ▪ Access restrictions on OR 42 (Project 12) 	Low
TRANSPORTATION SYSTEM MANAGEMENT MEASURES			
TSM3	OR 42/Rolling Hills Road Intersection (74.77): Permit U-turns for passenger vehicles with protected left-turn arrow.	<ul style="list-style-type: none"> ▪ Access restrictions on OR 42 (Projects 5 and 8) ▪ Concurrent with Project #3 	NA
TSM4	OR 42/Carnes Road/Roberts Creek Road Intersection (75.72): Permit U-turns for passenger vehicles with protected left-turn arrow.	<ul style="list-style-type: none"> ▪ Access restrictions on OR 42 (Projects 5, 8, and 12) 	NA
TSM5	OR 42/OR 99/Grant Smith Road Intersection (76.22): Permit U-turns for passenger vehicles with protected left-turn arrow.	<ul style="list-style-type: none"> ▪ Access restrictions on OR 42 (Project 12) 	NA

Table 9. Access Management Plan

ID	Description	Triggers	Priority
PRIVATE ACCESS CONTROL MEASURES			
AC	Private Accesses: Consolidate or close driveways in an effort to move towards achieving applicable access spacing standards	<ul style="list-style-type: none"> ▪ Property development or redevelopment ▪ Construction of EMP improvements 	Ongoing
	Access Reservations: Purchase reservations of access when reasonable alternative access options are available	<ul style="list-style-type: none"> ▪ Property development or redevelopment ▪ Construction of EMP improvements 	Ongoing



Access Management Measures

- 3** OR 42/Rolling Hills Rd Intersection (74.77): Install traffic signal at OR 42/Rolling Hills Rd, improve access road connecting to Jackie Ln and restrict access to OR 42 from west of Rolling Hills Rd through Jackie Ln (High Priority)
- 5** OR 42 – East of Rolling Hills Rd through Landers Ave (74.78-75.42): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)
- 8** OR 42/Emils Way/Grange Road Intersection (75.53): Add raised median to restrict turn movements to left-in/right-in/right-out (High Priority)
- 12** OR 42/Winery Ln Intersection (76.07): Add raised barrier to restrict turn movements to right-in/right-out (Medium Priority)

Local Network Improvements

- 14** Lookingglass Rd and Pepsi Rd: Extend Lookingglass Rd eastward and Pepsi Rd westward to connect at a 4-way signalized intersection; close current connections to OR 42; and connect other access points to extensions (Low Priority)
- 15** Local Network Connections: Extend Rolling Hills Rd northward to Happy Valley Rd and improve connectivity between Melody Ln, Cameron Ave, Chandler Dr, Stella St, and other local streets in the Douglas County TSP (RH: High Priority; Other: Medium Priority)
- 16** Grange Rd: Create a new connection from the east end of Grange Rd to Roberts Creek Rd via Brittney Ave (High Priority)
- 17** Winery Ln: Extend Winery Lane to Grant Smith Rd (Medium Priority)

Transportation System Management Measures

- TSM3** OR 42/Rolling Hills Rd Intersection (74.77): Permit U-turns for passenger vehicles with protected left-turn arrow.
- TSM4** OR 42/Carnes Rd/Roberts Creek Rd Intersection (75.72): Permit U-turns for passenger vehicles with protected left-turn arrow.
- TSM5** OR 42/OR 99/Grant Smith Rd Intersection (76.22): Permit U-turns for passenger vehicles with protected left-turn arrow.

