# Memorandum

**Date:** December 10, 2015

**To:** Technical Advisory Committee and Public Advisory Committee

**From:** Darci Rudzinski, Shayna Rehberg, and CJ Doxsee, Angelo Planning Group

**CC:** Casey Bergh and Chris Brehmer, Kittelson & Associates, Inc.

**Re:** City of The Dalles Transportation System Plan (TSP) Technical Memorandum #1: Plans and Policy Review

## Overview

This memorandum presents a review of existing plans, regulations, and policies that affect transportation planning in The Dalles Transportation System Plan (TSP) update study area. The review explains the relationship between the documents and planning in this area, identifying key issues that will guide the TSP development process. This memorandum is intended to guide later decisions regarding selection of preferred transportation alternatives and necessary amendments to related documents and regulations.

Some documents included in this review establish transportation-related standards, targets, and guidelines with which the TSP update shall coordinate and be consistent; others contain transportation improvements that will need to be factored into the future demand modeling and otherwise reflected in the draft TSP update. Local policy and regulatory requirements described in this review – such as the Land Use Development Ordinance – may be subject to recommended amendments in order to implement the recommendations in the updated TSP. This memorandum helps set the stage for those potential amendments, which will be prepared as part of project implementation (Task 6.2).

Table 1 provides a list of the documents reviewed in this memorandum, their project relevance, and the page on which they can be found.

*Table 1 Summary of Documents Reviewed*

| Document | Project Relevance | Page |
|---|---|---|
| State Documents | | |
| Oregon Transportation Plan (2006) | Projects, policies, and regulations proposed as part of the updated TSP will reflect the policies of the Oregon Transportation Plan and will comply with or move in the direction of meeting the standards and targets established in the OHP related to safety, access, and mobility. State modal plans will inform recommended improvements in the updated TSP; TSP recommendations will be consistent with state policy and requirements. | 4 |
| Oregon Highway Plan (2011) | | 4 |
| Oregon Freight Plan (2011) | | 8 |
| Oregon Public Transportation Plan (1997) | | 9 |
| Oregon Rail Plan (2014) | | 10 |
| Oregon Aviation Plan (2007) | | 10 |
| Oregon Bicycle/Pedestrian Plan (2011) | | 11 |
| Oregon Transportation Safety Action Plan (2011) | | 11 |
| Transportation Planning Rule (OAR 660-012) (2011) | | 13 |
| Access Management Rule (OAR 734-051) (2014) | | 14 |
| Statewide Transportation Improvement Program (STIP) | The TSP update analysis will take into account projects that are programmed in the STIP. An expected outcome of this planning process is proposed recommendations to update the STIP to include projects from the updated TSP. | 15 |
| ODOT Highway Design Manual (2012) | The ODOT Highway Design Manual provides design standards on state roadways; analysis for the TSP update and final project recommendations will need to reflect state requirements for state facilities. Standards and guidelines adopted by The Dalles should be considered for additional guidance, concepts, and strategies for design. | 17 |
| Oregon Resilience Plan (2013) | The Oregon Resilience Plan provides guidance on and sets priorities for Oregon's multi-modal transportation system, as related to its role in rescue and economic recovery after a major seismic event. Transportation policies and standards adopted by The Dalles should be consistent with and supportive of the objectives and recommendations of this plan. | 18 |
| Sustainability Executive Orders (EO-00-07, EO-03-03,and EO-06-02) | The TSP planning process will consider ODOT's overall vision for sustainability efforts and consider strategies to create sustainable transportation operations. | 20 |
| Governor's Climate Change Initiative | The TSP planning process will consider strategies identified in ODOT's Greenhouse Gas Emissions Reduction Toolkit. | 20 |
| Regional/County Documents | | |
| Wasco County Coordinated Transportation Plan (2009-2012) | The TSP planning process will consider the priorities identified in the Wasco County Coordinated Transportation Plan in the development of the transit element of the updated TSP. The TSP transit element will summarize available services in the City and will include recommendations for enhanced transit service. | 20 |
| Wasco County Transportation System Plan (2009) | The TSP update process will review goals, objectives, standards, and recommended projects from the Wasco County TSP and incorporate it into The Dalles TSP update. | 21 |

| Document | Project Relevance | Page |
|---|---|---|
| The Columbia Gorge Regional Airport Master Plan (2010) | The TSP update process will consider the needs and potential expansion and growth of commercial and recreational uses around the Columbia Gorge Regional Airport and will reflect related capacity and access-related improvements to the City's transportation system, as necessary. | 23 |
| Columbia River Gorge National Scenic Area Management Plan (2011) | Transportation needs identified for the GMA will be consistent with the Columbia River Gorge National Scenic Area Management Plan | 24 |
| City Documents | | |
| The Dalles Comprehensive Plan (2011) | The updated TSP is intended to be adopted as the transportation element of the City's Comprehensive Plan, replacing the 2005 TSP. Recommendations resulting from the TSP update process must either be consistent with existing policies, including those identified above, or the TSP process should include proposed amendments to adopted policies. Amendments to the Zoning and Land Use Development Ordinance will also likely be needed in order to implement the updated TSP; proposed amendments will be based on existing, revised, or new policies related to land use designations, plan and code amendment procedures, land use review coordination, and/or protection of transportation facilities. | 24 |
| The Dalles Transportation System Plan (2005) | The TSP update process will review goals, objectives, standards, and recommended projects from the current plan and will determine what to retain or change in the updated TSP. This project will update transportation improvement projects for all modes, based on current and projected needs. Updated data, stakeholder and community involvement, and evaluation criteria will be used in making these determinations. | 26 |
| Land Use and Development Ordinance (2015) | Amendment to LUDO provisions related to transportation improvements such as pedestrian and bicycle access and connectivity, transit access, traffic impact analyses, and agency coordination may be recommended as part of this planning process in order to implement the updated TSP, provide consistency between the LUDO, TSP, and local road standards, and strengthen compliance with the TPR. | 26 |
| I-84 Chenoweth Interchange Area Management Plan (2009) | Recommended IAMP amendments to the TSP will be considered during the policy amendment, implementing ordinances and findings phase of the TSP update and, where appropriate, incorporated into the TSP. | 28 |
| The Dalles Growth Management Report (2013) | The TSP update process will consider the UGB findings and recommendations from The Dalles Growth Management Report. The proposed UGB expansion has not been adopted and therefore will not be reflected in the TSP update analysis. To the extent possible, the updated TSP recommendations will reflect the relative scale and location of proposed UGB expansion in order to limit constraints on future growth in those areas. | 29 |
| The Dalles' Economic Opportunities Analysis Report (2011) | The TSP update process will reflect the findings of The Dalles' Economic Opportunity Analysis Report, as it relates to improved multi-modal transportation service and connections to existing employment areas. | 29 |
| The Dalles' Current and Past Transportation Budget and Funding Sources | The TSP update process will review and take into consideration the current and past transportation budget and funding sources. | 30 |

# Oregon Transportation Plan (2006)

The Oregon Transportation Plan (OTP) is a comprehensive plan that addresses the future transportation needs of the State of Oregon through the year 2030. The primary function of the OTP is to establish goals, policies, strategies, and initiatives that are translated into a series of modal plans, such as the Oregon Highway Plan and the Oregon Bike and Pedestrian Plan.

The OTP emphasizes:

- Maintaining and maximizing the assets in place.
- Optimizing the performance of the existing system through technology.
- Integrating transportation, land use, economic development, and the environment.
- Integrating the transportation system across jurisdictions, ownerships, and modes.
- Creating sustainable funding.
- Investing in strategic capacity enhancements.

The Implementation Framework section of the OTP describes the implementation process and how state multimodal, modal/topic plans, regional and local transportation system plans and master plans will further refine the OTP's broad policies and investment levels. Local transportation system plans can further OTP implementation by defining standards, instituting performance measures, and requiring that operational strategies be developed.

> **Project Relevance:** The City of The Dalles TSP update will be guided by goals and objectives that will be consistent with the OTP. For example, The Dalles will seek to maximize performance of the existing local transportation system by the use of technology and system management before considering larger and costlier additions to the system.

# Oregon Highway Plan (2011)

The Oregon Highway Plan (OHP) is a modal plan of the OTP that guides Oregon Department of Transportation's (ODOT's) Highway Division in planning, operations, and financing. Policies in the OHP emphasize the efficient management of the highway system to increase safety and to extend the highway capacity, partnerships with other agencies and local governments, and the use of new techniques to improve road safety and capacity. These policies also link land use and transportation, set standards for highway performance and access management, and emphasize the relationship between state highway and local road, bicycle, pedestrian, transit, rail, and air systems. The following policies, in particular, are relevant to the TSP update process.

