

**1999
OREGON
HIGHWAY
PLAN**



**Policy
Element**



Policy Element

Goal 1: System Definition

To maintain and improve the safe and efficient movement of people and goods and contribute to the health of Oregon's local, regional, and statewide economies and livability of its communities.

Overview

The state highway classification system divides state highways into five categories based on function: Interstate, Statewide, Regional, District, and Local Interest Roads. Supplementing this base are four special purpose classifications: land use, statewide freight routes, scenic byways, and lifeline routes. These address the special expectations and demands placed on portions of the highway system by land uses, the movement of trucks, the Scenic Byway designation, and significance as a lifeline or emergency response route. Information contained in these special designations supplement the highway classification system and will be used to guide management, needs analysis, and investment decisions on the highway system.

The System Definition section also includes policies on highway mobility standards and major improvements, which further define state highway management goals and objectives.

STATE HIGHWAY CLASSIFICATION SYSTEM

Background

The 1991 Highway Plan's Level of Importance Policy classified the state highway system into four levels of importance (Interstate, Statewide, Regional and District) to provide direction for managing the system and a basis for developing funding strategies for improvements. Realizing that limited funding would not allow all the statewide highways to be upgraded, the 1991 Highway Plan also designated some of the statewide highways as the Access Oregon Highway system to focus

needed improvements. The goal of the Access Oregon Highway system was to provide an efficient and effective system of highways to link major economic and geographic centers.

Congress adopted the highway routes in the National Highway System (NHS) as part of the National Highway System Designation Act of 1995. In Oregon, the National Highway System highways include all the Interstate and Statewide Highways and Access Oregon Highways except for Oregon Highway 82. To reduce the redundancy between Level of Importance, Access Oregon Highways and the National Highway System and to define a highway classification system that is consistent with the National Highway System, this Highway Plan has adopted the National Highway System as the primary classification and retained the Regional and District categories from the Level of Importance system. Oregon Highway 82 in Wallowa and Union Counties will remain a Statewide Highway. This ensures that every county in Oregon has a link to the rest of the state through the Statewide Highway network.

Congress also designated major intermodal connectors as part of the National Highway System. These roads, some owned by the state and some by local jurisdictions, are located in Astoria, Boardman, Coos Bay-North Bend, Eugene, Medford and Portland. (These roads are listed in Appendix E.) They link airports, ports, rail terminals, and other passenger and freight facilities to Interstate and Statewide Highways, and are of particular importance to Oregon's economy. State-owned intermodal connectors are either Regional or District Highways and are managed according to their state highway classification.

The classification system also recognizes that certain roads which are currently state highways function primarily as local roads. In cooperation with local governments, ODOT will develop a process to identify these roads which may be transferred to local jurisdictions in accordance with Policy 2C of this plan. The process will also consider the transfer of local highways and roads that serve primarily state interests to state jurisdiction.

ODOT will use the state highway classification system to guide management and investment decisions regarding state highway facilities. The system will be used in the development of corridor plans, transportation system plans, major investment studies, review of local plan and zoning amendments, periodic review of local comprehensive plans, highway project selection, design and development, and facility management decisions including road approach permits.

The broad classifications defined in Action 1A.1 will be complemented by specific subcategories and designations defined in other policies within this plan (see Policies 1B, 1C, 1D, 1E, 1F, and 3A). These subcategories and designations are policy-specific; the overall state highway classification defined in Policy 1A forms the basis for the classification system. The classification map in this plan and Appendix D detail the application of the state highway classification system to specific highways.

The categories recognize that different highway types have importance for certain areas and users. The categories are not the same as the federal government's functional classification system. It is the responsibility of the Oregon Transportation Commission to establish and modify the classification systems and the routes in them.

Policy 1A: State Highway Classification System

It is the policy of the State of Oregon to develop and apply the state highway classification system to guide ODOT priorities for system investment and management.

Action 1A.1

Use the following categories of state highways, and the list in Appendix D, to guide planning, management, and investment decisions regarding state highway facilities:

- **Interstate Highways** (NHS) provide connections to major cities, regions of the state, and other states. A secondary function in urban areas is to provide connections for regional trips within the metropolitan area. The Interstate Highways are major freight routes and their objective is to provide mobility. The management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas.
- **Statewide Highways** (NHS) typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas (STAs), local access may also be a priority.
- **Regional Highways** typically provide connections and links to regional centers, Statewide or interstate Highways, or economic or activity centers of regional significance. The management objective is to provide safe and efficient, high-speed, continuous-flow operation in rural areas and moderate to high-speed operations in urban and urbanizing areas. A secondary function is to serve land uses in the vicinity of these highways. Inside STAs, local access is also a priority. Inside Urban Business Areas, mobility is balanced with local access.
- **District Highways** are facilities of county-wide significance and function largely as county and city arterials or collectors. They provide connections and links between small urbanized areas, rural centers and urban hubs, and

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also serve local access and traffic. The management objective is to provide for safe and efficient, moderate to high-speed continuous-flow operation in rural areas reflecting the surrounding environment and moderate to low-speed operation in urban and urbanizing areas for traffic flow and for pedestrian and bicycle movements. Inside STAs, local access is a priority. Inside Urban Business Areas, mobility is balanced with local access.

- **Local Interest Roads** function as local streets or arterials and serve little or no purpose for through traffic mobility. Some are frontage roads; some are not eligible for federal funding. Currently, these roads are District Highways or unclassified and will be identified through a process delineated according to Policy 2C. The management objective is to provide for safe and efficient, low to moderate speed traffic flow and for pedestrian and bicycle movements. Inside STAs, local access is a priority. ODOT will seek opportunities to transfer these roads to local jurisdictions.

Action 1A.2

By action of the Oregon Transportation Commission upon consultation with affected local governments, classify and/or develop Expressways as a subset of Statewide, Regional and District Highways.



Expressways provide for high speed and high volume traffic with minimal interruption on highways like the Salem Parkway.

a. Definition. Expressways are complete routes or segments of existing two-lane and multi-lane highways and planned multi-lane highways that provide for

safe and efficient high speed and high volume traffic movements. Their primary function is to provide for interurban travel and connections to ports and major recreation areas with minimal interruptions. A secondary function is to provide for long distance intra-urban travel in metropolitan areas. In urban areas, speeds are moderate to high. In rural areas, speeds are high. Usually there are no pedestrian facilities, and bikeways may be separated from the roadway.

In this classification, “expressway” refers to the kind and number of accesses allowed on a highway segment. It does not refer to the ownership of access rights. Other characteristics include the following:

- Private access is discouraged;
 - There is a long-range plan to eliminate, as possible, existing approach roads as opportunities occur or alternate access becomes available;
 - Access rights will be purchased and a local road network may be developed consistent with the function of the roadway;
- Public road connections are highly controlled;
- Traffic signals are discouraged in rural areas;
- Nontraversable medians are encouraged; and
- Parking is prohibited.

b. Classification. Initiation of the process to classify Expressways will occur as a result of a corridor planning process, ODOT special study or action of the Transportation Commission.

Because of the importance of maintaining system mobility, the Transportation Commission will classify new Expressways as a subset of National Highway System (Interstate and Statewide) highways in consultation with local governments.

The Transportation Commission will classify new Expressways as a subset of Regional and District Highways with the agreement of directly affected local governments.

Highways that are already limited access will be automatically classified as Expressways by the Transportation Commission. These are highways where ODOT owns the access rights and direct access is not allowed and where users enter or exit the roadway only at interchanges.

c. Criteria. Highways proposed to be Expressways will be classified on the basis of the following criteria:

- Importance as an NHS route with high volumes of traffic;
- Designation as a part of the State Highway Freight System;
- Designation as a safety corridor; or
- Function as an urban bypass.

The process of classifying segments as Expressways will first focus on highway segments where posted speeds are 50 miles per hour or greater.

Action 1A.3

Conduct a study of highway classifications statewide to determine whether highways function as they are classified. Conduct this study after the adoption of the Highway Plan as a special study of the classification system or as a part of corridor planning. Consider 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.

LAND USE AND TRANSPORTATION³

Background and Intent

The federal Intermodal Surface Transportation Efficiency Act of 1991 requires the establishment of a National Highway System “to provide an interconnected system of principal arterial routes which will serve “interstate and inter-regional travel.” ODOT has an obligation to ensure that the National Highway System (the routes designated Interstates and most Statewide Highways and intermodal connectors) adequately performs this function of serving a larger geographic area. Historically, however, communities have grown up along the early trails and roads that have become statewide travel routes. This means that in addition to providing mobility for people, goods and services between communities, regions and states, the state highway system often also provides access to homes, businesses, industry and other destinations within communities.

³ The Land Use and Transportation Background and Policy were replaced in August 2005, OHP Amendment 05-16.

The Land Use and Transportation Policy addresses the relationship between the highway and patterns of development both on and off the highway. It emphasizes development patterns that maintain state highways for regional and intercity mobility and supports compact development patterns that are less dependent on state highways than linear development for access and local circulation. The state highway classification system in Policy 1A is the framework used to address the relationship between mobility and accessibility. Interstates and Expressways are where mobility is emphasized. District and Regional Highways are where accessibility is more easily accommodated. Statewide highways are where accessibility and mobility are balanced.

Policy 1B recognizes that state highways serve as the main streets of many communities, and the policy strives to maintain a balance between serving those main streets and the through traveler. It emphasizes management of the transportation system for safety and efficient use of resources. The highway system's ability to address both mobility and accessibility depends in large part on community land use patterns and the ways that land uses are served by the transportation system. Development with numerous or poorly designed accesses along highways and incomplete street networks often focuses local traffic on state highways. Such patterns reduce the ability of state highways to move through traffic and provide connections between communities. Communities with compact urban design that incorporate well-designed access and transportation networks of arterials and collectors reduce traffic impacts on state highways and make communities safer for pedestrians.

Policy 1B applies to all state highways. It provides guidance to ODOT regarding system management planning and implementation activities. It is designed to clarify how ODOT will work with local governments and others to link land use and transportation in transportation plans, facility and corridor plans, plan amendments, access permitting and project development. The role of ODOT and local governments in designating highway segments is to work together so that planned community development patterns are individually tailored yet also meet statewide highway needs for safety and mobility. Under most circumstances, the elements of Policy 1B are advisory and recommendations are provided to give local jurisdictions guidance to aid in transportation and land use planning along corridors. The intent of Policy 1B is that all urban commercial areas situated along state highways should aspire to the objectives and standards of this policy.

Policy 1B implements the Oregon Transportation Plan's Urban Accessibility Policy to "assure balanced, multi-modal accessibility to existing and new development within urban areas to achieve the state goal of compact, highly livable urban areas." The Highway Plan's policies on Bypasses, Major Improvements, Highway Mobility Standards, Partnerships, Off-System Improvements, and Travel Alternatives complement the Land Use and Transportation Policy. The policy also supports and is consistent with the Land Conservation and Development Commission Transportation Planning Rule.

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The overall goal and focus of the Land Use and Transportation Policy is to connect land use and transportation in a way that achieves long-term objectives for the state highway and the local community. In applying the policy, ODOT will recognize the regional and topographical differences of communities throughout Oregon.

Focusing growth in more compact development patterns can have the following transportation benefits:

- Reduction of local trips and travel on state highways;
- Shorter vehicle trips;
- More opportunity to walk, bicycle, or use available transit services;
- Increased opportunities to develop transit;
- Reduction of the number of vehicle trips to shop and do business; and
- Potential air quality enhancement and energy conservation.

ODOT acknowledges that the best way to implement the policy is to establish cooperative working relationships with local governments. This includes a commitment on ODOT's part to:

- Participate actively, early, and continuously in the development, review and amendment of comprehensive plans, transportation system plans, facility plans, downtown plans and periodic review;
- Look for creative and innovative transportation and land use solutions to transportation problems;
- Work within the context of acknowledged land use plans and zoning; and
- Support planning and implementation of improvements within centers and highway segments, as well as off-system improvements that benefit operation of the state highway system.

The policy recognizes that:

- Local governments are responsible for planning and zoning land uses within their jurisdictions and for developing and managing the local transportation system;
- ODOT is responsible for developing and managing the state highway system;

- ODOT and local and regional governments must work together to achieve accessibility and mobility goals for a balanced transportation system.

To reflect ODOT's interest in focusing growth in more compact development patterns, Policy 1B adopts the highway segment designations of Special Transportation Areas (STAs), Urban Business Areas (UBAs), and Commercial Centers. These highway segments are tools to implement more compact community development patterns.

In implementing Policy 1B, particularly highway segment designations, ODOT recognizes that the policy will be applied under different conditions and may result in some instances where ODOT action may precede local planning implementation:

- Existing conditions that meet the policy objectives;
- Existing conditions which do not meet the policy objectives. In these circumstances, the policy will be used to gain closer levels of compliance with the objectives and/or actions. In cases where existing conditions are generally static, the policy will be used to ensure that development patterns do not continue in a manner contrary to this policy and will seek out ways to move in the direction of the policy.
- A mixture of existing non-compliant conditions and new proposals, projects or developments where higher levels of compliance with the objectives and/or actions would be desirable. In these circumstances, ODOT, the affected local government and affected parties need to work out a way to best achieve compliance with the objectives and/or actions.
- New conditions or development where there is the ability to fully comply with the policy objectives and/or actions.

General Process and Implementation Resources

The process for designating highway segments begins with the identification of an area in a local transportation system plan, facility plan, downtown plan or other adopted plan. Through communication and cooperation, the local jurisdiction and ODOT reach agreement on the specifics of the designation. ODOT will not proceed without written support for the designation. Once the parties have reached agreement, the Oregon Transportation Commission will formally designate the segment whereupon the Oregon Highway Plan map will be amended to reflect the designation. The overall process is designed to reflect the planning efforts of local governments while still giving certainty to both ODOT and local governments regarding community development and transportation planning and project development.

Policy 1B provides the framework for supporting rules, standards, policies and guidance information. Reference to this supporting material is necessary for implementation of Policy 1B and is available electronically on the ODOT web site.⁴

Planning for and Managing Highway Segment Designations

Highway segment designations may generally be located within urban growth boundaries and urban unincorporated communities on District, Regional or Statewide Highways that are not on Interstate Highways or Expressways. All designations require clearly defined boundaries identified by milepoint and nearest cross street. Location of an STA or Commercial Center on a Statewide Highway that is also a designated OHP Freight Route requires development of a management plan approved by both ODOT and the local government. UBAs, which may be designated in commercial areas with posted speeds greater than 35 miles per hour, also require management plans.

As State Highway Freight Routes are reviewed and updated, it will become necessary for local governments to develop management plans for previously designated highway segments on newly designated Freight Routes on Statewide Highways when updating their transportation system plans or other legislatively mandated planning effort. Where management plans are not required, the elements are recommended planning and project development considerations, as applicable. Where management plans are required, the following elements are required, as applicable:

- Goals and objectives;
- Provisions for transition areas bordering highway segments to introduce the motorist to different highway functions and speeds;
- Design standards to improve local access and community functions, as applicable. These may include highway mobility standards, street spacing standards, signal spacing standards and street treatments.

⁴ Oregon Highway Plan and amendments: <http://www.oregon.gov/ODOT/TD/TP/orhwyplan.shtml>

Oar Chapter 734, Division 52: http://arcweb.sos.state.or.us/rules/OARS_700/OAR_734/734_051.html

ODOT Highway Design Manual: http://egov.oregon.gov/ODOT/HWY/ENGSERVICES/hwy_manuals.shtml

ODOT Statewide Transportation Improvement Program (STIP): <http://www.oregon.gov/ODOT/HWY/STIP/index.shtml>

ODOT Area Commissions on Transportation: http://www.oregon.gov/ODOT/COMM/act_main.shtml

ODOT Development Review Guidelines: <http://www.oregon.gov/ODOT/TD/TP/docs/publications/05drg.pdf>

ODOT Transportation System Plan Guidelines: <http://www.oregon.gov/ODOT/TD/TP/TSP.shtml>

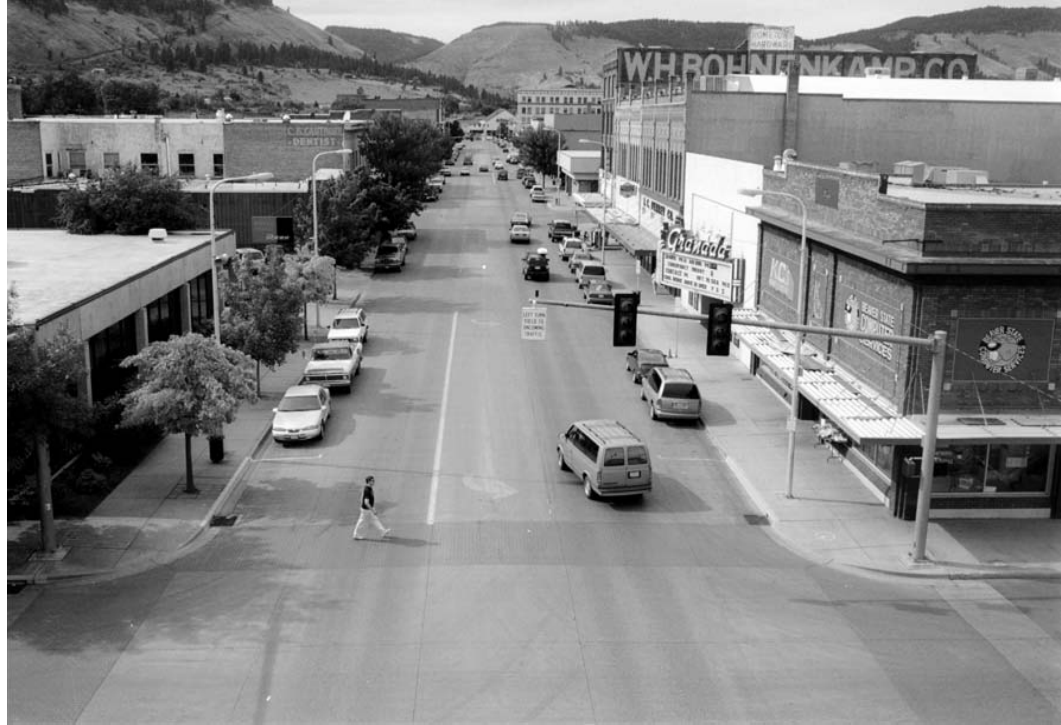
- Strategies for addressing freight and through traffic including traffic speed, possible signalization, parallel or other routes and actions in other parts of the corridor which address through traffic needs;
- Parking strategies which address the design characteristics of the STA, UBA, or Commercial Center designation;
- Provision for a network of local traffic, transit, pedestrian and bicycle circulation;
- An analysis of the regional and local traffic and safety impacts of the designation;
- Identification of needed improvements within the segments or improvements that will support access to the segment and designation of the party responsible for implementation, likely funding sources and anticipated time frame;
- Identification of maintenance and operational strategies to be employed.

Special Transportation Areas (STAs)

A Special Transportation Area (STA) is a designated district of compact development located on a state highway within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility except on designated OHP Freight Routes where through highway mobility has greater importance.

While traffic moves through an STA and automobiles may play an important role in accessing an STA, convenience of movement within an STA is focused upon pedestrian, bicycle and transit modes. STAs look like traditional “Main Streets” and are generally located on both sides of a state highway. The primary objective of an STA is to provide access to and circulation amongst community activities, businesses and residences and to accommodate pedestrian, bicycle and transit movement along and across the highway. Direct street connections and shared on-street parking are encouraged. Local auto, pedestrian, bicycle and transit movements to the area are generally as important as the through movement of traffic. Traffic speeds are slow, generally 25 miles per hour or lower.

Location. STAs can be located within urban growth boundaries on District, Regional and Statewide Highways, but not on Interstates or Expressways. An existing central business or commercial district in an unincorporated community as defined by OAR 660-022-0010(10) that meets the definition of an STA may also be classified as an STA. Larger communities may have more than one STA. While STAs may include some properties that are currently developed for auto dependent uses (e.g. drive-through restaurants, gas stations, car washes), areas where the predominant land use



Pedestrian facilities, on-street parking and landscaping are features of Special Transportation Areas like this downtown area on the La Grande-Baker Highway in La Grande.

pattern is auto-dependent uses are generally not appropriate for STA designation. STAs that include properties developed for auto-dependent uses should include planning and zoning that provide for redevelopment of the properties over time to uses consistent with STA implementation.

Planning and Development Guidance for STAs. STAs should be planned and developed to reflect the following kinds of characteristics:

- Buildings are spaced close together and located adjacent to the street with little or no setback;
- Sidewalks with ample width are located adjacent to the highway and the buildings;
- People who arrive by car or transit find it convenient to walk from place to place within the area;
- On-street parking, structured parking, or shared, general purpose parking lots are located behind or to the side of buildings;
- Streets are designed with a pedestrian orientation for the ease of crossing by pedestrians;

- Public road connections correspond to the existing city block pattern; private driveways directly accessing the highway are discouraged;
- Adjacent land uses provide for compact, mixed-use development with buildings oriented to the street;
- A well-developed parallel and interconnected street network facilitates local automobile, bicycle, transit and pedestrian circulation except where topography severely constrains the potential for street connections;
- Speeds typically do not exceed 25 miles per hour;
- Plans and provisions are made for infill and redevelopment;
- Provisions are made for well-developed transit stops including van/bus stops, bicycle and pedestrian facilities, and including street amenities that support these modes.

Urban Business Areas (UBAs)

Traditional auto-oriented patterns of development include facilities with visible access from the highway directly to parking and drive-through facilities. These patterns of development reflect conventional patterns of zoning, financing and property ownership. The OHP seeks to encourage redevelopment and reinvestment in urban areas and to shift land use patterns from auto-oriented properties with individual driveways to patterns of development served by common accesses, nodal development and more compatibility with pedestrians and bicycles.

