

## **Exhibit C**

Volume 1



# VOLUME I: Transportation System Plan

**JUNE 2023** 

## City of Florence, Oregon

# **Transportation System Plan Update**

#### Prepared for:

The City of Florence



#### Prepared by:



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## **ACKNOWLEDGEMENTS**

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## **EXECUTIVE SUMMARY**

The Florence Transportation System Plan (TSP) identifies the plans, policies, programs, and projects needed to address gaps, deficiencies, and needs within the city's transportation system over the next 20 years. The preferred plan consists of all projects identified throughout the TSP planning process while the cost constrained plan consists of projects the City anticipates being able to fund over the next 20 years<sup>1</sup>. The amount of local funds available for capital projects in the TSP is estimated to be approximately \$10 million or roughly \$0.5 million per year.

The full cost of the preferred plan is approximately \$87.3 million over the 20-year period, including \$36.2 million in high priority projects, \$27.9 million in medium priority projects, and \$23.2 million in low priority projects. Based on the anticipated funds available for capital improvements, the cost constrained plan includes the high priority projects.<sup>2</sup> Although the projected funding based on current revenue sources does not cover the full cost of the high priority projects, the City plans to pursue additional funding to support the cost constrained plan.

## **Cost Constrained Plan**

The following sections summarize the cost constrained plan projects. Additional information on these projects is provided throughout the TSP.

#### **ROADWAY PLAN**

The roadway plan includes projects to increase the efficiency of the transportation system. The cost constrained projects include a refinement plan for US 101, a streetscape plan for Bay Street, and several projects to improve intersections.

Table 1A. Cost Constrained Plan Projects – Roadway and Intersection Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		Roadway Projects		
R1	US 101 (Refinement Plan)	Complete a refinement plan from Munsel Lake Road to the 21 <sup>st</sup> St to evaluate the potential to reconfigure of the roadway with a 3-lane cross section	High	\$150
R2	Bay Street (Streetscape Plan)	Complete a streetscape design plan from Kingwood Street to Nopal Street to evaluate the potential reconfiguration of the roadway	High	\$50

<sup>&</sup>lt;sup>1</sup> The cost constrained plan does not limit the City or ODOT from advancing other projects in the TSP in response to changes in development patterns and funding opportunities that are not known at this time. There is no obligation to do these projects, nor assurance that these projects will be completed.

<sup>&</sup>lt;sup>2</sup> The high priority projects include those that are most likely to be funded by the City over the 20-year planning horizon. The medium and low priority projects are aspirational and will be funded through grants and additional funding sources as they become available and/or by private developers as part of future development.

		Intersection Projects		
R171	US 101/Munsel Lake Road	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	High	\$1,250
R21 <sup>1</sup>	US 101/OR 126	Restripe the eastbound and southbound approaches to maximize the available storage	High	\$50
R22 <sup>1</sup>	OR 126/Quince Street	Implement turning movement restrictions (right-in/right-out/left-in)	High	\$150
R24	9 <sup>th</sup> Street/ Kingwood Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50
R26	35 <sup>th</sup> Street/ Kingwood Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50
R27	35 <sup>th</sup> Street/Oak Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50
		Total High Pr	iority Cost	\$1,800

Note: The cost estimates do not include right-of-way acquisition or wetland mitigation due to the high variability depending on location, parcel sizes, and other characteristics. The cost estimates reflect the full cost of the projects, including costs likely to be funded by others, such as ODOT or private developers.

#### TRAFFIC SAFETY PLAN

The traffic safety plan includes projects to increase visibility and driver awareness. The cost constrained projects include improvements at several intersections with a history of frequent and/or severe injury crashes, including ped/bike-related crashes.

Table 1B. Cost Constrained Plan Projects – Traffic Safety Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
\$2 <sup>1</sup>	US 101/Munsel Lake Road	Install advance intersection warning signs with flashing beacons and install intersection lighting	High	\$150
\$5 <sup>1</sup>	US 101/OR 126	Increase visibility of traffic signal heads (larger bulbs, reflective backplates, etc.)	High	\$50
<b>\$6</b> 1	US 101/ Rhododendron Drive	Increase visibility of traffic signal heads (larger bulbs, reflective backplates, etc.)	High	\$50
<b>\$7</b> <sup>1</sup>	OR 126/Quince Street	Install street lighting and evaluate need for traffic control modification (Coordinate with Project R22)	High	\$100
\$8	Rhododendron Drive/Heceta Beach Road	Install advance intersection warning signs on Heceta Beach Road; trim vegetation in SE and SW corners to increase sight distance; and install intersection lighting	High	\$150
<b>S</b> 9	Kingwood Street/ 15 <sup>th</sup> Street	Install advance intersection warning signs on Kingwood Street and trim vegetation in SE corner to increase sight distance	High	\$100
\$10	Kingwood Street/ 9 <sup>th</sup> Street	Install advance intersection warning signs on 9 <sup>th</sup> Street; install additional intersection lighting; and evaluate need for traffic control modification (Coordinate with Projects R24 and R25)	High	\$100
		Total High P	riority Cost	\$700

Note: The cost estimates do not include right-of-way acquisition or wetland mitigation due to the high variability depending on location, parcel sizes, and other characteristics. The cost estimates reflect the full cost of the projects, including costs likely to be funded by others, such as ODOT or private developers.

<sup>1.</sup> Project will require coordination with ODOT and approval from the State or Regional Traffic Engineer. Further evaluation will be required to determine the most appropriate form of traffic control.

<sup>1.</sup> Project will require coordination with ODOT and approval from the State or Regional Traffic Engineer.

#### **PEDESTSRIAN PLAN**

The pedestrian plan includes projects to improve access and circulation for people walking and using mobility devices. The cost constrained projects include new sidewalks, crosswalks, multi-use paths, and trails.

Table 1C. Cost Constrained Plan Projects – Pedestrian Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
P1	<b>US 101</b> 37 <sup>th</sup> St to UGB	Complete sidewalks on both sides of the street	High	\$3,090
P2	OR 126 US 101 to N Fork Road	Construct sidewalks on both sides of the street from Spruce Street to Tamarack Street and a multi-use path on the north side from Tamarack Street to N Fork Road	High	\$1,605
		Lane County Streets		
Р3	Heceta Beach Rd US 101 to Rhododendron Dr	Construct multi-use path on one side of the street with stormwater facility	High	\$2,750
P4	Munsel Lake Rd US 101 to Spruce St	Construct sidewalks with landscape strips on one side of the street and a multi-use path on the other side of the street	High	\$450
P5	Munsel Lake Rd Spruce St to Ocean Dunes Dr	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$2,125
P6	Munsel Lake Rd Ocean Dunes Dr to N Fork Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$705
P7	<b>N Fork Rd</b> OR 126 to Munsel Lake Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$1,310
		City Streets – Arterial		
P11	Rhododendron Dr 9 <sup>th</sup> St to Wild Winds St	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$1,040
P12	Rhododendron Dr Wild Winds St to 35th St	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$1,295
P13	Rhododendron Dr 35 <sup>th</sup> St to Heceta Beach Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$3,730
		City Streets – Collector		
P14	<b>2<sup>nd</sup> St</b> US 101 to Harbor St	Fill in sidewalk gaps on both sides of the street within Old Town	High	\$530
P18	<b>35<sup>th</sup> St</b> Rhododendron Dr to Kingwood St	Construct sidewalks on both sides of the street	High	\$1,105
P19	<b>35<sup>th</sup> St</b> Kingwood St to Oak St	Fill in sidewalk gaps on both sides of the street	High	\$505
P20	35 <sup>th</sup> St	Fill in sidewalk gaps on both sides of the street	High	\$255

	Oak St to US 101			
P33	Oak St 27 <sup>th</sup> St to 35 <sup>th</sup> St	Construct sidewalk on the east side of the street	High	\$950
City Streets – Other Streets of Significance				
P43	Laurel St-Old Town Wy US 101 to Maple St	Fill in sidewalk gaps on both sides of the street	High	\$405
		Total High F	Priority Cost	\$21.850

<sup>1.</sup> Project cost included in roadway system cost.

Table 1D. Cost Constrained Plan Projects – Pedestrian Crossing Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
C11	US 101	Install enhanced crossing treatments on US 101 at 46 <sup>th</sup> St and 42 <sup>nd</sup> /43 <sup>rd</sup> St	High	\$250
		Lane County Streets		
C5	Munsel Lake Rd	Install enhanced crossing treatments on Munsel Lake Rd at Munsel Landing County Park and at Ocean Dunes Dr	High	\$50
		City Streets		
C9	Oak St	Install enhanced crossing treatments at 35 <sup>th</sup> St, 27 <sup>th</sup> St, and 21 <sup>st</sup> St; install second crosswalk and school crosswalk signs at 30 <sup>th</sup> St	High	\$200
C12	Old Town	Install marked crosswalks with curb extensions on 2 <sup>nd</sup> St at Nopal St, Oak St, and Harbor St; install midblock crossings at Bay St and the boardwalk	High	\$250
		Total High I	Priority Cost	\$750

Note: Further evaluation will be required to identify the type of enhanced crossing treatments needed at each crossing location

Table 1E. Cost Constrained Plan Projects – Multi-use Path Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
MU1	Munsel Creek Multi-use Path	Install and/or improve the segments of the Munsel Creek Trail between Quince Street and 16th Street and between 25th Street and 29th Street. Between 16 <sup>th</sup> St and 25 <sup>th</sup> St, the path uses the existing West Park Drive, 18 <sup>th</sup> St, Willow Loop, 23 <sup>rd</sup> St, and Willow St roadway alignments (MU1-A). Extend the path from the Munsel Lake Greenway to Munsel Lake Road (MU1-B)	High	\$3,180
MU2	Estuary Trail	Install a multi-use path from the Boardwalk in Old Town to south end of Munsel Creek Trail	High	\$1,375
		Total High P	riority Cost	\$4,555

#### **BICYCLE PLAN**

The bicycle plan includes projects to improve access and circulation for people riding their bike. The cost constrained projects include new shared-lane pavement markings ("sharrows"), shoulder bikeways, on-street bike lanes, and buffered bike lanes.

<sup>1.</sup> Installation of enhanced crossing treatments will require approval by and coordination with ODOT.

Table 1F. Cost Constrained Plan Projects – Bicycle Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
B1	<b>US 101</b> 37 <sup>th</sup> St to UGB	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes) <b>OR</b> construct bike facilities consistent with US 101 Refinement Plan	High	\$360
В6	OR 126 US 101 to Tamarack St	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes)	High	\$65
		Lane County Streets		
В8	<b>Heceta Beach Rd</b> US 101 to Rhododendron Dr	Construct shoulder bikeways on both sides of the street (coordinate with Project P3)	High	\$915
В9	Munsel Lake Rd US 101 to Spruce St	Construct bike lanes on both sides of the street (coordinate with Project P4)	High	\$65
B10	Munsel Lake Rd Spruce St to Ocean Dunes Dr	Construct shoulder bikeways on both sides of the street (coordinate with Project P5)	High	\$710
B11	<b>Munsel Lake Rd</b> Ocean Dunes Dr to N Fork Rd	Construct shoulder bikeways on both sides of the street (coordinate with Project P6)	High	\$235
B12	N Fork Rd OR 126 to Munsel Lake Rd	Construct shoulder bikeways on both sides of the street (coordinate with Project P7)	High	\$435
		City Streets – Arterials		
B16	Rhododendron Dr 9th St to Wild Winds St	Construct shoulder bikeways on both sides of the street (coordinate with Project P11)	High	\$345
B17	Rhododendron Dr Wild Winds St to 35 <sup>th</sup> St	Construct shoulder bikeways on both sides of the street (coordinate with Project P12)	High	\$430
B18	Rhododendron Dr 35 <sup>th</sup> St to Heceta Beach Rd	Construct shoulder bikeways on both sides of the street (coordinate with Project P13)	High	\$1,245
		City Streets – Collectors		
B19	<b>2<sup>nd</sup> St</b> US 101 to Harbor St	Extend shared lane pavement markings from Maple St to US 101	High	\$5
B35	Maple St US 101 to Bay St	Add shared lane pavement markings	High	\$5
B36	Oak St 20 <sup>th</sup> St to 27 <sup>th</sup> St	Construct bike lanes from 20 <sup>th</sup> St to Siuslaw Middle School Dwy (requires removing on-street parking)	High	\$200
В39	<b>Quince St</b> 2 <sup>nd</sup> St to OR 126	Construct bike lanes on both sides of the street (requires removing on-street parking)	High	\$180
B41	Spruce St 42 <sup>nd</sup> St to 35 <sup>th</sup> St	Construct bike lanes on both sides of the street from 42 <sup>nd</sup> St to 37 <sup>th</sup> St (requires removing on-street parking)	High	\$210
B42	Spruce St 32 <sup>nd</sup> St to 17 <sup>th</sup> St	Construct bike lanes on both sides of the street from 25 <sup>th</sup> St to 17 <sup>th</sup> Street (requires removing onstreet parking)	High	\$430

B43	Spruce St 17 <sup>th</sup> St to OR 126	Construct bike lanes on both sides of the street (requires removing on-street parking)	High	\$245
		City Streets – Other Roads of Interest		
B46	Laurel St-Old Town Wy US 101 to Laurel St	Add shared lane pavement markings	High	\$5
B49	West Park Dr/18 <sup>th</sup> St/Willow Lp/Willow St	Add shared lane pavement marking (coordinate with Project MU1)	High	\$15
		Total High I	Priority Cost	\$6,100

<sup>1.</sup> Project cost included in roadway system cost.

#### **TRANSIT PLAN**

The transit plan includes projects to improve service for people taking the bus. The cost constrained projects include new service in the northern part of the City, new stop amenities, and additional information on available service.

Table 1G. Cost Constrained Plan Projects – Transit Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
<b>T</b> 1	Local Service	Add service to Rhododendron Dr and Heceta Beach neighborhood	High	01
Т3	Marketing	Improve marketing for intercity service, specifically for Link Lane service to Eugene and to Yachats	High	\$50
T5	Bus Stops	Add shelters and/or benches to existing bus stops and build bus stops that are accessible	High	\$250
Total High Priority Cost			\$300	

<sup>1.</sup> Project will be funded by others or in conjunction with others.

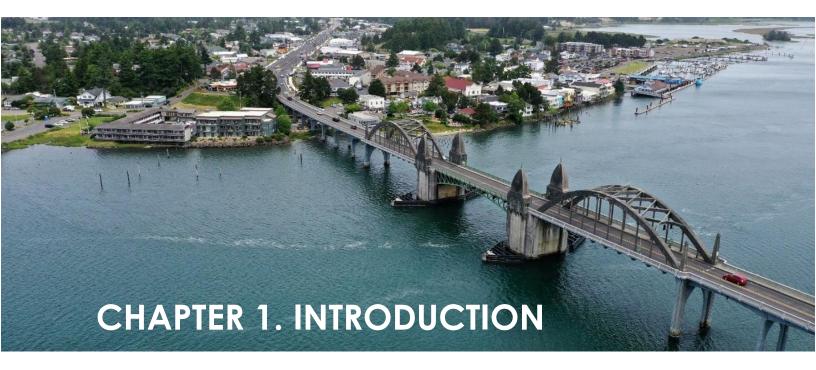
#### PARKING MANAGEMENT PLAN

The parking management plan includes projects to improve the efficiency of the parking system. The cost constrained projects include new wayfinding signs, on-street parking designations, and increased regulations in Old Town.

Table 1H. Cost Constrained Plan Projects – Parking Management Strategies

Map ID	Location	Description Priority	Cost (\$1,000)
PM1	US 101, OR 126, and Quince St	Install wayfinding signs that direct motorists to off- street public parking facilities in Old Town  High	\$50
PM4	Old Town Area A	Stripe on-street parking stalls on both sides of all streets in Old Town Area A	\$50
PM5	Old Town Area A	Install signage on both sides of all streets in Old Town Area A to indicate time limitations (3-hours), hours of enforcement (8:00 AM to 5:00 PM), and directional arrows indicating the stalls where restrictions apply	\$50
Total High Priority Cost			\$150

<sup>1.</sup> Project will be self-funded, funded by others, or in conjunction with others.



## Overview

The City of Florence (City), in conjunction with the Oregon Department of Transportation (ODOT), initiated an update of the urban area's Transportation System Plan (TSP) in 2021. This plan is intended to guide the management and implementation of the transportation facilities, policies, and programs, within the urban area over the next 20 years. This represents the vision of the City as it relates to the future of the transportation system while remaining consistent with state and other local plans and policies. The plan also provides the necessary elements for adoption by the governing bodies into the City's Comprehensive Plan.

State of Oregon planning rules require that the TSP be based on the current comprehensive plan land use map and must provide a transportation system that accommodates the expected 20-year growth in population and employment that will result from implementation of the land use plan. The contents of this TSP update are guided by Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Oregon Transportation Planning Rule (TPR). These laws and rules require that jurisdictions develop the following:

- » a road plan for a network of arterial and collector streets;
- )) a bicycle and pedestrian plan;
- )) an air, rail, water, and pipeline plan;
- )) a transportation financing plan; and
- » policies and ordinances for implementing the TSP.

The TPR requires that the TSP incorporate the needs of all users and abilities. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, and employment/institutional areas. It is further required that local communities coordinate their respective plans with the applicable county, regional, and state transportation plans.

## **TSP Process**

The Florence TSP was updated through a process that identified transportation needs, analyzed potential options for addressing those needs over the next 20 years, and provided a financial assessment of funding and a prioritized implementation plan. The following steps were involved in this process:

- » Reviewing state, regional, and local transportation plans and policies that the Florence TSP must either comply with or be consistent with.
- Sathering community input through working with a project advisory committee and a public workshop at key points in the project.
- Establishing goals and objectives, identify and assess alternatives, and prioritize future needs.
- )) Using a detailed inventory of existing transportation facilities and serve as a foundation to establish needs near- and long-term.
- )) Identifying and evaluating future transportation needs to support the land use vision and economic vitality of the urban area.
- Prioritizing improvements and strategies that are reflective of the community's vision and fiscal realities.
- Preparing for review and adoption by local agencies, including the Florence City Council, Florence Planning Commissioners, and Lane County.

## **Public Involvement and Committees**

The TSP update process provided residents the opportunity to share their respective visions for the future of the transportation system. Comments were gathered at three public open houses during the TSP development process. A project website was also maintained throughout the project that provided interested parties with the most recent documents available, information on upcoming meetings, and the ability to provide general comments to the project team. All of this input informed the development of the TSP goals and policies as well as the planned improvements.

The planning process was guided by a Stakeholder Transportation Advisory Committee (STAC). The STAC was comprised of a wide range of participants: local and state officials from key agencies including the City of Florence Planning and Public Works Departments, Lane County Transportation, Oregon Department of Transportation, Department of Land Conservation and Development, Siuslaw Valley Fire & Rescue, Lane Transit District, Siuslaw School District, and members of the Florence City Council, Planning Commission, Transportation Advisory Committee, and citizens.

Members of the STAC reviewed the technical aspects of the TSP. They held four meetings that focused on all aspects of the TSP development, including the evaluation of existing gaps and deficiencies, and forecast needs; the development of alternatives; the selection of preferred alternatives; the development of the draft TSP; and the review of implementing ordinances.

In addition to the STAC, the draft plans were discussed with the City Planning Commissions and City Council at work sessions and at public hearings.

## **Plan Area**

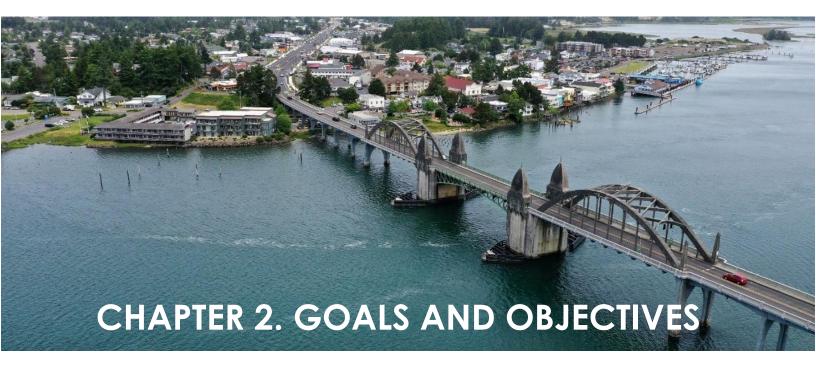
This TSP covers publicly owned transportation facilities within the existing city urban growth boundary (UGB). Based on the TPR, the plan focuses on arterial and collector streets and their intersections, pedestrian and bicycle facilities along the arterial and collector streets and at other off-street locations, public transportation, and other transport facilities and services, including rail service, air service, pipelines and water service.

## TSP Organization and Methodology

Development of the TSP began with the preparation of transportation goals and objectives to guide development of the TSP and the long-term vision for the transportation system. These goals and objectives are presented in Section 2 of this plan. Section 3 through 10 present the Roadway Plan, Pedestrian & Bicycle Plan, Transit Plan, and the Air, Rail, Water, and Pipeline Plans. These sections discuss the existing conditions and future needs of each system (where applicable), and any relative plan elements that have been included in the TSP.

Sections 1 through 10 comprise Volume I of the TSP and provide the main substance of the plan. These are supplemented by Technical Appendices in Volume II that contain the Technical Memoranda documenting the existing conditions analysis, forecast needs, and alternatives analysis that informed the TSP update.

This TSP update includes proposed improvements to non-City facilities. Without additional action by the governmental entity that owns the subject facility or land (i.e., Lane County or the State of Oregon), any project in this Plan that involves a non-City facility is merely a recommendation for connecting the pedestrian and bicycle network. As in most facility planning efforts, moving towards, and planning for, a well-connected network depends on the cooperation of multiple jurisdictions; the TSP is intended to facilitate discussions between the City and its governmental partners as they work together to achieve a well-connected network. The TSP does not, however, obligate its governmental partners to take any action or construct any projects.



The project team developed goals and objectives for the TSP update to help guide the review and documentation of existing and future transportation system needs, the development and evaluation of potential alternatives to address the needs, and the selection and prioritization of preferred alternatives for inclusion in the TSP update. The goals and objectives were also used to inform recommendations for policy language that will serve as guidance for future land use and transportation decision making. The goals and objectives will enable the City to plan for, and consistently work toward, achieving the community vision.

## **Goals and Objectives**

The goals and objectives for the TSP update are described below. The goals provide direction for where the City would like to go, while the objectives provide a more detailed breakdown of the goals with specific outcomes the City desires to achieve. The goals and objectives are based on a review of the goals and objectives in the previous TSP, information from the ODOT TSP guidelines, and discussions with City staff about the important issues prevalent in the community and transportation system.

#### **GOAL 1: CREATING A SAFE TRANSPORTATION SYSTEM FOR ALL**

Prioritize the safe movement for all users and for all modes within the community along city, county, and state roadways. Minimize crashes and fatalities that occur on the transportation network.

- Objective 1A: Address known safety issues at locations with a history of fatal or severe injury
  - crashes.
- Objective 1B: Provide safe pedestrian crossings on state highways and at additional
  - locations off state highways.
- Objective 1C: Support roadway improvements that provide safe access for all users,
  - regardless of age, ability, or mode of transportation.

# GOAL 2: BUILDING FACILITIES THAT SUPPORT ECONOMIC DEVELOPMENT & ARE COST-EFFECTIVE

Build transportation facilities that are suited for the community and its continued economic development. Transportation decisions should balance the needs of the summer peak period and the needs of the year-round population, where those may be in conflict.

- Objective 2A: Provide convenient access for motor vehicles, transit, bicycles and pedestrians to major activity centers.
- Objective 2B: Design streets, bikeways and walkways to meet the needs of pedestrians and cyclists to promote convenient circulation.
- Objective 2C: Provide the efficient movement of goods, services, and people and maintain City minimum vehicular operating standards.
- Objective 2D: Preserve the function of both US 101 and US 126 for regional traffic while building transportation connections between the City and these highways.
- Objective 2E: Minimize negative impacts of vehicular traffic to existing and future neighborhoods, and to developable and developed commercial and industrial sites.
- Objective 2F: Balance the City's strong tourism economy with the transportation related impacts from visitors.

#### GOAL 3: MEETING THE WIDE-RANGING TRANSPORTATION NEEDS OF ALL USERS

Build a transportation system that meets the needs of all users in Florence. Invest in non-automotive transportation modes to help people travel within Florence. Connect neighborhoods to major activity centers without needing to use an automobile.

- Objective 3A: Create a non-motorized network that has a high degree of comfort (i.e. minimal Level of Traffic Stress).
- Objective 3B: Close key gaps in the pedestrian or non-motorized system, creating short, easy, and accessible loops within the network.
- Objective 3C: Provide pedestrian or non-motorized connectivity to schools, business districts, transit stops and corridors, and/or parks including bicycle parking.
- Objective 3D: Promote demand management programs (i.e. incentives to use non-automotive modes, parking management) to reduce single occupancy vehicle trips.
- Objective 3E: Support comfortable and reliable transit service for transit stops and corridors, including (but not limited to) stop amenities, identifying a regional service hub, etc..

#### **GOAL 4: MINIMIZING ENVIRONMENTAL IMPACTS**

Support policies and programs that minimize pollution and reduce impacts to the environment and climate change. Recognize that transportation impacts are more likely to be felt negatively by historically marginalized communities.

- Objective 4A: Minimize the impacts on natural and cultural resources when constructing transportation facilities.
- Objective 4B: Set policies that encourage the use of low-emission transportation modes.

- Objective 4C: Objective 4C: Select alternatives which balance the requirements of other goals with the need to minimize air, water, light, and noise pollution.
- Objective 4D: Objective 4D: Construct transportation facilities that minimize impacts on natural resources such as streams, wetlands, and wildlife corridors.

#### **GOAL 5: ADDING RESILIENCE TO THE NETWORK & PLANNING FOR EMERGENCIES**

Create a transportation network that can quickly evacuate residents in the event of a major earthquake and/or tsunami and can build resilience within the community.

- Objective 5A: Design and construct new transportation facilities that add resilience to the network.
- Objective 5B: Locate new transportation facilities outside the tsunami inundation zones where feasible.
- Objective 5C: Develop transportation facilities that both enhance community livability and serve as tsunami evacuation routes.
- Objective 5D: Coordinate evacuation route and signage planning in conjunction with existing or proposed transportation system plan pedestrian and bicycle route planning efforts.
- Objective 5E: Design streets to efficiently and safely accommodate emergency service vehicles.

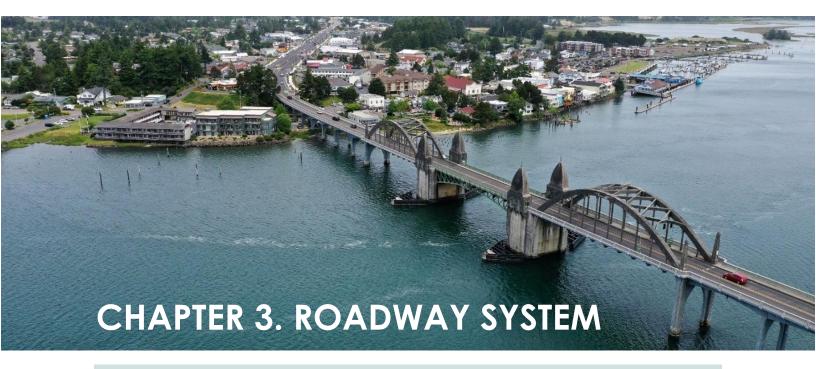
#### GOAL 6: COORDINATING WITH LOCAL, REGIONAL, & STATE PARTNERS

Foster good relationships with public and private partners in the common interest of building the city's transportation network.

