TRANSPORTATION SYSTEM PLAN

City of Florence, Oregon

Florence Transportation System Plan

December 2012

KITTELSON & ASSOCIATES, INC.
TRANSPORTATION ENGINEERING/PLANNING

MOVINGFORWARDTHINKING

Transportation System Plan

Florence, Oregon

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ABBREVIATIONS

ADT	Average Daily Traffic
DOGAMI	Oregon Department of Geology and Mineral Industries
FAA	Federal Aviation Administration
FY	Fiscal Year
HCM	Highway Capacity Manual
HSM	Highway Safety Manual
ITE	Institute of Transportation Engineers
LCOG	Lane Council of Governments
LOS	Level of Service
MPH	Miles per Hour
ODOT	Oregon Department of Transportation
OHP	Oregon Highway Plan
PAC	Project Advisory Committee
PMT	Project Management Team
RRFB	Rectangular Rapid Flashing Beacon
SPIS	Safety Priority Index System
STA	Special Transportation Area
TPR	Transportation Planning Rule
TSP	Transportation System Plan
UBA	Urban Business Area
UGB	Urban Growth Boundary
V/C	Volume-to-Capacity Ratio

PREFACE

The progress of this plan was guided by the Project Management Team (PMT) and the Project Advisory Committee (PAC). The PMT and PAC members are identified below, along with members of the consultant team. The PAC members devoted a substantial amount of time and effort to the development of the Florence Transportation System Plan (TSP) Update, and their participation was instrumental in the development of this document. The Consultant Team and PMT believe that the City of Florence's future transportation system will be better because of their commitment.

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Section 1

Introduction

INTRODUCTION

The City of Florence, in conjunction with the Oregon Department of Transportation (ODOT), initiated an update of the urban area's Transportation System Plan (TSP) in 2010. This plan is intended to guide the management and implementation of the transportation facilities, policies, and programs, within the urban area over the next 25 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.

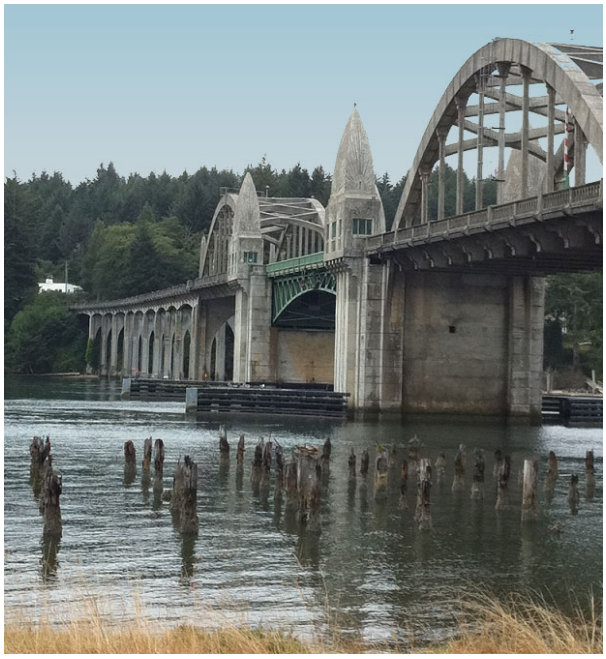

Photo: Chris Tiesler

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 transportation system plan incorporates 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 25 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.
- Gathering 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

The TSP update process provided City and County residents the opportunity to share their respective visions for the future of the transportation system. Comments were gathered at a public open house event held 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 primarily guided by a Project Advisory Committee (PAC). The PAC was comprised of a wide range of participants: local and state officials from key agencies including the City of Florence Community Development, Planning, and Public Works Departments, Lane County Transportation, Oregon Department of Transportation; DLCD, Siuslaw Valley Fire & Rescue, Lane Transit District, Siuslaw School District, City Code Enforcement; representatives from Peace Health and Pacific Bank; and members of the Florence City Council, Planning Commission, Transportation Advisory Committee, and citizens.

Members of the PAC reviewed the technical aspects of the TSP. They held eight joint meetings that focused on all aspects of the TSP development, including the evaluation of existing deficiencies and forecast needs; the selection of transportation options; the presentation of the draft TSP, and the review of ordinance amendments.

In addition to the established advisory committee, the draft plans were discussed with the City and County Planning Commissions, County Commissioners, and City Council at work sessions and at public hearings. A summary of the meetings and dates related to the public involvement process is provided below in Table 1-1.

Table 1-1 Plan Development and Adoption Public Involvement Summary

Meeting Event	Date/Location	Meeting Purpose/Objectives
Kick-Off Meeting	Wednesday, July 14, 2010 City of Florence	Provided an opportunity for project stakeholders to become familiar with the project scope, schedule and key deliverables. Discussed roles and responsibilities of committee members, goals, and next steps.
PAC Meeting #1	Thursday, August 26, 2010 City of Florence	Discussed Technical Memoranda #1 (Plan Assessment), #2 (Goals, Policies, and Performance Measures), and #3 (Funding for Roadway, Pedestrian, Bicycle, and Transit Improvements).
PAC Meeting #2	Thursday, December 16, 2010 City of Florence	Discussed the existing conditions portion of Technical Memorandum #4 (Existing Conditions, Deficiencies, and Future Needs). Reviewed results from the General Transit Survey & Rhody Express Ridership Survey developed by the City.
PAC Meeting #2A	Thursday, June 2, 2011 City of Florence	Discussed the future deficiencies and needs portion of Technical Memorandum #4 (Existing Conditions, Deficiencies, and Future Needs). Reviewed growth assumptions. Conducted a van tour of several study intersections and potential future project sites.
PAC Meeting #3	Thursday, July 14, 2011 City of Florence	Discussed Technical Memorandum #5 (Local Street System), which summarized local street system needs and deficiencies, outlined possible alternatives to address those needs and deficiencies, and described recommended improvement projects.

Meeting Event	Date/Location	Meeting Purpose/Objectives
PAC Meeting #4	Thursday, September 22, 2011 City of Florence	Discussed Technical Memoranda #6 (Pedestrian and Bicycle System) and #7 (Transit Plan). Discussed preliminary functional classification of roadways.
PAC Meeting #5	Thursday, November 10, 2011 City of Florence	Discussed Technical Memorandum #8 (Facilities Standards) which summarized recommended functional classifications of roadways in the City of Florence as well as facility standards for roadways, bicycle facilities, and pedestrian facilities.
PAC Meeting #5A	Thursday, December 8, 2011 City of Florence	Discussed Technical Memorandum #9 (Costs & Priorities) which summarized planning-level cost estimates for recommended improvements for the City of Florence TSP and prioritized a subset of high-priority projects.
PAC Meeting #5B	Thursday, January 12, 2012 City of Florence	Discussed Technical Memorandum #10 (Plan Policies and Development Code Amendments) which summarized recommended modifications to City Policies and Development Code.
Public Open House	Wednesday, February 1, 2012 City of Florence Events Center	Provided an opportunity for community members to hear review the projects included in the draft preferred plan and provide input. A general project update was also provided.
City Planning Commission Public Hearing	Tuesday, March 27, 2012 Tuesday, April 10, 2012	Reviewed initial Draft TSP with the Planning Commission and heard additional public testimony.
City Council Public Hearings	Monday July 18, 2012 Monday July 9, 2012 Monday July 23, 2012 Monday August 6, 2012 Monday August 20, 2012 Monday, September 10, 2012 Monday September 24, 2012	Reviewed initial Draft TSP with the City Council and heard additional public testimony.

Plan Area

This TSP covers publicly owned transportation facilities within the existing City of Florence 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 summarizes a review of existing and historic funding sources for transportation improvements, as well as forecast future funds.

Section 4 provides an overview of existing transportation conditions and future forecast deficiencies. Section 5, Section 6, Section 7, and Section 8 present the Local Street Plan, Pedestrian & Bicycle Plan, Transit Plan, and Rail, Pipeline, Air & Surface Water Plans, respectively. These sections discuss the future conditions (year 2035) analysis (where applicable), and any relative plan elements that have been included in the TSP.

Section 9 presents the Facilities Plan and functional classification of streets with detailed cross-sections for arterials, collectors, and local streets.

Section 10, Transportation Funding Plan, provides an analysis and summary of funding sources to finance the identified transportation system improvements as well as a subset of high-priority projects recognizing the limited capital funds and funding sources available.

Finally, Section 11, Plan Policies and Development Code Amendments, presents the adoption ordinances required for the adopting agencies to formally adopt the TSP, including specific changes in local zoning policies to implement the TSP and to achieve compliance with the Oregon TPR (OAR 660 Division 12).

Sections 1 through 11, in combination with Appendices A through E, 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, alternatives analysis, and the sub-area plans 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.

Section 2

Goals, Policies, and Performance Measures

GOALS, POLICIES, AND PERFORMANCE MEASURES

One of the objectives of this update is to ensure that the City's TSP reflects and is consistent with local and state transportation policies and standards, and that it is coordinated with the transportation plans of Lane County and ODOT. To meet these objectives, a review and evaluation of existing plans, policies, standards, and laws that are relevant to the TSP update was conducted. Detailed information from this review, including a complete list of the documents reviewed, can be found in *Technical Memorandum #2* in Volume II of the Technical Appendix.

The summary of federal, state, regional, and local documents, as they relate to transportation planning in the City of Florence, provided the policy framework for the TSP planning process. State documents and requirements were summarized as they applied to the Florence TSP, as were Lane County and ODOT policies and regulations that had potential impacts on the Florence transportation system.

A number of local documents were also reviewed for policies that could impact the local transportation system plan. Reviewed documents include the Downtown Implementation Plan (1999), Gateway District: OR 126 and Quince Street Study (1999), Access Management Plan for US 101 in Downtown Florence (2004), Florence/US 101 Pedestrian Safety Study (2006), Rhododendron Drive Integrated Transportation Plan (2008), Airport Master Plan (2010), and Parks and Recreation Plan (2011). The Florence Comprehensive Plan (1988, last amended 2008), were also evaluated to ensure consistency between adopted policy and the Transportation System Plan.

The regulatory review includes an assessment of the City of Florence Zoning Ordinance and how well it complies with the requirements of the State's Transportation Planning Rule (TPR, OAR 660, Division 12). The review summarizes the requirements of TPR Section -0045, Implementation of the Transportation System Plan, lists the applicable implementation elements of the TPR, and demonstrates where the adopted City regulations comply, or where amendments to code language are needed to comply, with the TPR. The changes/modifications were executed by the development of draft code language (see Section 11, Plan, Policies and Development Code Amendments).

Section 3

Funding for Roadway, Pedestrian, Bicycle, and Transit Improvements

FUNDING FOR ROADWAY PEDESTRIAN, BICYCLE, AND TRANSIT IMPROVEMENTS

This section provides a description of the City's historic revenues and expenditures for transportation funding and incorporates the assumptions made for the future from the City of Florence Long Term Financial Plan adopted by the Florence City Council on October 10, 2011.

Historic Revenues and Expenditures in the City's Streets Program

STATE FUEL TAX

The main source of the City's funding for maintaining its transportation infrastructure is the City's share of the State Fuel Tax. As part of the Jobs and Transportation Act, as of January 1, 2011, Oregon's fuel tax increased by six cents, bringing it to 30 cents per gallon for passenger and light vehicles. The tax for commercial trucks and other heavy vehicles was raised proportionately effective October 1, 2010. Along with the increase in the fuel tax, the legislature no longer allows local governments to pass a new local fuel tax through the year 2014. The State distributes a percentage of the fuel tax collected (about $54.6 million/year statewide) to city street programs based on population.

STREET LIGHT FEE

In 2009, the City Council passed a street light fee that is charged as part of the city's utility bills. This fee covers the cost of electricity to power the street lights.

STREET LOCAL IMPROVEMENT DISTRICT ASSESSMENTS

There are several Local Improvement Districts (LIDs) that the City Council has formed that include street projects. The revenues listed in Table 3-1 are the payments made by the property owners as they are paying off the assessments made on their benefitting properties. The City could form more local improvement districts where benefitting property owners agree to pay for new projects such as sidewalks.

GRANT REVENUE

This revenue is self-explanatory and depends on the City's success in obtaining grants for transportation projects.

INTERGOVERNMENTAL

Through 2007, the City received a portion of the County's share of federal money that historically was known as "timber payments" and more recently as "secure rural schools". While the County still receives some federal funds under this program, the County no longer shares those funds with the City and secure rural schools funding expired in 2012, and while a one year extension may still be possible, this funding source will no longer be available. The other revenue source listed here also originates at the federal level and is administered by the State. In this case, the revenues listed are payments that the state has made to reimburse expenses for the Siuslaw Interpretive Center (Federal Scenic Byways, State Fund Contribution, and Federal Surface Transportation [including Exchange Funds]). The Federal Scenic Byways funds were awarded to the Interpretive Center. Florence receives a share of the Federal Surface Transportation funds each year. ODOT has a program where the City can "exchange" those funds with ODOT so that it can more easily spend state dollars rather than have to deal with the federal "strings" that come with federal money.

SYSTEM DEVELOPMENT CHARGES

The City collects System Development Charges (SDCs) from new development to pay for projects to handle the increased traffic. So far, SDCs have helped to pay for the extension of Spruce Street north of Munsel Lake Road as part of the Local Improvement District project. It is anticipated that the next project to utilize the accumulated SDCs will be a traffic signal project at the intersection of US 101 and Munsel Lake Road.

LANE COUNTY

At this time, Lane County no longer receives federal funds from either Oregon Transportation Investment Act (OTIA) or Secure Rural Schools (timber payments) to fund any capital improvement projects. The CIP 2012-2016 reflects this funding scenario and proposes no capital improvements for the next five years. This project/funding forecast will likely to be valid unless something drastic change happens (at the federal level) in the near future.

Table 3-1 summarizes the City of Florence historic revenues for the past six years. Table 3-2 summarizes historic expenditures.

