



Technical Memo #2

Nehalem Bay Transportation System Plan
Plans and Policy Review
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Prepared by Angelo Planning Group

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Overview

This memorandum presents a review of existing plans, regulations, and policies that affect transportation planning in the cities of Nehalem, Manzanita, and Wheeler. The review explains the relationship between the documents and planning within the cities, identifying key issues that will guide the Nehalem Bay Transportation System Plan (TSP) process. This memorandum is intended to guide later decisions regarding the development and selection of preferred transportation solutions and necessary amendments to related plan documents and regulations.

Some documents included in this review establish transportation-related standards, targets, and guidelines with which the TSPs must coordinate and be consistent with; others contain transportation improvements that will need to be factored into the future travel demand modeling and otherwise reflected in the draft TSPs. Local policy and regulatory requirements described in this review may be subject to amendments in order to implement the



recommendations of the TSPs. This memorandum helps set the stage for those potential amendments, which will be prepared as part of project implementation (Task 6).

There are a number of local plans that have been completed subsequent to the adoption of the cities' existing TSPs. To the extent that existing policies, standards, and recommendations therein have an impact on the transportation system, relevant elements of these plans will be considered during this TSP update.

Statewide Plans

Statewide Planning Goals

The foundation of Oregon's statewide land use planning program is a set of 19 Statewide Planning Goals.¹ The goals express the state's policies on land use and other related topics, such as citizen involvement, housing, and natural resources. Oregon's statewide goals are achieved through local comprehensive planning, including the development and implementation of TSPs.

All of the Statewide Planning Goals have an influence on transportation planning, either directly or indirectly. However only certain Goals directly apply to transportation planning at a local level; the Goals listed in Table 1 are most relevant to the Nehalem Bay TSP process.

Table 1: Statewide Planning Goals

Statewide Planning Goal	Relevancy to the TSP Process
Goal 1: Citizen Involvement	Establishes citizen involvement as the primary goal of the land use planning process in Oregon. The Nehalem Bay TSP process is guided by a robust Public and Stakeholder Involvement Strategy that includes public involvement goals, identified affected and interested stakeholder and target audiences, and critical factors that will gauge success. In addition, this project will be guided by a project advisory committee that will inform the Nehalem Bay TSP process throughout the course of the project.
Goal 2: Land Use Planning	Establishes a process and policy framework for all decisions and actions related to uses of land; ensures that such decisions and actions are premised on an adequate factual base. Existing and future transportation needs will be based on inventories of existing conditions in Technical Memorandums #5, #6, and #7, including existing and planned land uses, as well as improving efficient multi-modal connections to housing, public services, employment areas, and recreational opportunities.
Goal 5: Natural Resources, Scenic and Historic Areas, and Open Spaces	Existing natural resources and environmental features influence the siting, construction, and cost of transportation improvements. Technical Memorandum #5 will provide inventories of these resources illustrate and describe areas within the cities that may pose barriers to providing transportation access or improvements.

¹ <https://www.oregon.gov/lcd/op/pages/goals.aspx>

Statewide Planning Goal	Relevancy to the TSP Process
Goal 7: Natural Hazards	The risk of natural hazards affects site selection and alignment decisions and facility design standards. Transportation improvement projects in the cities should avoid natural hazard areas, such as floodplains, to the extent feasible.
Goal 9: Economic Development	Addresses the need for a variety of economic opportunities in support of the health, welfare, and prosperity of Oregon’s citizens. The TSP process should be coordinated with current and planned economic development activities.
Goal 10: Housing	Cities are required to anticipate ongoing needs for housing, and to provide adequate infrastructure to serve residential uses. Transportation facilities and project prioritization will be based, in part, on the demands generated by current and projected housing needs.
Goal 11: Public Facilities and Services	Local governments are required to provide adequate public facilities, including transportation facilities, in a timely and efficient manner. The TSP project update project will coordinate with or consider the provision of other public facilities consistent with adopted plans.
Goal 12: Transportation	Requires multi-modal transportation plans that: <ul style="list-style-type: none"> • Are based on factual inventories, • Minimize adverse social, environmental, economic, and energy impacts, • Meet the needs of the transportation disadvantaged, • Facilitate the flow of goods and services, and • Are consistent with related local and regional plans. Goal 12 is implemented through the Transportation Planning Rule (OAR 660, Division 12).
Goal 13: Energy Conservation	Land uses must be managed and controlled to maximize the conservation of all forms of energy based upon sound economic principles. In transportation planning, this includes consideration of travel distances and mode share.
Goal 14: Urbanization	Requires land within the Urban Growth Boundary to “provide an orderly and efficient transition from rural to urban land use.” Findings of feasibility regarding providing adequate transportation and other public facilities is required for expansion of UGB’s.
Goal 16: Estuarine Resources	Requires individual estuary plans to designate appropriate uses for different areas within each estuary based on biological and physical characteristics and features. Proposed estuarine alterations must be reviewed to ensure that they are consistent with overall management objectives and that adverse impacts are minimized.
Goal 17: Coastal Shorelands	The management of shoreland areas and resources must be conducted in a manner that is compatible with the characteristics of the adjacent coastal waters. Goal 17 requirements are implemented primarily through local comprehensive plans and zoning.
Goal 18: Beaches and Dunes	Local governments are required to inventory beaches and dunes and describe the stability, movement, groundwater resources, hazards, and values of the beach, dune, and interdune areas. Local governments must then apply appropriate beach and dune policies for use in these areas.

Project Relevance: The TSPs will be consistent with the Statewide Planning Goals.

Oregon Transportation Plan (2006)

The Oregon Transportation Plan (OTP) is the state’s long-range multi-modal transportation 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 Oregon Bike and Pedestrian Plan. The OTP considers all modes of Oregon's transportation system, including Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads. It assesses state, regional, and local public and private transportation facilities. In addition, the OTP provides the framework for prioritizing transportation improvements based on varied future revenue conditions, but it does not identify specific projects for development.

The OTP provides broad policy guidance and sets seven overarching goals for the state.² Through these goals and associated policies and strategies, the OTP emphasizes:

1. Maintaining and maximizing the assets in place
2. Optimizing the performance of the existing system through technology
3. Integrating transportation, land use, economic development, and the environment
4. Integrating the transportation system across jurisdictions, ownerships, and modes
5. Creating sustainable funding
6. 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 TSPs and master plans will further refine the OTP's broad policies and investment levels. Local TSPs can further OTP implementation by defining standards, instituting performance measures, and requiring that operational strategies be developed.

The last chapter of the OTP provides implementation and investment frameworks and key initiatives to be consulted in developing TSP projects and implementation measures.

In 2018, the Oregon Transportation Commission adopted an amendment to incorporate the Statewide Transportation Strategy (STS) as part of the OTP. The STS describes how the transportation sector can move towards the goal of a 75% reduction in GHG emissions from 1990 levels by 2050. It includes strategies for greenhouse gas reductions and furthers and supports the OTP and its goals to provide a safe, efficient, and sustainable transportation system that enhances Oregon's quality of life and economic vitality.

Project Relevance: The OTP's policies and strategies will guide the TSPs, specifically in the areas of system management, maximizing performance of the existing

² The seven goals are Goal 1 – Mobility and Accessibility; Goal 2 – Management of the System; Goal 3 – Economic Vitality; Goal 4 – Sustainability; Goal 5 – Safety and Security; Goal 6 – Funding the Transportation System; and Goal 7 – Coordination, Communication, and Cooperation.

transportation system using technology and creative design solutions, pursuing sustainable funding sources, and investing strategically in capacity projects.

Oregon Highway Plan (and subsequent amendments) (1999)

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 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 highways and local road, bicycle, pedestrian, transit, rail, and air systems.

The following policies are relevant to the TSP 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 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.

US 101 is classified as a Statewide Highway in the state classification system. The purpose and management objectives of these highways are provided in Policy 1A, as summarized below.