- Objective 6A: Ensure consistency with local plans including the Comprehensive Plan, state plans, transit plans, and the plans of neighboring jurisdictions
- Objective 6B: Ensure consistency with statewide planning documents such as the Transportation Planning Rule, Oregon Transportation Plan, Oregon Highway Plan, and ODOT modal plans
- Objective 6C: Partner with local, county, and state agencies to invest in a transportation network that meets everyone's needs
- Objective 6D: Meet the goals and policies laid out in the City's other planning efforts, including the Housing Implementation Plan Project

## **Project Selections and Prioritization**

The selection and prioritization of projects included in the TSP update was determined based on the goals and objectives described above and application of the project evaluation criteria. See Tech Memo #2 and Tech Memo #6 in the Volume II Technical Appendix for additional information.



## Roadway System

The roadway system within Florence serves a majority of trips across all travel modes. In addition to motor vehicles, pedestrians, bicyclists, transit riders, and others use the roadway system to travel throughout the city. The roadway system consists of two state highways (US 101 and OR 126), several Lane County streets, and numerous City of Florence streets.

#### **ROADWAY SYSTEM NEEDS**

Several roadway system needs were identified throughout the planning process. The needs reflect an inventory and evaluation of the roadway system, as well as input from the project team, project advisory committee, and the community. ODOT, Lane County, and the City of Florence all own and operate streets within the city and use different standards to determine the need for improvements. This can create challenges when there are overlapping operational, safety, and congestion issues, which intensify during the peak summer months. The following needs rose to the top throughout the planning process.

#### Disconnected Street Grid

The street network in Florence is on a grid system south of 9th Street and east of Kingwood Street, as well as along US 101 north toward approximately 37th Street. Outside of these two areas, the street network is not as connected, with several land uses (the Florence Municipal Airport, Florence Golf Links, existing sand dunes) that prevent a more connected street network. The only roads that connect Rhododendron Drive with US 101 are 9th Street, 35th Street, and Heceta Beach Road. This disconnected street network could hamper the city's ability to evacuate coastal residents during a potential Cascadia Subduction Zone event. On a more day-to-day basis, the disconnected street grid means that a large number of local motor vehicle trips are taken on a small handful of streets, including US 101.

#### Functional Classification Shortfalls

A roadway's functional classification determines its role in the transportation system, as well as its width, right-of-way dedications, driveway (access) spacing requirements, and types of pedestrian and bicycle facilities provided. There are a few streets in Florence (maintained either by the City or another jurisdiction) that are either not constructed to the functional classification standard (often missing walking or biking infrastructure) or

should likely have a higher classification level given the existing traffic and connections that the street provides.

#### Traffic Congestion

The traffic modeling for the TSP Update shows two intersections (US 101/Munsel Lake Road and Kingwood Street/35<sup>th</sup> Street) that exceed their mobility standard, and two additional intersections (US 101/35<sup>th</sup> Street and US 101/OR 126) have 95<sup>th</sup> percentile queues that exceed the available storage. Given the summer season volumes along the state highways, as well as the limited street connectivity that leads to local traffic utilizing these state highways, it is important to ensure that the roadway network is balanced to meet the needs of all users in Florence without building a system that is unsuitable during the off-peak seasons.

#### Traffic Safety

Traffic safety has a significant impact on how people use the transportation system, particularly in areas where real or perceived safety risks may prevent people from using more active travel modes, such as walking, biking, and taking transit. The most recent five years of complete crash data totaled 338 reported crashes in Florence. These included 2 fatal crashes, 15 serious injury crashes, 127 moderate or minor injury crashes, and 194 property damage only (PDO) crashes. The real or perceived safety risks may reflect the crash history of an area or the physical and/or operational characteristics of the roadways (winding curves, steep grades, high traffic volumes, high travel speeds, excessive heavy vehicles, etc.). Working to improve traffic safety for all roadway users is a top priority.

The roadway plan summarized below includes projects to increase the efficiency of the transportation system through changes in the functional classification and designation of roadways, improvements in major street connectivity, roadway capacity investments, and safety improvements.

#### **JURISTICTION**

Streets within Florence are owned and operated by three jurisdictions: ODOT, Lane County and the City of Florence. Each jurisdiction is responsible for determining the functional classification of the streets, defining major design and multimodal features, and approving construction and access permits. Coordination is required among the jurisdictions to ensure that the streets are planned, operated, maintained, and improved to safely meet public needs. Figure 1 illustrates the jurisdiction of streets within Florence. The following summarizes information on the ODOT, County, and City facilities within Florence.

#### **ODOT Facilities**

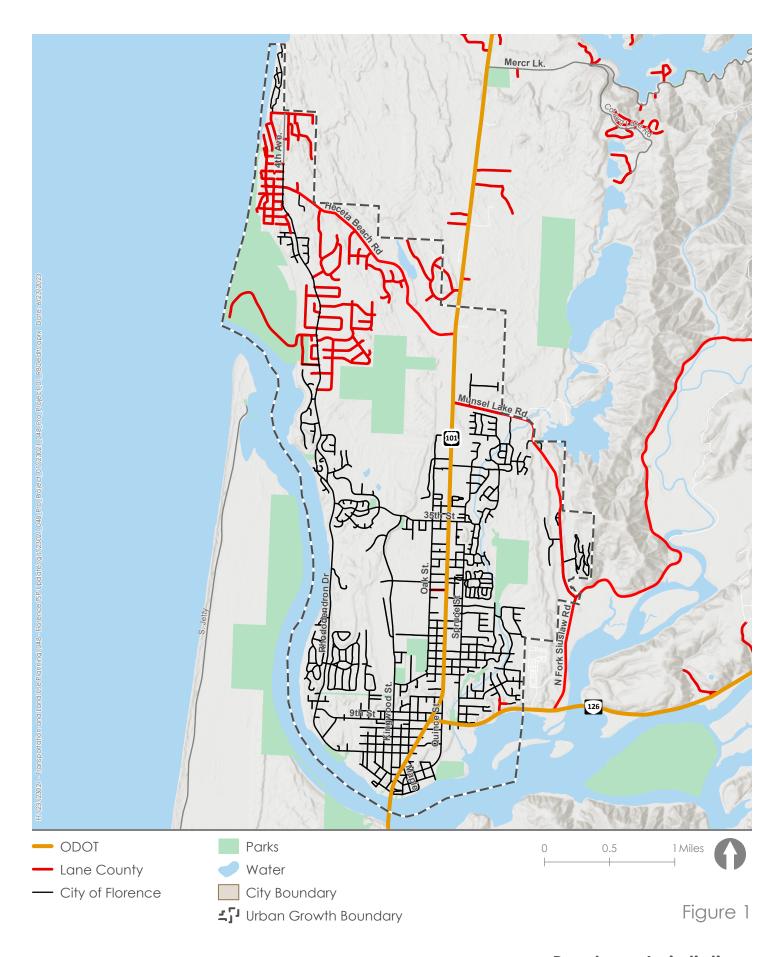
ODOT owns and operates two state highways within Florence: US 101 and OR 126. US 101 is the main north-south route through Florence and connects with OR 126 and other major City and County facilities. US 101 continues to the north and south along the Oregon coastline and connects Florence with Washington and California. OR 126 is the main east-west route to/from Florence and connects with US 101 and other major City and County facilities. OR 126 continues to the east along the Siuslaw River and connects Florence with OR 36 and the City of Eugene.

#### **County Facilities**

Lane County owns and operates a few major facilities within Florence, including:

- )) Heceta Beach Road
- )) Munsel Lake Road
- » North Fork Siuslaw Road

- )) Harbor Vista Road (within the campground)
- » N Jetty Road





These roads either provide regional connections (In addition OR 126, Munsel Lake Road provides the only street connection between US 101 and N Fork Siuslaw Road) or provide access to government property (Siuslaw Valley Fire and Rescue, the US Coast Gard Station on the Siuslaw River, and Harbor Vista County Campground and Park).

#### City Facilities

The city owns and operates all other major facilities within Florence, including:

<b>)</b> }	2 <sup>nd</sup> Street	<b>)</b> }	30 <sup>th</sup> Street	<b>)</b> }	Maple Street
<b>&gt;&gt;</b>	4 <sup>th</sup> Avenue	<b>)</b> }	32 <sup>nd</sup> Street	<b>)</b> }	Kingwood Street
<b>&gt;&gt;</b>	9 <sup>th</sup> Street	<b>&gt;&gt;</b>	35 <sup>th</sup> Street	<b>&gt;&gt;</b>	Oak Street
<b>&gt;&gt;</b>	15 <sup>th</sup> Street	<b>&gt;&gt;</b>	42 <sup>nd</sup> Street	<b>&gt;&gt;</b>	Quince Street
<b>&gt;&gt;</b>	20 <sup>th</sup> Street	<b>)</b> }	43 <sup>rd</sup> Street	<b>)</b> }	Redwood Street
<b>&gt;&gt;</b>	21st Street	<b>&gt;&gt;</b>	46 <sup>th</sup> Street	<b>&gt;&gt;</b>	Rhododendron Drive
<b>)</b> }	27 <sup>th</sup> Street	<b>&gt;&gt;</b>	Bay Street	<b>&gt;&gt;</b>	Spruce Street

#### **FUNCTIONAL CLASSIFICATION PLAN**

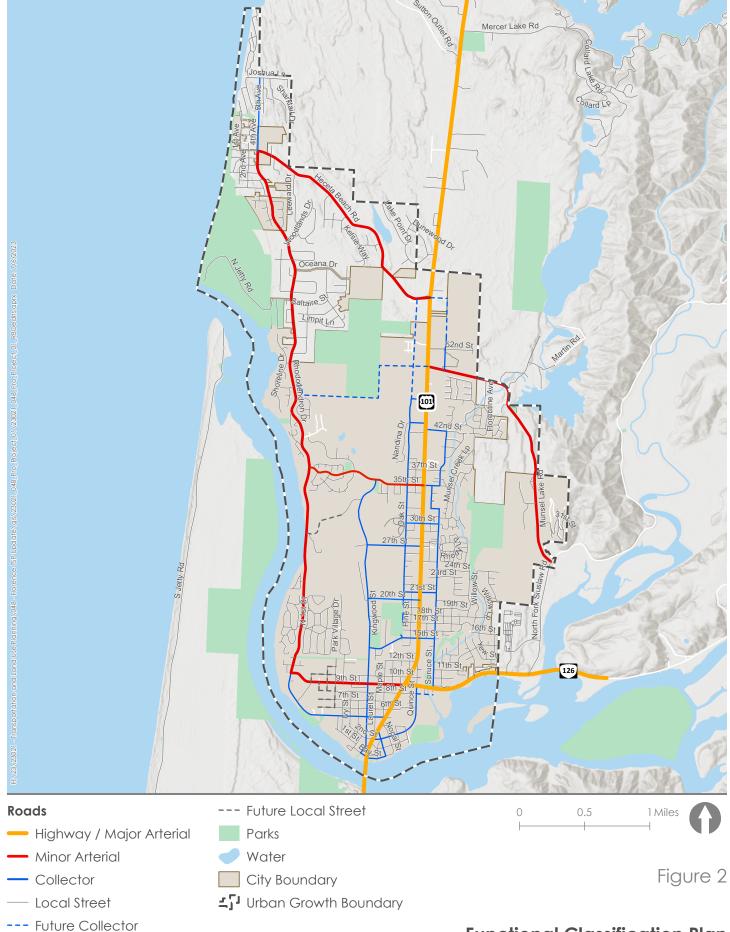
A street's functional classification determines its role in the transportation system, as well as its width, right-of-way dedications, driveway (access) spacing requirements, and types of pedestrian and bicycle facilities provided. Figure 2 illustrates the functional classification of streets within Florence. The functional classification is typically established by a local jurisdiction (city or county) based on the following hierarchy:

- » Arterials are intended to serve high volumes of traffic, particularly through traffic, at relatively high speeds. They also serve truck movements and typically emphasize traffic movement over local land access.
- Collectors serve traffic from the local street system and distribute it to the arterial street system. These roadways provide a balance between traffic movement and land access and should be designed as best to facilitate traffic circulation throughout the City.
- » Local Streets provide land access and carry locally generated traffic at relatively low speeds to the collector street system. Local streets should provide connectivity through neighborhoods but should be designed to discourage cut-through vehicular traffic.

#### **ODOT Highway Classification**

ODOT has a separate classification system for its highways, which guides the planning, management, and investment for state highways. ODOT's categories, from highest to lowest, are Interstate, Statewide, Regional, and District highways. According to the Oregon Highway Plan (OHP), both US 101 and OR 126 are classified as Statewide Highways. The OHP defines Statewide Highways as follows:

Statewide Highways typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas and 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, efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas, local access may also be a priority.



**KITTELSON** & ASSOCIATES

Functional Classification Plan Florence, Oregon

#### Special Transportation Areas and Urban Business Areas

In addition to the functional classifications identified above, the segment of US 101 from 30<sup>th</sup> Street to OR 126 is designated as an Urban Business Area (UBA) and the segment of US 101 from OR 126 to Bay Street is designated as a Special Transportation Area (STA). According to the OHP:

- An Urban Business Area (UBA) is a highway segment designation that may be applied to existing areas of commercial activity or future nodes or various types of centers of commercial activity within urban growth boundaries or urban unincorporated community boundaries on District, Regional or Statewide Highways where vehicular accessibility is important to continued economic viability.
- » A Special Transportation Area (STA) is a designated district of compact development located on a state highway within an urban growth boundary in which the need for appropriate local access outweighs the considerations of highway mobility except on designated OHP Freight Routes where through highway mobility has greater importance.

Table 2 summarizes the functional classifications of arterial and collector streets within Florence by jurisdiction.

Table 2. Functional Classification Plan (Arterials and Collector Streets)

Street	Segment	Classification
	ODOT Streets	
US 101	North city limits to south city limits	Highway/Major Arterial
OR 126	US 101 to east city limits	Highway/Major Arterial
	Lane County Streets	
4th Avenue	Falcon Street to Joshua Lane	Collector
Heceta Beach Road	Rhododendron Drive to US 101	Minor Arterial
Munsel Lake Road	US 101 to North Fork Road	Minor Arterial
North Fork Road	OR 126 to Munsel Lake Road	Minor Arterial
	City Streets	
2 <sup>nd</sup> Street	US 101 to Quince Street	Collector
4th Avenue	Heceta Beach Rd to Falcon Street	Collector
9 <sup>th</sup> Street	Rhododendron Dr to US 101	Minor Arterial
15 <sup>th</sup> Street	Oak St to Spruce Street	Collector
20 <sup>th</sup> Street	Kingwood Street to US 101	Collector
21st Street	Oak St to Spruce St	Collector
27 <sup>th</sup> Street	Kingwood St to US 101	Collector
30 <sup>th</sup> Street	Oak St to Spruce St	Collector
32 <sup>nd</sup> Street	Redwood St to Spruce St	Collector
35 <sup>th</sup> Street	Rhododendron Dr to US 101	Minor Arterial
35 <sup>th</sup> Street	US 101 to Spruce St	Collector
42 <sup>nd</sup> Street	US 101 to Spruce St	Collector
43 <sup>rd</sup> Street	Oak St to US 101	Collector
46 <sup>th</sup> Street	Oak St to US 101	Collector
Airport Road	Kingwood St to Oak St	Collector
Bay Street	Kingwood St to Maple St	Collector
Kingwood Street	Bay St to 35 <sup>th</sup> Street	Collector
Maple Street	US 101 to Bay St	Collector

Oak Street	15 <sup>th</sup> St to 46 <sup>th</sup> St	Collector
Quince Street	2 <sup>nd</sup> St to US 101	Collector
Redwood Street	32 <sup>nd</sup> St to 35 <sup>th</sup> St	Collector
Rhododendron Drive	Heceta Beach Rd to 9 <sup>th</sup> Street	Minor Arterial
Rhododendron Drive	9 <sup>th</sup> St to US 101	Collector
Spruce Street	OR 126 to 32 <sup>nd</sup> St and 35 <sup>th</sup> St to 42 <sup>nd</sup> St	Collector

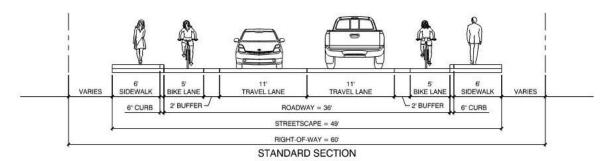
Several changes to the City's functional classification plan were made as part of the TSP update, each of which increases the classification of City roadways from local streets to collectors. The changes are intended to better align the classifications with roadway uses and to provide further arterial and collector connectivity within the built network. The City will coordinate with ODOT and Lane County to address discrepancies in the functional classification of roadways between jurisdictions following adoption of the TSP.

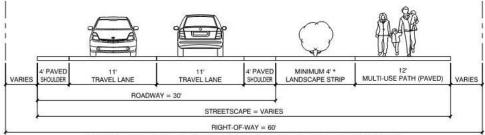
#### STREET CROSS SECTIONS

Street cross sections that reflect the unique characteristics of Florence are presented below. The design of a street can (and will) vary from street to street and segment to segment due to adjacent land uses and demand. The street cross sections are intended to define a system that allows standardization of key characteristics to provide consistency, but also to provide criteria for application that provides some flexibility while meeting the design standards. Exhibits 1 through 6 illustrate the street cross-section for each functional classification.

Unless prohibited by significant topographic or environmental constraint, newly constructed streets should meet the maximum standards indicated in the cross sections. When widening an existing street, the City may use lesser standards than the maximum to accommodate physical and existing development constraints where determined to be appropriate by the Public Works Director. In some locations "green streets" (those that utilize vegetation or pervious material to manage drainage) may be appropriate due to design limitations or adjacent land use.

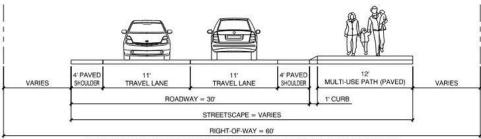
**Exhibit 1. Minor Arterial Cross Sections** 





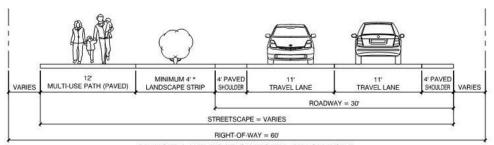
#### RHODODENDRON DRIVE: 9TH STREET TO HECETA BEACH ROAD \*\* (STANDARD SECTION WITH SEPARATED PATH)

\* WHERE PHYSICAL SPACE DOES NOT ALLOW A 4' SEPARATION, A VERTICAL CURB, BARRIER, OR RAIL SHOULD BE USED TO SEPARATE MOTOR VEHICLE TRAFFIC AND THE MULTI-USE PATH AS SHOWN IN ALTERNATE SECTION BELOW. \*\* PER RHODODE/NDRON DRIVE INTEGRATED ITEMANS/ORTATION PLAN (JAN 2008).



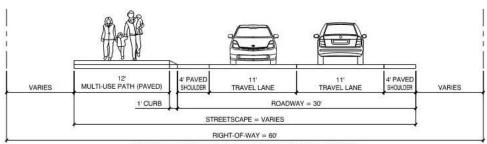
RHODODENDRON DRIVE: 9TH STREET TO HECETA BEACH ROAD \* (ALTERNATE SECTION WITH RAISED PATH)

\* PER RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (JAN 2008).



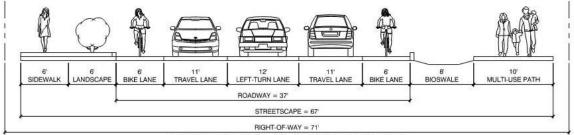
#### MUNSEL LAKE ROAD & HECETA BEACH ROAD (STANDARD SECTION WITH SEPARATED PATH)

\* WHERE PHYSICAL SPACE DOES NOT ALLOW A 4 SEPARATION, A VERTICAL CURB, BARRIER, OR RAIL SHOULD BE USED TO SEPARATE MOTOR VEHICLE TRAFFIC AND THE MULTI-USE PATH.



MUNSEL LAKE ROAD & HECETA BEACH ROAD \* (ALTERNATE SECTION WITH RAISED PATH)

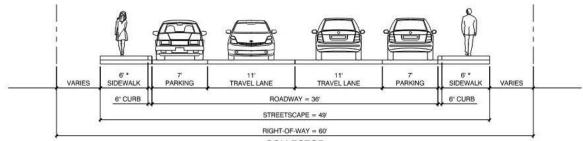
\* SLOPED CURB SAME AS FOR ALTERNATE SECTION ON RHODODENDRON DRIVE AND DOCUMENTED IN RHODODENDRON DRIVE TRANSPORTATION PLAN (JAN 2008).



MUNSEL LAKE ROAD: US 101 TO SPRUCE STREET

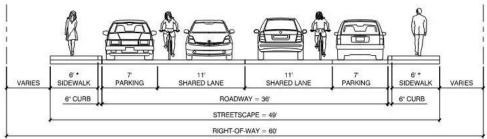
SOURCE: JRH TRANSPORTATION ENGINEERING 4/27/09.

#### **Exhibit 2. Collector Cross Sections**



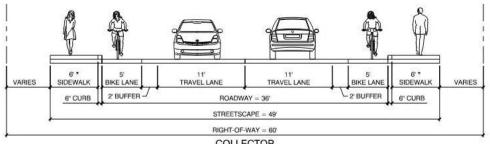
#### COLLECTOR (ON-STREET PARKING)

\* ALL DOWNTOWN STREETS TO HAVE 8' SIDEWALKS WITH THE FOLLOWING EXCEPTIONS: COLLECTORS WITH 7' BIKE LANES AND NO ON-STREET PARKING MAY HAVE 6' SIDEWALKS AND COLLECTORS IN HIGH PEDESTRIAN TRAFFIC AREAS SHOULD HAVE 12' SIDEWALKS.



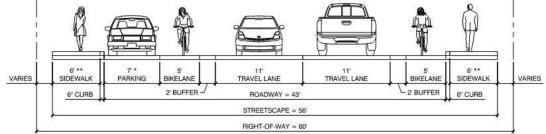
COLLECTOR (BIKE SHARROWS WITH ON-STREET PARKING)

\* ALL DOWNTOWN STREETS TO HAVE 6' SIDEWALKS WITH THE FOLLOWING EXCEPTIONS: COLLECTORS WITH 7' BIKE LANES AND NO ON-STREET PARKING MAY HAVE 6' SIDEWALKS AND COLLECTORS IN HIGH PEDESTRIAN TRAFFIC AREAS SHOULD HAVE 12' SIDEWALKS.



COLLECTOR (NO PARKING)

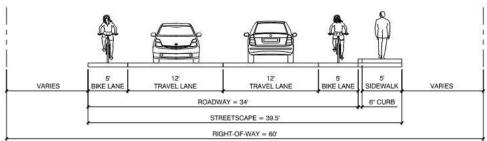
<sup>\*</sup> ALL DOWNTOWN STREETS TO HAVE 8' SIDEWALKS WITH THE EXCEPTION OF COLLECTORS WITH NO ON-STREET PARKING AND HIGH TRAFFIC STREETS WHERE 6' AND 12' SIDEWALKS SHOULD BE INSTALLED, RESPECTIVELY.



#### COLLECTOR

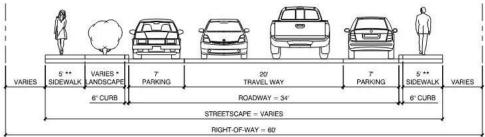
#### (BIKE LANES WITH ON-STREET PARKING)

- \* PARKING LOCATION MAY VARY AND IS TO BE DETERMINED BASED ON PHYSICAL AND BUILT ENVIRONMENT.
  \*\* ALL DOWNTOWN STREETS TO HAVE 8 SIDEWALKS WITH THE EXCEPTION OF COLLECTORS WITH NO ON-STREET PARKING AND HIGH TRAFFIC STREETS WHERE 6' AND 12' SIDEWALKS SHOULD BE INSTALLED, RESPECTIVELY.



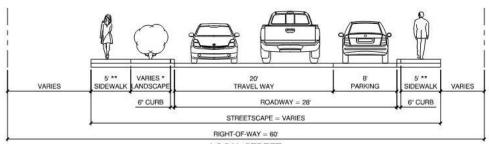
#### RHODODENDRON DRIVE (HEMLOCK STREET TO 9TH STREET)

#### **Exhibit 3. Local Street Cross Sections**



#### LOCAL STREET (PARKING BOTH SIDES)

- \* OPTIONAL LANDSCAPE WIDTH AND LOCATION MAY VARY AND IS TO TO BE DETERMINED BASED ON PHYSICAL AND BUILT ENVIRONMENT.
  \*\* ALL DOWNTOWN STREETS TO HAVE & SIDEWALKS WITH THE EXCEPTION OF COLLECTORS WITH NO ON-STREET PARKING AND HIGH TRAFFIC STREETS WHERE & AND 12' SIDEWALKS SHOULD BE INSTALLED, RESPECTIVELY.



#### LOCAL STREET (PARKING ONE SIDE)\*\*\*

- \* OPTIONAL LANDSCAPE WIDTH AND LOCATION MAY VARY AND IS TO TO BE DETERMINED BASED ON PHYSICAL AND BUILT ENVIRONMENT.

  \*\* ALL DOWNTOWN STREETS TO HAVE 8' SIDEWALKS WITH THE EXCEPTION OF COLLECTORS WITH NO ON-STREET PARKING AND HIGH TRAFFIC STREETS WHERE 6' AND 12'
  SIDEWALKS SHOULD BE INSTALLED, RESPECTIVELY.

  \*\*\* REQUIRES APPROVAL BY CITY ENGINEER.

#### MAJOR STREET CONNECTIVITY AND CAPACITY PLAN

The major street connectivity and capacity plan includes several new major street connections (arterials and collectors) that will enhance north-south and east-west connectivity within the city. The new connections reflect a review of existing major street connections as well as planned connections identified in the 2012 TSP. The future street system needs to balance the benefits of providing a well-connected roadway system with the connectivity challenges in the city due to existing constraints.

Table 3 identifies the major street connectivity and intersection capacity projects developed for the street system. The priorities shown in Table 3 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar street improvements in the northwest. Figure 3 illustrates the location of the major street connectivity and capacity plan projects.