An Urban Business Area is a highway segment designation that may be applied to existing areas of commercial activity or future nodes or various types of centers of commercial activity within urban growth boundaries or urban unincorporated community boundaries on District, Regional or Statewide Highways where vehicular accessibility is important to continued economic viability. Highways that have posted speeds of 35 miles per hour or less are permitted access spacing standards that reflect the dual objectives of providing local access to meet the needs of abutting properties while maintaining existing speeds to move through traffic. For highways posted greater than 35 miles per hour, the UBA designation is available as recognition that vehicular accessibility and circulation are often as important as pedestrian, bicycle and transit accessibility, but a management plan is required to ensure that these objectives are balanced. Safe and regular street connections are encouraged. Transit turnouts, sidewalks and bicycle lanes are accommodated.

Policy 1B makes a distinction among the various types of commercial development along highways and determines that UBA designation may be applied to commercial

areas with posted speeds greater than 35 mph. Commercial areas with posted speeds less than or equal to 35 mph do not need such a designation.

- **Existing areas of commercial development.** It is recognized that existing linear business development patterns will most likely remain until such time as local zoning regulations and financing opportunities change to support redevelopment. This policy encourages incremental steps to move in the direction of meeting UBA objectives for all urban commercial areas situated linearly along a highway, outside of STAs or Commercial Centers. However, it is not necessary to adopt a highway segment designation for segments with posted speeds of 35 miles per hour or less. OHP standards for these areas will facilitate access to businesses without unreasonably delaying the movement of people and goods on the state highway system. Recommended steps for all established or planned commercial areas along state highways may include but are not limited to removal of impediments to inter-parcel circulation, design of intersections to address the needs of pedestrians and bicyclists, and development of provisions for good traffic progression and local transit opportunities. ODOT projects in existing areas of commercial development should not result in improvements contrary to this policy.
- **Redeveloping commercial areas.** In the redevelopment process ODOT recognizes that because of existing patterns of property ownership, implementing nodal development patterns may not be fully attainable. However, moving in the direction of implementing nodal development is encouraged, and implementation of remaining UBA characteristics is strongly encouraged.
- **New commercial development.** New development within designated UBAs offers planning and development opportunities in more compact, nodal patterns that meet the objectives of UBA development.

Location. Urban Business Areas can be located in areas with posted speeds greater than 35 miles per hour within urban growth boundaries or urban unincorporated communities on District, Regional or Statewide Highways, but not on Interstates or Expressways. Mobility and access interests need to be balanced through a management plan completed in conjunction with the UBA designation.

Planning and Development Guidance for Urban Business Areas. UBAs should be planned to reflect the following kinds of characteristics:

- Consolidated access as ODOT projects take place for new development and where possible as redevelopment occurs;
- Removal of impediments to inter-parcel circulation (e.g. remove barriers between abutting businesses);

- Businesses and buildings set back from the highway and separated by parking lots;
- Visible access from the highway directly to parking and drive-through facilities;
- Limited or no on-street parking;
- Bicycle lanes, sidewalks, crosswalks, or other bicycle/pedestrian accommodations to address safe and accessible pedestrian movement along, across and within the commercial areas;
- Stop signs, traffic signals, medians and intersections designed to serve as pedestrian refuges;
- Provision for good traffic progression;
- Auto accessibility important to economic vitality of the area;
- Vehicular accessibility as important as pedestrian, bicycle and transit accessibility;
- Efficient parallel local street system where arterials and collectors connect to the state highway;
- Speeds that are generally 35 mph or less;
- Businesses and buildings clustered in centers or nodes for new development and potential redevelopment.

Commercial Centers

Commercial Centers are large, regional centers or nodes with limited access to the state highway. Commercial Centers are encouraged to locate in a community that is the population center for the region and where the majority of the average daily trips to the center originate. Generally these centers have 400,000 square feet of gross leasable area or public buildings. These centers are intended for commercial or mixed commercial, retail and office activities. They may include public uses. The buildings are clustered with consolidated access to the state highway rather than developed along the highway with multiple accesses. Multi-family residential uses may be located within or adjacent to a center. Major metropolitan areas may have multiple Commercial Centers.

The primary objective of the state highway adjacent to a Commercial Center is to maintain through traffic mobility in accordance with its function. Commercial

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Centers include a high level of regional accessibility and connections to the local road network. The Commercial Center accommodates pedestrian and bicycle access and circulation and, where appropriate, transit movements.

Location. Commercial Centers are adjacent to the highway and are linked to the highway by a public road. They are located within urban growth boundaries on Statewide, Regional or District Highways or on Expressways where mobility can be maintained as shown through a management plan.

Planning and Development Guidance for Commercial Centers. Commercial Centers should be planned and developed to reflect the following kinds of characteristics:

- Convenient circulation within the center, including pedestrian and bicycle access and circulation;
- Provisions for transit access in urban areas planned for fixed-route transit service;
- Shared parking and a reduction in parking to accommodate multimodal elements where alternate modes are available;
- A high level of regional accessibility;
- Accessibility by a variety of routes and modes and a local road network so that most of the traffic circulation may occur off of the state highway; and
- Compact development patterns.

In return for having the above characteristics and adhering strictly to access management spacing standards as provided in OAR Chapter 734, Division 51, the Transportation Commission will consider allowing the highway mobility standard to be the same as that for Special Transportation Areas at the point of access to the state highway. The highway mobility of any affected freeway interchange may not decline below the highway mobility standard for the interchange designated by Policy 1F (OHP Tables 6 and 7).

Non-Designated Urban Highways

Non-Designated Urban highways (Urban Highways) are those Statewide, Regional or District Highways within urban growth boundaries with posted speed greater than 35 mph that are not otherwise designated or classified as Interstate Highways, Expressways, STAs, UBAs or Commercial Centers. The Urban designation applies automatically to highway segments not otherwise designated.

The objective of a non-designated Urban highway segment is to efficiently move through traffic while also meeting the access needs of nearby properties. Access can be provided to and from individual properties abutting an Urban segment consistent with the highway access permitting criteria set forth in OAR 734-051. Transit turnouts, sidewalks, and bicycle lanes are accommodated. OAR Chapter 734, Division 51, establishes spacing standards for Urban highway segments consistent with the OHP objective for Urban highways.

Non-designated Urban highways traverse many different types of land use areas, from urban fringe and suburban areas to developed areas and traditional downtowns or central business districts. The ODOT Highway Design Manual establishes design standards for these different development patterns along urban highways, as well as design standards for Expressways, STAs, UBAs, and Commercial Centers.

Policy 1B – Land Use and Transportation

This policy recognizes the role of both State and local governments related to the state highway system:

- *State and local government must work together to provide safe and efficient roads for livability and economic viability for all citizens.*
- *State and local government must share responsibility for the road system.*
- *State and local government must work collaboratively in planning and decision-making relating to transportation system management.*

It is the policy of the State of Oregon to coordinate land use and transportation decisions to efficiently use public infrastructure investments to:

- *Maintain the mobility and safety of the highway system;*
- *Foster compact development patterns in communities;*
- *Encourage the availability and use of transportation alternatives;*
- *Enhance livability and economic competitiveness; and*
- *Support acknowledged regional, city and county transportation system plans that are consistent with this Highway Plan*

Action 1B.1

Actively pursue the objectives and designations in the Background, Intent and Actions in Policy 1B, as appropriate, through:

- Access management planning and permitting;
- Facility and transportation system plans;
- Metropolitan planning organization and local transportation system plans;
- Periodic review of local comprehensive plans;
- Local planning and zoning amendments;
- Review of major development proposals that have a significant impact on a state highway;
- Review of site acquisition and construction of proposed public facilities;
- Review of urban growth boundary amendments; and
- Highway facility design and project development.

Action 1B.2

Use the rules, standards, policies and guidance developed by ODOT to implement Policy 1B. These include but are not limited to Oregon Administrative Rule Chapter 734, Division 51 on Access Management, the ODOT Highway Design Manual, ODOT Transportation System Plan Guidelines and ODOT Development Review Guidelines, LCDC Goal 12 on Transportation and the Transportation Planning Rule.

Action 1B.3

Use the following categories to designate highway segments when the concept is identified in a local transportation system plan, downtown plan, facility plan or other adopted plan and is supported by both the local government and ODOT. The categories, in part, define whether or not a management plan is required. Written management plans are required for STAs and Commercial Centers on designated Freight Routes on Statewide Highways. Management plans are required for UBAs on any state highway where the posted speed is greater than 35 mph and a UBA designation is needed. As State Highway Freight Routes are reviewed and updated, local governments will need to develop management plans for previously designated highway segments when updating their transportation

system plan or other legislatively mandated planning effort. Management plans are also required for Commercial Center on Expressways. Management plans are encouraged where not required. Written approval for any designation is required to be provided by the local government prior to designation by the Oregon Transportation Commission.

a. Special Transportation Areas

Category 1 Special Transportation Areas are those segments located on Statewide, Regional or District Highways that are not on Interstate Highways, Expressways or designated OHP Freight Routes. Category 1 STAs may be designated upon the agreement of ODOT and the local government. Once the Transportation Commission approves the STA designation and the Highway Plan map is amended, ODOT standards, as applicable, will be applied to the segment. Proposed design treatments not meeting ODOT standards will require an exception.

Category 2 Special Transportation Areas are those segments that are located on Statewide Highways that are also designated OHP Freight Routes. Category 2 STAs require a written management plan jointly agreed to by ODOT and the local government in conjunction with designation by the Transportation Commission. Once the Transportation Commission approves the designation and the Highway Plan map is updated, the ODOT standards, as applicable, will be applied.

b. Urban Business Areas

Urban Business Areas may be designated on Statewide, Regional or District Highways that are not Interstate Highways or Expressways, and that have posted speeds greater than 35 miles per hour. UBAs require a written management plan jointly agreed to by ODOT and the local government in conjunction with designation by the Transportation Commission. Once the Transportation Commission approves the UBA and the Highway Plan map is amended, ODOT standards, as applicable, will be applied.

A UBA highway segment designation is not necessary in areas where posted speeds are 35 miles per hour or less, and consequently management plans are not required. However, it is the intent of Policy 1B that when local jurisdictions update their transportation system plans or undertake other legislatively mandated planning efforts, that the objectives and suggested elements of a management plan for these segments be considered. The Highway Design Manual standards for UBAs will be used in areas with posted speeds less than or equal to 35 mph except where an STA has been designated.

c. Commercial Centers

Category 1 Commercial Centers are those segments located on Statewide, Regional or District Highways that are not on Interstate Highways, designated OHP Freight Routes or Expressways. Category 1 Commercial Centers may be designated upon the agreement of ODOT and the local government. Once the Transportation Commission approves the Commercial Center designation and the Highway Plan map is amended, ODOT standards, as applicable, will be applied to the segment.

Category 2 Commercial Centers are those segments that may be located on designated OHP Freight Routes or Expressways. Category 2 Commercial Centers require a written management plan jointly agreed to by ODOT and the local government in conjunction with the designation by the Transportation Commission. Once the Transportation Commission approves the designation and the Highway Plan map is amended, ODOT standards, as applicable, will be applied.

d. Non-Designated Urban Highways

Non-designated Urban highway segments are the default designation for all state highways within urban growth boundaries with speeds greater than 35 mph except Interstates unless otherwise designated as an Expressway, STA, UBA or Commercial Center. There are no separate categories of non-designated Urban highways. The policy objective to efficiently move through traffic while also meeting the access needs of nearby properties will be applied.

Action 1B.4

Work with local governments to obtain plans and zoning regulations that are consistent with the Transportation Planning Rule and this policy. Where plans and regulations are not yet in place, ODOT may take action regarding designation of highway segments in the following circumstances:

- Where a local jurisdiction identifies an objective to develop land use plans and regulations reflective of OHP Policy 1B and provides written approval for a highway segment designation, ODOT may designate the highway segment prior to adoption of the land use and zoning changes.
- Where a gap exists between local plans and highway segment designation, local government planning and legislative activity should move in the direction of meeting the objectives of Policy 1B.
- Where ODOT has designated a highway segment in reliance on the support of a local government and where the planning and community development

patterns remain inconsistent with or contrary to the highway segment designation, ODOT will work with the local government to gain closer compliance with the policy or may modify or withdraw the designation.

Action 1B.5

Develop and implement plans that support compact development, including but not limited to highway segment designations. Support plans, strategies and local ordinances that include:

- Parallel and interconnected local roadway networks to encourage local automobile trips off the state highway;
- Transit, bicycle and pedestrian facilities, including street amenities that support these modes;
- Design and orientation of buildings and amenities that accommodate pedestrian and bicycle use as well as automobiles use;
- Provision of public and shared parking;
- Infill and redevelopment;
- Expansion of intensive urban development guided away from state highways rather than along state highways; and
- Other supporting public investments that encourage compact development and development within centers.

Action 1B.6

Help protect the state highway function by working with local jurisdictions in developing land use and subdivision ordinances, specifically:

- A process for coordinated review of future land use decisions affecting transportation facilities, corridors or sites;
- A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;
- Regulations assuring that amendments to land use designations, densities and design standards are consistent with the functions, capacities and highway mobility standards of facilities identified in transportation system plans including the Oregon Highway Plan and adopted highway corridor plans;

Policy Element

- Refinement of zoning and permitted and conditional uses to reflect the effects of various uses on traffic generation;
- Standards to protect future operation of state highways and other roads; and
- Access control measures, for example, driveway and public road spacing, median control and signal spacing standards which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities.

Action 1B.7

To assist in implementing state access management standards and policies, work with local governments to develop access management strategies, plans or access management components in comprehensive plans, facility plans and/or transportation system plans involving the state and local system.

Action 1B.8

Work with local governments to maintain the highway mobility standards on state highways by creating effective development practices through the following means:

- Develop an adequate local network of arterials, collectors and local streets to limit the use of the state highway or interchanges for local trips;
- Reduce access to the state highway by use of shared accesses, access from side or back roads and frontage roads, and by development of local street networks as redevelopment along state highways occurs;
- Cluster development in compact development patterns off of state highways;
- Develop comprehensive plan, zoning and site plan review provisions that address highway mobility standards; and
- Avoid the expansion of urban growth boundaries along Interstate and Statewide Highways and around interchanges unless ODOT and the appropriate local governments agree to an interchange management plan to protect interchange operation or an access management plan for segments along non-freeway highways.

Action 1B.9

Develop facility and transportation system plans that protect existing limited access interchanges according to the following functional priorities:

- At existing limited access highway interchanges, provide safe egress from freeways and Expressways as the first priority.
- When an interchange connects a freeway or an Expressway to an Interstate, Statewide or Regional Highway, provide regional access to freeways and Expressways as the second priority.

Action 1B.10

Continue to develop and implement design guidelines for highways that describe a range of automobile, pedestrian, bicycle or transit travel alternatives. The guidelines should include appropriate design features such as lighted, safe and accessible bus stops, on-street parking, ample sidewalks, pedestrian crossings, pedestrian scale lighting, street trees and related features.

Action 1B.11

Work to accommodate alternative modes on state highways according to the various types of land uses and highways. Work toward development of alternative mode facilities in Special Transportation Areas, Commercial Centers and Urban Business Areas according to the other actions in this policy.

Actions 1B.12, 1B.13 and 1B.14⁵



Buildings in a Commercial Center like the one on 82nd Avenue in Portland are clustered and have limited direct access to the state highway

⁵ Omitted when Policy 1B was replaced in August 2005; Amendment 05-16.

Table 2: Potential location of highway segment designations⁶

Table 3: Highway segment designation and designating process⁷⁷



The buildings in a new Urban Business Area are clustered in a center like this one on Powell Boulevard in Gresham.

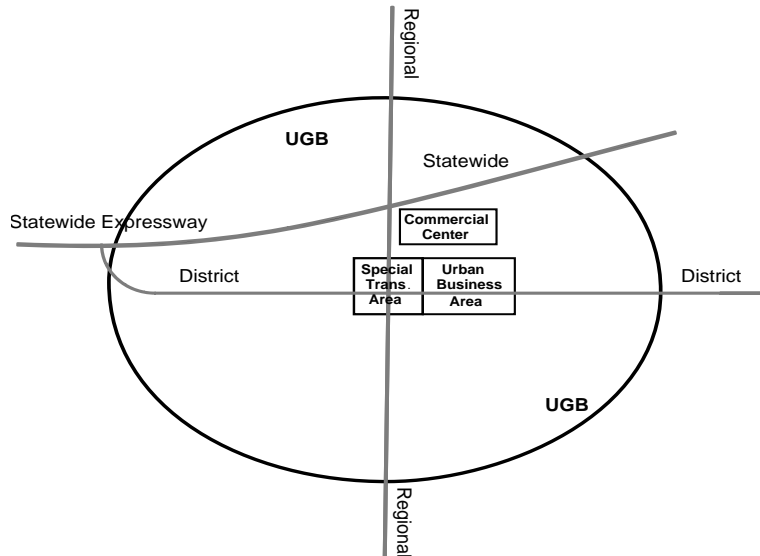


Figure 9: Location of highway segment designations

⁶ Table was omitted when Policy 1B was replaced in August 2005; Amendment 05-16

⁷ Table was omitted when Policy 1B was replaced in August 2005; Amendment 05-16

ELEMENTS OF STRATEGIES TO MEET THE OBJECTIVES OF THE LAND USE AND TRANSPORTATION POLICY				
Elements of Strategy				
Highway Segment	Land Use	Alternative Modes	Traffic Management	Access Management
Special Transportation Area	<ul style="list-style-type: none"> • Adjacent land uses that provide for compact, mixed-use development. "Compact" means that buildings are spaced closely together, parking is shared and sidewalks bind the street to the building. Mixed-use development includes a mixture of community places and uses. • Infill and redevelopment. • Design and orientation of buildings that accommodate pedestrian and bicycle circulation, as well as automobile use. • An adopted management plan as part of the comprehensive plan that shows the area as a compact district with development requirements that address local auto trips, street connectivity, shared parking, design and layout of buildings, parking and sidewalks that encourage a pedestrian-oriented environment. 	<ul style="list-style-type: none"> • Well-developed transit, bicycle and pedestrian facilities, including street amenities that support these modes. 	<ul style="list-style-type: none"> • A well-developed parallel and interconnected local roadway network. • A parking strategy that favors shared general purpose parking, preferably on-street parking and shared parking lots. • Streets designed for ease of crossing by pedestrians. 	<ul style="list-style-type: none"> • Public road connections that correspond to the existing city block. • Private driveways discouraged.
Commercial Center	<ul style="list-style-type: none"> • Clustered development with shared parking. 	<ul style="list-style-type: none"> • Facilities for bicycle and pedestrian access and circulation. • Provisions for transit movements. 	<ul style="list-style-type: none"> • Connections to network of local streets. 	<ul style="list-style-type: none"> • Joint access to state highways.

Table 4: Elements of strategies to meet the objectives of the Land Use and Transportation Policy

Policy Element

ELEMENTS OF STRATEGIES TO MEET THE OBJECTIVES OF THE LAND USE AND TRANSPORTATION POLICY cont.				
Elements of Strategy				
Highway Segment	Land Use	Alternative Modes	Traffic Management	Access Management
Urban Business Areas	<ul style="list-style-type: none"> Businesses and buildings clustered in centers or nodes. 	<ul style="list-style-type: none"> Bicycle lanes and sidewalks and other pedestrian accommodations, especially in commercial centers and community use areas. Convenient and safe pedestrian crossings, especially at transit stops and other high-use generators. Intersections designed to address the needs of pedestrians and bicyclists. Measures for addressing pedestrian crossing safety. These may include stop signs, traffic signals and medians designed to serve as pedestrian refuges. 	<ul style="list-style-type: none"> Development of a strategy for good traffic progression. An efficient parallel local street system where arterials and collectors connect to the state highway. Improved traffic management strategies such as Advanced Traffic Management Systems. 	<ul style="list-style-type: none"> Local ordinances that support shared driveway approaches and inter-parcel circulation.

Table 4: continued⁸

⁸ Amended for consistency with amendments adopted in August 2005, Amendment 05-16

 **STATE HIGHWAY FREIGHT SYSTEM⁹****Background**

According to the 2002 Federal Highway Administration's Analysis Framework, trucks carried nearly 76 percent of the total freight tonnage and 82 percent of the total freight value for the year. To ensure that freight is able to move efficiently on the state's major trucking routes, this plan designates a State Highway Freight System. The key criteria of freight volume, tonnage, connectivity, and linkages to National Highway System intermodal facilities were augmented in the 2005 Freight Route designation update. Other factors that were considered included connectivity to regional freight routes and freight routes in other states, percent of trucks on state highways to reflect urban/rural characteristics, freight generating sites and the implications of highway segment designations.

The primary purpose of the State Highway Freight System is to facilitate efficient and reliable interstate, intrastate, and regional truck movement through a designated freight system. This freight system, made up of the Interstate Highways and certain Statewide, Regional and District Highways, the majority of which are on the National Highway System, includes routes that carry significant tonnage of freight by truck and serve as the primary interstate and intrastate highway freight connection to ports, intermodal terminals, and urban areas. It supersedes and replaces the designation of primary freight corridors in the Oregon Transportation Plan. Freight routes designated on Regional or District Highways will be managed according to their highway classification.

Freight depends upon timely and dependable movement of goods over the system; some industries structure their facilities and processes on just-in-time deliveries. Highway efficiency for goods movement in an expanding economy will require public and private investments in infrastructure as well as changes in road operations to reduce congestion on freight routes. Designating a network of freight routes of primary importance to the state will help ensure that these investments are coordinated in a way that reinforces the unique needs of the freight system.