## Policy 1A: State Highway Classification System

The OHP classifies the state highway system into four levels of importance: Interstate, Statewide, Regional, and District. ODOT uses this classification system to guide management and investment decisions regarding state highway facilities. The system guides the development of the facility plans, as well as ODOT's review of local plan and zoning amendments, highway project selection, design and development, and facility management decisions including road approach permits.

Interstate 84 (Columbia River Highway), US 30 (Mosier-The Dalles), US 197 (The Dalles-California), and US 30 (Historic Columbia River) are classified highways in the state classification system. The purpose and management objectives of these highways are provided in Policy 1A, as summarized below.

- **Interstate highways** (I-84) provide connections between major cities in a state, regions of the state, and other states. A secondary function in urban areas is to serve regional trips within the urban area. Their primary objective is to provide mobility and, therefore, the management objective is to provide for safe and efficient high-speed continuous-flow operation in urban and rural areas.
- **Regional highways** (US 197) typically provide connections and links to regional centers, Statewide or Interstate highways, or economic or activity centers of regional significance. The management objective for these facilities 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.
- **District highways** (US 30: Mosier-The Dalles & US 30: Historic Columbia River) 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 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.

In addition to the state highway classification system I-84, US 30, and US 197 have been given the following designations:

- I-84 – National Highway System (NHS) and OHP Freight Route.
- US 30: Historic Columbia River Highway – Oregon Scenic Byway.

## Policy 1B: Land Use and Transportation

Policy 1B applies to all state highways. 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. Policy 1B recognizes that state highways serve as the main streets of many communities and strives to maintain a balance between serving local communities (accessibility) and the through traveler (mobility). This policy recognizes the role of both the state and local governments related to the state highway system and calls for a coordinated approach to land use and transportation planning.

## Policy 1C: State Highway Freight System

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 select Statewide, Regional, and District Highways, 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. Highways included in this designation have higher highway mobility standards than other statewide highways. *I-84 is a designated freight route.*

## Policy 1F: Highway Mobility Standards Access Management Policy

Policy 1F sets mobility standards for ensuring a reliable and acceptable level of mobility on the state highway system. The standards are used to assess system needs as part of long range, comprehensive planning transportation planning projects (such as an IAMP), during development review, and to demonstrate compliance with the Transportation Planning Rule (TPR).

Significant amendments to Policy 1F were adopted at the end of 2011. The 2011 revisions were made to address concerns that state transportation policy and requirements have led to unintended consequences and inhibited economic development. Policy 1F now provides a clearer policy framework for considering measures other than volume-to-capacity (v/c) ratios for evaluating mobility performance. Also as part of these amendments, v/c ratios established in Policy 1F were changed from being standards to "targets." These targets are to be used to determine significant effect pursuant to TPR Section -0060. The Chenoweth IAMP, adopted before the revisions to Policy 1F, may benefit from being revisited to evaluate how changes to Policy 1F affect the area.

Table 2 includes the mobility targets for the state facilities in the TSP study area.

*Table 2 – State Facility Mobility Targets*

| Volume to Capacity Ratio Targets Outside Metro | | | |
|---|---|---|---|
| Highway Category | Inside Urban Growth Boundary | | |
| | Non-MPO* Outside of STAs** where non-freeway posted speed <= 35mph, or a Designated UBA | Non-MPO Outside of STAs where non-freeway speed >35 mph but <45 mph | Non-MPO where non-freeway speed limit >= 45 mph |
| Interstate Highways | N/A | N/A | 0.80 |
| Statewide (not a Freight Route) | 0.90 | 0.85 | 0.80 |
| Regional Highways | 0.90 | 0.85 | 0.85 |
| District/Local Interest Roads | 0.95 | 0.90 | 0.90 |

*MPO = Metropolitan Planning Area

**Special Transportation Area

## Policy 1G: Major Improvements

This policy requires maintaining performance and improving safety on the highway system by improving efficiency and management on the existing roadway network before adding capacity. The state's highest priority is to preserve the functionality of the existing highway system. Tools that could be employed to improve the function of the existing interchanges include access management, transportation demand management, traffic operations modifications, and changes to local land use designations or development regulations.

After existing system preservation, the second priority is to make minor improvements to existing highway facilities, such as adding ramp signals, or making improvements to the local street network to minimize local trips on the state facility.

The third priority is to make major roadway improvements such as adding lanes to increase capacity on existing roadways. *As part of this TSP process, ODOT will work with The Dalles and other stakeholders to determine appropriate strategies and tools that can be implemented at the local level that are consistent with this policy.*

## Policy 2B: Off-System Improvements

This policy recognizes that the state may provide financial assistance to local jurisdictions to make improvements to local transportation systems if the improvements would provide a cost-effective means of improving the operations of the state highway system. *As part of this TSP update process, ODOT will work with the City and project stakeholders to identify improvements to the local road system that support the planned land use designations in the study area and that will help preserve capacity and ensure the long-term efficient and effective operation of high functional class facilities.*

## Policy 2F: Traffic Safety

This policy emphasizes the state's efforts to improve safety of all users of the highway system. Action 2F.4 addresses the development and implementation of the Safety Management System to target resources to sites with the most significant safety issues. *The TSP update process will include citywide crash analysis to identify sites with a history of fatal and serious injury crashes and identify potential countermeasures to reduce crashes.*

## Policy 3A: Classification and Spacing Standards

It is the policy of the State of Oregon to manage the location, spacing, and type of road intersections on state highways to ensure the safe and efficient operation of state highways consistent with their highway classification.

Action 3A.2 calls for spacing standards to be established for state highways based on highway classification, type of area, and posted speed. Tables in OHP Appendix C present access spacing standards which consider urban and rural highway classification, traffic volumes, speed, safety, and operational needs. The access management spacing standards established in the OHP are implemented by access management rules in OAR 734, Division 51, addressed later in this report. *The TSP update process will include an analysis of how existing ODOT arterials and collectors compare to these standards.*

### Policy 4A: Efficiency of Freight Movement

Policy 4A emphasizes the need to maintain and improve the efficiency of freight movement on the state highway system. *I-84 is an OHP designated Freight Route.*

### Policy 4B: Alternative Passenger Modes

Policy 4B encourages the development of alternative passenger services and systems as part of broader corridor strategies. The policy promotes the development of alternative passenger transportation services located off the highway system to help preserve the performance and function of the state highway system. Mid-Columbia Council of Government's Transportation Network (The Link), Columbia Area Transit, and Greyhound provide public transportation service in the study area. Improving safety, access, and mobility for pedestrians and bicyclists is an objective of this update process.

> **Project Relevance:** The TSP update is being developed in coordination with ODOT so that projects, policies, and regulations proposed as part of the updated TSP will comply or move in the direction of meeting the standards and targets established in the OHP related to safety, access, and mobility.

## Oregon Freight Plan (2011)

The Oregon Freight Plan (OFP) is a modal plan of the OTP and implements the state's goals, and policies related to the movement of goods and commodities. Its purpose statement identifies the state's intent "to improve freight connections to local, Native American, state, regional, national and global markets in order to increase trade-related jobs and income for workers and businesses." The objectives of the plan include prioritizing and facilitating investments in freight facilities (including rail, marine, air, and pipeline infrastructure) and adopting strategies to maintain and improve the freight transportation system.

The plan defines a statewide strategic freight network. *I-84 and parallel railroads are designated as a strategic corridor in the OFP.*

The following policy and strategic direction provided in the OFP prioritizes preservation of strategic corridors as well as improvements to the supply chain achieved through coordination of freight and system management planning.

- Strategy 1.2: Strive to support freight access to the Strategic Freight System. This includes proactively protecting and preserving corridors designated as strategic.
- Action 1.2.1. Preserve freight facilities included as part of the Strategic Freight System from changes that would significantly reduce the ability of these facilities to operate as efficient components of the freight system unless alternate facilities are identified or a safety-related need arises.
- Strategy 2.4: Coordinate freight improvements and system management plans on corridors comprising the Strategic Freight System with the intent to improve supply chain performance.

> **Project Relevance:** Maintaining and enhancing efficiency of the truck and rail freight system in the study area will be an objective of the updated TSP. The project advisory committees include representatives from ODOT and local freight interests.