Table 3-1 City of Florence Historic Revenues

Revenues	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006
State Fuel Tax	$453,784	$395,441	$342,671	$358,860	$382,421	$388,489
Street Light Fee	$88,768	$88,963	-	-	-	-
Street LID Assessments	$26,193	$69,657	$20,267	$42,691	$31,397	$123,587
Grant Revenue	$116,131	$13,452	$3,363	-	$15,844	$30,207
Intergovernmental [1,2,3]	$13,996	$12,880	$30,461	$44,983	$140,228	$117,322
System Development Charges	$28,732	$10,081	$28,674	$78,650	$62,266	-
Other	$1,684	$6,735	$4,433	$14,766	$10,110	$1,201
Interest	$6,814	$3,583	$12,776	$32,226	$41,115	$12,322
TOTAL REVENUES	**$736,102**	**$600,792**	**$442,645**	**$573,176**	**$683,381**	**$673,128**

[1] $115,892 of 2007 Intergovernmental revenues were Lane County Partnership Payments
[2] $117,322 of 2006 Intergovernmental revenues were Lane County Partnership Payments
[3] Other than the revenues from Lane County, the revenues in this row are federal monies used to reimburse expenses for the Siuslaw Interpretive Center

Table 3-2 City of Florence Historic Expenditures

Expenses	FY 2011	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006	Annual Average
Traffic Control Devices [1]	$31,120	$15,549	$26,062	$43,952	$30,537	$22,189	$28,235
Street Repair Materials [2]	$25,131	$18,497	$34,483	$18,866	$38,213	$30,987	$27,696
Overlays / Sealcoats [3]	$10,802	$14,343	$5,809	$56,133	$154,516	$124,717	$61,053
Sidewalks	$3,259	-	$15,417	$37,278	$1,228	$17,669	$12,475
Engineering for Street Projects [3]	-	$14,771	$29,095	$36,228	$42,680	$143,525	$44,383
Spruce Street Extension (north of Munsel Lake Road)	-	$29,408	$577,776	$1,335,980	$113,032	-	$342,699
Scenic Byways – Siuslaw Interpretive Center [5]	$359,890	$17,282	$47,250	$44,983	$24,336	$7,133	$83,479
Pedestrian Safety US 101 [6]	$111,434	$77,028	$67,667	-	-	-	$42,688
12th Street Multi-Use Path [7]	$83,633	-	$3,338	-	-	-	$14,495
27th Street Bike Path (between Spruce Street and US 101) [8]	-	-	$11,803	-	-	-	$1,967
LTD Bus Stop Improvement	$9,324	-	-	-	-	-	$1,554
Equipment	$24,437	-	-	$54,443	$28,570	$7,393	$19,141
Debt Service [9]	$571,708	$172,739	-	-	-	-	$124,075
TOTAL EXPENSES	**$1,253,738**	**$359,617**	**$818,700**	**$1,627,863**	**$433,112**	**$353,613**	**$807,774**

[1] Traffic Control devices include all signage, traffic safety devices, and about $11,000/year for Lane County to stripe City streets.
[2] Street Repair Materials include sand, rock, gravel, concrete, asphalt, and other paving materials.
[3] Payments made for others to overlay or sealcoat City streets.
[4] Prior to FY11 engineering costs (although related to a project) were recorded here. FY10 was primarily for Spruce Street extension. FY09 was for both Spruce Street extension and designing Lingcod Court as part of a replat in Pacific View Business Park.
[5] Scenic Byways FY10-11 used ODOT's Transportation Exchange Funds Agreement & Urban Renewal Funds to pay for the acquisition of land to be the future site of the Siuslaw River Bridge Wayside Interpretive Center.
[6] The ADA ramps at intersection of US 101 and Rhododendron and 6th Streets cost $123,685 which was reimbursed by ODOT. The remaining costs were for design of the pedestrian crossings at 2nd, 7th/8th, 18th/19th, and 30th Streets; all but $21,798 was reimbursed.
[7] See description below on page 17 for funding of 12th Street Path.
[8] This path was required as part of development approval for an expansion of Dunham Motors in 2006 and 2007. Dunham Motors agreed contributed $16,816 towards this path but it only cost $11,803 as a result of efficiencies from City staff building the project.
[9] Debt Service is related to principal and interest payments on the Spruce Street Bond.

State/Federal Funding for Roadway, Pedestrian and Bicycle Improvements

ODOT is responsible for construction and maintenance of federal and state highways in Oregon, including US 101 and OR 126 in Florence. In addition, ODOT and other Federal and State agencies administer grant programs that can fund transportation improvements in Florence.

ODOT has made substantial investments in the federal and state highway system in Florence. For example, recent maintenance and improvements to the Siuslaw River Bridge on US 101 is estimated to have cost $5.3 million. While the level of these investments has been substantial, these are long-term investments that occur infrequently. Therefore, it is not reasonable to assume that ODOT can fund this level of investment in Florence annually.

ODOT prioritizes projects needed on federal and state highways to allocate limited funding available. Criteria for project prioritization include safety, pavement condition, traffic volume and mobility, and compliance with applicable standards. In addition, ODOT seeks public input on project priorities established in the Statewide Transportation Improvement Program (STIP) through advisory committees such as Area Commissions on Transportation and regional meetings open to the public.

Major grant funding programs for transportation administered by ODOT include Transportation Enhancement, Bicycle and Pedestrian, and Scenic Byways. A review of funding provided through these programs show the following trends:

- Between 1992 and 2011, the Transportation Enhancement Program provided grants to local jurisdictions up to $4.2 million, but most grants were in the range of $250,000 to $1 million. None of these grants were awarded to projects in Florence.
- Between Fiscal Year 2004-2005 and 2008-2009, the Oregon Bicycle and Pedestrian Program awarded 60 grants with an average award of roughly $200,000. None of these grants were awarded to projects in Florence.
- The Scenic Byways Program recently awarded over $900,000 to the City of Florence for construction of interpretive waysides at the Siuslaw River Bridge on US 101.

While the City of Florence has historically not been very successful at obtaining grant funding, these programs have funded numerous projects in communities similar to Florence. In addition to the bridge restoration project mentioned above, the federal and state governments have directly funded other projects within Florence.

9TH STREET INLAY ARRA PROJECT - $201,000

The American Recovery and Reinvestment Act (ARRA) provided what are called federal stimulus funds as a way to provide jobs and thus help the economy. With our portion of the money, the City of Florence was able to complete the 9th Street inlay project, for a total cost of $201,000 to complete the project in 2010.

30TH STREET PEDESTRIAN CROSSING OF US 101 - $150,000 ODOT BIKE/PED QUICK FIX FUNDS

The State funded most of the project through ODOT's Bicycle/Pedestrian Program Quick Fix funds. The City paid $21,797.78 which was not reimbursed. The crossing was constructed in 2009.

2ND, 7TH/8TH, 18TH/19TH PEDESTRIAN CROSSINGS - $405,003 FEDERAL APPROPRIATION & STATE FUNDS

State funded this project directly with $318,070 in federal appropriation in SAFETEAU-LU through ODOT. The remaining project cost was paid for with state funds. The crossings were constructed in 2011.

RHODODENDRON DRIVE/6TH STREET INTERSECTIONS WITH US 101 - $123,685 ODOT QUICK FIX

Installation of sidewalk ramps at intersections to provide access to comply with the Americans with Disabilities Act (ADA). This project was completed in 2011. The City managed the project and was reimbursed per our agreement with ODOT utilizing ODOT's Quick Fix Funds.

SIUSLAW RIVER BRIDGE INTERPRETIVE WAYSIDE

This wayside (currently planned for construction in 2012) will provide an opportunity to enjoy the scenic splendor of the historic Siuslaw River Bridge and surrounding area.

Photo: Diego Arguea

Table 3-3 Project Right-of-Way and Construction Funding Sources

	Available Funds	Right-of-Way	Construction, Engineering, Permitting, Contingency	Committed Funds
Exchange Funds 2002-2006	$152,335	$0	$152,335	$152,335
Exchange Funds 2007/2008	$298,581	$0	$68,977	$68,977
Exchange Funds 2009	$93,398	$93,398	$0	$93,398
Exchange Funds 2010	$98,203	$98,203	$0	$98,203
Exchange Funds 2011	$111,348	$57,022	$54,326	$111,348
Federal Scenic Byways	$298,581	$0	$298,581	$298,581
State Fund Contribution	$32,170	$0	$32,170	$32,170
Florence Urban Renewal	$85,238	$85,238	$0	$85,238
TOTALS	**$1,023,394**	**$333,861**	**$606,389**	**$940,250**

12TH STREET PATH – ($42,275 STATE PARKS GRANT, $10,000 CYCLE OREGON GRANT, $12,000 DEVELOPER)

This path from Kingwood to Rhododendron within existing right-of-way of 12th Street was constructed as an ADA accessible bark path with grants from State Parks and Cycle Oregon. The developer of Winsome Circle contributed $12,000 required as part of the approval of the Planned Unit Development. The City paid the remaining amount of $22,696 out of its parks budget. The City purchased credits in the cost of $2,312 to mitigate the impact of filling the 0.025 acres of wetlands. The City has so far invested $7,000 in engineering costs. The estimated cost for installing the culvert was $68,000.

Photo: Diego Arguea

Based on historical precedence and the outlook for future funding, the following assumptions appear reasonable for State funding in Florence through the planning period of the TSP:

- ODOT will continue to be responsible for maintenance of US 101 and OR 126 in Florence.
- ODOT is responsible for improvement of OR 126 from Spruce Street east to the City's Urban Growth Boundary, including additional capacity, sidewalks and bicycle lanes[1], as warranted by traffic conditions, development, and population growth in Florence.
- ODOT is responsible for improvements to US 101, including the provision of additional capacity, sidewalks, and bicycle lanes north of 37th Street, as warranted by traffic conditions, development, and population growth in Florence.
- ODOT anticipates improvements to the State highway system will be funded by some combination of federal, state, local, and private funding.
- Federal and state funding for improvements to US 101 and OR 126 will depend on the overall level of funding available for highway improvements and need for other transportation investments in Oregon.
- ODOT will fund improvements to highways and highway intersections that are determined by ODOT to be necessary to address safety, including signals and other traffic control measures.
- Developments affecting traffic conditions on state highways may be required to contribute funding for measures to mitigate traffic impacts caused by the development, including provision of turn lanes, traffic signals, and other traffic control measures.
- The City of Florence should continue to pursue funding available from grant programs administered by ODOT and other Federal and State agencies. The City should identify needed projects that are consistent with the funding criteria of these grant programs and prioritize projects for grant applications based on the City's need for the project and the likely competitiveness of the project based on past grant awards.

[1] The configuration of improvements to OR 126 east of Spruce Street may be constrained by environmental conditions. An assessment of which improvements can be provided on this portion of OR 126 will be made during the project planning phase before construction.

Transit Funding

Other than Fiscal Year (FY) 2012 and FY 2013, totals shown in Table 3-4 include funding to operate the Rhody Express, as well as a program for separate rides provided to those with disabilities who can't ride or get to the bus.

Table 3-4 Rhody Express Operations & Maintenance –History and Current Budget

	FY 2013 Budget	FY 2012 Budget	FY 2011 Budget	FY 2010	FY 2009	FY 2008	FY 2007	FY 2006
Federal 5311 Funds	$73,200	$72,940	$78,800	$69,674	$63,671	$65,103	$68,388	$43,360
Federal ARRA 5311 Funds	-	-	$1,100	$1,037	-	-	-	-
Federal 5310 Funds	-	-	-	-	$3,796	$2,090	-	-
STF-Out	$36,260	$36,500	$37,300	$28,144	$23,086	$30,258	$29,662	$46,538
City of Florence	$30,000	$28,500	$25,000	$27,000	$27,215	$25,500	$24,405	$13,125
Farebox [1]	$12,000	$11,000	$8,000	$9,442	$6,983	$200	-	-
TOTAL	**$151,200**	**$149,200**	**$150,200**	**$135,297**	**$124,751**	**$123,151**	**$122,455**	**$103,023**

[1] Fares were collected but not recorded prior to FY 2009. The $200 listed in FY 2008 was actually a donation.

For FY 2012 and FY 2013, the numbers only include the Rhody Express, not the separate rides Program. That ADA service (rides for those who cannot ride the bus) is budgeted at $7,500 in FY 2012 and $8,000 in FY 2013 and paid for by state and federal funds. None of the figures include the money Lane Transit District spends on administration (staff time), also paid for by state and federal funds. This table does not include the new Rhody Express Bus paid for by ARRA funds (federal stimulus).

Funding Projections

NEW STREET FEE

Current street funding has not provided adequate funding for the level of service that is necessary for the long-term sustainability of Florence. Based on the "Pavement Management Program Budget Options Report" prepared by Capitol Asset and Pavement Services Inc. and presented to the Project Advisory Committee in December 2010, the City would need to spend $5.2 million over the next five years to improve and maintain the street network at an optimal level. Because this level of expenditure is well beyond the City's funding capability, deferred maintenance (and costs) continues to climb. The City's street network replacement value is estimated at $67.4 million and is thus an asset worth

preserving. The City is in need of additional funds to maintain the existing street infrastructure. At its meeting on June 4, 2012, the City Council established a street maintenance fee of $5, and repealed the street light utility fee of $2, to provide a $3 increase in revenue per household per month. This fee will enable the city to address the maintenance requirements of the street system.

URBAN RENEWAL PLAN

The purpose of the Urban Renewal Plan is to revitalize the Downtown Area as the primary cultural, tourist, commercial and community core to serve all Florence's citizens and visitors, encouraging continuing growth, development and enhancement consistent with Florence's small-town ambiance and character.

Public Improvements

Public improvements include the construction, repair, or replacement of curbs, sidewalks, streets, parking, parks and open spaces, pedestrian and bicycle amenities, water, sanitary sewer and storm sewer facilities, utilities, and other public facilities necessary to carry out the goals and objectives of this Plan.

Street, Curb, and Sidewalk Improvements

The Renewal Agency may participate in funding sidewalk and roadway improvements including design, redesign, construction, resurfacing, repair and acquisition of right-of way for curbs, streets, and sidewalks. Street, curb, and sidewalk improvements may include:

- Construct bulb-outs with planters in project area
- Stripe US 101 for parking

Streetscape and Beautification Projects

The Renewal Agency is authorized to participate in activities improving the visual appearance of the project area. These improvements may include:

- Install antique lighting in downtown
- Install benches, waste receptacles, planters, bike racks, trees

Pedestrian, Bicycle, and Transit Improvements

The Renewal Agency may participate in funding improvements to public transit facilities, and make improvements including design, redesign, construction, resurfacing, repair and acquisition of right-of-way for pedestrian and bicycle paths and connections. These activities will improve transit options, and

facilitate pedestrian and bicycle usage in the Florence Urban Renewal Area. These improvements may include:

- Develop estuary trail from OR 126 to bridge

Public Safety Improvements

The Renewal Agency may participate in funding improvements needed for public safety purposes. Public safety improvements may include:

- Upgrade water delivery system to improve fire safety
- Install a traffic signal at 2nd Street and US 101
- Install emergency vehicle control of traffic lights

Public Buildings and Facilities

The Renewal Agency may participate in development of public facilities in the Renewal Area. The extent of the Renewal Agency's participation in funding such facilities will be based upon a Renewal Agency finding on the proportional benefit of that project to the Florence Urban Renewal Area, and the importance of the project in carrying out Plan objectives.

ASSUMPTIONS FOR FUTURE FUNDING

The funding projections for the Street Fund are based on the following assumptions.

1. The Street Fee will increase annually by two percent.
2. System Development Charges are projected to increase annually by two percent but actual increases will depend on level of development activity.
3. Grant/Urban Renewal revenues and expenses are forecasted:
    - $520,000 for the Interpretive Center - Scenic Byways funding secured
    - $190,000 for Pavement Preservation of Quince Street/2nd Street (OR 126 to Harbor Street) – Urban Renewal funding secured
    - $1,200,000 for Rhododendron Drive – 1st runner-up in Transportation Enhancement
    - $800,000 for Pedestrian Crossings at US 101 at 12th Street and at midblock of 15th/16th Street and OR 126 at Redwood – ODOT Flex Fund application submitted October 2011
    - $250,000 for extension of Munsel Lake Road to the west – no grant identified

- $320,000 for roundabout at 9th Street and Kingwood – no grant identified

4. Major capital improvements would likely be funded through debt. In general, for every $1,000,000 that is borrowed, the annual cost for debt service is $100,000 over a 20 year term.

5. Operating expenses provide the staff, materials, and services needed for minor maintenance such as crack seals. Microseals and overlays would be paid for as capital projects.

6. The City will continue to receive a portion of State Highway Fund revenue. It is expected that that annual revenue will be about $220,000 in FY 2012 and increase to around $550,000 by FY 2035.

Even with the imposition of a street maintenance fee, there will only be enough money in the Street Fund to pay for maintaining our current street system and to provide matching funds for grants. Capacity-increasing projects will be dependent on system development charges or another funding mechanism. Only through an increase in street fees, formation of Local Improvement Districts or Reimbursement Districts, or securing grant funding will the City be able to consider improvements to its street system.

Section 4

Conditions, Deficiencies, and Needs

CONDITIONS, DEFICIENCIES, AND NEEDS

This section includes an overview of the Transportation System Inventory, Current Transportation Conditions, and Future No-Build Transportation Conditions. The findings highlight existing and future transportation system deficiencies, but do not include solutions to identified deficiencies.