Improving and maintaining the efficiency of highway operations requires balancing the needs of freight movement with the needs of other users of the highway system. Some state highways that are important goods movement corridors also serve as communities' main streets and may be designated as Special Transportation Areas. It may be the objective of local officials to reduce or slow traffic passing through the town, with potentially adverse impacts on long distance freight transportation. Therefore, a management plan will be developed that combines local land use planning needs while recognizing the special significance of the freight route

⁹ The State Highway Freight System Background was replaced in August 2005, OHP Amendment 05-16.

designation. See Policy 1B which requires that STAs on Statewide Highways that are OHP Freight Routes include the development of a management plan approved by both ODOT and the local government. Improvements associated with designated freight routes will impact highway design elements such as roadway section widths, median barriers and intersection design. Statewide Freight Routes in general have higher mobility standards than other highways of the same classification. Regional and local jurisdictions may designate their own freight route systems, but these designations should be compatible with or complementary to the designation of routes in the State Highway Freight System.

The State Highway Freight System designation does not guarantee additional state investment in these routes. However, three special management strategies are available:

- Highways included in this designation have higher highway mobility standards than other Statewide Highways (see Policy 1F).
- The highway's function as a freight route should be balanced with local accessibility in Special Transportation Areas.
- Freight system routes may be treated as Expressways outside of urban growth boundaries and unincorporated communities. (See Action 1C.3 and the definition of Expressways in Action 1A.2.)

Policy 1C: State Highway Freight System

It is the policy of the State of Oregon to balance the need for movement of goods with other uses of the highway system, and to recognize the importance of maintaining efficient through movement on major truck freight routes.

Action 1C.1

Apply performance standards appropriate to the movement of freight on freight routes.

Action 1C.2

Prepare a statewide freight study to address the role of trucks and other freight modes in Oregon's economy, freight mobility and accessibility issues, current, near-term and long-term needs, and other topics.

Action 1C.3

In the development of corridor plans, work with local governments to examine options to:

- Treat designated freight routes as Expressways where the routes are outside of urban growth boundaries and unincorporated communities. Continue to treat freight routes as Expressways within urban growth boundaries where existing facilities are limited access or where corridor or transportation system plans indicate limited access; and
- Recognize and balance freight needs with needs for local circulation, safety and access in Special Transportation Areas.

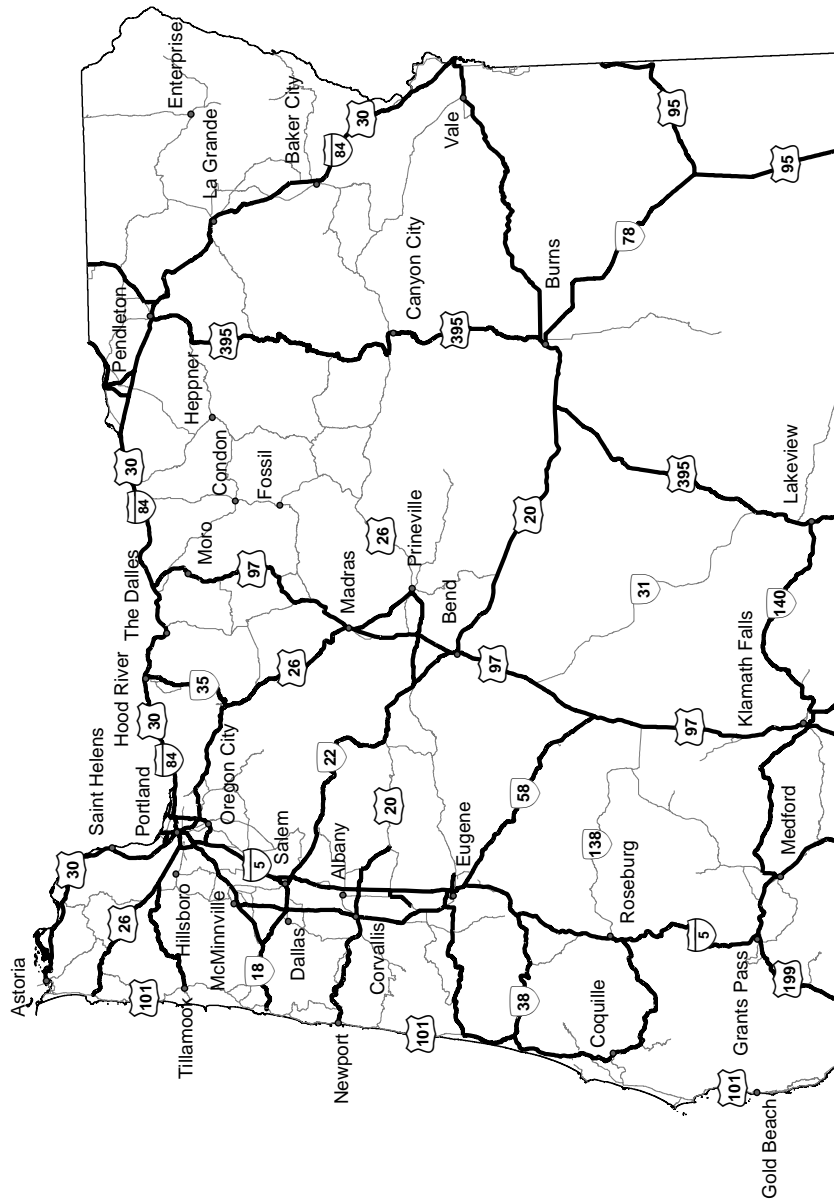
Action 1C.4

Consider the importance of timeliness in freight movements in developing and implementing plans and projects on freight routes.

Table 5: Designated Freight Routes¹⁰

¹⁰Table was omitted when Policy 1C was amended in August 2005; Amendment 05-16. Freight Route designations are now listed in the system inventory table in Appendix D: Highway Classification by Milepoint.

STATE HIGHWAY FREIGHT SYSTEM



Legend

- Freight Routes
- State Highways



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MARCH 2006

Figure 10a: Designated freight routes

SCENIC BYWAYS

Background

While every state highway has certain scenic attributes (see Policy 5B), the Oregon Transportation Commission has designated Scenic Byways throughout the state on federal, state, and local roads which have exceptional scenic value (see map, Figure 11). In 1998, the federal government designated two of these routes as All-American Roads and four as National Scenic Byways. The Oregon Transportation Commission may designate additional state byways. To protect the scenic assets of its Scenic Byways, ODOT will develop guidelines for aesthetic and design elements within the public right-of-way that are appropriate to Scenic Byways. The Scenic Byways Policy recognizes that safety and performance issues may cause the need for physical improvements to Scenic Byways, and seeks to balance these needs with the preservation of scenic values.

Policy 1D: Scenic Byways

It is the policy of the State of Oregon to preserve and enhance designated Scenic Byways, and to consider aesthetic and design elements along with safety and performance considerations on designated Byways.

Action 1D.1

Develop and apply guidelines for appropriate aesthetic and design elements within the public right-of-way on Scenic Byways. The purpose of these guidelines is to preserve and enhance the scenic value while accommodating critical safety and performance needs. The elements should include guidelines for turn-outs, overlooks, signage, and visual treatment of the highway infrastructure.



The Historic Columbia River Highway is both a State Scenic Byway and an All American Road.

Action 1D.2

With guidelines in place, develop management priorities for Scenic Byways in management plans and corridor plans.

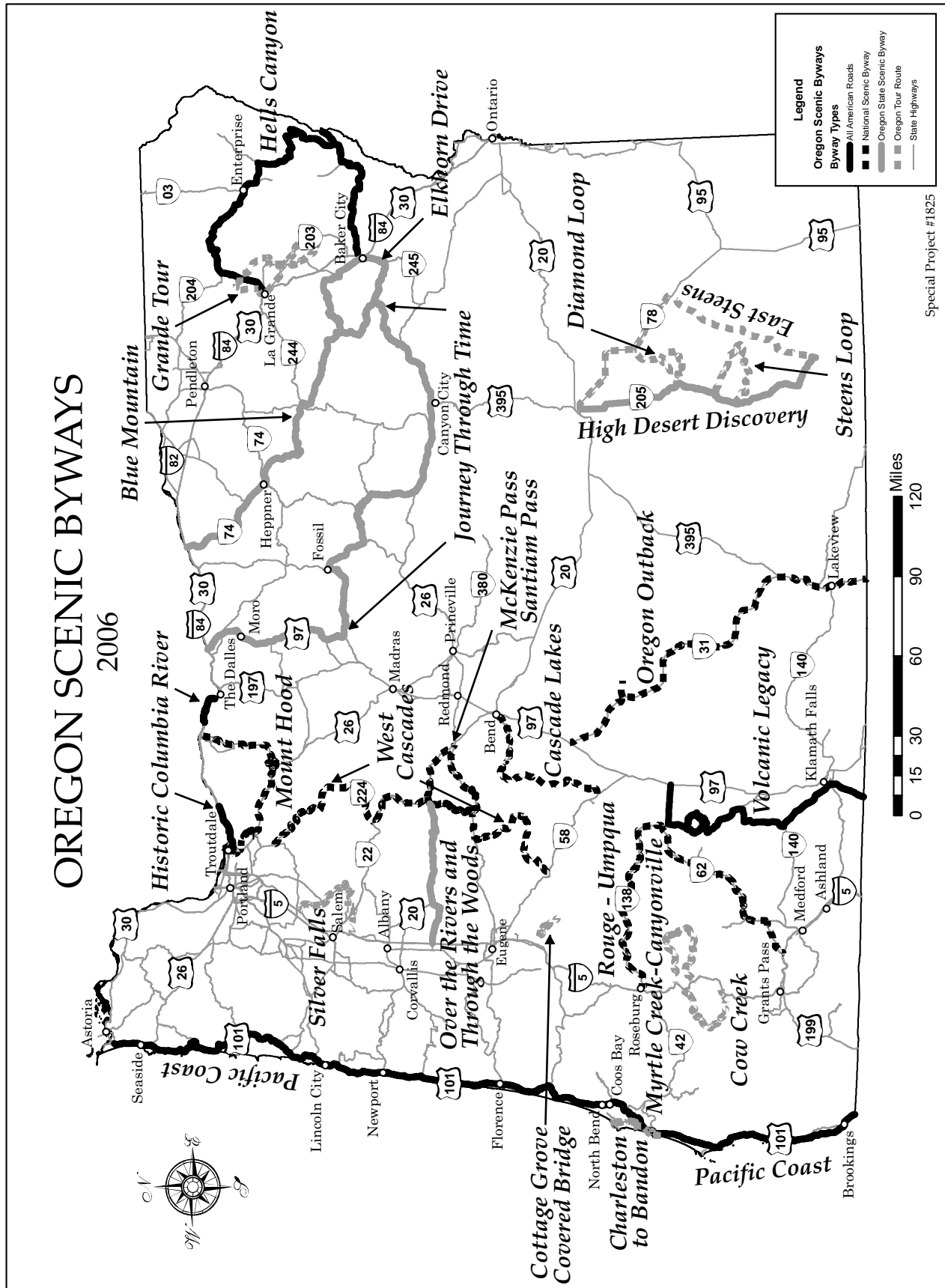


Figure 11: Designated Scenic Byways

Action 1D.3

Consider impacts to the scenic qualities of Scenic Byways when designing plans and projects.

Action 1D.4

Develop resource management plans and maps that describe ODOT's maintenance actions for roads which are designated Oregon Scenic Byways, including restricted activity zones, property to be used for disposal of slide debris and other material, and unsold state properties to be considered for ODOT retention. Identify scenic resources and existing vista opportunity locations on the maps. Include guidelines for maintenance activities where scenic resources are a factor. Ensure that ODOT highway maintenance activities are compatible with Scenic Byway management plans.

**LIFELINE ROUTES****Background**

Earthquakes, flooding, landslides, wild fires, and other natural and man-made disasters may destroy or block key access routes to emergency facilities and create episodic demand for highway routes into and out of a stricken area. ODOT's investment strategy should recognize the critical role that some highway facilities, particularly bridges, play in emergency response and evacuation. In some cases, the most cost-effective solution to maintaining security in these lifeline routes involves investment in roads or bridges owned by local jurisdictions. To the extent feasible, investments should be made without regard to roadway jurisdiction in order to provide the greatest degree of lifeline security for the available resources. ODOT will work with local governments to further define and map a network of lifeline routes. The lifeline network will focus on serving those communities which are particularly susceptible to isolation by virtue of their limited highway access.

Policy 1E: Lifeline Routes

It is the policy of the State of Oregon to provide a secure lifeline network of streets, highways, and bridges to facilitate emergency services response and to support rapid economic recovery after a disaster.

Action 1E.1

Define the criteria for lifeline routes to respond to short and long-term needs and, working with local jurisdictions, agencies, and emergency service providers, designate the lifeline network for the State of Oregon.

Action 1E.2

Provide funds or establish state/local partnerships to make improvements to state and local roads and bridges on the lifeline network where supportive of the Lifeline Routes Policy and cost-effective relative to alternative strategies.

Action 1E.3

Consider the presence of designated lifeline routes in system investment and management decisions and in coordination efforts with local land use and transportation planning activities.

Action 1E.4

In planning for lifeline routes, focus on susceptibility of the route and improvements on it (bridges and other structures) to disasters such as earthquakes, landslides, and flooding. In corridor plans and transportation system plans, emphasize improvements and other measures which maintain a highway connection between regions or areas of the state in the event of major disasters. Consider a combination of measures to address identified hazards and elements such as appropriate advance maintenance, structural reinforcement, flood-proofing, emergency response planning, and development of emergency alternative routes.



HIGHWAY MOBILITY STANDARDS

Background

Several policies in the Highway Plan establish general mobility objectives and approaches for maintaining mobility.

- Policy 1A (State Highway Classification System) describes in general the functions and objectives for several categories of state highways. Greater mobility is expected on Interstate and Statewide Highways than on Regional and District Highways.
- Policy 1B (Land Use and Transportation) has an objective of coordinating land use and transportation decisions to maintain the mobility of the highway system. The policy identifies several land use types and describes in general the levels of mobility appropriate for each.
- Policy 1C (State Highway Freight System) has an objective of maintaining efficient through movement on major truck Freight Routes. The policy identifies the highways that are Freight Routes.

Policy Element

- Policy 1G (Major Improvements) has the purpose of maintaining highway performance and improving highway safety by improving system efficiency and management before adding capacity.

Although each of these policies addresses mobility, none specifically identifies what levels of mobility are acceptable.

The Highway Mobility Standards Policy establishes standards for mobility that are reasonable and consistent with the directions of other Highway Plan policies. This policy carries out the directions of Policies 1A and 1C by establishing higher mobility standards for Interstate Highways, Freight Routes and other Statewide Highways than for Regional or District Highways. It carries out Policy 1B by establishing lower mobility standards for Special Transportation Areas (STAs) and more highly developed urban areas than in less developed areas and rural areas. The lowest standards for mobility are for Regional and District Highways in STAs where traffic congestion will be allowed to reach levels where peak hour traffic flow is highly unstable and traffic queues will form on a regular basis. The levels of mobility established for Statewide Highways in STAs will avoid high levels of traffic instability (except where accidents or other incidents disrupt traffic). A larger cushion of reserve capacity is established for Freight Routes than for other Statewide Highways to provide steady flow conditions, although traffic will be slowed in STAs to accommodate pedestrians. (Interstate Highways and Expressways will not be incorporated into an STA.)

The mobility standards are contained in Tables 6 and 7 and in Actions 1F.1 and 1F.5. While state highways are often important routes for pedestrians and bicyclists, Tables 6 and 7 refer only to vehicle mobility.

The policy identifies three uses for the highway mobility standards:

- Planning: identifying state highway mobility performance expectations for planning and plan implementation;
- Review of amendments to comprehensive plans and land use regulations: maintaining consistency between desired highway performance and the type of land use development; and
- Making traffic operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.

The Highway Mobility Standards Policy applies primarily to transportation and land use planning decisions. By defining acceptable levels of highway system mobility, the policy provides direction for identifying highway system deficiencies. The policy does not, however, determine what actions should be taken to address the deficiencies. The highway mobility standards in the policy (volume to capacity ratio or v/c) are

neutral regarding whether solutions to mobility deficiencies should be addressed by actions that reduce highway volumes or increase highway capacities. The Major Improvements Policy establishes priorities for actions to address deficiencies.

The Highway Mobility Standards Policy will primarily affect land use decisions through the requirements of the Transportation Planning Rule (TPR). The TPR requires that regional and local transportation system plans be consistent with plans adopted by the Transportation Commission. The TPR also requires that comprehensive plan amendments and zone changes which significantly affect a transportation facility be consistent with the adopted function, capacity and performance measures for the affected facility. The Highway Mobility Standards Policy establishes ODOT's mobility performance measures for state highways.

Policy 1F does not apply to highway design. Separate design standards are contained in ODOT's Highway Design Manual. Mobility performance standards for highway design are generally equal to or higher than the standards contained in this policy to provide an adequate operating life for highway improvements. In some circumstances, highway improvements may be designed to meet the highway mobility standards in this policy where necessary to avoid adverse environmental, land use or other effects.

ODOT's intention is that the highway mobility standards not be exceeded over the course of a reasonable planning horizon. The planning horizon shall be:

- 20 years for the development of state, regional and local transportation plans, including ODOT's corridor plans; and
- The greater of 15 years or the planning horizon of the applicable local and regional transportation system plans for amendments to transportation plans, comprehensive plans or land use regulations.

In the 1991 Highway Plan, levels of service were defined by a letter grade from A-F, with each grade representing a range of volume to capacity ratios. A level of service of A represented virtually free-flow traffic with few or no interruptions while level of service F indicated bumper-to-bumper, stop-and-go traffic. However, each letter grade actually represented a range of traffic conditions, which made the policy difficult to implement. This Highway Plan maintains a similar concept for measuring highway performance, but represents levels of service by specific volume to capacity ratios to improve clarity and ease of implementation.

A volume to capacity ratio (v/c) is the peak hour traffic volume (vehicles/hour) on a highway section divided by the maximum volume that the highway section can handle. For example, when v/c equals 0.85, peak hour traffic uses 85 percent of a highway's capacity; 15 percent of the capacity is not used. If the traffic volume entering a highway section exceeds the section's capacity, traffic queues will form and lengthen for as long as there is excessive demand. When v/c is less than but

close to 1.0 (e.g., 0.95), traffic flow becomes very unstable. Small disruptions can cause traffic flow to break down and long traffic queues to form. This is a particular concern for freeways because the capacity of a freeway under stop-and-go traffic conditions is lower than the capacity when traffic is flowing smoothly.

The Department and Transportation Commission are concerned that mobility standards may have the unintended effect of discouraging development in downtowns and encouraging development in urban fringe areas. This may occur where highways in downtowns and central business districts are near capacity. Plan amendments to allow more development in such areas are generally discouraged because there is inadequate highway capacity to support more intense use. By contrast, highway facilities in urbanizable areas may have excess capacity that allow land use plan amendments that increase development. The plan attempts to offset this unintended effect by varying the mobility standards by type of area, as shown by Table 6. Furthermore, the policy in Action 1F.3 allows alternate standards to be adopted in metropolitan areas, Special Transportation Areas (STAs) and constrained areas.

Alternate standards for the Portland metropolitan area have been included in the policy (Table 7). These standards have been adopted with an understanding of the unique context and policy choices that have been made by local governments in that area including:

- A legally enforceable regional plan prescribing minimum densities, mixed use development and multi-modal transportation options;
- Primary reliance on high capacity transit to provide additional capacity in the radial freeway corridors serving the central city;
- Implementation of an Advanced Traffic Management System including freeway ramp meters, real time traffic monitoring and incident response to maintain adequate traffic flow; and
- An air quality attainment/maintenance plan that relies heavily on reducing auto trips through land use changes and increases in transit service.

The alternative standards are granted to the Portland metropolitan area with a mutual understanding that reduced mobility standards will result in congestion that will not be reduced by state highway improvements. Alternative standards may also be approved for other metropolitan areas or portions thereof to support integrated land use and transportation plans for promoting compact development.

Although non-metropolitan areas do not face the same magnitude of traffic and land use pressures as do metropolitan areas, they may include Special Transportation Areas or may face environmental or land use constraints that make it infeasible to provide an adequate road network to serve planned development. For example, in a number of coastal cities, highway and other road improvements are severely limited by the

presence of unstable terrain and the coast, sensitive wetlands and endangered plants and animals. In these places it may not be feasible to improve the transportation system to the degree necessary to accommodate the reasonable use of properties in accordance with acknowledged comprehensive plans. In such circumstances, the standards in Table 6 might also preclude comprehensive plan changes that carry out the Land Use and Transportation Policy (1B) such as compact development in a Special Transportation Area. Therefore, the Transportation Commission may adopt alternate standards to accommodate development where practical difficulties make conformance with the highway mobility standards infeasible.

Local governments may adopt higher operating standards if desired, but the standards in Tables 6 and 7 must be used for deficiency analyses of state highways.

The policy also anticipates that there will be instances where the standards are exceeded and the deficiencies are correctable but the necessary transportation improvements are not planned. This may be due to environmental or land use constraints or to a lack of adequate funding. In these circumstances, the Department of Transportation's objective is to improve highway performance as much as possible and to avoid further degradation of performance where improvements are not possible. Action 1F.5 gives examples of actions that may be undertaken to improve performance.

Policy 1F: Highway Mobility Standards

It is the policy of the State of Oregon to use highway mobility standards to maintain acceptable and reliable levels of mobility on the state highway system. These standards shall be used for:

- *Identifying state highway mobility performance expectations for planning and plan implementation;*
- *Evaluating the impacts on state highways of amendments to transportation plans, acknowledged comprehensive plans and land use regulations pursuant to the Transportation Planning Rule (OAR 660-12-060); and*
- *Guiding operations decisions such as managing access and traffic control systems to maintain acceptable highway performance.*

Action 1F.1

Apply the highway mobility standards below and in Table 6 to all state highway sections located outside of the Portland metropolitan area urban growth boundary and the standards below and in Table 7 to all state highway sections located within the Portland metropolitan area urban growth boundary.