## Oregon Public Transportation Plan (1997)

The Oregon Public Transportation Plan (OPTP) is the modal plan of the OTP that provides guidance for ODOT and public transportation agencies regarding the development of public transportation systems. The vision guiding the OPTP is as follows:

- A comprehensive, interconnected and dependable public transportation system, with stable funding, that provides access and mobility in and between communities of Oregon in a convenient, reliable, and safe manner that encourages people to ride
- A public transportation system that provides appropriate service in each area of the state, including service in urban areas that is an attractive alternative to the single-occupant vehicle, and high-quality, dependable service in suburban, rural, and frontier (remote) areas
- A system that enables those who do not drive to meet their daily needs
- A public transportation system that plays a critical role in improving the livability and economic prosperity for Oregonians.

The OPTP Implementation Plan directs ODOT investments towards commuter and mobility needs in larger communities and urban areas, as well as in smaller communities where warranted. It also prioritizes investments in intercity connections statewide. Long-term implementation and funding is geared toward both modernization and preservation projects while preservation projects are more the focus for short term implementation and funding.

Columbia Area Transit provided by the Hood River County Transportation District provides fixed-route inter-city and intra-city transit service between the cities of Hood River, Mosier, and The Dalles. The Mid-Columbia Transit Regional Transportation Plan is reviewed later in this document.

The Mid-Columbia Council of Government's Transportation Network (The Link) provides dial-a-ride, door-to-door service within the City of The Dalles and select areas in Wasco County. The service connects riders to the Greyhound station in The Dalles for trips to Hood River, Portland to the West and Pendleton, Boise, and other destinations along I-84 to the east.

> **Project Relevance:** The TSP update process will coordinate with and provide information to the Mid-Columbia Council of Government's Transportation Network (formerly known as The Link) and Hood River County Transportation District in the study area.

## Oregon Rail Plan (2014)

The Oregon State Rail Plan ("State Rail Plan"), a state modal plan under the OTP, addresses long-term freight and passenger rail planning in Oregon. The State Rail Plan provides a comprehensive assessment of the state's rail planning, freight rail, and passenger rail systems. It identifies specific policies concerning rail in the state, establishes a system of integration between freight and passenger elements into the land use and transportation planning processes, and calls for cooperation between state, regional, and local jurisdictions in planning for rail.

Currently, freight rail service in The Dalles is provided by Union Pacific (UP) Railroad Company as a Class I east-west transcontinental railroad route. The transcontinental route runs between Portland and Hinkle along the southern bank of the Columbia River. The route continues southeast from Hinkle to Granger, Wyoming and Ogden Utah, connecting to UP's historic Central Corridor that links the San Francisco Bay Area with Salt Lake City, Omaha, and Chicago.

The AMTRAK Empire Builder travels along the Washington side of the Columbia River as part of its Portland-Chicago route. Portland is the only stop for the Empire Builder in Oregon, although stops along the north bank of the Columbia River also provide access to nearby Oregon residents. The AMTRAK stations nearest to The Dalles are Bingen-White Salmon and Wishram, Washington.

> **Project Relevance:** The TSP update will consider the needs of the rail freight system within City limits and passenger rail system in nearby Washington cities in developing recommended policies and projects related to improving safety and mobility in the City. In addition, the project technical advisory committee includes ODOT representatives that will advise on rail and freight interests.

## Oregon Aviation Plan (2007)

The Oregon Aviation Plan (OAP) is a modal plan of the OTP that defines policies and investment strategies for Oregon's public use aviation system for the next 20 years. The plan addresses the existing conditions, economic benefits, and jurisdictional responsibilities for the existing aviation infrastructure. The plan contains policies and recommended actions to be implemented by Oregon Department of Aviation in coordination with other state and local agencies and the Federal Aviation Administration.

The OAP categorizes airports based on functional role and service criteria. The OAP identifies the Columbia Gorge Regional Airport (across the river in Dallesport, Washington) as a Category III – Regional General Aviation Airport. According to the OAP, the function of a Category III Airport is to accommodate a wide range of general aviation users for large service areas in outlying areas of Oregon and may also accommodate seasonal regional fire response activities.

> **Project Relevance:** The TSP update will consider access to the Columbia Gorge Regional Airport in developing TSP policies and projects.

## Oregon Bicycle and Pedestrian Plan (2011)

The intent of the Oregon Bicycle and Pedestrian Plan is to provide safe and accessible bicycling and walking facilities in an effort to encourage increased levels of bicycling and walking. The plan is comprised of two parts: the Policy and Action Plan and the Oregon Bicycle and Pedestrian Design Guide.

Originally adopted in 1995 and reaffirmed as an element of the OTP in 2006, the "Bicycle and Pedestrian Mode Plan" is in the final phases of an update. The Design Guide was updated in 2011 and will remain separate from the policy portion of the plan.

The existing Policy and Action Plan provides background information, including relevant state and federal laws, and includes goals, actions, and implementation strategies proposed by ODOT to improve bicycle and pedestrian transportation. The plan states that bikeway and walkway systems will be established on state highways as follows:

- As part of modernization projects (bike lanes and sidewalks will be included);
- As part of preservation projects, where minor upgrades can be made;
- By restriping roads with bike lanes;
- With improvement projects, such as completing short missing segments of sidewalks;
- As bikeway or walkway modernization projects;
- By developers as part of permit conditions, where warranted.

The Design Guide is the technical element of the plan that guides the design and management of bicycle and pedestrian facilities on state-owned facilities. It has been designated as a companion piece to the Highway Design Manual and includes updated and innovative pedestrian and bicycle treatments.

> **Project Relevance:** The standards and guidelines for pedestrian and bicycle improvements in the Oregon Bicycle and Pedestrian Plan can serve as "best practices" and inform recommended bicycle and pedestrian improvements in the updated TSP.

## Oregon Transportation Safety Action Plan (2011)

An element of the OTP, the Oregon Transportation Safety Action Plan (TSAP) establishes a safety agenda to guide the investments and actions of ODOT and the state for the next 20 years. As indicated in the name of the plan, the emphasis of the Oregon TSAP is action and implementation. Actions included in the Oregon TSAP were chosen based on crash data and information provided by transportation safety experts.[1]

[1] In addition to meeting the State's needs, the TSAP serves as Oregon's Strategic Highway Safety Plan (SHSP) as required by federal law. This federal law, now known as MAP-21, requires that SHSPs be updated every five years, and has requirements for inclusion of Highway Safety Improvement Program planning elements. The TSAP is currently being updated; a final updated TSAP is scheduled to be available late 2016.

Actions identified in the TSAP that will guide or be addressed in the TSP process include:

- Focus on "safety areas of interest" such as intersection crashes and pedestrian/bicycle crashes with improvements such as advance signing, roundabouts, access management, signal timing, bulb-outs, refuge islands, bicycle signals, and rapid flashing beacons (Action 23).
- Elevate safety in local system plans by, for example, more widely implementing access management strategies and moving toward compliance with access management standards; and involving engineering, enforcement, and emergency service staff professionals, as well as local transportation safety advocacy groups, in planning (Actions 8 and 9).
- Design improvements for the increased safety of pedestrians, bicyclists, and other non-motorized vehicles, accommodating multiple users on a street and considering the needs of families, seniors, and children using transportation facilities (Action 4).

## Roadway Departure Safety Implementation Plan

The Roadway Departure Plan provides specific information and identifies areas regarding roadway departure safety improvements to implement the current TSAP.

- The traditional approach of relying primarily on pursuing major improvements at high-crash roadway departure locations must be complemented with two additional approaches:
    - A systematic approach that involves deploying large numbers of relatively low-cost, cost-effective countermeasures at many targeted segments of roadway with a history of roadway departure crashes, and
    - A comprehensive approach that coordinates an engineering, education, and enforcement (3E)[2] initiative on corridors and in urban areas with high numbers of severe roadway departure crashes.
- The systematic improvement categories to be deployed include the following: sign and marking enhancements on curves, centerline rumble strips on rural two-lane highways, edge line rumble stripes and shoulder rumble strips, alignment delineation, and selective rural tree removal.
- The systematic and comprehensive approaches will generate a higher number of roadway departure improvements statewide, and Region personnel will require training as they are asked to take a more active role in identifying the appropriateness of systematic improvements within their Regions.
- Low-cost, cost-effective countermeasures should be considered on other types of projects, as appropriate (e.g., resurfacing, surface transportation projects), when a crash history exists within the area of the work and the countermeasure can reduce future crash potential. In these cases, safety-specific funding can be used to supplement the project funds when necessary.

*The Roadway Departure Plan identifies segments of Dry Hollow Road, Cherry Heights Road, and Scenic Drive for safety improvements, including sign and marking enhancements.*[3]

[2] "3E" – Engineering, Education, & Enforcement

### Bicycle and Pedestrian Safety Implementation Plan

The Bicycle and Pedestrian Safety Implementation Plan provides a systemic safety planning process to prioritize corridors across all public roads in Oregon. The Plan also identifies corridors with the most potential for reducing frequency and severity of pedestrian and bicycle crashes.