Florence is located on the Oregon Coast and the City is experiencing growth pressure from both land development as well as the increasing summertime tourist traffic. Based on anticipated changes in population and summertime travel demand, it is appropriate that the existing system and a forecast of future conditions be evaluated for its performance in meeting the daily travel needs of the community.

Figure 4-1 shows a street map of Florence and the study area, designated within the city limits and urban growth boundary (UGB). Based on the requirements of the Transportation Planning Rule (TPR), the focus of the existing conditions analysis is on significant roadways (arterials or collectors) and intersections of these streets, as well as other transport facilities and services, including pedestrian, bicycle, public transportation, rail service, air service, pipelines and water service. Figure 4-1 also shows relevant milepoints on key routes.

STUDY AREA
FLORENCE, OREGON

FIGURE
4-1

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Transportation System Inventory

This section describes the current performance and operational deficiencies of the City's transportation system, covering the automobile, pedestrian, bicycle, public transportation, freight, air, marine, and pipeline/transmission transportation modes.

STREET SYSTEM

Highways and streets are the primary means of mobility for Florence's citizens, serving the majority of trips over multiple modes. Pedestrians, bicyclists and motorists all utilize public roads for the vast majority of their trips. These public facilities are controlled by multiple jurisdictions and are classified based on traffic loads, permitted speeds, and accessibility.

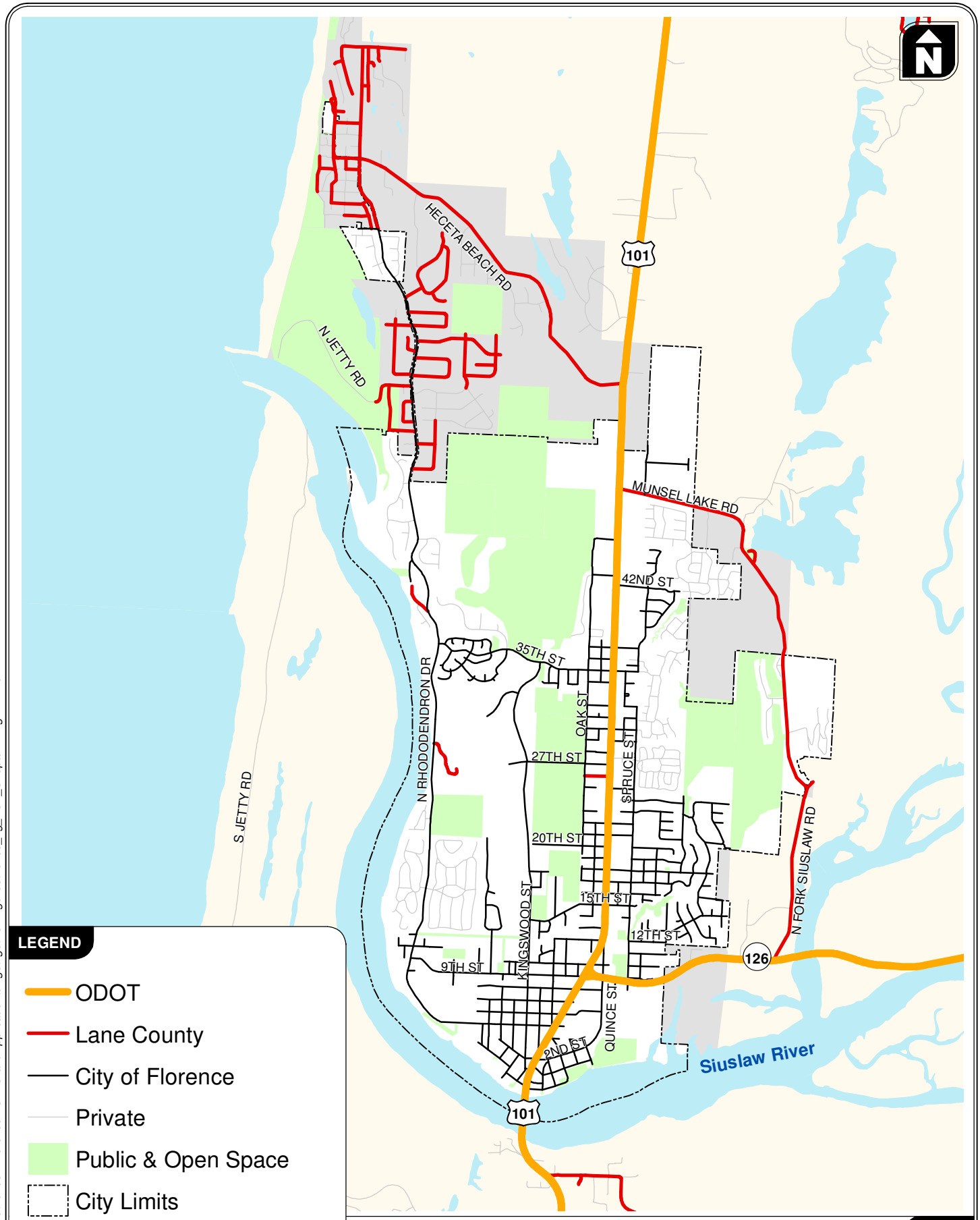
Jurisdiction

Public roads within the study area are operated by three different jurisdictions: the City of Florence, Lane County and the Oregon Department of Transportation (ODOT). Each jurisdiction is responsible for the following:

- Determining a road's functional classification;
- Defining a roadway's major design and multi-modal features;
- Maintenance; and,
- Approving construction and access permits.

Coordination is required among the jurisdictions to ensure that the transportation system is planned, maintained, and expanded to safely meet the needs of travelers in the area. Figure 4-2 shows the jurisdiction of roadways and Figure 4-3 shows the functional classifications of roadways[2] in and around Florence as defined by the City.

[2] Note that Figure 4-3 also illustrates identified future roadways and their corresponding functional classification.



JURISDICTION OF FLORENCE ROADWAYS
FLORENCE, OREGON

FIGURE **4-2**

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FUNCTIONAL CLASSIFICATION
FLORENCE, OREGON

FIGURE 4-3

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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, types of pedestrian and bicycle facilities provided. 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.

Oregon Highway Plan Classifications and Designations

ODOT has a separate classification system for its highways, which guide 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* on the National Highway System (NHS). The OHP defines *Statewide Highways* on the NHS as follows:

> "Statewide Highways (NHS) typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas (STAs), local access may also be a priority."

The OHP designates the portion of US 101 between OR 126 and the Siuslaw River Bridge (MP 190.23 to 190.84) as a Freight Route and as a STA. The OHP defines a STA as a district of compact development where the need for appropriate local access outweighs the considerations of highway mobility except on designated Freight Routes where highway mobility has greater importance.

The portion of US 101 between OR 126 and the Siuslaw River Bridge (MP 190.23 to 190.84) is also the subject of the Access Management Plan for Highway 101 in Downtown Florence, adopted by the City of Florence and the Oregon Transportation Commission in 2003. The Access Management Plan identifies strategies for access management, and projects to improve conditions for parking, circulation, and pedestrian access in Downtown Florence.

The OHP designates the portion of US 101 between 30th Street and OR 126 (MP 188.97 to 190.23) as a Urban Business Area, which are defined as areas where vehicular accessibility is important to continued economic viability. In areas with a posted speed above 35 miles per hour, the OHP states that a management plan is required to balance the needs for vehicular, pedestrian, bicycle, and transit accessibility in an Urban Business Area.

The OHP also designates US 101 as a Scenic Byway. US 101 is part of the Pacific Coast Scenic Byway, which is also designated as a National Scenic Byway and All-American Road by the National Scenic Byways Program of the Federal Highway Administration.

The OHP designates OR 126 and the portion of US 101 between OR 126 and the Siuslaw River Bridge (MP 190.23 to 190.84) as a Freight Route and Truck Route, and these roadways are subject to the No Reduction of Vehicle Carrying Capacity policy established by ORS 366.215. This policy prohibits actions that permanently reduce the physical vehicle carrying capacity of an identified freight route.

Roadway Street Section Standards

Detailed roadway cross-section elements for each classification are presented in Section 9. Many of the cross-sections provide for some flexibility with respect to parking, bike lanes and/or lane width.

Roadway Segment Conditions

Current roadway segment conditions were reviewed for approximate width and pavement condition. This data was field verified and confirmed with the roadway inventory information provided by the City of Florence Public Works. Table 4-1 summarizes the arterial and collector roadways in Florence and identifies the jurisdiction for each roadway, as well as the approximate pavement width and condition.

Street segments were surveyed and their condition summarized where data was available by the City of Florence. Table 4-1 also summarizes the condition of some of the major roadways within Florence using the Pavement Condition Index (PCI) to describe pavement conditions.

Table 4-1 Inventory of Existing Arterial/Collector Streets

Street	Jurisdiction	2012 TSP Functional Classification	PCI Index[1]
Arterials			
US 101 (Oregon Coast Highway)	State	Statewide Highway[2]	Fair
OR 126 (Florence-Eugene Highway)	State	Statewide Highway[2]	Fair
Kingwood Street (35th to 15th)	City	Collector	78[4]
Munsel Lake Road	County	Minor Arterial	72[4]
35th Street	City	Collector	69[4]
9th Street	City	Minor Arterial	50[4]
Rhododendron Drive	City/County	Minor Arterial/Collector	44[4]
Collectors			
Heceta Beach Road	County	Urban Major Collector[3]	Not Available
North Fork Siuslaw Road	County	Urban Major Collector[3]	Not Available
42nd Street	City	Collector	75[4]
30th Street	City	Local/Residential	80[4]
15th Street	City	Collector	50[4]
2nd Street	City	Collector	68[4]
Oak Street	City	Collector	78[4]
Spruce Street	City	Minor Collector	75[4]
Quince Street	City	Collector	45[4]
Local Streets			
12th Street	City	Local/Residential	72

[1] PCI reported in the *Pavement Management Program Budget Options Report*, December 2010. Statewide Highway pavement conditions as reported by the State Pavement Management System.
[2] *Oregon Highway Plan* designation.
[3] Lane County classifications http://maps.lanecounty.org/LaneCounty/Maps/viewer.htm.
[4] Average of several sub-sections reported in the report.

The PCI is a measurement of pavement conditions that ranges from 0 to 100. A brand new road would have a PCI of 100, while a failed road (requiring complete reconstruction) would have a PCI under 10. The average PCI for City streets is 71.

Four of the major study roadways identified above have a PCI well below the City's average: 9th Street, Rhododendron Drive, 15th Street, and Quince Street.

For both state facilities in Florence, ODOT used the Distress rating procedure which then converts to a GFP rating (GFP stands for Good-Fair-Poor). Each section is given a condition score ranging in value from 0 to 100, estimated to the nearest 5 points, based on the surface distresses present and, to a lesser degree, ride quality.

Other Roadway Deficiencies

In addition to the existing roadway conditions and deficiencies identified above, the following issues were identified through general review of the roadway network and in consultation with City of Florence staff and Project Advisory Committee (PAC) members:

- Several local streets are relatively disconnected in certain areas, thereby creating greater reliance on US 101;
- Speeding issues were identified along Spruce Street (posted speed limit of 25 mph);
- Several locations for potential wildlife crossings were identified along US 101;
- On-street parking should be limited in the vicinity of the 8th Street/Maple Street intersection, particularly on the east side fronting the library;
- Transportation system constraints on economic development may impact small businesses;
- Congestion, parking challenges, and general traffic flow issues have been identified within the Old Town district, which may warrant the potential analysis of a system of one-way streets;
- Concerns have been raised for lack of ADA accessible parking along Bay Street;
- Potential for relocating the planned traffic signal on US 101 at 30th Street to 27th Street;
- Environmental and utility issues in the planned street network in the 9th Street area should be addressed; and,
- Lack of street connectivity and provision of utilities in the southeast portion of the UGB.

TSUNAMI EVACUATION ROUTES

Please refer to Attachment "B" of Technical Memorandum #4 for a map of identified tsunami evacuation routes prepared by the Oregon Department of Geology and Mineral Industries (DOGAMI).

PEDESTRIAN SYSTEM

Pedestrian facilities serve a variety of needs, identified below:

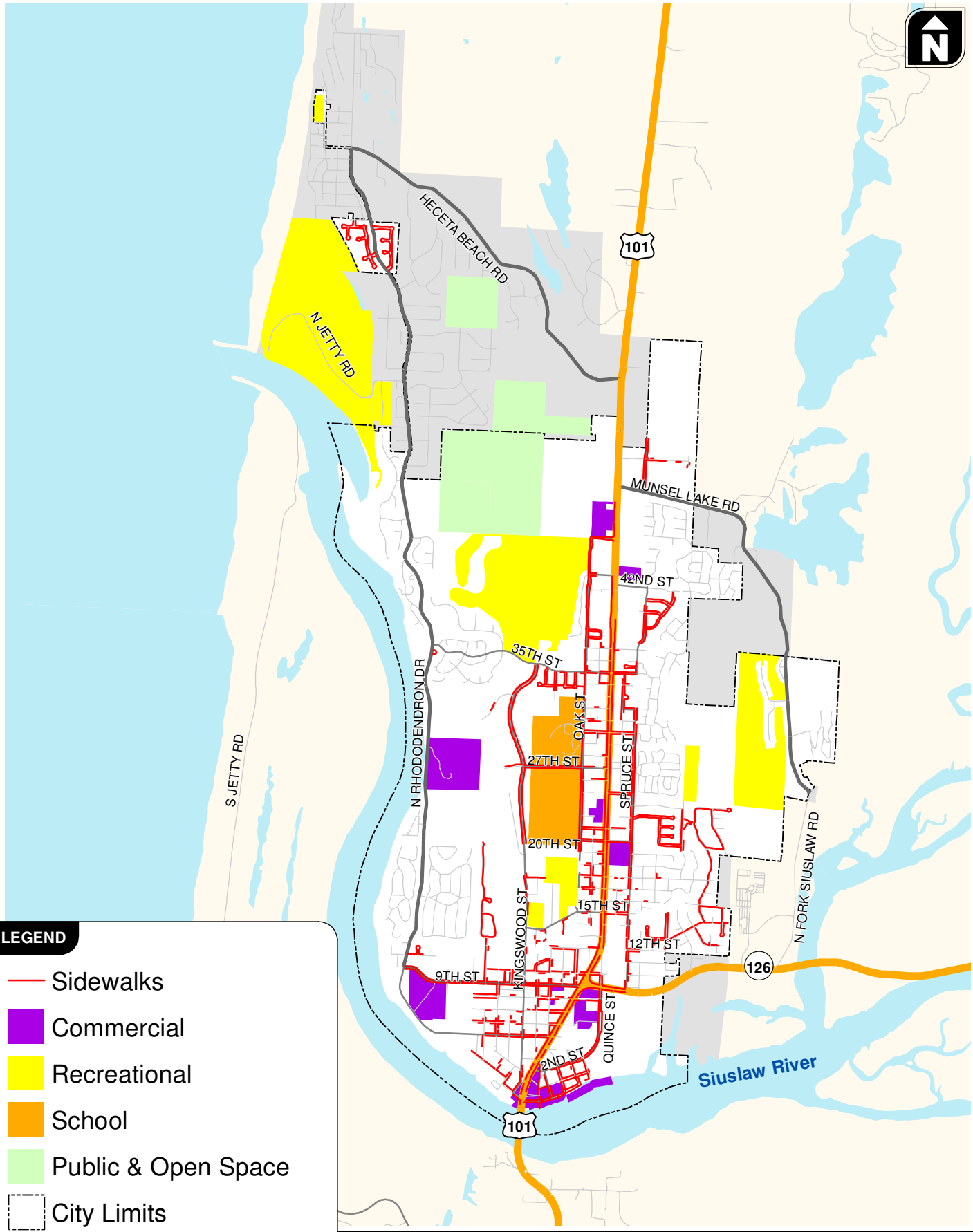
- Relatively short trips (under a mile) to major pedestrian attractors, such as schools, parks, and public facilities;
- Recreational trips—for example, jogging or hiking—and circulation within parklands;
- Access to transit (generally trips under ½ -mile to bus stops); and,
- Commute trips, where mixed-use development is provided and people have chosen to live near where they work.