Policy Element

- On portions of highways where there are no intersections, the volume to capacity ratios in Tables 6 and 7 shall not be exceeded for either direction of travel on the highway.
- At unsignalized intersections and road approaches, the volume to capacity ratios in Tables 6 and 7 shall not be exceeded for either of the state highway approaches that are not stopped. Approaches at which traffic must stop, or otherwise yield the right of way, shall be operated to maintain safe operation of the intersection and all of its approaches and shall not exceed the volume to capacity ratios for District/Local Interest Roads in Table 6 and Table 7 within urban growth boundaries or 0.80 outside of urban growth boundaries.

At signalized intersections other than crossroads of freeway ramps (see below), the total volume to capacity ratio for the intersection considering all critical movements shall not exceed the volume to capacity ratios in Tables 6 and 7. Where two state highways of different classifications intersect, the lower of the volume to capacity ratios in the tables shall apply. Where a state highway intersects with a local road or street, the volume to capacity ratio for the state highway shall apply.

- Although a freeway interchange serves both the freeway and the crossroad to which it connects, it is important that the interchange be managed to maintain safe and efficient operation of the freeway through the interchange area. The main problem to avoid is the formation of traffic queues on freeway off-ramps which back up into the portions of the ramps needed for safe deceleration from freeway speeds. This is a significant traffic safety concern. The primary cause of traffic queuing at freeway off-ramps is inadequate capacity at the intersections of the freeway ramps with the crossroad. These intersections are referred to as ramp terminals. In many instances where ramp terminals connect with



Traffic is bunching up and slowing down in all lanes of this freeway because traffic demand exceeds capacity.

another state highway, the volume to capacity standard for the connecting highway will generally be adequate to avoid traffic backups onto the freeway. However, in some instances where the crossroad is another state highway or a local road, the standards will not be sufficient to avoid this problem. Therefore, the maximum volume to capacity ratio for the ramp terminals of interchange ramps shall be the smaller of the values of the volume to capacity ratio for the crossroad, or 0.85.

At an interchange within a metropolitan area where a majority of the interchange access management area (Policy 3C) of the interchange is developed, the maximum volume to capacity ratio may be increased to as much as 0.90, but no higher than the standard for the crossroad, if:

1. It can be determined, with a probability equal to or greater than 95 percent, that vehicle queues would not extend into the portion of the ramp needed to accommodate deceleration from freeway speed; and
2. The interchange access management area is retrofitted to comply, as much as possible, with the standards contained in Policy 3C of this plan.

For the purposes of this policy, the portion of the freeway ramp needed to accommodate deceleration shall be the distance, along the centerline of the ramp, needed to bring a vehicle to a full stop from the posted freeway speed at a deceleration rate of 6.5 feet/second² (two meters/second²).

- Because the freeway ramps serve as an area where vehicles accelerate or decelerate to or from freeway speeds, the maximum volume to capacity ratio for the interchange ramps exclusive of the crossroad terminals shall be the standard for the freeway with the following exception. For freeway on-ramps where entering traffic is metered to maintain efficient operation of the freeway through the interchange area, the maximum volume to capacity ratio may be higher.
- The Director of the Department of Transportation or his/her delegate shall have the authority to adopt methods for calculating and applying the volume to capacity ratio standards in this policy or any alternative standards adopted pursuant to this policy.

Action 1F.2

Apply the highway mobility standards over a 20-year planning horizon when developing state, regional or local transportation system plans, including ODOT's corridor plans. When evaluating highway mobility for amendments to transportation system plans, acknowledged comprehensive plans and land use regulations, use the planning horizons in adopted local and regional transportation

system plans or a planning horizon of 15 years from the proposed date of amendment adoption, whichever is greater. To determine the effect an amendment to a transportation system plan, acknowledged comprehensive plan or land use regulation has on a state facility, the capacity analysis shall include the forecasted growth of traffic on the state highway due to regional and intercity travel and to full development¹¹ according to the applicable acknowledged comprehensive plan over the planning period.

Action 1F.3

Where it would be infeasible to meet the standards in this policy, consider adopting alternate highway mobility standards for:

- Metropolitan areas or portions¹² thereof to support an integrated land use and transportation plan for promoting compact development, reducing the use of automobiles and increasing the use of other modes of transportation, promoting efficient use of transportation infrastructure, and improving air quality;
- Special Transportation Areas (STAs); and
- Areas where severe environmental or land use constraints¹³ make infeasible the transportation improvements necessary to accommodate reasonable use of properties in accordance with acknowledged comprehensive plans or to accommodate comprehensive plan changes that carry out the Land Use and Transportation Policy (1B).
- The alternative standards shall be clear and objective and shall be related to v/c (e.g., corridor-average v/c, network-average v/c, and the ratio of average daily traffic and hourly capacity (adt/c)). The standards shall be adopted as part of a regional and/or local transportation system plan. The plan shall demonstrate that it would be infeasible to meet the highway mobility standards in this policy. In addition, the plan shall include all feasible actions for:
 - Providing a network of local streets, collectors and arterials to relieve traffic

¹¹ Full development, for the purposes of this policy, means the amount of population and employment growth and associated travel anticipated by the community's acknowledged comprehensive plan over the planning period. The Transportation Commission encourages communities to consider and adopt land use plan amendments that would reallocate expected population and employment growth to designated community centers to reduce reliance on state highways.

¹² This policy does not prescribe minimum or maximum sizes for portions of metropolitan areas that would qualify for alternative standards. Nevertheless, the area must be of the size necessary to support compact development, reduce the use of automobiles and increase the use of other modes of transportation, promote efficient use of transportation infrastructure, and improve air quality.

¹³ Examples of severe environmental and land use constraints include endangered species, sensitive wetlands, and historic districts.

demand on state highways and to provide convenient pedestrian and bicycle ways;

- Managing access and traffic operations to minimize traffic accidents, avoid traffic backups on freeway ramps, and make the most efficient use of highway capacity;
- Managing traffic demand, where feasible, to manage peak hour traffic loads on state highways;
- Providing alternative modes of transportation; and
- Managing land use to limit vehicular demand on state highways consistent with the Land Use and Transportation Policy (1B).

The plan shall include a financially feasible implementation program and shall demonstrate strong public and private commitment to carry out the identified improvements and other actions.

In metropolitan areas, the alternate highway mobility standards will become effective only after the standards have been approved by the metropolitan planning organization and adopted by the Transportation Commission.

Outside of metropolitan areas, the alternate highway mobility standards will become effective only after the Transportation Commission has adopted them in a corridor plan or in a portion of a corridor plan.

Action 1F.4

Develop corridor plans for Interstate Highways, other freeways and designated highway Freight Routes in the Portland metropolitan area that are important for through travel. Develop standards for those routes to provide adequate levels of highway mobility.

Action 1F.5

For purposes of preparing planning documents such as corridor plans and transportation system plans, in situations where the volume to capacity ratio for a highway segment is above the standards in Table 6 or Table 7, or those otherwise approved by the Commission, and transportation improvements are not planned within the planning horizon to bring performance to standard because of severe environmental, land use or financial constraints, the performance standard for the highway segment shall be to improve performance as much as feasible and to avoid further degradation of performance where no performance improvements

are feasible. Examples of actions that might improve performance include the following:

- Reconfigure highway and side-street accesses to minimize traffic conflicts at intersections;
- Limit parking near signalized intersections to increase intersection capacity;
- Coordinate and operate traffic signals to improve traffic progression;
- Relocate driveways and improve local road connections to direct traffic away from overburdened intersections and intersections where side-street capacity is limited in order to optimize traffic progression on the state highway;
- Improve turning-radii at intersections that are heavily used by trucks to avoid lane blockages;
- Install raised medians to reduce traffic conflicts;
- Improve accesses so that traffic can enter or exit the highway with minimal disruptions of flow; and
- Manage land uses to favor types of uses that generate less traffic or traffic peaks which do not coincide with traffic peaks on the highway. This could be done by making appropriate plan amendments or changes to zoning ordinances.

Local governments may also request that the Transportation Commission adopt alternate standards in accordance with Action 1F.3.

Action 1F.6

For purposes of evaluating amendments to transportation system plans, acknowledged comprehensive plans and land use regulations subject to OAR 660-12-060, in situations where the volume to capacity ratio for a highway segment, intersection or interchange is above the standards in Table 6 or Table 7, or those otherwise approved by the Commission, and transportation improvements are not planned within the planning horizon to bring performance to standard, the performance standard is to avoid further degradation. If an amendment to a transportation system plan, acknowledged comprehensive plan or land use regulation increases the volume to capacity ratio further, it will significantly affect the facility.

MAXIMUM VOLUME TO CAPACITY RATIOS OUTSIDE METRO ^{A, B, C, 14}							
Highway Category	Inside Urban Growth Boundary					Outside Urban Growth Boundary	
	STA ^D	MPO	Non-MPO Outside of STAs where non-freeway posted speed <= 35 mph, or a Designated UBA	Non-MPO outside of STAs where non-freeway speed > 35 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways ^E	N/A	0.80	N/A	0.70	0.70	0.70	0.70
Statewide Expressways	N/A	0.80	0.70	0.70	0.70	0.70	0.70
Freight Route on a Statewide Highway	0.85	0.80	0.80	0.75	0.70	0.70	0.70
Statewide (not a Freight Route)	0.90	0.85	0.85	0.80	0.75	0.75	0.70
Freight Route on a Regional or District Highway	0.90	0.85	0.85	0.80	0.75	0.75	0.70
Expressway on a Regional or District Highway	N/A	0.85	N/A	0.80	0.75	0.75	0.70
Regional Highways	0.95	0.85	0.85	0.80	0.75	0.75	0.70
District / Local Interest Roads	0.95	0.90	0.90	0.85	0.80	0.80	0.75

Table 6: Maximum volume to capacity ratios for peak hour operating conditions

Notes for Table 6

^A OHP Amendment 00-04 established alternative mobility standards for Portland Metro and the Rogue Valley MPO (RVMPO). For Metro, see Table 7, below. For RVMPO see note B, below and the OHP amendment establishing the RVMPO alternative standards located on the web at: <http://www.oregon.gov/ODOT/TD/TP/docs/orhwyplan/registry/0004.pdf>. Where there is a conflict between the Table 6 standards and the established alternative mobility standards, the more tolerant standard (higher v/c ratio) applies.

^B The maximum volume to capacity ratio at the Northbound and Southbound off-ramps of the South Medford Interchange is >1.0 for four hours daily until the new South Medford Interchange is constructed. The maximum v/c ratio at Highway 99 at Stewart Avenue is >1.0 for two hours daily. When the new interchange is completed, the mobility standards for the ramps will be those in Table 6.

^C For the purposes of this policy, the peak hour shall be the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas.

^D Interstates and Expressways shall not be identified as Special Transportation Areas.

^E National Highway System (NHS) highway design requirements are addressed in the Highway Design Manual (HDM).

¹⁴ Table 6 was replaced in August 2005, part of OHP Amendment 05-16.

Policy Element

MAXIMUM VOLUME TO CAPACITY RATIOS INSIDE METRO^A		
Location	Standard	
	1st hour	2nd hour
Central City Regional Centers Town Centers Main Streets Station Communities	1.1	.99
Corridors ^B Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	0.99	.99
Banfield Freeway (<i>from I-5 to I-205</i>) ^C	1.1	.99
I-5 North ^C (<i>from Marquam Bridge to Interstate Bridge</i>)	1.1	.99
Highway 99E ^C (<i>from Lincoln Street to Highway 224 Interchange</i>)	1.1	.99
Sunset Highway ^C (<i>from I-405 to Sylvan Interchange</i>)	1.1	.99
Stadium Freeway ^C (<i>from I-5 South to I-5 North</i>)	1.1	.99
Other Principal Arterial Routes I-205 ^C I-82 (<i>east of I-205</i>) I-5 (<i>Marquam Bridge to Wilsonville</i>) ^C Highway 217 ^C US 26 (<i>west of Sylvan</i>) Highway 30 Tualatin Valley Highway (<i>Cedar Hills Blvd to Brookwood Avenue</i>) ^C Highway 224 ^C Highway 47 Highway 213 242 nd /US 26 in Gresham	.99	.99
Areas of Special Concern^D Beaverton Regional Center Highway 99W (<i>I-5 to Tualatin Road</i>)	1.0 .95	D

Table 7: Maximum Volume to Capacity Ratios Within Portland Metropolitan Region

Notes for Table 7: Maximum volume to capacity ratios for two hour peak operating conditions through a 20-year horizon for state highway sections within the Portland metropolitan area urban growth boundary.

- ^A The volume to capacity ratios in the table are for the highest two consecutive hours of weekday traffic volumes. This is calculated by dividing the traffic volume for the average weekly two-hour PM peak by twice the hourly capacity.
- ^B Corridors that are also state highways are 99W, Sandy Boulevard, Powell Boulevard, 82nd Avenue, North Portland Road, North Denver Street, Lombard Street, Hall Boulevard, Farmington Road, Canyon Road, Beaverton-Hillsdale Highway, Tualatin Valley Highway (from Hall Boulevard to Cedar Hills Boulevard and from Brookwood Street to E Street in Forest Grove), Scholls Ferry Road, 99E (from Milwaukie to Oregon City and Highway 43).
- ^C Thresholds shown are for interim purposes only; refinement plans for these corridors are required in Metro's Regional Transportation Plan and will include a recommended motor vehicle performance policy for each corridor.
- ^D Areas with this designation are planned for mixed use development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a level-of-service need, but where alternative routes for regional through traffic are provided. In these areas, substitute performance measures are allowed by OAR.660.012.0060(2)(d). Provisions for determining the alternative performance measures are included in Section 6.7.7 of the 2000 RTP. The OHP mobility standard for state highways in these areas applies until the alternative performance measures are adopted in local plans and approved by the Oregon Transportation Commission.

 **MAJOR IMPROVEMENTS****Background**

Since road construction is very expensive and funding is very limited, it is unlikely that many new highways will be built in the future. Instead, the emphasis will be on maintaining the current system and improving the efficiency of the highways the State already has. The Major Improvements Policy reflects this reality by directing ODOT and local jurisdictions to do everything possible to protect and improve the efficiency of the highway system before adding new highway facilities. This policy carries out the direction of the Oregon Benchmarks. This direction includes improving traffic operations and maintaining the roadway for legal size vehicle travel. These priorities—laid out in Action 1G.—take precedence over the other actions in this policy.

Policy 1G: Major Improvements

It is the policy of the State of Oregon to maintain highway performance and improve safety by improving system efficiency and management before adding capacity. ODOT will work in partnership with regional and local governments to address highway performance and safety needs.

Action 1G.1

Use the following priorities for developing corridor plans, transportation system plans, the Statewide Transportation Improvement Program, and project plans to respond to highway needs. Implement higher priority measures first unless a lower priority measure is clearly more cost-effective or unless it clearly better supports safety, growth management, or other livability and economic viability considerations. Plans must document the findings which support using lower priority measures before higher priority measures.

- 1. Protect the existing system.** The highest priority is to preserve the functionality of the existing highway system by means such as access management, local comprehensive plans, transportation demand management, improved traffic operations, and alternative modes of transportation.
- 2. Improve efficiency and capacity of existing highway facilities.** The second priority is to make minor improvements to existing highway facilities such as widening highway shoulders or adding auxiliary lanes, providing better access for alternative modes (e.g., bike lanes, sidewalks, bus shelters), extending or connecting local streets, and making other off-system improvements.
- 3. Add capacity to the existing system.** The third priority is to make major roadway improvements to existing highway facilities such as adding general purpose lanes and making alignment corrections to accommodate legal size vehicles.

- 4. Add new facilities to the system.** The lowest priority is to add new transportation facilities such as a new highway or bypass.

Action 1G.2

Support any major improvements to state highway facilities in local comprehensive plans and transportation system plans only if the improvements meet all of the following conditions:

- The improvement is needed to satisfy a state transportation objective or objectives;
- The scope of the project is reasonably identified, considering the long-range projection of need;
- The improvement was identified through a planning process that included:
 - Thorough public involvement;
 - Evaluation of reasonable transportation and land use alternatives including measures for managing the existing transportation system and for reducing demands for highway capacity; and
 - Sufficient environmental analysis at the fatal flaw planning level.
- The plan includes measures to manage the transportation system, but these measures will not satisfy identified highway needs during the planning period or there is a need to preserve a future transportation corridor for future needs beyond the planning period;
- The improvement would be a cost-effective means to achieve the objective(s);
- The proposed timing of the improvement is consistent with priorities established in corridor plans and regional transportation plans and the financing program identifies construction as being dependent on the future availability of funds;
- Funding for the project can reasonably be expected at the time the project is ready for development and construction;
- The local government schedules funding for local street improvements in its local transportation financing program if these are needed to attain the objectives of the major improvement; and

- The plan includes policies and implementing measures that protect the corridor and its intended function.

ODOT recognizes that transportation system plans may identify needs and regional and local governments may defer decisions regarding function, mode, and general location of a long-range project to a refinement plan as described in the Transportation Planning Rule (OAR 660-12-025). Before ODOT will agree to any improvements on the state highway system, the improvements must conform to the requirements in this Action.

Action 1G.3

Through an intergovernmental agreement, implement a cost-sharing agreement when a project has major benefits to the local system, especially when local sponsors of the project envision purposes beyond those needed to meet state transportation objectives.

Action 1G.4

Design major improvements for limited access to protect through traffic movements. Develop and implement an access management intergovernmental agreement and require the local jurisdiction to adopt supporting actions in the local comprehensive plan.

Action 1G.5

As part of project development, negotiate an intergovernmental agreement with the local jurisdiction affected by a major improvement such as a bypass and transfer the ownership of the state routes that are bypassed to the local jurisdiction at the completion of the project.

Action 1G.6

Consider purchasing or otherwise protecting right-of-way, consistent with state, regional or local plans, in locations where projects will be necessary in the future.

 **BYPASSES¹⁵****Background**

Bypasses are highways designed to maintain or increase mobility for through traffic. Generally they relocate the highway alignment around a downtown, an urban or metropolitan area or an existing highway to provide an alternative route for through traffic using that highway. Sometimes they also function as principal urban arterials. Bypasses require good system management to protect the significant public investment and achieve mobility and livability goals.

The objectives of the Bypass Policy are

- To maintain and enhance the utility of the state highway investment,
- To assure land uses that are consistent and compatible with Oregon statewide land use goals,
- To identify the appropriate function of bypasses in the transportation system, and
- To guide the long-term operation of bypasses through agreement on land use and transportation management actions.

To attain these objectives, bypasses require local and state policy coordination involving land use, local street patterns, access control, design characteristics, the bypassed facility, and jurisdictional transfer under ORS 366.

Why Build a Bypass?

The desire for a bypass often evolves from growing congestion and safety problems on a state highway that is serving both as a regional highway and as a main street for a city. The highway is trying to serve both efficient freight and through travel and access to local business and residential areas. As traffic grows, the highway can serve neither purpose well, resulting in inefficient travel for through traffic and congested and unsafe accesses for local businesses and residences. Roadways that best serve these functions have opposite characteristics: Regional through travel is best served by limited access facilities that allow higher speeds and require infrequent stops. Downtown areas, on the other hand, require significant access opportunities, parking, and a safe, friendly pedestrian and bicycle environment. As congestion increases, regional travel and local access may need to be separated.

¹⁵ The Bypass Policy section was added in its entirety April 16, 2003, Amendment 03-08.

When the new bypass is constructed, new development is often drawn to the new facility and pressure builds for adjacent land uses to intensify. Unless controlled, this pressure could result in safety and operational problems that could detract from and impair the highway's performance and recreate the conditions that it was designed to alleviate.

Where urban areas concentrate activities along a state highway or near freeway interchanges, the mobility function is compromised as the highway is increasingly used for local trips rather than through trips. Local access along a highway, in turn, tends to draw trips away from the existing downtown and business centers. Careful planning is required to ensure the vitality of existing neighborhoods, the downtown and business centers when addressing the zoning of land near a proposed bypass facility.

Bypasses are opportunities to improve the efficiency of not only highways, but also the overall transportation system.

What Do Existing Bypasses Show?

The existing bypasses to which this policy applies vary in age, length and purpose. Most are either inside an urban growth boundary or both inside and outside the UGB. Generally, the bypasses were constructed to increase capacity for through traffic, increase safety, relieve congestion in downtown areas, and give access to particular parts of the bypass area.

Analysis shows that existing bypasses function well for regional and statewide traffic where land uses and plans are compatible with the through function of bypasses and where access to the bypass has been tightly controlled. These bypasses have improved safety and congestion in the downtown and other business areas. Vulnerable places seem to be interchanges, intersections and the ends of the bypasses.

Land Use and Transportation Compatibility

Since land use and transportation compatibility and access management are keys to an efficient bypass, ODOT and the local governments must ensure that development in the vicinity of the bypass will not reduce the highway's effectiveness or place its mobility function at future risk.

In order for a bypass to work effectively over the long term, local planning and zoning and the local street network must support the function of the bypass. Local transportation plans and ordinances should assure that land development patterns in the vicinity of the bypass will not use cul-de-sac or other interrupted street network patterns which cause reliance on the new facility for a large number of local trips. In most cases local streets should not directly access the new bypass facility. ODOT and the local governments must agree on the location of connections to the local street network and agree that local streets will be disconnected if they negatively affect the

through function of the highway. Local governments and ODOT must agree on the amendment to the TSP or local transportation plan which incorporates the bypass.

Access management features should place priority on enhancing this mobility function. A bypass on a new alignment is protected from access by abutting property owners by ORS 374.405-415. According to this statute, ODOT has complete control of access rights on any bypass constructed after May 12, 1951 on new alignment. No property owner can connect to the bypass unless ODOT agrees to allow the connection. Where and how connections will be allowed should be part of the planning process.