Table 3. Major Street Connectivity and Capacity Plan Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		Street Projects		
R1	US 101 (Refinement Plan)	Complete a refinement plan from Munsel Lake Road to the 21 <sup>st</sup> St to evaluate the potential to reconfigure of the roadway with a 3-lane cross section	High	\$150
R2	Bay Street (Streetscape Plan)	Complete a streetscape design plan from Kingwood Street to Nopal Street to evaluate the potential reconfiguration of the roadway	High	\$50
R3	Pacific View Drive	Extend the roadway from the southern terminus to Rhododendron Drive at New Hope Lane	Low	\$1,965
R4	Munsel Lake Road	Extend the roadway from US 101 to Oak Street (Coordinate with Project R17)	Medium	\$775
R5	Munsel Lake Road/46 <sup>th</sup> Street	Extend Munsel Lake Road <b>OR</b> 46 <sup>th</sup> Street from Oak Street to Rhododendron Drive – if 46 <sup>th</sup> Street is extended, the US 101/46 <sup>th</sup> Street intersection may need to be reconfigured	Low	\$5,460
R6	Oak Street	Extend the roadway from 46 <sup>th</sup> Street to Heceta Beach Road	Medium	\$4,805
R7	20 <sup>th</sup> Street	Extend the roadway from the western terminus to Kingwood Street – includes potential realignment with Airport Lane	Medium	\$320
R8	Spruce Street	Extend the roadway from the northern terminus to Heceta Beach Road	Low	\$1,905
R9	Spruce Street	Extend the roadway from OR 126 to the 8 <sup>th</sup> Street Extension	Medium	\$260
R10	8 <sup>th</sup> Street	Extend the roadway from Quince Street to the Spruce Street Extension – includes a bridge over Munsel Creek	Medium	\$1,260
R11	Heceta Beach Road	Extend the roadway from US 101 to Spruce Street (Coordinate with Project R16)	Low	\$835
R12	4 <sup>th</sup> Avenue	Upgrade the roadway from Heceta Beach Rd to Joshua Lane to Collector standard	Low	\$2,085
R13	20 <sup>th</sup> Street	Upgrade the roadway from Kingwood Street to US 101 to Collector standard	Medium	\$1,260

R14	Quince Street	Upgrade the roadway from OR 126 to US 101 to Collector standard	Low	\$420	
R15	Xylo Street	Upgrade the roadway from Willow Ct to 12 <sup>th</sup> St	Medium	\$465	
Intersection Projects					
R16 <sup>1</sup>	US 101/Heceta Beach Road	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	Medium	\$1,250	
R17 <sup>1</sup>	US 101/Munsel Lake Road	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	High	\$1,250	
R18 <sup>1</sup>	US 101/35 <sup>th</sup> Street	Restripe the eastbound approach to the intersection to maximize the available storage	Medium	\$50	
R19 <sup>1</sup>	US 101/27 <sup>th</sup> Street	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	Medium	\$1,250	
R20 <sup>1</sup>	US 101/15 <sup>th</sup> Street	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	Low	\$1,250	
R21 <sup>1</sup>	US 101/OR 126	Restripe the eastbound and southbound approaches to maximize the available storage	High	\$50	
R22 <sup>1</sup>	OR 126/Quince Street	Implement turning movement restrictions (right-in/right-out/left-in)	High	\$150	
R23 <sup>1</sup>	OR 126/Spruce Street	Reconfigure the intersection/modify the traffic control (e.g., traffic signal, roundabout) when warranted – cost estimate reflects a traffic signal	Low	\$1,250	
R24	9 <sup>th</sup> Street/ Kingwood Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50	
R25	9 <sup>th</sup> Street/ Kingwood Street	Reconfigure the intersection as a mini-roundabout when warranted	Low	\$1,250	
R26	35 <sup>th</sup> Street/ Kingwood Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50	
R27	35 <sup>th</sup> Street/Oak Street	Reconfigure the intersection to all-way stop-control when warranted	High	\$50	
R28	Rhododendron Drive/Jetty Road	Install separate left- and/or right-turn lanes at the intersection	Low	\$250	
		Total High F	Priority Cost	\$1,800	
Total Medium Priority Cost				\$11,695	
Total Low Priority Cost				\$16,670	
			Total Cost	\$30,165	

Note: The cost estimates do not include right-of-way acquisition or wetland mitigation due to the high variability depending on location, parcel sizes, and other characteristics. The cost estimates reflect the full cost of the projects, including costs likely to be funded by others, such as ODOT or private developers.

#### Major Street and Intersection Policies

- Florence shall develop a coordinated street network which facilitates the mobility and accessibility of community residents.
- As city limits are expanded, Florence shall simultaneously annex land and the county roads found within, or bordering, the newly annexed land.

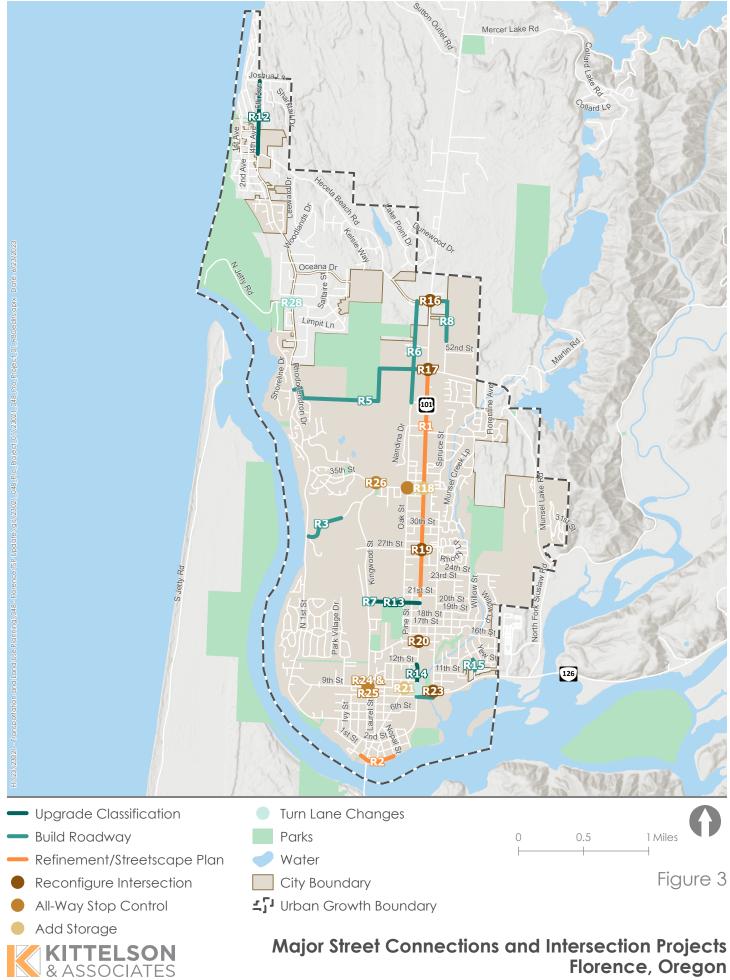
Lane County maintains the County road system, which exists largely outside of urban areas, to a rural standard. Traditionally, as city limits expand to encompass County road segments,

<sup>1.</sup> Project will require coordination with ODOT and approval from the State or Regional Traffic Engineer. Further evaluation will be required to determine the most appropriate form of traffic control.

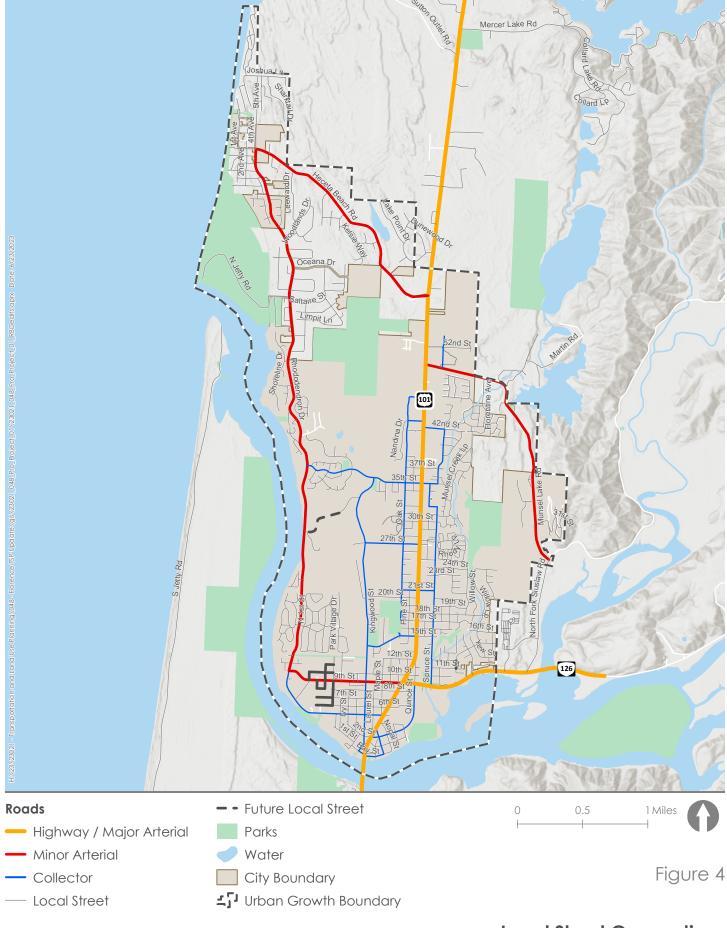
ownership of these road segments are transferred to the City, so the roads may be maintained to urban standards.

#### Local Street Connectivity

Several local street connections were identified as part of the 2012 TSP, including an extension of Pacific View Drive to connect with Rhododendron Drive and an extension of the street grid with anticipated development along 9th Street near Peace Health Medical Center. Figure 4 illustrates the location and general orientation of the local street connections. Roadway alignments and cost estimates are not provided as they are anticipated to be determined as part of future development. Any local street connections that are desired to be city-initiated projects should be identified as a high priority and included in the cost-constrained plan. Otherwise, the City will refer to the local street connections shown in Figure 4 during development review to ensure future development and redevelopment improve local street access and circulation within the city.



**Major Street Connections and Intersection Projects** Florence, Oregon





#### TRAFFIC SAFETY PLAN

Traffic safety has a significant impact on how people use the transportation system, particularly in areas where real or perceived safety risks may prevent people from using more active travel modes, such as walking, biking, and taking transit. Several of the traffic safety projects identified throughout the development of the TSP are addressed under the roadway, bicycle, and pedestrian system plans. These projects include roadway and intersection enhancements that address specific safety issues and new bike lanes, sidewalks, crosswalks, etc. that provide separation between travel modes. The traffic safety projects described below include those that are not addressed under other plans.

#### Traffic Safety Plan Projects

The traffic safety plan projects include enhancements at locations with a history of fatal and severe injury crashes as well as locations with high crash rates. Table 4 identifies the projects developed for the TSP to address traffic safety. The priorities shown in Table 4 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar roadway improvements in the northwest. Figure 5 illustrates the location of the traffic safety projects.

Table 4. Traffic Safety Plan

Map ID	Location	Description	Priority	Cost (\$1,000)
\$11,2	US 101/Heceta Beach Road	Install advance intersection warning signs with flashing beacons; install southbound dynamic speed feedback sign after entering Florence; and install intersection lighting	Medium	\$250
<b>\$2</b> <sup>1</sup>	US 101/Munsel Lake Road	Install advance intersection warning signs with flashing beacons and install intersection lighting	High	\$150
<b>\$3</b> <sup>1</sup>	US 101/46 <sup>th</sup> Street	Install advance intersection warning signs with flashing beacons; install street name signs; install intersection lighting; and trim/remove vegetation	Medium	\$150
S4 <sup>1</sup>	US 101/12 <sup>th</sup> Street	Install street lighting and evaluate need for traffic control modification	Low	\$50
\$5 <sup>1</sup>	US 101/OR 126	Increase visibility of traffic signal heads (larger bulbs, reflective backplates, etc.)	High	\$50
<b>S6</b> <sup>1</sup>	US 101/ Rhododendron Drive	Increase visibility of traffic signal heads (larger bulbs, reflective backplates, etc.)	High	\$50
\$71	OR 126/Quince Street	Install street lighting and evaluate need for traffic control modification (Coordinate with Project R22)	High	\$100
\$8	Rhododendron Drive/Heceta Beach Road	Install advance intersection warning signs on Heceta Beach Road; trim vegetation in SE and SW corners to increase sight distance; and install intersection lighting	High	\$150
<b>S9</b>	Kingwood Street/ 15 <sup>th</sup> Street	Install advance intersection warning signs on Kingwood Street and trim vegetation in SE corner to increase sight distance	High	\$100
\$10	Kingwood Street/ 9 <sup>th</sup> Street	Install advance intersection warning signs on 9 <sup>th</sup> Street; install additional intersection lighting; and evaluate need for traffic control modification (Coordinate with Projects R24 and R25)	High	\$100
		Total High F	Priority Cost	\$700
		Total Medium F	Priority Cost	\$400

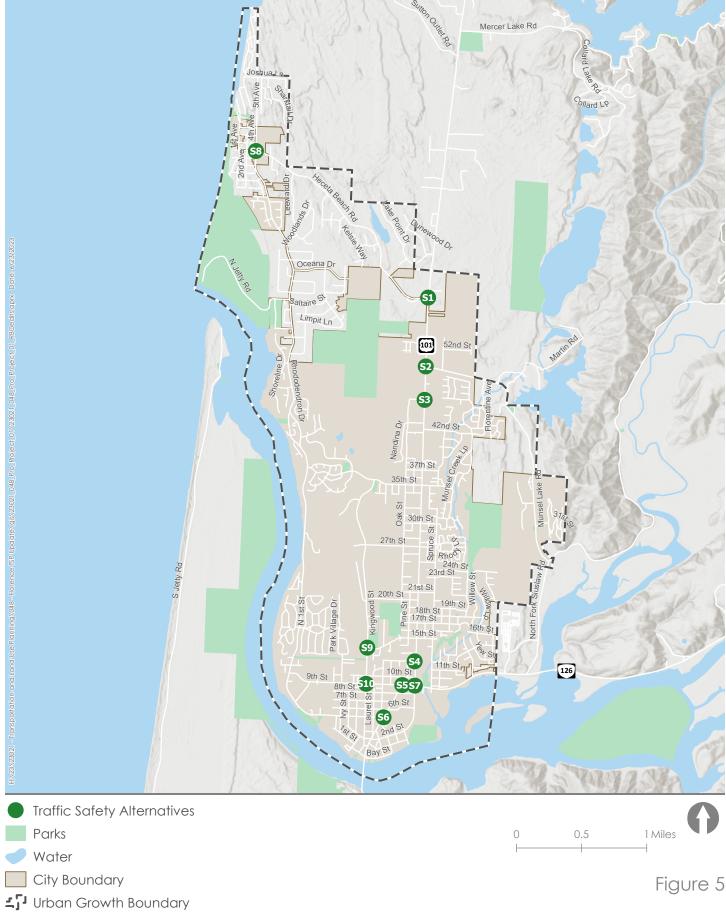
\$1,150

Note: The cost estimates do not include right-of-way acquisition or wetland mitigation due to the high variability depending on location, parcel sizes, and other characteristics. The cost estimates reflect the full cost of the projects, including costs likely to be funded by others, such as ODOT or private developers.

- 1. Project will require coordination with ODOT and approval from the State or Regional Traffic Engineer.
- 2. Speed feedback signs are considered enforcement tools, and the City will be expected to fund, operate, and maintain the speed feedback signed under an ODOT permit.

In addition to the Safety Alternatives projects identified in Table 4, several additional alternatives were considered along specific roadways:

- WS 101 and OR 126 implement traffic calming/speed reduction treatments at the approach to major intersections.
- » Heceta Beach Road implement traffic calming/speed reduction treatments from Rhododendron Drive to US 101.
- Munsel Lake Road implement traffic calming/speed reduction treatments from US 101 to N Fork Road.
- » N Fork Road implement traffic calming/speed reduction treatments from US 101 to Munsel Lake Road.
- » Kingwood Street implement traffic calming measures/speed reduction treatments from 20th Street to 35th Street.
- Oak Street implement traffic calming measures/speed reduction treatments from 35<sup>th</sup> Street to 46<sup>th</sup> Street.
- 3) 15th Street-Airport Road implement traffic calming/speed reduction treatments from Kingwood Street to US 101.





**Traffic Safety Projects** Florence, Oregon

## **Freight System**

Freight plays a major role in Florence's transportation network. With two state highways that operate as freight routes, as well as several freight generators within the city, freight needs are broad and significant.

#### FREIGHT GENERATORS AND ROUTES

The OHP identifies all interstate highways and certain Statewide, Regional, and District Highways as freight routes. These routes are intended to facilitate efficient and reliable interstate, intrastate, and regional truck movement through a designated freight route system. The OHP identifies US 101 (south of OR 126) and OR 126 (east of US 101) as freight routes, as well as high clearance routes and reduction review routes in Florence.<sup>3</sup>

There are several freight generators within Florence, including:

- Port of Siuslaw: The Port of Siuslaw, located off of 1st Street immediately to the east of Old Town Florence, is a publicly-chartered special district with commercial and sport boat moorages.
- >> Florence Municipal Airport: The airport, which serves twin-engine aircraft and small jets, averages approximately 134 aircraft operations per week and is home to 25 aircraft.
- Florence Industrial Park: The Florence Industrial Park, located off Pacific View Drive, is a partially developed industrial area currently owned by the Port of Siuslaw. Currently, there are two industrial businesses located there: a motor vehicle hydraulics and pump cylinders company, and a machine shop.
- Stores (Safeway, Grocery Outlet, Bi-Mart, and Fred Meyer): These four grocery stores are all located along US 101.

The Port of Siuslaw, located on Harbor Street, connects with Quince Street, a wide, two-lane road with approximately 20-foot lanes. Quince Street provides a direct connection to US 101 and OR 126, both of which are freight routes. Project B37 proposes adding bike lanes onto Quince Street, which will allow for modal separation from freight vehicles.

The Florence Municipal Airport is located off Kingwood Street, a two-lane road with approximately 12- to 14-foot lanes. To the south, Kingwood Street connects with 9<sup>th</sup> Street, providing access to US 101 and OR 126. To the north, Kingwood Street connects with 35<sup>th</sup> Street, providing access to US 101. The Florence Industrial Park, located on Pacific View Drive, is also located off of Kingwood Street.

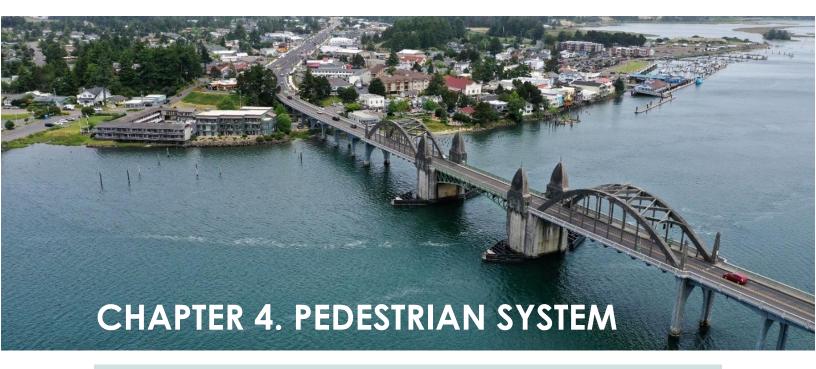
The four grocery stores in Florence are all located along US 101. Only one of these stores, Safeway, is located along a portion of US 101 that is designated as a freight route. However, US-101 is a four- to five-lane facility that freight vehicles can navigate.

## FREIGHT POLICIES

The freight policies, established from the Florence Realization 2020 Comprehensive Plan and through the planning process to create this TSP Update, are provided below:

<sup>&</sup>lt;sup>3</sup> Per OAR 731-012-0010, projects identified on reduction review routes must be reviewed for potential reductions in vertical and horizontal clearance and must include input from affected stakeholders and local governments.

- Accommodate local freight traffic on Kingwood Street via 9<sup>th</sup> Street, 27<sup>th</sup> Street, and 35<sup>th</sup> Street.
- Ensure that planned pedestrian and bicycle improvements on City streets with local freight traffic (Kingwood Street, 9<sup>th</sup> Street, 27<sup>th</sup> Street, 35<sup>th</sup> Street, Quince Street, and 2<sup>nd</sup> Street) are designed to allow for safe and distinct space for all modes.
- Develop policies related to maintenance along designated freight routes to ensure the facilities do not become degraded over time.
- Develop policies related to pedestrian and bicycle facilities along designated freight routes to ensure greater separation of travel modes.
- >> Establish truck loading zones within the downtown area and develop policies related to the use of the truck loading zones, specifically for businesses on Bay Street.



# **Pedestrian System**

Pedestrian facilities in Florence consist of sidewalks, multi-use paths and trails, as well as marked and unmarked, signalized and unsignalized, pedestrian crossings. These facilities provide residents and visitors with the ability to travel between residential areas, schools, parks, churches, retail/commercial centers, and other major destinations within Florence (Old Town/Bay Street, Peace Health, and the Siuslaw Public Library, among others) by foot or mobility device.

## PEDESTRIAN SYSTEM NEEDS

Inventory and public outreach indicate that the pedestrian system needs include filling gaps in the existing sidewalk network, adding new sidewalks, and adding safe crossing locations. US 101 and OR 126 are ODOT facilities while Heceta Beach Road, Munsel Lake Road, N Jetty Road, and N Fork Road are County facilities. The City of Florence will need to partner with these jurisdictions to implement the pedestrian system plans and policies identified below.

## Incomplete Sidewalk Networks

There are several streets throughout the city with incomplete sidewalk networks which limit mobility for people walking or using a mobility device beyond a few blocks. The residential street grid south of 9th Street and west of US 101, located within walking distance of Old Town, has several streets with incomplete sidewalk networks, including Kingwood Street. Other streets outside of this area, such as Airport Road and Spruce Street just north of OR 126, are missing sidewalks for short sections. These incomplete sidewalk networks are especially challenging for older adults, a significant portion of Florence's population, to navigate on foot.

## No Sidewalks

Several streets or small neighborhoods have no sidewalks. Neighborhoods west of Spruce Street and north of OR 126 have few streets with more than a sidewalk on one side. Other neighborhoods, including areas along 35<sup>th</sup> Street to the west of Kingwood Street, have no sidewalks. Major streets such as US 101 north of 37<sup>th</sup> Street, Rhododendron Drive north of 9<sup>th</sup> Street, Heceta Beach Road, and Munsel Lake Road have no sidewalks. Missing sidewalks on local neighborhood streets limit pedestrian mobility at a local level, and missing collector or arterial street sidewalks limit citywide pedestrian mobility.

## Safe Crossing Locations

ODOT has invested in rectangular rapid flashing beacons (RRFBs) with pedestrian refuge islands at several locations along US 101 and OR 126. These treatments increase pedestrian visibility and allow pedestrians to cross one direction of traffic at a time. Safe crossing locations are limited along many other high-volume or high-speed roadways around the city, including US 101 near Fred Meyer, Rhododendron Drive near Exploding Whale Park, Oak Street near the city's public schools, and Spruce Street. Table 6 below identifies locations for enhanced crossing treatments (like RRFBs) to create safer pedestrian crossing conditions.

## PEDESTRIAN SYSTEM PLAN

The pedestrian system plan consists of new sidewalks that fill gaps and provide new facilities along city streets, enhanced crossings that enable people to safely cross streets, and multi-use paths that augment and support the sidewalks. Collectively, these facilities will help enhance and expand the multimodal transportation system and encourage more people to walk.

#### Street Segment Projects

The types of pedestrian facilities included in the pedestrian system plan include:

- » Sidewalks: Sidewalks are the primary building block of the pedestrian system. They provide an important means of mobility for walkers as well as people with disabilities, families with strollers, and others who may not be able to travel on an unimproved surface. Ideally, sidewalks are provided on both sides of the street; however, some areas with physical or right-of-way constraints may require a sidewalk on one side only.
- Sidewalks with Landscape Strips: Sidewalks with landscape strips (or on-street parking, on-street bike lanes, or other bicycle facilities) provide additional separation between people walking or using a mobility device and vehicles on the roadway. This treatment increases the comfort level for those using the sidewalk.
- » Multi-Use Paths (adjacent to the roadway network): Multi-use paths are facilities that serve pedestrians and bicyclists and can be constructed adjacent to roadways where topography, right-of-way, or other issues preclude construction of sidewalks and bike facilities. They may also be constructed away from the roadway within their own right-of-way. Multi-use paths can be used to create long distance links within and between communities and provide regional connections. They play an integral role in recreation, commuting, and accessibility due to their appeal to users of all ages and skill levels.
- Maintain Sidewalks: On roadways where there is already a complete sidewalk network, maintenance is important to ensure that these sidewalk facilities remain usable in the future. Eroded concrete, buckled sidewalk, and tree root incursions are some ways that sidewalks could become degraded over time. Maintenance is especially important for people using a mobility device since they cannot easily step over a small area of degraded sidewalk.

Table 5 identifies the *street segment projects* developed for the pedestrian system plan. The priorities shown in Table 5 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar roadway improvements in the northwest. Figure 6 illustrates the location of the *street segment projects*.

