Land Use Findings of Consistency with State and Local Plans

The State Agency Coordination Agreement (OAR 731-015-0075) requires ODOT to analyze the Preferred Alternative in relation to its compliance and consistency with statewide goals and policies, and adopt findings of consistency with the acknowledged comprehensive plans of affected cities and counties. Findings of consistency were prepared for this H.B. Van Duzer Forest Corridor—Steel Bridge Road Project REA. These findings of consistency have been reviewed by Polk County, which has indicated its agreement with the findings.

These findings of consistency provide factual information supporting the consistency of the project with the Oregon Highway Plan (1999), the Oregon Transportation Plan (1992), and the Transportation Planning Rule (1991, updated 1999), as implemented by the Polk County Transportation Systems Plan (1998), Polk County Comprehensive Plan, and Polk County Planning Ordinance. In the few cases where the Preferred Alternative does not comply with specific policies, the general process that ODOT will follow to request a deviation is described in this section. This section also describes how the Preferred Alternative aligns with state and local plans that have no regulatory role with the project, such as the H.B. Van Duzer Forest Corridor—Steel Bridge Road Refinement Plan (May 2004).

ODOT coordinated with Polk County, the steering committee, and others throughout the planning and NEPA phases of the EA and this REA to ensure that the project is consistent with local plans.

Regulatory Plans and Policies

Oregon Highway Plan

The 1999 Oregon Highway Plan (OHP) is a modal element of the 1992 Oregon Transportation Plan (OTP) that defines the long-term policies and investment strategies for Oregon's state highway system. The OHP emphasizes efficient management of the highway network, increased partnerships with regional and local governments, access management, modal balance, and a linked land use and transportation planning process that reduces effects on environmental and scenic resources.

The following subsections discuss policies from the OHP which are relevant to the Preferred Alternative.

Goal 1: System Definition

Policy 1A: State Highway Classification System

Policy 1A provides a classification system for Oregon highways, including the type of highway and the mobility objectives associated with each classification. The classifications provided in Policy 1A are used throughout the OHP.

Action 1A1 classifies all highways in Oregon for planning, management, and investment decisions. ORE 18 is categorized as a Statewide Highway. The OHP lists the primary purpose of Statewide Highways as providing interurban and interregional mobility and connections to larger urban areas, ports, and major recreation areas not directly served by Interstate Highways. The secondary purpose of Statewide Highways is to provide connections for intraurban and intraregional trips.

The management objective for Statewide Highways is to provide safe and efficient, high-speed, continuous-flow operation along the corridor, with minimal interruptions to flow in constrained or urban areas.

Findings: ORE 18 is a Statewide Highway, a Designated Freight Route, an Expressway, and a Safety Corridor. Heavy freight and farm operation vehicles have been and remain prominent highway users. In addition, ORE 18 is a principal route between the Willamette Valley and the Oregon Coast, and higher-speed recreation travelers compete with slower-moving freight and farm operation vehicles.

The Spirit Mountain Casino, located along ORE 18 between ORE 22 and Grand Ronde Road, opened in 1995 and attracts trips from around and beyond the region. The casino has dramatically increased both the amount of traffic and the variety of vehicle classifications using the corridor within the project area. The casino has also marked a resurgence of commercial services to the area.

Many private driveways and local roads with direct access onto ORE 18 are located through the project section. This large number of direct, uncontrolled accesses is not consistent with the objective for Statewide Freight Route Highways and Expressways to provide safe, high-speed, continuous flow operation. The purpose of the set of projects composing the Preferred Alternative is to improve the highway so that traffic can move safely, efficiently, at high speed, and with continuous flow. The proposed set of improvements will make this section of highway more consistent with the characteristics and objectives of a Statewide Freight Route Highway and Expressway than the existing facility. The proposed improvements include expanding the capacity of the existing corridor to a four-lane highway, providing a non-traversable median with periodic breaks for approach roads, introducing three grade-separated interchanges (at Fort Hill Road, Valley Junction, and Grand Ronde Road), and consolidating the approach roads. Each of these project elements will help to provide a safer facility and achieve the objective of an efficient, high-speed continuous flow operation.

Action 1A2 defines and classifies Expressways as a subset of Statewide, Regional, and District Highways. The function of expressways is to provide safe and efficient high-speed and high-volume traffic movements with minimal interruptions, for interurban travel and connections to ports and major recreation areas. Action 1A2 characterizes expressways as roads where private access is discouraged, connections to public roads are highly controlled, traffic signals (rural areas only) are discouraged, and non-traversable medians are encouraged.

Findings: The definition of Expressways includes objectives similar to the definitions of Action 1A1 above. As stated previously, the existing highway does not meet those objectives for the reasons discussed above.

As stated on page 9 of the EA, the purpose of the Preferred Alternative is to bring this section of ORE 18 up to the standards of the 1999 OHP, by improving the highway so that traffic can move safely, efficiently, at high speed, and with continuous flow. The elements of the Preferred Alternative (approach road consolidation, grade-separated interchanges, non-traversable medians with periodic breaks for approach roads) would achieve the objective of Action 1A2.

Policy 1F: Highway Mobility Standards

Policy 1F defines highway mobility standards by volume to capacity (V/C) ratios. V/C is a measure of roadway congestion calculated by dividing the number of vehicles passing through a section of highway during the peak hour by the capacity of the section.

Action 1F1 designates highway mobility standards based on maximum V/C ratios by roadway classification. The OHP's maximum allowable V/C ratio for this roadway classification is 0.70.

Findings: ORE 18 is a Statewide Highway and designated freight route outside an Urban Growth Boundary. The corridor experiences heavy seasonal traffic during the summer months both within and outside of the project area. Drivers travel this route from Portland and the Willamette Valley to the coast for recreational purposes. Summer weekend traffic flows are especially high. Westbound traffic often operates at capacity for an hour or two on Saturdays, but the delay is minimal. Eastbound traffic often operates at capacity for longer periods of time Sundays during the summer months, resulting in considerable traveler delays. The high through traffic volume often prevents local drivers from turning left onto the highway.

V/C ratios calculated in 1998 at key intersections and segments along ORE 18 in the project area showed that several segments and key intersections along the corridor were operating at V/C ratios that are worse than the OHP standard. The four segments included ORE 18 east of Grand Ronde Road; ORE 18 west of ORE 22 at Valley Junction; ORE 18 east of ORE 22 at Valley Junction; and ORE 18 east of Fort Hill Road. The congestion results in slow speeds, a potentially unsafe speed differential, long queues, extended peak periods, and few acceptable gaps for vehicles making left turns onto the highway.

The three intersections operating at a V/C worse than 0.70 were ORE 18 and Grand Ronde Road (southbound to eastbound movement); ORE 18 and ORE 22 at Valley Junction (southbound to eastbound movement); and ORE 18 and Fort Hill Road (southbound to eastbound movement).

Forecasted future traffic analysis for the No Build Scenario for the year 2008 showed through traffic at all key locations on ORE 18 in the study area exceeding 1.0 (volumes greater than capacity), and V/C ratios for key intersections deteriorating to a maximum V/C of 10.62 at ORE 18/Grand Ronde Road (north to east movement).

The proposed improvements included in the Preferred Alternative provide a maximum V/C ratio of 0.65 in 2018, which is better than the OHP standard of 0.70. The project therefore would provide mobility that is consistent with the management objectives of OHP Policy 1F.