A bypass and its supporting facilities require a significant public investment. Developing these facilities may require the joint financial resources of the state and local governments and intergovernmental agreement on land use and connections. When a proposed bypass is to be located in an area outside an urban growth boundary, ODOT and local governments will consider the impacts of the bypass facilities on agricultural, forest and other natural resource areas and comply with the Land Conservation and Development Commission statewide goals and exception processes.

Bypass Classification

- **New Bypasses**

A new bypass may be constructed as a freeway or as an Expressway. Freeways are the highest form of arterials and have full access control. A freeway's primary function is to provide mobility, high operating speed and level of service while land access is limited. The full control of access is used to prioritize the needs of through traffic over direct access. Access connections, where deemed necessary, are provided through grade-separated interchanges.

Expressways are generally high-speed limited access facilities whose function is to move inter and intra urban traffic. Access is normally restricted to at-grade signalized and unsignalized public road intersections and interchanges. In rural areas, traffic signals are discouraged. Private property access is discouraged. In areas where there is no other reasonable access, private approach roads may be allowed. The Transportation Commission classifies highways as Expressways by amending the Highway Plan.

- **Existing Bypasses**

The Oregon Transportation Commission may designate existing state facilities as bypasses within this policy or in separate action. These existing bypasses may be classified as Expressways or as Statewide, Regional or District Highways without the Expressway classification. These classifications determine the applicable highway mobility standards in Oregon Highway Plan Policy 1F and access management standards in Appendix C.

Application of the Bypass Policy

Because the circumstances of each bypass vary, as do the particular issues and risks in each community, the application of the policy must be specifically fitted to the community. Therefore, this policy provides a checklist of considerations rather than an absolute criterion to be applied in each case. Jurisdictions, for example, may already have in place policies and ordinances that address these issues.

For new bypass facilities, implementation of the Bypass Policy will be iterative. Purpose and need in Action 1H.1.a should be addressed initially in a transportation system plan or corridor plan. The other provisions of Action 1H.1 and provisions in Actions 1H.2, 1H.4 and 1H.5 should be addressed in a refinement plan and/or a NEPA process, with decisions becoming more refined as the location and design of the facility become more specific. Further refinements may occur in the final design and construction phases of the project.

Policy 1H: Bypasses

Bypasses are highways designed to maintain or increase statewide or regional mobility. Generally they relocate a highway alignment around a downtown, an urban or metropolitan area or an existing highway. The goal of bypass facilities is to effectively serve state and regional traffic trips. It is the policy of the State of Oregon to build bypasses to provide safe, efficient passage for through travelers and commerce.

Action 1H.1

- a.** ODOT and the affected local governments shall identify the need for a bypass in a transportation system plan and/or corridor plan in a manner consistent with Oregon Highway Plan Policy 1G.

In establishing the purpose and need for the bypass facility to guide its planning, design and development, ODOT and the affected local governments shall analyze the following:

- 1) Percentages of local and through trips projected at least over a 20-year period on the bypass;
- 2) Percentages, volumes and impacts of freight truck traffic;
- 3) Average trips on the proposed bypass facility based on build-out of the comprehensive land use plan, and
- 4) Crash data history on the nearby or impacted facility.

Policy Element

The purpose of the analysis is to determine whether a bypass solution is appropriate and to identify the mobility and safety problems that must be addressed over the long-term.

- b.** In planning and developing a bypass project, ODOT and the local governments should use a refinement plan and/or a NEPA process to consider the following:
 - 1) Impacts on land use patterns and the local roadway system;
 - 2) Impacts on local businesses, major institutions and public facilities, and historic resources;
 - 3) Potential for using various kinds of public transportation, high occupancy vehicle lanes and ramps, ramp metering, park and ride lots and transportation demand management programs based on the population, density and forecasted growth of the bypass study area;
 - 4) Impacts to the natural, social and economic environment;
 - 5) Methods of managing land use impacts on communities and natural resources;
 - 6) Impacts on minority and low-income populations; and
 - 7) Funding options including public-private partnerships, value pricing and tolling in accordance with ORS 366.292.
- c.** After the location of the new bypass has been selected through the refinement plan and/or NEPA process, ODOT will establish joint agreements with the local and/or regional (metropolitan planning organization or county) governments on major bypass facility elements. These agreements may be in the form of interchange management plans, access management plans, master plans and/or interchange overlay zones for the bypass facility and its interchanges and intersections.
 - 1) The agreements and/or plans must address, as appropriate,
 - Access management and site plan review,
 - Road connections,
 - Local street circulation,
 - Compatible land uses, and

- Bypass termini protection.
- 2) The local and/or regional governments are expected to amend the local and/or regional transportation system plans accordingly, and the Oregon Transportation Commission is expected to adopt the facility plan.
- 3) In the event that joint agreement on plan concepts cannot be achieved, the Transportation Commission may adopt a facility plan for the project in accordance with OAR 731-15-065 regarding state agency compatibility with comprehensive plans.

Action 1H.2

For new bypasses on new alignments or on a combination of new and existing alignments, ODOT shall implement the following whenever practical:

a. General character

- 1) Design the bypass for moderate to high speeds at freeway or Expressway standards for regional and statewide traffic.
- 2) On new alignments, avoid any direct private property access. ODOT shall acquire the rights of access and allow no reservations of access.

b. Planning

In cooperation with local government:

- 1) Develop management plans for new interchanges, for existing interchanges and for interchanges replacing existing intersections when significant modifications are being planned.
- 2) Develop management plans for intersections with medium to high volume roads that include timelines or other triggers for grade-separation if connections are at-grade and traffic volumes or safety considerations warrant such separation.
- 3) Develop refinement plans or management plans, where appropriate, for the bypass termini with the local government to protect the mobility function of the bypass. These plans should be adopted in the local transportation system plan and as facility plans by the Oregon Transportation Commission.
- 4) Participate in development review when development proposals impact the bypass facility.

c. Access Management and Connections

- 1) Limit the number of public approaches based on the road's function and maintenance of the capacity for regional and statewide transportation circulation. In most cases, connections will be limited only to state highways but in certain cases connections may be to local arterials.
- 2) On new bypasses on new alignments:
 - Require that connections to the bypass not significantly reduce the mobility function of the bypass.
 - Design and construct the approach roads to exceed the spacing standards for connections to Expressways or freeways described in the 1999 Oregon Highway Plan and OAR 734-51 whenever possible.
- 3) Design and construct approach roads consistent with an adopted access management plan.

d. Interchanges/Intersections

- 1) Use grade separation and interchanges whenever practical and appropriate for safety and mobility:
 - If a public connection jeopardizes the mobility function of the bypass, it should be grade-separated or closed.
 - If 20-year projected traffic volumes demonstrate that intersections will need to be replaced with interchanges in order to maintain the mobility function of the bypass, before or during project development where possible, ODOT shall purchase enough right of way for future interchanges, their ramps and the access rights to them.
- 2) Space any traffic signals and other at-grade intersections in urban areas at appropriate distances, as set forth in OAR 734-051, so they may be replaced by interchanges or overpasses/underpasses in the future. Traffic signals must be approved according to OAR 734-020.

e. Local Traffic Circulation

- 1) Provide for overpasses/underpasses that do not connect to the bypass and/or an alternative road system parallel to the highway to maintain local traffic and bicycle and pedestrian circulation in accordance with ORS 366.514.
- 2) Support provisions in the local transportation system plan for local circulation off of the bypass facility.

f. Medians

Use medians according to Policy 3B of the 1999 Oregon Highway Plan on multi-lane highways.

Action 1H.3

Since existing bypasses are already in place, ODOT and the affected local governments should expect any changes to them to be incremental and accomplished through cooperation and a balancing of state and local interests. On *existing* bypasses, ODOT shall implement the following whenever practical:

a. Planning

In cooperation with local government:

- 1) Consider development of management plans for new interchanges, for existing interchanges and for interchanges replacing existing intersections when significant modifications are being planned.
- 2) Consider development of management plans for intersections with medium to high volume roads that include timelines or other triggers for grade-separation if connections are currently at-grade and traffic volumes or safety considerations warrant such separation.
- 3) Consider development of refinement plans or management plans, where appropriate, for the bypass termini with the affected local governments to protect the mobility function of the bypass. These plans should be adopted in the local transportation system plan and as facility plans by the Transportation Commission.
- 4) Participate in development review when development proposals impact the bypass facility.

b. Access Management and Connections

Move toward consistency with the access management standards in the 1999 Oregon Highway Plan and OAR 734-51 by

- 1) Providing reasonable alternate access to properties,
- 2) Encouraging consolidation of approaches and/or
- 3) Acquiring access to properties.

c. Interchanges/Intersections

- 1) Use grade separation and interchanges where possible and appropriate for safety. If a public connection jeopardizes the mobility function of the bypass, it should be grade-separated or closed.
- 2) Space any traffic signals and other at-grade intersections in urban areas at appropriate distances, as set forth in OAR 734-051. Traffic signals must be approved according to OAR 734-020.

d. Local Traffic Circulation

- 1) Provide for overpasses/underpasses that do not connect to the bypass and/or an alternative road system parallel to the highway to maintain local traffic and bicycle and pedestrian circulation in accordance with ORS 366.514.
- 2) Support provisions in the local transportation system plan for local circulation off of the bypass facility.

e. Medians

On multi-lane existing bypasses, install non-traversable medians beginning at well-designed intersections in accordance with Policy 3B.

Action 1H.4

Before the Oregon Transportation Commission authorizes funding for construction of a new bypass, the affected local governments shall address the following for consideration by the Transportation Commission:

- a. Have an acknowledged transportation system plan unless exempt from transportation system planning requirements under OAR 660-12-0055 in which case the local comprehensive plan must address these policy provisions;
- b. Protect the regional and statewide mobility function of the new bypass through their comprehensive plan, transportation system plan, and implementing ordinances;
- c. Consider re-planning and re-zoning properties that could have an adverse future effect on the facility. This may include reducing the list of permitted and conditional uses which substantially impact the intersections and interchanges of the bypass;
- d. Develop ordinances that provide for local street connectivity in the vicinity of the bypass facilities, including provisions for parallel streets and limits

on interrupted street networks which cause reliance on the bypass facility for local trips;

- e. Limit approaches to the bypass to public street connections consistent with the interchange management plan and OAR-734-051;
- f. Participate, if necessary, in financing the overall bypass project and/or its connections through monetary and/or “in kind” efforts and contributions such as moving and rebuilding utilities, providing right of way for and relocating local streets and street accesses, constructing elements of the local transportation system plans needed to support the project, relocating affected facilities, participating in transit components for the project and participating in the project as a tolled project; and
- g. Negotiate a jurisdictional transfer of the bypassed highway according to the provisions of Action 1G.5 and subject to the provisions of Policy 2C: Interjurisdictional Transfers.

ODOT will not require transfer of jurisdiction of a bypassed highway if the bypassed highway will continue to function as a state highway because it carries a significant number of vehicle trips that do not originate or terminate in the bypassed city or cities.

Action 1H.5

As part of the determination of project costs for the proposed bypass, determine the extent of investment in the bypassed state facility. The reinvestment considerations shall include:

- a. Actions to maintain acceptable mobility on the facility,
- b. Bicycle and pedestrian amenities,
- c. Signing, and
- d. Other urban design features.

Additionally, ODOT and the affected local governments shall determine roles and responsibilities for the maintenance needs of the bypassed facility.

Application of the Policy

This policy applies to all new bypasses, bypasses designated by the Oregon Transportation Commission, and the following existing bypasses:

a. Existing Bypasses not Classified as Expressways

- 1) OR 47, Tualatin Valley Highway (MP 17.88- 20.4)
- 2) OR 47, Nehalem Highway (MP 88.69-90.63)
- 3) US 101, Oregon Coast Highway, Cannon Beach Section (MP 28.08-31.37)
- 4) OR 126E, McKenzie Highway, Blue River Section (MP 39.68- 41.01)
- 5) OR 126W, Florence-Eugene Highway, Noti Section (MP 40.78-42.29)
- 6) OR 99W, Pacific Highway West, Corvallis Section (NW Elks Drive-NW Buchanan) (MP 80.73-82.95)
- 7) US 199, Redwood Highway, Grants Pass Parkway (MP 0.35-0.25, Y-0.69 – Y-1.99)
- 8) OR 42, Coos Bay-Roseburg Highway, bypass of Coquille (MP 9.68-12.13)

b. Existing Bypasses also Classified as Expressways

- 9) OR 213, Cascade Highway South (I-205 – Mollala Avenue) (MP 0.00-3.59)
- 10) US 20, Corvallis-Newport Highway, Corvallis Bypass (MP 54.03-56.8)
- 11) OR 18, Salmon River Highway, Willamina-Sheridan Section (MP 24.23-34.32)
- 12) OR 18, Salmon River Highway, McMinnville-Dayton Section (MP 43.75-52.65)
- 13) Beltline Highway (MP 3.10- 12.76)
- 14) Salem Parkway (MP 0.00- 3.16)
- 15) OR 126, Eugene-Springfield Highway (MP 0.00-9.97)
- 16) Bend Parkway (MP 134.76– 141.83)
- 17) OR 140, South Klamath Falls Highway (Green Springs Highway)

intersection to Klamath Falls-Malin Highway intersection) (MP 0.00-5.97)

18) US 97, The Dalles-California Highway (junction of Klamath Falls-Malin Highway to city limits) (MP 272.53-277.43)

The policy is also applicable to potential bypass plans and projects undergoing environmental assessment such as the Newberg-Dundee Transportation Improvement Project and the South Bend Refinement Plan.

Goal 2: System Management

To 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.*

Overview

Working towards a seamless highway and road system is a goal based on the need to increase system efficiencies in an environment of limited funding. The term “seamless” implies an integrated system in which a user does not recognize changes in jurisdiction or responsibilities. The state highways and local roads function as a single, integrated system. It is a system where:

- System efficiencies and safety are enhanced through interjurisdictional partnerships;
- Management responsibilities of two or more agencies are consolidated at a single agency to achieve more consistent roadway function and management;
- Duplicative functions such as maintenance responsibilities are eliminated through cooperative agreements between state and local jurisdictions;
- Technologies, such as Intelligent Transportation System technologies, are compatible across jurisdictional boundaries; and
- Federal, state, and local funding sources are flexible for improvements that provide the most benefit, regardless of management responsibilities.



INTERJURISDICTIONAL RELATIONS

Background

The Oregon Transportation Plan acknowledges that the relationships between federal, regional, and local jurisdictions and ODOT are crucial for the future of the state's highway system. It also recognizes that ODOT has direct relationships with citizens, businesses and affected communities that must be fostered and maintained.

As funding for transportation continues to lag behind the rate of inflation and maintenance needs, the ability to form partnerships and find efficiencies to stretch scarce resources farther will become more important for both economic development and quality of life issues throughout the state.

Three overlapping components would further interjurisdictional relationships:

- Creation of cooperative partnerships;
- Funding of off-system improvements; and
- Interjurisdictional transfer of roads.

Improving the relationship between ODOT and local jurisdictions is a starting point for increasing efficiency and eventually creating a seamless transportation system. An integrated system can reduce the confusion created by overlapping jurisdictions, services, and development requirements. Such a seamless system would share decision-making authority through cooperative arrangements to develop, operate, and maintain the state highway and local road systems. Partnership opportunities between ODOT, local jurisdictions, and federal agencies are necessary to help meet both state and local needs.

ODOT should also consider off-system improvements as a means of enhancing the state/regional transportation system. Off-system improvements may provide a cost-effective alternative to increasing the capacity of the state highway system, while helping to meet both state and local needs. ODOT can accomplish off-system improvements to enhance or preserve the state highway system by funding specific local modernization projects that will provide direct benefits to the state highway system or by involving ODOT staff in planning efforts to identify and address future local land use or transportation activities that will have an impact on the state highway system. This policy does not represent a commitment of funds to specific local projects.

Interjurisdictional road transfers (from ODOT to local jurisdictions or from local jurisdictions to ODOT) currently occur on an ad hoc basis, with basic issues such as condition at time of transfer, funding for maintenance, and ongoing operational responsibilities negotiated on a case-by-case basis. These transfers should occur on a more systematic basis.

ODOT recognizes that, with limited funding, segments of state highways that do not serve state functions will receive less attention than they deserve. These segments are often urban arterials primarily serving local traffic, frontage roads, farm-to-market roads and other roads that function like city and county streets and roads. ODOT sees its role as serving mainly regional and statewide interests. To appropriately align responsibilities for these state-owned Local Interest Roads, ODOT proposes to develop a process with cities and counties to transfer them to local jurisdictions.

At the same time, there are local roads that are serving primarily through traffic or providing connections between state highways. Local governments and ODOT may be interested in transferring these to state jurisdiction.

The Oregon Transportation Plan stresses the importance of public participation, information, and education in the development and implementation of policies, programs, and projects to achieve the State's transportation goals. In Policy 2D ODOT recognizes that public involvement programs are an important part of building relationships with users and communities to ensure that highway development and maintenance projects meet Oregonians' needs.

Policy 2A: Partnerships

It is the policy of the State of Oregon to establish cooperative partnerships to make more efficient and effective use of limited resources to develop, operate, and maintain the highway and road system. These partnerships are relationships among ODOT and state and federal agencies, regional governments, cities, counties, tribal governments, and the private sector.

Action 2A.1

Support planning and development of highway and local road projects that enhance the seamless qualities of a transportation system which balances state, regional, and local needs.

Action 2A.2

Continue and increase the number of partnerships with federal agencies, tribal governments, and regional and local jurisdictions to share planning, development, operational and maintenance responsibilities, and address aspects of a seamless management system. Seek funding for the partnership process.

Action 2A.3

Investigate the legality of combining federal, state, regional, local and/or private funding to achieve the most effective, efficient expenditure of public money for transportation; encourage flexibility in the application of such funds.

Action 2A.4¹⁶

Consult with local and regional government(s) regarding the potential for local participation on major modernization projects considered for inclusion in the STIP. Local participation shall consider the size and financial capabilities of the jurisdiction(s). Participation may include but is not limited to contributions to funding, in-kind services and materials, improvements to local street circulation that support the state highway, benefits to non-auto modes, land use actions and other enhancements.

When major improvements to or replacement of an interchange are necessary, work in partnership with local and regional government(s) regarding financial participation, right-of-way contributions, and other enhancements. These partnerships are of particular importance when amendments are proposed to acknowledged comprehensive plans, interchange management plans are adopted or changes in zoning increase the intensity of development.

Action 2A.5

Establish partnerships with the private sector where doing so will provide cost efficiencies to the state and advance state goals.

Action 2A.6

With Washington State, support cooperative strategic planning for the bi-state Columbia River bridges and coordinate other transportation projects in corridors approaching the bridges on each side of the river.

Action 2A.7¹⁷

Negotiate with the private sector to leverage funds, right-of-way contributions, or off-system improvements when major highway improvements benefit specific properties planned for development, where changes are proposed or have occurred to the relevant comprehensive plan or where development has occurred or will occur that necessitate major highway improvements.

Policy 2B: Off-System Improvements

It is the policy of the State of Oregon to provide state financial assistance to local jurisdictions to develop, enhance, and maintain improvements on local transportation systems when they are a cost-effective way to improve the operation of the state highway system if:

¹⁶ Action 2A.4 was amended January 19, 2006, Amendment 06-18.

¹⁷ Action 2A.7 was added January 19, 2006, Amendment 06-18.

- *The off-system costs are less than or equal to on-system costs, and/or the benefits to the state system are equal to or greater than those achieved by investing in on-system improvements;*
- *Local jurisdictions adopt land use, access management and other policies and ordinances to assure the continued benefit of the off-system improvement to the state highway system;*
- *Local jurisdictions agree to provide advance notice to ODOT of any land use decisions that may impact the off-system improvement in such a way as to adversely impact the state highway system; and*
- *Local jurisdictions agree to a minimum maintenance level for the off-system improvement that will assure the continued benefit of the off-system improvement to the state highway system.*

Action 2B.1

Establish statewide criteria to identify and prioritize potential off-system improvements.

Action 2B.2

Develop a model intergovernmental agreement that addresses access management and land use restrictions, notification requirements, design standards, and maintenance issues.

Action 2B.3

Continue to participate in local transportation and land use planning to identify and mitigate potential actions that will adversely impact the state highway system or undermine the benefits to the state system of off-system improvements.

Action 2B.4

In preparing corridor plans, transportation system plans and project plans, work with local governments to identify and evaluate off-system improvements that would be cost-effective in improving performance of the state highway.

Policy 2C: Interjurisdictional Transfers

It is the policy of the State of Oregon to consider, in cooperation with local jurisdictions, interjurisdictional transfers that:

- *Rationalize and simplify the management responsibilities along a particular roadway segment or corridor;*
- *Reflect the appropriate functional classification of a particular roadway segment or corridor; and/or*
- *Lead to increased efficiencies in the operation and maintenance of a particular roadway segment or corridor.*

Action 2C.1

Working with local governments, define criteria for identifying state roads and highways that serve primarily local interests and local highways, roads, and streets that serve primarily state interests. The criteria should address land use, trip purposes, highway mobility standards, and access management.

Identify potential roads and highways for interjurisdictional transfer. The state roads and highways to be transferred to local jurisdictions may include:

- Urban arterials serving primarily local travel needs;
- Urban streets that have remained state-owned after a parallel major improvement has been constructed;
- Frontage roads;
- Farm-to-market roads;
- Other roads that function like county roads; and
- Connector roadways between highways. (These facilities do not include continuous highway segments that extend through a local jurisdiction.)

Local roads to be transferred to the state may include:

- Urban arterials that serve mainly through traffic; and
- Rural routes that have a statewide economic importance.