Statewide Highways (US 101) 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.

The following classifications also apply to US 101.

- National Highway System (NHS)
- Oregon Scenic Byway

Policy 1B: Land Use and Transportation

Policy 1B recognizes the role of both the state and local governments in planning for the transportation system and the need for collaboration in decision-making. The policy permits special highway segment designations where specific types of land use patterns foster compact development and in areas where the need for appropriate local access outweighs the highway mobility considerations. Inside Special Transportation Areas (STAs), local access may also be a priority. In **Nehalem** where US 101 turns west at the intersection of Seventh Street and in **Wheeler** between Hemlock St and First Street, the highway has a STA designation.

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. There are no OHP designated freight routes in the three cities, but US-101 is designated a reduction review route and part of the National State Network.³

Policy 1D: Scenic Byways

Several highways throughout the state have been designated Scenic Byways because of their exceptional scenic value. To protect the scenic assets of its Scenic Byways, ODOT has developed guidelines for aesthetic and design elements within the public right-of-way that are appropriate for Scenic Byways. US 101 is designated as an All-American Roads Scenic Byway and is designated as an Oregon State Scenic Byway.

Policy 1F: Highway Mobility Policy

Policy 1F sets mobility targets 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 and transportation planning projects, during development review and to demonstrate compliance with the Transportation Planning Rule. Policy 1F also provides a clear framework for considering measures other than volume-to-capacity (v/c) ratios for evaluating mobility performance.

Table 2 includes the mobility targets for US 101 in the TSP study area. Per the OHP, US 101 is classified as a Statewide Highway (not a Freight Route).

³ A High Clearance Route as defined by ODOT meets vertical clearance standards; these routes are important for oversize loads use.

Table 2: Volume to Capacity Ratio Targets Outside Metro

	STA	Outside STA Speed Limit <= 35mph	Outside STA Speed Limit >35 mph but <45 mph	Outside STA Speed Limit >= 45
Statewide (not a Freight Route)	0.95	0.90	0.85	0.80

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 highways 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 controlled intersections, 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 cities 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 process, ODOT will work with the cities 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 US 101.

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 process will include a 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

State policy seeks to manage the location, spacing, and type of road intersections on state highways in a manner that ensures 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 process will include an analysis of how existing ODOT facilities in the three cities compare to these standards.

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. Tillamook County Transit provides public transportation service in the study area. Improving safety, access, and mobility for pedestrians and bicyclists to local transit service and to community destinations throughout the project study area is an objective of this process.

Policy 4D: Transportation Demand Management

This policy supports the efficient use of the state transportation system through investment in transportation demand management (TDM) strategies. Action 4D.1 calls for reducing peak period single-occupancy vehicle travel and to move traffic demand out of the peak period so as to improve the flow of traffic on state highways. The TSP process will review TDM strategies that can be adopted into the city ordinances in the form of requirements for new developments and incentives for employers.

Project Relevance: The TSP planning process will consider policies in the OHP for any improvements, modifications, or policies that would affect US 101. OHP policies provide guidance in developing recommended improvements that would impact the accessibility, mobility, or function of the highway. The TSP is being developed in coordination with ODOT so that projects, policies, and regulations proposed as part of each City TSP will comply with or move in the direction of meeting the standards and targets established in the OHP related to safety, access, and mobility.

Oregon Bicycle and Pedestrian Plan (2016)

The intent of the Oregon Bicycle and Pedestrian Plan (OBPP) is to create a policy foundation that supports decision-making for walking and biking investments, strategies, and programs that help to develop an interconnected, robust, efficient, and safe transportation system. The OBPP established the role of walking and biking as essential modes of travel within the context of the entire transportation system and recognizes the benefit to the people and places in Oregon.

The OBPP provides direction for what needs to be achieved in the state, including 20 policies and associated strategies designed to help develop, sustain, and improve walking and biking networks. It identifies nine goals based upon the broader goals of the OTP that reflect statewide values and desired accomplishments relating to walking and biking:

- Goal 1: Safety
- Goal 2: Accessibility and Connectivity
- Goal 3: Mobility and Efficiency
- Goal 4: Community and Economic Vitality
- Goal 5: Equity
- Goal 6: Health
- Goal 7: Sustainability
- Goal 8: Strategic Investment
- Goal 9: Coordination, Cooperation, and Collaboration

The OBPP also provides background information related to state and federal law, funding opportunities, and implementation strategies proposed by ODOT to improve bicycle and pedestrian transportation. It outlines the role that local jurisdictions play in the implementation of the Plan, including the development of local pedestrian and bicycle plans as stand-alone documents within TSPs.

Project Relevance: The TSP process will consider OBPP policies and strategies for their applicability to the cities and, where appropriate, TSPs will reflect the OBPP in local policies and project selection. The State standards and strategies for pedestrian and bicycle improvements can serve as “best practices” and inform recommended bicycle and pedestrian improvements in the TSPs. The TSP planning process will identify and address areas where enhancements are needed to improve sidewalk accessibility, including curb ramps, to better comply with the Americans with Disabilities Act (ADA). The TSP planning process will consider OBPP standards and designs where pedestrian and bicycle projects are recommended on, or parallel to,

state facilities. In addition, advisory committees for the project include members that represent pedestrian and bicycle interests.

Oregon Public Transportation Plan (2018)

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 systems⁴. The guiding vision for the State is to create:

- A public transportation system that is an integral, interconnected component of Oregon's transportation system that makes Oregon's diverse cities, towns, and communities work.
- Public transportation that is convenient, affordable, and efficient helps further the state's quality of life and economic vitality and contributes to the health and safety of all residents, while reducing greenhouse gas emissions.

The OPTP is designed to respond to trends, opportunities, and challenges that exist today, while providing an adaptable foundation for the future. The policies and strategies advance public transportation as an important piece of the overall transportation system, linking people to destinations, services, opportunities, as well as to communities in neighboring states.

While the OPTP does not recommend specific projects or investments, new efforts in planning for transit come with the passage of HB 2017 (Keep Oregon Moving Act) and the establishment of a new dedicated source of funding for expanding public transportation service in Oregon.⁵ The Statewide Transportation Improvement Fund (STIF) provides the impetus for coordinating the prioritization of needed infrastructure. STIF funds are continuously appropriated to finance investments and improvements in public transportation services and may be used for public transportation purposes that support the effective planning, deployment, operation, and administration STIF-funded public transportation programs. STIF funds may be also used as the local match for state and federal funds that also provide public transportation service.⁶

Project Relevance: The OPTP is a modal plan that provides guidance for ODOT and public transportation agencies regarding the development of public transportation systems. The TSP process will coordinate with Tillamook County Transportation District (TCTD) long-range and strategic planning in the TSP study area. A

⁴ Goals: Goal 1 – Mobility, Goal 2 – Accessibility and Connectivity, Goal 3 – Community, Livability and Economic Vitality, Goal 4 – Equity, Goal 5 – Health, Goal 6 – Safety and Security, Goal 7 – Environmental Sustainability, Goal 8 – Land Use, Goal 9 – Strategic Investment, Goal 10 – Communication, Collaboration, and Coordination

⁵ <https://www.oregon.gov/ODOT/Pages/HB2017.aspx>

⁶ <https://secure.sos.state.or.us/oard/viewSingleRule.action?ruleVrsnRsn=245662>

representative from TCTD may be invited to participate in the project advisory committee or to receive copies of each deliverable for review to ensure coordination between the recommendations of the TSP and transit plans.

Oregon State Rail Plan (2014)

The Oregon State Rail Plan is a state modal plan under the OTP that addresses long-term freight and passenger rail planning in Oregon. The 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 process, and calls for cooperation between state, regional, and local jurisdictions in planning for rail.