Policy 1G: Major Improvements

Policy 1G directs ODOT and local jurisdictions to protect and improve the efficiency of the highway system before adding new highway facilities.

Action 1G1 lists the four ordered priorities for developing highway improvements. These are:

1. Protect the existing system
2. Improve efficiency and capacity of existing highway facilities
3. Add capacity to the existing system
4. Add new facilities to the system

Findings: The Preferred Alternative for the Van Duzer Corridor does not add new facilities to the system but rather proposes a mixture of major and minor improvements, that fall under Priority 1, Priority 2, or Priority 3.

Priority 1: Protect the Existing System. Improvements considered to be part of Priority 1 include access management, traffic operations improvements, Transportation Demand Management (TDM), and alternative modes of transportation. A 'limited build' alternative was considered as part of the Refinement Plan. The limited build alternative considered small, low-cost improvements such as driveway consolidation, installation of traffic signals and lighting at major intersections, adding right-turn lanes at the north and south approaches from Grand Ronde Road, widening shoulders between the Spirit Mountain Casino and Grand Ronde Road, adding bicycle and pedestrian improvements, and improving local roads off ORE 18. Analysis conducted on these improvements showed them to be inadequate by themselves at meeting the safety and mobility needs of the corridor. In addition, signals were shown to increase crash potential due to the high speeds posted along the corridor.

One element of Priority 1 – TDM – is already practiced by the Spirit Mountain Casino and Resort, the largest employer in the project area. The Casino currently employs shuttle services from the Salem, Portland and Vancouver areas seven days a week. Casino employee shift changes are staggered to prevent a sudden infusion of vehicles onto ORE 18. A paved park-and-ride lot is located at the Wallace Bridge interchange. Area residents commuting to work use the lot, accessible from the Willamina-Sheridan Highway.

The 'limited build' alternative was found to be inadequate in addressing traffic problems in the corridor and in making this section of highway consistent with pertinent elements of the OHP. TDM measures in place along the corridor do not by themselves substantially reduce traffic volumes on the facility. Therefore, by itself, protection of the existing system would not adequately address safety and mobility problems within this section of ORE 18.

Priority 2: Improve efficiency and capacity of existing highway facilities. Improvements considered to fall under Priority 2 include widening highway shoulders or adding auxiliary lanes, extending or connecting local streets, and making other off-system improvements. Minor improvements such as shoulder widening were considered in the 'limited build' alternative but rejected as the only highway improvements by the Corridor Refinement Plan Steering Committee.

As discussed under Policy 1F, several segments and key intersections along the ORE 18 corridor currently operate at V/C ratios worse than those established by the OHP for a Statewide Highway and Rural Expressway. The TDM/TSM methods of Priorities 1 and 2 alone do not eliminate the need for making major improvements that add capacity to the system. Elements of Priority 2, specifically shoulder widening for bicycle and pedestrian traffic, have been added to the Preferred Alternative, but do not fully resolve the transportation problems in the corridor.

Priority 3: Add Capacity to the Existing System. The major improvements of two general purpose lanes and three grade-separated interchanges, along with widened shoulders and approach road consolidation along the project corridor is needed to resolve current operational and safety deficiencies. The Preferred Alternative would reduce V/C ratios to within the accepted OHP threshold, and provide adequate safety improvements.

The Preferred Alternative includes Priority One and Priority Two elements. Private approach road consolidation and elimination is a large part of the Preferred Alternative, as well as construction of local access roads to serve local traffic and provide fewer access points to ORE 18.

Goal 2: System Management

Policy 2D: Public Involvement

The objective of Policy 2D is to ensure effective public participation from residents, business owners, regional, state, and local governments, and tribal governments. The policy requires that transportation projects create opportunities for citizens, business owners, state and local governments, and tribal governments to comment on proposed projects.

Findings: The public involvement process for the H.B. Van Duzer Forest Corridor – Steel Bridge Road EA included three public open houses prior to the release of the EA, three focus group meetings with local area residents, and a public hearing to discuss the EA. The three open houses were held during different phases of project development.

The draft Refinement Plan was produced in July 2000. Information produced for the Refinement Plan was used in the EA. Public involvement for the Refinement Plan included the formation of a Steering Committee and a Technical Advisory Committee. Steering Committee meetings were open to the public and often attended by members of the community. A total of 15 Steering Committee meetings were held. At the same time the Regional Problem Solving Committee, a group of citizens with technical support, considered land use changes in response to the establishment of the Spirit Mountain Casino and Resort. The Regional Problem Solving Committee received briefings on and provided input to the EA and the Refinement Plan.

Policy 2F: Traffic Safety

This policy directs agencies to improve safety for all users of the highway system through engineering, education, enforcement, and emergency medical solutions.

Findings: Within the section, a comparatively high number of crashes occur at the intersections of ORE 18/Fort Hill, ORE 18/Valley Junction and ORE 18/Grand Ronde. Until 1998, the ORE 18/Fort Hill Road intersection was included within the top 10 percent of the

State Priority Index System (SPIS), a listing of accident data.[2] The Grand Ronde intersection was listed in SPIS in 1992, 1993, and 1994. Crashes also occur along the highway between major intersections.

ODOT crash statistics show that between January 1, 1998 and December 31, 1999, 61 crashes were reported on ORE 18 in the study area. As a result of these crashes, 82 people were injured and 10 were killed. The crash history between January 1991 and January 2001 was reviewed following the EA public hearing. The project section had more crashes per mile than the section of ORE 18 to the west, or the section of ORE 18 east of the project, for the following crash types: total crashes, fatalities, rear-ends, turning movements, head-on collisions, sideswipes, and crashes involving trucks.

Widening the highway and constructing non-traversable medians would improve both through and local traffic flows. This is expected to reduce fatalities from head-on collisions. The non-traversable median also would increase safety by reducing the number of turning conflict points along the highway. Widening the highway would provide passing opportunities for vehicles using the highway at different speeds.

The Preferred Alternative would control access along the highway with interchanges at Grand Ronde and Valley Junction, a realigned intersection at Fort Hill, and by consolidating private approach roads and constructing local access roads with limited connections to ORE 18. Limiting the number of approach roads to and from ORE 18 would improve safety by reducing the number of conflict points along the highway. Most local traffic could access ORE 18 at the proposed interchanges and at intersections using local access roads without having to travel long distances out-of-direction. Some local approach roads to ORE 18 would be right-in and right-out only.

Goal 3: Access Management

Policy 3A: Classification and Spacing Standards

Policy 3A requires the management of intersections and approach roads to state highways to ensure safe and efficient operation consistent with highway classification. Specifically, state highways are required to maintain spacing standards of 2 miles between interchanges, 1 mile between auxiliary lanes leading to interchanges, and ¼-mile between interchange ramps and local roads.

Findings: ORE 18 is classified as a Statewide Highway and a Rural Expressway outside an Urban Growth Boundary. Improvements to Rural Expressways require that private access be discouraged, public road connections be highly controlled, traffic signals be discouraged, non-traversable medians be constructed, and parking be prohibited.

The existing facility does not meet the objectives set out in Policy 3A. There are many private approach roads directly onto ORE 18 in the study area.

The Preferred Alternative would consolidate, modify, or eliminate approximately 100 approach roads to ORE 18 (farm fields, residences, and businesses). Some parcels would be served by local access roads while others would be modified to allow right-in and right-out movement only.