*The plan identifies a number of corridors as priority segments from a crash frequency and severity screening process. Corridor segments are listed in Tables 18 through 20 and illustrated in Figure 7 and 8.*

### Intersection Safety Plan

The Intersection Safety Plan provides specific information and identifies areas regarding intersection safety improvements to implement the current Action Plan. It directs that the traditional approach of relying primarily on pursuing major improvements at high-crash intersections be complemented with an expanded systematic approach. This approach should involve deploying large numbers of relatively low-cost, cost-effective countermeasures at many targeted high-crash intersections and coordinating engineering, education, and enforcement (3E) initiatives on corridors with high numbers of severe intersection crashes.

> *The plan identifies intersections at Cherry Heights Road & 6th Street, Hostetler Way & 6th Street, Webber Street & 6th Street, and Webber Street & 2nd Street for improvements.*
> **Project Relevance:** Consistent with the state's TSAP Action Plan, the TSP update process will apply objective methods to screen, diagnose, and suggest countermeasures to reduce crash potential. The TSP will consider safety in the selection and prioritization of transportation projects to meet the City's future system needs for all modes of transportation.

## Transportation Planning Rule (OAR 660-012) (2011)

The Transportation Planning Rule (TPR), OAR 660-012, implements Goal 12 (Transportation) of the statewide planning goals. The TPR contains numerous requirements governing transportation planning and project development, including the required elements of a TSP. In addition to plan development, the TPR requires each local government to amend its land use regulations to implement its TSP (-0045). It also requires local government to adopt land use or subdivision ordinance regulations consistent with applicable federal and state requirements: "to protect transportation facilities, corridors and sites for their identified functions."

Local compliance with -0045 provisions is achieved through a variety of measures, including access control requirements, standards to protect future operations of roads, and notice and coordinated review procedures for land use applications. Local development codes should also include a process to apply conditions of approval to development proposals, and regulations ensuring that amendments to land use designations, densities, and design standards are consistent with the functions, capacities, and performance standards of facilities identified in the TSP.

The TPR does not regulate access management. ODOT adopted OAR 734-051 to address access management and it is expected that ODOT, as part of this project, will coordinate with the City in

[3] http://www.oregon.gov/odot/hwy/traffic-roadway/pages/roadway_departure.aspx

planning for access management on state roadways consistent with its Access Management Rule. See the review of OAR 734-051 in the next section for a review of these access management rules.

Recent amendments to the TPR (2012) include new language in Section -0060 that allows a local government to exempt a zone change from the "significant effect" determination if the proposed zoning is consistent with the comprehensive plan map designation and the TSP. The amendments also allow a local government to amend a functional plan, comprehensive plan, or land use regulation without applying mobility standards (V/C, for example) if the subject area is within a designated multi-modal mixed-use area (MMA).

> **Project Relevance:** The TPR directs local TSP development and requires specific transportation elements be implemented in the local development ordinance. Local requirements such as access management, coordinated land use review procedures, and transportation facility standards and requirements are meant to protect road operations and safety and provide for multi-modal access and mobility. Implementation measures that will be developed with the TSP update may entail proposed amendments to the Land Use and Development Ordinance to ensure consistency with TPR requirements as well as to reflect TSP recommendations.

## Access Management Rule (OAR 734-051) (2014)[4]

Oregon Administrative Rule (OAR) 734-051 defines the State's role in managing access to highway facilities in order to maintain functional use and safety and to preserve public investment. OHP Policy 3A and OAR 734-051 set access spacing standards for driveways and approaches to the state highway system[5]. The most recent amendments presume that existing driveways with access to state highways have written permission from ODOT as required by ORS 734. The standards are based on state highway classification and differ depending on posted speed and average daily traffic volume. The standards for highways in The Dalles are presented in Tables 3, 4 and 5 below.

*Table 3 - Spacing Standards for Highways, ADT < or = 5,000 (US 30: Mosier-The Dalles & US 30: Historic Columbia River)*

| Posted Speed (mph) | Spacing (feet) | | | |
|---|---|---|---|---|
| | Regional & District Highways, Rural and Urban | Statewide Highways, Rural Areas | Statewide Highways, Urban Areas | Highways, Unincorporated Communities, Rural Areas |
| 55 & higher | 650 | 1,320 | 1,320 | 1,320 |
| 50 | 425 | 1,100 | 1,100 | 1,100 |
| 40-45 | 360 | 990 | 360 | 750 |
| 30-35 | 250 | 770 | 250 | 425 |
| 25 & lower | 150 | 550 | 150 | 350 |

[4] Amendments to OAR 734-051 were adopted in early 2014 based on passage of Senate Bill 1024 (2010), Senate Bill 264 (2011), and Senate Bill 408 (2014). The amendments were intended to allow more consideration for economic development when developing and implementing access management rules, and involved changes to how ODOT deals with approach road spacing, highway improvements requirements with development, and traffic impact analyses requirements for approach road permits.
[5] ODOT Access Management Standards – OHP Appendix C Revisions to Address Senate Bill 264 (2011): http://www.oregon.gov/ODOT/TD/TP/docs/ohp_am/apdxc.pdf

*Table 4 - Spacing Standards for Regional Highways, ADT > 5,000 (US 197)*

| Posted Speed (mph) | Spacing (feet) | | | |
|---|---|---|---|---|
| | Expressway, Rural Area | Expressway, Urban Area | Rural Area | Urban Area |
| 55 and higher | 5,280 | 2,640 | 990 | 990 |
| 50 | 5,280 | 2,640 | 830 | 830 |
| 40-45 | 5,280 | 2,640 | 750 | 500 |
| 30-35 | - | - | 600 | 350 |
| 25 and lower | - | - | 450 | 250 |

*Table 5 - Spacing Standards for District Highways, ADT > 5,000 (US 30 Mosier-The Dalles)*

| Posted Speed (mph) | Spacing (feet) | | | |
|---|---|---|---|---|
| | Expressway, Rural Area | Expressway, Urban Area | Rural Area | Urban Area |
| 55 and higher | 5,280 | 2,640 | 700 | 700 |
| 50 | 5,280 | 2,640 | 550 | 550 |
| 40-45 | 5,280 | 2,640 | 500 | 500 |
| 30-35 | - | - | 400 | 350 |
| 25 and lower | - | - | 400 | 250 |

**Project Relevance:** Analysis for the TSP update and final project recommendations will need to reflect state requirements for state facilities; the updated TSP will comply or move in the direction of meeting access management standards for state facilities. Implementation measures that will be developed for the TSP update may entail amendments to the Land Use Development Ordinance to ensure that it is consistent with these access management requirements as well as TSP recommendations related to access management.

## Statewide Transportation Improvement Program (STIP)

The State Transportation Improvement Program (STIP) is the four-year programming and funding document for transportation projects and programs for state and regional transportation systems, including federal land and Indian reservation road systems, interstate, state, and regional highways, bridges, and public transit. It includes state- and federally-funded system improvements that have approved funding and are expected to be undertaken during the upcoming four-year period. The projects and programs undergo a selection process managed by ODOT Regions or ODOT central offices, a process that is held every two years in order to update the STIP.

The STIP document is organized by county. Projects found in the 2015-2018 STIP as amended and within The Dalles are presented in Table 6 below.

*Table 6 - City of The Dalles Projects in the 2015-2018 STIP*

| Project Name | Description | Project Total | Year(s) | Notes |
|---|---|---|---|---|
| The Dalles Riverfront Access (15471) | Pedestrian improvements from Union to Laughlin & Pedestrian Plaza & Tunnel under Union Pacific Railroad (UPRR) at Washington St. | $7,140,103 | 2007-2017 | |
| The Dalles Riverfront Trail (17890) | Construct Remaining 5 segments of trail for a total of 1.38 miles | $1,735,000 | 2011-2015 | |
| The Dalles Transportation Center | Construct a new transit facility in the City of The Dalles | $3,324,183 | 2012-2015 | Currently under construction |
| FFO I-84: Three Mile Creek Culvert – Bridge# 09192 (18661) | Replace culvert | $2,350,000 | 2014-2017 | Currently under construction |
| I84@Brewery Grade/OR197 Illumination & Rufus Variable Message Signs (18691) | Replace existing illumination with Light Emitting Diodes (LEDS) & variable message signs in Rufus | $700,000 | 2016-2017 | |
| I-84: Mosier – The Dalles (18711) | Single lift inlay (travel lanes) & median barrier replacement | $10,120,000 | 2014-2016 | |
| Region 4 HSIP Transition Rural (19165) | Sign upgrades, rumble strips, delineators & striping | $2,115,828 | 2014-2016 | |
| Region 4 HSIP Transition Rural (19166) | Signal upgrades | $1,508,088 | 2014-2015 | |
| Port of The Dalles IOF | Construct new roadway to extend river trail way | $3,225,710 | 2015 | Construction completed |

**Project Relevance:** The TSP update analysis will take into account projects that are programmed in the STIP. An expected outcome of this planning process is proposed recommendations to eventually amend the STIP to include projects from the updated TSP. The STIP projects will most likely involve improvements that are eligible for funding through the ODOT Enhance program, which awards funding through a competitive application process.