The Oregon Coast Scenic Railroad passenger rail access is located in Wheeler and is classified as a tourist operation. The operation provides excursions into the Salmonberry Canyon and is actively working on restoring more track mileage. There are no other long-term freight or passenger rail facilities in Nehalem or Manzanita.

Project Relevance: The Wheeler TSP will consider the needs of the Oregon Coast Scenic Railroad in developing recommended policies and projects related to improving safety and mobility in the area.

Oregon Freight Plan (2017)

The Oregon Freight Plan (OFP) is a modal plan of the OTP that 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 America, 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. There are no strategic freight networks within the cities' limits. ORS 366.215 protects the routes that are necessary for the movement of freight, and limits the situations in which the state can reduce the carrying capacity (defined as the horizontal or vertical clearance) on routes; US-101 is a designated "Reduction Review Route."

The 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.

Project Relevance: Maintaining and enhancing efficiency of the truck and rail freight system in the study area will be an objective of the TSP. The project advisory committee includes representatives from ODOT.

Oregon Aviation Plan (2018)

The Oregon Aviation Plan (OAP) was published in 2007 and updated in 2018. The 2018 update is a result of a three-phase study to reflect the economic and population growth in the state and changes in the aviation industry regarding technologies and decreases in passenger air service for small markets. The plan classifies airports based on their roles; recommends airside facilities, general/landside facilities, and services according to classification; and provides a statewide perspective relating to airport planning decisions while further refining the goals and policies of the OTP. The update specifically includes a Technical Report that documents each airport's Report Card, summarizing projects and costs the airports could anticipate in the next five to ten years.

The Nehalem Bay State Airport in Manzanita is classified as a Commercial Service Airport in the OAP. Based on recommended facilities and services, an analysis of the airport conducted for the 2018 update showed a high liquefaction hazard and severe Cascadia Event hazard.

Project Relevance: The TSP will generally account for airports in the region and each city's residents and businesses access to these facilities in developing TSP policies and projects.

Transportation Planning Rule (OAR 660-012) (Last Updated 2012)

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 (OAR 660-012-0045). 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.

Amendments to the TPR adopted in 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 Nehalem Bay TSP may entail proposed amendments to the cities’ various development ordinances to ensure consistency with TPR requirements as well as to reflect TSP recommendations.

Access Management Rule (OAR 734-051) (2014)⁷

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 system⁸. 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 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 partner cities in planning for access management on state roadways consistent with its Access Management Rule.

⁷ 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 improvement requirements with development, and traffic impact analyses requirements for approach road permits.

⁸ 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

Project Relevance: Analysis for the TSP and final project recommendations will need to reflect state requirements for state facilities; the 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 may entail amendments to each city's development ordinances to ensure that they are consistent with these access management requirements as well as TSP recommendations related to access management.

Oregon Transportation Safety Action Plan (2016)

An element of the OTP, the Oregon Transportation Safety Action Plan (TSAP) provides long-term goals, policies and strategies and near-term actions to eliminate deaths and life-changing injuries. The TSAP addresses all modes on all public roads in Oregon. Over the long term, the goals of the TSAP are:

- Infrastructure – Develop and improve infrastructure to eliminate fatalities and serious injuries for users of all modes.
- Healthy, Livable Communities – Plan, design, and implement safe systems. Support enforcement and emergency medical services to improve the safety and livability of communities, including improved health outcomes.
- Technology – Plan, prepare for, and implement technologies (existing and new) that can affect transportation safety for all users.

The Plan identifies actions that cities can take to increase transportation safety. They include adopting a Safe Communities Program and a Safe Routes to School program. The Safe Communities Program is a collaborative partnership with the National Highway Traffic Safety Administration and the ODOT to promote safety. The Safe Routes to School program is a local initiative supported by grant funding that targets safety improvements to encourage walking and biking to schools.

In addition, the TSAP also identifies activities and roles for cities to improve safety. They include:

- Evaluate local hot spot and systemic safety needs; develop plans and programs to address needs.
- Collaborate with the state and stakeholder partners to educate the public about transportation safety-related behavioral issues.
- Integrate safety programming, planning, and policy into local planning.

Project Relevance: The TSAP will be used as a resource to develop local goals, policies, and strategies while updating the TSPs to increase safety in the project study area.

Oregon Resilience Plan (2013)

The Oregon Resilience Plan (ORP) provides policy guidance and recommendations to mitigate risks, accommodate emergency response and recovery, and support the resilience of government and business before, during, and after a Cascadia earthquake and tsunami. The plan assesses the seismic integrity of Oregon's multi-modal transportation system, including bridges and highways, rail, airports, water ports, and public transit systems.

Project Relevance: The Oregon Resilience Plan provides guidance on Oregon's multi-modal transportation system. Policies and standards adopted by each of the cities should be considered for additional guidance, concepts, and strategies for design to prepare for a possible Cascadia event.

Oregon Roadway Departure Implementation Plan (2017)

The Roadway Departure Implementation Plan provides specific information regarding roadway departure safety improvements to implement the current TSAP. It identifies the most cost-effective types of transportation improvements for reducing roadway departure crashes. The countermeasures that are generally considered to be the most effective are listed below. Each method is intended to address specific safety concerns and is considered a low-cost way to systematically reduce fatal and serious injury accidents.

- Curve signing and marking
- Center line rumble strips
- Edge rumble strips
- Delineation
- High friction surface treatments
- Tree management
- Shoulder widening

Project Relevance: The Roadway Departure Implementation Plan identifies low cost, cost effective safety treatments (e.g., resurfacing, surface transportation projects) to reduce the potential for future crashes. The Nehalem Bay TSP will consider and incorporate safety treatments for transportation projects where crash history exists.

Oregon Intersection Safety Implementation Plan (2012)

The Intersection Safety Plan provides specific information and direction regarding intersection safety improvements to implement the current TSAP. 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.

Project Relevance: Consistent with the State’s TSAP, the TSPs will consider corridors and appropriate countermeasures identified in the Intersection Safety Implementation Plan to reduce bicycle and pedestrian crashes.

Statewide Transportation Improvement Program

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 current STIP identifies planned improvements for 2021-2024.

The 2021-2024 STIP does not include any projects in the cities, but the project list does identify adding culverts and curve signs along US 101 throughout Tillamook and Clatsop County—these projects are both in design phase.

Project Relevance: An expected outcome of this planning process is proposed recommendations that may eventually amend the STIP to include projects from the 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.

Statewide Transportation Strategy; A 2050 Vision for Greenhouse Gas Emissions Reduction (2013)

The Statewide Transportation Strategy: A 2050 Vision for Greenhouse Gas Emissions Reduction (STS) describes what it would take for the transportation sector to get as close to the 2050 carbon emissions goal as is plausible. The STS contains 18 distinct strategies, with 133 potential elements that generally fall into the following categories:

- *Vehicle and Engine Technology Advancements* - Strategies in this category increase the operating efficiency of multiple transportation modes through transition to more fuel-

efficient vehicles, improvements in engine technologies, and other technological advances.

- *Fuel Technology Advancements* - Strategies in this category increase the operating efficiency of fuel-powered transportation modes through transitions to fuels that produce fewer GHG emissions or have a lower lifecycle carbon intensity.
- *Enhanced System and Operations Performance* - Strategies in this category improve the efficiency of the transportation system and operations through technology, infrastructure investment, and operations management.
- *Transportation Options* - Strategies in this category increase opportunities for travelers and shippers to use transportation modes that are more energy efficient and produce fewer emissions.
- *Efficient Land Use* - Strategies in this category promote more efficient movement throughout the transportation system by supporting compact growth and development. This development pattern reduces travel distances and increases opportunities for using lower energy and zero energy transportation modes.
- *Pricing and Funding Mechanisms* - Strategies in this category support a transition to more sustainable funding sources to maintain and operate the transportation system, pay for environmental costs of climate change, and provide market incentives for developing and implementing efficient ways to reduce emissions.