[2] SPIS used a new formulation after 1998, so the comparison to earlier listings is not exact.

Local access roads would be constructed to provide controlled access from residences, businesses, and farm properties to ORE 18. Service roads would be constructed between A.R. Ford Road and Fire Hall Road south of ORE 18; an extension of Andy Riggs Road to Fire Hall Road south of ORE 18; an extension of Jahn Road toward Valley Junction; at Rowell Creek Road south and north of ORE 18; and from Fort Hill Road to the east with an overpass connecting to the South Yamhill River Road and the Willamina interchange.

The distance between the proposed Grand Ronde Road interchange and the Casino/ORE 22/Valley Junction interchange would not meet the *1999 Oregon Highway Plan* standards for spacing between interchanges. ODOT would apply for a deviation from this standard.

The proposed project would therefore make ORE 18 more consistent with Policy 3A spacing standards by consolidating more than 100 accesses by building local access roads, and modifying several remaining accesses to right-in, right-out movement only.

Policy 3B: Medians

This policy calls for the State of Oregon to plan for and manage the placement of medians and location of median openings on state highways to enhance the efficiency and safety of highways and to influence and support land use development plans that are consistent with approved Transportation System Plans. Action 3B2 calls for design and construction of non-traversable medians for modernization of all rural, multi-lane Expressways. Action 3B4 directs agencies to provide full and directional median openings only where they conform with ODOT spacing standards. According to ODOT Spacing Standards for Statewide Highways, such access needs to be spaced one mile apart.

ORE 18 is a rural, multi-lane Expressway. The Preferred Alternative includes widening the highway to four lanes with a non-traversable median along the entire length of the corridor within the project area. Full openings in the non-traversable median are planned at the following locations: A.R. Ford, Fire Hall, Jahn, and Rowell Creek Roads. The proposed median openings at A.R. Ford Road and Fire Hall Road would not meet the 1-mile spacing standards and will require a deviation. The spacing between the other three locations would be greater than one mile.

Continuing the existing condition of median control and direct property access on ORE 18 when modernizing the highway is not consistent with Policy 3B. The current conditions include no medians and many direct property approach roads. The Preferred Alternative would make ORE 18 more consistent with Policy 3B by providing consolidated accesses, non-traversable medians, and meeting spacing standards with two locations requiring deviations.

Policy 3C: Interchange Access Management Areas

Policy 3C calls for planning and managing grade-separated interchange areas to ensure safe and efficient operation between connecting roadways. Action 3C1 requires agencies to develop Interchange Area Management Plans to protect the function of interchanges over the long-term. The intention of an Interchange Area Management Plan is to minimize the need for major interchange improvements in the future.

Findings: Interchange Area Management Plans will be developed for each of the three interchanges when these projects begin the Preliminary Design stage. It is the intention that these Interchange Area Management Plans would ensure compliance with Policy 3C.

Oregon Transportation Plan

The Oregon Transportation Plan (OTP) provides the long-range policies to guide the development of a safe, convenient, and efficient statewide transportation system that promotes economic prosperity and livability for all Oregonians. Goals and policies deal with an array of subjects including modal balance, accessibility, environmental responsibility, connectivity, safety, livability, land use, and economic development. Some specific actions that apply to the Preferred Alternative are as follows.

Goal 1: Characteristics of the System

Policy 1G: Safety

Action 1G.4 calls for resources to be targeted to dangerous routes and locations in cooperation with local and state agencies. within the section, a comparatively high number of crashes occur along the ORE 18 corridor within the study area, and at the intersections of ORE 18/Fort Hill, ORE 18/Valley Junction, and ORE 18/Grand Ronde. This section of ORE 18 had more crashes per mile than the section of ORE 18 to the west, or the section of ORE 18 east of the project, for the following crash types: total crashes, fatalities, rear-ends, turning movements, head-ons, sideswipes, and crashes involving trucks.

Widening the highway and constructing non-traversable medians would improve both through and local traffic flows. This is expected to reduce fatalities from head-on collisions. The non-traversable median also would increase safety by reducing the number of turning conflict points along the highway. Widening the highway would provide passing opportunities for vehicles using the highway at different speeds.

The individual construction phases that constitute the Preferred Alternative were developed as part of the H.B. Van Duzer Forest Corridor to Steel Bridge Road Corridor Refinement Plan. This is a collaborative effort among ODOT, Polk County, Yamhill County, the Confederated Tribes of Grand Ronde, the Department of Land Conservation and Development, the Mid-Willamette Valley Council of Government, and community leaders.

Goal 4: Implementation

Policy 4G: Management Practices

Action 4G.1 states that priority should be given to preserving, maintaining, and improving transportation infrastructure and services that are of statewide significance. The Preferred Alternative recommends enhancements to ORE 18 that would improve the safety and mobility of the existing highway, while minimizing impacts on the surrounding human and natural environment.

Action 4G.2 stipulates that access control should be a part of transportation system projects to achieve reasonable levels of service. Access control is a significant element of the Preferred Alternative, through consolidating or modifying approach roads and driveways, and constructing local service roads with limited connections to ORE 18. For these reasons, the projects contained in the Preferred Alternative would be consistent with the goals and policies of the OTP.

Transportation Planning Rule

The Oregon Transportation Planning Rule (TPR), OAR 660-012, implements Statewide Planning Goal 12, Transportation. Two provisions of the TPR relate directly to this project. The first provision, OAR 660-012-0015 calls for the state to develop a TSP for Oregon adequate to meet state needs. This provision also requires each county within the state to prepare and amend a regional Transportation System Plan (TSP) that meets identified regional transportation needs and is consistent with adopted elements of the state TSP. The Polk County TSP calls for the county to support ODOT's corridor refinement planning along ORE 18.

The second provision, OAR 660-012-065, identifies transportation uses that can be authorized on rural lands. Transportation uses allowed or conditionally allowed by Oregon law, as well as the transportation uses provided for in Forest Lands through OAR 660-06. This administrative rule also provides for other transportation uses, including adding travel lanes, improvements to highway related facilities, road realignments, replacing intersections with interchanges, and new access roads to reduce local access to a state highway. No statewide planning goal exception is required for these uses.

The improvements in the Preferred Alternative fall under the provisions of Polk County Zoning Code Section 119.150(G) which implements OAR660-012-065 and ORS 215.296. Compliance with these provisions are addressed for each improvement in the following sections.

Findings: Where the Preferred Alternative requires the acquisition of right-of-way in lands zoned as Exclusive Farm Use (EFU, Polk County Zoning Ordinance Section 136.050(R)); Timber Conservation (TC, Polk County Zoning Ordinance Section 177.040(V)); and Farm/Forest and Farm/Forest Overlay (FF and FFO, Polk County Zoning Ordinance Section 138.060), the transportation improvements called for by the project require conditional use permit review and approval. These zoning districts include uses permitted conditionally as provided for in OAR 660-012-065(3), including replacement of an intersection with an interchange, new local access roads, and other transportation facilities and improvements to serve local travel needs. For these uses, the county has to determine that the requirements of Oregon Law ORS 215.296 have been met. The County also must:

- Identify reasonable build design alternatives, such as alternatives that are safe and can be constructed at a reasonable cost, not considering raw land cost, with available technology;
- Assess the effects of the identified alternatives on farm and forest practices, considering impacts to farm and forest lands, structures and facilities, considering the effects on traffic on the movement of farm and forest vehicles and equipment, and considering the effects of access to parcels created on farm and forest lands; and
- Select from the identified alternatives the one, or combination of identified alternatives that has the least impact on lands in the immediate vicinity devoted to farm or forest use.