Pedestrian facilities should be integrated with transit stops and effectively separate pedestrians from vehicular traffic. Furthermore, pedestrian facilities should provide continuous connections among neighborhoods, employment areas, and nearby pedestrian attractors. Pedestrian facilities usually refer to sidewalks or paths, but also include pedestrian crossings for high volume roadways. The existing pedestrian network serving Florence is shown in Figure 4-4, along with major activity centers where higher concentrations of pedestrians can be found.

As Figure 4-4 shows, the majority of the arterial and collector roadways in Florence provide sidewalks, though there are some significant gaps in the pedestrian network.

The following additional issues were identified through general review of the pedestrian network and in consultation with City of Florence staff and PAC members:

- The City's bicycle and pedestrian facilities are discontinuous, thereby discouraging travel via these modes.
- Potential need for a pedestrian signal and crosswalk at the 9th Street/Kingwood Street intersection (this is a primary emergency corridor and has been identified as an issue for bus drivers);
- Crosswalks should be considered along Maple Street and Kingwood Street for improved accessibility to the library;
- Crosswalks should be considered along US 101 between 20th Street and 32nd Street to improve safety;
- A crosswalk should be considered on Bay Street in front of the Coffee Roasters (just east of the US 101 bridge overcrossing); and,
- In general, the City has raised concerns about pedestrian crossings across Kingwood Street.



EXISTING PEDESTRIAN FACILITIES
FLORENCE, OREGON

FIGURE **4-4**

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Pedestrian Crossings

In the state of Oregon, all intersections are considered legal crosswalks and motor vehicles are required to yield the right of way to pedestrians to allow them to cross. However, compliance is not consistent and pedestrians may have difficulty crossing high volume roadways. Marked crosswalks indicate to pedestrians a desirable place to cross, and indicate to drivers where to expect pedestrians to cross. Marked crosswalks with pedestrian-activated warning systems, such as Rapid Rectangular Flashing Beacons (RRFB) and raised median islands can increase motorist stopping compliance and pedestrian safety, particularly on high-volume multi-lane roadways. Marked pedestrian crossings along the highways can be found at the following intersections:

- **US 101/2nd Street –**a Rapid Rectangular Flashing Beacon [RRFB] and raised median island;
- **US 101/Rhododendron Drive –** signalized pedestrian crossing;
- **US 101, south side of 6th Street –**marked pedestrian crossing;
- **US 101, north of 7th Street** – mid-block RRFB and raised median island;
- **US 101/OR 126 –** signalized pedestrian crossing;
- **US 101, south side of 15th Street –**marked pedestrian crossing;
- **US 101/17th Street –** marked pedestrian crossing
- **US 101, 18th / 19th Street** – mid-block RRFB and raised median island;
- **US 101/21st Street** – signalized pedestrian crossing;
- **US 101, north side of 30th Street –** mid-block RRFB and raised pedestrian refuge installed;
- **US 101/35th Street –** signalized pedestrian crossing; and,
- **OR 126, west side of Quince Street** –marked pedestrian crossing.

The City is considering future installations of pedestrian crossings with a pedestrian-activated warning system and raised median island at the following intersections:

- **US 101/12th Street**
- **US 101 mid-block between 15th and 16th Streets**
- **US 101/43rd Street**
- **OR 126/Redwood Street**

The location and design features of any marked crosswalk on a State highway must have approval of the State Traffic Engineer.

Safe Routes to School

Safe Routes to School (SRTS) is a national program which enables parents, schools, community leaders and local, state, and federal governments to improve safety and health of children by enabling and encouraging them to walk and bike to school. SRTS programs aim on reducing traffic and air pollution, and providing safer and more accessible facilities and transportation choices to children, thus encouraging a healthy and active lifestyle in their early age.

Safe Routes to School have not been identified and improved in Florence, resulting in greater automobile trips for students to school. There are currently no SRTS programs active in the City of Florence.

Additional school and pedestrian concerns are listed below as identified by City of Florence staff:

- School bus concerns:
  - Intersection visibility on 9th Street/Kingwood Street is not adequate;
  - In general, roadways may need widening to accommodate bus turning radii;
  - In general, sidewalks are needed at school bus stops;
- Additional sidewalks are needed for pedestrians near the schools; and,
- Congestion around the elementary and middle school may warrant the need for additional parking areas and larger drop-off areas.

BICYCLE SYSTEM

Similar to pedestrian facilities, bicycle facilities (dedicated bicycle lanes in the paved roadway, multi-use paths shared with pedestrians, etc.) serve a variety of trips. These include:

- Trips to major attractors, such as schools, parks and open spaces, retail centers, and public facilities;
- Commute trips, where changing and showering facilities are provided at the workplace;
- Recreational trips; and,

- Access to transit, where bicycle storage facilities are available at the stop, or where space is available on bus-mounted bicycle racks.

As this list suggests, supporting bicycling as a viable alternative to the automobile requires more than simply providing bicycle lanes. Support facilities, such as secure parking and worksite changing/showering facilities, are also needed before many potential users will consider the bicycle trip as a practical alternative.

The *Oregon Bicycle and Pedestrian Plan* identifies four basic bikeway designs:

- Shared roadway – Bicycles and vehicles share the same roadway area under this classification. The shared roadway facility is best used where there is minimal vehicle traffic to conflict with bicycle traffic.
- Shoulder bikeways – This bicycle facility consists of roadways with paved shoulders to accommodate bicycle traffic.
- Bike lanes – Separate lane adjacent to the vehicle travel lane for the exclusive use of bicyclists are considered bike lanes.
- Multi-use path – A facility separated from the roadway by open space or a barrier that is typically used by pedestrians, joggers, skaters, and bicyclists.

Dedicated bicycle facilities should be provided along major streets where automobile traffic speeds are significantly higher than bicycle speeds. Bicycle facilities should connect residential neighborhoods to schools, retail centers, and employment areas. However, allowing bicycle traffic to mix with automobile traffic is acceptable where the average daily traffic (ADT) on a roadway is less than 3,000 vehicles per day and vehicular speeds are low, according to the *Oregon Bicycle and Pedestrian Plan*. Lower volume roadways should be considered for bike shoulders or lanes if anticipated to be used by children as part of any potential future Safe Routes to School program. In areas where no street connection currently exists or where substantial out-of-direction travel would otherwise be required, a multi-use path may be appropriate to provide adequate facilities for bicyclists.

Figure 4-5 shows the existing bicycle facilities in Florence as well as in the immediate area surrounding the UGB.

EXISTING BICYCLE FACILITIES
FLORENCE, OREGON

FIGURE **4-5**

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There is no separate bicycle plan for the City of Florence. This TSP update ensures that the identified local bicycle system improvements are consistent with the *State of Oregon Bicycle Facilities Master Plan*. The following additional issues were identified through general review of the bicycle network and in consultation with City of Florence staff:

- The City's bicycle and pedestrian facilities are discontinuous, thereby discouraging travel via these modes;
- Heceta Beach Road as well as Rhododendron Drive currently lack facilities for bicycles and pedestrians, and travel speeds have been observed to be high; and,
- US 101 south of OR 126 lacks bicycle lanes near and on the bridge.

PUBLIC TRANSPORTATION SYSTEM

Local Bus Service

The City of Florence, in collaboration with Lane Transit District (LTD), has an agreement with River Cities Taxi to operate the Rhody Express, a fixed-route bus system that loops through Florence hourly on weekdays between 10 a.m. and 6 p.m. One 16-seat bus is used to operate two routes, with the bus alternating service between the two routes:

- The *North Loop* serves areas north of 20th Street, along US 101, Spruce Street and Oak Street, between the Grocery Outlet and Fred Meyer.
- The *South Loop* serves areas south of 20th 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, and the Old Town District.

The Rhody Express operates under a flag stop system, with the bus stopping at any safe location along the route to pick up and drop off passengers. The bus will deviate up to two blocks to pick up and drop off passengers who have difficulty walking to a street with bus service; this service must be requested in advance. The bus is equipped with a wheelchair lift. The fare is $1 for a one-way trip, or $2 for an all-day ticket.

Passengers with disabilities unable to use the regular fixed-route bus service may use the Rhody Dial-a-Ride service. This service is offered to eligible passengers weekdays between 10 a.m. and 6 p.m. between points located within ¾ mile of the Rhody Express route. The fare is $2 per one-way trip, and trips must be scheduled in advance. The service area, service hours, fare, and pre-scheduling requirement meet the minimum Americans with Disabilities Act (ADA) requirements for

"complementary paratransit service." In-person assessments to determine functional capability are conducted through the local Senior and Disabled Services (S&DS) office.

Intercity Bus Service

Porter Stage Lines operates a daily intercity service traveling from Coos Bay, through Reedsport and Florence to Eugene (with stops at the Eugene Amtrak and Greyhound Stations), providing connections to Bend and beyond (to Boise, Idaho). In Florence, the bus operates at a flag stop in front of City Hall (250 US 101) en route to Eugene. Returning from Eugene the bus stops as a "drop off only" in front of the Sportsman on its way to Coos Bay. Florence and Reedsport stops are "drop off only" on the return trip from Eugene. As an Amtrak Thruway bus it operates twice daily on weekdays (once daily on weekends) between Florence City Hall and the Amtrak and Greyhound stations in Eugene. The one-way fare is $23 for those connections.

The scheduled stops for the Rhody Express and commuter bus services are summarized in Table 4-2. Also see *http://www.ci.florence.or.us/transportation.cfm* for the most up-to-date schedules.

Table 4-2 Scheduled Transit Stops in Florence

Rhody Express (Weekdays Only)					
North Loop			South Loop		
Grocery Outlet	Fred Meyer	Grocery Outlet	Grocery Outlet	Old Town District	Grocery Outlet
10:39 AM	10:48 AM	11:00 AM	10:00 AM	10:25 AM	10:39 AM
11:39 AM	11:48 AM	12:00 PM	11:00 AM	11:25 AM	11:39 AM
12:39 PM	12:48 PM	1:00 PM	12:00 PM	12:25 PM	12:39 PM
1:39 PM	1:48 PM	2:00 PM	1:00 PM	1:25 PM	1:39 PM
2:39 PM	2:48 PM	3:00 PM	2:00 PM	2:25 PM	2:39 PM
3:39 PM	3:48 PM	4:00 PM	3:00 PM	3:25 PM	3:39 PM
4:39 PM	4:48 PM	5:00 PM	4:00 PM	4:25 PM	4:39 PM
5:39 PM	5:48 PM	6:00 PM	5:00 PM	5:25 PM	5:39 PM
Porter Stageline/Amtrak Thruway Motorcoach Service					
Weekdays					
Florence to Eugene			**Eugene to Florence**		
8:25 AM			10:40 AM		
1:55 PM			5:20 PM		
Florence to Coos Bay			**Coos Bay to Florence**		
11:30 AM			8:00 AM		
6:15 PM			12:35 PM		
Weekends					
Florence to Eugene			**Eugene to Florence**		
8:25 AM			5:20 PM		
Florence to Coos Bay			**Coos Bay to Florence**		
No Service			No Service		

As shown in Table 4-2, local bus service is provided throughout most of the day with one-hour headways, connecting between major commercial and institutional activities. However, the lack of services during morning peak hours essentially puts a barrier to residents commuting to work by bus. Also, no stops are available along US 101.

Specialized Transit Services

Several Florence-area organizations and programs provide transportation services to older adults and persons with disabilities with most trips being to and from medical services. These services include:

- Friends of Florence Van for individuals needing cancer treatment in Eugene,
- Medicaid Non-Emergency Medical Transportation (NEMT) for individuals that qualify for the Oregon Health Plan Plus,
- Veteran's Transportation, and
- Florence S&DS Volunteer Escort and Senior Companion drivers serve older adults living independently without any other means of transportation.

Transportation is also provided by some retirement centers.

Neighboring Public Transit Service

Lane Transit District operates bus service from Eugene to Veneta, 48 miles east of Florence, seven times daily on weekdays and twice daily on Saturday. Lincoln County Transit operates bus service from Newport to Yachats, 25 miles north of Florence, four times daily on weekdays and Saturdays. Coos County Area Transit provides one round-trip from Reedsport, 22 miles south of Florence, to Coos Bay on Wednesdays only.

TRANSIT NEEDS

As part of the development of the TSP update, the City of Florence conducted several surveys about the City's current transit service. These surveys consisted of a survey mailed to all residents with their city utility bill, an on-board survey of Rhody Express riders, and employee surveys at Fred Meyer, Grocery Outlet, and Peace Health. In addition, a survey of delivery services and public agency staff included questions about transit service.

Nearly all (95%) of respondents to the general survey were aware of Rhody Express service, but most (75%) had never used it. Service improvements most desired by this group were: expanded route coverage (52%), weekend service (39%), more frequent service (33%), and expanded AM/PM service hours (23%/26%). Respondents could pick multiple improvements; retirees were over-represented in the general survey responses. The most-requested service locations in or near Florence were Florentine Estates, Driftwood Shores/Heceta Beach, Sutton Lake, and the dunes area. The most-requested more-distant service locations were Eugene (primarily), with Yachats/Newport and Reedsport also requested.

The typical Rhody Express rider is a senior citizen or a person with a disability who uses the bus to go shopping and uses the service more than once a week. Rhody Express is most commonly used for shopping trips (80% of respondents use it this way), while about 25% of respondents use it for social

trips and about 25% use it to get to and from medical appointments (respondents could pick multiple trip purposes). Riders' most-desired service improvement by far is weekend service (84%), with expanded AM service hours, more frequent service, and expanded route coverage desired by 25–30% of respondents, respectively (respondents could pick multiple improvements).

The employee survey found that most respondents do not use Rhody Express because it is not available when or where they need to travel, they need their car for personal errands or to save time, and/or (particularly for the retail employees) they have an irregular work schedule. More convenient service hours and a guaranteed ride home program were the actions that would be most likely to get some employees to switch travel modes.

Transit-related survey results from the delivery service/public agency survey were: (1) there are many gaps in the sidewalk network and many sidewalks in disrepair (this makes it harder to access transit, particularly for seniors and persons with disabilities), and (2) a desire to keep the bus on public streets and not divert into parking lots (diverting tends to slow the bus down and creates more conflict opportunities with cars; on the other hand, good sidewalk connections from the street into sites are needed for passengers to safely access a site).

Porter Stage Lines provides only two bus services each day to both Eugene and Coos Bay during weekdays. Residents depending on transit services would be at a commuter disadvantage to have out-of-Florence employment.

In addition to the fixed-schedule services, various organizations and programs provide transportation services to senior, disabled, and people in need of medical services in and out of the Florence area. Several of these services include:

- Friends of Florence Van
- Medicaid Medical Rides
- Veteran's Transportation
- Florence Medical Escort Taxi Program
- Senior and Disable Services Volunteer Medical Rides

Transportation is also provided by some retirement centers. The most up-to-date information can be found at *http://www.ci.florence.or.us/transportation.cfm*.

Also identified by City of Florence staff and the project team, one significant deficiency in the transit system is the lack of transit service to the northwest quadrant of the City. This includes recreational

areas such as the North Jetty, Driftwood Shores, and Heceta Beach. There is also a lack of transit service to the City of Yachats to the north.

Community Transit Plan Update

The Community Transit Plan was originally written in 2000 prior to the establishment of Rhody Express bus service, and this plan's horizon date was 2010. Accordingly, the Community Transit Plan has been updated as a stand-alone document and is incorporated into this Updated TSP as Technical Memorandum #7 (see Volume II of the Technical Appendix). Section 7 of the TSP provides a summary of the Transit Plan.