Action 2C.2

Establish criteria to guide decisions to transfer roads, including appropriate compensation, roadway conditions, maintenance agreements, and management and operational standards to maintain the functionality of the facility. Criteria for consideration of transfers should include but are not limited to:

- The importance of the facility to the functionality of the statewide system and the impacts of the transfer on that functionality. Changes in maintenance, highway mobility, or other standards resulting from the transfer should not negatively impact the function of other nearby state facilities;
- The land use vision of the local community;
- The condition or standard of the facility at the time of transfer and its meeting an agreed upon serviceability standard; and
- Appropriate compensation for the exchange that is determined during negotiation through an analysis which equalizes or balances the relative values of each transaction between the State and the local jurisdiction.

Action 2C.3

Develop a decision-making process for interjurisdictional transfers that includes the following:

- The Oregon Transportation Commission finds that the state highway is no longer needed to meet the functional needs of the system, or the local road is needed to meet the functional needs of the state system. The Oregon Transportation Commission solicits comments from the affected jurisdictions and the public;
- The State signs an intergovernmental agreement with the local jurisdiction which addresses compensation, roadway conditions, access management, maintenance, and operational standards;
- The local jurisdiction and ODOT both agree in writing to the transfer; and
- The extent and legal standing of any existing access rights and access management controls is documented and not contested by ODOT or the local jurisdiction.

Policy 2D: Public Involvement

It is the policy of the State of Oregon to ensure that citizens, businesses, regional and local governments, state agencies, and tribal governments have opportunities to have input into decisions regarding proposed policies, plans, programs, and improvement projects that affect the state highway system.

Action 2D.1

Conduct effective public involvement programs that create opportunities for citizens, businesses, regional and local governments, state agencies, and tribal governments to comment on proposed policies, plans, programs, and improvement projects.

Action 2D.2

Increase public information and education about construction, operations, and maintenance activities.

Action 2D.3

Coordinate with local governments and other agencies to ensure that public involvement programs target affected citizens, businesses, neighborhoods, and communities, as well as the general public.

Action 2D.4

Evaluate agency public involvement programs on a regular basis to ensure the programs are effective in involving a broad range of the public in agency planning and decision-making processes.



INTELLIGENT TRANSPORTATION SYSTEMS (ITS)

Background

When integrated into the transportation system, a number of information processing, communication, control, and electronic technologies can save lives, save time, and save money. These technologies are known collectively as Intelligent Transportation Systems (ITS). In Oregon, many public and private transportation providers are using these technologies to assist in the day-to-day problems of moving people and goods.

- In the Portland area, closed circuit television and other traffic surveillance devices and methods allow ODOT to rapidly detect and respond to incidents on the urban freeway system. By clearing incidents quickly, traffic flow can

return to normal and minimize inconvenience and delay to travelers and freight haulers. They can also detect congestion occurrences and allow traffic managers to use technologies such as ramp metering, variable message signs, internet, kiosks, and other technologies to alert users of potential delays and advise them of alternative routes.

- At the Farewell Bend port of entry near Ontario, in the Operation Greenlight Project, trucks that are equipped with an inexpensive communication device that mounts on the cab windshield can be uniquely identified, weighed, and checked against a computerized database within seconds while the trucks are traveling at highway speed. If a truck is found to be traveling legally, it is given a signal through the communication device and is allowed to proceed down Interstate 84 without stopping at the weigh station.
- Traveler information involving traffic, construction, road conditions, traveler services, and weather can significantly improve travel in both rural and urban areas.
- Public transit applications of ITS, including traveler information and global positioning dispatching systems, have been shown to improve transit performance.
- Incident detection and response along rural highways is a growing concern in Oregon. ITS technologies such as cellular call-in services and mayday systems are in use or the subjects of experiments in the United States at this time.

ITS can effectively provide additional road capacity without increasing the physical size of the facility. Opposition to adding lanes, as well as the cost of building them, makes ITS an attractive alternative. To keep pace with the growth of vehicle miles traveled, the U.S. Department of Transportation predicts that the United States will need to build 34 percent more highway capacity. For 50 cities, the 10-year cost is estimated to be \$150 billion. Implementing an ITS solution could cost much less and provide significant portions of the needed capacity.

Sixty percent of the delay on congested freeways can be attributed to incidents. A highway accident increases the risk of an additional accident by a factor of six, according to a study of accident statistics on several California highways and expressways. National studies assessing incident management programs estimate that by reducing the time it takes to detect and respond to freeway accidents from the current national average of 5.2 minutes to 3 minutes, accident fatalities would be expected to decline by 10 percent. Incident response on rural highways can make similar gains.

Policy 2E: Intelligent Transportation Systems

It is the policy of the State of Oregon to consider a broad range of Intelligent Transportation Systems services to improve system efficiency and safety in a cost-effective manner. Deployment of ITS shall reflect the user service priorities established in the Oregon Intelligent Transportation Systems Strategic Plan. Specifically:

- *Incident Management*
- *En-route Driver Information*
- *Traffic Control (Arterials and Freeways)*
- *Route Guidance*
- *Commercial Vehicle Electronic Clearance*
- *Pre-trip Travel Information*
- *Public Transportation Management*
- *Emergency Notification and Personal Security*
- *Emergency Vehicle Management*
- *Commercial Fleet Management*

Action 2E.1

Establish planning, management, budgeting, and project selection processes within ODOT to encourage timely, cost-effective deployment of ITS applications, including:

- Creating and maintaining an ITS office in ODOT to evaluate and implement ITS, implement ITS strategies, provide outreach and coordination among agencies, technology integration, education and program development and assessment, and partnership;
- Encouraging the use of ITS in corridor and transportation system plans and ITS proposals in the Statewide Transportation Improvement Program process; and
- Creating budgets for ITS operational and maintenance requirements within the ODOT Regions.



ODOT's Traffic Management Center in Portland responds to freeway incidents and emergencies.

Action 2E.2

Expand traffic management capabilities in metropolitan areas through the use of ramp meters, variable message signs and closed circuit television to address recurrent congestion and enhance incident management.

Action 2E.3

Expand incident management capabilities in metropolitan areas and along key freight and recreational routes around the state where traffic incidents cause severe non-recurrent congestion.

Action 2E.4

Continue to advance commercial vehicle applications of ITS such as the Greenlight Project.

Action 2E.5

Work with local and regional governments and law enforcement agencies to deploy an effective advanced traffic management system in each metropolitan area.

Action 2E.6

Create a statewide network for real time weather, road condition, traffic, traveler services, and public transportation information.

Action 2E.7

Encourage transit operators and emergency service providers to develop standardized dispatching, vehicle monitoring, and vehicle priority systems.

Action 2E.8

Create a toolbox of standardized ITS applications that can be applied in small cities and rural areas. These products will emphasize enhancements for safety, traveler information, incident response, and congestion relief.

Action 2E.9

Foster public/private partnerships to further ITS development and funding.

Action 2E.10

Develop an advanced high speed telecommunications facility to serve as the communications backbone to statewide ITS deployment in partnership with private communications providers.

Action 2E.11

Develop partnership opportunities with neighboring states for the installation of ITS technologies and for opportunities to share services and information.

Action 2E.12

Support ITS planning, development, and implementation in corridor plans and local transportation system plans.

 **TRAFFIC SAFETY****Background**

In 1996, 316 people died in the 23,053 motor vehicle crashes occurring on Oregon's state highway system. Eighty percent of these fatal crashes occurred on rural highways. Speed contributed to over 17 percent of the fatal crashes, and driving under the influence of intoxicants was a factor in 43 percent of the crashes. About half of the fatal crashes occurred during adverse weather conditions and a third on wet or icy pavement. In the cases where restraint usage was known, 42 percent of those killed were not using a safety belt. Thirteen percent of fatalities on the state highway system were non-motorists (11 percent pedestrians, 2 percent bicyclists).

Fatality and injury statistics show that the majority of all crashes are caused by some error on the driver's part. According to a Michigan study, approximately 80 percent of events causing crashes are due to driver error, 15 percent are due to environmental or roadway conditions and 5 percent are due to vehicle defects.

ODOT has the responsibility to consider safety in all construction, maintenance, and operating activities on the state highway system. This includes implementation of programs that improve the safety of historically or potentially hazardous sites and routes and programs that address system-wide safety issues. The Oregon Transportation Plan gives safety a high priority in Policy 1G in declaring that "the policy of the State of Oregon is to improve continually the safety of all facets of statewide transportation for system users including operators, passengers, pedestrians, recipients of goods and services, and property owners."

The Oregon Transportation Safety Action Plan further clarifies the 12 actions in the Oregon Transportation Plan. Policy 2F and its actions are based on these adopted policies and priorities.

Three elements are critical to successfully solving any traffic safety issue: engineering, education, and enforcement. Some include another element: emergency medical services. Engineering fixes tend to focus on the driving environment: e.g., improving the road design; improving site distance, illumination, signing and striping; making the shoulder area safer; assessing conditions to establish appropriate speeds; constructing median barriers; and managing access to highways. Solutions to safety problems should also consider the use of non-engineering elements, including coordinating and enhancing state, city, and county law enforcement; involving business, the media, community safety groups, and schools in educational efforts; developing incident management programs; and establishing Corridor Safety Improvement Projects.

POLICY 2F: TRAFFIC SAFETY

It is the policy of the State of Oregon to continually improve safety for all users of the highway system using solutions involving engineering, education, enforcement, and emergency medical services.

Action 2F.1

Establish a process to develop and implement the most cost-effective solutions to high priority safety problems.

Action 2F.2

Whenever safety improvement is the stated objective of the project, include goals and a process to evaluate the outcome and further refine the project selection and solution process.



ODOT's incident response vehicle, the COMET truck, assists disabled vehicles while minimizing disruptions to traffic flow on busy Portland Metro freeways.

Action 2F.3

In identifying solutions to traffic safety problems, consider solutions including, but not limited to:

- Increasing traffic enforcement;
- Involving business and community groups and the media in educational efforts;
- Using educational materials and special signing to change driving practices;
- Making engineering improvements such as geometrics, signing, lighting, striping, signals, improving sight distance, and assessing conditions to establish appropriate speed;
- Constructing appropriate bicycle and pedestrian facilities including safe and convenient crossings;
- Managing access to the highway;
- Developing incident response and motorist assistance programs;
- Ensuring the uniformity of traffic control devices; and
- Developing driver information systems.

Action 2F.4

Continue to develop and implement the Safety Management System to target resources to sites and routes with the most significant safety problems. Encourage local governments to adopt a safety management system.

Action 2F.5

Seek additional funding for state and local traffic law enforcement.

Action 2F.6

Work with citizens and local jurisdictions to address safety concerns on the state highway system.

RAIL AND HIGHWAY COMPATIBILITY** Background**

In 1997, there were 148 at-grade highway-railroad public grade crossings on Oregon state highways. Each represents the potential for serious injury or death even if equipped with gates and lights. Despite Oregon's nationally recognized success in reducing collisions at public grade crossings, the increase in both vehicle and train traffic presents on-going challenges in protecting both the motoring public and train passengers and crews.

Several types of situations can cause conflict between highway and railroad operations at grade crossings:

- Routine maintenance on a roadway, such as an overlay which leaves the track area untouched or a track resurfacing which makes the tracks higher than the adjacent roadway surface.
- Queuing roadway traffic at intersections near rail crossings which results in trapping motorists on the tracks as a train is approaching.
- Roadway design at a rail crossing, including a road expanse wider than two lanes, the angle of intersection of roadway and tracks, the location of the crossing in relation to existing track devices (switches, multiple tracks, etc.), driveways near the intersection of the track and roadway, and obstructions to motorists' views of approaching trains.

To increase safety and efficiency, ODOT is directed by statute "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” (ORS 824.202). The 1995 Legislature transferred this authority from the Oregon Public Utility Commission to ODOT.

Statutory authority means that ODOT has the responsibility of meeting the stated objective of uniformity, construction, alteration, and closure over all public crossings. This includes not only crossings of state highways, but also crossings of county roads and city streets. When a road authority wants to construct or alter a crossing, it must file an application with the ODOT Rail Division. The Rail Division works with all the parties to reach an agreed upon course of action. Determination of whether a new crossing or alteration is justified is made on an individual basis. The process includes consideration of such factors as traffic circulation, pedestrian crossings, economic development, safety, congestion and rail traffic. Both Federal Railroad Administration direction and Oregon statutes call for elimination of grade crossings wherever possible.

Policy 2G: Rail and Highway Compatibility

It is the policy of the State of Oregon to increase safety and transportation efficiency through the reduction and prevention of conflicts between railroad and highway users.

Action 2G.1

Eliminate crossings at grade wherever possible. Give priority to closing those crossings with the greatest potential for train-vehicle conflicts. Where rail grade crossings provide an important route for local pedestrian, bicycle, or vehicle circulation, the needs of these local movements should be considered.

Action 2G.2

Design highway projects to avoid or reduce rail crossings at grade.

Action 2G.3

In cooperation with railroads and local governments, target resources to increase safety through automated devices and enforcement at specific crossings.

Action 2G.4

Coordinate highway design, construction, resurfacing and traffic signals affecting rail crossings with the ODOT Rail Division and the railroads.

Action 2G.5

Address pedestrian and bicycle access issues and design concerns when designing grade-separated crossings.

Goal 3: Access Management

To employ access management strategies to ensure safe and efficient highways consistent with their determined function, ensure the statewide movement of goods and services, enhance community livability and support planned development patterns, while recognizing the needs of motor vehicles, transit, pedestrians and bicyclists.

Overview

Access management is balancing access to developed land while ensuring movement of traffic in a safe and efficient manner. To achieve effective transportation it is necessary to have a blend and balance of road facilities. Each performs its unique function since no single class of highway can provide both high levels of movement and high levels of access to property. The spectrum ranges from freeways that provide for ease of movement through higher speeds, higher capacity and freedom from interruption to local residential streets that serve a diverse group of users from pedestrians to garbage collectors and emergency response vehicles by providing ease of access through slow speeds and numerous driveways.

Because expanding population growth and transportation needs are placing increasing demands on the state highway system, there is intense pressure to allow businesses and individuals extensive access to the roadways. Access can be managed a number of different ways, including freeway interchange placement and design, driveway and road spacing and design, traffic signal location, median design and spacing of openings, connectivity and the use of turn lanes. The challenge is to determine how to best apply these access management techniques on Oregon's state highway system to safely protect the highway efficiency and investment, contribute to the health of Oregon's local, regional and statewide economies, and support and maintain livable communities.

Implementation of access management is essential if the safety, efficiency and investment of the existing and planned state highways are to be protected. Roads link together as a chain, and the roadway system is only as effective as its weakest link. The amount of access and how it is allowed to a state highway is a critical factor in determining how long the facility can remain functional, and is the largest contributor to safety. An uncontrolled number of driveways to a highway can cause it to be very unsafe, and some highways will not serve their intended function to carry people, freight, and goods throughout the state. Implementation of access management techniques produces a more constant traffic flow, which helps to reduce congestion, fuel consumption and air pollution.



ACCESS MANAGEMENT

Background on Road Approaches (Driveways and Public Road Connections)

In Oregon, prior to 1949, a property owner could build a road approach (driveway or public road connection) to a highway at any location without obtaining permission. The State Legislature realized that highways would not operate safely or efficiently if this practice continued, and in 1949 a statute was passed that required all parties to receive written permission from ODOT or county governments, as appropriate, before constructing an approach road.

Since that time, property owners adjacent to state highways have been required to obtain an approach road permit from ODOT even though they have a “common law” right of access to the state highway. The common law right allows them to access the highway, and the permit process determines how and where the approach road can be safely constructed. While the statute requires that owners be allowed to access their property, it does not ensure that they can have an approach road wherever they desire. For example, ODOT is not obligated to issue an approach road permit when reasonable access is available, such as to a city street or a county road.

ODOT has the authority to purchase the right of access from property owners where appropriate. In some cases, such as along Interstate Highways, ODOT purchases the right of access in its entirety and the property owner no longer has any common law right to access the highway. In this case, a statement in the property owner’s chain of title will show that the right of access has been conveyed to ODOT.

In other cases, ODOT purchases access rights just along portions of properties. Gaps, called “reservations of access,” may remain along the property’s frontage. The reservation of access gives a property owner the common law right of access to the state highway only at specific locations. The property owner must still apply for a road approach permit at these locations.

Having a reservation of access in the deed does not guarantee that ODOT will permit a driveway at that location. For example, in the time since the reservation of access was established, traffic volumes may have increased significantly, travel speeds on the highway may have risen, the highway design may have changed (for example, by adding a passing lane), other approach roads may be too close, or alternate street connections may have been built. Any of these cases could make a new approach road unsafe or otherwise inappropriate.

In these cases, however, ODOT must still ensure that property owners have reasonable access to their property. If there is no reasonable access to the property leaving the property landlocked, ODOT may be required to purchase the property.

Scope of the Policies

The criteria in the Access Management Policies and the standards in Appendix C shall be applied to the development of all ODOT highway construction, reconstruction or modernization projects and approach road permits, as well as all planning processes involving state highways, including corridor plans, refinement plans, state and local transportation system plans and local comprehensive plans.

- All highway plans, including corridor plans and refinement plans, which have not been adopted on or before the effective date of the Access Management Policies, shall be subject to these policies. Local and regional transportation system plans adopted after January 1, 2000 shall be subject to these policies.
- All projects which have not published the draft environmental document at the effective date of the Access Management Policies shall be subject to these policies.
- Projects which have published the draft environmental document prior to the effective date of the Access Management Policies shall be evaluated individually by the Region Manager to determine to what extent these policies should be implemented.

The policy and procedures for Deviations and the standards in Appendix C, and the policy and procedures for Appeals portions of the Access Management Policies apply to local governments, private applicants, and state agencies, including ODOT, where there is a desire to apply standards and criteria different than those outlined in the Access Management Policies, in the following instances:

- All approach road and private road crossing requests for approaches to state highways.
- New state highway construction projects and new highway plans.
- Any reconstruction or modernization work on state highways.

All proposed traffic control devices on the state highway system must have prior approval of the State Traffic Engineer and may include criteria not set forth in these policies.

Policy 3A: Classification and Spacing Standards

It is the policy of the State of Oregon to manage the location, spacing and type of road and street intersections and approach roads on state highways to assure the safe and efficient operation of state highways consistent with the classification of the highways.

Action 3A.1

Manage access to state highways based on the access management classifications as defined below:

1. Freeways (NHS) – Interstate and Non-Interstate

(Examples: Interstate 5, Interstate 84, and Oregon Route 217, US Route 26 from Interstate 405 west to Oregon Route 6 (Non-Interstate))

- Freeways are multi-lane highways that provide for the most efficient and safe high speed and high volume traffic movement.
- Interstate Freeways are subject to federal interstate standards as established by the Federal Highway Administration.
- Freeways are subject to ODOT's Interchange Policy.
- ODOT owns the access rights and direct access is not allowed. Users may enter or exit the roadway only at interchanges.
 - Preference is given to through traffic.
 - Driveways are not allowed.
- Traffic signals are not allowed.
- Parking is prohibited.
- Opposing travel lanes are separated by a wide median or a physical barrier.
- Grade separated crossings that do not connect to the freeway are encouraged to meet local transportation needs and to enhance bicycle and pedestrian travel.
- The primary function is to provide connections and links to major cities, regions of the state, and other states.

2. Statewide Highways (NHS)

(Examples: Oregon Route 58, Oregon Route 42, US Route 30, US Route 97, and US Route 20)

a. Rural Expressways

- Expressways are to be designated by action of the Oregon Transportation Commission. (See Action 1A.2.)
- Expressways are existing two lane and multi-lane highways or planned highways that provide for safe and efficient high speed and high volume traffic movements.
- Private access is discouraged.
 - There is a long-range plan to eliminate, as possible, existing approach roads as opportunities occur or alternate access becomes available.
 - Access rights will be purchased and a local road network may be developed consistent with the function of the roadway.
- Public road connections are highly controlled and must be spaced appropriately. Future grade separations (interchanges) may be an option. Compatible land use actions may be necessary and shall be included in local comprehensive plans.
- Traffic signals are discouraged.
- Nontraversable medians must be constructed in the modernization of all multi-lane Expressways that have traversible medians.
- Parking is prohibited.
- The primary function of Expressways is to provide connections to larger urban areas, ports and major recreation areas with minimal interruptions.

b. Other Rural Highways¹⁸

- Statewide Rural Highways provide for high speed, continuous flow and through traffic movement.

¹⁸ Nomenclature for highways with no special designations (“other”) has been changed here and throughout this section for consistency with Policy 1B changes made August 17, 2005, Amendment 05-16.

Policy Element

- Direct access to the abutting property is a minor objective.
- The function of the highway is consistent with purchasing access rights. As the opportunity arises, access rights should be purchased. Preference is to purchase access rights in full.
- The primary function of these highways is to provide connections to larger urban areas, ports and major recreation areas of the state not served by Freeways or Expressways.
- c. Urban Expressways** (Not inconsistent with, but supplemental to, the criteria listed for Statewide Rural Expressways.)
 - Traffic signals are discouraged. Where signals are allowed, their impact on through traffic must be minimized by ensuring that efficient progression of traffic is achieved.
 - Median treatments are considered in accordance with criteria in Action 3B.3.
- d. Other Urban Highways** (Not inconsistent with, but supplemental to, the criteria listed for other Rural Statewide Highways.)
 - Statewide Urban Highways provide high to moderate speed operations with limited interruptions in traffic flow.
- e. Urban Business Areas (UBAs)** (See Policy 1B.)¹⁹
 - UBA standards may apply to a highway segment under two sets of circumstances:
 - Where highway posted speed is 35 mph or lower, the UBA standards apply automatically.
 - UBAs may be formally designated on higher speed highways where the designation is consistent with a corridor plan and/or local transportation system plan and agreed upon by ODOT and the local government.
 - Access spacing standards in areas where the UBA standards apply are based upon posted speeds.
 - Direct property access is less limited than on Statewide Urban Highways.

¹⁹ UBA information modified for consistency with Amendment 05-16, August 17, 2005.