Project compliance will be determined using the conditional use permit process on a construction unit basis. Projects will be in compliance with these criteria once conditional

use permits are obtained by Polk County. Polk County's land use regulations also call for minimizing accessibility to rural lands from the proposed transportation uses, and to support continued rural use of the surrounding lands (Section 119.150(G)). The conditional use permit process is the process most likely to be used for the project components funded in the 2004-2007 State Transportation Improvement Program. These are replacing the Fort Hill/South Yamhill River Road intersection with an interchange; constructing an additional passing or travel lane east of Fort Hill, and constructing a local access road on the north side of ORE 18.

Those portions of the Preferred Alternative requiring a conditional use permit are described below. ODOT will prepare the findings for the required conditional use permits once more design detail on each of these projects is complete.

ORS 215.283 (2)(p), OAR 660-06-025 (4)(u), and the Polk County Zoning Ordinance:
In the EFU, FF, and TC zones, construction of additional passing lanes and climbing lanes, requiring the acquisition of new right-of-way, but not resulting in the creation of new land parcels requires a conditional use permit

Findings: The Preferred Alternative includes widening the approximately 9.4 mile segment of ORE 18 from a largely two-lane facility to four lanes with a non-traversable median. The highway widening element of the Preferred Alternative is expected to require approximately 35 acres of land, including roughly 4.9 acres of Farm Forest and 12.5 acres of Exclusive Farm Use.

ORS 215.283 (2)(q), OAR 660-06-025 (4)(u), and the Polk County Zoning Ordinance
In the EFU, FF, and TC zones, improvement of public road and highway related facilities such as maintenance yards, weigh stations, and rest areas, where additional property or right-of-way is required, but not resulting in the creation of new land parcels requires a conditional use permit

Findings: The ODOT weigh station east of Fort Hill Road would be relocated. It is anticipated that the relocation of the weigh station would impact roughly 0.5 acres of Exclusive Farm Use land.

There are no reasonably foreseeable induced land use changes resulting from highway widening and relocation of the weigh station. Properties adjoining this section of the project are agricultural or farm-forest and would remain so for the foreseeable future since direct highway access would be removed by the project.

ORS 215.283(3) and OAR 660-12-065(3)(e) and (5)
In the EFU, FF, and TC zones, replacement of an intersection with an interchange requires a conditional use permit

Findings: The three interchanges contained in the Preferred Alternative require the acquisition of roughly 18 acres of land. The construction of the Valley Junction interchange impacts roughly 4.3 acres of Exclusive Farm Use. The Fort Hill Road interchange impacts approximately 3.1 acres of Farm Forest land.

Valley Junction Interchange
The proposed interchange at Valley Junction and associated ORE 22 realignment would replace the current intersection of ORE 18 and ORE 22. The replacement of an intersection with an interchange and realignment of an existing road are allowed on rural lands subject

to compliance with standards in OAR 660-012-065(5) and ORS 215.296. The paragraphs below address the requirements implemented by Polk County and how they are broadly addressed by the Preferred Alternative.

Section 119.150(G)(1)—Consider Reasonable Build Alternatives. Several alternatives were considered, including by-pass proposals, the addition of traffic signals to the existing intersection, and several interchange design options. These alternatives and design options that were considered but not advanced are described in the EA, page 55. The by-pass alternatives were not found to be reasonable because they could not be built in phases and the feasibility of procuring funding to build the entire project at one time is low. Signalizing the existing intersection was not reasonable because it would not meet the standards in the *1999 Oregon Highway Plan* for a rural highway of statewide importance, and would not adequately address existing safety concerns. Of the interchange options, non besides the Preferred Alternative were considered reasonable due either to their inability to meet design standards or due to substantially higher cost.

Section 119.150(G)(2)—Assess Effects on Farm and Forest Practices. Approximately 4.3 acres of land zoned for exclusive farm use would be used as road right-of-way in this section of the Preferred Alternative. Two properties would be divided creating four farm fields. No farm structures would be displaced other than fencing. The new interchange will provide a means for farm and forest vehicles and equipment to cross ORE 18 without conflicts with through traffic. It will also provide a better connection between ORE 22 and ORE 18 that will improve access for farm and forest vehicles to and from processing facilities. ODOT management standards prohibit property approach roads within ¼ mile of the interchange ramp ends. Therefore, access to these properties will not be permissible from the realigned segment of ORE 22. Access to these properties through other routes will be identified when the interchange is further developed for construction.

Section 119.150(G)(3)—Select Alternative with Least Impacts on Farm and Forest Lands. The Preferred Alternative was found to be the only alternative to adequately address identified safety concerns. Impacts to environmental resources were part of the evaluation criteria for selection of alternatives. As this construction phase moves into the design stage, opportunities will be identified to minimize impacts on farm and forest lands.

Section 136.060—Standards for Approval of Certain Uses in Exclusive Farm Use Zones. (1)(a)—The use will not force a significant change in accepted farm or forest practices on surrounding lands: Changes in farming practices on the surrounding lands will be limited to changes in the patterns used by farm equipment to work farm fields. The proposed use will have no affect on forest practices.

(1)(b)—The use will not significantly increase the cost of accepted farm or forest practices on surrounding lands: The need to move farm equipment between farm fields may result in a small increase in costs. Those costs may be offset by the improved access to ORE 18 that will result from construction of the interchange.

Fort Hill Road/South Yamhill River Road Interchange

The proposed interchange connecting to Fort Hill Road and South Yamhill River Road would replace the current intersection of ORE 18/Fort Hill Road/South Yamhill River Road.

Fort Hill Road would be realigned to the east and connect to ORE 18 at a new interchange east of the service station and restaurant. The existing ORE 18/Fort Hill Road intersection would be closed. Fort Hill Road would extend across ORE 18 at the interchange and intersect with South Yamhill River Road. A new local access road would be built north of the service station and restaurant. Realignment of a road is allowed on rural lands (Polk County Zoning Section 136.050(R)(3) subject to the provisions of Section 119.150(G). The new access road is needed to provide access to the restaurant, service station and lumber mill north of ORE 18, and to the residential and commercial/industrial uses south of the highway because all other highway accesses would be removed by the project. The replacement of an intersection with an interchange and realignment of an existing road are allowed on rural lands subject to compliance with standards in Section 065(5) and ORS 215.296. A new access road is permitted on rural lands when the purpose of the road is to reduce local access to or local traffic on a state highway (Section 136.050(R)(6), subject to the provisions of 119.050(G)). This provision applies because the intention of the proposed access road is to consolidate local access from residential properties and the highway.

The paragraphs below address the requirements implemented by Polk County and how they are broadly addressed by the Preferred Alternative.