While the cities are not specifically mentioned, projects and policies identified in the Strategy provide options which could be implemented in the TSP. Specifically, EV charging stations along the West Coast Green Highway, runs through US 101 along these cities.

Project Relevance: The strategies identified in the Vision should be considered when the TSPs are being developed, and will reflect each city's commitment to reducing GHG emissions in the development of plan recommendations.

ODOT Analysis Procedures Manual (2020)

The Analysis Procedures Manual, last updated in October 2020, was created to provide a comprehensive source of information regarding current methodologies, practices, and procedures for conducting analysis of ODOT plans and projects. The methods and practices identified include best practices for scoping, transportation system inventories, safety, existing year volumes and forecasting, system planning analysis, mesoscopic analysis, transportation analysis performance measures, analyzing alternatives, segment and facility analysis, intersection analysis, multimodal analysis, traffic simulation models, environmental traffic data, travel demand modeling, and traffic analysis documentation.

Project Relevance: The TSP should use the most up-to-date methodologies, practices, and procedures when performing analyses during the development of the TSP.

Oregon Bicycle and Pedestrian Safety Implementation Plan (2014)

The Bicycle and Pedestrian Safety Implementation Plan identifies priority locations and countermeasure options for reducing pedestrian and bicycle crashes. The Plan conducted a systemic planning process to create a prioritized list of candidate locations for safety improvement within each ODOT Region. It also provides recommendations on appropriate countermeasures to reduce crashes. There are no Region 2 Pedestrian or Bicycle Project Corridors in the planning area (Figure 4 in each section of the Oregon Bicycle and Pedestrian Safety Implementation Plan). The Pedestrian Risk Factor Screening on Highway 53⁹ and US 101 shows areas with a risk in the top 20%, while the Bicycle Risk Factor Screening is in the second 20%.

Project Relevance: The TSP will document local safety sites where accidents have occurred. The TSP will ensure that planned projects will serve to reduce bicycle and pedestrian crashes.

ODOT Highway Design Manual (2012)

The 2012 Highway Design Manual (HDM) 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 has not been updated since the release of American Association of State Highway and Transportation Officials (AASHTO) document *A Policy on Geometric Design of Highways and Streets – 2018*. Therefore, sound engineering judgment will continue to be a vital part in the process of applying the design criteria to individual projects. The flexibility contained in the 2012 HDM supports the use of Practical Design concepts and Context Sensitive Design practices.

The HDM 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 2018 AASHTO design standards or ODOT 3R design standards. Table 3 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,

⁹ Highway 53 is located outside, but in close proximity to the City of Wheeler's Urban Growth Boundary.

and design practices can also provide additional guidance, concepts, and strategies related to roadway design.

Table 3: Design Standards Selections Matrix, ODOT Highway Design Manual

Project Type	Roadway Jurisdiction, Classification and Standards				
	State Highways			Local Agency Roads	
	Interstate	Urban State Highway	Rural State Highways	Urban	Rural
Modernization/ Bridge New/Replacement	ODOT 4R/New Freeway	ODOT 4R/New Urban	ODOT 4R/New Rural	AASHTO	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

Source: HDM Table 1-1

The HDM includes mobility standards related to project development and design that are applicable to all modernization projects, except for development review projects (see Table 4). The v/c ratios in the HDM are different than those shown in the OHP. The v/c ratio values in the OHP are used to assist in the planning phase to identify future system deficiencies; the HDM 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 4: 20-Year Design Mobility Standards (Volume/Capacity [V/C]) Ratio

Highway Category	Inside UGB		
	STA	Non-MPO/STA, MPH <45	Non-MPO/STA, MPH 45+
Statewide (NHS, Freight Rte)	0.85	0.70	0.70
Statewide (NHS, Non-Freight Rte)	0.90	0.75	0.70
District/Local Interest Roads	0.95	0.80	0.75

Project Relevance: The HDM provides design standards on state roadways; analysis for the TSP and final project recommendations will need to reflect state requirements for

state facilities. Standards and guidelines adopted by the Cities should be considered for additional guidance, concepts, and strategies for design.

ODOT Blueprint for Urban Design (2020)

The Blueprint for Urban Design (BUD) takes a context-sensitive approach to designs on urban highways to provide flexibility in order to produce appropriate designs to accommodate all modes of transportation affecting all urban roadway users. The BUD serves as a replacement of the urban design guidance in the Highway Design Manual until the manual's next comprehensive update. The BUD provides information and criteria to aid project teams in making choices when developing final project designs to meet established project goals and create the expected outcomes. The BUD provides six urban contexts, each with their respective design criteria, which allow project teams to better align ODOT's transportation needs with local community aspirations. While design criteria for roadways is described in multiple ODOT manuals, the Blueprint for Urban Design is intended to be the primary resource for urban design on Oregon state highway systems. It should be used to plan, design, construct and maintain highways in urban locations under jurisdiction of the state.

The six urban contexts identified in the for ODOT roadways are: Traditional Downtown/CBD, Urban Mix, Commercial Corridor, Residential Corridor, Suburban Fringe, and Rural Community. The manual provides intersection and cross section design guidance. The Blueprint increases ODOT's context-based design game by providing design recommendations (e.g., dimensional standards for elements of the roadway) for specific urban contexts (e.g., suburban fringe). Important to ODOT's implementation work program obligations, it helps implement the State's bike-pedestrian plan by providing urban design guidance for those modes.

Project Relevance: The TSPs will consider the BUD's urban context within the cities, considering land use, modal priorities, roadway function, and future planned use. The guidance from the BUD, including the cross-section recommendations based on these contexts, can be used to address future highway and frontage improvements.

State Law on Reduction in Vehicle-Carrying Capacity (ORS 366.215)

ORS 366.215 states that the Oregon Transportation Commission may not permanently reduce the vehicle-carrying capacity of specific state routes when improvement projects alter, relocate, change, or realign the facility. Exceptions are allowed if safety or access considerations require a reduction.

Transportation improvements that are identified by ODOT as having the potential for a Reduction of Vehicle-Carrying Capacity are required to conduct a stakeholder forum. The

stakeholder forum is intended to include representatives from a range of affected groups to discuss design issues with the planned improvements.

Project Relevance: US-101 through Nehalem, Manzanita, and Wheeler is a Reduction Review Route that qualifies for the potential Reduction of Vehicle-Carrying Capacity requirements provided by ORS 366.215.

Oregon TSP Guidelines (2020)

The Transportation System Plan (TSP) Guidelines are intended to assist local jurisdictions in the preparation and update of city and county TSPs. The guidelines help jurisdictions develop plans that meet local needs and comply with state regulation and policy direction, including applicable elements of the TPR, as well as the OTP and associated mode and topic plans. The TSP Guidelines answer the “What, Why and When” questions surrounding TSP projects and provide detailed direction on scoping, developing, and administering TSPs. The planning guidance is best accessed via a [web-based platform](#) and includes helpful information and examples for both citizens and practitioners.

Project Relevance: The TSP Guidelines will be a reference for the project management team to ensure that required plan elements and methodology are employed in the development of the local TSPs. They may also be used by the cities to inform citizens and local decision makers on the required planning steps in the TSP process and plan implementation.

Regional Plans

Tillamook County Comprehensive Plan (2004)

The Tillamook County Comprehensive Plan provides a long-range guide for planning in the unincorporated areas within the county. The Comprehensive Plan includes background information and policies that address each of the 19 applicable statewide planning goals. The Comprehensive Plan Transportation Chapter, last amended in 2004, lists the County policies related to transportation planning of road network and design, pedestrian and bicycle facilities, public transportation, and air, rail, and water transportation.

Policies in the adopted Comprehensive Plan that are applicable to the Nehalem Bay TSP are included below.

1. General Transportation Policies

e. The County shall coordinate its Transportation System Plan with the planning process of other jurisdictions to assure adequate connections to streets and transportation systems between incorporated and unincorporated areas.