# ODOT Highway Design Manual (2012)

The 2012 Highway Design Manual provides ODOT with uniform standards and procedures for planning studies and project development for the state's roadways. It is intended to provide guidance for the design of new construction; major reconstruction (4R); resurfacing, restoration, and rehabilitation (3R); or resurfacing (1R) projects. It is generally in agreement with the American Association of State Highway and Transportation Officials (AASHTO) document *A Policy on Geometric Design of Highways and Streets - 2011*. However, sound engineering judgment must continue to be a vital part in the process of applying the design criteria to individual projects. The flexibility contained in the 2012 Highway Design Manual supports the use of Practical Design concepts and Context Sensitive Design practices.

The Highway Design Manual is to be used for all projects that are located on state highways. National Highway System or Federal-aid projects on roadways that are under local jurisdiction will typically use the 2011 AASHTO design standards or ODOT 3R design standards. Table 7 shows which design standards are applicable for certain projects based on project type, and whether or not the project involves a state route. State and local planners will also use the manual in determining design requirements as they relate to the state highways in TSPs, Corridor Plans, and Refinement Plans. Some projects under ODOT roadway jurisdiction traverse across local agency boundaries. Some local agencies have adopted design standards and guidelines that may differ from the various ODOT design standards. Although the appropriate ODOT design standards are to be applied on ODOT roadway jurisdiction facilities, local agency publications and design practices can also provide additional guidance, concepts, and strategies related to roadway design.

*Table 7 - Design Standards Selection Matrix, ODOT Highway Design Manual*

| **Project Type** | **Roadway Jurisdiction** | | | | |
|---|---|---|---|---|---|
| | State Highways | | | Local Agency Roads | |
| | Interstate (I-84) | Urban State Highways (US 197 & US 30) | Rural State Highways | Urban | Rural |
| Modernization/ Bridge New/Replacement | ODOT 4R/New Freeway | ODOT 4R/New Urban | ODOT 4R/New Rural | AASHTO | |
| Preservation/ Bridge Rehabilitation | ODOT 3R Freeway | ODOT 3R Urban | ODOT 3R Rural | AASHTO | ODOT 3R Rural |
| Preventive Maintenance | 1R | 1R | 1R | NA | NA |
| Safety- Operations- Miscellaneous/ Special Programs | ODOT Freeway | ODOT Urban | ODOT Rural | AASHTO | ODOT 3R Rural |

The Highway Design Manual includes mobility standards related to project development and design that are applicable to all modernization projects, except for development review projects (see Table 8). The v/c ratios in the Highway Design Manual are different than those shown in the Oregon Highway Plan (OHP). The v/c ratio values in the OHP are used to assist in the planning phase to identify future system deficiencies; the Highway Design Manual v/c ratio values provide a mobility solution that corrects those previously identified deficiencies and provides the best investment for the State over a 20 year design life.

*Table 8 - 20 Year Design Mobility Standards (Volume/Capacity [V/C]) Ratio*

| 20 Year Design-Mobility Standards | | |
|---|---|---|
| Highway Category | Inside Urban Growth Boundary | |
| | Non-MPO outside of STAs where non-freeway speed limit <45 mph | Non-MPO where non-freeway speed limit >=45 |
| Interstate Highways and Statewide (NHS) Expressways | 0.70 | 0.65 |
| Statewide (NHS) Non-Freight Routes and Regional or District Expressways | 0.75 | 0.70 |
| Regional Highways | 0.75 | 0.75 |
| District/Local Interest Roads | 0.80 | 0.75 |

**Project Relevance:** The ODOT Highway Design Manual provides design standards on state roadways; analysis for the TSP update and final project recommendations will need to reflect state requirements for state facilities. Standards and guidelines adopted by The Dalles should be considered for additional guidance, concepts, and strategies for design.

## Oregon Resilience Plan (2013)

The Oregon Resilience Plan provides policy guidance and recommendations to protect lives and keep commerce flowing during and after a Cascadia earthquake and tsunami. The seismic integrity of Oregon's multi-modal transportation was assessed, including bridges and highways, rail, airports, water ports, and public transit systems. For transportation facilities, the study recommends prioritization of seismic lifeline routes according to tiers with associated resilience targets. The report also identifies seismic vulnerabilities of critical facilities and resources and recommends options to improve transportation facility resiliency.

I-84 (between I-5 and US 97) is identified as a Tier 1 Route and part of the transportation *backbone system*, which is considered to provide the greatest benefits for short-term rescue and longer-term economic recovery. Resiliency targets for Tier 1 Routes are to have a minimum level of service restored within 1-3 days, a functional level of service within 3-7 days, and restore the facility to 90% capacity within 1-4 weeks. Other state highways within The Dalles have resilience targets to be providing a minimal level of service within 1-4 weeks and be 90% operational within 6-12 months. Resiliency goals for public transit are set for paratransit on-demand and fixed route service as well, see

Table 9 for details.

*Table 9 - Oregon Transportation Resiliency Status*

| Infrastructure Facilities | Event Occurs | 0-24 Hours | 1-3 Days | 3-7 Days | 1-4 Weeks | 1-3 Months | 3-6 Months | 6-12 Months | 1-3 Years | 3+ Years |
|---|---|---|---|---|---|---|---|---|---|---|
| Oregon State Highway System | | | | | | | | | | |
| State Highway Systems – Tier 1 SLR (I-84) | | | R | Y | G | | | S | X | |
| Roadways | | | R | Y | G | | X | | | |
| Bridges | | | R | Y | G | | S | X | | |
| Landslides | | | R | Y | G | | | S | X | |
| State Highway Systems – Other Routes | | | | | R | | Y | G | S | X |
| Roadways | | | | | R | | Y | G | X | |
| Bridges | | | | | R | | Y | G | S | X |
| Landslides | | | | | R | | Y | G | S | X |
| Airports & Air Transportation | | | | | | | | | | |
| Airports & Air Transportation (FAA Facility) | | | R | Y | G | | | | | |
| Oregon Rail Transportation | | | | | | | | | | |
| Union Pacific Railroad | | | | Y | G | S | X | | | |
| Oregon Public Transit | | | | | | | | | | |
| Admin & Maintenance Facilities | | | | | | R | Y | G | S | X |
| Local Area Paratransit On-Demand Service (critical) | | | | R | Y | S | G | X | | |
| Local Area Paratransit On-Demand Service (full) | | | | | | R | Y | G | S | X |
| Local Roadway Fixed Route Service (emergency) | | | | R | Y | S | G | X | | |
| Local Roadway Fixed Route Service (regular) | | | | | | R | Y | G | S | X |
| Intercity & Commuter Bus | | | | | | R | Y | G | S | X |

| | |
|---|---|
| Minimal: (A minimum level of service is restored, primarily for the use of emergency responders, repair crews, and vehicles transporting food and other critical supplies.) | R |
| Functional: (Although service is not yet restored to full capacity, it is sufficient to get the economy moving again— e.g. some truck/freight traffic can be accommodated. There may be fewer lanes in use, some weight restrictions, and lower speed limits.) | Y |
| Operational: (Restoration is up to 90% of capacity: A full level of service has been restored and is sufficient to allow people to commute to school and to work.) | G |
| ESTIMATED TIME FOR RECOVERY TO 60% OPERATIONAL GIVEN CURRENT CONDITIONS: | S |
| ESTIMATED TIME FOR RECOVERY TO 90% OPERATIONAL GIVEN CURRENT CONDITIONS: | X |

**Project Relevance:** The Oregon Resilience Plan provides guidance on and priorities on Oregon's multi-modal transportation system. Policies and standards adopted by The Dalles should be considered for additional guidance, concepts, and strategies for design.