**Table 5. Street Segment Projects** 

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
P1	<b>US 101</b> 37 <sup>th</sup> St to UGB	Complete sidewalks on both sides of the street	High	\$3,090
P2	OR 126 US 101 to N Fork Road	Construct sidewalks on both sides of the street from Spruce Street to Tamarack Street and a multi-use path on the north side from Tamarack Street to N Fork Road	High	\$1,605
		Lane County Streets		
P3	Heceta Beach Rd US 101 to Rhododendron Dr	Construct multi-use path on one side of the street with stormwater facility	High	\$2,750
P4	Munsel Lake Rd US 101 to Spruce St	Construct sidewalks with landscape strips on one side of the street and a multi-use path on the other side of the street	High	\$450
P5	Munsel Lake Rd Spruce St to Ocean Dunes Dr	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$2,125
P6	Munsel Lake Rd Ocean Dunes Dr to N Fork Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$705
P7	N Fork Rd OR 126 to Munsel Lake Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$1,310
P8	N Jetty Rd Rhododendron Dr to North Jetty Beach	Construct multi-use path on one side of the street (include landscape strip as feasible)	Medium	\$1,550
		City Streets – Arterial		
P9	9 <sup>th</sup> St US 101 to Rhododendron Dr	Maintain existing facilities	N/A	N/A
P10	Rhododendron Dr US 101 to Hemlock St	Maintain existing facilities	N/A	N/A
P11	<b>Rhododendron Dr</b> 9 <sup>th</sup> St to Wild Winds St	Construct multi-use path on one side of the street (include landscape strip as feasible) <sup>2</sup>	High	\$1,040
P12	Rhododendron Dr Wild Winds St to 35 <sup>th</sup> St	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$1,295
P13	<b>Rhododendron Dr</b> 35 <sup>th</sup> St to Heceta Beach Rd	Construct multi-use path on one side of the street (include landscape strip as feasible)	High	\$3,730
		City Streets – Collector		
P14	<b>2<sup>nd</sup> St</b> US 101 to Harbor St	Fill in sidewalk gaps on both sides of the street within Old Town	High	\$530
	21st St			
P15	Oak St to US 101	Maintain existing facilities	N/A	N/A

	US 101 to Spruce St <b>27<sup>th</sup> St</b>			
P17	US 101 to Kingwood St	Fill in sidewalk gaps on both sides of the street between US 101 and Oak St	Medium	\$840
P18	<b>35<sup>th</sup> St</b> Rhododendron Dr  to Kingwood St	Construct sidewalks on both sides of the street	High	\$1,105
P19	<b>35<sup>th</sup> St</b> Kingwood St to Oak St	Fill in sidewalk gaps on both sides of the street	High	\$505
P20	<b>35<sup>th</sup> St</b> Oak St to US 101	Fill in sidewalk gaps on both sides of the street	High	\$255
P21	<b>35<sup>th</sup> St</b> US 101 to Spruce St	Maintain existing facilities	N/A	N/A
P22	<b>42<sup>nd</sup> St</b> US 101 to Spruce St	Construct sidewalks on both sides of the street	Medium	\$325
P23	43 <sup>rd</sup> St Oak St to US 101	Fill in sidewalk gaps on both sides of the street	Medium	\$245
P24	<b>46<sup>th</sup> St</b> Oak St to US 101	Maintain existing facilities	N/A	N/A
P25	Airport Rd/15 <sup>th</sup> St Kingwood St to US 101	Fill in sidewalk gaps on both sides of the street	Medium	\$805
P26	Bay St Kingwood St to Nopal St	Reconstruct sidewalks to increase width (Coordinate with project R2)	Medium	\$550
P27	<b>Kingwood St</b> Bay St to 9 <sup>th</sup> St	Fill in sidewalk gaps on both sides of the street	Medium	\$1,090
P28	<b>Kingwood St</b> 9 <sup>th</sup> St to Airport Wy	Fill in sidewalk gaps on both sides of the street	Medium	\$560
P29	<b>Kingwood St</b> Airport Wy to 20 <sup>th</sup> St	Fill in sidewalk gaps on both sides of the street	Medium	\$720
P30	<b>Kingwood St</b> 20 <sup>th</sup> St to 35 <sup>th</sup> St	Reconstruct sidewalks with landscape strips <b>OR</b> implement traffic calming	Low	\$2,000
P31	Maple St US 101 to Bay St	Maintain existing facilities	N/A	N/A
P32	Oak St 20 <sup>th</sup> St to 27 <sup>th</sup> St	Maintain existing facilities	N/A	N/A
P33	Oak St 27 <sup>th</sup> St to 35 <sup>th</sup> St	Construct sidewalk on the east side of the street	High	\$950
P34	Oak St 35 <sup>th</sup> St to 46 <sup>th</sup> St	Reconstruct sidewalks with landscape strips <b>OR</b> implement traffic calming	Low	\$1,335
P35	<b>Quince St</b> 2 <sup>nd</sup> St to OR 126	Reconstruct and fill-in Sidewalks	Medium	\$365
P36	<b>32<sup>nd</sup>-Redwood St</b> Spruce St to 35 <sup>th</sup> St	Fill in sidewalk gaps on south and west side of the street	Medium	\$480
P37	Spruce St 42 <sup>nd</sup> St to 35 <sup>th</sup> St	Fill in sidewalk gaps on both sides of the street	Medium	\$875
P38	Spruce St 32 <sup>nd</sup> to 17 <sup>th</sup> St	Maintain existing facilities	N/A	N/A
P39	Spruce St	Fill sidewalks gaps on both sides of the street	Medium	\$1,005

17 <sup>th</sup> St to OR 126			
<b>Spruce St</b> Munsel Lake Rd to northern terminus	Construct sidewalks on the west side of the street	Low	\$495
	City Streets – Other Streets of Significance		
<b>4<sup>th</sup> Ave</b> Heceta Beach Rd to Joshua Ln	Construct sidewalks on both sides of the street (coordinate with Project R12)	Low	\$O <sup>1</sup>
<b>20<sup>th</sup> St</b> Kingwood St to US 101	Construct sidewalks on both sides of the street (coordinate with Project R13)	Medium	\$0 <sup>1</sup>
<b>Laurel St-Old Town Wy</b> US 101 to Maple St	Fill in sidewalk gaps on both sides of the street	High	\$405
<b>30<sup>th</sup> St</b> Oak St to US 101	Maintain existing facilities	N/A	N/A
<b>30<sup>th</sup> St</b> US 101 to Spruce St	Maintain existing facilities	N/A	N/A
	Total High I	Priority Cost	\$21,850
	Total Medium I	Priority Cost	\$9,665
	Total Low I	Priority Cost	\$3,830
		Total Cost	\$35,345
	Spruce St Munsel Lake Rd to northern terminus  4th Ave Heceta Beach Rd to Joshua Ln  20th St Kingwood St to US 101 Laurel St-Old Town Wy US 101 to Maple St 30th St Oak St to US 101 30th St	Spruce St  Munsel Lake Rd to northern terminus  City Streets – Other Streets of Significance  4th Ave Heceta Beach Rd to Joshua Ln  20th St Kingwood St to US 101  Laurel St-Old Town Wy US 101 to Maple St Oak St to US 101  30th St US 101 to Spruce St US 101 to Spruce St  Maintain existing facilities  Total High I	Spruce St Munsel Lake Rd to northern terminus  City Streets – Other Streets of Significance  4th Ave Heceta Beach Rd to Joshua Ln  20th St Kingwood St to US 101 Laurel St-Old Town Wy US 101 to Maple St Oak St to US 101 30th St US 101 to Spruce St US 101 to Spruce St  Maintain existing facilities Maintain existing facilities  Maintain existing facilities  Maintain existing facilities  Total High Priority Cost Total Medium Priority Cost

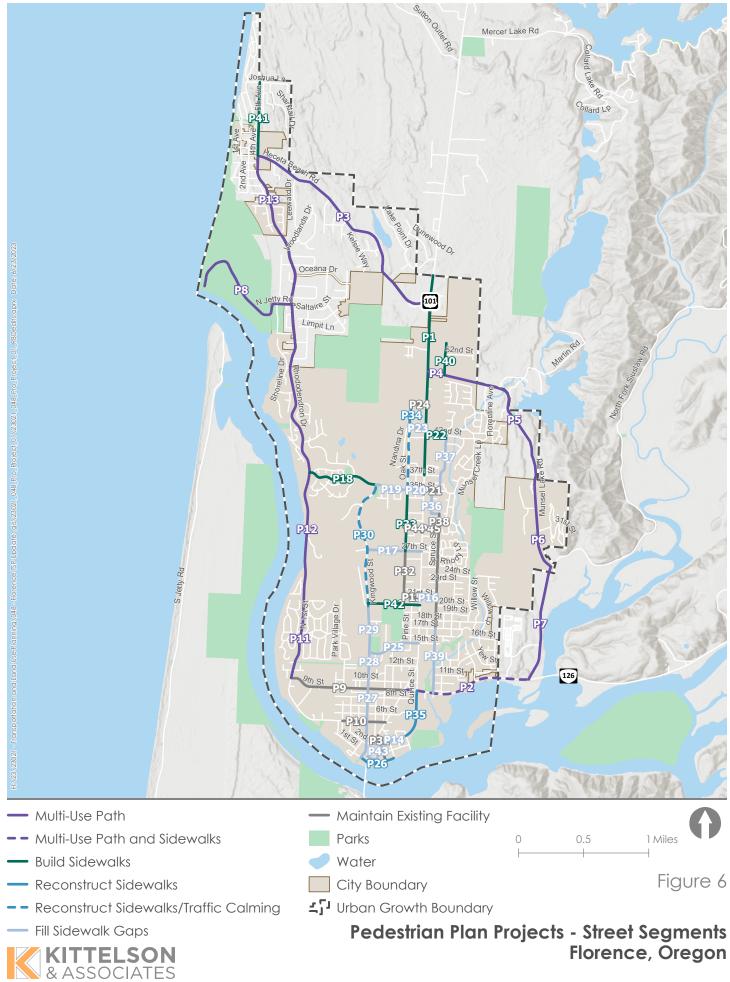
<sup>1.</sup> Project cost included in roadway system cost.

#### Pedestrian Crossing Projects

The types of pedestrian facilities included in the pedestrian system plan include:

- » Marked Crosswalks: Crosswalks enable people to safely cross streets. Planning for appropriate crosswalks requires the community to balance vehicular mobility needs with providing crossing locations along the desired routes of pedestrians.
- Enhanced Crossing Treatments: Enhanced crossing treatments provide additional elements at a street crossing location compared to a marked crosswalk. Enhanced crosswalk treatments include geometric features such as curb extensions and raised median islands with pedestrian refuges as well as signing and striping, flashing beacons, signals, countdown heads, and leading pedestrian intervals. Many of these treatments can be applied simultaneously to further alert drivers of the presence of pedestrians in the roadway.
- Leading Pedestrian Intervals: At signalized intersections, pedestrians can be given a 3-7 second head start in entering the intersection before vehicles are given a green light. Functionally speaking, an all-red phase is established and pedestrians are given a walk sign to cross before vehicles are allowed to move. Leading pedestrian intervals, also known as LPIs, are designed to make pedestrians more visible to turning motorists as they cross the street at a signalized intersection. According to the National Association of City Transportation Officials, LPIs can reduce pedestrian-vehicle crashes at signalized intersections by as much as 60 percent.

<sup>2.</sup> This project will require further evaluation and consideration of impacts to adjacent land uses.



Florence, Oregon

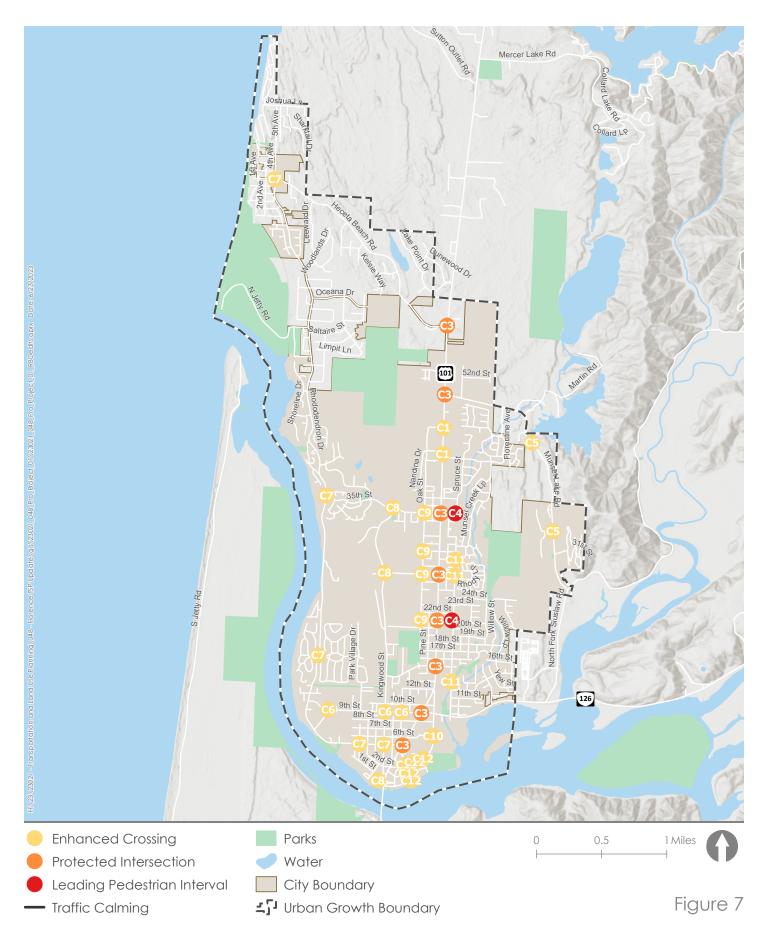
Table 6 identifies the *pedestrian crossing projects* developed for the pedestrian system plan. The priorities shown in Table 6 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar roadway improvements in the northwest. Figure 7 illustrates the location of the *pedestrian crossing* projects.

Table 6. Pedestrian Crossing Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
C11	US 101	Install enhanced crossing treatments on US 101 at 46 <sup>th</sup> St and 42 <sup>nd</sup> /43 <sup>rd</sup> St	High	\$250
C2 <sup>1</sup>	US 101	Install enhanced crossing treatments on US 101 at 27 <sup>th</sup> St	Medium	\$250
C3 <sup>1</sup>	US 101	Install protected intersection treatments at all signalized intersections as feasible – include at future intersections if a signal is being constructed	Low	\$1,500
C4 <sup>1</sup>	US 101	Add leading pedestrian intervals on US 101 at 35 <sup>th</sup> St and 21 <sup>st</sup> St	Medium	\$50
		Lane County Streets		
C5	Munsel Lake Rd	Install enhanced crossing treatments on Munsel Lake Rd at Munsel Landing County Park and at Ocean Dunes Dr	High	\$50
		City Streets		
C6	9 <sup>th</sup> St	Install enhanced crossing treatments at existing crosswalks: Maple St, Kingwood St, and PeaceHealth access road	Medium	\$150
C7	Rhododendron Dr	Install enhanced crossings treatments on Rhododendron Dr at Kingwood St, Hemlock St, Greentrees Village, 35 <sup>th</sup> St, and Heceta Beach Rd	Medium	\$250
C8	Kingwood St	Install enhanced crossing treatments at Bay St, 27 <sup>th</sup> St, and 35 <sup>th</sup> St	Medium	\$100
C9	Oak St	Install enhanced crossing treatments at 35 <sup>th</sup> St, 27 <sup>th</sup> St, and 21 <sup>st</sup> St; install second crosswalk and school crosswalk signs at 30 <sup>th</sup> St	High	\$200
C10	Quince St	Install enhanced crossing treatments at the Florence Events Center access	Medium	\$50
C11	Spruce St	Install enhanced crossing treatments at multi-use path locations at 13 <sup>th</sup> St, 27 <sup>th</sup> St, and 29 <sup>th</sup> St	Medium	\$150
C12	Old Town	Install marked crosswalks with curb extensions on 2 <sup>nd</sup> St at Nopal St, Oak St, and Harbor St; install midblock crossings at Bay St and the boardwalk	High	\$250
		Total High	Priority Cost	\$750
		Total Medium	Priority Cost	\$1,000
		Total Low	Priority Cost	\$1,500
			Total Cost	\$3,250

Note: Further evaluation will be required to identify the type of enhanced crossing treatments needed at each crossing location.

<sup>1.</sup> Installation of enhanced crossing treatments will require approval by and coordination with ODOT.





## Multi-Use Path Projects

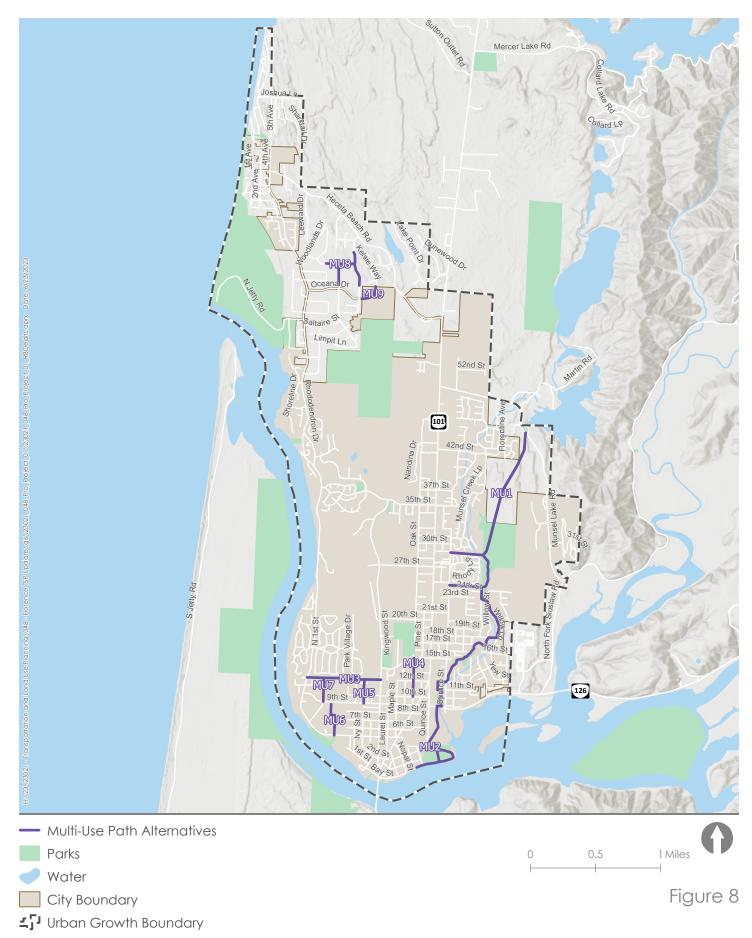
The types of pedestrian facilities included in the pedestrian system plan include:

Multi-use Paths: In addition to multi-use paths that run adjacent to roadways, multi-use paths can be located outside of the right-of-way of the vehicular roadway network. Multi-use paths can be used to create long distance links within and between communities and provide regional connections. They play an integral role in recreation, commuting, and accessibility due to their appeal to users of all ages and skill levels. The City of Florence has several multi-use paths that provide off-street connections to various destinations.

Table 7 identifies the *multi-use projects* developed for the pedestrian system plan. The priorities shown in Table 7 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar roadway improvements in the northwest. Figure 8 illustrates the location of the *multi-use path projects*.

Table 7. Multi-Use Path Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
MU1	Munsel Creek Multi-use Path	Install and/or improve the segments of the Munsel Creek Trail between Quince Street and 16th Street and between 25th Street and 29th Street. Between 16 <sup>th</sup> St and 25 <sup>th</sup> St, the path uses the existing West Park Drive, 18 <sup>th</sup> St, Willow Loop, 23 <sup>rd</sup> St, and Willow St roadway alignments (MU1-A). Extend the path from the Munsel Lake Greenway to Munsel Lake Road (MU1-B)	High	\$3,180
MU2	Estuary Trail	Install a multi-use path from the Boardwalk in Old Town to south end of Munsel Creek Trail	High	\$1,375
MU3	12 <sup>th</sup> Street Multi- use Path	Install and/or improve the existing path between Kingwood Street and Rhododendron Drive	Medium	\$830
MU4	Oak Street Shared-use Path	Install a multi-use path from Oak Street at 15 <sup>th</sup> Street to 10 <sup>th</sup> Street	Medium	\$435
MU5	Ivy Street Multi- use Path	Install a multi-use path from 12th Street to 8th Street	Medium	\$265
MU6	Elm Street Multi- use Path	Install a multi-use path in the existing Elm Street right- of-way between 9 <sup>th</sup> Street and Rhododendron Drive	Medium	\$365
MU7	Driftwood Street Multi-use Path	Install a multi-use path in the existing Driftwood Street right-of-way between 12 <sup>th</sup> Street and 9 <sup>th</sup> Street	Medium	\$265
MU8	North Florence County Park Multi-use Path	Install a network of multi-use paths within the County Park in the North Florence area	Low	\$940
MU9	Oceana Drive Multi-use Path	Install a multi-use path from the eastern terminus of Oceana Drive to the southern Terminus of Kelsie Way	Low	\$240
		Total High F	riority Cost	\$4,555
		Total Medium P	-	\$2,160
		Total Low F	Priority Cost	\$1,180
			Total Cost	\$7,895





## PEDESTRIAN SYSTEM POLICIES

The pedestrian system policies are provided below:

- The City will create a map (available on paper and electronically) showing safe walking routes.
- The City will educate pedestrians about the rules of the road and provide information about state law as well as City Code.
- » The City will explore opportunities to further connect the multi-use path and trail system.
- » The City will systematically upgrade ADA facilities at intersections along major roadways.
- » The City will systematically upgrade sidewalks within Old Town to meet City standards.

## Safe Routes to School

Safe Routes to School (SRTS) plans make it safer for students to walk, bike, or take public transportation to school. Safer routes encourage more walking and biking and provide convenient and accessible options to and from school and in surrounding neighborhoods. SRTS programs include six components known as the Six E's: evaluation, education, encouragement, engineering, enforcement, and equity. The following summarizes several plans and policies the City can implement to support SRTS within the city.

## SAFE ROUTES TO SCHOOL POLICIES

The Safe Routes to School policies are provided below:

- )> Coordinate with the Siuslaw School District to develop SRTS plans for local schools.
- Develop education programs that provide students with information on transportation options and the benefits of walking and biking to school.
- Develop encouragement programs that generate excitement and interest in walking and biking through events and activities.
- Continue to implement physical improvements to the transportation system aimed at making walking and biking to school safer, more comfortable and convenient.
- » Several alternatives are identified within the pedestrian and bicycle sections of this memorandum that could help the city further enhance the transportation system around schools.
- Develop an evaluation program that assesses which strategies and approaches are successful.
- Develop an equity program that ensures that program initiatives are benefiting all demographic groups.



# **Bicycle System**

Bicycle facilities in Florence consist of on-street bike lanes, shared-lane pavement markings, multi-use paths, and bicycle parking. These facilities provide residents and visitors with the ability to travel between residential areas, schools, parks, churches, retail/commercial centers, and other major destinations within Florence (Old Town/Bay Street, Peace Health, and the Siuslaw Public Library, among others) by bike.

## **BICYCLE SYSTEM NEEDS**

Inventory and public outreach indicate that the bicycle system needs include increasing the comfort of existing facilities and adding new facilities to streets that have no existing infrastructure. US 101 and OR 126 are ODOT facilities while Heceta Beach Road, Munsel Lake Road, N Jetty Road, and N Fork Road are County facilities. The City of Florence will need to partner with these jurisdictions to implement the bicycle system plans and policies identified below. Additionally, US 101 from the Siuslaw River Bridge to 9th Street and all of OR 126 is an Reduction Review Route, meaning that any changes to the roadway will need to be reviewed by ODOT's Mobility Advisory Committee, which reviews freight considerations on state roadways.

#### *Improving Existing Bicycle Facilities*

Bicycle Level of Traffic Stress (BLTS) measures the comfort of cycling on a given street. The existing bike lanes on US 101 and OR 126 have relatively high BLTS scores, which means they are suitable for some adults. Through public outreach, the City learned that some residents avoid cycling on US 101 because it is not comfortable. The City will need to work with ODOT to improve the bicycle facilities on these streets.

## Adding New Bicycle Facilities

There are several arterial and collector streets within Florence that do not have bicycle facilities. These include Rhododendron Drive north of Wild Winds Street, Heceta Beach Road, Munsel Lake Road, and others. The lack of bicycle facilities on these streets limits mobility for people who live and work along these corridors. Adding new bicycle facilities will allow for safer and more comfortable bicycle travel.

## **BICYCLE SYSTEM PLAN**

The bicycle system plan consists of new on-street bike lanes, buffered bike lanes, shoulder bike lanes, shared-lane pavement markings, and traffic calming. Collectively, these facilities will help enhance and expand the multimodal transportation system and encourage more people to bike.

The types of bicycle facilities included in the bicycle system plan include:

- On-Street Bike Lanes: On-street bike lanes provide a dedicated space for the exclusive use of cyclists on the roadway surface. They are usually 5 to 6-feet wide and include an 8-inch stripe along the roadway and bike symbols at intersections. On-street bike lanes are typically placed at the outer edge of the roadway surface but to the inside of right-turn lanes and/or on-street parking. On-street bike lanes can improve the safety and security of cyclists and can provide direct connections between origins and destinations.
- Buffered Bike Lanes: Buffered bike lanes are enhanced versions of on-street bike lanes that include an additional striped buffer of typically 2-3 feet between the bike lane and the vehicle travel lane and/or between the bike lane and the vehicle parking lane. They are typically located along streets that require a higher level of separation to improve bicyclist comfort.
- Shoulder Bike Lanes: For streets that have an adjacent multi-use path, shoulder bike lanes remain an important component of the roadway cross-section. Shoulder bike lanes, which can be narrower than on-street bike lanes, provide space for bicyclists to use the road if they choose, as well as provide shoulder space for vehicles.
- Shared Lane Pavement Markings: Shared lane pavement markings (often called "sharrows") are used to indicate a shared space for bicyclists and motorists. Sharrows are suitable on roadways with relatively low traffic volumes (<2,500 Average Daily Traffic) and low travel speeds (<25 MPH); however, they may also be used to transition between discontinuous bicycle facilities along roadways with higher volumes and speeds.</p>
- Traffic Calming: Traffic calming measures are designed to both slow traffic speeds and divert some traffic toward a higher classification roadway. Traffic calming treatments are divided into horizontal and vertical elements. Horizontal elements typically narrow the roadway or limit the distance that a motorist can see ahead. Treatments include curb extensions, median islands, traffic circles, chicanes, etc. Vertical elements are located within the travelway and are designed to slow travel speeds. Treatments include speed humps, speed cushions, speed tables, raised crosswalks, etc.
- Maintain Existing Infrastructure: It is important for the City to maintain existing bicycle infrastructure as it adds other areas of its bicycle network. Clearing the bike lanes of debris also should not be overlooked as a maintenance task.

Table 8 identifies the projects developed for the bicycle system plan. The priorities shown in Table 8 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community. The cost estimates are based on average unit costs for similar roadway improvements in the northwest. Figure 9 illustrates the location of the bicycle system plan projects.