Section 119.150(G)(1)—Consider Reasonable Build Alternatives. Alternatives considered for the relocation of Fort Hill Road included keeping the existing alignment and realigning Fort Hill Road west of the Fort Hill Lumber Company mill. Alternatives for the new access road included keeping the existing restaurant and service station highway access and not building the new road, shifting the road south onto commercially zoned land, and moving the road further north. These alternatives and design options that were considered but not advanced are described in the EA, page 55. Maintaining the two existing business highway approach roads do not meet access spacing standard for expressways in the *1999 Oregon Highway Plan*. Shifting the access road south onto commercial property would require moving its intersection with the realigned Fort Hill Road to close to the new intersection with ORE 18 to allow enough room for vehicles waiting to turn onto the highway. The Preferred Alternative runs along the southern edge of an agricultural field, leaving a small parcel in the southeast corner. Shifting the alignment to the north would have divided the agricultural parcel into three new farm fields. Maximizing remaining resource-zoned parcel size was considered a high priority. The Preferred Alternative was the only alternative that adequately addressed safety concerns and maximized remaining resource-zoned parcel size.

Section 119.150(G)(2)—Assess Effects on Farm and Forest Practices. The realignment of Fort Hill Road and the associated access road would use approximately 3.1 acres of land zoned Farm/Forest for road right-of-way. The realigned Fort Hill Road would run along the boundary of two agricultural fields that appear to be on the same parcel. The new access road would run along the southern boundary of an agricultural field. A portion of the parcel at the southwest corner of the intersection of the new local access road and the realigned Fort Hill Road would probably be too small for agricultural use. The new local access road or the realignment of Fort Hill Road would affect no structures or facilities. Fort Hill Road has relatively low traffic volumes and its relocation would not hinder the movement of farm vehicles or equipment. Access to the agricultural field east of the new alignment would be provided just south of the rail line. Access to the western field would be provided near the western end of the new local access road.

Section 119.150(G)(3)—Select Alternative with Least Impacts on Farm and Forest Lands. As stated above, the Preferred Alternative was the only alternative that adequately addressed safety concerns and maximized remaining resource-zoned parcel size. Impacts to environmental resources was part of the evaluation criteria for selection of alternatives. As this construction phase moves into the design stage, opportunities for minimizing impacts on farm and forest lands will be identified.

Section 136.060—Standards for Approval of Certain Uses in Exclusive Farm Use Zones. (1)(a)—The use will not force a significant change in accepted farm or forest practices on surrounding lands: Realigning Fort Hill Road and constructing the new local access road would create three farm fields. Two are currently being farmed separately. The project would require only minor changes in current agricultural practices. The third would be too small to be suitable for agricultural use.

(1) (B)—The use will not significantly increase the cost of accepted farm or forest practices on surrounding lands: The need to move farm equipment between farm fields may result in a small increase in costs.

ORS 215.283(3) and OAR 660-12-065(3)(g)

In the EFU, FF, and TC zones, new access roads and collectors where the function of the road is to reduce local access to or local traffic on a state highway requires a conditional use permit. These roads shall be limited to two travel lanes. Private access and intersections shall be limited to rural needs or to provide adequate emergency access

Findings: The Preferred Alternative recommends the construction of several new or extended access roads, including the extension of South Street, Andy Riggs Road, and Jahn Road, and new access roads east and west of Rowell Creek Road and east of Fort Hill Road. Two of the access roads—South Street extension and the service road east of Fort Hill Road—would impact resource lands. The extension of South Street west of A.R. Ford Road requires the acquisition of 5.8 acres of Farm Forest land. The new access road east of Fort Hill Road would require the acquisition of 19.9 acres of Farm Forest land and would divide several parcels, creating parcel remainders between the new access road and ORE 18.

South Street Extension Local Access Road

South Street in Grand Ronde would be improved and extended west past A.R. Ford Road as a two-lane local access road. The South Street extension would reduce local trips on ORE 18 by providing an east-west alternative, and provide access to emergency vehicles. A portion of the new road would cross lands zoned for Farm/Forest use. A local access road is allowed on rural lands when the purpose of the road is to reduce access to or local traffic on a state highway.

Section 119.150(G)(1)—Consider Reasonable Build Alternatives. Local access road options were considered as part of the Section 4(f) evaluation included in the EA. The two build options include the North Street Option and the Abandoned Railroad Grade Option, located between South Street and ORE 18. The North Street Option was determined to be unreasonable because it would cross tribal lands and would possibly impact lands of traditional cultural significance to the Confederated Tribes of Grand Ronde. The Abandoned Railroad Grade option was not considered reasonable because the road would

intersect with Grand Ronde Road between the ORE 18 interchange ramps, and overcoming differences in road grade would be likely to impact historic resources.

Section 119.150(G)(2)—Assess Effects on Farm and Forest Practices. The South Street Extension would use about 5.8 acres of land zoned Farm/Forest as road right-of-way. The extension would not displace any structures or facilities. Access to property would be from the new access road. Farm vehicles would have to cross the new road to travel between farm fields. However, traffic on the new road would not be a substantial hindrance to movement.

Section 119.150(G)(3)—Select Alternative with Least Impacts on Farm and Forest Lands. The Preferred Alternative was the only alternative that adequately addressed safety, congestion, and access management issues. Consideration has been given in minimizing direct impacts and in avoiding severance to parcels designated as farm and forest lands. As this construction phase moves into the design stage, opportunities for minimizing impacts on farm and forest lands will be identified.

Section 136.060—Standards for Approval of Certain Uses in Exclusive Farm Use Zones. (1)(a)—The use will not force a significant change in accepted farm or forest practices on surrounding lands: Changes in farming practices on the surrounding lands will be limited to changes in the patterns used by farm equipment to work the farm fields and travel between the farm fields.

(1)(b)—The use will not significantly increase the cost of accepted farm or forest practices on surrounding lands: The need to move farm equipment between farm fields may result in a small increase in costs.

Access Road Eastward from Fort Hill Road

A two-lane local access road would be constructed north of the highway from approximately the Fort Hill Road interchange eastward to provide access to properties north of the highway when the existing highway approach roads are removed. The local access road would eliminate several private railroad crossings, improving safety conditions for railroad operations. It would also provide access to emergency vehicles. A new access road is allowed on rural lands when the purpose of the road is to reduce local access to or local traffic on a state highway (Polk County Zoning Code Section 136.050(R)(6) subject to the provisions of Section 119.150(G). This provision applies because the intention of the proposed access road is to consolidate local access from residential properties and the highway.

Section 119.150(G)(1)—Consider Reasonable Build Alternatives. These alternatives and design options that were considered but not advanced are described in the EA, page 55. Properties affected by the local access road that are in farm use are farming the wetland areas near their southern property boundaries. Alternatives considered included locating the access road next to the railroad and farther up the hillside to the north. The proposed access road location was selected to avoid, to the extent practicable, the wetlands in the area to the south. Section 404 of the Clean Water Act requires avoidance of wetlands if possible. Shifting the alignment south into the wetlands would result in impacts to agricultural lands similar to those of the proposed alignment because these areas are being farmed. Shifting the alignment to the north would move it closer to several residences and, because the steeper slopes would necessitate more cut and fill work to create the road, would remove

more land from farm use. Neither of these alternatives was considered reasonable, though ODOT is exploring an option where the eastern end of the access road would be shifted to the railroad, which would reduce impacts to farm properties while avoiding or minimizing additional impacts to wetlands. Actual impacts are uncertain at this time. When dividing parcels, it is deemed desirable to maximize the size of the remaining parcel(s).

Section 119.150(G)(2)—Assess Effects on Farm and Forest Practices. Approximately 19.9 acres of land zoned Farm/Forest would be converted to right-of-way for the local access road. Some existing agricultural fields would be divided while other farm fields would be reduced along the farm field edge. No structures or facilities would be removed other than fencing and the existing highway approach roads. The local access road would have low traffic volumes that would have little, if any, effect on the movement of farm vehicles and equipment. Access to the farm properties would be provided from the new local access road.