## Sustainability Executive Orders (EO-00-07, EO-03-03, and EO-06-02)

The Oregon Sustainability Act of 2001 (ORS 184.421) defines sustainability as using, developing and protecting resources in a manner that enables people to meet current needs while providing for future generations to meet their needs, from the joint perspective of environmental, economic and community objectives. The Oregon Sustainability Executive Orders, enacted between 2000 and 2006, created a sustainability planning process for state agencies to follow, including the creation of Sustainability Plans. The executive orders provided state agencies with sustainability objectives to meet and required the designation of sustainability coordinators. The Oregon Sustainability Board and several interagency teams were also created through the executive orders to address specific sustainability initiatives and provide support and guidance to state agencies. Specific state-wide sustainability initiatives address greenhouse gases, purchasing, electronic waste, and energy.

ODOT's Sustainability Plan, organized into three volumes, responds to the executive order objectives. Volume 1 describes the context for the plan and the vision and framework for ODOT's sustainability goals and strategies. Volume 2 contains goals and strategies for internal ODOT practices. Volume 3, which is not currently available, will focus on the goals and strategies for the management and operation of the statewide transportation system.

> **Project Relevance:** The TSP planning process will consider the State's overall sustainability objectives in the development of plan recommendations.

## Governor's Climate Change Initiative

The Governor's Climate Change Initiative was a multi-state collaborative effort to address climate change. Oregon's involvement in the initiative led to the creation of the Oregon Sustainable Transportation Initiative (OSTI), an integrated statewide effort to reduce greenhouse gas (GHG) emissions from transportation while creating healthier, more livable communities and greater economic opportunity.[6] One outcome of the OSTI is the creation of ODOT's Greenhouse Gas Emissions Reduction Toolkit. The toolkit is designed to help local jurisdictions identify and explore the kinds of actions and programs than can be undertaken to reduce vehicle emissions, as well as meet other community goals.

> **Project Relevance:** The TSP planning process will consider strategies identified in ODOT's Greenhouse Gas Emissions Reduction Toolkit in the development of plan recommendations.

## Wasco County Coordinated Transportation Plan (2009-2012)

ODOT oversees the Special Transportation Fund (STF) through its Public Transit Division. Every STF Agency is required to develop a written plan that sets out a long-term vision for public transportation in its services area; the Wasco County Coordinated Transportation Plan fulfills this requirement. The Dalles' transportation needs are primarily served by Transportation Network (formerly known as the Link) and operated through Mid-Columbia Council of Governments (MCCOG) and Columbia Area Transit (CAT), the main public transportation provider for Hood River County with services in The Dalles. The Transportation Network provides transportation for seniors, individuals with disabilities, and low-income individuals.

[6] http://www.oregon.gov/odot/td/osti/Pages/index.aspx

The coordinated plan focuses on addressing transportation needs for targeted populations and gaps and priorities in services. It also defined and prioritized general strategies for service providers to use in developing specific projects. The complete prioritized list, found in Appendix I, ranks priorities with the highest priorities receiving an "A" and the lowest priorities receiving a "D". Notable priorities identified include:

- Expand Transportation Network services to include early morning and evening hours (Category B)
- Enhance and develop connections to Mount Adams Transportation Services, Sherman County Transit, and Columbia Area Transit (Category B)
- Create fixed or deviated route service[7] (Category C)
- Offer weekend service operations through Transportation Network (Category C)

**Project Relevance:** The TSP planning process will consider the priorities identified in the Wasco County Coordinated Transportation Plan in the development of the transit element of the updated TSP. The TSP transit element will summarize available services in the City and will include recommendations for enhanced transit service.

## Wasco County Transportation System Plan (2009)

The Wasco County Transportation System Plan (TSP) is the County's long-range plan for developing and managing its transportation system. To guide transportation system development, the TSP includes goals that are organized by mobility and connectivity, safety, multimodal users, environment, and planning and funding.

The Wasco County TSP identifies future multimodal transportation needs. The TSP is primarily focused on areas outside of incorporated cities. Information on County roadways within incorporated cities, such as The Dalles, are included, but no future need assessments were conducted. The TSP documents that there were no forecast capacity deficiencies for any major highways during the 20-year planning horizon so future transportation needs are focused on improving roadway and intersection operations.

A set of design standards for County roads within incorporated areas are established according to the functional classification in Table 7-3 of the TSP (see  below). The TSP also notes that local roadway design standards may be applied when deemed appropriate. Access management/spacing standards for incorporated areas are included in Table 7-4 of the TSP (below).

[7] Route deviation involves a situation where a transit vehicle operates on a regular schedule along a well-defined path and deviates to serve demand-responsive requests within a zone around the path.

For county-owned transportation facilities in incorporated areas, locally adopted city mobility standards (called traffic operations standards in the TSP) apply.

*Table 10 - Urban Wasco County Roadway Design Standards (Wasco County TSP Table 7-3)*

| | Local Street | Urban Minor Collector | Urban Major Collector | Urban Arterial |
|---|---|---|---|---|
| **Design ADT** | <1,000 | 1,000-3,000 | 3,000–6,000 | >6,000 |
| **Design Speed (mph)** | 25 | 25-30 | 25-35 | 25-35 |
| **Max Grade** | 12% | 10% | 10% | 6% |
| **Minimum ROW Width (ft)** | 58 | 64 | 63-76 | 90 |
| **Number and Width of Lanes** | 2 12' Travel Lanes | 2 12' Travel Lanes | 2 12' Travel Lanes | 3 Two 12' Travel Lanes 14' Center Turn Lane |
| **Traveled Way Width (ft)** | 36 | 40 | 52 | 50 or 66 |
| **On-Street Parking (ft)** | Not striped | 8 (each side) | 8 (each side) | 8 (each side), optional |
| **Sidewalk Width (ft)** | 5 (each side) | 5 (each side) | 5 (each side) | 5 (each side) |
| **Bike Lane Width (ft)** | - | - | 6 | 6 |
| **Preferred Access Spacing (ft)[8]** | 50 | 150-300 | 150-300 | 300-600 |

*Table 11 - ODOT Highway Spacing Standards (Wasco County TSP Table 7-4)*

| Posted Speed (mph) | ODOT Classification | Urban[9] | |
|---|---|---|---|
| | | Expressway | Other |
| **>= 55** | Statewide | 2,640 | 1,320 |
| | Regional | 2,640 | 990 |
| | District | 2,640 | 700 |
| **50** | Statewide | 2,640 | 1,100 |
| | Regional | 2,640 | 830 |
| | District | 2,640 | 550 |
| **40 & 45** | Statewide<br>Regional<br>District | 2,640<br>2,640<br>2,640 | 990<br>750<br>500 |
| **30 & 35** | Statewide<br>Regional<br>District | - | 720<br>425<br>350 |
| **<= 25** | Statewide | - | 520 |
| | Regional | | 350 |
| | District | | 350 |

[8] Decreased spacing may be allowed when supported by a traffic study and/or approved by the local jurisdiction.
[9] Measurement of the approach road spacing (feet) is from center to center on the same side of the roadway.

Transportation improvement projects on County facilities within The Dalles are identified in Table 12 (TSP Table 7-6 and Figure 7-3).

*Table 12 - Wasco County Urban Transportation Improvement Program (Wasco County TSP Table 7-6)*

| Project Identifier | Project Name | Project Category | Source |
|---|---|---|---|
| **AN** | US 30/Lower Eightmile Road Intersection | Safety, Operations | The Dalles TSP |
| **AO** | US 30 Chenoweth Creek Bridge Rehabilitation | Enhancement | TAC |
| **AP** | OR 197/Fremont Street Overpass | Safety, Operations | The Dalles TSP |
| **AQ** | Bret Clodfelter Way Reconstruction and Paving | Pavement, Bike | WC TIP |
| **AR** | Hostetler Street Widening | Safety, Pedestrian/Bike | The Dalles TSP |
| **AS** | Snipes Street Widening | Safety, Operations | The Dalles TSP |
| **AT** | West 10th Street Improvements | Enhancement | TAC |
| **AU** | West 2nd Street Widening | Enhancement | TAC |
| **AV3** | River Road Improvements | Enhancement | TAC |

The Wasco County TSP includes a network of bicycle routes for recreational and commuter use. All identified bicycle routes to or through The Dalles are illustrated in Figure 7-4 of the TSP.

> **Project Relevance:** County transportation improvement projects will be reviewed and considered in The Dalles TSP update. Recommendations in the updated City TSP will need to be consistent with the County TSP; if necessary, needed refinements to the County plan will be identified and discussed as part of this update process.