Table 8. Bicycle System Plan Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
		ODOT Streets		
B1	<b>US 101</b> 37 <sup>th</sup> St to UGB	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes) <b>OR</b> construct bike facilities consistent with US 101 Refinement Plan	High	\$360
В2	<b>US 101</b> 37 <sup>th</sup> St to 21 <sup>st</sup> St	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes) <b>OR</b> construct bike facilities consistent with US 101 Refinement Plan	Medium	\$205
В3	<b>US 101</b> 21 <sup>st</sup> St to Siuslaw River Bridge	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes)	Medium	\$345
В4	<b>US 101</b> Siuslaw River Bridge	Provide flashing beacon lights to indicate when people are biking on the bridge and consider advisory speed signs when the flashing beacons are activated	Medium	\$80
В5	<b>US 101</b> Siuslaw River Bridge	Coordinate with ODOT and the Oregon Coast Trail to build a separate bike and pedestrian bridge	Low	<b>\$</b> 0 <sup>2</sup>
В6	OR 126 US 101 to Tamarack St	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes)	High	\$65
В7	OR 126 Tamarack St to UGB	Maintain existing facilities	N/A	N/A
		Lane County Streets		
В8	Heceta Beach Rd US 101 to Rhododendron Dr	Construct shoulder bikeways on both sides of the street (coordinate with Project P3)	High	\$915
В9	Munsel Lake Rd US 101 to Spruce St	Construct bike lanes on both sides of the street (coordinate with Project P4)	High	\$65
B10	Munsel Lake Rd Spruce St to Ocean Dunes Dr	Construct shoulder bikeways on both sides of the street (coordinate with Project P5)	High	\$710
B11	Munsel Lake Rd Ocean Dunes Dr	Construct shoulder bikeways on both sides of the street (coordinate with Project P6)	High	\$235
	to N Fork Rd	, ,		
B12	N Fork Rd  N Fork Rd  OR 126 to Munsel Lake Rd	Construct shoulder bikeways on both sides of the street (coordinate with Project P7)	High	\$435
B12	<b>N Fork Rd</b> OR 126 to Munsel	Construct shoulder bikeways on both sides of the	High Medium	\$435 \$515
	N Fork Rd OR 126 to Munsel Lake Rd N Jetty Rd Rhododendron Dr to North Jetty	Construct shoulder bikeways on both sides of the street (coordinate with Project P7)  Construct shoulder bikeways on both sides of the		·
	N Fork Rd OR 126 to Munsel Lake Rd N Jetty Rd Rhododendron Dr to North Jetty	Construct shoulder bikeways on both sides of the street (coordinate with Project P7)  Construct shoulder bikeways on both sides of the street (coordinate with Project P8)		·

B16	Rhododendron Dr 9 <sup>th</sup> St to Wild Winds St	Construct shoulder bikeways on both sides of the street (coordinate with Project P11)	High	\$345
B17	<b>Rhododendron Dr</b> Wild Winds St to 35 <sup>th</sup> St	Construct shoulder bikeways on both sides of the street (coordinate with Project P12)	High	\$430
B18	Rhododendron Dr 35 <sup>th</sup> St to Heceta Beach Rd	Construct shoulder bikeways on both sides of the street (coordinate with Project P13)	High	\$1,245
		City Streets – Collectors		
B19	<b>2<sup>nd</sup> St</b> US 101 to Harbor St	Extend shared lane pavement markings from Maple St to US 101	High	\$5
B20	<b>21st St</b> Oak St to US 101	Add shared lane pavement markings	Medium	\$5
B21	21st St US 101 to Spruce St	Add shared lane pavement markings	Medium	\$5
B22	27th St US 101 to Kingwood St	Construct bike lanes from Oak St to US 101	Medium	\$205
B23	<b>35<sup>th</sup> St</b> Rhododendron Dr  to Kingwood St	Maintain existing facilities	N/A	N/A
B24	<b>35<sup>th</sup> St</b> Kingwood St to Oak St	Maintain existing facilities	N/A	N/A
B25	<b>35<sup>th</sup> St</b> Oak St to US 101	Maintain existing facilities	N/A	N/A
B26	<b>35<sup>th</sup> St</b> US 101 to Spruce St	Maintain existing facilities	N/A	N/A
B27	<b>42<sup>nd</sup> St</b> US 101 to Spruce St	Add shared lane pavement markings from Spruce to eastern terminus and create bike connection between the eastern terminus and Munsel Creek Lp	Medium	\$5
B28	<b>43<sup>rd</sup> St</b> Oak St to US 101	Add shared lane pavement markings	Medium	\$5
B29	<b>46<sup>th</sup> St</b> Oak St to US 101	Maintain existing facilities	N/A	N/A
В30	Airport Rd/15 <sup>th</sup> St Kingwood St to US 101	Add shared lane pavement markings	Medium	\$10
B31	Bay St Kingwood St to Maple St	Add shared lane pavement markings	Medium	\$5
B32	<b>Kingwood St</b> Bay St to 9 <sup>th</sup> St	Construct bike lanes on both sides of the street (requires removing on-street parking) <b>OR</b> implement traffic calming measures	Medium	\$265
В33	<b>Kingwood St</b> 9 <sup>th</sup> St to Airport Wy	Construct bike lanes on both sides of the street from 9 <sup>th</sup> St to 10 <sup>th</sup> St (will require removing onstreet parking) <b>OR</b> implement traffic calming measures	Medium	\$135
B34	<b>Kingwood St</b> Airport Wy to 35 <sup>th</sup> St	Construct buffered bike lanes on both sides of the street (requires narrowing travel lanes) <b>OR</b> implement traffic calming measures	Medium	\$215

B35	Maple St US 101 to Bay St	Add shared lane pavement markings	High	\$5
B36	Oak St 20 <sup>th</sup> St to 27 <sup>th</sup> St	Construct bike lanes from 20 <sup>th</sup> St to Siuslaw Middle School Dwy (requires removing on-street parking)	High	\$200
В37	Oak St 27 <sup>th</sup> St to 35 <sup>th</sup> St	Maintain existing facilities	N/A	N/A
В38	Oak St 35th St to 46th St	Maintain existing facilities	N/A	N/A
B39	<b>Quince St</b> 2 <sup>nd</sup> St to OR 126	Construct bike lanes on both sides of the street (requires removing on-street parking)	High	\$180
B40	<b>32<sup>nd</sup>-Redwood St</b> Spruce St to 35 <sup>th</sup> St	Maintain existing facilities	N/A	N/A
B41	Spruce St 42 <sup>nd</sup> St to 35 <sup>th</sup> St	Construct bike lanes on both sides of the street from 37 <sup>th</sup> to 42 <sup>nd</sup> (requires removing on-street parking)	High	\$210
B42	Spruce St 32 <sup>nd</sup> St to 17 <sup>th</sup> St	Construct bike lanes on both sides of the street from 25 <sup>th</sup> St to 17 <sup>th</sup> Street (requires removing onstreet parking)	High	\$430
B43	<b>Spruce St</b> 17 <sup>th</sup> St to OR 126	Construct bike lanes on both sides of the street (requires removing on-street parking)	High	\$245
		City Streets – Other Roads of Interest		
B44	4 <sup>th</sup> Ave Heceta Beach Rd to Falcon St	City Streets – Other Roads of Interest  Construct bike lanes on both sides of the street (coordinate with Project R12)	Low	\$O <sup>1</sup>
B44 B45	Heceta Beach Rd	Construct bike lanes on both sides of the street	Low	\$0 <sup>1</sup>
	Heceta Beach Rd to Falcon St 20th St Kingwood St to US	Construct bike lanes on both sides of the street (coordinate with Project R12)		
B45	Heceta Beach Rd to Falcon St 20th St Kingwood St to US 101 Laurel St-Old Town Wy	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings	Medium	\$10
B45	Heceta Beach Rd to Falcon St  20th St  Kingwood St to US 101  Laurel St-Old Town Wy  US 101 to Laurel St 30th St	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement markings	Medium High	\$10 \$5
B45 B46 B47	Heceta Beach Rd to Falcon St  20th St Kingwood St to US 101  Laurel St-Old Town Wy US 101 to Laurel St 30th St Oak St to US 101 30th St	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement markings  Add shared lane pavement markings	Medium High Low	\$10 \$5 \$5
B45 B46 B47 B48	Heceta Beach Rd to Falcon St  20th St  Kingwood St to US 101  Laurel St-Old Town Wy  US 101 to Laurel St 30th St Oak St to US 101  30th St US 101 to Spruce St West Park Dr/18th St/Willow Lp/Willow	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement marking (coordinate with Project MU1)	Medium  High  Low  Low	\$10 \$5 \$5 \$5
B45 B46 B47 B48	Heceta Beach Rd to Falcon St  20th St  Kingwood St to US 101  Laurel St-Old Town Wy  US 101 to Laurel St 30th St Oak St to US 101  30th St US 101 to Spruce St West Park Dr/18th St/Willow Lp/Willow	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement marking (coordinate with Project MU1)	Medium  High  Low  Low  High  Priority Cost	\$10 \$5 \$5 \$5 \$5
B45 B46 B47 B48	Heceta Beach Rd to Falcon St  20th St  Kingwood St to US 101  Laurel St-Old Town Wy  US 101 to Laurel St 30th St Oak St to US 101  30th St US 101 to Spruce St West Park Dr/18th St/Willow Lp/Willow	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement marking (coordinate with Project MU1)  Total High  Total Medium	Medium  High  Low  Low  High  Priority Cost	\$10 \$5 \$5 \$5 \$15 \$6,100
B45 B46 B47 B48	Heceta Beach Rd to Falcon St  20th St  Kingwood St to US 101  Laurel St-Old Town Wy  US 101 to Laurel St 30th St Oak St to US 101  30th St US 101 to Spruce St West Park Dr/18th St/Willow Lp/Willow	Construct bike lanes on both sides of the street (coordinate with Project R12)  Add shared lane pavement markings  Add shared lane pavement marking (coordinate with Project MU1)  Total High  Total Medium	Medium  High  Low  Low  High  Priority Cost  Priority Cost	\$10 \$5 \$5 \$5 \$15 \$6,100 \$2,010

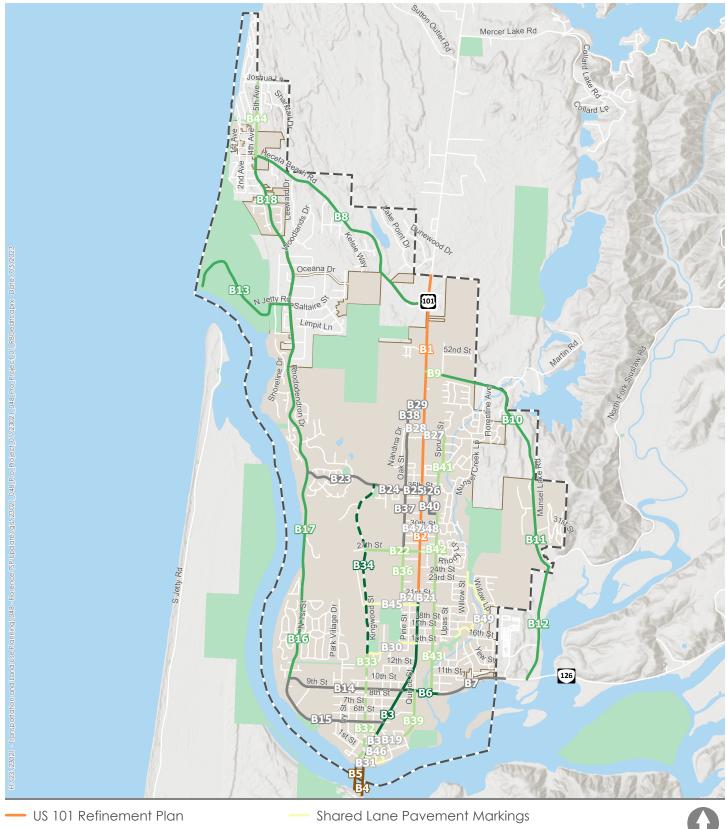
<sup>1.</sup> Project cost included in roadway system cost.

## **BICYCLE SYSTEM POLICIES**

The bicycle system policies are provided below:

- )) The City will perform regular street sweeping of US 101.
- )) The City will perform regular enforcement of "No Parking in Bicycle Lanes".
- The City will institute a program to educate and encourage existing businesses to provide bicycle parking.
- )) The City will work toward becoming a "Bicycle-Friendly Community".

- )) The City will create a map (available on paper and electronically) showing designated bicycle route through town (roads with bicycle lanes, multi-use paths, sharrows).
- The City will partner with the Port to promote bicycle camping.
- )) The City will educate bicyclists about rules of the road.
- The City will partner with PeaceHealth to promote Bike to Work/School month, week, day.
- The City will replace storm drains dangerous to bicyclists with drains that have cross-members.



Siuslaw River Bridge

Buffered Bike Lanes

Buffered Bike Lanes/Traffic Calming

Shoulder Bikeway

Bike Lanes

-- Bike Lanes/Traffic Calming



— Maintain Existing Facilities

Parks

Water

City Boundary

**L**J Urban Growth Boundary



Figure 9

Bicycle Plan Projects Florence, Oregon



## **Public Transportation System**

Public transportation in Florence is provided by three transit service providers – Rhody Express, Link Lane, and Coos County Area Transit. These providers operate a mixture of local and intercity service, providing connections to other transit services outside of the city.

- Rhody Express provides two local fixed-route transit lines in the city. The North Loop serves areas north of 21st Street, along US 101, Spruce Street, and Oak Street, between the Grocery Outlet and Fred Meyer. The South Loop serves areas south of 21st Street, along Spruce Street, US 101, 9th Street, Rhododendron Drive, Kingwood Street, and Quince Street, circulating between Grocery Outlet, Safeway/Dunes Village Center, Peace Health Campus, the Old Town District, and Three Rivers Casino.
- Link Lane runs two intercity bus routes that both terminate in Florence. The Eugene-Florence Connector provides bus service between Florence and Eugene along OR 126, with stops in Veneta and Mapleton. The Florence-Yachats Connector provides bus service between Florence and Yachats along US 101. The only stop in Florence is located at the Grocery Outlet, which connects to the Rhody Express routes as well as the Eugene-Florence Connector.
- » Coos County Area Transit (CCAT) operates the Florence Express, intercity bus service between North Bend and Florence along US 101, with stops in Lakeside, Winchester Bay, Reedsport, and Gardiner. Stops in Florence are located at the Grocery Outlet (which connects to all other transit service in Florence) and Three Rivers Casino.

#### PUBLIC TRANSPORTATION SYSTEM NEEDS

Inventory and public outreach indicate that there is a need for transit service in areas outside of where existing local or intercity services currently operate. Additionally, the existing service lacks amenities for those waiting for service or connecting between transit routes. Link Lane, which is a partnership between Lane Council of Governments and the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians, is creating a transit development plan to identify service improvements within its broader Lane County service area. The City should ensure that it is set-up to capitalize on these coming transit investments. Focusing on local service improvements and bus stop enhancements will improve the transit experience and capitalize on Link Lane's transit planning work.

#### Service Improvements

Existing Rhody Express service is focused on areas south of 15<sup>th</sup> Street/Airport Road, and on Oak Street and Spruce Street north of 15<sup>th</sup> Street/Airport Road. Existing intercity service is focused primarily on US 101 and OR 126. This leaves large portions of the city – notably areas to the west of Oak Street and areas around Rhododendron Drive and Heceta Beach Road – without transit service. Link Lane's ongoing Transit Development Plan will identify additional intercity service, but any service expansion is unlikely to address the local needs where transit service is lacking.

#### Stop Improvements

A typical Rhody Express bus stop in Florence consists of a pole with the Rhody Express sign and a bus schedule. There are often no other amenities, such as seating, shelter, trash cans, or lighting. Additionally, there are two locations – the Grocery Outlet at Spruce Street/21st Street and Three Rivers Casino – where multiple transit services connect but where limited transit center infrastructure is present. Addressing the needs of the small and the large transit stops will make the ridership experience more pleasant for everyone.

## **PUBLIC TRANSPORTATION SYSTEM PLAN**

The public transportation plan consists of new fixed-route service (local and intercity), bus stop amenities, transit centers, park and rides, and mobility hubs. These facilities will expand and enhance the existing public transportation system and encourage more people to walk, bike, and take transit.

The types of facilities included in the public transportation plan include:

- Fixed-Route Service (local and intercity): Fixed-route service refers to transit service that runs on regular, scheduled routes, with designated transit stops. Fixed-route service is typically characterized by service frequency (the time between arrivals), service hours (the number of hours service is provided throughout the day), and service coverage (the amount of the population, households, and jobs served by transit). Fixed-route service can operate at a local level within a city or at an intercity level over longer distances.
- » Bus Stops: Bus stops are designated locations where residents can access local transit service. Bus stops are normally located at major destinations and at key intersections. The types of amenities provided at each bus stop (e.g., pole, bench, shelter, ridership information, trash receptacles) tend to reflect the level of usage.
  - Pole and Bus Stop Sign: All bus stops require a pole and bus stop sign to identify the bus stop location.
  - Bus Stop Shelters: Shelters are typically provided at higher volume stops but may be considered at stops with fewer daily boardings if served by routes with long headways.
  - Seating: Seating should always be considered as long as it is accessible and the safety and accessibility of the adjacent sidewalk are not compromised by seating placement.
  - >> **Trash Receptables**: While trash cans can be considered at any stop, they are usually located at stops with shelters and/or seating. Trash cans will require regular pick-up.
  - Lighting: Lighting is an important amenity for bus stops as it provides visibility and increased security for transit users waiting, boarding, and aligning transit service.

- » ADA Accessibility: Bus stops should be accessible for users with all ranges of abilities, including a concrete landing pad, adjacent parking restrictions, and ADA-compliant pedestrian ramps.
- » Real-Time Bus Arrival Reader Boards: Bus stops with several different routes can include an electronic arrival board showing when the next bus on each route is scheduled to arrive in real-time.
- Transit Centers: Transit centers provide a single location where a large number of transit services operate to provide connections between various services. A transit center is larger than a bus stop and provides additional amenities (e.g., bathrooms, larger waiting areas). Shared-use transit center facilities are generally designated and maintained through agreements reached between the local public transit agency or rideshare program operator and the property owner. Shared-use transit center parking lots can save the expense of building a new parking lot, increase the utilization of existing spaces, and avoid utilization of developable land for surface parking.
- Park and Rides: Park-and-rides provide parking for people who wish to transfer from their personal vehicle to public transportation or carpools/vanpools. Park-and-rides are frequently located near major intersections, at commercial centers, or intercity bus routes. It is Oregon state policy to encourage the development and use of park-and-rides at appropriate urban and rural locations adjacent to or within the highway right-of-way. Park-and-rides may be either shared-use, such as at a school or shopping center, or exclusive-use.
- Mobility Hubs: Mobility hubs focus on the connectivity of public transit to a variety of travel modes, supporting non-single-occupancy-vehicle trips and helping to connect people to the different modes they need. All services and amenities do not need to be provided immediately adjacent to the hub as long as they are still within an easily accessible area. Shared mobility services such as bikeshare, carshare, e-scooters, and on-demand rideshare zones are all located within the hub, in addition to amenities such as transit waiting areas, pedestrian and bicycle facilities, bicycle parking, bicycle repair stations, and electric vehicle charging.

Table 9 identifies the projects developed for the public transportation system plan. The priorities shown in Table 9 are based on the project evaluation criteria as well as input from the project team. Priorities will be updated based on input from the advisory committee and the community. Figure 10 illustrates the location of the public transportation plan projects, where applicable.

Table 9: Public Transportation System Plan Projects

Map ID	Location	Description	Priority	Cost (\$1,000)
<b>T</b> 1	Local Service	Add service to Rhododendron Dr and Heceta Beach neighborhood	High	01
Т2	Intercity Service	Increase intercity service frequency, access to Eugene Airport and Southwest Oregon Regional Airport	Medium	01
Т3	Marketing	Improve marketing for intercity service, specifically for Link Lane service to Eugene and to Yachats	High	\$50
T4	Transit Center	Establish a transit center at the Grocery Outlet bus stop on 21st St, add bathroom facilities to transit center, formally establish a park-and-ride with	Medium	\$500

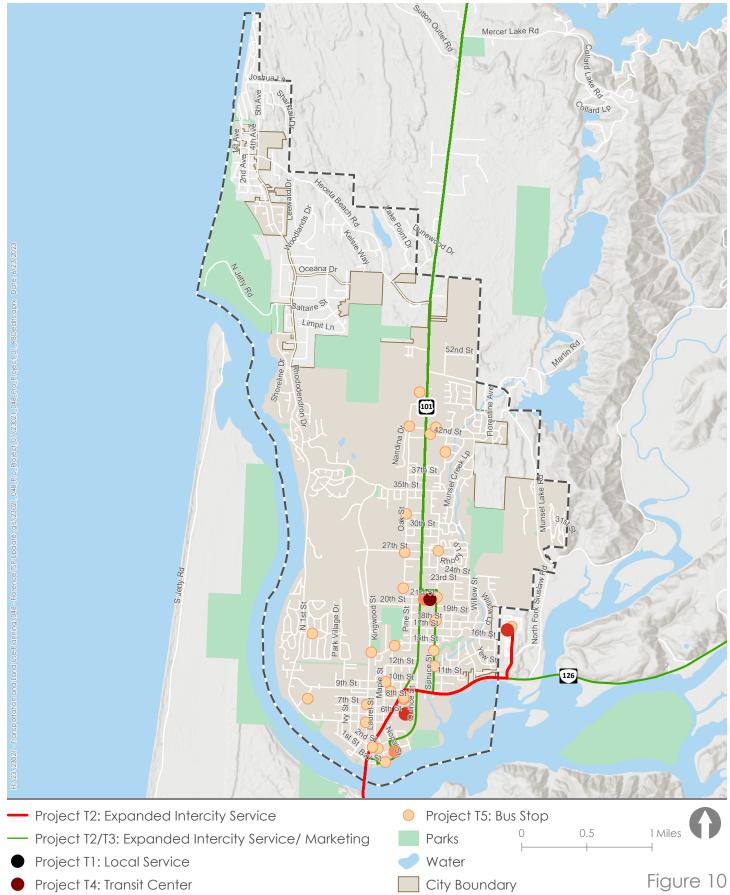
		Grocery Outlet, add transit shelters and/or benches to existing stop locations		
T5	Bus Stops	Add shelters and/or benches to existing bus stops and build bus stops that are accessible	High	\$250
Т6	Park and Rides	Establish park-and-rides at Three Rivers Casino and Florence Events Center	Medium	\$100
<b>T7</b>	Mobility Hubs	Establish mobility hubs at Grocery Outlet (primary location), Port of Siuslaw parking lot (secondary location), and Florence Events Center (secondary location)	Medium	\$250
		Total High F	Priority Cost	\$300
		Total Medium F	Priority Cost	\$850
		Total Low F	Priority Cost	\$0
			Total Cost	\$1,150

<sup>1.</sup> Project will be funded by others or in conjunction with others.

## **PUBLIC TRANSPORTATION SYSTEM POLICIES**

The transit system policies are provided below:

The City will work with Rhody Express, Link lane, and Coos County Transit to ensure adequate access to local transit stops.



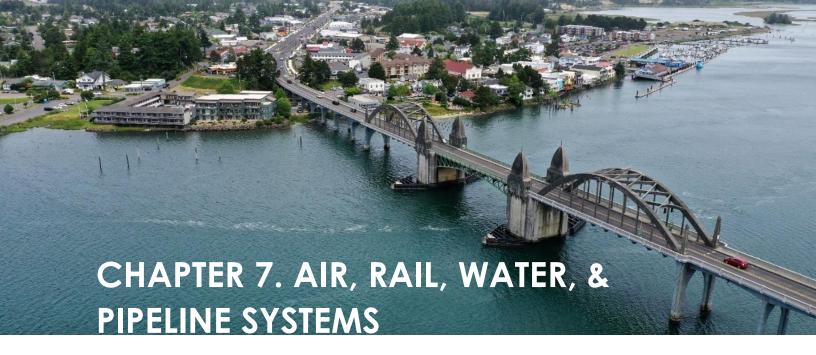
Project T6: Park-and-Ride

Project T7: Mobility Hub



Liver Growth Boundary

**Public Transportation Plan Projects** Florence, Oregon



## Air System

The Florence Municipal Airport is the lone aviation facility in the city. The airport has a single, 3,000-foot paved and lighted runway and is open 24 hours a day, 7 days a week. The airport is home to 25 aircraft – 21 single engine planes, two helicopters, one multi-engine plane, and one jet plane – and there are an average of 134 aircraft operations per week.

According to the Oregon Aviation Plan, the Florence Municipal Airport is classified as a Local General Aviation Airport (Category IV). According to the plan, these airports "support primarily single-engine general aviation aircraft, but they are capable of accommodating smaller twinengine general aviation aircraft. These airports support local air transportation needs and special-use aviation activities."

## **AIR SYSTEM PLAN**

The airport completed the Airport Master Plan Update in February 2010 to better understand existing facilities and activities, determine future airport needs, and create a capital improvement program to meet these future needs. Table 10 describes these projects and whether they have been completed.

Table 10. Florence Municipal Airport Master Plan Update Project List

Project	Description	Complete?
Runway and Taxiway Extension (Phase 1)	Construct the 400-foot north runway extension with a 200-foot displaced threshold for obstruction clearance.	No
Runway and Taxiway Extension (Phase 2)	Eliminate the 200-foot displaced threshold for Runway 15 by removing approximately 87,100 cubic yards of material from the sand dune.	No
Runway and Taxiway Extension (Phase 3)	Remove approximately 116,200 cubic yards of additional material from the sand dune.	No
Non-precision Instrument Approach	The development of an instrument approach is recommended for Runway 15/33.	No
Terminal Apron Reconfiguration & Expansion	The main apron will be reconfigured and expanded southward to increase current aircraft parking capacity, improve aircraft circulation within the apron, and meet FAA design standards.	Yes

Project	Description	Complete?
North Landside Development Area	The preferred alternative includes space reserved for development of additional conventional hangars, Thangars and aircraft apron. As currently planned, the north landside area provides storage capacity for approximately 60 additional aircraft.	No
Parallel Taxiway Lighting	The parallel taxiway will be equipped with blue edge lighting or reflective edge markers.	Yes

## **AIR SYSTEM POLICIES**

No projects were developed for the air system. However, projects identified in other sections of the TSP could improve access to air facilities inside and outside the city. In addition to these projects, air system policies are provided below.

- » Collaborate with the Florence Municipal Airport and the Oregon Department of Aviation to ensure that future roadway connections (such as an extension of Pacific View Drive) do not impact future runway expansion.
- Noordinate with the Oregon Department of Aviation on proposed changes to land use, zoning, or transportation within the vicinity of the airport to maintain Federal Aviation Regulation (FAR) Part 77 airspace services depicted in the Airport Master Plan Update.
- Work with neighboring residential uses to minimize issues of noise and vibration if/when night operations become a reality at the airport.

## **Rail System**

There are no rail facilities within Florence. The closest rail facility is the Coos Bay Rail Line (CBRL), which spans 134 miles from Coquille to Eugene and crosses the Siuslaw River approximately 2.5 miles east of Florence. The rail line provides connections to the North American Rail Network for manufacturing operations in Coos, Douglas, and Lane Counties, and for marine terminals in the Coos Bay harbor.

The closest passenger rail service is provided by Amtrak, with stations in Eugene and Springfield. Amtrak operates the Cascades (Vancouver, BC to Eugene) and Coast Starlight (Seattle to Los Angeles), though some scheduled trips are partial segments of the entire route. Amtrak also operates Cascades POINT bus service between Portland and Eugene.

## **RAIL SYSTEM POLICIES**

No projects were developed for the rail system. However, projects identified in other sections of the TSP could improve access to rail facilities outside the city. In addition to these projects, rail system policies are provided below.

The City will work with Link Lane on providing service or adjusting existing service to better coordinate with Amtrak and Cascade POINT at the stations in Eugene and Springfield.

## **Water System**

The Siuslaw River is a navigable waterway that connects Florence to the Pacific Ocean and other inland communities. For 16.5 miles, the Siuslaw River is an officially designated federal waterway and is maintained as a navigation project by the US Army Corps of Engineers with local sponsorship by the Port of Siuslaw. The remainder of the approximately 720 square mile

Siuslaw river drainage basin falls within the district boundary of the Port of Siuslaw. Approximately five miles of the lower Siuslaw River system flows through the City of Florence.

The US 101 Siuslaw River Bridge crosses the river at River Mile (RM) 4.5. This drawbridge structure can be opened to accommodate waterborne commerce, primarily fishing boats. The CBRL crosses the river on the Cushman swing bridge at RM 8.2. OR 126 crosses the Siuslaw River in Mapleton at RM 20.7. The Mapleton Bridge and shallow water upstream effectively limit waterborne commerce at that point.