- Purchase of access control may be of lesser importance and access to adjacent land use is a higher priority.
- Redevelopment and in-fill development are encouraged.
- The needs of local auto, pedestrian, bicycle and transit movements to the area are balanced with the through movement of traffic.

f. Special Transportation Areas (STAs) (See Policy 1B.)²⁰

- STAs must be consistent with a corridor plan and/or local transportation system plan and agreed upon in writing by ODOT and the local government.
- STAs apply to a highway segment.
- Direct public street connections and shared on-street parking are encouraged.
- Direct property access is limited.
- Purchase of access control may be of lesser importance and access to adjacent land use for all modes is a higher priority.
- Redevelopment and in-fill development are encouraged.
- Local auto, pedestrian, bicycle and transit movements to the area are generally given more importance than the through movement of traffic.

3. Regional Highways

(Examples: Oregon Route 99E, Oregon Route 138, Oregon Route 31, and Oregon Route 207)

a. Rural Expressways (Not inconsistent with, but supplemental to, the criteria listed for Statewide Rural Expressways.)

- The primary function of these highways is to provide connections and links to regions within the state, and between small urbanized areas and larger population centers.

b. Other Rural Highways

²⁰ STA information modified for consistency with Amendment 05-16, August 17, 2005.

Policy Element

- Regional Rural Highways provide for efficient and safe medium to high speed and medium to high volume traffic movements.
 - These highways serve as routes passing through areas which have moderate dependence on the highway to serve land access.
 - The function of the highway supports selected acquisition of access rights. Purchase of access rights should be considered where beneficial such as, but not limited to, ensuring safe and efficient operation between connecting highways in interchange areas, protecting resource lands, preserving highway capacity on land adjacent to an urban growth boundary, or ensuring safety on segments with sharp curves, steep grades or restricted sight distance, or those with a history of accidents.
 - The primary function of these highways is to provide connections and links to regions within the state, and between small urbanized areas and larger population centers through connections and links to Freeways, Expressways, or Statewide Highways.
- c. Urban Expressways** (Not inconsistent with, but supplemental to, the criteria listed for Regional Rural Expressways.)
- Where traffic signals are allowed, their impact on through traffic must be minimized by ensuring that efficient progression of traffic is achieved.
 - Median treatments are considered in accordance with criteria in Action 3B.3.
- d. Other Urban Highways** (Not inconsistent with, but supplemental to, the criteria listed for other Regional Rural Highways.)
- The function of the highway is consistent with selected acquisition of access rights. Purchase of access rights should be considered where beneficial such as, but not limited to, ensuring safe and efficient operation between connecting highways in interchange areas, protecting resource lands, or ensuring safety on segments with sharp curves, steep grades or restricted sight distance, or those with a history of accidents.
- e. Urban Business Areas (UBAs)** (See Policy 1B. Same criteria as Statewide Urban Business Areas.)
- f. Special Transportation Areas (STAs)** (Same criteria as Statewide Special Transportation Areas.)

4. District Highways and Local Interest Roads

(Examples: Oregon Route 10, Oregon Route 34, Oregon Route 238, Oregon Route 27 and Oregon Route 86)

a. Rural Expressways (Not inconsistent with, but supplemental to, the criteria listed for Statewide Rural Expressways.)

- The primary function of these highways is to provide connections and links to intercity, inter-community and intracity movements.

b. Other Rural Highways

- These highways provide for safe and efficient medium speed and medium- to high-volume traffic movements.
- Traffic movement demands and access needs are more evenly balanced, with reasonable access to abutting property.
- The function of the highway supports acquisition of access rights in limited circumstances, recognizing the balanced demands of traffic movement and access needs. Purchase of access rights should be considered where beneficial such as, but not limited to, ensuring safe and efficient operation between connecting highways in interchange areas, protecting resource lands, preserving highway capacity on land adjacent to an urban growth boundary, or ensuring safety on segments with sharp curves, steep grades or restricted sight distance, or those with a history of accidents.
- The primary function of these highways is to provide connections and links to intercity, inter-community and intracity movements.

c. Urban Expressways (Not inconsistent with, but supplemental to, the criteria listed for District Rural Expressways.)

- Where traffic signals are allowed, their impact on through traffic must be minimized by ensuring that efficient progression of traffic is achieved.
- Median treatments are considered in accordance with criteria in Action 3B.3.

d. Other Urban Highways (Not inconsistent with, but supplemental to, the criteria listed for other District Rural Highways.)

- The function of the highway is consistent with acquisition of access rights in limited circumstances, recognizing the balanced demands of traffic movement and access needs. Purchase of access rights should be considered where

Policy Element

beneficial such as, but not limited to, ensuring safe and efficient operation between connecting highways in interchange areas, protecting resource lands, or ensuring safety on segments with sharp curves, steep grades or restricted sight distance, or those with a history of accidents.

- e. **Urban Business Areas (UBAs)** (See Policy 1B. Same criteria as Statewide Urban Business Areas.)
- f. **Special Transportation Areas (STAs)** (Same criteria as Statewide Special Transportation Areas.)

Action 3A.2

Establish spacing standards on state highways based on highway classification, type of area and speed. Tables 13, 14, and 15 in Appendix C show the access spacing standards for the access management classifications listed in Action 3A.1.

- These standards shall be applied to the development of all ODOT highway construction, reconstruction or modernization projects, approach road and private road crossing permits, as well as all planning processes involving state highways, including corridor studies, refinement plans, state and local transportation system plans and local comprehensive plans.
- These standards do not retroactively apply to legal approach roads or private road crossings in effect prior to adoption of this Oregon Highway Plan, except or until any redevelopment, change of use, or highway construction, reconstruction or modernization project affecting these legal approach roads or private road crossings occurs. At that time the goal is to meet the appropriate spacing standards, if possible, but at the very least to improve current conditions by moving in the direction of the spacing standards.
- When in-fill development occurs, the goal is to meet the appropriate spacing standards. In some cases this may not be possible, and at the very least the goal is to improve the current conditions by moving in the direction of the spacing standards. Thus, in-fill development should not worsen current approach road spacing. This may involve such options as joint access.
- In some cases access will be allowed to a property at less than the designated spacing standards, but only where a right of access exists, that property does not have reasonable access, and the designated spacing cannot be accomplished. If possible, other options should be considered such as joint access.
- If a property becomes landlocked (no reasonable access exists) because an approach road cannot be safely constructed and operated, and all other alternatives have been explored and rejected, ODOT might be required

to purchase the property. (Note: If a hardship is self-inflicted, such as by partitioning or subdividing a property, ODOT does not have responsibility for purchasing the property.)

Action 3A.3

Manage the location and spacing of traffic signals on state highways to ensure the safe and efficient movement of people and goods. Safe and efficient traffic signal timing depends on optimal intersection spacing. It is difficult to predetermine where such locations should exist, although half-mile intersection spacing for Statewide and Regional Highways is desirable. The following are critical elements in planning an interconnected traffic signal system:

- Signalized intersection capacity and operation analysis must take into account lane balance of existing and future (20-year projection) traffic volumes.
- The progression bandwidth must equal or exceed that required to accommodate the through volume on the state highway at the most critical intersection during all peak periods. The most critical intersection is defined as the intersection carrying the highest through volume per lane on the state highway. The State Traffic Engineer or designated representative shall approve signal progression parameters and analysis methodology.
- All signals must provide for adequate vehicle storage that does not encroach on the operation of adjacent lanes and signalized intersections.
- The common cycle length for the interconnected traffic signal system must provide for adequate pedestrian crossing times.
- The speed of the progressed traffic band should be no more than five miles per hour below the existing posted speed for both directions of travel during the off-peak periods, nor more than 10 miles per hour below the existing posted speed during peak periods. Approval of the State Traffic Engineer or designated representative is required where speeds deviate more than the above.

Action 3A.4

In general, traffic signals should not be installed on rural high-speed highways because they are inconsistent with the function of these highways to provide for safe and efficient high-speed travel. Although a rural traffic signal may be warranted in a particular instance to control traffic due to existing conditions, ODOT and local governments must avoid creating conditions that would make future traffic signal installations necessary in rural areas. Amendments to local

comprehensive plans or land use ordinances that would require a traffic signal on rural highways are inconsistent with the function of the highway.²¹

Action 3A.5

Some private approach roads may have characteristics similar to public road approaches. Such similarities may allow a private approach road to operate as a public road approach. For a private approach road to be considered for a signal, it must have the following attributes:

- High traffic volumes, typically 200 vehicles or more during the peak period;
- Design geometry consistent with that of public road intersections including curbs, appropriate lane widths, pavement markings and vertical alignment; and
- An adequate approach throat length to assure that the movement of entering vehicles is not impeded by on-site queuing.

Signalization of a private approach road shall be dependent upon meeting signal spacing criteria considering the likelihood that nearby locations may be signalized in the future as development occurs in the area. Signal spacing concerns may require that a route be established to a nearby public street that can be signalized at its intersection with the state highway, or a shared private driveway may be required to serve the needs of multiple properties. If a private approach road is considered, it should also be required to connect to the existing or planned local street system and allow use by surrounding properties.

Policy 3B: Medians

It is the policy of the State of Oregon to plan for and manage the placement of medians and the location of median openings on state highways to enhance the efficiency and safety of the highways, and influence and support land use development patterns that are consistent with approved transportation system plans.

Action 3B.1

Plan for a level of median control for the safe and efficient operation of state highways, consistent with the classification of the highway. Corridor plans and transportation system plans shall identify planned median treatments.

²¹ Typically, based on guidance provided in the *Manual on Uniform Traffic Control Devices*, rural traffic signals are not warranted. Rural traffic signals are unexpected by the motorist who is unfamiliar with the location, requiring longer than normal time for drivers to react. Rural highway speeds are typically very high, requiring longer stopping sight distance.

Action 3B.2

Design and construct nontraversable medians for:

- All new multi-lane highways constructed on completely new alignment; and
- Modernization of all rural, multi-lane Expressways, including Statewide (NHS), Regional and District.

Action 3B.3

Consider construction of nontraversable medians for:

- Modernization of all urban, multi-lane Statewide (NHS) Highways;
- Modernization of all urban, multi-lane Regional Highways where posted speeds are 45 mph (70 km/h) or greater;
- Multi-lane highways undergoing 3-R or 4-R improvements; and
- Highways not undergoing modernization where a median could improve safety.

In the four instances listed above, consideration shall occur when any of the following criteria are present:

- Forecasted average daily traffic is anticipated to be 28,000 vehicles per day during the 20-year planning period;
- The annual accident rate is greater than the statewide annual average accident rate for similar roadways;
- Pedestrians are unable to safely cross the highway, as demonstrated by an accident rate that is greater than the statewide annual average accident rate for similar roadways; and/or
- Topography and horizontal or vertical roadway alignment result in inadequate left-turn intersection sight distance and it is impractical to relocate or reconstruct the connecting approach road or impractical to reconstruct the highway in order to provide adequate sight distance.

Reasons for not using nontraversable medians when any of these criteria are present must be documented and reviewed and approved by the Region Manager.



A nontraversable median with plantings on Pacific Highway West in Eugene.

Action 3B.4

Full and directional median openings shall be:

- Restricted to locations that conform to ODOT’s spacing standards as shown in Appendix C; and
- Designed with a left-turn bay and deceleration lane.

Full median openings will be given preference to a public road connection which is part of a continuous and comprehensive public road network.

Action 3B.5

Continuous two-way left-turn lanes are primarily used on urban highways. On urban Expressways, continuous two-way left-turn lanes are minimal; they will be approved in the future only as part of staged construction of nontraversable medians, and a strategy/plan to replace existing continuous two-way left-turn lanes with nontraversable medians will be developed.

Action 3B.6

Except on freeways, consider using raised median pedestrian refuge islands and mid-block crosswalks in urban areas that are pedestrian and/or transit oriented.

Policy 3C: Interchange Access Management Areas

It is the policy of the State of Oregon to plan for and manage grade-separated interchange areas to ensure safe and efficient operation between connecting roadways.

Action 3C.1

Develop interchange area management plans to protect the function of interchanges to provide safe and efficient operations between connecting roadways and to minimize the need for major improvements of existing interchanges.

Action 3C.2

To improve an existing interchange or construct a new interchange:

- The interchange access management spacing standards are shown in Tables 16-19 in Appendix C;
- These standards do not retroactively apply to interchanges existing prior to adoption of this Oregon Highway Plan, except or until any redevelopment, change of use, or highway construction, reconstruction or modernization project affecting these existing interchanges occurs. It is the goal at that time to meet the appropriate spacing standards, if possible, but, at the very least, to improve the current conditions by moving in the direction of the spacing standards;
- Necessary supporting improvements, such as road networks, channelization, medians and access control in the interchange management area must be identified in the local comprehensive plan and committed with an identified funding source, or must be in place;
- Access to cross streets shall be consistent with established standards for a distance on either side of the ramp connections so as to reduce conflicts and manage ramp operations. The Interchange Access Management Spacing Standards supersede the Access Management Classification and Spacing Standards (Policy 3A), unless the latter distance standards are greater (see Appendix C);
- Where possible, interchanges on Freeways and Expressways shall connect to state highways, major or minor arterials;
- Interchanges on Statewide, Regional or District Highways may connect to state highways, major or minor arterials, other county or city roads, or private roads, as appropriate;

Policy Element

- The design of urban interchanges must consider the need for transit and park-and-ride facilities, along with the interchange's effect on pedestrian and bicycle traffic; and
- When possible, access control shall be purchased on crossroads for a minimum distance of 1320 feet (400 meters) from a ramp intersection or the end of a free flow ramp terminal merge lane taper.

Action 3C.3

Establish criteria for when deviations to the interchange access management spacing standards may be considered. The kinds of considerations likely to be included are:

- Location of existing parallel roadways (e.g., Highways 99W or 99E which parallel Interstate 5);
- Use of traffic controls;
- Potential queuing, increased delays and safety impacts; and
- Possible use of nontraversable medians for right-in/right-out movements.

Action 3C.4

When new approach roads or intersections are planned or constructed near existing interchanges, property is redeveloped or there is a change of use, wherever possible, the following access spacing and operation standards should be applied within the Interchange Access Management Area (measurements are from ramp intersection or the end of a free flow ramp terminal merge lane taper).

- Approach roads on the crossroads at no closer than 750 feet (230 meters), and between 750 feet (230 meters) and 1320 feet (400 meters), shall be limited to right-in/right-out. This may require construction of a nontraversable median or a median barrier.
- The first full intersection on a crossroad should be no closer than 1320 feet (400 meters).

Action 3C.5

As opportunities arise, rights of access shall be purchased on crossroads around existing interchanges. Whenever possible, this protective buying should be for a distance of 1320 feet (400 meters) on the crossroads.

Action 3C.6

Plan for and operate traffic controls within the Interchange Access Management Area with a priority of moving traffic off the main highway, Freeway or Expressway and away from the interchange area. Within the Interchange Access Management Area, priority shall be given to operating signals for the safe and efficient operation of the interchange.

Action 3C.7

Use grade-separated crossings without connecting ramps to provide crossing corridors that relieve traffic crossing demands through interchanges.

Policy 3D: Deviations²²

It is the policy of the State of Oregon to manage requests for state highway approach permits that require deviations from the adopted access management spacing standards and policies through an application process to ensure statewide consistency.

Action 3D.1

Implement a procedure by which an applicant may request a state highway approach permit that requires a deviation from access management standards and policies.

Action 3D.2

Establish Region Access Management Engineers to review and act on requests for state highway approach permits that require deviations from the access management standards and policies.

Action 3D.3

Encourage the use of technical advisory committees to assist the Region Access Management Engineer in an advisory capacity in the review of requests for deviations from access management standards and policies where complex situations create the need for a multi-disciplinary approach. Members of a technical advisory committee shall have expertise in access management policies, roadway design standards, and traffic engineering, and may include technical persons who are not ODOT employees.

²² A Technical Correction dated December 20, 2004 (Amendment 04-13) made changes to the deviation section for consistency with the January 2004 amendments to OAR 734-051.

Action 3D.4

Establish the criteria that the Region Access Management Engineers shall consider when reviewing requests for state highway approach permits that require deviations from access management standards and policies.

Action 3D.5

Establish criteria for when deviations may be allowed. The kinds of considerations likely to be included are:

- Potential queuing, increased delays and safety impacts;
- Pedestrian and bicycle circulation;
- Use of traffic controls;
- Requirements for local road systems;
- Improvement of connectivity to adjacent properties or local road system;
- Plans that address an entire roadway segment (e.g., a transportation system plan);
- Potential need for channelization, such as for turn lanes; and
- Possible use of nontraversable medians for right-in/right-out movements.

Any request for spacing at less than the spacing standards set out in Appendix C shall be considered a deviation from the spacing standards.

Policy 3E: Appeals

It is the policy of the State of Oregon to manage appeals of both denied requests for approach roads and denied requests for deviations from adopted access management standards and policies through an appeals process to ensure statewide consistency.

Action 3E.1

Implement an appeals process by which an applicant may request further consideration of a deviation request denied by a Region Access Management Engineer through ODOT's Administrative Hearings Procedure.

Action 3E.2

Implement an appeals process by which an applicant may request consideration of a denied approach road request (not requiring a deviation).

- Establish Region Review committees to include members with expertise in access management policies, roadway design standards, right-of-way and traffic engineering to make a recommendation to the Region Manager.
- Establish criteria which the Region Review committees shall consider when reviewing denied approach road requests.
- Implement a process where the Region Manager will review and act on the Region Review committee's recommendation.

Action 3E.3

Implement an appeals process by which an applicant may request further consideration of an approach road request denied by the Region Manager through ODOT's Administrative Hearings Procedure.

Goal 4: Travel Alternatives

To optimize the overall efficiency and utility of the state highway system through the use of alternative modes and travel demand management strategies.

Overview

The state highway system serves different modes of transportation, including auto, bus, truck, bicycle, and pedestrian, as well as different travel purposes including freight movement and person trips. Maintaining and improving the performance of the highway system requires that it function as part of a well-coordinated and integrated multimodal system. Intermodal connections for people and goods must be efficient, and appropriate alternative mode choices must be available to allow users to take advantage of the efficiencies inherent in each mode.

Alternative passenger modes, transportation demand management, and other programs can help reduce the single-occupant vehicle demand on the highway system, thus maintaining performance while increasing the person-carrying capacity of the system. Alternative freight modes and related strategies which strive for more efficient commercial vehicle operation will help maintain the overall reliability and performance of the goods movement networks. All of these strategies can contribute to meeting the objectives of Statewide Planning Goal 12, which requires transportation plans to “avoid principal reliance upon any one mode of transportation” and “conserve energy.”

FREIGHT

Background

An efficient, safe, and environmentally sound system of moving goods through the state is an important economic development goal named in the Oregon Transportation Plan. The Plan also stresses the importance of promoting a balanced freight transportation system that takes advantage of the inherent efficiencies of each mode. For the highway system, this means both improving the efficiency with which motor carriers can operate and promoting alternative (non-highway) modes, where appropriate.

Improving and maintaining the efficiency of highway operations will require balancing the needs of goods movement with the needs of other users of the highway system. For example, some state highways that are important goods movement corridors also serve as communities' main streets.

Policy Element

Improving highway operational efficiency also involves working for more standardization in the areas of commercial vehicle regulations and Intelligent Transportation System technologies. Improving efficiency for goods movement will likely entail public and private investments in infrastructure, especially in an expanding economy. Oregon's Intermodal Management System (see page 23) is a key part of tracking the need for improvements to intermodal connections.

However, public policies or projects often have limited impact on outcomes such as mode split in freight transportation. Freight transportation patterns are a product of industry trends, the requirements of shippers, the quality, range of services, and rates provided by freight carriers, and other factors outside the public sector realm. The State should not attempt to subsidize one mode over another or otherwise interfere with the market for freight transportation, but should consider making investments in non-highway freight network improvements where doing so will benefit the efficiency of the state highway system.

There are sometimes specific infrastructure problems, bottlenecks, or regulations that pose a barrier to efficiency or exacerbate trends that would be detrimental to the highway system. For example, it is important to maintain a viable deep draft and shallow draft water freight system on the Columbia River to prevent increased congestion on major highway freight routes. Shortages of rail equipment and lack of access to capital may pose a barrier to the increased use of shortline rail for bulk commodity movements. In these cases, public policies and actions should aim to mitigate physical and institutional obstacles and promote safety while avoiding



The intermodal connector at the Port of Morrow connects Interstate 84 to port facilities where goods are transferred from truck to barge. (Photo courtesy of Port of Morrow)

undue meddling in the marketplace. The following policy and actions pertaining to freight transportation and the highway system were developed to be consistent with this philosophy.

Policy 4A: Efficiency of Freight Movement²³

It is the policy of the State of Oregon to maintain and improve the efficiency of freight movement on the state highway system and access to intermodal connections. The State shall seek to balance the needs of long distance and through freight movements with local transportation needs on highway facilities in both urban areas and rural communities.

Action 4A.1

Identify roadway obstacles and barriers to efficient truck movements on state highways, especially the Statewide Freight System. These include bridges with load limits and geometric constraints that prohibit the travel of legal size vehicles. Set up a process through the Statewide Transportation Improvement Program to systematically improve the highway segments that hinder or prevent freight movements and utilize benefits/cost analysis to determine whether improvements are warranted.

Action 4A.2

Encourage uniform commercial vehicle regulations at the regional and national levels where the safety and efficiency of Oregon's transportation system will benefit. These might include regulation regarding vehicle design.

Action 4A.3

Support further development, standardization, and/or compatibility of Intelligent Transportation System Commercial Vehicle Operation technology in the western United States.

Action 4A.4

Maintain and improve roadway facilities serving intermodal freight facilities that are part of Oregon's Intermodal Management System, and support development of new intermodal roadway facilities where they are part of a local or regional transportation system plan. Recognize National Highway System Intermodal

²³ Policy 4A and Implementing Actions 4A.1, 4A.4 were amended, and Actions 4A.8 and 4A.9 were added as part of Amendment 05-16, dated August 17, 2005.

connectors as part of the freight network in transportation planning and funding considerations. Manage state-owned Intermodal connectors according to their state highway classification as Regional or District Highways.