Section 119.150(G)(3)—Select Alternative With Least Impacts on Farm and Forest Lands. The Preferred Alternative was the only alternative to adequately address safety, congestion, and access management issues. Impacts to environmental resources was part of the evaluation criteria for selection of alternatives. With regard to the local access road, eliminating private approach roads to ORE 18 requires development of a replacement road to provide property access. Because these properties have no other public road access, consolidating these approach roads into one road that connects these properties to the existing public road network is the only reasonable alternative. The road design, to the extent practicable, minimizes direct property impacts and avoids dividing farm fields on lands designated as farm and forest lands. As this construction phase moves into the design stage, opportunities for minimizing impacts on farm and forest lands will be identified.

Section 136.060—Standards for Approval of Certain Uses in Exclusive Farm Use Zones. (1)(a)—The use will not force a significant change in accepted farm or forest practices on surrounding lands: Changes in farming practices, if any, on the surrounding lands would be limited to changes in the patterns used by farm equipment to work the farm fields affected by the local access road. The proposed use will have no affect on forest practices.

(1)(b)—The use will not significantly increase the cost of accepted farm or forest practices on surrounding lands: The need to move farm equipment from a farm field on one side of the local access road to a farm field on the other side may result in a minor increase in costs, depending upon whether the landowner fences and gates access to the farm fields, and whether the farm equipment can cross any roadside ditch. If no farm field fencing and gating is installed, then farm equipment could move between farm fields wherever the roadside ditch slopes and depth would permit.

Polk County Comprehensive Plan

In 1973, the Oregon Legislature adopted Senate Bill 100 – the Oregon Land Use Act. Senate Bill 100 required that all state and local agencies that impact land use prepare comprehensive and coordinated land use plans which are reviewed by the public, adopted by locally elected governing bodies, and acknowledged by the newly-formed Land Conservation and Development Commission (LCDC). The first Polk County Comprehensive Plan was acknowledged by LCDC in 1978.

The Comprehensive Plan for Polk County guides decisions on future growth and development within the County, with the intention of providing coordinated development of the County. County-developed goals and policies align with relevant Statewide Planning Goals. Once adopted, the Comprehensive Plan becomes law. All related ordinances and regulations, and all planning-related decisions, must be in conformance with it under Oregon law. The Plan, however, allows for flexibility in decision making, as future circumstances are bound to change. As new information comes to light, objectives and priorities are altered, and goals and policies are modified, the Comprehensive Plan will change.

The comprehensive plan contains two policies that apply to this section of ORE 18. These are:

- **Transportation, Policy 2.2:** Discourage direct access from adjacent properties onto those highways designated as arterials whenever alternative access can be made available. The proposed projects of the Preferred Alternative implement this policy.
- **Forest Lands, Policy 1.9:** Discourage the construction of new roads within areas designated as forestlands, with the exception of secondary roads necessary for harvesting purposes. Construction of the new local access roads would require acquisition of land zoned farm/forest and farm/forest/overlay. This action is consistent with goals 3, 4, 11, and 14 according to OAR 660-012-0065(3) and can be authorized through Polk County's land use procedures.

The element of the Polk County Comprehensive Plan most relevant to the H.B. Van Duzer Forest Corridor – Steel Bridge Road Preferred Alternative is the transportation element and transportation systems plan (TSP). This is discussed above under the TPR. Through its development and implementation, the TSP provides consistency of the transportation system, which includes this section of ORE 18, with planned land uses and zoning within the Polk County Comprehensive Plan.

Polk County Transportation System Plan

The Polk County TSP addresses OAR Chapter 660-012, which implements Statewide Planning Goal 12. The above discussion under the Transportation Planning Rule provides a detailed summary of how the Preferred Alternative addresses 660-012. The TSP is a multimodal transportation plan to identify and recommend a series of transportation projects to address current and future transportation needs within the County. Specific elements that are relevant to the Preferred Alternative include:

- Existing shared shoulder bikeway on ORE 18, the full length of the refinement area, and beyond;
- Proposed future shared bicycle roadways on South Yamhill River Road and Grand Ronde Road;
- Desired reduction in the high number of accidents on ORE 18;
- Proposed realignment of Fort Hill and South Yamhill River Roads.

Other policies relating to this project area include:

- Participation in and support of state and regional transportation planning efforts;
- Recognition that the functions of ORE 18 and 22 are critically important to a wide range of statewide, regional and local users and that these highways serve as the primary route linking the mid-Willamette Valley to the Oregon Coast, with links to Lincoln City and Tillamook.

The Preferred Alternative supports these elements of the Polk County TSP. Although the Polk County TSP includes a project to realign Fort Hill and South Yamhill River Roads, it includes no guidance as to project design. Rather the plan identifies a general need and solution.

Polk County Planning Ordinance

Chapter 119 of Polk County Ordinances addresses Conditional Uses. The two projects currently funded for construction, the Salmon River Highway at Fort Hill Road, and the Fort Hill–Wallace Bridge section of the Salmon River Highway including weigh stations, will require conditional use permits. Because both projects would be constructed within a similar period, it is expected that both projects would be submitted within the same conditional use permit.

The Preferred Alternative is located within unincorporated portions of Polk County. The main land uses in the area include resource (farm and forest); industrial (mostly used for mills and wood products industries); commercial (gas stations, restaurants, other businesses or facilities); rural residential and tribal lands, including a Casino and related commercial uses, a governance center and a medical clinic. Most land use designations within the Polk County Zoning Ordinance (PCZO) permit transportation improvements outright. However, within the Exclusive Farm Use (EFU) and Farm Forest (FF) zones, a conditional use permit is required from the County for transportation improvements where acquisition of additional right-of-way is required, as is the case for both of these projects.

ODOT will prepare a conditional use permit for both of these projects. The conditional use permit process will address Chapter 119, Conditional Uses, as well as:

- Farm Forest Zone (Chapter 138)
- Floodplain Overlay Zone (Chapter 178)
- Significant Resource areas Overlay Zone (Chapter 182)

The conditional use permit process will also address consistency with specific elements of the Comprehensive Plan, including:

- Policy 1.3 Unincorporated Communities
- Policies 1.4 and 1.5 Agriculture
- Policy 2.2 Highways

All other Comprehensive Plan elements were reviewed and found to be not applicable to the findings for the conditional use permit.

The preceding discussion under the Transportation Planning Rule broadly describes how the Preferred Alternative addresses conditional use permit criteria. Not enough design detail has been conducted to complete land use findings for the conditional use permit at this stage. Findings for the conditional use permit will be completed once specific project phases of the Preferred Alternative move into the design stage.

State Agency Coordination Agreement

ODOT's State Agency Coordination Program (OAR 731-015) ensures that the procedures used in developing highway improvement projects and other ODOT actions affecting land use comply with Oregon's Statewide Planning Goals and are consistent with applicable acknowledged comprehensive plans, as required by ORS 197.180. This administrative rule provides coordination procedures to be used when developing Environmental Assessments (OAR-731-015-0075). During development and analysis of all the studied alternatives, ODOT involved affected cities, counties, state agencies, special districts, and other interested parties in the development of the plans for these projects. Elected and appointed officials of Willamina, Polk, and Yamhill Counties; the Department of Land Conservation and Development; and the Confederated Tribes of the Grand Ronde participated on steering and technical committees.