The US Coast Guard Station Siuslaw and coast Guard Auxiliary Flotilla provide motor lifeboat service and safety patrols on the Siuslaw River and coastal waters. Station Siuslaw is located at RM 1.5 in Florence. US Coast Guard Air Operations utilize the Florence Municipal Airport to support training and air/sea rescue operations.

The US Army Corp of Engineers maintains the federal waterway project on the Siuslaw River. Two rock jetties protect the mouth of the river. The authorized navigation waterway consists of an 18' deep x 300' wide entrance channel, a 16' deep x 200' wide channel to the Florence Turning Basin at RM 5.0, and a 12' x 150' wide channel extending upriver to RM 16.5. At RM 15.8, the channel widens into a turning basin 12' deep x 300' wide. The project was first authorized in 1910 with several later modifications. Annual maintenance dredging is performed on the lower reaches of the river with smaller amounts of dredging taking place upriver at less regular intervals. The Port of Siuslaw sponsors the federal water project on the Siuslaw River and maintains the only authorized upriver dredged material disposal site.

## PORT OF SIUSLAW STRATEGIC BUSINESS PLAN

The Port's *Strategic Business Plan*, adopted in June 2013, outlined a five-year capital plan for marine, commercial fishing, and recreation activities. Large items are detailed below:

#### Bulkhead Repair

The Port constructed a bulkhead to protect the Harbor Street parking lot (located in the southeast corner of the Harbor Street/1st Street intersection), as well as riverfront campground sites. The plan notes that this is a vital facility for the Port, but because it does not generate any revenue, it poses a challenge to pay for repairs and replacement. For the Port, a safe and functional bulkhead is essential to the smooth operations. Total project costs at the time were estimated to be \$1.5 million, and no funding had been secured at the time that the plan was released.

## Replace Debris and Shear Booms at Marina

At the time that the plan was released, the Port was using recovered logs as debris booms during the winter season to protect the marinas from floating debris. The installation and removal of these logs is a challenge and navigating around these logs are a challenge for boaters. The Port had researched light weight options as a more effective debris booms and was seeking \$600,000 to replace their existing debris booms.

## Assessing Feasibility of Decommissioning Mapleton Facility

As of 2013, the Port owned a 140' transient vessel dock with 12 space parking lot in Mapleton. No portion of this facility was generating revenue for the Port. The Port is planning to study the decommissioning of the Mapleton facility or to transfer ownership of the facility to another entity.

## Investigate Feasibility of Enhancing Commercial Fishing Opportunities

As of 2013, the Port was struggling to maintain commercial fishing operations. There were 10 active commercial boats catching albacore tuna and Dungeness crab, and projections at the time expected commercial fishing growth to remain flat. The Port sought to develop a

sustainable business model to help grow the local commercial fishing industry and drive up market prices.

## Complete Siuslaw Estuary Trail

The City of Florence and the Port of Siuslaw have long sought to improve public access to the Siuslaw River. A proposed multi-use path would connect downtown Florence to the Three Rivers Casino, utilizing the Port's waterfront recreational areas (see Project MU2). The path would begin at the Siuslaw Interpretive Center, head east through downtown, across the Port riverfront, connect with the Munsel Creek path at OR 126 and terminate at the Three Rivers Casino. In 2013, the path's total estimated cost was \$678,000, which included an estimated cost of \$94,000 along Port property.

Since 2013, cost estimates for this trail have exceeded \$1,000,000. The city received a Recreational Trails Program grant from the Oregon Parks and Recreation Department for constructing Phase 1 of this project, from OR 126 at Redwood Street to Quince Street between Harbor Street and 6<sup>th</sup> Street.

## **WATER SYSTEM POLICIES**

No projects were developed for the water system. However, projects identified in other sections of the TSP could improve access to the Siuslaw River as well as the Pacific Ocean. In addition to these projects, water system policies are provided below.

- >> The City will work with Port of Siuslaw on implementing the planned improvements identified in their *Strategic Business Plan*.
- The City will continue to support and promote improvements to the local and regional transportation system to ensure adequate access to the Siuslaw River and pacific Ocean for residents and visitors.
- The City will also promote recreational use of the Siuslaw River and investigate the feasibility of river transportation in the future.

# **Pipeline System**

Florence has no major regional pipeline facilities within the UGB.

## **PIPELINE SYSTEM POLICIES**

While there are no pipeline projects included in the TSP, the City will continue to support and promote improvements to the local and regional pipeline system to ensure adequate facilities and services for residents.

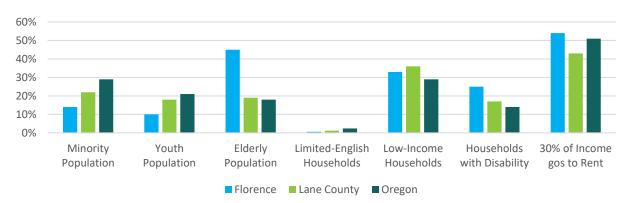


# **Equity Plan**

The needs of Title VI and Environmental Justice (EJ) populations were considered throughout the development of the Florence TSP. Title VI and EJ populations were identified early in the project to ensure the transportation planning and project development process was more inclusive of diverse communities. The information gathered through this effort was valuable in identifying the transportation needs that will provide the most benefits to identified populations. Seven population groups were considered for transportation impact susceptibility, representing those who may rely more heavily on public infrastructure or transit for access to day-to-day needs and jobs. They include minorities (non-white populations), youth (populations under 17), elderly (populations over 64), limited-English proficiency households, low-income households, households where people are living with disabilities, and households that pay more than 30 percent of their income in rent.

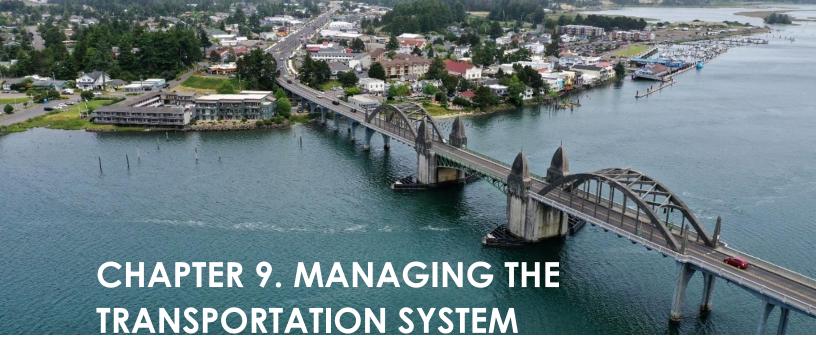
Information on each of these groups was obtained from the American Community Survey and evaluated at the State, County, and local level. The results indicate that Florence has a higher percentage of elderly populations, households with disabilities, and households that pay more than 30% of their income than the State and County; Florence also has a higher percentage of low-income households than the State, and only slightly fewer than the County. The remaining population groups, youth, minorities, and limited-English households are at a lower percentage than the State and County. Chart 1 summarizes the Title VI and EJ population data.

Chart 1: Title VI and EJ Population Summary



With a few notable exceptions, these groups are distributed relatively evenly throughout the city. The areas with the highest concentration of minorities are located south of 35<sup>th</sup> Street and between Kingwood Street and US 101, and south of 9<sup>th</sup> Street between Rhododendron Drive and US 101. The areas with the highest concentration of elderly are located south of Munsel Lake Road and east of US 101, between 35<sup>th</sup> Street and 9<sup>th</sup> Street and west of Kingwood Street. Additional information on the make-up and location of these groups is available in *Tech Memo #3A in the Volume II*: Technical Appendix.

The needs of these groups are reflected in the goals and objectives used to guide development of the TSP and in the evaluation criteria used to develop the preferred and cost constrained plans. Many of the projects included in the TSP will enhance access and circulation within Florence for people walking, biking, and taking transit. Of the projects included in the cost constrained plan, most are pedestrian, bicycle, or transit projects while the remaining have elements that will enhance each of these modes. In addition, many of the policies included in the modal chapters of the plan are intended to ensure the transportation system will continue to develop in a way to further enhance transportation options for local residents, especially those that are dependent on non-motorized travel.



# **Managing the Transportation System**

Transportation System Management (TSM) and Transportation Demand Management (TDM) are two complementary approaches to managing and maximizing the efficiency of the transportation system. The section presents plans and policies for TSM and TDM as well as plans and policies for neighborhood traffic management and parking management.

## TRANSPORTATION SYSTEM MANAGEMENT

Transportation System Management (TSM) focuses on low-cost strategies that can be implemented within the existing transportation infrastructure to enhance operational performance. Finding ways to better manage the transportation system while maximizing urban mobility and treating all modes of travel as a coordinated system is a priority. TSM strategies include traffic signal timing and phasing optimization, traffic signal coordination, and intelligent transportation systems (ITS). Traffic signal modifications and ITS applications typically provide the most significant tangible benefits to the traveling public. The primary focus of TSM measures are region-wide improvements, however there are a number of TSM measures that can be applied in Florence, including: traffic signal timing and phasing optimization at signalized intersections, real-time traveler information on US 101 and OR 126, and real-time transit information at local transit stops, on-line, and via smartphone applications. Several of these measures are included in other elements of the TSP.

## TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a term used to describe policies and strategies that remove single occupancy vehicle trips from the roadway during peak time periods. As population and employment increase in the city, the number of trips will also increase. The ability to change travel behavior and provide alternative modes will help accommodate the growth in trips without the need for significant investments in new infrastructure. A major focus of TDM is on major employers; however, there are many things the City can do to support TDM implementation, including providing sidewalks and bike lanes that allow people to travel safely and efficiently on foot or by bike; providing local transit facilities and services that allow people to travel by bus, and establishing development patterns that encourage non-auto-oriented travel. Several of these strategies are included in other elements of the TSP.

#### TDM Strategies

There are several strategies that may be effective for managing demand in Florence. Table 11 summarizes the strategies that best meet the goals and objectives of the TSP. As with all new public and private investments, the implementation of TDM strategies is sure to draw opposition from some. Given Florence's limited experience with TDM, it is important that decision-makers understand their long-term costs and benefits and can evaluate these along-side arguments from opponents in achieving outcomes that best reflect the City's vision and goals while effectively reducing travel demand.

Table 11. Potential TDM Strategies

Strategy	Description		
Bicycle Improvements	Improved design and maintenance of shared streets, bike lanes, and paths		
Bicycle Parking	Improved bicycle parking, storage, and changing facilities		
Bike/Transit Integration	Improved bicycle access and storage at transit stops and stations, and the ability to carry bikes on transit vehicles		
Pedestrian Improvements	Improved design and maintenance of sidewalks, crosswalks, paths, and amenities		
Bike/Walk Encouragement	Promotion campaigns, events, educational programs, guides and user info		
Transit Improvements	Improve transit facilities and service (stop amenities, hours, frequency, coverage)		
Shuttle Service	Shuttle buses, demand response and other special mobility services		
Ridesharing	Carpool/vanpool programs and services		
Wayfinding	Provide wayfinding improvements and other multimodal navigation tools		
Streetscape Improvements	Redesign roadways to support multimodal transportation and create more attractive and accessible communities		
Connectivity Improvements	Improved roadway and pathway connectivity		
Traffic Calming	Roadway design features intended to reduce traffic speeds and volume		
Vehicle Use Restrictions	Limit vehicle traffic at a particular time or place		
<b>Parking Management</b>	Various management strategies that result in more efficient use of parking		
Park-and-ride	Park-and-rides can support ridesharing and public transit use		
Downtown Centers	Creating vibrant downtowns mixed-use activity centers		

### **TDM Policies**

While there are no TDM projects in the TSP, they are an important part of the City's ongoing effort to improve the efficiency of the transportation system. The following policies will help guide the City in future planning and development efforts.

- >> Learn about TDM and the role it can play in achieving local planning objectives.
- » Encourage and require local businesses to implement TDM solutions.
- » Work to build partnerships with community organizations to support TDM implementation.
- )) Help create TDM programs to provide local TDM services.
- )) Improve non-motorized transportation facilities, public transit services, and other transportation services.
- » Support carshare, ridesharing, bikeshare, e-scooters, and other micromobility services.
- » Apply more comprehensive transportation planning, including multimodal level of service indicators when evaluating transportation improvements.

)) Implement TDM strategies, such as commute trip reductions programs for employees, and special transportation management when sponsoring events that attract crowds.

TDM strategies help achieve many of the City's goals, including reduced traffic congestion, reduced parking demand, improved mobility for non-drivers, improved community livability, improved public fitness and health, and others.

#### **NEIGHBORHOOD TRAFFIC MANAGEMENT**

Neighborhood Traffic Management (NTM) is a term used to describe traffic control devices that reduce travel speeds and traffic volumes in residential neighborhoods. NTM is also commonly referred to as traffic calming because of its ability to calm traffic. NTM strategies have been implemented in locations throughout the city; however, there are many areas where additional NTM could be considered. Table 12 lists several common NTM options that are typically supported by emergency response as long as minimum street criteria are met.

Table 12. Neighborhood Traffic Management (NTM) Options by Functional Classification

		Roadway Classifications	
Measure	Arterial	Collector	Local
Curb Extension	Supported	Supported	NTM measures are
Raised Median Island	Supported	Supported	generally supported on
Pavement Texture	Supported	Supported	lesser response routes that
Sign	Supported	Supported	have connectivity (more
Lane Width	Supported	Supported	than two accesses)
Diverter	Not Supported	Supported	
Speed Hump	Not Supported	Not Supported	
Raised Crosswalk	Not Supported	Not Supported	
Speed Cushion	Not Supported	Not Supported	
Choker	Not Supported	Not Supported	
Traffic Circle	Not Supported	Not Supported	
Meandering Alignments	Not Supported	Not Supported	

Note: NTM measures are supported with the qualification that they meet emergency response guidelines including minimum street width, emergency vehicle turning radius, and accessibility/connectivity.

As shown in Table 12, several NTM solutions are limited to local streets; on arterial or collector streets, implementation of these NTM solutions can be counterproductive and lead to cut through traffic on local streets. NTM solutions on arterial and collector streets can also cause conflicts for emergency response as well as freight and public transit.

#### NTM Policies

While there are no NTM projects in the TSP, they are an important part of the City's ongoing effort to improve safety and livability. The following policies will help guide the City in future planning and development efforts.

- The City will consider implementation of NTM strategies along with other strategies in addressing traffic safety and livability in the City.
- The City will coordinate with emergency service providers to ensure implementation of NTP strategies will not compromise public safety.

## PARKING MANAGEMENT

The City, in coordination with ODOT, completed a parking study in June 2021. The study includes an inventory and assessment of parking conditions in the greater historic downtown area, including the commercial, mixed-use, and special event areas located immediately north of the downtown straddling both sides of US 101. The study provides an inventory of the current parking supply and an assessment of the current parking demand on a typical weekday and weekend day during the peak summer months.

Key findings from the parking study include:

- Of the 933 on-street parking stalls within the study area, 805 parking stalls have no time restrictions. The remaining stalls consist of 10-minute (5), 30-minute (3), and 3-hour (120) stalls. All stalls are provided free of charge.
- Within the study area, overall on-street peak occupancy rates are 30.4% at 1:00 PM on the weekday and 33.8% at 1:00 PM on the weekend day. Occupancy rates in the 3-hour stalls (located within Old Town) are significantly higher than the overall rates: 90.6% at 2:00 PM on the weekday and 95.3% at 1:00 PM on the weekend day.
- Within the study area, overall off-street peak occupancy rates are 33.9% at 2:00 PM on the weekday and 34.9% at 1:00 PM on the weekend day. Occupancy rates in the offstreet stalls that support restaurant uses are significantly higher than the overall rates: 97.3% at 12:00 PM on the weekday and 97.1% at 6:00 PM on the weekend day.

Conclusions from the parking study include:

- Though the entire parking system is far from constrained, the on- and off-street systems near Bay Street are highly utilized. However, on-street and off-street parking is generally available nearby (within a couple blocks).
- )) Basic parking management strategies can help redirect demand into areas with surplus parking, while freeing up more centrally located stalls for higher turnover users.

Additional information on the study, including the study itself, is available in Tech Memo 3B: Existing Conditions Analysis in the Volume II: Technical Appendix.

#### Parking Management Strategies

The parking management strategies developed for Florence are shown in Table 13. These strategies are focused on improving user information, enhancing parking management, enhancing enforcement, and increasing the parking supply. Most of these strategies are applicable to Old Town; however, the City could implement similar strategies in other areas throughout the city to better manage parking demand while also improving access and circulation for all travel modes. The priorities shown in Table 13 are based on the project evaluation criteria as well as input from the project team; the priorities will be updated based on input from the advisory committee and the community

Table 13. Parking Management Strategies

Map ID	Location	Description	Priority	Cost (\$1,000)
PM1	US 101, OR 126, and Quince St	Install wayfinding signs that direct motorists to off- street public parking facilities in Old Town	High	\$50
PM2	Old Town	Develop neighborhood parking maps and how to park resources in coordination with local	Medium	\$50

	destinations and post them online and in prominent locations		
Old Town	Create a parking ambassador position to provide information and guidance on parking in Old Town	Medium	01
Old Town Area A	Stripe on-street parking stalls on both sides of all streets in Old Town Area A	High	\$50
Old Town Area A	Install signage on both sides of all streets in Old Town Area A to indicate time limitations (3-hours), hours of enforcement (8:00 AM to 5:00 PM), and directional arrows indicating the stalls where restrictions apply	High	\$50
Old Town Area B	Stripe on-street parking stalls on both sides of all streets in Old Town Area B	Medium	\$50
Old Town	Implement and manage and area parking permit program for residents and employees of local businesses Old Town	Low	01
Old Town/ City Wide	Implement regular parking enforcement of on- street parking regulations in Old Town and other areas as applicable	Low	01
Old Town/ Citywide	Establish remote parking areas that are served by transit to relocate parking demand to the fringe area of the community	Low	01
Old Town/ Citywide	Establish public-private partnerships to open access to existing private parking facilities or construct new parking (for instance, through cofinancing) to serve both site-specific users and the public	Low	01
	Total High P	riority Cost	\$150
	Total Medium P	riority Cost	\$100
	Total Low P	riority Cost	\$0
		Total Cost	\$250
	Old Town Area A  Old Town Area A  Old Town Area B  Old Town Old Town/ City Wide  Old Town/ Citywide  Old Town/ Citywide	Old Town Old Town Old Town Old Town Old Town Area A  Old Town Area B  Old Town Citywide  Old Town/ Citywide  Total High P  Total High P	Old Town Old Town Old Town Old Town Old Town Old Town Stripe on-street parking stalls on both sides of all streets in Old Town Area A Install signage on both sides of all streets in Old Town Area A to indicate time limitations (3-hours), hours of enforcement (8:00 AM to 5:00 PM), and directional arrows indicating the stalls where restrictions apply Old Town Area B Implement and manage and area parking permit program for residents and employees of local businesses Old Town Old Town/City Wide Old Town/Citywide Old Town/Citywide  Establish remote parking areas that are served by transit to relocate parking demand to the fringe area of the community Establish public-private parking facilities or construct new parking (for instance, through cofinancing) to serve both site-specific users and the public  Total High Priority Cost Total Low Priority Cost

<sup>1.</sup> Project will be self-funded, funded by others, or in conjunction with others.

## Parking Management Policies

The parking management policies are summarized below:

- The City will establish a parking collaborative in Old Town to align the City's interest with local businesses and associations.
- The City will require good neighbor agreements between local businesses and associations to indicate how parking needs will be met and issues will be addressed.
- >> The City will conduct outreach to educate and inform the public about changes to parking policies and strategies in Old Town and provide information on travel options.
- The City will coordinate with community destinations to improve safety and security in Old Town (e.g., neighborhood watch, community policing, special police patrols, improved lighting, pedestrian escorts, monitoring of facilities).
- 3) The City will continue to monitor, measure, and evaluate the performance of the parking system and adjust policies and strategies to increase efficiency.
  - )) Implement/recalibrate restrictions (e.g., time limits/users).
  - )) Establish parking zones (e.g., loading zones, pick-up/drop-off zones).
  - » Reconfigure parking facilities to identify additional space for parking.

## **ACCESS MANAGEMENT**

The term "access management" is commonly used to describe the practice of managing the number, placement, and movements of intersections and driveways that provide access to adjacent land uses. Access management policies can be an important tool to improve transportation system efficiency by limiting the number of opportunities for turning movements on to or off of certain streets. In addition, well deployed access management strategies can help manage travel demand by improving travel conditions for pedestrian and bicycles – eliminating the number of access points on roadways allows for continuous sidewalk and bicycle facilities and reduces the number of potential interruptions and conflict points between pedestrians, bicyclists, and cars.

Access management can be extremely difficult to implement once properties have been developed along a corridor. Cooperation among and involvement of relevant government agencies, business owners, land developers and the public is necessary to establish an access management plan that benefits all roadway users and businesses.

## City Access Spacing Standards

The City's access spacing standards are determined by functional classification and provide spacing between intersections, between intersections and driveways, and between driveways. Table 14 summarizes City's access spacing standards.

Table 14. City Access Spacing Standards

Functional Classification	Minimum Spacing Between Intersections (ft)	Minimum Spacing between Intersections and Driveways (ft)	Minimum Spacing between Driveways (ft)
Alley	N/A	15	N/A
Local Street	125	25	25
Collector Street	250	30	125
Arterial Street	250	50	125

#### **ODOT Access Spacing Standards**

Oregon Administrative Rule (OAR) 734, Division 51 establishes procedures, standards, and approval criteria used by ODOT to govern highway approach permitting and access management consistent with Oregon Revised Statutes (ORS), Oregon Administrative Rules (OAR), statewide planning goals, acknowledged comprehensive plans, and the OHP. The OHP serves as the policy basis for implementing Division 51 and guides the administration of access management rules, including mitigation and public investment, when required, to ensure highway safety and operations pursuant to this division.

Access spacing standards for approaches to state highways are based on highway classification and differ depending on posted speed and average annual daily traffic (AADT). Within Florence, US 101 and OR 126 are classified as statewide highways with speeds that range from 30 to 55 mph, and all AADTs are above 5,000 vehicles. Table 15 summarizes ODOT's current access spacing standards for US 101 and OR 126.

Table 15. ODOT Access Spacing Standards

	Access Management Spacing Standards for Statewide Highways with Annual Average Daily Traffic >5,000		
Posted Speed	Rural Areas	Urban Areas	
55 or higher	1,320	1,320	
50	1,100	1,100	
40 & 45	990	800	
30 & 35	770	500	
25 & lower	550	350	

#### Access Management Policies

The access management policies are provided below.

- » Defer to ODOT access spacing standards and policies on ODOT facilities.
- )) Ensure all new developments meet access spacing standards.
- Nonsolidate non-conforming access points as part of redevelopment to move in the direction of access spacing standards.
- Establish access variance policies for parcels whose highway/street frontage, topography, or location would otherwise preclude conforming access spacing.

A comprehensive list of potential access spacing variance policies and an approach for access consolidation are provided in *Tech Memo 5: Alternatives Analysis in the Volume II: Technical Appendix*.

#### **EMERGING TECHNOLOGY**

Transportation technologies are rapidly evolving, and cities are evaluating what steps they can take to be prepared. The challenge is that most emerging technologies are initiated by the private sector and can be difficult to predict. So how can cities use their money efficiently while also seeing the benefits of emerging technology?

## Emerging Technology Policies

The following summarizes a list of discrete steps (primarily planning and policy related) that the City can take to be prepared for the emergence of new transportation technologies.

- Create a Transportation Technology Liaison Role: This role should serve to carry out the listed tasks below.
- » Connect with cities in the surrounding area (Eugene), establish a service zone for any emerging technology coming to the area.
- Develop partnerships and programs with Lane Community College and the University of Oregon to attract students.
- » Review the development code and create avenues for flexible uses.
- )> Hold public outreach to determine which emerging technologies local residents are interested in.
- » Meet with ODOT, Lane County, and other relevant jurisdictions in the surrounding area and discuss emerging technologies.

- » Establish a primary and secondary mobility hub in the City.
- Onsider adding EV charging stations at key destinations (PeaceHealth Pease Harbor Medical Center, grocery stores, Three Rivers Casino Resort, and Old Town) and EV charging requirement to development code.
- » Invest in pick-up drop-off loops and adaptive reuse design for any parking structures/lots.
- » Allow multiple ride-hailing services and micromobility services (E-scooters, bike share, etc.) to be established in Florence.

Additional information on the plans and policies the City can implement to prepare for emerging technology is provided in Tech Memo 5: Alternatives Analysis in the Volume II: Technical Appendix.



## **Implementation Plan**

The TSP identifies the plans, policies, programs, and projects needed to address gaps, deficiencies, and needs within the city's transportation system over the next 20 years. The preferred plan consists of all projects identified throughout the TSP planning process while the cost constrained plan consists of projects the City anticipates being able to fund over the next 20 years<sup>4</sup>. The amount of local funds available for capital projects in the TSP is estimated to be approximately \$10 million or roughly \$0.50 million per year.

## **CURRENT FUNDING SOURCES**

Funding for transportation improvements in Florence is primarily generated by the state gas tax and several local sources, including system development charges (SDCs).

## State Gas Tax

State gas taxes are comprised of proceeds from excise taxes imposed by the state and federal government to generate revenue for transportation funding. The proceeds from these taxes are distributed to Oregon counties and cities in accordance with Oregon Revised Statute (ORS) 366.764, by county registered vehicle number, and ORS 366.805, by city population. The Oregon Constitution states that revenue from the state gas tax is to be used for the construction, reconstruction, improvement, maintenance, operation and use of public highways, roads, streets, and roadside rest areas.

## System Development Charges

SDCs are fees assessed on developments for impacts to the transportation system. All revenue is dedicated to transportation capital improvement projects designed to accommodate growth. The City can offer SDC credits to developers that provide public improvements beyond the required street frontage, including those that can be constructed by the private sector at a lower cost. For example, SDC credits might be given for providing off-site improvements, such as

<sup>&</sup>lt;sup>4</sup> The cost constrained plan does not limit the City or ODOT from advancing other projects in the TSP in response to changes in development patterns and funding opportunities that are not known at this time. There is no obligation to do these projects, nor assurance that these projects will be completed.

sidewalks and bike lanes that connect the site to nearby transit stops. Florence uses the revenue from SDCs on eligible projects that cannot be funded by other means.

## **Transportation System Cost Summary**

Table 16 summarizes the full cost of the preferred and cost constrained plans for the TSP Update. As shown, the full cost of the preferred plan is approximately \$87.3 million over the 20-year period, including \$36.2 million in high priority projects, \$27.9 million in medium priority projects, and \$23.2 million in low priority projects. Based on the anticipated funds available for capital improvements, the cost constrained plan includes the high priority projects. Although the projected funding based on current revenue sources does not cover the full cost of the high priority projects, the City plans to pursue additional funding to support the cost constrained plan.