Private Access Control Measures

- AC** Private Accesses: Consolidate or close driveways in an effort to move towards achieving applicable access spacing standards
- Access Reservations: Purchase reservations of access when reasonable alternative access options are available

OR 42 Expressway Management Plan

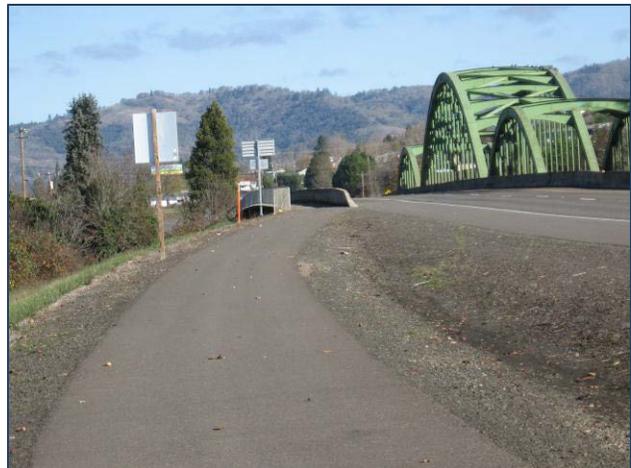
Legend

- Expressway Improvements
- Local System Improvements
- ▤ Transportation System Management Measures
- ⬠ Private Access Control Measures
- - - Raised Median/Barrier
- - - Future Roadway Connection

Figure 7
Access Management Plan

6 OTHER MANAGEMENT ACTIONS

6.1	Transportation System Management Measures.....	83
6.2	Transportation Demand Management Measures.....	84
6.3	Bicycle and Pedestrian Facilities.....	84
6.4	Park-and-Ride Facility.....	84



This page left intentionally blank.

6. OTHER MANAGEMENT ACTIONS

Other management actions are included to protect and extend the design life of the expressway and provide for all modes of travel in the OR 42 expressway corridor.

6.1 Transportation System Management Measures

Transportation system management (TSM) measures are designed to maximize the use of existing transportation facilities.

6.1.1 Traffic Signal Timing Modifications

To address existing safety issues at the two signalized intersections (Carnes Road/Roberts Creek Road and OR 99/Grant Smith Road) on the OR 42 expressway, the following signal timing modifications are recommended:

- Provide protected left-turn phases in the north-south direction
- Add clearance intervals for appropriate traffic phases in the north-south direction

Current signal timing provides for protected left-turn phasing in the east-west direction but only permitted (i.e., left-turns must look for breaks in the oncoming traffic) left-turn phasing in the north-south direction. The addition of protected left-turn phasing in the north-south direction would potentially decrease the number of turning collisions that are occurring at both intersections by allocating time for vehicles to turn left from the side streets to OR 42 without any conflicting vehicular movements.

Neither of the signals has north-south clearance time programmed into the signal phasing. The addition of “all-red” timing into the signal cycle would potentially decrease the number of angle collisions that are occurring at both intersections by allowing vehicles in the north-south direction to fully clear the intersection before east-west traffic flow begins.

6.1.2 Permitted U-Turns

In conjunction with the construction of medians to restrict turning movements, the following signal modifications are recommended at the Carnes Road/Roberts Creek Road and OR 99/Grant Smith Road intersections:

- Permit U-turns for passenger vehicles with protected left-turn arrow

OR 42 currently has few turning movement restrictions, in part because there are limited local network options for some roadways. At locations where access will be restricted in the future, there are two key ways of maintaining all movements. Alternative access can be provided via local roads or left turns from side-streets can be replaced with right turns, with a U-turn

opportunity on the mainline roadway. For the access points which maintain right-in, right-out movements, U-turn opportunities are a simple way to safely accommodate passenger vehicles.

Turning or angle related crashes are the primary crash types that are prevented by access management that converts direct left turns to right turns with a U-turn. In fact, providing U-turns instead of direct left turns can reduce the frequency of all crashes by approximately 20 percent. As a result of the proposed modifications, delay will increase slightly for left-turns from side-streets as a result of out-of-direction travel.

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 contain provisions that embrace TDM measures. TDM measures include strategies that shift modes away from the single-occupancy vehicle like 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.

The OR 42 supports TDM efforts through improvements to the bicycle and pedestrian system and support for the transit system (through consideration of a park-and-ride facility).