This assessment addresses consistency with the comprehensive plans of Polk and Yamhill Counties.

Findings of project compatibility with the applicable acknowledged comprehensive plans are adopted as part of this REA. All interested parties will be mailed a notice of decision. Before elements of the Preferred Alternative are constructed, ODOT will obtain any required land use approvals and planning permits

ODOT also will obtain any ministerial planning permits required from local governments.

Nonregulatory Plans and Policies

H.B. Van Duzer Forest Corridor to Steel Bridge Road Corridor Refinement Plan (June 2001, Amended and Edited through May 2004)

The H.B. Van Duzer Forest Corridor to Steel Bridge Road Corridor Refinement Plan (Refinement Plan) documents a process recently undertaken to evaluate the need for safety and mobility improvements along the corridor. The Refinement Plan culminated in a recommended set of improvements to be constructed over a 20-year planning horizon. The H.B. Van Duzer Forest Corridor – Steel Bridge Road EA and REA are based largely on the recommendations of the Refinement Plan.

Goals and actions listed in the Refinement Plan were originally developed for the *Portland to Lincoln City Corridor Interim Strategy*, adopted in 1997. Those actions which directly relate to the Preferred Alternative are discussed below. These goals and actions are advisory only.

Action J1: Improve operations at highway-to-highway junctions and major intersections. If necessary, provide grade-separated interchanges in response to operation and safety needs.

Findings: There are three major highway-to-highway or highway-to-major arterial intersections in the study corridor that showed traffic and safety deficiencies. The success of the Spirit Mountain Casino and Resort, located south of ORE 18 between Valley Junction and Grand Ronde Road, and the continued desire to travel to the Oregon Coast means that the study area is expected to see growth in development and traffic that would exacerbate current traffic and safety problems. The three major highway junctions are discussed generally below. The discussion earlier in this section under Policy 1F and 2F of the OHP provides more detail on the results of the traffic operations and safety analysis.

The discussion of safety deficiencies is provided in responses to Action L1.

ORE 18/Grand Ronde

Left turns from Grand Ronde Road onto ORE 18 exceeded capacity (V/C ratio = 2.81) in 1998. Without improvements, it is expected that drivers will continue to have unacceptable delays while accessing ORE 18 during peak travel times. By the 2008 design year, the V/C ratio under the No Build Scenario for this north to east movement is expected to increase to 10.62.

An overpass at Grand Ronde Road would allow local residents to travel by vehicle, bicycle or on foot through the community on Grand Ronde Road without having to directly intersect with ORE 18. The heavy traffic flow coming from the north side of ORE 18 in the community of Grand Ronde would turn right from Grand Ronde Road to a loop ramp connecting to eastbound ORE 18. The heavy traffic flow from the east on ORE 18 would turn right from the westbound on/off ramps to travel north on Grand Ronde Road.

ORE 18/ORE 22 Valley Junction

The 1998 traffic analysis identified the two-lane portion of ORE 18 immediately east and west of Valley Junction as operating at V/C ratios of 0.91 and 1.00, substantially worse than the standard set by the OHP for a Statewide Highway. The highest traffic flow volumes in the study area were observed in the eastbound direction between Valley Junction and Wallace Bridge. An automatic traffic recorder located 0.7 miles east of Valley Junction on ORE 18 found that traffic flows on ORE 18 increased 104 percent between the years 1983 and 1997, an average increase of 7.4 percent a year. At the ORE 18/ORE 22 Valley Junction intersection, the critical movement was observed to be north to east at a V/C ratio (1998 observed) of 2.98.

The proposed interchange would be located approximately halfway between the Spirit Mountain Casino interchange and the existing ORE 18/ORE 22 intersection at Valley Junction. ORE 22 would cross over ORE 18 and connect the Casino property to the interchange. The Casino's existing interchange approach roads to ORE 18 would be closed, but the underpass would remain open to access tribal property on the north side of ORE 18. The existing ORE 18/ORE 22 intersection at Valley Junction would be closed. The proposed interchange would handle both Casino and ORE 22 traffic flows adequately. Casino traffic would be able to access ORE 18 safely and efficiently. Constructing this new interchange would slightly improve the interchange spacing between the ORE 18/Grand Ronde Road Interchange and the ORE 18/Spirit Mountain Casino Interchange. It would slightly worsen

the spacing condition between the Casino Interchange and the interchange proposed at ORE 18/Fort Hill Road/South Yamhill River Road.

ORE 18/Fort Hill Road/South Yamhill River Road

Traffic analysis conducted in 1998 found that the segment of ORE 18 west of Fort Hill Road (eastbound and westbound movement) and east of Fort Hill Road (the eastbound movement) was operating at or near capacity. At the intersection of Fort Hill Road and ORE 18, V/C for the north to east movement (1998 observed) was greater than capacity (V/C = 1.45).

According to 1998 statistics, approximately 32 vehicles/hour traveling southbound on Fort Hill Road turned east on ORE 18 during the 30th highest hour. The V/C ratio for this movement is 1.45 because sufficient gaps in the ORE 18 traffic do not exist to allow the turning movements. These drivers experience unacceptable delays while waiting for acceptable gaps on ORE 18. In the year 2018 approximately 41 vehicles/hour or 540 vehicles/day would travel southbound on Fort Hill Road and turn east onto ORE 18.

Development at the Fort Hill Road intersection is expected to be commercial. Without any improvements to the intersection, V/C is expected to increase by 2008 to 4.50 for the critical movement (north to east), while the south to west movement is expected to see volumes greater than capacity as well (V/C = 1.24).

The proposed interchange at Fort Hill Road/South Yamhill River Road is expected to improve vehicle mobility for vehicles turning onto ORE 18, bringing the intersection into compliance with the OHP mobility standard.

Action J9: Evaluate ORE 18 between McMinnville and the Van Duzer Corridor State Park to determine needs for passing lanes, capacity improvements, intersection improvements, grade-separated interchanges at ORE 22 (Valley Junction) and access management applications.

Findings: The length of the Preferred Alternative spans from the Van Duzer Forest Corridor to the west to Steel Bridge Road to the east. The multi-year planning effort conducted by the Corridor Refinement Plan Steering Committee and Technical Advisory Committee, in conjunction with the public, analyzed traffic operations and accident data for the corridor. The results of these analyses are discussed under Policy 1F and 2F of the OHP.

The traffic flows on ORE 18 increased 104 percent between the years 1983 and 1997 and are projected to continue increasing. The traffic flows have increased approximately 44 percent in the last three years. The 20-year growth factor for the automatic traffic recorder is 1.50 percent. The year 2018 projected average daily traffic for the automatic traffic recorder site is 27,500 vehicles per day. In addition to an increase of through traffic, future development located within the project area will add to the volume of traffic on ORE 18.

Several alternatives were considered as part of the Refinement Plan. These included a no build alternative, a limited-build alternative, two bypass alternatives, a five-lane highway with a center turn lane, a four-lane divided highway with a closed median, and a four-lane divided highway with a variety of intersection improvement options. Access management and local access roads were considered as a separate element of all the build alternatives. Travel Demand Management (TDM) techniques are used by the Spirit Mountain Casino and

Resort, the largest employer in the project area. The Casino currently employs shuttle services from the Salem, Portland and Vancouver areas 7 days a week.