Table 16: Transportation System Cost Summary

Project Type	High Priority (\$1,000)	Medium Priority (\$1,000)	Low Priority (\$1,000)	Total (\$1,000)
	Planne	d Transportation Systei	m	
Roadway	\$1,800	\$11,695	\$16,670	\$30,165
Safety	\$700	\$400	\$50	\$1,150
Pedestrian	\$21,850	\$9,665	\$3,830	\$35,345
Crossing	\$750	\$1,000	\$1,500	\$3,250
Multi-use Path	\$4,555	\$2,160	\$1,180	\$7,895
Bicycle	\$6,100	\$2,010	\$10	\$8,120
Transit	\$300	\$850	\$0	\$1,150
Parking	\$150	\$100	\$0	\$250
Total	\$36,205	\$27,880	\$23,240	\$87,325

Note: TDM = Transportation Demand Management

Given limited funding, the City will need to identify additional revenue sources to implement all transportation-related capital improvement projects identified in the financially constrained and the preferred plan over the next 20 years.

## **Potential Funding Sources**

The City will likely rely upon transportation improvements grants, partnerships with regional and state agencies, and other funding sources to help implement future transportation-related improvements. Table 17 summarizes the funding opportunities and identifies the intended use of the funds and any applicable project types.

Table 17: Potential Funding Sources

Funding Source	Description	Intended use
	Federal Sources	

<sup>&</sup>lt;sup>5</sup> The high priority projects include those that are most likely to be funded by the City over the 20-year planning horizon. The medium and low priority projects are aspirational and will be funded through grants and additional funding sources as they become available and/or by private developers as part of future development.

Infrastructure Investment and Jobs Act (IIJA)	The IIJA (aka "Bipartisan Infrastructure Law," BIL) signed into law in November 2021 includes a five-year (FY 2022-26) reauthorization of existing federal highway, transit, safety, and rail programs as well as new programs (resilience, carbon reduction, bridges, electric vehicle charging infrastructure, wildlife crossings, and reconnecting communities) and increased funding. Oregon will receive over \$4.5 billion over the next five years.	Projects around the state that will benefit drivers, transit riders, cyclists, and pedestrians, and that help maintain roads and bridges, and address climate change.
Surface Transportation Block Grant (STBG) Program	The STBG program provides flexible federal dollars that can be used for City projects to preserve and improve the conditions and performance of any Federal-aid highway, bridge, or tunnel on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. The City can either apply 100 percent of these funds toward projects that comply with federal regulations or exchange the funds with the state and apply 90 percent toward projects that do not have federal constraints.	Preserve and improve surface transportation investments from a flexible funding source
Transportation Alternatives (TA)	The BIL continues the TA set-aside from the STBG program. Eligible uses of the set-aside funds include all projects and activities that were eligible under the previously spending bill. This encompasses a variety of smaller-scale transportation projects.	Pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historic preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.
Highway Safety Improvement Program (HSIP)	The HSIP is a core Federal-aid program with the purpose to achieve a significant reduction in traffic fatalities and serious injuries on all public roads, including non-State-owned roads and roads on tribal land. The HSIP requires a data-driven, strategic approach to improving highway safety on all public roads with a focus on performance.	Project that reduce traffic fatalities and serious injuries on all public roads
Rebuilding American Infrastructure with Sustainability and Equity (RAISE)	The RAISE Discretionary Grant program invests in road, rail, transit, and port projects that promise to achieve national objectives. RAISE can provide capital funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, MPOs, or others in contrast to traditional Federal programs which provide funding to very specific groups of applicants (mostly State DOTs and transit agencies).	Road, rail, transit, and port projects aimed toward national objectives with significant local or regional impact.
National Highway Performance Program (NHPP)	The NHPP provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of Federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in a State's asset management plan for the NHS.	NHS roads and bridges (and non-NHS bridges so long as bridge condition provision requirements are satisfied).
	State Sources	
Statewide Transportation	STIP is the State of Oregon's four-year transportation capital improvement program. ODOT's system for distributing these funds has	Multi-modal projects on federal, state, and local facilities that meet the

Improvement Program (STIP)	varied over recent years. Generally, local agencies apply in advance for projects to be funded in each four-year cycle.	benefit categories of the STIP	
Transportation and Growth Management (TGM) Grants	TGM grants are planning grants administered by ODOT and awarded on an annual basis. They are generally awarded to projects that will lead to more livable, economically vital, transportation efficient, sustainable, and pedestrian-friendly communities. The grants are awarded in two categories: transportation system planning and integrated land use/transportation planning.	Transportation system plans and planning efforts that integrate land use and transportation.	
State Highway Trust Fund/Bicycle Bill	When roads are constructed or reconstructed, Oregon law requires walkways and bikeways to be provided. Additionally, all agencies receiving State Highway Funds are required to spend at least 1% of those funds on bicycle and/or pedestrian infrastructure improvements (ORS 366.514). Currently, cities and counties receive 20% and 30% of the state's highway trust funds, respectively, which can be used for walking and biking projects along roads.	Bicycle and pedestrian projects.	
Sidewalk Improvement Program (SWIP)	ODOT's SWIP builds pedestrian and bicycle facilities on state roads and local roads that help people moving across or around the state system.	Pedestrian and bicycle projects	
Safe Routes to School (SRTS)	SRTS, administered by ODOT, focuses on infrastructure and non-infrastructure programs to improve access and safety for children to walk, roll, and/or bike to school.	Pedestrian and bicycle projects that improve safety for children walking or biking to school	
All Roads Transportation Safety (ARTS)	The federal Highway Safety Improvement Program (HSIP) is administered as ARTS in Oregon. ARTS provides funding to infrastructure and non-infrastructure projects that improve safety on all public roads. ARTS requires a data-driven approach and prioritizes projects in demonstrated problem areas.	Projects that address hotspot and systemic safety issues and concerns (roadway departure, intersection safety, and bicycle and pedestrian safety)	
Oregon Parks and Recreation Local Grants	Oregon Parks and Recreation Department administers this program using Oregon Lottery revenues. These grants can fund acquisition, development, and major rehabilitation of public outdoor parks and recreation facilities. Local match is required.	Trails and other recreational facility development or rehabilitation.	
Oregon Community Paths (OCP) Program	This State of Oregon program combines funds from the Multimodal Active Transportation Fund, Oregon Bicycle Excise Tax, and federal Transportation Alternatives Program to help communities create and maintain connections with primarily off-street pedestrian and bicycle facilities.	Off-street pedestrian and bicycle facilities	
Local Sources			
Transportation Systems Development Charge (SDC)	SDCs are fees assessed to development for the capacity demand it creates on public infrastructure systems. SDCs may be an improvement fee, a reimbursement fee, or a combination thereof. Reimbursement fee revenues are dedicated to capital projects that increase capacity to meet the needs of growth. SDC credits are provided to developers for public improvements they construct which add capacity to the system beyond that required to serve their	SDCs may only be used for the portion of transportation improvements that generate additional capacity demand related to growth.	

	development. SDC credits may also be given for development provisions that reduce vehicular capacity demand on the transportation system, such as providing end-of-trip bike facilities within the new development.	
Tax Increment Financing (TIF)	TIF is a tool that cities may use to create special districts (tax increment areas) where public improvements are made to generate private-sector development. During a defined period, the City freezes the tax base at the pre-development level. Property taxes for that period can be waived or paid, but taxes derived from increases in assessed values (the tax increment) resulting from new development can go into a special fund created to retire bonds issued to originate the development or leverage future improvements. A number of small-to-medium sized communities in Oregon have implemented, or are considering implementing, urban renewal districts that will result in a TIF revenue stream.	System-wide transportation facilities including streets, sidewalks, bike lanes, and shared use paths, and transit.
Local Fuel Tax	A local tax can be assessed on the purchase of fuel within the City. This tax is added to the cost of fuel at the pump, along with the state and federal gas taxes. Several cities throughout Oregon have a local fuel tax, including the City of Reedsport, which applies the tax during the peak summer months (May – October).	System-wide transportation facilities including streets, sidewalks, bike lanes, and shared use paths.
Local Improvement Districts (LIDs)	LIDs pool funds from property owner to make local transportation improvements.	Transportation facilities including streets, sidewalks, bikeways, and transit located within the LID area.
Economic Improvement Districts (EIDs)	EIDs pool funds from area businesses to make improvements in the business district.	Transportation facilities including streets, sidewalks, bikeways, and transit located within the EID area.
Revenue and General Obligation Bonds	Bonding allows municipal and county government to finance construction projects by borrowing money and paying it back over time, with interest. Financing requires smaller regular payments over time compared to paying the full cost at once, but financing increases the total cost of the project by adding interest. General obligation bonds are often used to pay for construction of large capital improvements and must be approved by a public vote. These bonds add the cost of the improvement to property taxes over time.	Construction of major capital improvement projects within the city, street maintenance and incidental improvements.
Street Utility Fees / Road Maintenance Fees	A fee based on the number of automobile trips a particular land use generates; usually collected through a regular utility bill. Fees can also be tied to the annual registration of a vehicle to pay for improvements, expansion, and maintenance of the street system.	System-wide transportation facilities including streets, sidewalks, bike lanes, and shared use paths.

**Exhibit C** 

# **VOLUME I:**

# **Transportation System Plan**

# **Attachment 1: Prospectus Plans**

**JUNE 2023** 

Exhibit C

# US 101 REFINEMENT PLAN (R1)

## PROJECT PURPOSE: EVALUATE A POTENTIAL ROADWAY CONFIGURATION FROM 21ST STREET NORTH

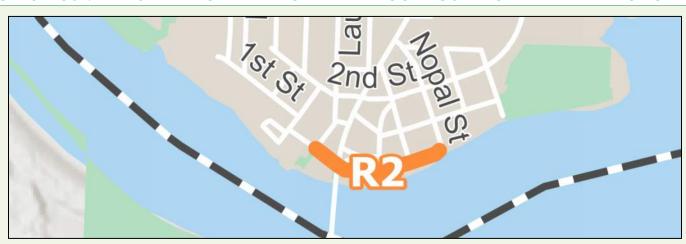
## **PROJECT INFORMATION**

#### US 101 is a state highway that runs north-south through the heart of Florence, from the Siuslaw River Bridge to the city's northern urban 52nd St growth boundary. US 101 is a statewide highway that connects all communities along the Oregon Coast, Florence sees significantly higher traffic volumes along US 101 during the summer months compared to the rest of the year, and US 101 is largely constructed to meet this peak demand. With a limited street grid and connected north-south **Description** roadways, US 101 also serves local vehicular, walking, and bicycle 101 traffic. There are limited to no sidewalks on US 101 north of 37th Street, and the 5- to 6-foot bike lanes have a high level of traffic stress next to a five-lane road. This study would examine future traffic growth on US Nandina Dr 101, especially in the summer months, and determine the most appropriate cross-section using a context-sensitive approach. • Functional Classification: Other • travel lanes, 14-foot northbound Urban Principal Arterial (FHWA), travel lane, 15-food center turn Major Arterial (City) lane; Fred Meyer Driveway to • OHP Classification: Statewide Munsel Lake Road: 3 lanes - 13-Highway foot travel lanes, 16-foot center turn lane • Posted Speed: 30-55 MPH Existing (2021) ADT: 15,027 • Pavement Width: 54-72 feet (south of 22<sup>nd</sup> St); 13,416 (south • Shoulders/Bike Lanes: 5-6 feet 30th St of 29th St); 11,946 (south of 36th • On-Street Parking: None Roadway St), 9,032 (south of Munsel Lake Curb and Gutter: Yes from 21st St **Characteristics** to 37th St ざっ27th St Rd) • Forecast (2045) ADT: 21,620 (at • Sidewalks: 6-foot from 21st St to Kingwood 37th St 27th St), 19,890 (at 35th St), 13.440 (at Munsel Lake Rd) Reported Crashes (2016-2020): 23rd St • Travel Lanes: 21st St to 37th St: 5 85 (3 severe injury crashes, 14 lanes - 12-foot travel lanes, 15moderate injury crashes, 28 foot center turn lane; 37th St to minor injury crashes, 40 property Fred Meyer Driveway: 4 lanes damage only crashes) 19th St 12-foot southbound • Study outcome will determine the most appropriate lane configuration for this section of US 101 with a contextsensitive approach that balances local livability needs with high-season tourism and thru-traffic. **Benefits** • Could result in robust biking and walking facilities for residents along the primary north-south roadway through town with access to businesses and services. Constraints • Funding, Community Support, High Season Traffic Volumes • \$150,000 (estimated in 2023 dollars) **Planning-Level** Assumes detailed review of the US 101 corridor, alternatives assessment/concept development, development **Cost Estimate** of a preferred alternative, and additional public involvement. Highway Safety Improvement Program (HSIP) • Statewide Transportation Improvement Program (STIP) **Potential Funding** Sources • Transportation and Growth Management (TGM) grants All Roads Transportation Safety (ARTS) Available traffic counts and ADT data has been impacted by COVID-19. New data should be collected to allow Additional for a comprehensive analysis. **Considerations**



# **BAY STREET STREETSCAPE PLAN (R2)**

## PROJECT PURPOSE: EVALUATE A POTENTIAL ROADWAY RECONFIGURATION IN THE HEART OF OLD TOWN



## **PROJECT INFORMATION**

Description	Bay Street is the commercial heart of Old Town in Florence spend time. During the peak summer months, this four-ble shopping, eating at restaurants), parked cars, and cars I way (42 feet from curb to curb) along the core commer evaluate alternatives that could better meet the city's like alternatives could include one-way eastbound vehicula the street to vehicles entirely, and changing on-street poptions). The overarching goal of this plan should be to a livability needs while exploring alternatives that deemph	ock section of roadway is filled with people (walking, ooking for a parking space. Given the narrow right-ofcial street in the city, this Bay Street Streetscape Plan will vability and multimodal transportation needs. Potential r traffic, one-way westbound vehicular traffic, closing arking rules on the street (among other potential create a street that meets the city's transportation and
	Functional Classification: Collector (Kingwood St to Maple St); Local (Maple St to Nopal St)     Posted Speed: Not posted, assumed to be 25 MPH.	On-Street Parking: 3-hour parking from 8:00AM to 5:00PM on both sides of the street      Curb and Gutter: Yes.

## Roadway Characteristics

- Posted Speed: Not posted, assumed to be 25 MPH
- Travel Lanes: Two 13-foot lanes
- Pavement Width: 42 feet
- Shoulders/Bike Lanes: None

- Curb and Gutter: Yes
- Sidewalks/Paths: 6-8 foot sidewalks
- Reported Crashes (2016-2020): Two crashes along Bay Street, including one pedestrian injury crash between Maple Street and Nopal Street

## Benefits

- Study outcome will determine the most appropriate use of pavement space on Florence's most popular commercial street.
- Potential to deemphasize vehicular movement, benefiting walking and biking modes, as well as providing additional public space for the community and businesses.

## Constraints

• Community Support, Loss of On-Street Parking

## Planning-Level Cost Estimate

- \$50,000 (estimated in 2023 dollars)
- Assumes detailed review of Bay Street, alternatives assessment/concept development, development of a preferred alternative, and additional public involvement.

# Potential Funding Sources

- Statewide Transportation Improvement Program (STIP)
- Transportation and Growth Management (TGM) grants
- Tax Increment Financing (TIF)

# Additional Considerations

Significant public involvement will be necessary to better understand the potential impacts (positive and negative) to businesses, residents, and visitors among different alternatives.



# US 101/MUNSEL LAKE ROAD (R17, S2)

## PROJECT PURPOSE: BUILD A TRAFFIC SIGNAL AND INSTALL ADDITIONAL SAFETY MEASURES



## **PROJECT INFORMATION**

## Description

The US 101/Munsel Lake Road intersection is a three-legged intersection with stop control for the Munsel Lake Road approach. Vehicles on Munsel Lake Road, a Lane County facility and minor arterial street, can experience long delays for left-turning vehicles. While the intersection operates acceptably under existing conditions, planned growth in the northeast portion of the city will add traffic volumes to both roads and exacerbate delay conditions. Additionally, there have been five reported crashes between 2016 and 2020, nearly all of which were turning movement crashes. The TSP recommends installing a traffic signal when signal warrants are met (R17) as well as advance intersection warning signs with flashing beacons and intersection lighting (S2). The warning signs, flashing beacons, and lighting will increase driveway awareness of the intersection as well as for people walking and biking across the highway.

## Roadway Characteristics

- Functional Classification: US 101 Other Urban
   Principal Arterial (FHWA), Major Arterial (City); Munsel
   Lake Rd Minor Arterial (City)
- OHP Classification: US 101 Statewide Highway
   Posted Speed: US 101 40 MPH: Munsel Lake Rd 3
- Posted Speed: US 101 40 MPH; Munsel Lake Rd 35 MPH
- Existing (2021) ADT: 13,250 at the intersection
- Forecast (2045) ADT: 21,540 at the intersection
- Travel Lanes: US 101 two 13-foot lanes with a 15foot center turn lane; Munsel Lake Rd – two 11-foot lanes
- Pavement Width: 54 feet on US 101, 24 feet on Munsel Lake Rd

- Shoulders/Bike Lanes: 6-foot shoulder/bike lanes on US 101, no shoulders/bike lanes on Munsel Lake Rd
- On-Street Parking: None
- Curb and Gutter: On the west side of US 101 south of Munsel Lake Rd, otherwise no curb or gutter
- Sidewalks: 6-foot sidewalk on the west side of US 101 south of Munsel Lake Rd, otherwise no sidewalks
- Reported Crashes (2016-2020): 5 1 minor injury crashes, 4 property damage only crashes; 4 turning movement crashes, 1 rear-end crash

## Benefits

- A traffic signal will help alleviate long delays for the westbound approach with future development.
- A traffic signal will provide pedestrian signal heads for pedestrians and allow bicycles to move through the intersection while conflicting movements are stopped.
- Additional intersection operations and safety treatments provide an opportunity for ODOT and Lane County to build walking and biking facilities on US 101 and Munsel Lake Road.

## Constraints

• Funding, ODOT Coordination

## Planning-Level Cost Estimate

- \$1,400,000 (estimated in 2023 dollars); \$1,250,000 (R17), \$150,000 (S2)
- Assumes design and construction of a traffic signal as well as advance intersection warning signs, flashing beacons, and intersection lighting

## Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

The US 101 Refinement Plan includes the US 101/Munsel Lake Road intersection. The outcome of the refinement plan could impact the intersection configuration.



# US 101/OR 126 (R21, S5)

## PROJECT PURPOSE: EXPAND QUEUING CAPACITY AND INSTALL ADDITIONAL TRAFFIC SAFETY MEASURES



## PROJECT INFORMATION

## Description

The US 101/OR 126-9th Street intersection is the busiest intersection in all of Florence, where two state highways and a city Minor Arterial roadway meet. While the current and future operations analysis shows the intersection operating acceptably, there are some queues that are projected to exceed the available storage for the eastbound left-turn and southbound left-turn movements. Restriping these two approaches to maximize the available storage capacity will help the intersection operate more efficiently and help reduce queuing conflicts between left-turning and through vehicles on the same intersection approach. Additionally, this intersection has 15 reported crashes between 2016 and 2020, including one fatal crash involving a bicycle. Increasing the visibility of the traffic signal heads –larger bulbs, reflective back plates – will increase the visibility of the intersection. For southbound and westbound vehicles, this intersection is located along a horizontal curve, and creating more awareness of the upcoming traffic signal should increase safety.

## Roadway Characteristics

- Functional Classification: US 101/OR 126 Other Urban Principal Arterial (FHWA), Major Arterial (City)
- OHP Classification: US 101 Statewide Highway; OR 126 – Statewide Highway
- Posted Speed: US 101 30 MPH; OR 126 35 MPH; 9<sup>th</sup> Street – 25 MPH
- Existing (2021) ADT: 23,560 at the intersection
- Forecast (2045) ADT: 27,650 at the intersection
- Travel Lanes: US 101 four 12-foot lanes with a 14foot center turn lane; OR 126 – four 12-foot lanes; 9<sup>th</sup> Street – two 11-foot lanes
- Pavement Width: 72 feet on US 101, 60 feet on OR 126, and 32 feet on 9<sup>th</sup> Street
- Shoulders/Bike Lanes: 6-foot shoulder bike lanes on US 101, 6-foot shoulder bikes lanes on OR 126, and 5-foot shoulder bike lanes on 9<sup>th</sup> Street (the bike lanes on 9<sup>th</sup> Street end when the road adds a westbound left-turn lane at the intersection.
- On-Street Parking: None
- Curb and Gutter: Yes
- Sidewalks: 5-6 foot sidewalks US 101 and 9<sup>th</sup> St, 6-foot sidewalks on OR 126
- Reported Crashes (2016-2020): 15, including 1 fatal, 1 severe injury, 2 moderate injury crashes, 11 property damage only. The fatal crash involved a motor vehicle striking a bicyclist on March 17, 2020.

## Benefits

- Additional storage space for left-turning vehicles will increase intersection throughput while reducing potential conflicts between vehicles on approach that are making different turning movements.
- Given that the intersection is located on a curve for the southbound and eastbound approaches, increased visibility of an upcoming traffic signal should provide safety benefits.

#### Constraints

• Funding, ODOT Coordination, Shortened Bike Lanes on 9th Street, Traffic Considerations for Street Grid

## Planning-Level Cost Estimate

- \$100,000 (estimated in 2023 dollars); \$50,000 (R21), \$50,000 (S5)
- Assumes installation of the striping enhancements as well as replacement of the traffic signal heads.

# Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

The southbound approach to the intersection is on an ODOT roadway, while the eastbound approach to the intersection is on a city roadway. There will need to be considerable coordination between the city and ODOT before this project moves into design and construction.



# OR 126 AT QUINCE STREET (R22, S7)

## PROJECT PURPOSE: IMPLEMENT TURNING MOVEMENT RESTRICTIONS AND INTERSECTION LIGHTING



## **PROJECT INFORMATION**

## Description

The OR 126/Quince Street intersection is unique for the City of Florence. It is located approximately 400 feet east of the US 101/OR 126-9th Street intersection, a major intersection between two ODOT highways, and queues on OR 126 from this intersection can spill back to Quince Street and impact the minor street turning movements. Quince Street provides access to downtown, Bay Street, the Florence Events Center, and Safeway. Additionally, there is a considerable crash history at the intersection, with a fatal crash involving a motorcycle in September 2022. Adding turning restrictions (right-in, right-out, with the possibility of southbound left-in) and street lighting will reduce the most common crash types at this intersection and prevent queue spillback from impacting vehicles on the minor street approach.

## Roadway Characteristics

- Functional Classification: Other Urban Principal Arterial (FHWA), Major Arterial (City)
- OHP Classification: Statewide Highway; Freight Route
- Posted Speed: 35 MPH (OR 126), 25 MPH (Quince St)
- Existing (2021) ADT: 8,667 (on OR 126 west of Spruce St)
- Forecast (2045) ADT: 13,100 at intersection, 11,230 on OR 126
- Travel Lanes: Four 12-foot lanes (OR 126), two 20-foot lanes (Quince St)
- Pavement Width: 60-80 feet (OR 126), 40 feet (Quince St)

- Shoulders/Bike Lanes: 5-foot bike lanes (OR 126), sharrows (Quince St)
- On-Street Parking: Allowed on Quince St
- Curb and Gutter: Yes (both roads)
- Sidewalks/Paths: 6-8 foot sidewalks on OR 126, 5-7 foot sidewalks on Quince St
- Reported Crashes (2016-2020): 11 (5 angle, 4 turning movement, 1 rear-end; 1 severe injury, 4 minor injury, 6 property damage only). Additionally, there was a fatal crash at the intersection in September 2022 involving an RV and a motorcycle.

## Benefits

- Reduce conflicts between vehicles on Quince Street turning onto OR 126 and potential queue spillback from the US 101/OR 126-9<sup>th</sup> Street intersection to the west.
- Reduce the likelihood of angle and turning movement crashes, the two most common crash types from the 2016-2020 crash data.

## Constraints

• Funding, Community Support, Access Management, Coordination with the Mobility Advisory Committee

## Planning-Level Cost Estimate

- \$250,000 (estimated in 2023 dollars); \$150,000 (R22), \$100,000 (S7)
- Assumes design and construction of a raised median island or other geometric features to limit turn
  movements at the intersection. Also assumes installation of intersection lighting.

# Potential Funding Sources

- Highway Safety Improvement Program (HSIP)
- Surface Transportation Block Grant (STBG) Program
- Statewide Transportation Improvement Program (STIP)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

This project has been identified by the City of Florence for an ODOT facility. Ultimately, the City will not be responsible for delivering the project. There is also the long-term potential to reconfigure the intersection/modify the traffic control to improve coordination with the US 101/OR 126-9th Street intersection as well as access to Quince Street (Project R23).



# 9<sup>TH</sup> STREET/KINGWOOD STREET (R25, S10)

## PROJECT PURPOSE: ADD STOP SIGNS AND SAFETY TREATMENTS



## **PROJECT INFORMATION**

## Description

The 9<sup>th</sup> Street/Kingwood Street intersection provides an important off-highway street connection to much of Florence. 9<sup>th</sup> Street connects Rhododendron Drive with US 101, and Kingwood Street connects 35<sup>th</sup> Street and the airport with Old Town. The intersection is currently a two-way stop control intersection, with stop signs on the northbound and southbound approaches. The crash history at this intersection consists entirely of angle crashes, suggesting that vehicles on 9<sup>th</sup> Street and on Kingwood Street are colliding at this intersection. Adding stop signs to the 9<sup>th</sup> Street approaches and making this intersection an all-way stop control intersection should help reduce angle crashes. Adding safety treatments such as advance intersection warning signs and intersection lighting should help reduce crashes, as well.

## Roadway Characteristics

- Functional Classification: 9<sup>th</sup> Street Minor Arterial (City), Kingwood Street – Collector (City)
- Posted Speed: 9<sup>th</sup> Street 25 MPH; Kingwood Street 25 MPH
- Existing (2021) ADT: 5,440 at the intersection
- Forecast (2045) ADT: 6,830 at the intersection
- Travel Lanes: 9<sup>th</sup> Street two 11-foot lanes east of the intersection and two 14-foot lanes west of the intersection; Kingwood Street – two 20-foot lanes
- Pavement Width: 9<sup>th</sup> Street 32 feet east of the intersection, 40 feet west of the intersection; Kingwood Street – 40 feet
- Shoulders/Bike Lanes: 6-8 foot shoulder bike lanes on 9<sup>th</sup> Street, shared lane pavement markings on Kingwood Street
- On-Street Parking: None on 9<sup>th</sup> Street, allowed on both sides of Kingwood Street
- Curb and Gutter: Yes on both streets
- Sidewalks: 5-foot sidewalks on 9<sup>th</sup> Street, 5-foot sidewalks on Kingwood Street except for where there is missing sidewalk on the southwest corner
- Reported Crashes (2016-2020): 5, including 1 minor injury crash. All five crashes were angle crashes.

## **Benefits**

- All-way stop control will slow down traffic on 9th Street and should reduce angle crashes at the intersection.
- All-way stop control will allow for easier crossing conditions for people walking and biking.