2. Road Network Planning Policies

2.1 Road Network Planning Policies.

a. Transportation systems and roadway networks are not restricted to jurisdiction boundaries. The County shall promote cooperation and coordination with other jurisdictions in roadway maintenance and improvement.

The Transportation Chapter also provides policy direction for functional classification, road design, and access management for roads under the County's jurisdiction, some of which are located within city limits or the urban growth boundary (UGB).

Project Relevance: City transportation policy should be consistent with County policy, in particular for areas related to transportation. The outcome of the Nehalem Bay TSP will be city policies that support the recommendation and implementation of the TSP; to the extent these policies intersect with County needs and objectives, an outcome of this project may be recommended policy amendments.

Tillamook County Transportation System Plan (2005)

The Tillamook County TSP is an element of the County Comprehensive Plan, with the goals of adding capacity, improving safety, increasing mobility and accessibility, providing coordination, addressing traffic, providing non-motorized options, increasing feasibility, benefitting the environment, evaluating TSP projects for costs, and improving lifeline route connections. The

TSP identifies policies and projects related to each mode of transportation within Tillamook County.

The Tillamook County TSP identified the following improvements for the each of the cities.

Manzanita

- SRD-1. US 101: Manzanita – Wheeler Overlay
- SRD-13 US 101: North of Manzanita to Clatsop County. Northbound (NB) Passing Lanes.
- SRD-14. US 101: Clatsop/Tillamook Line to Manzanita. Construct left-turn lanes onto public streets where feasible (Oswald West State Park, Sunset Drive, Falcon Cove Road, Scenic Overview)
- INT-25 US 101 at Manzanita Avenue. Intersection improvements (Note: left- and right-turn lanes on US 101 are warranted).
- CRD-3 Laneda Avenue : Construct roadway improvements, including sidewalk and parking. Consider transferring jurisdiction to Manzanita.
- CRD-29 Manzanita/Bayside Gardens/Nehalem. Local roadway system improvements to connect communities.
- PB-20 US 101 Manzanita through Wheeler. Develop a pedestrian and bicycle circulation 2 strategy west of highway. Strategy could include off- and on-road facilities and connections to Nehalem River and Estuary and Nehalem Bay State Park.

Nehalem

- SRD-3 US 101: Nehalem to Garibaldi. Safety improvements (access management, guardrail, rumble strips, remove vegetation to improve sight distance, slope flattening on curves, relocate utility poles, modify striping to not allow passing).
- PB-20 US 101 Manzanita through Wheeler. Develop a pedestrian and bicycle circulation 2 strategy west of highway. Strategy could include off- and on-road facilities and connections to Nehalem River and Estuary and Nehalem Bay State Park.
- INT-18 US 101 at North Fork Nehalem River Road. Potential solutions identified in the County TSP include roundabout, all-way stop, or geometric improvements. Note: the left-turn lane criteria are met on US 101.

Wheeler

- PB-20 US 101 Manzanita through Wheeler. Develop a pedestrian and bicycle circulation 2 strategy west of highway. Strategy could include off- and on-road facilities and connections to Nehalem River and Estuary and Nehalem Bay State Park.
- PB-21 Wheeler. Develop a pedestrian connection between Wheeler and Paradise Cove.

- INT-29 US 101 at Oregon 53. Realign intersection perpendicular with US 101. Construct left-turn pocket on Oregon 53 approach. Add a stop sign ahead on Oregon 53 approach. Restripe left-turn lane on US 101 to make smooth turn movement.
- SRD-2 US 101: Jetty Creek Realignment. Correct alignment problem.

Project Relevance: This planning project will consider Tillamook County TSP transportation improvements that relate to both the County and partner cities in updating policies and identifying improvements that serve the area. As needed and appropriate, the Nehalem Bay TSP will coordinate projects, programming, and planning with the Tillamook County representative on the technical advisory committee.

Transit Development Plan (2016)

The Transit Development Plan (TDP), developed by the Tillamook County Transportation District¹⁰ (TCTD) in 2016, identifies service improvement alternatives over a 20-year planning horizon. TCTD provides deviated fixed route and dial-a-ride services in the western portion of the County, primarily along the US 101 corridor. Route 3 provides service to the Nehalem Bay cities with connections between Tillamook and Cannon Beach. The route is served 6 times per day with two-to-four-hour headways from approximately 5 a.m. to 8 p.m.

The following operation strategies are applicable to the Nehalem Bay TSP.

- Route 3 connection to Sunset Empire Transportation District. The route currently provides three connections to the Sunset Empire Transit District (SETD), one of which is located in Manzanita. This strategy would add a fourth connection with the SETD.
- Modify Route 3 to better serve Nehalem by adding a stop at the United Methodist Church and North Cost Recreation District.

Project Relevance: The TSPs will reflect the service enhancements in Tillamook County, as well as be consistent with TCTD recommendations regarding transit planning in the region.

Oregon Coast Bike Route Plan (ongoing)

The Oregon Coast Bike Route (OCBR) project is currently ongoing. The project will identify improvements to the route, which runs the length of the Oregon Coast. The route – designated in the early 1980s – attracts tourists from all over the world and is a treasured

¹⁰ The TCTD has adopted additional transit plan to implement the TDP and/or coordinate with other transit agencies for service improvements. The subsequent transit plans can be found at <https://www.nworegontransit.org/tctd-plans/>

resource for many visitors and coastal residents. While ODOT does not currently have funding identified for improvements, the plan sets the stage for future investments. The plan is currently in Phase 4, identifying projects. Information found on the project website includes the following:

- North of Manzanita (MP 39.5 to MP 43.0) – This segment has a narrow shoulder, and lacks any shoulder in some places. Parts of this segment are shared with the Oregon Coast Trail (though the Oregon Coast Trail will be moved off of US 101 in the future).
- Wheeler Corridor (MP 47.5 to MP 48.4) - This corridor has a very narrow shoulder, and the speed limit jumps to 45 mph from 25 mph. It has a high level of traffic stress for people on bikes.

In Spring 2018, ODOT held a survey about the OCBR, which highlighted the following information:

- The Youngs Bay Bridge/Astoria, North Lincoln City, and the Arch Cape Tunnel are critical needs areas.
- Safety improvements are needed along the route.
- Signage for both people biking and people driving the corridor could help solve issues at specific locations.
- The route would benefit from widening bike lanes wherever possible.
- Cyclists should be directed onto alternative routes when possible
- People expressed interest in creating protected or separated bike facilities

Project Relevance: Projects and improvements identified in the Oregon Coast Bike Route Plan will be reviewed for reference and possible inclusion in the TSP for all three cities.

Salmonberry Trail Concept Plan (2015)

The Salmonberry Trail Concept Plan is a 40-year strategic plan for the Salmonberry Trail, which runs from Banks to Tillamook Rail/Trail along the former Southern Pacific rail corridor which was determined to be unusable after a massive storm in 2007. The Concept Plan identifies the history and potential issues surrounding the Salmonberry Trail with the objective to turn the corridor into a multi-use trail. The Development portion of the plan identifies the overall trail design, conceptual costs, funding ideas, implementation, and management. The Concept Plan identifies three potential alternatives or concepts at each segment: Rail with Trail, Multi-use Rail to Trail (removing the rails), and Bypass Alternatives (route moved off the railbed and onto a bypass/adventure trail).

Wheeler

The trail passes through Wheeler, abutting few private residences along this segment, mostly small farms outside of Wheeler and predominantly residential lots within City limits. There are sections of this segment that could potentially accommodate a trail parallel to the rail line, but a continuous trail would be difficult to achieve, due to a range of physical constraints, including stretches of line that run along the coast or across wetlands and active farmland. A bypass alternative using a reconfigured US 101 shoulder or local roadways was discussed, but further feasibility and design would need to be reviewed because of the traffic speeds and volumes along US 101. Most promising seemed to be the multi-use trail option, which would remove the rails along the path.