General Transit and Ridership Survey Results

The City of Florence conducted several surveys across a variety of groups to assess the current Rhody Express service in the form of a general transit survey (mailed to all residents in utility bills) and a ridership survey (given exclusively to riders of the Rhody Express). Survey results are summarized below, along with some general characteristics of Florence residents to provide additional context.

Characteristics of Florence residents (based on 2005-09 American Community Survey 5-year rolling averages):

- 38% of population is age 65+
- 37% of population is employed
- 7.3% of working-age population in the labor force is unemployed (probably higher now)
- Median household income is $35,670
- 13% of households have children under 18 years of age
- Data on percent of population with disabilities not available
- 74% of commuters drive alone, 11% carpool, 6% walk, 6% work at home

Statistics and Results of the General Transit Survey

- 71% live in a household with a retired person
- 28% live in a household with an employed person
- 6% live in a household with K-12 students
- 11% live in a household with a disabled person

There were 342 survey responses to the General Transit survey mailed to residents (6.7% of Florence households). Households with retirees are considerably over-represented in the sample.

The typical survey respondent is aware that Rhody Express service exists (95% aware), but has never ridden it (75% of households, 76% of people).

A majority of survey respondents (61%) say they would ride the Rhody Express if it was more convenient. Most-desired improvements are expanded route coverage (52%), weekend service (39%), more frequent service (33%), and expanded AM/PM service hours (23%/26%).

Respondents who are employed or in school typically drive alone (67%), walk (21%), or carpool (9%). Nearly all (88%) of these work or study in Florence. Of those who travel away from Florence for work or study, 84% say they would use transit service if it was available and convenient.

Statistics and Results of the Ridership Survey

There were 36 survey responses to the Ridership survey. The typical Rhody Express rider is a senior citizen or a person with a disability who uses the bus to go shopping and uses the service more than once a week.

Survey respondents were persons with disabilities or their companions (45%), senior citizens (33%), unemployed persons (11%), and employed persons (11%). No students or tourists responded to the survey.

Rhody Express is most commonly used for shopping trips (80% of respondents use it this way), while about 25% of respondents use it for social trips and about 25% use it to get to and from medical appointments (respondents could pick multiple trip purposes). About 2/3 of respondents use it more than once a week, while 85% use it at least once a week. 44% of respondents require some sort of assistance when using Rhody Express (e.g., stop announcements, companion, wheelchair lift).

Respondents' most-desired service improvement by far was weekend service (84%). Expanded AM service hours, more frequent service, and expanded route coverage were also desired by 25–30% of respondents, respectively (respondents could pick multiple desired improvements).

For 57% of respondents, Rhody Express is their only transportation option. 91% of those providing an answer to the question have household incomes less than $30,000 (compared to Florence's median income of approximately $35,000), while 41% have household incomes less than $10,000.

Statistics and Results of the Employer Survey

The City of Florence also conducted a survey of three major employers in Florence to assess the potential for the Rhody Express to provide service for journey-to-work trips. The survey results are summarized below.

The City surveyed employees at three major employers: Peace Health, Fred Meyer, and Grocery Outlet, with 48, 14, and 12 responses received from the respective locations. Most respondents (ranging from 93% at Fred Meyer to 67% at Grocery Outlet) do not have the ability to adjust their work schedule. A large majority of the respondents drive alone exclusively (ranging from 92% at Peace Health to 75% at Grocery Outlet), some carpool with another employee or get a ride to work, and a few walk or bike. Those who drive alone do so because the bus is not available, they need their car for personal errands or to save time, they have no one to share a ride with, and/or (particularly for the retail employees) they have an irregular work schedule. Fred Meyer and Peace Health employees would be most likely to change mode if the bus was more convenient, if a guaranteed ride home program was available, or if there was the opportunity to share a ride.

None of the offered strategies resonated strongly with Grocery Outlet employees; however, they would be least unlikely to change modes if fuel prices increased, a guaranteed ride home program was available, or ridesharing opportunities existed. Virtually all of the respondents (96%) were aware of Rhody Express.

Statistics and Results of the Delivery Service and Jurisdiction Staff Survey

The City of Florence also conducted a survey of a wide range of service providers and jurisdictional staff to assess the current transportation system, its operation both today and in the future, existing or anticipated future issues, and any recommendations for improvement.

Surveys were sent to the following 16 service providers, 11 of which (*) provided responses.

- Central Coast Disposal (*)
- County Transfer and Recycling (*)
- FEDEX
- Florence Airport (*)
- Public Works Director (*)
- Public Works GIS Manager (*)
- Lane County Operations and Maintenance Staff (*)
- ODOT Operations and Maintenance Staff (*)
- Port of Siuslaw
- Rhody Express (*)
- River City Taxi (*)

- Siuslaw School Bus Service (*)
- US Post Office (*)
- Western Lane Ambulance Services

While the wide range of service providers and their respective focus area(s) resulted in disparate responses, there were a few consistent themes that emerged.

1. Service providers generally noted that the local street system within the City functions well today, and local knowledge of the area allows many service providers to use local streets and avoid congestion on the highways (thus avoiding higher volumes of traffic and "friction" on the system, improving efficiency).

2. Several service providers noted that the five-lane cross-section of US 101 should be extended north through the Munsel Lake Road intersection (and possibly to Heceta Beach Road) to better manage mobility needs through this section of the highway and improve accessibility to/from local side streets and/or driveways in this area. Some noted that they expect a larger proportion of future growth in the City to occur in this area.

3. There is a need for a greater number of multi-use paths with improved connectivity to address observed elevated levels of non-motorized modes of transportation. Some identified a need for increased bicyclist education to help reduce conflicts.

4. While the local street system operates well and is relatively well connected, maintenance of the roadways themselves and the need to find better/increased sources of funding for road maintenance and improvements is a concern.

5. In general, future funding sources for respective services are a concern.

6. General concerns raised about the street system include:

    a. Bicycles conflicting with trucks

    b. Campers/RVs cause congestion, particularly in the summertime

    c. Traffic congestion on the Siuslaw River Bridge during summer months

7. General concerns regarding the pedestrian/bicycle system include:

    a. Need for more multi-use paths to separate these modes from motorists and improve safety

b. Many gaps in sidewalks and many sidewalks in disrepair

c. A "bike rest area" at the north end of Siuslaw River Bridge may serve as a nice tourist diversion to view bay (ODOT currently seeking funding)

8. In Old Town, the following issues were raised:

   a. Single lane alleys are sometimes difficult to maneuver in

   b. Bay Street time restrictions (no trucks before 7:00 a.m.) require trucks to mix with general traffic – restrictions should be removed

9. General concerns regarding the transit/taxi system include:

   a. Funding is always a concern, and inhibits the system from expanding

   b. Need to shift transit routes out of parking lots and onto public streets

10. There was also a concern about the poor condition of the stormwater system on US 101 from 15th to 35th Streets (ODOT seeking funds for this estimated $2 million project)

For complete survey responses from service providers and jurisdictional staff, see Attachment "C" of Technical Memorandum #4 in Volume II of the Technical Appendix.

RAIL TRANSPORTATION

There are no rail facilities within the Florence UGB. There is currently no active freight rail running through Florence and the nearest passenger rail is located in Eugene/Springfield. The Coos Bay Rail Link, which ran between Eugene and Coos Bay via Florence, crosses the Siuslaw River approximately 2.5 miles east of Florence. This rail link has been closed since September 2007, but is expected to reopen sometime in 2012.

Passenger Rail

Passenger rail service is provided by Amtrak, with the nearest stations located in Eugene/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. In addition, *Thruway* bus service connects Ontario, OR to Coos Bay, OR with stops in Florence and Eugene as well as the Bend bus station. The schedule for passenger rail service at the Eugene/Springfield station is shown in Table 4-3. Detailed schedules can be obtained at *www.amtrak.com*.

Table 4-3 Passenger Rail and Intercity Bus Schedules, Daily Service

Station	Coast Starlight	Cascades				Thruway	
Southbound							
Eugene/Springfield	3:37 PM	12:30 PM	4:30 PM	7:22 PM	10:17 PM	6:45 PM	8:30 PM
Northbound							
Eugene/Springfield	1:30 PM	6:13 AM	9:43 AM	12:35 PM	3:40 PM	--	2:05 PM

AIR SERVICE

The Florence Municipal Airport (http://www.airnav.com/airport/6S2) is a general aviation facility, meaning that it serves flights other than military and scheduled commercial flights. The airport is publicly owned by the City of Florence. The airport uses a single runway, which is asphalt-paved to a length of 3,000 feet. Approximately 15 general aviation aircraft are based at the airport. No instrument landing system exists so operations are limited to visual flight rules (VFR) and there is no scheduled service provided by commercial carriers.

Florence residents traveling on commercial flights will be able to use either the Portland International Airport or the Eugene Airport, located approximately 200-minute and 90-minute driving from Florence, respectively. Commercial flights are also available at the Southwest Oregon Regional Airport in North Bend, approximately one hour south of Florence.

PIPELINE SERVICE

Florence does not have any major pipeline transmission lines. However, it does have an underground pipeline network for water, sewer, electric, fiber, and cable.

WATER SERVICE

The Siuslaw River is the only navigable waterway located within Florence. Access is provided through the Port of Siuslaw's boat launch and marina. Other nearby available ports are located in Newport, Tillamook, Reedsport, Winchester Bay, and Coos Bay. There is a Siuslaw Water Trail that includes a stop at the Port's boat launch.

Current Transportation Conditions

STUDY INTERSECTION OPERATIONS

This section of the existing conditions assessment documents the current performance of 16 key intersections within the City of Florence. The study intersections are summarized below.

ODOT operated and maintained intersections:

- US 101/Heceta Beach Road
- US 101/Munsel Lake Road
- US 101/35th Street
- US 101/30th Street
- US 101/27th Street
- US 101/15th Street
- US 101/OR 126
- US 101/Rhododendron Drive
- US 101/2nd Street
- Quince Street/OR 126
- Spruce Street/OR 126
- North Fork Siuslaw Road/OR 126

City of Florence operated and maintained intersections:

- Rhododendron Drive/35th Street
- Rhododendron Drive/9th Street
- Kingwood Street/15th Street
- Kingwood Street/9th Street

Analysis Methodology and Performance Standards

All operational analyses were performed in accordance with accepted state-of-the-practice procedures stated in the 2000 *Highway Capacity Manual*. All intersection level-of-service evaluations used the peak 15-minute flow rate during the weekday p.m. peak hour. Using the peak 15-minute flow rate ensures that this analysis is based on a reasonable worst-case scenario. For this reason, the analysis reflects conditions that are only likely to occur for 15 minutes out of each average peak hour. The transportation system will likely operate under conditions better than those described in this report during all other time periods.

ODOT Intersections

ODOT uses volume-to-capacity ratio standards to assess intersection operations. The ODOT controlled intersections within the study area are located along OR 126 and US 101, which are both designated as Statewide Highways. OR 126 is also designated as a freight route within the study area while US 101 is designated as a freight route within a Special Transportation Area (STA) south of OR 126, as a *non-freight* route within an Urban Business Area (UBA) north of OR 126 and south of 30th Street, and as a

non-freight route north of 30th Street. *Attachment "D" of Technical Memorandum #4 in Volume II of the Technical Appendix contains the ODOT Highway Segment Designation map for the City of Florence.*

The minimum required performance standards shown in Table 4-4 reflect the highway and area designations as well as the posted speed limit and traffic control at the intersections. Figure 4-6 illustrates the existing lane configurations and traffic control devices at each of the study intersections.

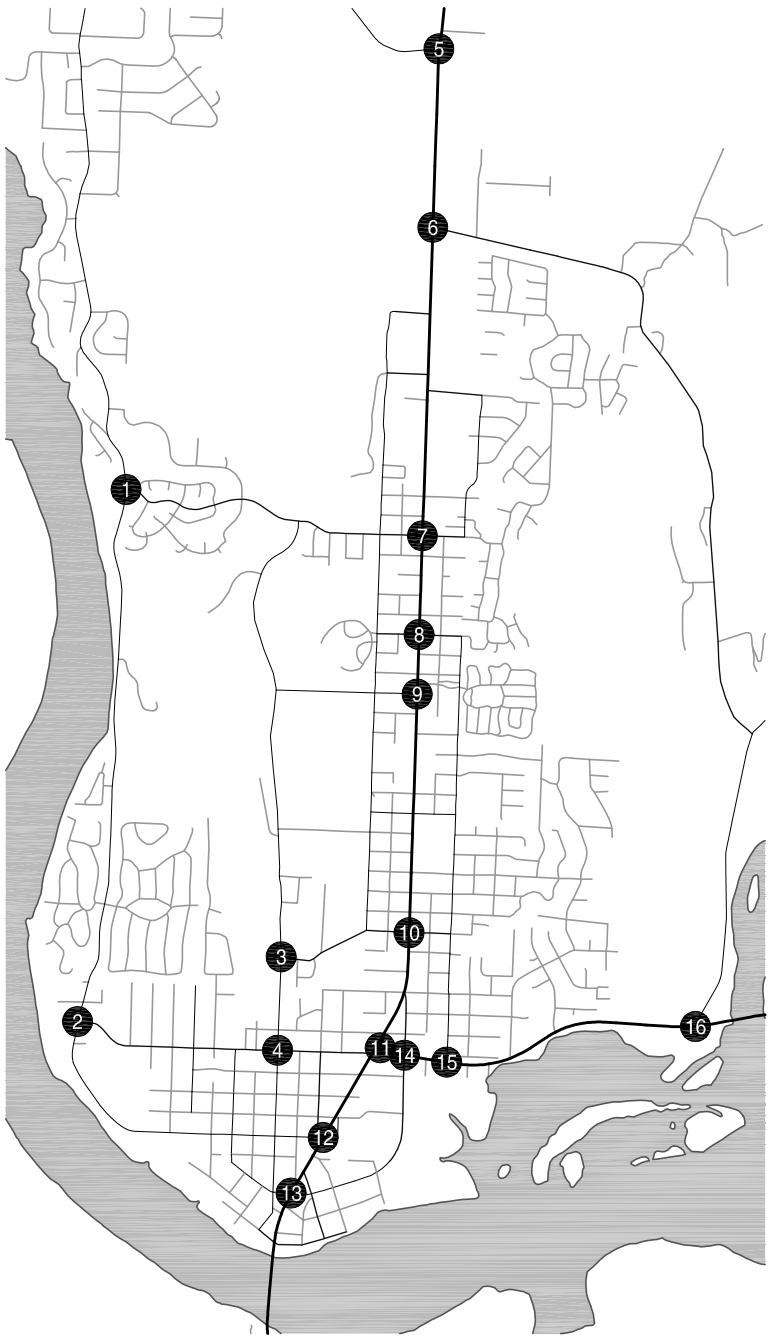
In reviewing Table 4-4, it should be noted that the two-way stop-controlled (TWSC) intersections operated and maintained by ODOT are evaluated using two performance standards; one for the highway approaches and one for the minor street approaches. The major street volume-to-capacity (V/C) ratios shown in Table 4-4 reflect the mobility standards for OR 126 and US 101.