Action 4A.5

Support the establishment of stable funding or financing sources for transportation systems that will benefit the efficiency of freight movement on the highway system. These transportation systems include non-highway freight modes and intermodal connectors.

Action 4A.6

Work with the private sector (e.g., carriers, shippers), local governments, metropolitan planning organizations, port authorities and others to improve planning coordination between public investments in highways and other investments in the freight movement infrastructure.

Action 4A.7

Support the maintenance and improvement of non-highway infrastructure that provides alternative freight-moving capacity in critical corridors where doing so will maintain or improve the overall performance of the highway system.

Action 4A.8

Recognize that local truck routes are important linkages in the movement of freight throughout the state. ODOT will consider requests to establish local government designated truck routes that will serve to detour trucks off the state highway system. ODOT will coordinate with local jurisdictions when designating, managing and constructing a project on a local freight route.

Action 4A.9

Develop an amendment process for the identification of additional routes or modifications to the State Highway Freight System.



ALTERNATIVE PASSENGER SERVICES

Background

Alternative passenger transportation services can help relieve highway traffic congestion and reduce the rate of vehicle miles of travel per capita. They can also delay, reduce, or eliminate the need for highway capacity expansion. For the purpose of this discussion, alternative passenger transportation includes both publicly and

privately operated fixed- and demand-responsive bus services, light rail transit, and intercity bus, rail, and air services. Bicycle, pedestrian, and high-occupancy vehicle services are addressed to a limited extent by these alternative passenger service policies, but are addressed more fully in conjunction with the transportation demand management policies described later in this section.

Two goals within the Oregon Transportation Plan emphasize the role of alternative passenger transportation. Goal 1 seeks provision of a balanced or multimodal transportation system as well as one that is efficient, accessible, and connected to several modes. Goal 2 looks to alternative passenger transportation to help achieve state land use goals and to provide mobility to residents of urban and rural areas through a variety of alternative services, both public and private. The State recognizes that alternative passenger transportation systems that are coordinated with land use actions can have positive benefits for the state highway system.

Three adopted state modal plans emphasize the role of alternative passenger transportation. The Oregon Public Transportation Plan (1997), the Oregon Rail Passenger Policy and Plan (1992), and the Oregon Bicycle and Pedestrian Plan (1995) further advance state policy supporting the use of alternative modes and services to relieve traffic congestion and provide mobility.

The Oregon Highway Plan emphasizes the use of alternative passenger transportation where the volume of traffic and the type of highway use indicates the potential for successful implementation of alternative passenger modes. Alternative mode passenger services can benefit the highway and community through a reduction in vehicle miles traveled, air quality, increased mobility, relief from congestion and/or delay, as well as reduction in the need for highway capacity expansion. The Highway Plan further encourages the development of alternative passenger transportation services in concert with other elements of the local transportation network, and supports the development of partnerships with the private sector and local agencies to deliver these services where they will be most effective.

Policy 4B: Alternative Passenger Modes

It is the policy of the State of Oregon to advance and support alternative passenger transportation systems where travel demand, land use, and other factors indicate the potential for successful and effective development of alternative passenger modes.

Action 4B.1

Promote alternative passenger transportation services in commute highway corridors to help maintain or meet established performance standards.



Portland's MAX light rail transit helps relieve congestion in Interstate 84.

Action 4B.2

Promote alternative passenger transportation services located off the highway system that help to preserve the performance and function of the state highway system.

Action 4B.3

Encourage the development of alternative passenger services and systems as part of broader corridor strategies, and coordinate them with necessary supportive local actions. Such actions include developing applicable land use regulations, appropriate types of passenger services, adequate collector-distributor roadway systems, and other local transportation system elements.

Action 4B.4

Encourage the use of alternative passenger modes to reduce local trips on the state highway system where limited highway facilities accommodate large numbers of both intercity and local trips.

Action 4B.5

Support the further development of alternative intercity passenger services in congested transportation corridors through additional peak hour service, use of excess freight rail system capacity, and the provision of support facilities and services which help connect passengers to their destinations (e.g., intercity passenger rail, air, and/or shuttle or charter bus operations coordinated with parking areas).

Action 4B.6

In recreational corridors, promote shuttles and/or charter passenger transportation services, coordinated with off-site parking areas, to lessen congestion during peak periods for travel to significant tourist/visitor destination areas.



HIGH-OCCUPANCY VEHICLE (HOV) FACILITIES

Background

High-Occupancy Vehicle (HOV) facilities are one response to increasing traffic congestion, declining mobility levels, air quality and environmental concerns and limited resources. While differing in details of design and operation, HOV facilities are generally restricted to use by buses, vanpools and carpools. HOV facilities are intended to help maximize the person-carrying capacity of a roadway or corridor by providing the high-occupancy vehicles such benefits as shorter travel times and improved travel time reliability. Typically, HOV facilities are most appropriate in large metropolitan planning organization areas and their corresponding fringe areas.

The High-Occupancy/Toll (HOT) lane is a variation of the HOV concept which allows vehicles ineligible by their occupancy number to use the HOV lane with payment of a toll. If limited to commercial vehicles, the practice is known as “commercial vehicle buy-in” and has the potential to offer time savings benefits to the small truck carriers of high-value goods. The HOT approach could achieve capacity improvements, provide additional financing tools, and solve the problem of under-use of HOV lanes. However, large scale implementation of HOT lanes will require a practical method of automatic vehicle occupant counting and a way to tell when the required toll has been paid.

A number of factors will affect whether HOV treatment is an appropriate or effective option for a given roadway or corridor. The first factor is the level of demand for the roadway or corridor. Recent research suggests that HOV facilities are appropriate where delays are major and the HOV vehicle/total vehicle ratio is about 5 to 10



HOV facilities encourage ride sharing and help reduce congestion on Interstate 5 in Portland.

percentage points below the HOV lane/total lane ratio. Outside this range, the facility will either be too crowded to offer real benefit to HOV vehicles or will suffer from “empty lane syndrome,” irritating the single occupant vehicle motorists in adjacent congested lanes and resulting in inefficient expenditure of funds.

The extent and completeness of the HOV system will also have an impact on whether any individual HOV facility will function effectively. In addition to the roadway mainline, access ramps, toll plazas, bridges, tunnels and connectors should ultimately be brought into the system to obtain the maximum utility. This system planning approach does not preclude incremental construction of individual HOV facilities, but the individual elements should be part of a well thought-out plan.

Consideration should also be given to the trip ends, or origins and destinations. Park-and-ride facilities on the home end and preferential HOV parking at the work end of a trip complement HOV facilities and increase their effectiveness.

Finally, surrounding land use patterns and transit facilities should also be taken into account. Although HOV and rail in the same corridor are not mutually exclusive, HOV is generally most appropriate in corridors where the existing and planned land uses will not support rail transit. However, HOV may be a suitable forerunner to rail in corridors where long term plans specify a level of development that would support rail.

Policy 4C: High-Occupancy Vehicle (HOV) Facilities

It is the policy of the State of Oregon to utilize HOV facilities to improve the efficiency of the highway system in locations where travel demand, land use, transit, and other factors are favorable to their effectiveness. A systems planning approach shall be taken in which individual HOV facilities complement one another and the other elements of the multimodal transportation system.

Action 4C.1

Promote the development of HOV facilities in corridors where:

- They are supported in local or regional transportation system plans;
- Current or projected demand will allow for efficient operations; and
- HOV facilities will function as part of the overall transportation system.

Action 4C.2

Support conversion of existing mixed-flow lanes to HOV lanes where the proposed HOV facility would close specific gaps in the HOV network, such as bridges, toll plazas, tunnels, etc., or where increased number of people in vehicles could offset the need for additional highway capacity.

Action 4C.3

Promote the development of support facilities for HOV lanes, such as park-and-ride lots and preferential HOV parking, to provide the complementary elements needed in a comprehensive HOV system.

Action 4C.4

Support the development of High-Occupancy/Toll (HOT) lanes when and where doing so supports the objectives of, and is consistent with, state, local and regional plans.

Action 4C.5

Support light-duty commercial vehicle buy-in to HOV lanes only with the levy of equitable fees or tolls.



TRANSPORTATION DEMAND MANAGEMENT

Background

Transportation demand management is a broad family of techniques that help extend the use of the highway system by reducing peak period single occupant vehicle traffic, moving traffic demand to time periods other than the peak period or improving the flow of traffic. Transportation demand management includes but is not limited to:

- Rideshare programs and facilities which foster the use of carpools, vanpools, and express bus or light rail services;
- Incentives that encourage the use of transportation alternatives for the daily commute, such as discounted transit passes and employee transportation allowances;
- Market-based mechanisms designed to influence shift of mode or time of travel, such as parking management or pricing strategies to favor high-occupancy vehicles or congestion-based pricing of transportation facilities and services;
- Other demand management techniques intended to “flatten” peak period demand such as truck traffic restrictions, compressed work hours, staggered work hours, and flex-time; and
- Operational techniques designed to improve the flow of vehicular traffic through modifying demand or optimizing available capacity, such as ramp metering, reversible lanes, traffic signal coordination, traveler information systems, one-way streets, high-occupancy vehicle/bus bypass lanes and telecommuting programs.

The Oregon Transportation Plan and the Oregon Public Transportation Plan support the use of demand management programs as a way to effectively manage existing infrastructure and services and to minimize transportation-related energy consumption. ODOT, in cooperation with local agencies and private employers, has created a toolbox of demand management strategies that can be used in corridor and local transportation system planning. This toolbox is described in ODOT's *Transportation System Planning Guidelines*.

Policy 4D focuses on demand management techniques which are appropriate in both rural and urban areas to help decrease congestion, energy consumption and vehicle miles traveled and maintain air quality. These programs are most successful where parking at the destination is costly or where a variety of amenities are available.

Policy 4E highlights one of the most commonly used and cost-effective transportation demand management measures – park-and-ride facilities. Park-and-ride facilities provide a common location for individuals to transfer from a low- to high-occupancy

travel mode. Park-and-ride lots may be either exclusive or shared-use facilities. Exclusive lots are planned, designed, constructed and operated to specifically serve as park-and-ride facilities. Shared-use lots serve multiple functions and may be located, for example, at existing shopping centers, schools or churches. In many locations, commuters create informal park-and-ride areas along the side of a road or at an existing parking lot so that they may share rides. Informal and formal park-and-ride facilities exist throughout the state and are common at interchanges along Interstate 5.

The Oregon Constitution strictly limits the use of state highway trust funds to facilities and services that directly benefit the highway system. Therefore, park-and-ride facilities funded through this source must support the motoring public as it travels on the state highway and road system and must be either within the highway right-of-way or adjacent to it. The location of park-and-ride facilities funded from federal and other sources is more flexible.

Policy 4D: Transportation Demand Management

It is the policy of the State of Oregon to support the efficient use of the state transportation system through investment in transportation demand management strategies.

Action 4D.1

Establish and support demand management strategies that reduce peak period single occupant vehicle travel, move traffic demand out of the peak period, and/or improve the flow of traffic on the state highway system.

Action 4D.2

Investigate further the effectiveness, feasibility, and impacts of tolling and congestion-based pricing on congested highway corridors as a means of reducing peak period congestion and delaying or eliminating the need for highway capacity expansion.

Action 4D.3

Support existing transportation demand management/rideshare programs in Portland, Salem, Eugene, Corvallis, Medford, and Bend to reduce peak period congestion. Consider establishing new programs where congestion levels make it appropriate.

Policy 4E: Park-and-Ride Facilities

It is the policy of the State of Oregon to encourage the efficient use of the existing transportation system and to seek cost-effective expansion of the highway system's passenger capacity through development and use of park-and-ride facilities.

Action 4E.1

In coordination with local jurisdictions and based on an analysis of need and potential use, provide park-and-ride facilities at appropriate urban and rural locations adjacent to or within the highway right-of-way.

Action 4E.2

Acquire right-of-way for park-and-ride facilities during construction or expansion projects as appropriate. Consider acquisition and use of adjacent right-of-way for park-and-ride facilities at highway interchanges, consistent with ODOT access management policies and standards.

Action 4E.3

Establish partnerships with other jurisdictions and the private sector to site park-and-ride facilities.

Action 4E.4

Convert informal parking areas within highway rights-of-way to formal park-and-ride facilities where appropriate.

Action 4E.5

Use ODOT surplus property for park-and-ride facilities where appropriate.

Action 4E.6

Provide park-and-ride facilities located in urban areas that are safely accessible by pedestrians, bicyclists and transit users whenever feasible. Include secure bicycle parking in urban park-and-ride designs.

Goal 5: Environmental and Scenic Resources

To protect and enhance the natural and built environment throughout the process of constructing, operating, and maintaining the state highway system.



ENVIRONMENTAL RESOURCES

Background

Protecting and enhancing the natural and built environments is important to the State of Oregon. It is part of protecting Oregon's livability, preserving its scenic character, and maintaining a healthy environment for plants, wildlife, and people. ODOT constructs, operates, and maintains a state transportation network that traverses a number of habitat types and regional ecosystems. These include the wet forests of the Coastal Range, the mixed forest of the Klamath Mountains Province in southern Oregon, the Willamette Valley grasslands, the temperate and alpine forests of the Western and High Cascades, the High Desert of eastern Oregon, and the Columbia River Gorge. The natural and social diversity of the state contributes to its beauty and resources, but adds complexity to its maintenance.

A variety of federal, state, and local environmental laws and regulations direct ODOT's actions involving the natural and built environment in constructing, operating, and maintaining the highway system. The following are some of the most significant that ODOT must implement:

General Process Regulations

- National Environmental Policy Act (NEPA) 1969 as amended
- FHWA Environmental Impact and Related Procedures, 23 CFR 771
- Section 4(f) of the Department of Transportation Act of 1966
- Occupational Safety and Health Act

Biology, Water Resources, Wetlands

- Federal Endangered Species Act - Oregon Endangered Species Act
- Federal Clean Water Act and the Oregon Water Quality Standards

Policy Element

- Section 404 of the Clean Water Act and Army Corps of Engineers Regulations and the Oregon Removal/Fill Law
- Location and Hydraulic Design of Encroachments on Floodplains
- Executive Memorandum on Landscaping Guidelines
- Wild and Scenic Rivers Acts (federal and state)

Cultural, Social, Land Use, Aesthetics

- National Historic Preservation Act of 1966
- Oregon Historic and Scenic Highways Act
- Oregon Land Use Program and Statewide Planning Goals
- Uniform Relocation Assistance and Real Property Acquisition Act
- Civil Rights Act (Title VI)
- Farmland Protection Policy Act
- Executive Order 12898 (Environmental Justice)

Noise, Air Quality, and Hazardous Material

- FHWA Noise Standard
- Federal Clean Air Act Amendments – State and Federal Conformity Rules
- Federal Comprehensive Environmental Response, Compensation and Liability Act
- Resource Conservation and Recovery Act

Note: More specific information about these laws and regulations is included in Appendix F.)

ODOT makes significant efforts to comply with environmental laws and regulations, but wants to broaden responsibility for the effects of its activities. The Environmental Resources Policy was developed to protect more than that required by law.

Policy 5A: Environmental Resources

It is the policy of the State of Oregon that the design, construction, operation, and maintenance of the state highway system should maintain or improve the natural and built environment including air quality, fish passage and habitat, wildlife habitat and migration routes, sensitive habitats (i.e. wetlands, designated critical habitat, etc.), vegetation, and water resources where affected by ODOT facilities.

Action 5A.1

Implement best management practices to minimize the effects of construction, operations, and maintenance impacts to the human and natural environment.

- Attain and maintain water quality standards through implementation of best management practices, or other actions as needed, to minimize to the maximum extent practicable the effects of construction, operations and maintenance impacts to the human and natural environment.
- Seek and budget money for these purposes as available, especially through federal transportation funding.

Action 5A.2

Attain and maintain air quality standards in highway-related plans, programs, projects and maintenance activities, and ensure that transportation commitments in air quality plans are implemented.

- Consult with federal, state and local government agencies to implement air quality transportation conformity regulations of the Clean Air Act, and take the lead role in regional transportation conformity determinations in rural non-attainment areas.
- Take the lead role in the statewide coordination of the Congestion Mitigation and Air Quality (CMAQ) program.

Action 5A.3

Partner with state and federal agencies, local governments, tribal governments and resource organizations to identify sensitive habitat areas with a high value that are affected by ODOT facilities. Incorporate design features that will avoid or minimize and, when this is not possible, mitigate impacts to sensitive habitats with a high value on all construction and maintenance activities.



This retrofitted culvert has increased water depth, lower water velocities and a concentrated flow that will form a jump pool for endangered salmon in King Creek on the Coos Bay – Roseburg Highway (Oregon 42)

Action 5A.4

Design, construct and maintain all stream crossings with anadromous fish in accordance with applicable Oregon Department of Fish and Wildlife standards and criteria for stream-road crossings.

Action 5A.5

Re-vegetate all cleared areas on construction projects, using plants and species based on expected survival, sustainability and compatibility with the surrounding biological and cultural environment. In areas dominated by a native plant environment, give priority to the use of native plants along roadsides.

Action 5A.6

Establish a credit/debit banking system for wetland mitigation and wildlife habitat enhancement. Provide advanced mitigation in high-priority areas where construction projects are known to be necessary in the future.

Action 5A.7

Establish an inventory system that identifies natural resources on unsold state lands that may be used for mitigation credit when damage to natural resources is unavoidable.

Action 5A.8

Establish resource management plans and guidelines that describe ODOT's maintenance actions for roads in natural resource areas, and map resource locations.

Action 5A.9

Support and implement integrated pest and vegetation management planning.

Action 5A.10

Identify and implement water- and energy-efficient construction and maintenance practices.

Action 5A.11

Participate in watershed and coordinating councils for planning and on-the-ground actions to enhance fish and wildlife habitat and improve migration.

Action 5A.12

Prevent hazardous substances encountered as a result of construction and maintenance activities from entering the human and natural environment.

Action 5A.13

Design highways with criteria that meet Federal Highway Administration Traffic Noise Standards.

Action 5A.14

Increase ODOT employees' knowledge of the effects of planning, design, development, construction and maintenance activities on environmental and scenic resources and of the legal requirements that govern these resources.

Action 5A.15

Promote and reward the integration of innovative environmental principles in planning, design, development, construction and maintenance activities to encourage ODOT employees to value environmental stewardship.

Action 5A.16

Partner with tribal governments, special districts, local governments, non-profit groups and the private sector to assist in implementing new design standards and environmentally sensitive technologies.

Action 5A.17

Identify environmentally sensitive areas and areas with significant scenic value in corridor plans as appropriate.

**SCENIC RESOURCES****Background**

The introduction to the Oregon Historic and Scenic Highway Program developed in 1985 is still true: “Oregonians have long recognized that preservation of the state’s historic and scenic resources plays a vital role in the enhancement of the state’s economic base, and in maintaining its citizens’ pride in and respect for its historic and natural resources. Oregon’s immense wealth of history and diverse scenery provide unlimited recreation potential for residents and visitors alike. . . .” Even early efforts to develop a state transportation system foresaw the importance of preserving the state’s scenic and historic values. Construction of the Columbia River Highway in the Columbia Gorge in the 1910s “focused on the need to construct a scenic highway that would complement the beauty of the area.”

Since then, a number of state and federal efforts have directed ODOT to preserve or protect historic and scenic features of the state highway system. For example, the 1987 Oregon Legislature declared that it is the state’s policy to “preserve and restore the continuity and historic integrity of the remaining segments of the Historic Columbia River Highway.” This highway is included in the Columbia River Gorge National Scenic Area, and the Historic Columbia River Highway Master Plan guides its management. Federal, state and local policies and regulations also recognize the need to balance protection of scenic resources with economic development.

The Scenic Resources Policy is intended to guide project planning, development, construction and maintenance for state highways in a consistent manner with regard to scenic resources and aesthetics. This policy applies to all state highways, not only designated Scenic Byways.

Scenic resources, as addressed in this policy, include the combination of structural, historic, cultural, and natural features within highway rights-of-way. Where appropriate, ODOT may coordinate with other agencies and property owners to address scenic resources that lie beyond the rights-of-way. In addition to views from the highway, views of the highway from other areas should be considered, particularly on designated Scenic Byways.

Policy 5B: Scenic Resources

It is the policy of the State of Oregon that scenic resources management is an integral part of the process of creating and maintaining the state highway system. The State of Oregon will use best management practices to protect and enhance scenic resources in all phases of highway project planning, development, construction, and maintenance.

Action 5B.1

Coordinate scenic and cultural resources management with appropriate federal, state and local agencies, tribal governments and special interest groups.

Action 5B.2

Coordinate with federal and state agencies, tribal governments, local governments and property owners to encourage aesthetic considerations outside the state highway rights-of-way, such as land use controls for signs, urban design, rural development, utilities and vegetation.

Action 5B.3

Design transportation facilities that consider visual quality with functional requirements, including safety and other transportation needs.

Action 5B.4

Use best management practices to minimize impacts to scenic resources, and preserve and/or enhance visual quality within the state highway right-of-way when improving and maintaining the state highway system.

Action 5B.5

Identify criteria, and measure and evaluate scenic resources management performance on a regular basis.

Action 5B.6

Develop an inventory system that identifies scenic resources on unsold state lands that may be used for visual mitigation on designated Oregon Scenic Byways and Wild and Scenic Rivers adjacent to state highways.

Action 5B.7

Inventory and map historic resources within the state highway right-of-way including archaeological sites, trails, stone walls, buildings, bridges and other significant antiquities.

Action 5B.8

In project designs, include aesthetic elements that enhance the quality of system improvements. Examples of aesthetic elements include plantings and attractive finishes on poured concrete structures.