Analysis conducted on the alternatives to the Preferred Alternative showed them to be inadequate or inefficient at meeting the safety and mobility needs of the corridor. The Preferred Alternative widens ORE 18 to a four-lane divided highway with a non-traversable median and three grade-separated interchanges, along with widened shoulders and approach road consolidation.

Action K6: Develop ORE 18 as a fully access controlled facility between the Van Duzer Corridor and ORE 99W at McDougal Center.

Findings: The discussion earlier in this section under Goal 3 of the OHP provides more detail on approach roads along the existing facility and the access control elements of the Preferred Alternative. Below is a general synopsis of this previous discussion.

The Preferred Alternative includes widening the highway to four lanes with a non-traversable median along the entire length of the corridor within the project area. Full breaks in the non-traversable median are planned at the following locations: A.R. Ford, Fire Hall Road, Jahn Road, and Rowell Creek Road. The proposed medians at A.R. Ford Road and Fire Hall Road will not meet the 1-mile spacing standards and will require a deviation. The spacing between the other three locations is greater than 1 mile apiece.

The Preferred Alternative would consolidate or modify approximately 100 approach roads to ORE 18. Some parcels would be served by local access roads while others would be modified to allow right-in and right-out movement only. Service roads would be constructed between A.R. Ford Road and Fire Hall Road south of ORE 18; an extension of Andy Riggs Road to Fire Hall Road south of ORE 18; an extension of Jahn Road toward Valley Junction; at Rowell Creek Road south and north of ORE 18; and from Fort Hill Road to the east with an overpass connecting to the South Yamhill River Road and the Willamina interchange.

Action L1: Target safety improvements to sections of the corridor with the highest accident rates. Analyze the accident types at all SPIS accident index sites and develop solutions that reduce accident rates.

Findings: ODOT crash statistics show that between January 1, 1998 and December 31, 1999, 61 crashes were reported on ORE 18 in the study area. As a result of these crashes, 82 people were injured and 10 were killed. The crash history between January 1991 and January 2001 was reviewed following the EA public hearing. The project section had more crashes per mile than the section of ORE 18 to the west, or the section of ORE 18 east of the project, for the following categories: total crashes, fatalities, rear-ends, turning movements, head-on collisions, sideswipes, and crashes involving trucks.

Within the section, a comparatively high number of crashes occur at the intersections of ORE 18/Fort Hill, ORE 18/Valley Junction and ORE 18/Grand Ronde. Anecdotal information exists about near misses and the observations and experiences of local residents and through travelers lead to the perception that these intersections are congested and dangerous. Until 1998, the ORE 18/Fort Hill Road intersection was included within the top

10 percent of the State Priority Index System (SPIS), a listing of accident data.[3] The Grand Ronde intersection was listed in SPIS in 1992, 1993, and 1994. Crashes also occur along the highway between major intersections.

Widening the highway and constructing non-traversable medians would improve both through and local traffic flows. This is expected to reduce fatalities from head-on collisions. The non-traversable median would increase safety by reducing the number of conflict points along the highway. Widening the highway would provide passing opportunities for an ever-increasing number of vehicles using the highway at different speeds.

In addition, limiting the number of accesses to and from ORE 18 would improve safety by reducing the number of conflict points along the highway. Most local traffic could access ORE 18 at the proposed interchanges and at several intersections using local access roads without having to travel long distances out-of-direction. Some local approach roads to ORE 18 would be designed as right-in and right-out only.

Sketch Transportation Analysis, Grand Ronde Tribal Master Plan

The Sketch Transportation Analysis is an adjunct to the Tribal Master Plan. It calls for several transportation upgrades throughout the area. One of these is widening Grand Ronde Road to accommodate bike and pedestrian traffic. Other improvements to Grand Ronde Road and connecting roads are also included in the analysis. The Analysis notes that in previous years ODOT has identified a need for a four-lane segment from Grand Ronde to Fort Hill and a fourth lane from Fort Hill to Wallace Bridge. These needs were identified prior to consideration of a casino development.

The Preferred Alternative includes a grade-separated crossing of ORE 18 at Grand Ronde, which accommodates bicycle and pedestrian traffic, and a widening of ORE 18/ORE 22 between Grand Ronde and Wallace Bridge. As such, it addresses these concerns and so complies with the *Sketch Transportation Analysis*.

Rail and Highway Compatibility

ODOT is directed by statute (ORS 824.202) "to achieve uniform and coordinated regulation of railroad-highway crossings and to eliminate crossings at grade wherever possible [and] to control and regulate the construction, alteration, and protection of railroad-highway crossings." The first action item of the rail and highway compatibility policy is to eliminate crossings at grade wherever possible and to consider the needs of local pedestrian, bicycle, or vehicle circulation.

The Preferred Alternative contains two proposals that would necessitate crossing the railroad owned and operated by Hampton Lumber Company. The realignment of Fort Hill Road east of the Fort Hill Lumber Company mill would require an at-grade crossing where the tracks leave the mill. Construction of a grade-separated crossing at this location would have impacted a larger farming parcel than currently expected with the proposed at-grade crossing, thereby increasing impacts to farmland. In addition, a grade-separated crossing at this location was deemed to be cost prohibitive. The second at-grade crossing of the Hampton Lumber Company railroad tracks is along the Fort Hill service road. This new

[3] SPIS used a new formulation after 1998, so the comparison to earlier listings is not exact.

crossing consolidates several old crossings. A grade-separated crossing at this location was not deemed to be cost effective due to assumed high costs for access to only six properties.

ODOT or the authority building the road would apply for an order from the Rail Division to cross the railroad. See OAR 741-200-0010 to 741-200-0090 for the application process.

Oregon Bicycle and Pedestrian Plan

The Oregon Bicycle and Pedestrian Plan is a statewide plan that provides direction and guidance to bikeway and pedestrian programs in Oregon. Goals of the plan include:

- Provide safe, accessible and convenient bicycling and walking facilities;
- Support and encourage increased levels of bicycling and walking.

The Preferred Alternative projects all comply with the Oregon Bicycle and Pedestrian Plan.

Oregon Rail Freight Plan

The *Oregon Rail Freight Plan* describes the existing rail system in Oregon and analyzes possible rehabilitation improvements to the system. This plan is used to help qualify improvement projects for federal funding. Policies address economic development, retention of local rail service, protection of abandoned rights-of-way, and integration into state and local land use planning processes. Within this section of the corridor, there are no proposed upgrades to the rail system contained in the Preferred Alternative.

Willamette Valley Transportation Strategy

This document addresses the problems and opportunities of "transportation interdependence" among the Willamette Valley communities. The project area lies within the scope of the *Strategy*. Three goals were identified for the valley: mobility, industrial growth, and livability. None of the individual strategy elements is specific to the Van Duzer to Steel Bridge Road area. However, the overall intent of the Willamette Valley Strategies was considered as the project was developed.

Oregon Forest Practices Act

The *Oregon Forest Practices Act*, ORS 527.755 designates ORE 18 and 22 as scenic highways. The purpose of scenic highways is to maintain roadside trees for the enjoyment of the motoring public while traveling through forestland. The act also applies to project activities outside the 150-foot buffer along each side of the highways created by the scenic designation. ODOT will work with the Oregon Department of Forestry to assure compliance during development of individual projects.