Table 4-4 Summary of ODOT Intersection Performance Standards

Intersection	Traffic Control[1]	Posted Speed Limit (mph)	OHP[2] Mobility Standard
US 101/Heceta Beach Road	TWSC	55	V/C=0.75
US 101/Munsel Lake Road	TWSC	40	V/C=0.80
US 101/35th Street	Signalized	40	V/C=0.80
US 101/30th Street	TWSC	35	V/C=085
US 101/27th Street	TWSC	35	V/C=0.85
US 101/15th St	TWSC	30	V/C=0.85
US 101/OR 126	Signalized	30	V/C=0.85
US 101/Rhododendron Drive	Signalized	30	V/C=0.85
US 101/2nd St	TWSC	30	V/C=0.85
Quince Street/OR 126	TWSC	30	V/C=0.80
Spruce Street/OR 126	TWSC	35	V/C=0.80
N Fork Siuslaw Rd/OR 126	TWSC	45	V/C=0.70

[1] TWSC: Two-way stop-controlled (unsignalized)
[2] OHP: Oregon Highway Plan

(NO SCALE)



1 35TH ST / N RHODODENDRON DR

5 HECETA BEACH RD / OREGON COAST HWY

6 MUNSEL LAKE RD / OREGON COAST HWY

7 35TH ST / OREGON COAST HWY

8 30TH ST / OREGON COAST HWY

9 27TH ST / OREGON COAST HWY

3 15TH ST / KINGWOOD ST

10 15TH ST / OREGON COAST HWY

16 SR-126 / N FORK SIUSLAW RD

2 9TH ST / N RHODODENDRON DR

4 9TH ST / KINGWOOD ST

11 SR-126 / OREGON COAST HWY

14 SR-126 / QUINCE ST

15 SR-126 / SPRUCE ST

12 N RHODODENDRON DR / OREGON COAST HWY

13 2ND ST / OREGON COAST HWY

LEGEND

- STOP SIGN
- TRAFFIC SIGNAL

EXISTING LANE CONFIGURATIONS AND TRAFFIC CONTROL DEVICES
FLORENCE, OREGON

FIGURE 4-6

City Intersections

The City of Florence plans to adopt level-of-service (LOS) or volume-to-capacity (V/C) ratio standards for signalized or unsignalized intersections as part of this TSP update and as required by the Oregon Transportation Planning Rule (TPR).

Therefore, the following proposed minimum operating standards were applied to City intersections:

- LOS "D" is considered acceptable at signalized and all-way stop controlled intersections if the V/C ratio is not higher than 1.0 for the sum of critical movements.
- LOS "E" is considered acceptable for the poorest operating approach at two-way stop intersections. LOS "F" is allowed in situations where a traffic signal is not warranted.

A summary of the performance standards at each of the study intersections under City jurisdiction is included in Table 4-5. *A description of level of service and the criteria by which they are determined is presented in Attachment "E" of Technical Memorandum #4 in Volume II of the Technical Appendix. Attachment "E" also indicates how level of service is measured and what is generally considered the acceptable range of level of service.*

Table 4-5 Performance Standards for City Intersections

Intersection	Traffic Control	Performance Standard
Rhododendron Drive/35th Street	TWSC[1]	LOS "D"
Rhododendron Drive/9th Street	TWSC	LOS "D"
Kingwood Street/15th Street	TWSC	LOS "D"
Kingwood Street/9th Street	TWSC	LOS "D"

[1] TWSC: Two-way stop-controlled (unsignalized)

The operational analysis results shown later in this report were compared with the mobility standards used by ODOT and the City to assess performance and potential areas for improvement.

Traffic Volumes

Manual turning-movement counts were conducted at 12 study intersections in late August and early September 2009. Supplemental counts were conducted at four study intersections in early August 2010. All counts were conducted on a typical summertime mid-week day and include vehicle turning movements, pedestrian movements, bicycle movements, and heavy vehicle percentages. *Attachment "F" of Technical Memorandum #4 in Volume II of the Technical Appendix contains the traffic count worksheets used in the TSP update.*

Seasonal Adjustment Factor

Traffic volumes within Florence tend to fluctuate by time of year due to seasonal factors such as tourist travel. Typically, transportation facilities are not designed for the highest volume of traffic experienced in an hour, but instead, are designed for the 30th highest hour demand experienced over the course of the year. If demand on a given transportation facility was measured every hour in the year, and the demands were ranked from highest to lowest, the 30th highest hour demand would represent the condition for which the system is typically designed (i.e. the "design hour").

The concept of the 30th highest hour demand in estimating transportation or parking capacity requirements recognizes that it is not economically sound to have a roadway congestion-free throughout every hour of the year. By designing the system to satisfy the 30th highest hour demand, typical weekday peaks will operate acceptably.

The 30th highest hour volumes (30 HV) for Florence were derived from the manual turning movement counts conducted at the study intersections in accordance with the methodology described in the ODOT *Analysis Procedures Manual* (APM). The APM describes three methods for estimating 30 HV volumes including the On-Site ATR method, the ATR Characteristic Table method, and the Seasonal Trend Table method. Since there are no ATR's located within the City limits and no ATR's provided in the characteristic table that can accurately represent the conditions in Florence, the Seasonal Trend Table method was selected.

The Seasonal Trend Table provides average values from the ODOT ATR Characteristic Table for each seasonal traffic trend. Values from the Coastal Destination seasonal traffic trend were used to derive 30 HV volumes for Florence.

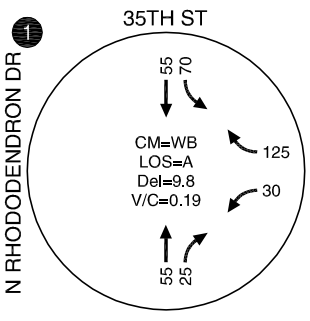
Table 4-6 summarizes the seasonal adjustment factors calculated for each study intersection based on the date the count was conducted, the seasonal factor associated with the count date and the peak period seasonal factor as provided in the ODOT Seasonal Trend Table for 2010.

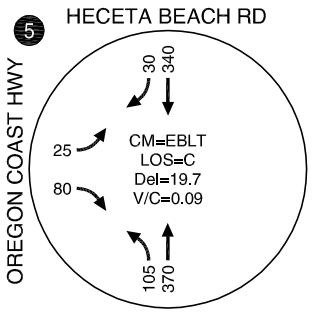
Table 4-6 Seasonal Trend Table

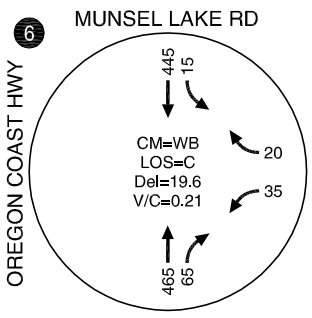
Location	Count Date	Count Data Seasonal Factor	Peak Period Seasonal Factor	Seasonal Adjustment
Kingwood St/15th St	8/5/2010	0.82	0.82	1.0018
Kingwood St/9th St	8/5/2010	0.82	0.82	1.0018
US 101/27th St	8/5/2010	0.82	0.82	1.0018
Quince St/OR 126	8/5/2010	0.82	0.82	1.0018
US 101/Heceta Beach Rd	8/24/2009	0.83	0.82	1.0088
US 101/Munsel Lake Rd	8/24/2009	0.83	0.82	1.0088
US 101/15th St	8/25/2009	0.83	0.82	1.0088
US 101/OR 126	8/25/2009	0.83	0.82	1.0088
Spruce St/OR 126	8/25/2009	0.83	0.82	1.0088
Rhododendron Dr/9th St	8/26/2009	0.83	0.82	1.0088
US 101/35th St	8/26/2009	0.83	0.82	1.0088
US 101/Rhododendron Dr	8/26/2009	0.83	0.82	1.0088
US 101/2nd St	8/26/2009	0.83	0.82	1.0088
N Fork Siuslaw Rd/OR 126	8/26/2009	0.83	0.82	1.0088
Rhododendron Dr/35th St	8/31/2009	0.83	0.82	1.0088
US 101/30th St	9/1/2009	0.88	0.82	1.0788

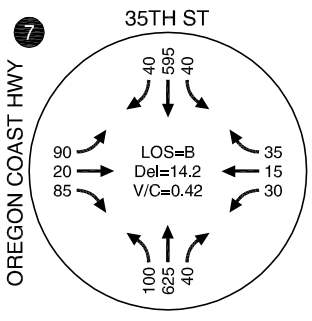
The 30 HV volumes for Florence were ultimately derived by increasing the traffic counts at the study intersections by the factors shown in Table 4-1 in accordance with ODOT's *Analysis Procedures Manual* (APM). Figure 4-7 provides a summary of the seasonally adjusted year 2010 turning-movement counts, which are rounded to the nearest five vehicles per hour for the weekday p.m. peak hour. The findings of the existing conditions analysis are also shown in Figure 4-7 and summarized in Table 4-7 which also shows the applicable mobility standard.

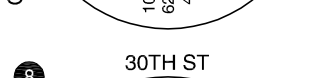
As shown, all study intersections currently meet the applicable mobility and level-of-service standards during the weekday p.m. peak hour. *Attachment "G" of Technical Memorandum #4 in Volume II of the Technical Appendix includes the existing level-of-service analysis worksheets.*

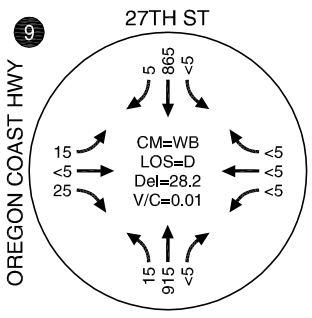


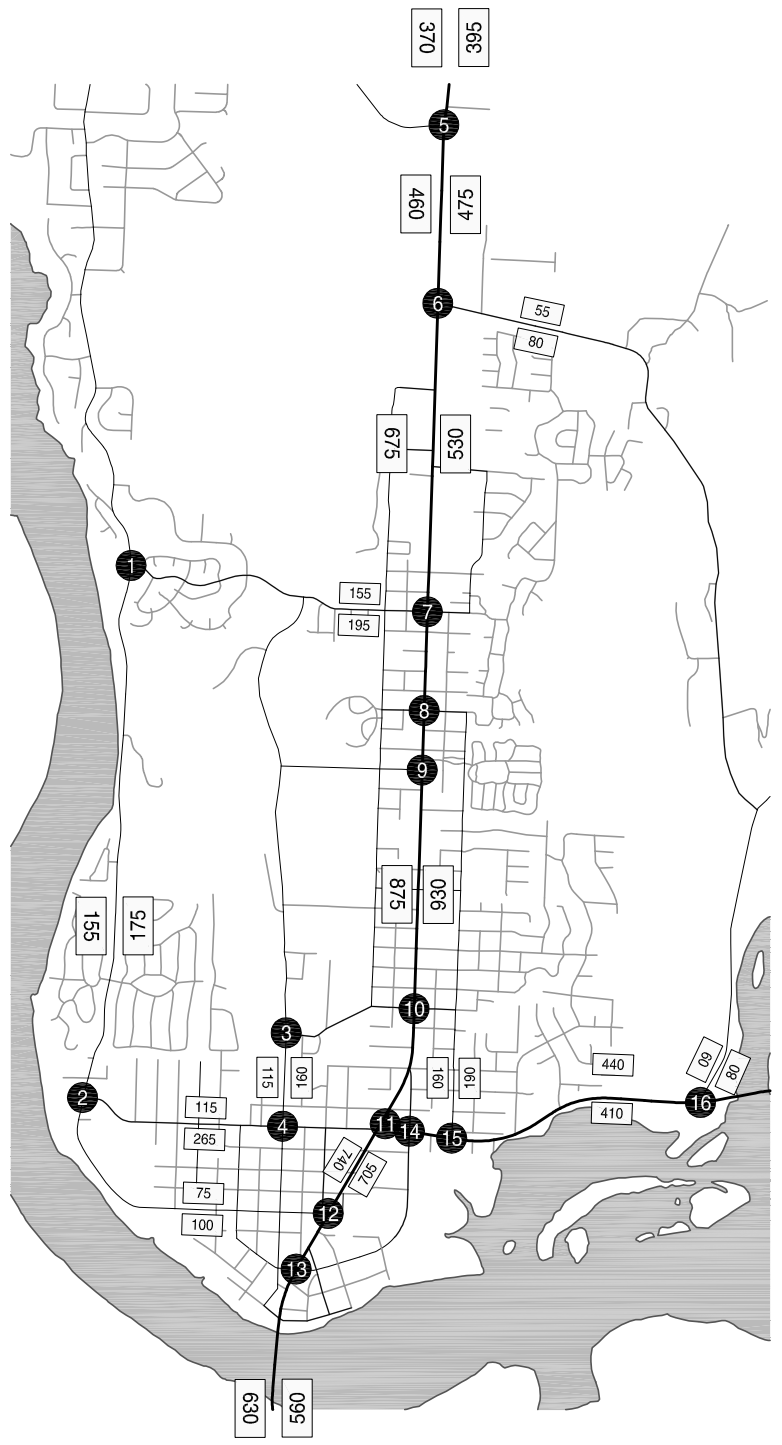


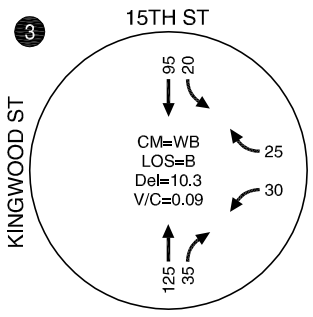


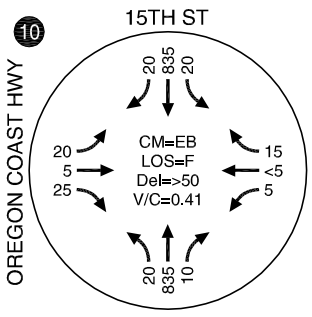


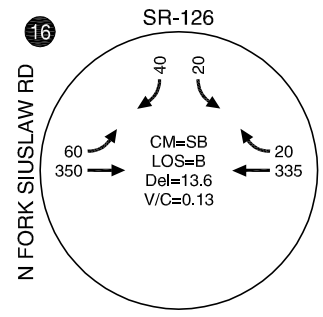


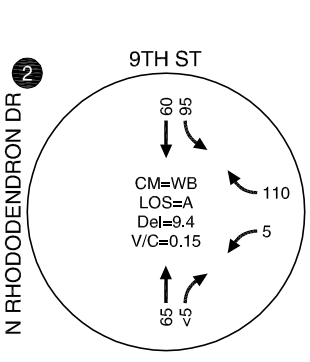


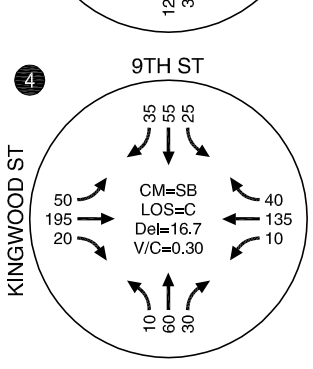


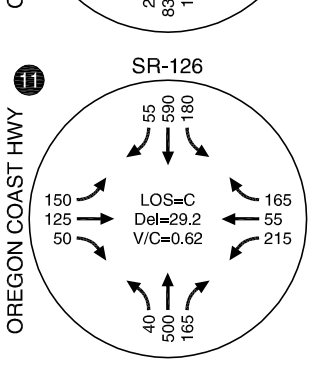


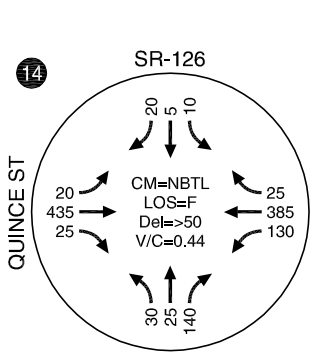


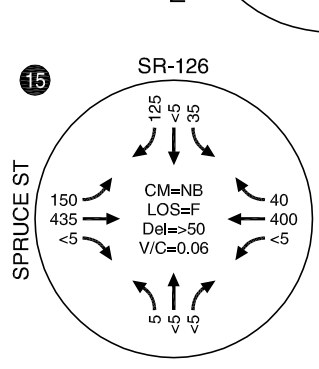


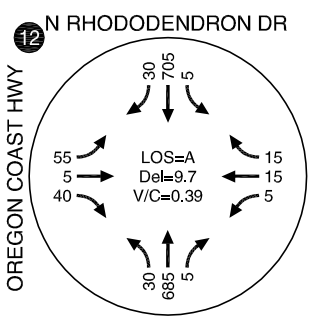


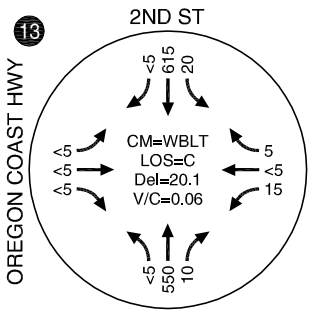












LEGEND

XXXX = LINK VOLUMES (PM PEAK HOUR)