## The Columbia Gorge Regional Airport Master Plan (2010)

The Columbia Gorge Regional Airport Master Plan includes objectives and recommendations for the Columbia Gorge Regional Airport, also known as The Dalles Municipal Airport. The airport is located in Dallesport, Washington and is co-owned/sponsored by The City of The Dalles and Klickitat County, Washington. Airport forecasts and development alternatives are evaluated in the Airport Master Plan and included compatibility analysis that considered existing or proposed land use, economic development, and zoning. The Master Plan preferred alternative reserves a southwest portion of the property for the potential future development of a business park. The preferred alternative also includes plans for a golf course and resort on excess airport property in the eastern area.

> **Project Relevance:** The TSP update process will consider the needs and potential expansion and growth of commercial and recreational uses around the Columbia Gorge Regional Airport and, where necessary, reflect capacity and access-related improvements in The Dalles TSP update.

## Columbia River Gorge National Scenic Area Management Plan (2004, Last Updated 2011)

The Columbia River Gorge National Scenic Area Management Plan (Management Plan) is divided into three categories of land: Urban Areas, Special Management Areas (SMAs), and General Management Areas (GMAs). The City of The Dalles is designated as an Urban Area and is exempt from the requirements of the management plan, the goal of which is to focus future growth and economic development in cities. Portions of land within The Dalles UGB boundary are designated GMA, which are predominantly devoted to agricultural and forestry uses. GMA designations within and adjacent to The Dalles UGB include A-1 (60), A-2(40), R-5, and Open Space. Lands with GMA designations are regulated by the Management Plan and its goals, objectives, policies, and guidelines for resource protection and enhancement. Lists of transportation facilities allowed without review in GMA areas can be found in Section II, Chapter 7 of the Management Plan.

> **Project Relevance:** Transportation needs identified within a GMA will follow the Management Plan's goals, objectives, policies, and guidelines to protect and enhance scenic resources.

## The Dalles Comprehensive Plan (1994, Last Updated 2011)

The Dalles Comprehensive Plan is a long-range policy guide for land use within The Dalles Urban Growth Boundary (UGB). The Dalles Comprehensive Plan was adopted in 1994 with amendments made in 2006 and 2011. It incorporates the adopted 2005 TSP and the City's Bicycle Master Plan by reference. Goals and policies from the Transportation Element of the 1982 Comprehensive Plan as well as policy amendments based on the 2005 TSP are incorporated. Relevant goals, policies, and implementation measures are summarized below.

Goal 2 (Land Use Planning) Policy 5 includes evaluation criteria for Comprehensive Plan amendments. Policy 5d requires adequate public facilities, services and transportation networks be in place, or are planned to be provided with the proposed change.

Goal 7 (Natural Hazards) includes an implementation measure directing the implementation of the City's goal to consider natural hazards in the placement of proposed street layouts and storm water designs in newly developing areas with possible landsides, flooding, and surface run-off potential

Goal 8 (Recreational Needs) Policy 2 directs the incorporation of the Columbia River area policies of The Dalles Riverfront Master Plan. Policy 2b includes language encouraging coordination among local recreation and transportation agencies for transportation and recreation planning when developing bikeways and trails. Policy 4 recommends incorporating multi-modal elements in capital improvements such as sidewalks, streets, and utility corridors. Policy 16 includes language to update the Bicycle Master Plan and to develop a pedestrian plan for The Dalles UGB with the purpose of providing recreation and alternative transportation in defined areas.

Goal 8 (Recreational Needs) Policy 5 encourages the incorporation of public recreational trails and bikeways, as identified in the areas' bikeway and trail systems, in subdivision and site plan regulations and review.

Goal 10 (Housing) Policies 3a, 3b, 11 and 12, include land use concepts for focusing higher density housing in the downtown, along major streets, and neighborhoods centers as well as transitioning to lower density housing at higher elevations and along stream corridors. Policy 6 encourages energy conservation through increased residential density in mixed-use centers and major linear streets that can be served by future transit service.

Goal 12 (Transportation) includes 12 policies that are generally applicable throughout City limits. However, Policy 3 is a site specific policy, directing the adoption of the Columbia Gorge Regional Airport Layout Plan. Transportation policies include encouragement of mass transit (1), pedestrian, bicycle, and horse trails (2), and adequate barge facilities (4); language on the development of streets to relieve congestion (5), accommodate future growth (6), improve vehicular access to the downtown area and outlying areas (9), and improve truck routes between specific destinations (11) while still allowing street standards to be flexible for street trees, sidewalks planting strips, and widths (7); and language supporting mass transit both as an automobile alternative (12) and for transportation disadvantaged residents to reach necessary destination as funds are available (10).

Goal 13 (Energy Conservation) Policy 9 includes language for The Dalles to consider and foster the efficient use of energy in land use and transportation planning. Policy 10 directs the City to implement additional energy conservation measures related to "Urban Form", "Transportation", and "Building Codes" as identified in the Implementation Measures section. Urban Form implementation strategies focus on increasing densities, particularly near transit, and promoting a mix of adjacent uses. Transportation implementation strategies include a focus on the creation of and improving the access to a city/regional transit agency, increasing opportunities for walking and bicycling, developing public facility guidelines to include bicycle and pedestrian connectivity, and subsidizing alternative commute modes for public employees. The Comprehensive Plan notes that many of the implementation strategies are currently implemented in The Dalles TSP. In addition, Goal 13 Implementation Measures directs the City to explore the feasibility of a mini-transit system as funds become available.

Goal 14 (Urbanization) Policy 8 includes language requiring public facilities to be built and reviewed in compliance with The Dalles TSP. Policy 13 directs The Dalles to prepare public facility and transportation plans for the UGB and URA once boundaries have been established.

> **Project Relevance:** The updated TSP is intended to be adopted as the transportation element of the City's Comprehensive Plan, replacing the 2005 TSP. Recommendations resulting from the TSP update process will either be consistent with existing policies, including those identified above, or will inform updated policy language that will be proposed for adoption as part of the TSP update. Amendments to the Zoning and Land Use Development Ordinance will also likely be needed in order to implement the updated TSP; proposed amendments will be based on existing, revised, or new policies related to, among other things, procedures, land use review coordination, strengthening multi-modal connectivity and access, and protection of transportation facilities.

## The Dalles Transportation System Plan (1999, Last Updated 2005)

The Dalles Transportation System Plan (TSP) is the City's long-range plan for developing and managing its transportation system. It establishes goals, objectives, and improvements to support planned land uses and population growth over the next 20 years.

Existing objectives are grouped under goals identified as: Enhance Transportation User Safety; Enhance Transportation Mobility; Increase the Use of Alternative Travel Modes through Improved Safety and Service; and Develop a Transportation System that Supports Planned Land Uses. These goals and objectives will be examined and revised as part of Task 2.4 and used in later tasks for setting policy and selecting preferred alternatives.

The TSP establishes a set of standards for the design and management of City roads, primarily based on functional classification designations shown in the TSP Figure 11. Typical street design standards for major and minor arterials, collectors, and local streets are established in the TSP Figures 12 and 13 and Table 5. Likewise, access management/spacing standards are established by functional classification and shown in Tables 6 through 11 in the TSP.

The adopted TSP does not have an established mobility standard such as volume-to-capacity (v/c) or level of service (LOS). The TSP notes that, as part of the City of The Dalles Local Street Master Plan (1999 Administrative Draft Plan), the City's arterials and collector streets function at LOS C or higher, indicating that no identified deficiencies exist for which the local network must compensate.

The TSP identifies a list of street, bicycle, and pedestrian system projects needed to serve long-range mobility and accessibility needs and are summarized in Table 12 and illustrated in Figure 14. Revisions to the list and figure were not included in the 2005 update.

> **Project Relevance:** The TSP update process will review goals, objectives, standards, and recommended projects from the current plan and will determine what to retain or change in the updated TSP. This project will update transportation improvement projects for all modes, based on current and projected needs. Updated data, stakeholder and community involvement, and evaluation criteria will be used in making these determinations.

## Land Use and Development Ordinance (1998, Last Updated 2015)

The City of The Dalles Land Use and Development Ordinance (LUDO) regulates development within city limits and implements the long-range land use vision embodied in The Dalles Comprehensive Plan. The LUDO contains several sets of requirements that address the relationship between land use development and transportation system development. Those requirements are discussed below and address access and connectivity, design standards, performance standards, traffic impact studies, parking, and application review and conditions of approval.