## Constraints

Funding

## Planning-Level Cost Estimate

- \$150,000 (estimated in 2023 dollars); \$50,000 (R25), \$100,000 (\$10)
- Assumes design and construction of the all-way stop control as well as installation of advance intersection warning signs and intersection lighting.

## Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Statewide Transportation Improvement Program (STIP)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

As funding and community support allows, a longer-term project at this intersection would be to install a miniroundabout (Project R26). This treatment can efficiently move vehicles through the intersection while slowing speeds and reducing crash rates.



# 35TH STREET/OAK STREET (R29)

## PROJECT PURPOSE: ADD ALL-WAY STOP CONTROL TO ADDRESS TRAFFIC AND SAFETY NEEDS



## **PROJECT INFORMATION**

## Description

The 35<sup>th</sup> Street/Oak Street intersection is a two-way stop control intersection with free movements for vehicles on 35<sup>th</sup> Street. There is a crosswalk across 35<sup>th</sup> Street on the west side of the intersection, providing access to the schools to the south on Oak Street. The project team received input from the community on traffic conditions at the intersection, indicating that it can be backed-up and difficult to get through during school drop-off and pick-up times. The community also indicated that there are safety concerns for people walking and biking on Oak Street and needing to cross 35<sup>th</sup> Street. The project team considered reconfiguring the intersection to all-way stop control to slow vehicle speeds on 35<sup>th</sup> Street as well as make it easier for people to cross the intersection on foot or bike, an important safety priority for the schools; however, the project team also considered the possibility of installing enhanced crossing treatments at the existing crosswalk.

## Roadway Characteristics

- Functional Classification: Oak Street Collector; 35<sup>th</sup> Street – Minor Arterial
- Posted Speed: 25 MPH on both Oak Street and 35<sup>th</sup> Street
- Travel Lanes: Two lanes on both Oak Street and 35<sup>th</sup>
- Pavement Width: 38-40 feet on Oak Street, 34 feet on 35<sup>th</sup> Street
- Shoulders/Bike Lanes: 6-foot shoulder bike lanes on both Oak Street and 35<sup>th</sup> Street
- On-Street Parking: None
- Curb and Gutter: Present on both streets
- Sidewalks: 5-foot sidewalk on north side of 35<sup>th</sup>
   Street, 6-foot sidewalks on both the west side of Oak
   Street and the south side of 35<sup>th</sup> Street, missing
   sidewalks on multiple legs of both streets
- Reported Crashes (2016-2020): 2 angle crashes, both were property damage only

## **Benefits**

- Slows down traffic at a major intersection for school drop-off and pick-up.
- Allows for safer walking and biking crossing conditions across 35th Street, especially for school children.
- Will likely reduce the prevalence of angle crashes at the intersection.

#### Constraints

• Funding, Traffic Analysis

### Planning-Level Cost Estimate

- \$50,000 (estimated in 2023 dollars)
- Assumes further review of intersection operations as well as design and construction of the all-way stop control
  OR enhanced crossing treatments

# Potential Funding Sources

- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

The  $35^{th}$  Street/Oak Street intersection is 600 feet west of the  $35^{th}$  Street/US 101 signalized intersection. The city should perform a queuing analysis to ensure that westbound queues at  $35^{th}$  Street/Oak Street will not impact the  $35^{th}$  Street/US 101 intersection (or the  $35^{th}$  Street/Pine Street intersection as well as the homes on the south side of  $35^{th}$  Street that have access onto  $35^{th}$  Street), and similarly that eastbound queues at  $35^{th}$  Street/US 101 would not impact  $35^{th}$  Street/Oak Street.



# OR 126: US 101 TO N FORK ROAD (P2)

## PROJECT PURPOSE: CREATE SAFE WALKING AND BIKING CONNECTIONS ALONG OR 126



## PROJECT INFORMATION

OR 126 is an ODOT Statewide highway that runs from Florence to Eugene, and then continues eastward toward McKenzie Bridge and Santiam Pass in the Cascade Mountains. The highway serves regional and statewide trips, but it is also an important connection to the residential areas east of US 101 and to the Three Rivers Casino just outside of the city. Providing a complete walking network between US 101 and N Fork Road will provide car-free connections to these city neighborhoods and to the casino.

## Description

This project has two elements: first, the sidewalks that end at Spruce Street will be extended to Tamarack Street, and second, a multi-use path will run alongside OR 126 between Tamarack Street and N Fork Street. While final design work will determine the best location for a multi-use path, the TSP assumes that the path will be on the north side of OR 126 to better connect with these two destinations and where there is space for a path with the Siuslaw River immediately to the south. This connection will create a safe and accessible way for people to move between these destinations without needing to drive.

## Roadway Characteristics

- Functional Classification: OR 126 Other Urban Principal Arterial (FHWA), Major Arterial (City)
- OHP Classification: OR 126 Statewide Highway
- Posted Speed: 35 55 MPH
- Existing (2021) ADT: 7,970 at US 101, 7,100 at N Fork Rd
- Forecast (2045) ADT: 10,000 at US 101, 8,540 at N Fork
- Travel Lanes: Four 12-foot lanes from US 101 to Quince St, two 12-foot lanes and one 15-foot center turn lane from Quince St to Spruce St, and two 12foot lanes from Spruce St to N Fork Rd
- Pavement Width: 64 feet from US 101 to Quince St, 48-80 feet from Quince St to Spruce St, and 38-56 feet from Spruce St to N Fork Rd.
- Shoulders/Bike Lanes: 6-foot shoulder bike lanes
- On-Street Parking: None
- Curb and Gutter: On both sides of the street between US 101 and Tamarack St, no curb or gutter east of Tamarack St
- Sidewalks: 6-foot sidewalk on both sides of OR 126 between US 101 and Spruce St
- Reported Crashes (2016-2020): Unknown outside of city UGB

## Benefits

- Provides a safe and comfortable pedestrian experience along a state highway that is currently a high-stress environment for people walking.
- Reduce vehicle trips on OR 126, which will have downstream impacts at other intersections such as US 101/OR 126 and OR 126/Quince Street

#### Constraints

• Funding, ODOT Coordination, Right-of-Way, Environmental Challenges, Tribal Coordination

## Planning-Level Cost Estimate

- \$1,605,000 (estimated in 2023 dollars)
- Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, embankment/fill, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)

# Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- State Highway Trust Fund/Bicycle Bill
- All Roads Transportation Safety (ARTS)

# Additional Considerations

OR 126 is a Reduction Review Route, meaning that any project cannot impact the "hole in the air" for freight movement. Also, there is no pedestrian walkway between OR 126 and Three Rivers Casino. The Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians will need to provide this pedestrian connection.



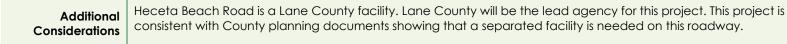
# HECETA BEACH ROAD WALKING AND BIKING (P3, B8)

PROJECT PURPOSE: ESTABLISH A SEPARATE PATH FOR PEOPLE WALKING AND BIKING ON BUSY ROAD



## PRO IECT INFORMATION

<b>PROJECT INFORM</b>	MATION		
Description	This project will constitue a monitore paint of the ceta beach koad to create safe places for people to walk and		
	bike. The Oregon Coast Bike Route has identified Rhodo route to US 101 through Florence and constructing a mu will provide the necessary comfort to allow all types of p		
Roadway Characteristics	<ul> <li>Functional Classification: Minor Arterial (City)</li> <li>Posted Speed: 40 MPH</li> <li>Existing (2021) ADT: 3,140 at US 101, 2,470 at Rhododendron Drive</li> <li>Forecast (2045) ADT: 5,290 at US 101, 7,420 at Rhododendron Drive</li> <li>Travel Lanes: Two 11-foot travel lanes</li> <li>Pavement Width: 28 feet</li> <li>Shoulders/Bike Lanes: Negligible shoulder along entire length of Heceta Beach Road</li> <li>On-Street Parking: None</li> <li>Curb and Gutter: None</li> <li>Sidewalks: None</li> <li>Reported Crashes (2016-2020): 6, located around Rhododendron Dr (2 severe injury, 3 minor injury, and 1 property damage only)</li> </ul>		
Benefits	<ul> <li>Creates a comfortable walking and biking facility on a 40 MPH roadway and reduces the level of traffic stress to allow for people of all ages and abilities to use the facility.</li> <li>Completes an alternate route for the Oregon Coast Bike Route away from US 101 in Florence.</li> <li>Provides additional capacity to move people in non-motorized modes in the event of an emergency</li> </ul>		
Constraints	Funding, Lane County Coordination, Right-of-Way		
Planning-Level Cost Estimate	<ul> <li>\$3,665,000 (estimated in 2023 dollars); \$2,750,000 (P3), \$915,000 (B8)</li> <li>Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)</li> </ul>		
Potential Funding Sources	<ul> <li>Surface Transportation Block Grant (STBG) program</li> <li>Highway Safety Improvement Program (HSIP)</li> <li>Statewide Transportation Improvement Program (STIP)</li> <li>State Highway Trust Fund/Bicycle Bill</li> </ul>		



• All Roads Transportation Safety (ARTS)



# MUNSEL LAKE ROAD WALKING AND BIKING (P4, P5, P6, B9, B10, B11)

PROJECT PURPOSE: ESTABLISH A SEPARATE PATH FOR PEOPLE WALKING AND BIKING ON BUSY ROAD

## **PROJECT INFORMATION**

Munsel Lake Road, a Minor Arterial roadway that is maintained by Lane County, provides an important connection on the east side of US 101. The sand dunes, Ocean Dunes Golf Course, and the Three Rivers Casino, limit connectivity on the east side of Florence. Munsel Lake Road provides connections to housing, parks and recreation facilities, jobs, and other major roads such as N Fork Road and to OR 126 via N Fork Road. The street now has no sidewalks or bike lanes, and shoulders vary between 1 to 5 feet on either side – not enough for consistent shoulder bike lanes.

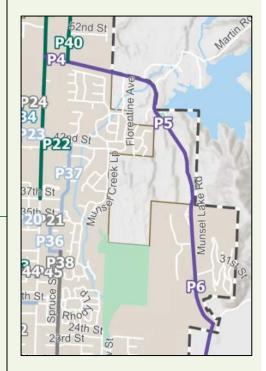
## Description

This project can be thought of in two stages. The first stage, from US 101 to Spruce Street, is focused on future development and providing sidewalks, bike lanes, and a multi-use path for this short stretch of road to connect future development with US 101. The second stage, from Spruce Street to N Fork Road, is more rural in nature, and the recommended treatment – a multi-use path with shoulder bike lanes – reflects this context.

## Roadway Characteristics

- Functional Classification: Minor Arterial (City)
- Posted Speed: 35 MPH (US 101 to Ocean Dunes Drive), 25 MPH (Ocean Dunes Drive to N Fork Road)
- Existing (2021) ADT: 1,880 at US 101
- Forecast (2045) ADT: 7,850 at US 101
- Travel Lanes: two 11-foot lanes
- Pavement Width: 24-34 feet

- Shoulders/Bike Lanes: 1-5 foot shoulders, no shoulder bike
  lanes
- On-Street Parking: None
- Curb and Gutter: None
- Sidewalks: None
- Reported Crashes (2016-2020):
   7, all located around the US
   101 intersection (1 moderate injury crash, 2 minor injury crashes, and 4 property damage only crashes)



## **Benefits**

- Creates a comfortable walking and biking environment on a 35 MPH roadway (between US 101 and Ocean Dunes Drive) and reduces the level of traffic stress to allow for people of all ages and abilities to use the facility.
- Allows for private development to fund improvements between US 101 and Spruce Street.

#### Constraints

• Funding, Lane County Coordination, Right-of-Way

## Planning-Level Cost Estimate

- \$4,290,000 (estimated in 2023 dollars); \$450,000 (P4), \$2,125,000 (P5), \$705,000 (P6), \$65,000 (B9), \$710,000 (B10), \$235,000 (B11)
- Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)

## Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- State Highway Trust Fund/Bicycle Bill
- All Roads Transportation Safety (ARTS)

# Additional Considerations

Munsel Lake Road is a Lane County facility. Lane County will be the lead agency for this project. This project is consistent with County planning documents showing that a separated facility is needed on this roadway.



# RHODODENDRON DRIVE WALKING AND BIKING (P11, P12, P13, B16, B17, B18)

PROJECT PURPOSE: ESTABLISH A SEPARATE PATH FOR PEOPLE WALKING AND BIKING ON BUSY ROAD

## **PROJECT INFORMATION**

#### Rhododendron Drive, a Minor Arterial roadway maintained by the City of Florence, is a parallel route to US 101 that extends from Heceta Beach Road to US 101. The street serves housing developments on the west side, as well as North Jetty Beach and the Driftwood Shores Resort. There are 6-foot bike lanes between 9th Street and Wild Winds Street, but there is no walking or biking infrastructure north of Wild Winds Street on Rhododendron Drive. Description This project will construct a multi-use path on Rhododendron Drive to create safe places for people to walk and bike. The Oregon Coast Bike Route identified Rhododendron Drive and Heceta Beach Road as an alternate route to US 101 through Florence, and constructing a multi-use path on Limpit Ln Rhododendron Drive will allow all types of people to walk and bike. • Functional Classification: Minor • Shoulders/Bike Lanes: 9th St to Wild Arterial (City) Winds St: 6-foot shoulder bike lanes; • Posted Speed: 30 MPH (9<sup>th</sup> St to Wild Winds St to Heceta Beach Rd: north of Wild Winds St), 40 MPH 1-2 foot shoulders (north of Wild Winds St to Heceta • On-Street Parking: None • Curb and Gutter: None Beach Rd) Existing (2021) ADT: 2,140 at 9<sup>th</sup> St, • Sidewalks: None 2,800 at 35<sup>th</sup> St, 1,110 at Heceta • Reported Crashes (2016-2020): 26 Roadway Beach Rd between 9th St and Heceta Beach **Characteristics** Forecast (2045) ADT: 2,710 at 9<sup>th</sup> St. Rd (1 fatal crash, 3 severe injury 4,650 at 35th St, and 3,280 at Heceta crashes, 7 moderate injury crashes, 6 minor crashes, and 9 property Beach Rd • Travel Lanes: Two 11-12 foot lanes damage only crashes). The fatal Pavement Width: 34 feet from 9<sup>th</sup> St crash was a single car "non-collision to Wild Winds St, 24-28 feet from crash" (i.e., rollover) that occurred Wild Winds St to Heceta Beach Rd on 9/27/2020 just north of New Hope Lane. Creates a comfortable walking and biking facility on a 40 MPH roadway and reduces the level of traffic stress to allow for people of all ages and abilities to use the facility. **Benefits** • Completes an alternate route for the Oregon Coast Bike Route away from US 101 in Florence. Adds capacity to move people in non-motorized modes in the event of an emergency Constraints • Funding, Right-of-Way • \$8,085,000 (estimated in 2023 dollars); \$1,040,000 (P11), \$1,295,000 (P12), \$3,730,000 (P13), \$345,000 (B11), \$430,000 (B12), \$1,245,000 (B13) Planning-Level Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, new **Cost Estimate** pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency) Surface Transportation Block Grant (STBG) program **Potential Fundina** Statewide Transportation Improvement Program (STIP) • State Highway Trust Fund/Bicycle Bill Sources All Roads Transportation Safety (ARTS)

This project is consistent with City plans showing that a separated facility is needed on this roadway.

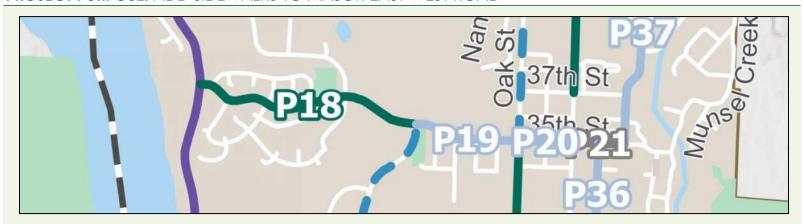


Additional

**Considerations** 

# 35<sup>TH</sup> STREET: RHODODENDRON DRIVE TO US 101 (P18, P19, P20)

## PROJECT PURPOSE: ADD SIDEWALKS TO MAJOR EAST-WEST ROAD



## **PROJECT INFORMATION**

## Description

35th Street is a Collector roadway that provides one of the few connecting streets between US 101 and Rhododendron Drive. The street also provides an important connection to the local elementary, middle, and high schools south on Oak Street. While the street has continuous bike lanes, there are no sidewalks between Rhododendron Drive and Kingwood Street, and the sidewalk on the south side of the street is incomplete between Kingwood Street and US 101.

This project will upgrade 35<sup>th</sup> Street to a Minor Arterial roadway with full sidewalks. Given that Florence is a coastal community, it is important to provide access for all travel modes on a major evacuation route, as well as provide local walking access to residences, schools, shopping, etc.

## Roadway Characteristics

- Functional Classification: Minor Arterial
- Posted Speed: 25 MPH
- Existing (2021) ADT: 3,150 at Rhododendron Drive, 3,940 at Kingwood Street, 3,500 at US 101
- Forecast (2045) ADT: 5,440 at Rhododendron Drive, 6,500 at Kingwood Street, 6,540 at US 101
- Travel Lanes: Two 12-foot lanes
- Pavement Width: 32-46 feet
- Shoulders/Bike Lanes: 6-foot bike lanes
- On-Street Parking: None

- Curb and Gutter: Yes (both sides)
- Sidewalks: No sidewalks between Rhododendron Dr and Myrtle Lp, partial sidewalks on south side of road between Myrtle Lp and US 101
- Reported Crashes (2016-2020): 18 crashes (12 at the US 101/35<sup>th</sup> Street intersection; 0 fatal or severe injury crashes; 6 angle, 5 turning movement, 3 rear-end, 3 fixed object, and 1 sideswipe crashes)

## **Benefits**

- Provides a complete sidewalk network that serves local trips and emergency evacuation purposes.
- Reduces vehicular trips through intersections where future capacity may be a concern (e.g., Kingwood St).
- Serves a variety of local amenities, including all public schools in Florence.
- Meets several goals and objectives in the TSP.

#### Constraints

• Funding, Right-of-Way Constraints for Functional Classification Upgrade, Community Support

## Planning-Level Cost Estimate

- \$1,865,000 (estimated in 2023 dollars); \$1,105,000 (P18), \$505,000 (P19), \$255,000 (P20)
- Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, embankment/fill, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)

## Potential Funding Sources

- Surface Transportation Blog Grant (STBG) Program
- Statewide Transportation Improvement Program (STIP)
- Sidewalk Improvement Program (SWIP)
- Safe Routes to School (SRTS)

# Additional Considerations

Very few homes take direct access off of 35<sup>th</sup> Street, but the few that do could be impacted by the functional classification upgrade from Collector to Minor Arterial.



# OAK STREET WALKING AND BIKING (P33, B36)

PROJECT PURPOSE: IMPROVE WALKING AND BIKING CONDITIONS ON MAJOR SCHOOL ROUTE

## **PROJECT INFORMATION**

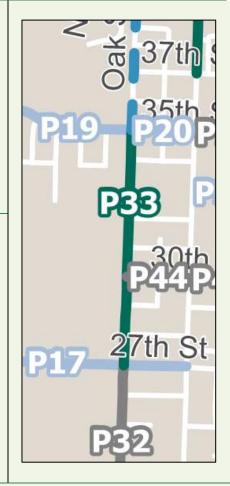
**Description** 

Oak Street, a parallel road to US 101, connects to Siuslaw Elementary School, Siuslaw Middle School, Siuslaw High School, Lane Community College Florence, and Miller Park. There are lots of students of various ages either traveling to or from school on this road or traveling to or from parks. For the daily users of this street, however, there is a considerable sidewalk gap on the east side of Oak Street between 27th Street and 35th Street, and there are missing bike lanes on Oak Street in front of Siuslaw Elementary School, which would provide dedicated space for the youngest school children along this road.

This project will fill in the sidewalk gap on the east side of Oak Street and add bike lanes on the southern portion of the road, creating safer connections for all roadway users and consistency with the existing infrastructure already on the street.

- Functional Classification: Collector (City)
- Posted Speed: 20 MPH (20<sup>th</sup> Street to 32<sup>nd</sup> Street), 25 MPH (32<sup>nd</sup> Street to 35<sup>th</sup> Street)
- Existing (2021) ADT: Unknown
- Forecast (2045) ADT: Unknown
- Travel Lanes: Two 17-foot lanes from 20<sup>th</sup> Street to Middle School Driveway, 12-foot lanes from Middle School Driveway to 35<sup>th</sup> Street
- Pavement Width: 34-36 feet
- Shoulders/Bike Lanes: No bike lanes south of Middle School Driveway; 6-foot bike lanes north of Middle School Driveway

- On-Street Parking: Allowed on both sides from 20<sup>th</sup> Street to Middle School Driveway, no onstreet parking north of Middle School Driveway
- Curb and Gutter: Present on both sides of the street
- Sidewalks: 6-foot sidewalk on both sides of the street (except for where there are sidewalk gaps)
- Reported Crashes (2016-2020): 5 between 20<sup>th</sup> Street and 35<sup>th</sup> Street (2 minor injury crashes and 3 property damage only crashes), including a pedestrian minor injury crash at Oak Street and 21<sup>st</sup> Street



#### **Benefits**

Roadway

Characteristics

- Fill gaps in the walking and biking network for the youngest residents in the City of Florence.
- Provide access to parks and recreation facilities at Miller Park and at all schools.

#### Constraints

• Funding, School District Coordination

## Planning-Level Cost Estimate

- \$1,150,000 (estimated in 2023 dollars); \$950,000 (P33), \$200,000 (B36)
- Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, embankment/fill, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)

## Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Highway Safety Improvement Program (HSIP)
- Statewide Transportation Improvement Program (STIP)
- State Highway Trust Fund/Bicycle Bill
- Safe Routes to School (SRTS)
- All Roads Transportation Safety (ARTS)

# Additional Considerations

Adding bike lanes at the southern portion of Oak Street will necessitate the removal of on-street parking on both sides of the street.



# MUNSEL CREEK MULTI-USE PATH (MU1)

## PROJECT PURPOSE: EXTEND OFF-STREET PATH ON THE EAST SIDE OF FLORENCE

## PROJECT INFORMATION

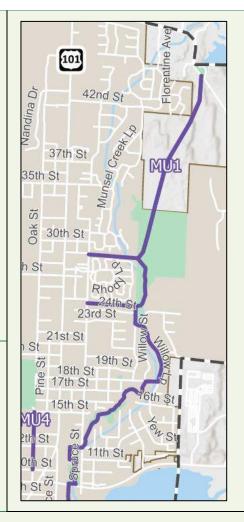
The Munsel Creek multi-use path is an off-street walking and biking trail that currently has two segments: W Park Drive to Spruce Street (at approximately 13<sup>th</sup> Street) and Spruce Street to Quince Street (at approximately 11<sup>th</sup> Street). There is also a low-stress, on-street connection running north from W Park Drive to the city's water treatment facility (shared lane pavement marking improvements for this on-street connection are included in project B49) where an unpaved path network continues to the north.

## **Description**

This project proposes extending the paved trail to the north and to the south. The northern portion would extend the path to Munsel Lake Road. The Munsel Lake Boat Launch and Lake Access Area on Munsel Lake Road is a logical destination. The path is proposed to extend from its termination point to City-owned overlook over the Florentine Estates wetland and then east across City land to the service road. The last section from the service road to Munsel Lake Road will require dedication and development of multi-use path right-of-way and/or easements. The southern portion of the trail should tie into Gallagher Park, cross OR 126, and tie into the Estuary Trail (project MU2). When complete, this trail connection will provide an off-street walking and biking path (with minimal on-street connections) along the east side of Florence, from Old Town to Munsel Lake Road.

## Path Characteristics

- Path Width: Varies by multi-use path segment
- Pavement Width: 32-34 feet
- Shoulders/Bike Lanes: None
- On-Street Parking: Allowed on all on-street connection roadways
- Curb and Gutter: Present on W Park Drive, 18th Street, 23rd Street, and Willow Street
- Sidewalks: 5-foot sidewalk on east side of Willow Loop, 6-food sidewalks on 23th Street (both sides) and on Willow Street (west side only)
- Reported Crashes (2016-2020): 0 crashes along on-street connection



#### **Benefits**

- Provide separate off-street multi-use path that runs the entire north-south length of the city.
- Create a multi-use path that will serve residents and tourists alike.
- Connect residential areas east of US 101 and north of OR 126 with a comfortable connection to Old Town.
- Improve access to natural areas inside city limits.

#### Constraints

Funding, Right-of-Way, Environmental and Wetland Concerns

## Planning-Level Cost Estimate

- \$3,180,000 (estimated in 2023 dollars)
- Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, new pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency)

## Potential Funding Sources

- Surface Transportation Block Grant (STBG) program
- Statewide Transportation Improvement Program (STIP)
- Oregon Parks and Recreation Local Grants
- Oregon Community Paths (OCP) Program

# Additional Considerations

This project was included in the 2012 Florence TSP. Some right-of-way acquisitions identified then may have changed over the past decade, and new right-of-way challenges may have arisen since then.



# **ESTUARY TRAIL (MU2)**

PROJECT PURPOSE: CREATE OFF-STREET WALKING AND BIKING CONNECTION INTO OLD TOWN

## **PROJECT INFORMATION**

While the Munsel Creek multi-use path provides a connection along Florence's east side, the Estuary Trail is vital to complete that connection into Old Town. Providing a safe passage across or under OR 126 before continuing across the wetlands at the mouth of Munsel Creek will bring people walking and biking into Old Town and the boardwalk along the Siuslaw River. This project will connect the boardwalk in Old Town to **Description** the south end of the Munsel Creek Path. This connection will require either an improved culvert passable by pedestrians and bicyclists under OR 126 or connection to a future at-grade crossing location (such as the rectangular rapid flashing beacon at OR 126 west of Redwood Street). It will also require a new path to be built between Quince Street and Munsel Creek, which could impact low-lying wetland areas where Munsel Creek flows into the Siuslaw River. Path • Boardwalk Width: 18 feet Characteristics Provide separate off-street multi-use path that contributes to a system of paths that run the entire north-south length of the city. Create a multi-use path that will serve residents and **Benefits** tourists alike. Connect residential areas to the east of US 101 and to the north of OR 126 with a comfortable walking and biking connection to Old Town. • Improve access to natural areas inside city limits. Constraints • Funding, Right-of-Way, Environmental and Wetland Concerns, Port of Siuslaw Coordination • \$1,375,000 (estimated in 2023 dollars) **Planning-Level** • Assumes architecture/engineering work and construction (including clearing and grubbing, excavation, new **Cost Estimate** pavement drainage and landscaping, mobilization, erosion control, traffic control, construction management, and a 25% contingency) • Surface Transportation Block Grant (STBG) program Statewide Transportation Improvement Program (STIP) Potential **Funding Sources** Oreaon Parks and Recreation Local Grants

## Additional Considerations

Potential development along the east side of Quince Street across from the Florence Events Center may impact the future location of the Estuary Trail. The city should work with any future developer at this site to preserve right-of-way or easements for this section of the Estuary Trail.



Oregon Community Paths (OCP) Program