CM = CRITICAL MOVEMENT

LOS = CRITICAL MOVEMENT LEVEL OF SERVICE

Del = CRITICAL MOVEMENT CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

EXISTING TRAFFIC OPERATIONS
WEEKDAY PM PEAK HOUR
FLORENCE, OREGON

FIGURE 4-7

Table 4-7 Intersection Operations Analysis, Existing Weekday PM Peak Hour

Intersection	Traffic Control[1]	Mobility Standard	Existing Operations	Meets Standard?
US 101/Heceta Beach Road	TWSC	V/C=0.75	V/C=0.09	Yes
US 101/Munsel Lake Road	TWSC	V/C=0.80	V/C=0.21	Yes
US 101/35th Street	Signalized	V/C=0.80	V/C=0.36	Yes
US 101/30th Street	TWSC	V/C=0.85	V/C=0.07	Yes
US 101/27th Street	TWSC	V/C=0.85	V/C=0.15	Yes
US 101/15th St	TWSC	V/C=0.85	V/C=0.41	Yes
US 101/OR 126	Signalized	V/C=0.85	V/C=0.48	Yes
US 101/Rhododendron Road	Signalized	V/C=0.85	V/C=0.32	Yes
US 101/2nd St	TWSC	V/C=0.85	V/C=0.06	Yes
Quince Street/OR 126	TWSC	V/C=0.85	V/C=0.44	Yes
Spruce Street/OR 126	TWSC	V/C=0.85	V/C=0.06	Yes
North Fork Siuslaw Road/OR 126	TWSC	V/C=0.85	V/C=0.13	Yes
Rhododendron Road/35th Street	TWSC	LOS "D"	LOS=A	Yes
Rhododendron Road/9th Street	TWSC	LOS "D"	LOS=A	Yes
Kingwood Street/15th Street	TWSC	LOS "D"	LOS=B	Yes
Kingwood Street/9th Street	TWSC	LOS "D"	LOS=C	Yes

[1] TWSC: Two-way stop-controlled (unsignalized)

As shown on Figure 4-7 and Table 4-7, all study intersections currently meet their respective mobility standards during the weekday p.m. peak hour.

SAFETY ANALYSIS

This section provides an analysis of historic roadway safety information in Florence. As a starting point, both state highways in Florence were reviewed for identification in the ODOT Safety Priority Index System. This is followed by an analysis of crash data provided by ODOT. The crash data includes all reported crashes that occurred at study intersections for the five-year period from January 1, 2005 to December 31, 2009.

Safety Priority Index System

The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations on state highways with consideration of crash frequency, crash rate, and crash severity. As described in ODOT's SPIS description, a roadway segment becomes a SPIS site if a location has three or more crashes or one or more fatal crashes over the three-year period. Under this method, all state highways are analyzed in 0.10 mile segments to determine SPIS sites. Statewide, there are approximately 6,000 SPIS sites. SPIS sites are typically intersections, but can also be roadway segments.

According to ODOT's *Project Safety Management System*, four SPIS sites are shown to be in the "85 – 89.99" percentile.

Intersection Crash Data Analysis

ODOT provided detailed crash data covering all crashes that occurred in the City of Florence for the five-year period from January 1, 2005 to December 31, 2009. These five years were the most recent period for which crash data was available. The data were analyzed to determine crash rates for all study intersections and roadway segments.

Crash rates for intersections were calculated in crashes per million entering vehicles (MEV). The crash data are summarized in Table 4-8, including types and severity of crashes as well as crash rate and critical crash rate for each intersection.

Based on a review of the crash data, there were no identifiable patterns or trends in the crash types that would indicate an opportunity for specific engineering treatments to reduce crashes.

Table 4-8 Intersection Crash History (January 1, 2005-December 31, 2009)

Intersection	Collision Type				Severity			Total	Observed Crash Rate
	Rear End	Turn	Angle	Other	PDO[1]	Injury	Fatal		
Signalized Intersections									
US 101 / 35th St	3	0	3	0	4	2	0	6	0.15
US 101 / OR 126	5	7	5	4	16	5	0	21	0.39
US 101 / Rhododendron Drive	2	3	1	1	4	3	0	7	0.26
Two-Way Stop-Controlled Intersections									
Rhododendron Drive / 35th St	1	0	0	0	1	0	0	1	0.12
Rhododendron Drive / 9th Street	0	0	0	0	0	0	0	0	0.00
Kingwood Street / 15th Street	0	0	0	1	0	1	0	1	0.13
Kingwood Street / 9th Street	6	1	0	0	4	3	0	7	0.45
US 101 / Heceta Beach Road	0	1	0	0	1	0	0	1	0.05
US 101 / Munsel Lake Road	0	0	0	0	0	0	0	0	0.00
US 101 / 30th Street	0	2	1	0	3	0	0	3	0.08
US 101 / 27th Street	0	1	0	0	1	0	0	1	0.02
US 101 / Airport Road	3	0	1	0	3	1	0	4	0.09
US 101 / 2nd Street	3	0	0	0	2	1	0	3	0.11
OR 126 / Quince Street	1	2	2	0	3	2	0	5	0.17
OR 126 / Spruce Street	0	2	0	0	2	0	0	2	0.07
OR 126 / N Fork Siuslaw River Road	1	1	0	0	2	0	0	2	0.10

[1]PDO: Property Damage Only.

Segment Crash Data Analysis

ODOT provided crash data summaries for the four SPIS sites in the "85 – 89.99" percentile for the three-year period between January 1, 2007 and December 31, 2009. The US 101/17th Street intersection is

included in two of the sites, US 101 (MP 189.64 to 189.76) and US 101 (MP 189.71 to 189.81). Therefore, crash history at these two sites was combined in the reported summary. The crash data are summarized in Table 4-9 including types and severity of crashes as well as crash rate and critical crash rate for each segment. Milepoint information can be found in Figure 4-1.

These sites have crash rates in the range of approximately 0.63 to 0.74 crashes per million vehicle miles traveled (MVMT). Similar to the intersection analysis, there were no identifiable patterns or trends in the crash types that would indicate an opportunity for specific engineering treatments to reduce crashes.

Table 4-9 Segment Crash History (2007 - 2009)

Roadway Segment	Collision Type						Severity			Total	Observed Crash Rate (MVMT)
	Rear End	Turn	Angle	Ped	Side-swipe	Other	PDO[1]	Injury	Fatal		
Roadway Segments											
US 101 (MP 189.47 – 189.58)	4	2	2	2	1	1	8	4	0	12	0.63
US 101 (MP 189.64 – 189.81)	6	2	2	1	1	2	5	9	0	14	0.74
OR 126 (MP 2.64 – 2.78)	1	0	1	0	2	0	1	3	0	4	0.66

[1]PDO: Property Damage Only.

Safety information and crash records for this analysis are provided in Attachment "I" of Technical Memorandum #4 in Volume II of the Technical Appendix.

Future Transportation Conditions

The following describes the weekday p.m. peak hour traffic volume development and the projected weekday p.m. peak hour traffic operations under year 2035 no-build traffic conditions. This section describes how the Florence street system will operate if traffic grows at projected rates and no improvements or expansions are made to the system.

TRAFFIC VOLUME FORECAST

The turning movement counts provided by ODOT for the existing conditions analysis were used in conjunction with the base and future model volumes provided by the Lane County Council of Governments (LCOG) to derive future turning movements at the study intersections. Year 2035 intersection turning movement volumes were developed using a methodology described in National Cooperative Highway Research Program (NCHRP) *Report 255*.[3] The resulting turning movements were used in the traffic operations analysis described below. *Attachment "J" of Technical Memorandum #4 in Volume II of the Technical Appendix contains the base and future year model outputs from the LCOG transportation demand model, as well as a detailed discussion of model assumptions.*

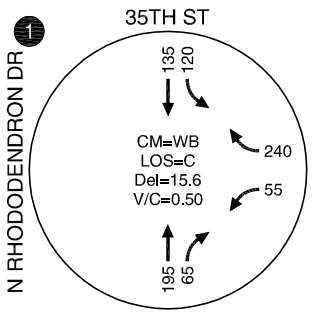
TRAFFIC OPERATIONS ANALYSIS RESULTS

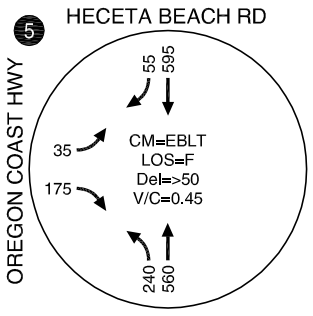
The findings of the future no-build year 2035 conditions analysis are shown in Figure 4-8 and summarized in Table 4-10, which also shows the applicable mobility standard.

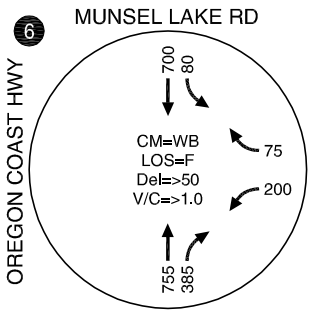
[3] Existing link volumes were derived at each approach to the study intersections by summing the total of the left, through, and right-turning movements from the ODOT traffic counts. The existing link volumes were then evaluated along with the link volumes shown in the base year 2009 and future year 2035 LCOG traffic model following the methodology described in the National Cooperative Highway Research Program Report 255. This document describes two types of adjustment methods used to determine the final link volumes used in the analysis. The two adjustment methods are applied as follows:

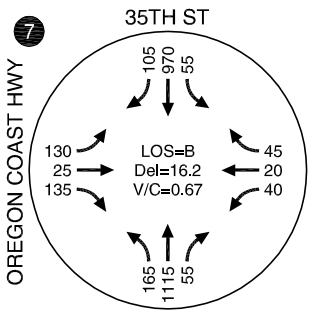
- **Ratio Method**: In the Ratio method the existing volume is divided by the base model volume then multiplied by the future model volume to derive an adjusted volume that takes into account the difference between the models and the observed count. The results of this method were used when the Difference method resulted in a negative number or when the absolute value of the Difference method was greater than the absolute value of the Ratio method.
- **Difference Method**: In the Difference method the base model volume is subtracted from the existing volume then added to the future model volume to derive a future adjusted volume that takes into account the net difference between the models and the observed count. The results of this method were used when the existing volumes were significantly higher than the base model volumes resulting in an excessively high value for the Ratio method.

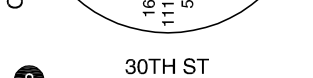
Based on NCHRP *Report 255*, the final model volumes are often the result of an average of the two methods except in those situations described above: when the Difference is less than zero, when the absolute value of the Difference is greater than the absolute value of the Ratio, or when the existing link volume is significantly higher than the base model volume. The volumes selected through this process for the operations analysis were distributed at the study intersections based on the existing distribution. Volumes were then manually balanced or "smoothed" between intersections.

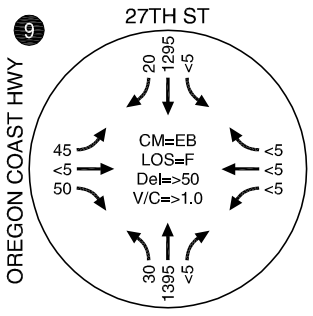


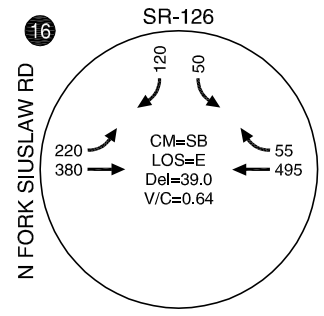


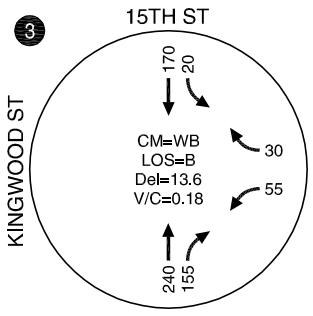


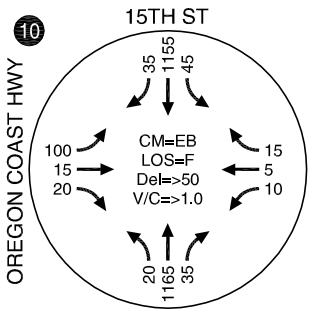


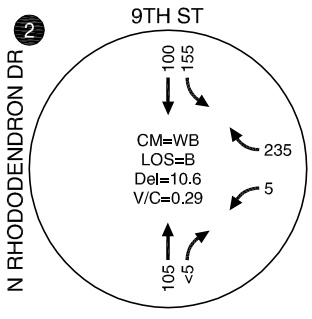


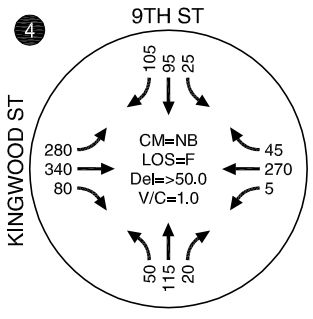


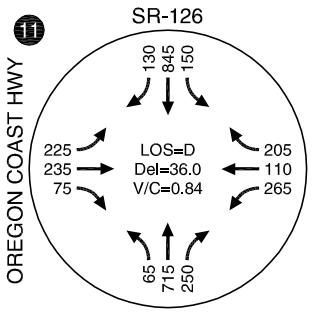


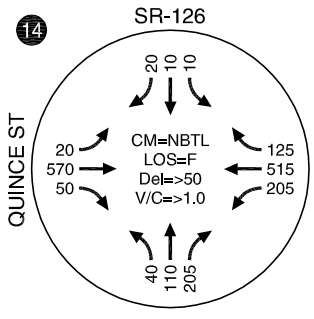


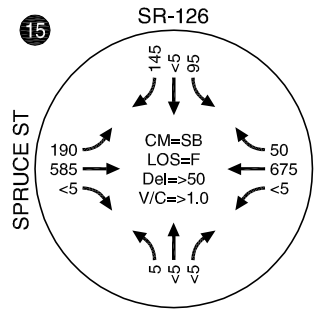


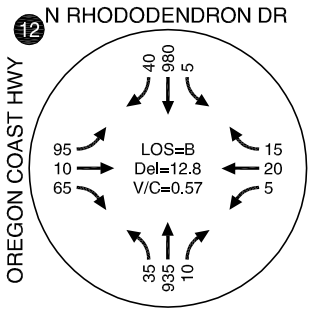


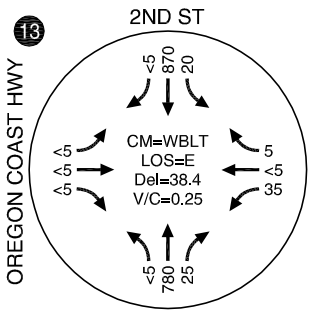












LEGEND

XXXX = LINK VOLUMES (PM PEAK HOUR)

CM = CRITICAL MOVEMENT

LOS = CRITICAL MOVEMENT LEVEL OF SERVICE

Del = CRITICAL MOVEMENT CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

2035 NO-BUILD TRAFFIC OPERATIONS
WEEKDAY PM PEAK HOUR
FLORENCE, OREGON

FIGURE 4-8

Table 4-10 Intersection Operations Analysis, 2035 No-Build Weekday PM Peak Hour

Intersection	Traffic Control[1]	Mobility Standard	Future Operations[2]	Meets Standard?
ODOT Intersections				
US 101/Heceta Beach Road	TWSC	V/C=0.75	V/C=0.45	Yes
US 101/Munsel Lake Road	TWSC	V/C=0.80	V/C=**>1.0**	**No**
US 101/35th Street	Signalized	V/C=0.80	V/C=0.67	Yes
US 101/30th Street	TWSC	V/C=0.85	V/C=0.48	Yes
US 101/27th Street	TWSC	V/C=0.85	V/C=**>1.0**	**No**
US 101/15th Street	TWSC	V/C=0.85	V/C=**>1.0**	**No**
US 101/OR 126	Signalized	V/C=0.85	V/C=**0.84**	Yes
US 101/Rhododendron Road	Signalized	V/C=0.85	V/C=0.57	Yes
US 101/2nd Street	TWSC	V/C=0.85	V/C=0.25	Yes
Quince Street/OR 126	TWSC	V/C=0.80	V/C=**>1.0**	**No**
Spruce Street/OR 126	TWSC	V/C=0.80	V/C=**>1.0**	**No**
North Fork Siuslaw Road/OR 126	TWSC	V/C=0.70	V/C=0.64	Yes
City Intersections				
Rhododendron Road/35th Street	TWSC	LOS "D"	LOS=C	Yes
Rhododendron Road/9th Street	TWSC	LOS "D"	LOS=B	Yes
Kingwood Street/15th Street	TWSC	LOS "D"	LOS=B	Yes
Kingwood Street/9th Street	TWSC	LOS "D"	LOS=**F**	**No**

[1]TWSC: Two-way stop-controlled (unsignalized)

[2] V/C ratios reported for signalized intersection reflect the overall intersection V/C ratio; for unsignalized intersections, the reported V/C ratio is for the critical minor-street approach.