Tiles 32 and 33 in the Plan identify several improvements for trail segments in and around the City of Wheeler. The Plan also identifies several cross-section street designs that apply to trail segments generally as well as specific segments in Wheeler. Cross Sections C, H, I, and P apply to trail and/or road segments in Wheeler and illustrate desired street designs.

Project Relevance: Projects and improvements identified in the Salmonberry Trail Plan will need to be factored into the Wheeler TSP update.

Oregon Coast Trail

The Oregon Coast Trail, or OCT, is part of the Oregon State Parks system.¹¹ Most of the route is on the beach; some segments wind through state parks, public lands, or private property trail easements. About 10 percent of the trail is on the shoulders of U.S. 101, county roads, and city streets. **Manzanita** is included along the OCT Section 2 map, as part of the trip from Oswald West to Cape Lookout. In Manzanita, two routes are provided: along the beach using Laneda Ave from US 101 and using a ferry to cross the jetty at Nehalem Bay, or taking US 101 south around Nehalem Bay through Wheeler. Beach restrictions due to nesting seasons means that the beach route is more limited between March and September.

¹¹ <https://stateparks.oregon.gov/index.cfm?do=v.page&id=95>

City of Wheeler Plans

City of Wheeler Comprehensive Plan (Adopted 1979, Last Amended 2017)

The City of Wheeler Comprehensive Plan is a long-range guide for land use in the Wheeler UGB, consistent with Statewide Planning Goals. Its goals and policies work in concert to provide direction on transportation system and land use decision-making in the City.

Transportation policies are addressed under Comprehensive Plan Goal 12. Generally, the policies seek to promote and maintain a safe multi-modal transportation system that provides options for all users. It seeks to limit additional access points on US 101. It also supports the development of the Salmonberry Trail through the City by utilizing the Port of Tillamook Bay rail right-of-way and/or by sharing portions of local streets or US 101 for non-motorized use.

The Comprehensive Plan also directs future transportation improvement plans to address the following considerations:

- The enhancement of pedestrian and vehicular access across US 101.
- The maintenance or improvement of parking facilities along US 101.
- The minimization of short-term disruptions which would adversely affect the business and residential areas of Wheeler.
- The enhancement of the long-range viability of the downtown and waterfront areas.
- The minimization of noise and air pollution impacts on adjacent areas.
- The provision of appropriate landscaping.
- The protection of views across Nehalem Bay and surrounding area.
- The enhancement of access to and along the waterfront.
- Opportunities to improve the safety of the coastal bike route including but not limited to such means as: constructing separate bike lanes, widening the highway shoulder, or diverting bike traffic.

Project Relevance: The updated TSP will be adopted as the transportation element of the Comprehensive Plan; updated policy that results from this planning process will need to be reflected in the Comprehensive Plan document. The TSP process will evaluate existing transportation goals and policies as to whether they are still applicable and reflect community needs.

City of Wheeler Transportation System Plan (2001)

The Wheeler TSP guides the development and management of transportation facilities in the City, reflecting community goals and objectives and providing consistency with state, regional, and local plans. The plan was adopted in 2001 and is approaching the end of its planning horizon. The TSP establishes standards for access management and street design, recommends multimodal improvements to address the City's transportation needs, and explores potential funding sources to implement these projects.

The TSP describes and recommends transportation improvement projects and implementation strategies that cover the following areas:

- **Street Plan Element.** The Street Plan Element identifies standards and improvements related to the City's street network. The element is organized into several sections, listed below:
 - Functional street classifications
 - Street design standards
 - Access management
 - Highway 1010 downtown improvements
 - Street maintenance
 - Local street network connections
 - Site specific improvement projects.
- **Public Transportation Plan.** The Public Transportation Plan identifies transit improvements to be completed in coordination with the local transit service provider.
- **Bicycle/Pedestrian Plan.** The Bicycle/Pedestrian Plan identifies active transportation facility improvements to support a connected bicycle/pedestrian system.
- **Air / Rail / Water / Pipeline Plan.** The plan identifies improvements for rail, water, and pipeline facilities in the Wheeler.
- **Transportation System and Demand Management Plan.** The plan identifies Transportation System Management (TSM) and Transportation Demand Management (TDM) strategies, which are incorporated into other TSP plan elements.
- **Implementation Mechanisms.** Implementation mechanisms in the TSP identifies potential mechanisms available for implementing the improvements in the TSP.

Street Plan Element

The TSP classifies US 101 as an Arterial. All other streets are classified as Local Streets. Minimum street design standards for each functional classification are provided in Figure 1.

Figure 1: Wheeler TSP Minimum Street Design Standards

MINIMUM STREET DESIGN STANDARDS										
Functional Class	Right-of-Way Width	Surface Width	Turn Lane Width	Surface Type	Base Depth	Maximum Grade	Design Speed	Minimum Tangent	Minimum Curve	Curb Type
Principal Arterial (Highway 101) *	80'	60-80'(1)	14'	(see note #1)		6%		(see note #1)		16"
Local Street Option A	50'	22'	--	3" AC	8"	15% (3)		(see note #2)		16" (4)
Local Street Option B	50'	33'	--	3" AC	6"	15% (3)		(see note #2)		12" (4)
Planning.com) is signed in	10-50'	10'	--	Varies	--	15% (3)		--		--

* Minimum street design standards identified for Highway 101 are typical standards for state highways. As plans for Highway 101 are developed as part of the recommended Downtown Refinement Plan, these standards will likely change.

(1) Design shall be in accordance with Oregon Department of Transportation Design Standards.
 (2) Design shall be in accordance with AASHTO standards.
 (3) Maximum 15% is preferred however this may increase up to 20% due to topographical constraints.
 (4) Curb not required. If constructed, alternative storm drainage system required.

The Street Plan element also identifies the following recommendations for improving US 101 in the downtown area:¹²

- Accommodate through traffic along US 101.
- Improve pedestrian safety and circulation along US 101 and from local streets and parking areas that connect to US 101.
- Provide additional parking spaces in the downtown area.¹³
- Bicycle Traffic US 101 has considerable through-bicycle traffic in the summer. Consider the safety of bicyclists when addressing US 101 improvements.
- Urban design elements improve the appearance of a downtown – which leads to increased tourism and commerce.
- Consider a Special Transportation Area (STA).
- Concept Plan A detailed design study is recommended for US 101 and downtown improvements in Wheeler – called a Downtown Refinement Plan, incorporating the following transportation elements:
 - Two lanes with one 14' travel lane in each direction
 - A wider sidewalk on the east side
 - West side diagonal parking with access lane that is separated from the travel lanes.

¹² Note that some of these recommendations, such as the designation of an STA in Wheeler, have been implemented.

¹³ Wheeler is currently considering parking management strategies such as timed parking restrictions in the business district and water access area to increase economic vitality

- Reduce US 101 parking by eliminating east side parallel parking.

The TSP identifies two local street network connections - extending First Street to provide a connection from Hospital Road to Third Street and from Rorvik Street to Gregory Street (the TSP also identifies an alternate route) and extending Fourth Street to provide a connection from Gamle Street to Vosburg Street, Hall Street to Alder Street, and Gregory Street to Spruce Street.