6.3 Bicycle and Pedestrian Facilities

The additional bicycle and pedestrian facilities in the EMP improves connectivity and safety for these travel modes. More importantly, these facilities serve the portion of the population who, through economic conditions or choice, do not have access to a personal means of motorized transportation and rely on walking, bicycling, and transit for mobility.

6.4 Park-and-Ride Facility

In support of the existing Umpqua Transit bus service that travels along OR 42, this plan recommends that a location for a future park-and-ride facility be investigated at the intersection of OR 42 and Carnes Road/Robert Creek Road. The facility could take advantage of existing parking that is underutilized during the day, could be part of a future shared-use development, or could be a standalone parking lot. The image to the right shows several existing lots with low parking utilization as well as vacant lots that could be developed in the future. If a suitable site cannot be located at this intersection, sites at the OR 99/Grant Smith Road intersection could be investigated.



**OR 42/Carnes Rd/Roberts Creek Rd
Potential Park-and-Ride Sites**

7 PLAN MONITORING AND FUNDING

7.1	Traffic Conditions Monitoring	87
7.2	Potential Funding Sources	88



This page left intentionally blank.

7. PLAN MONITORING AND FUNDING

The OR 42 EMP relies on monitoring of traffic volumes, congestion, and crash history to identify when projects should be considered for implementation. When traffic conditions are within five (5) years of an identified 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 in the EMP include triggers that identify when a project or a strategy may be warranted. Although some priority has been assigned to the projects, periodic 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. **Periodic corridor monitoring** of traffic and crash data can be used to identify the need for capacity and safety improvements in the corridor. Table 10 summarizes the types of projects and data collection that should be monitored. Data collection should include:
 - *Intersection traffic volumes should be collected and analyzed every three (3) to five (5) years to identify the need for a traffic signal, left-turn lanes, right-turn lanes, and other capacity and safety improvements identified in the EMP.*
 - *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 should be part of the monitoring process. Proposed developments that could generate a sufficient number of trips to impact the study corridor intersections or other public intersections along OR 42 should be required to prepare a TIS. 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 42 EMP.*
 - *Improvements that are triggered by development should be incorporated into the conditions of approval for the proposal.*

Table 10. Monitoring for System Improvements

Project Type	Potential Locations	Monitoring
Traffic Signal	<ul style="list-style-type: none"> ▪ OR 42/Rolling Hills Road ▪ OR 42/Lookingglass Road/Pepsi Road 	<ul style="list-style-type: none"> ▪ Monitor intersection traffic volumes to determine if traffic signal warrants are met or will soon be met ▪ Monitor impacts of local system connectivity improvements
Other Capacity Improvements	<ul style="list-style-type: none"> ▪ OR 42/Carnes Road/Roberts Creek Road Intersection ▪ OR 42/OR 99/Grant Smith Road Intersection 	<ul style="list-style-type: none"> ▪ Monitor v/c ratios to determine if additional travel lanes are warranted ▪ Monitor intersection traffic volumes to determine if additional left-turn lanes are warranted ▪ Monitor crash patterns for increased frequency of crashes related to permitted left-turn movements
Right-Turn Deceleration Lanes	<ul style="list-style-type: none"> ▪ OR 42/Rolling Hills Road Intersection ▪ OR 42/Landers Avenue Intersection ▪ OR 42/Emils Way/Grange Road Intersection 	<ul style="list-style-type: none"> ▪ Monitor crash patterns for increased frequency of rear-end crashes related to right-turn movements ▪ Monitor intersection traffic volumes to determine if right-turn lane warrants are met or will soon be met
Access Management	<ul style="list-style-type: none"> ▪ OR 42/Rolling Hills Road ▪ OR 42 – East of Rolling Hills Road through Landers Avenue ▪ OR 42/Emils Way/Grange Road ▪ OR 42/Art Mill Lane Intersection ▪ OR 42/Winery Lane Intersection 	<ul style="list-style-type: none"> ▪ Monitor for continued pattern of turning and angle related collisions ▪ Monitor ODOT SPIS database to identify segments with a rating in the top 10 percent. ▪ Monitor for development
Local System Improvements	<ul style="list-style-type: none"> ▪ Lookingglass Road and Pepsi Road ▪ Rolling Hills Road Extension ▪ Melody Lane/Cameron Avenue/Chandler Drive/Stella Street ▪ Grange Road ▪ Winery Lane 	<ul style="list-style-type: none"> ▪ Monitor for persistent congestion and queuing on side streets ▪ Monitor appropriate coupling with access restrictions along OR 42
Bicycle/Pedestrian Improvements	<ul style="list-style-type: none"> ▪ OR 42 - Lookingglass Road to Winston Section Road ▪ OR 42/South Umpqua River Bridge/Winston Section Road 	<ul style="list-style-type: none"> ▪ Current deficiency ▪ Monitor for continued use of expressway shoulder for bicycle and pedestrian travel