## Street Access and Connectivity

Access is primarily addressed in Section 6.050 of the LUDO and applies to all arterials, collectors, and local streets within city limits and the UGB and to all properties which abut these roadways. Preferred spacing standards and stopping sight distances are provided in Tables 1 and 2 of Section 6.050

- Access Management (6.050, General Regulations)
- Driveway and Entrance Standards (6.060, General Regulations)

## Street Design Standards

Requirements in the Street Design Standards, Section 10.060.J.5, provide right-of-way and improvement widths and standards by street classification for all streets designated in the TSP except for local streets in residential zones.

## Pedestrian and Bicycle Access and Connectivity

Bicycle and pedestrian access is addressed in LUDO Sections 10.040-10.050 and also subject to the Residential Street Public Improvement Guidelines (also found in the LUDO). Sidewalks for commercial development, subdivision, multi-family development, and single-family dwellings that abut a designated Network Street are required on both sides of arterial, collector, and local streets. All other single-family dwellings, not on a designated Network Street, do not have street improvement requirements. Bicycle lanes are required on all new or improved arterial and major collector streets. Connectivity requirements for bicycle and pedestrian facilities are included, in order to minimize travel distances and providing connections for non-through streets. Standards for internal pedestrian circulation on new developments are included as well.

## Performance Standards and Traffic Impact Studies

The City's TSP does not have an established performance standard. However, traffic impacts studies are required for all development proposals of 16 or more dwelling units, development proposals that will likely generate more than 400 average daily vehicle trips, and for those near an intersection that is already at or below Level of Service D (LUDO 10.060, Street Requirements). In addition, the City may require an initial, limited traffic study to determine the level of service at nearby intersections to determine if a full impact study is warranted.

The TPR requires that a link be provided between adopted performance standards and land use development in the City's development code. Site Plan Review (3.030) requires developments to meet street and sidewalk connectivity standards, consistent with the LUDO and the TSP.

## Parking

LUDO Chapter 7 addresses parking standards, including general provisions and design standards (7. 020 & 7.030), bicycle parking design standards (7.040), parking structures (7.050), and minimum/maximum off-street parking requirements (7.060). The general provisions allow for shared parking where facility size and space requirements are met and written evidence upholding the shared parking right is provided.

### Application Review and Conditions of Approval

Existing LUDO provisions require notice be sent to any affected governmental agency, department, or public district on complete applications for administrative actions (3.020.040) and quasi-judicial actions (3.020.050). Notice for legislative actions are not required to send notice to affected governmental agencies, however notices are required to be published in a general circulation newspaper.

Review criteria to approve, approve with conditions, or deny are included for site plan review (3.030), neighborhood compatibility review (3.040), conditional use permits (3.050), administrative conditional use permits (3.060), variances, (3.070), adjustments (3.080), zone changes (3.100), and ordinance amendments (3.110). Review criteria for neighborhood compatibility review, conditional use permits, and zone changes require compliance with City ordinances, including street access and connectivity, street design standards, pedestrian and bicycle access and connectivity, and traffic impact studies. Neighborhood compatibility review criteria include additional design standards, applicable to all developments, for parking location and landscaping and pedestrian/bicycle circulation. Zone change review criteria include that the site is, or will be, adequately served by streets for the type and volume of traffic generated.

Section 10.110 allows the City to require the dedication of rights-of-way and easements within or adjacent to development sites when the needs are identified through fulfilling transportation requirements or those identified by the City Engineer.

### TPR Compliance

LUDO Section 3.110.030 requires ordinance amendments to be consistent with the Comprehensive Plan and State Laws and Administrative rules. LUDO Section 3.100.030 requires zone changes to be consistent with the Comprehensive Plan and ordinances, but does not currently specify compliance with State Laws and Administrative Rules.

> **Project Relevance:** Amendment to LUDO provisions related to transportation improvements such as pedestrian and bicycle access and connectivity, transit access, traffic impact analyses, and agency coordination may be recommended as part of this planning process in order to implement the updated TSP, provide consistency between the LUDO, TSP, and local road standards, and/or to strengthen compliance with the TPR.

## I-84 Chenoweth Interchange Area Management Plan (2009)

The I-84 Interchange Area Management Plan (IAMP) was developed to protect the function of the I-84 Chenoweth Interchange to provide safe and efficient connections with the interstate to and from the city's industrial port area. The City adopted the Chenoweth IAMP by reference as an element of the City's Transportation System Plan. The IAMP Transportation Improvement Plan (Figure 7-1 and Table 7-1 of the IAMP) was included in the recommended transportation improvements project list at that time.

The Interchange Area Management Plan Overlay District identified in the IAMP include the submittal requirements, review standards, and administration fees for IAMP monitoring and updates for land use amendment and design review applications within the district. Also proposed in the plan is a Supplemental Transportation System Development Charge (STSDC) intended to finance transportation improvements in the vicinity of the I-84 Chenoweth Interchange. This new STSDC has not currently been

adopted by The Dalles. The IAMP calls for the City to administer it through the City's existing System Development Charge (SDC) program but have its own methodology for assessing fees.[10]

> **Project Relevance:** Adopted policy and transportation improvements in the IAMP will be considered during the policy amendment, implementing ordinances and findings phase of the TSP update and, where appropriate, incorporated into the TSP.

## The Dalles Growth Management Report (2013)

The Dalles Growth Management Report provides background information and revised findings for the urban growth boundary/urban area expansion proposal and related comprehensive plan amendments. The Dalles is within the Columbia River Gorge National Scenic Area, adding additional considerations to the standard Oregon buildable lands approach. The report includes a land needs assessment and UGB locational analysis, both considering how Goal 14 and the National Scenic Area influence analysis and priorities.

The revised UGB findings identify an area to the north in Hidden Valley for being able to accommodate urban services. However, this Report did not result in a state-acknowledged UGB amendment and this area is not within city limits.

> **Project Relevance:** The TSP update process will review the UGB findings and recommendations from The Dalles Growth Management Report to ensure that the TSP recommendations do not prohibit the possibility of additional system improvements that may be necessary to serve future growth.

## The Dalles' Economic Opportunities Analysis Report (2007, Last Updated 2011)

The Economic Opportunity Analysis report provides technical economic analysis and 20-year employment forecasts, consistent with Planning Goal 9 and OAR 660-009, to help articulate the City's economic development policy and to create an inventory and needs assessment of industrial sites within the UGB. The study finds that there is enough vacant or re-developable land to meet the 20-year projected demand. The study recommends that the City identify and maintain an adequate number of sites within its existing employment areas to accommodate future employment growth. The study also recommends an expansion of the central business district and community zones.

> **Project Relevance:** The TSP update process will reflect the findings of The Dalles' Economic Opportunity Analysis Report, as it relates to improved multi-modal transportation service and connections to existing employment areas.

[10] Because the STSDC involves a new fee, state law and City regulation requires that it be adopted through a formal amendment process that includes a public review and comment period and approval of the new methodology by ordinance [ORD 3-8.4(B)]. Pursuant to the existing City ordinance, the procedure to enact an STSDC improvement fee includes adopting a plan that contains the list of projects needed to serve growth in the fee area (in this case, adoption of the IAMP) and providing written notice at least 30 days prior to adoption of the proposed fee to those who have requested notice [ORD 3- 8.8].

# Current and Past Transportation Budget and Funding Sources

The Dalles organizes its transportation budget into three general categories: Street Fund, Public Works Reserve Fund, and Transportation System Reserve Fund. Street Fund expenditure categories include street operations (personnel services, materials and services, and capital outlay) and other uses (operating transfers out and contingency). There are a variety of funding sources for the Street Fund, the majority of which come from the State Motor Vehicle Fund, followed by the local fuel tax, utility funds, and other smaller sources.

The Public Works Reserve fund is entirely budgeted to machinery and vehicles. Revenue sources include transfers from the Street Fund and utility funds. A one-time historical revenue source included funds from loan/bond proceeds in FY13/14.

The Transportation System Reserve Fund is dedicated entirely to capital projects. Revenue sources include FAU exchange funds, transfers from the Street Fund, and connection charges/transportation SDC fees.

**Funding Sources**

- Northwest Natural
- Local 3 Cent Fuel Tax
- State Motor Vehicle Fund
- Urban Renewal
- Chenoweth PUD (line item, but no historic revenue or proposed budget)
- Copies, Plans, Ordinances
- Miscellaneous Sales and Service
- Interdepartmental Revenue
- Interest Revenue
- Other Miscellaneous Revenue
- General Fund
- Water Utility Fund
- Wasterwater Utility
- Sale of Fixed Assets
- FAU Exchange Funds
- Federal Grants
- Connection Charges/Transportation SDCs
- Street Fund (to the Public Works Reserve Fund and Transportation System Reserve Fund)