Other site-specific improvement identified in the TSP include:

- Waterfront Circulation and Parking Improvements
- US 101/Pennsylvania Avenue Intersection Realignment
- Hall Street/Third Street Curve
- Hemlock Street/Third Street
- Provide Additional and Convenient RV Parking
- Gateway Improvements
- Citywide Stormwater Master Plan

Pedestrian and Bikeway System Element

Designated On-Street Pedestrian/Bicycle Facilities recommended projects include:

- US 101 – East and West Sides. Future plans and improvements to US 101 throughout the city should include bicycle and pedestrian facilities wherever possible.
- Fourth Street from Dubois St. to Hemlock St. Hemlock Street from Fourth St. to US 101 and across the highway.
- Country Road from US 101 to Hemlock St.
- Gregory Street from Fourth St. to US 101 and across the highway.
- Gervais Creek Pathway Construct a pathway parallel to a daylighted Gervais Creek from Fourth Street to US 101, across the highway to the bay.
- Akin Street from Fourth Street to Hospital Road and surrounding the City-owned land (future park) between Akin, Hall, Third, and Hospital streets.
- Third Street from Gervais Creek south to the City-owned land (future park).
- Rowe Street/Hospital Road from Fourth Street to US 101.
- First Street from Gregory St. to Hospital Rd.
- Second Street from Akin St. (future park) to Dubois St.
- Vosburg Creek Pathway: Construct a pathway parallel to Vosburg Creek from Fourth Street to US 101 and across the highway.

- Third Street and Dichter Drive from Vosburg Creek to US 101 and across the highway.

Manzanita and Nehalem

The TSP notes that during the summer peak season, the Port of Tillamook Bay operates the Oregon Coast Scenic Railroad between Nehalem and the Air Museum in Tillamook. This train ride also includes stops in Rockaway Beach and Garibaldi. In 2000, over 1,800 passengers rode this train through Wheeler. The TSP identifies the project to protect and improve access to and within the bay and river next to Nehalem, while still preserving the surrounding environmental resources and private property. The TSP also identifies the need for improvements to the TCTD service, which provides service through Nehalem.

The Wheeler TSP does not identify improvements or policies that would impact the Manzanita TSP.

Project Relevance: The TSP process will review the recommended projects from the 2001 TSP to determine what needs to be retained or changed in the TSP. This planning process will update recommended transportation improvement projects for all modes, based on existing and projected needs. Updated data, stakeholder and community involvement, and evaluation criteria will be used in making these recommendations.

Wheeler Zoning Ordinance (2018)

The City of Wheeler Zoning Ordinance implements the long-range land use vision embodied in the Wheeler Comprehensive Plan and TSP. It regulates uses within the City, and established standards for development and land divisions. Additional information on the zoning ordinance, including a review of the ordinance for compliance with the TPR is provided in *Technical Memorandum #3 – Regulatory Review*.

Project Relevance: Amendments to the Zoning Ordinance will be considered as part of implementation of the City's updated TSP. Proposed amendments will address consistency with the TPR and between local requirements in the Zoning Ordinance and the updated TSP, such as transportation facility design standards that may be found in both documents.

Wheeler Waterfront Development Plan (2008)

The Wheeler Waterfront Development Plan provides design and development guidelines and standards for the waterfront area. The plan identifies the opportunities and advantages of the area, including the tourism and sporting industry, scenic beauty, historic buildings, easy access, and proximity to the Portland metro area. Recommendations for the waterfront that are related to the TSP included:

- Improve the entrance to the waterfront at Marine Drive and Rector Street where it intersects with US 101 (Wheeler Waterfront Access Plan).
- Establish pathway development plan for Marine Drive that will promote pedestrian usage.
- Approve conceptual parking plan developed by the Port of Tillamook Bay to be established at the north end of Marine Drive.
- Develop Signage guidelines that will encourage highway monument signs at the entrances to the marina.
- Enhance parking on the west side of US 101.

Project Relevance: Projects and improvements identified in the Waterfront Development Plan will be considered as part of this planning process and, where applicable, incorporated into the Wheeler TSP update recommendations.

City of Manzanita Plans

City of Manzanita Comprehensive Plan (Adopted 1996, Last Amended 2014)

The City of Manzanita Comprehensive Plan is the City's long-range guide for growth and development within the Manzanita UGB, consistent with Statewide Planning Goals. Its goals and policies work in concert to provide direction on transportation system and land use decision-making in the City.

The Transportation element includes the following policies:

- 1. Efforts to reduce speeding on Laneda Avenue should be carried out by the city. This should take the form of maintaining a low speed (20 MPH), requesting that the City police and Tillamook County Sheriff's Department maintain a high level of enforcement and installing appropriate warning signs.*
- 2. Sufficient pavement width should be included on all major streets or roads to accommodate bicycle traffic. Facilities such as bicycle racks should be considered in the city park and downtown area.*
- 3. The city traffic management plan should be used as a guide for the installation of traffic signs, crosswalks, and other street improvements. The plan should be communicated to the county for their participation on county roads, and should be done on a regular basis. In addition, crosswalks and other improvements on Highway 101, Classic Street and Laneda Avenue are included in the adopted Downtown Transportation Plan, Section 4.*
- 4. Crosswalks in the downtown commercial area should be a high priority for the city. Consideration should be given to the installation of planters or other landscaping devices in conjunction with the crosswalks.*
- 5. The city and state shall cooperate to retain the airport at Nehalem Bay State Park. It is the position of the city that the airport should be surfaced, that "T- Hangers" should be installed, and that a caretaker should be stationed at the airport. It is the goal of the city that the facility be improved for existing traffic rather than expanded.*
- 6. The city and state shall cooperate to limit the number of accesses onto US Highway 101 to as few as possible. No new accesses shall be permitted north of Laneda, or in other locations where traffic visibility is limited.*
- 7. The city will work with the Oregon Department of Transportation to coordinate plans and projects particularly through the Oregon Transportation Plan and the US Highway 101 Corridor Study. Specifically, the city wishes to have direct input into*

highway improvement plans on US Highway 101 in the vicinity of the city, and on future uses of the unused highway right-of-way.

8. *The City discourages property owners from improving street rights-of-way with landscaping, driveways, walkways and similar projects, especially in the vicinity of water, sewer, and storm drainage lines. All parking required by the zoning ordinance must be useable by the property owners, generally not exceeding 10% grade from the street.*

The Comprehensive Plan also includes street policies in Public Facilities and Services element of the plan.

1. *The cost of constructing streets in new subdivisions, planned developments, or in rights-of-way where no improved street exists shall be the responsibility of the developer or the adjacent property owners. The City shall share costs in the following way:
 - A. *On existing dedicated, but unimproved streets, which are arterials or feeders, the City will pay the difference in pavement width between the existing width and arterial or feeder width. On existing dedicated unimproved or underimproved residential streets, the abutting property owners shall pay all costs of the improvement.*
 - B. *Substantial improvement of existing street intersections shall be the responsibility of the City.*
 - C. *There shall be no city participation in bearing the cost of streets in subdivisions or planned developments. Owners wishing to build access to their property on unimproved rights-of-way must adhere to City Street Standards.**
2. *Asphaltic concrete pavement shall be required for all streets.*
3. *Storm drainage, as determined by the PWD, shall be required for all street improvements and construction.*
4. *Street right-of-way which cannot be improved due to steep topography, or other valid reason, should be used for other purposes, such as parks or open space, walking trails or greenbelts.*
5. *Street standards for the City of Manzanita are located in the Street Improvement Standards Ordinance and future improvements to intersections along US 101 are identified in the adopted Downtown Transportation Plan, Section 4. (Added by Ord. 03-05, passed July 9, 2003)*

Project Relevance: The TSP will be adopted as the transportation element of the Comprehensive Plan; updated policy that results from this planning process will need to be reflected in the Comprehensive Plan document. The TSP process will evaluate existing transportation goals and policies as to whether they are still applicable and reflect

community needs. In addition to d goals and policies, implementation of the Manzanita TSP may prompt other policy-level changes in areas related to transportation.

City of Manzanita Downtown Transportation Plan (2003)

The Manzanita Downtown Transportation Plan addresses key transportation issues in the City of Manzanita, including north and south extensions of Classic Street and the Laneda Avenue street design. The Transportation Plan also identifies the following short-term and long-term improvements to US 101 that seek to improve intersection safety and operations:

- US 101/Laneda Avenue: In the short-term, add separate left- and right-turn lanes from Laneda Avenue to US. 101 and study pedestrian circulation and access management issues. In the long-term, reconstruct the intersection to improve its alignment and lengthen the left-turn lane from US 101 to Laneda Avenue.
- US. 101/Manzanita Avenue: In the short-term, add separate left- and right-turn lanes from Manzanita Avenue to US 101. In the long-term, add left- and right-turn lanes from US 101 to Manzanita Avenue and close County Road to vehicles to improve intersection safety.