7.2 Potential Funding Sources

None of the projects listed in Section 4. Expressway Management Plan Improvements currently have identified funding sources. Funding is anticipated to come from a variety of public and private sources as projects develop over time.

Note: Local governments and/or private developers cannot rely upon the highway improvement projects included in the OR 42 EMP to mitigate significant effects unless the specific project has been programmed in the STIP or a local Capital Improvement Program (CIP), or funded privately through a Cooperative Improvement Agreement (CIA) with ODOT.

7.2.1 STIP Funding

Beginning in 2012, funding in the STIP will be divided into two categories:

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

According to a summary of the new program,¹⁴ the **Enhance** portion of the program is expected to receive less than one-quarter of the STIP funding while the **Fix-It** portion would receive the more than three-quarters of the STIP funding. This allocation reflects an emphasis on preserving the existing system. Another aspect of the program revisions is the need to address a wide range of issues and fund multimodal solutions that best address system problems.

Projects that may be eligible for the **Enhance** category of funds include:

- Bicycle and/or pedestrian facilities on or off the highway right of way
- Development STIP projects (projects not ready for construction with 4-year cycle)
- Modernization projects that add capacity to the system (per ORS 366.507)
- Most projects previously eligible for Transportation Enhancement (TE) funds
- Projects previously eligible for Flex Funds (Bicycle and Pedestrian, Transit, and TDM projects, plans, programs, and services)
- Protective right-of-way purchases
- Public transportation (capital projects only, not operations)
- Safe Routes to School (infrastructure projects)
- Scenic Byways (construction projects)
- Transportation Alternatives (the federal transportation authorization, MAP-21)
- Transportation Demand Management

Project activities eligible for the **Fix-It** category of funds include:

- Bicycle and pedestrian facilities on state routes only
- Bridges (state owned)
- Culverts
- High risk rural roads
- Illumination, signs and signals
- Landslides and rockfalls
- Operations (includes ITS)
- Pavement preservation
- Rail-highway crossings
- Safety
- Salmon (fish passage)

¹⁴ Introduction to *Enhance* and *Fix-It* for the 2015-2018 STIP, ODOT website:
http://www.oregon.gov/ODOT/TD/TP/pages/stip_guide.aspx

- Site mitigation and repair
- Stormwater retrofit
- Transportation Demand Management (part of operations)
- Work zone safety (project specific)

Note: Table 7 (Summary of Expressway Management Plan Improvements) identifies the potential funding STIP category that may apply to each project based on this breakdown of eligibility.

7.2.2 Other Funding

Other funding may come from public or private sources. Public funding opportunities could include local government Capital Improvement Programs and possible partnerships with local agencies to combine resources for related projects. Private development could be another source for funding through required mitigation or a developer contribution to a larger improvement activity.

Note: None of the OR 42 EMP 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.