The Transportation Plan also identifies a need to improve north-south connections in the City; improvements call for extending Classic Street north of Laneda Avenue to North Avenue and south of Laneda Avenue to Ridge Drive/Nearney City Road. The southern extension is recommended to include two travel lanes and a pedestrian/bicycle path separated by a landscape buffer.

The Laneda Avenue street design improvement entails vehicle, bicycle, and pedestrian improvements to support and enhance the existing downtown character and provides a framework for street reconstruction (2003-2004). Designs for Laneda Avenue indicate it should have a two-way cross section with wider sidewalks and on-street parking. Curb extensions and marked crosswalks should be provided at selected locations, with landscaping and access management on private properties.

Project Relevance: The TSP process will review the recommended projects that have yet to be constructed, or that can be amended and carried forward, from the 2003 Downtown Transportation Plan. This planning process will update recommended transportation improvement projects for all modes, based on existing and projected needs. Updated data, stakeholder and community involvement, and evaluation criteria will be used in making these recommendations.

Manzanita Zoning Ordinance (2018), Street Improvement Standards Ordinance (2006), and Subdivision and Land Partition Ordinance (2003).

The City of Manzanita implements its long-range land use vision through improvements made with future development, as required by the following ordinances:

- Street Improvement Standards (Ordinance No. 91-2)
- Manzanita Zoning Ordinance (Ordinance No. 95-4)
- Subdivision and Land Partitioning Standards and Procedures (Ordinance No. 95-5)

These ordinances regulate uses within the City and establish standards for development and land divisions. Additional information on the ordinances, including a review for compliance with the TPR is provided in *Technical Memorandum #3 – Regulatory Review*.

Project Relevance: Amendments to the ordinances will be considered where needed to implement the City's TSP. Proposed amendments will address consistency with the TPR. Consistency will need to be ensured between requirements in the ordinances and the TSP, particularly for transportation facility design standards and access management standards.

City of Nehalem Plans

City of Nehalem Comprehensive Plan (2019)

The City of Nehalem Comprehensive Plan is a long-range guide for future growth and development in the Nehalem UGB, consistent with Statewide Planning Goals. Its goals and policies work in concert to provide direction on transportation system and land use decision-making in the City. The Comprehensive Plan is organized by Statewide Planning Goals, with objectives and policies for each goal described.

The City's Transportation goals are:

- Improve mobility, safety, and accessibility for all travel modes.
- Improve pedestrian and bicycle circulation and facilities.
- Provide for improvements that can be implemented and comply with applicable standards.

The policies provided under the Transportation Goal include the following:

1. *Street patterns shall minimize the need for cutting and filling.*
2. *The City may permit narrower street widths in steep slope areas consistent with traffic safety and emergency vehicle access.*
3. *The City shall accept private streets as public streets only after they have been improved to City standards.*
4. *The City, County, and the State Department of Transportation shall discourage new access points onto Highway 101.*
 - a. *Wherever possible, new residential development shall not have a direct access to Highway 101.*
 - b. *New commercial and multi-family uses should be clustered with access being provided by a consolidated access point, preferably not directly onto Highway 101.*
5. *Alternative uses of City rights-of-way should be considered where they are not needed as streets.*
 - a. *These uses may include trails, small parks or natural areas.*
6. *The City shall be notified prior to the installation of any underground utility in a City right-of-way.*

- a. *The City will require reasonable efforts to improve or restore the road after construction.*
7. *The City supports efforts such as bus service, to provide transportation for people with limited transportation opportunity, and supports the Tillamook County Transit District to maintain bus stops and shelters as described in the Downtown Transportation Plan.*
8. *The City will work to incorporate (as resources allow) streetscape elements for pedestrian and bicycle friendly street design as illustrated in the Downtown Transportation Plan.*
9. *The City will encourage (as resources allow) an interpretive trail that provides access to the wetlands and river.*
10. *Street design standards are contained within the City's Subdivision Ordinance.*
11. *The City will work with ODOT to improve the design and safety of the US 101/7th Street intersection.*
12. *The City will work with ODOT to provide pedestrian safety improvements and traffic calming measures and safe routes to school and encourage all types of transportation that limit greenhouse gas emissions.*
13. *The City recognizes the importance of and encourages a link between the Oregon Coast Trail and the Salmonberry Trail, and the Tillamook County Water Trail.*

Project Relevance: The TSP will be adopted as the transportation element of the Comprehensive Plan; updated policy that results from this planning process will need to be reflected in the Comprehensive Plan document. The TSP process will evaluate existing transportation goals and policies as to whether they are still applicable and reflect community needs. In addition to updated goals and policies, implementation of the Nehalem TSP may prompt other policy-level changes in areas related to transportation.

City of Nehalem Downtown Transportation Plan (2003)

The Nehalem Downtown Transportation Plan addresses key transportation issues in the City's downtown area (see Figure 1-1 in the Plan). With a focus on US 101 in Nehalem, it identifies the following short-term and long-term improvements to the intersection of Highway 101 and 17th Street that seek to improve intersection safety and operations:

Short-Term: Widen northbound receiving lane to accommodate truck turning; off-set sop bar for southbound left-turn lane; extend A Street between 7th and 8th Streets¹⁴;

¹⁴ The A Street right-of-way between 7th and 8th Streets has been vacated since the adoption of the Nehalem Downtown Transportation Plan.

provide curb extensions on east side of intersection to improve pedestrian crossing; reduce posted speed to 25 mph; consider larger turning radius on southwest corner of intersection.

Long-Term: A roundabout may be a possible long-term solution at the US 101/7th Street intersection; however, a number of concerns would need to be addressed adequately before it would be a preferred solution. Without further analysis, no action is recommended at this time.

Other identified improvements on US 101 include, over the long term, adding and or/widening sidewalks on US 101; providing curb extensions and crosswalks at key intersections; reducing posted speed to 25 mph; providing gateways as recommended by the Oregon Downtown Development Association (ODDA) plan; locating a new bus shelter to the south/west of US 101; and exploring an STA designation in Nehalem.

The Plan also identifies three different local street cross sections (depending on right-of-way widths). The street designs include standards for sidewalks and on-street parking. Projects include adding sidewalk connection between the school and community center on 8th Street between B and C Streets and extending A Street between 7th and 8th Streets.

Finally, the Transportation Plan identifies a need for an interpretive trail. It calls for designing and constructing an interpretive trail leading to wetlands and the Nehalem River, as shown in the ODDA plan.

Project Relevance: The TSP process will review the recommended projects from the 2019 Downtown Transportation Plan to determine what needs to be retained or changed in the updated TSP. This planning process will update recommended transportation improvement projects for all modes, based on existing and projected needs. Updated data, stakeholder and community involvement, and evaluation criteria will be used in making these recommendations.

Nehalem City Code: Title XV Land Usage

The Title XV of the City Code includes the Subdivision Ordinance (Chapter 156) and Zoning Ordinance (Chapter 157). These ordinances implement the long-range land use vision embodied in the Nehalem Comprehensive Plan. The Zoning Ordinance regulates uses within the city and, along with the Subdivision Ordinance, established standards for development and land divisions. Details on requirements related to transportation, including a review for compliance with the TPR is provided in *Technical Memorandum #3 – Regulatory Review*.

Project Relevance: Amendments to Title XV Land Usage will be considered as part of implementation of the City's TSP. Proposed amendments will address consistency with



the TPR. Consistency will need to be ensured between requirements in the Title and the TSP, particularly for transportation facility design standards.