[3] Recent policy and intent clarifications by ODOT considers calculated vales for V/C ratios within 0.03 of the adopted standard in the OHP to be considered in compliance with the standard.

As shown in Figure 4-8 and Table 4-10, there are five study intersections under ODOT's jurisdiction that are forecast to exceed the applicable OHP mobility standard under future no-build traffic conditions. The Kingwood Street/9th Street intersection is also forecast to operate unacceptably under future no-build traffic conditions. Improvements at these intersections as well as those potentially impacted by other future "build" improvements will need to satisfy the mobility standards identified previously. *Attachment "K" of Technical Memorandum #4in Volume II of the Technical Appendix includes the future year 2035 no-build level-of-service analysis worksheets.*

It should be noted that recent policy and intent clarifications by ODOT regarding Oregon Administrative Rule (OAR) 660-012-0060 (the Transportation Planning Rule [TPR]) considers calculated vales for V/C ratios within 0.03 of the adopted standard in the OHP to be considered in

compliance with the standard. As such, forecast V/C ratios at ODOT intersections can be considered compliant with the TPR when they are within 0.03 of the adopted standard in the OHP.

US 101/Munsel Lake Road

The US 101/Munsel Lake Road intersection is a three-legged intersection with stop control on the minor street (Munsel Lake Road) approach. The minor street approaches are currently one lane only. The forecast heavy westbound left-turn demand from Munsel Lake Road experiences long delays in entering the US 101 traffic stream, and causes the critical westbound approach to operate over capacity.

US 101/27th Street

The US 101/27th Street intersection is a four-legged intersection with stop control on the minor street (27th Street) approaches. The minor street approaches are currently one lane only. While side street volumes are not forecast to be very high, the high northbound and southbound through volumes do not provide for adequate gaps in traffic for vehicles wishing to cross or turn left onto US 101, causing the eastbound single-lane approach to operate over capacity.

US 101/15th Street

The US 101/15th Street intersection is a four-legged intersection with stop control on the minor street (15th Street) approaches. The minor street approaches are currently one lane only. While side street volumes are not forecast to be very high, the high northbound and southbound through volumes do not provide for adequate gaps in traffic for vehicles wishing to turn onto US 101, causing the eastbound single-lane approach to operate over capacity.

OR 126/Quince Street

The OR 126/Quince Street intersection is a four-legged intersection with stop control on the minor street (Quince Street) approaches. The minor street approaches are currently one lane only. Heavy demand is forecast for the northbound approach on Quince, and the volume of through traffic on OR 126 does not provide for adequate gaps in traffic for vehicles wishing to cross or turn left onto OR 126, causing the northbound shared left-through lane to operate over capacity.

OR 126/Spruce Street

The OR 126/Spruce Street intersection is a four-legged intersection with stop control on the minor street (Spruce Street) approaches. The minor street approaches are currently one lane only. Heavy demand is forecast for the southbound approach on Spruce, and the volume of through traffic on OR

126 does not provide for adequate gaps in traffic for vehicles wishing to turn onto OR 126, causing the southbound single-lane approach to operate over capacity. Southbound, Spruce Street is wide enough to allow right-turning vehicles to pass by vehicles waiting to turn left, but this additional capacity may not always be available depending on vehicle alignment/size and the aggressiveness of the driver.

Kingwood Street/9th Street

The Kingwood Street/9th Street intersection is a four-legged intersection with stop control on the Kingwood Street approaches (northbound and southbound). Heavy through and left-turn volumes on 9th Street do not provide for adequate gaps in traffic for vehicles wishing to cross or turn left onto Kingwood Street, causing the northbound and southbound stop-controlled approaches to operate at LOS F.

Section 5

Local Street System

LOCAL STREET SYSTEM

This section outlines a variety of alternatives evaluated to address future needs of the Florence Urban Area transportation system. Finally, the *Key Development Areas* section summarizes the proposed projects of all types within each of the key growth areas identified by the City. It is critical to minimize transportation barriers to development in the areas that are targeted for growth to minimize sprawl into other areas. Details of the evaluations are provided in *Technical Memorandum #5: Local Street System in Volume II of the Technical Appendix*. For reference, the planned projects are illustrated on Figure 10-1 and summarized by time frame in Table 10-1 through Table 10-4, Table 10-6, and Table 10-7, which are provided in Section 10 of this document.

Summary of Needs and Deficiencies

Summaries are organized in the following subsections:

- **Safety Focused Intersection and Roadway Segments** – Summarizes safety deficiencies identified at study intersections and roadway segments under existing conditions.
- **Forecasted Traffic Operations Issues** – Summarizes intersection operational deficiencies identified at study intersections under year 2035 future conditions.

SAFETY FOCUS INTERSECTIONS AND ROADWAY SEGMENTS

The crash data reviewed in existing conditions does not present identifiable patterns or trends in crash types that would indicate an opportunity for specific engineering treatments to reduce crashes.

Three roadway segments were identified on ODOT's Safety Priority Index System (SPIS) list. However, no obvious crash patterns in these roadway segments were identified that would suggest potential mitigation measures.

FORECASTED TRAFFIC OPERATIONS ISSUES

Based on the travel demand forecasts and operational analysis conducted for the study intersections, the following locations are expected to operate in excess of the applicable performance standards under year 2035 No-Build conditions:

- US 101/Munsel Lake Road
- US 101/27th Street

- US 101/15th Street
- 9th Street/Kingwood Street
- OR 126/Quince Street
- OR 126/Spruce Street

The No-Build year 2035 forecasted turning movements and operations for each of the above study intersections is provided in Figure 4-8 of Technical Memorandum #4 in Volume II of the Technical Appendix.

Alternatives Analysis

Alternative treatments, strategies and approaches that can be used to improve existing and forecasted transportation system deficiencies in the project study area are organized in the following subsections:

- **Roadway Safety** – Presents measures to reduce crashes and address safety concerns at intersections and along roadway segments based on their crash history.
- **Local Street Connectivity** – Discusses strategies for improving local street connectivity to minimize the need for out-of-direction travel for all travel modes.
- **Access Management** – Presents treatments and policies for managing the frequency and density of driveways along roadways.
- **Transportation System Management (TSM)** – Discusses measures aimed at optimizing traffic operations of the existing roadway system.
- **Transportation Demand Management (TDM)** – Presents strategies to influence and manage the demand for travel on a system. For example, TDM methods would be employed to explore measures that encourage non-essential trips (e.g., trips to the grocery store) to occur outside of peak commuting hours.
- **Capacity Enhancing Roadway Treatments** – Presents treatments and approaches for adding capacity at existing intersections or along roadways.

These sub-sections are intended to outline the options or alternatives for addressing the deficiencies and needs noted in the previous section.

For ease of referencing, proposed projects, policies, programs, and travel demand management strategies have been numbered. The referencing codes are described below:

- **PRJ-XX**: Roadway Project

- **PRO-XX**: Specific Plan
- **TDM-XX**: Travel Demand Management Strategy

ROADWAY SAFETY

While no imminent safety concerns were identified at study intersections or roadway segments, improved safety for all modes should continue to be a focal point of other improvements and community enhancements.

LOCAL STREET CONNECTIVITY

The City of Florence transportation system currently relies heavily on the state highway system for local travel. In particular, north/south travel through the City is largely required to use US 101. Absence of contiguous parallel north/south facilities exacerbates this condition. The lack of contiguous east-west connections across Florence also adds to congestion on OR 126. As such, local trips often must navigate amongst regional traffic.

Local Street Improvement Options

Many local improvements have been identified by City of Florence area planning documents that would serve to alleviate local trip reliance on the state highway system. The local street improvements identified below include those suggested for consideration either in these documents or by the Project Advisory Committee for inclusion in the updated TSP. Year 2035 forecasts have been prepared using the travel demand model to determine the future system capacity needs with the inclusion of these local street improvements. Analysis of these forecasts and their implications on transportation system needs is shown later in this memorandum. The local street improvements considered for inclusion in the updated TSP include:

- **Pacific View Drive Extension (PRJ-1)** – This improvement would extend the existing Pacific View Drive from its current terminus southwest to connect to N Rhododendron Drive at New Hope Way. This connection would enhance local east/west connectivity and reduce reliance on 35th Street and 9th Street.
- **Munsel Lake Road Extension (PRJ-2)** – This improvement would extend Munsel Lake Road to Oak Street, improving local connectivity and circulation.
- **Oak Street North Extension (PRJ-6)** – Extend Oak Street south from Heceta Beach Road to the northern portion of Fred Meyer. This connection would improve local connectivity and circulation.

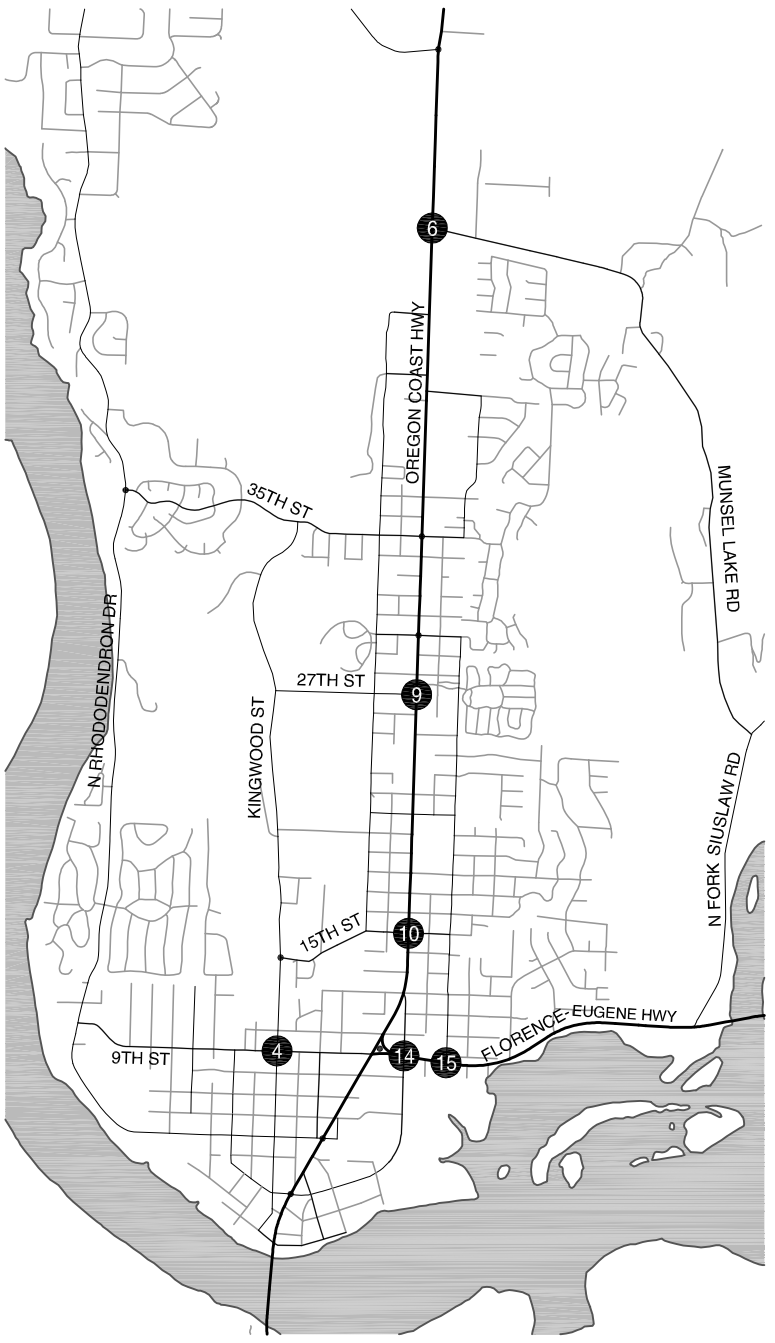
- **20th Street Public Works Driveway (PRJ-7)** – Provide driveway from 20th Street to Lane County Public Works.
- **Spruce Street Extension (PRJ-8)** – Construct a new section of Spruce Street north from its current terminus (north of Munsel Lake Road) to Heceta Beach Road. This new collector road will provide local access to future development areas, and should align with Heceta Beach Road at a single four-legged intersection on US 101.

Local Intersection Improvement Options

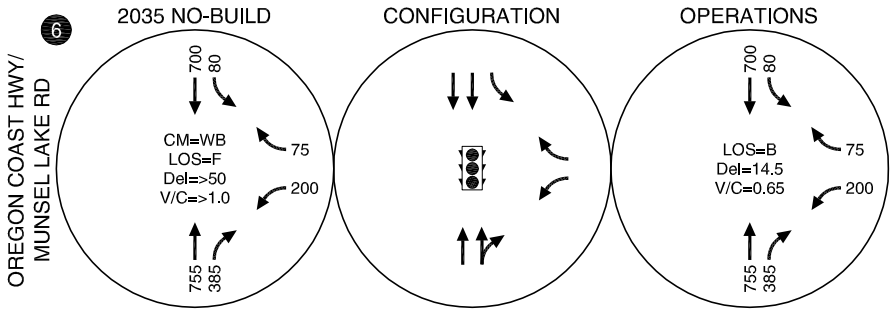
The 2035 No-Build analysis in Section 4 reveals those intersections listed below as needing improvements. Operations analysis was performed to determine the appropriate options for mitigation of each of these failing study area intersections. Accordingly, Figure 5-1 shows the operations of each of these intersections with no mitigation, and then with potential mitigations. In most cases, there are multiple potential mitigations available to meet City or ODOT mobility standards; the resultant operations for each of the optional treatments are shown in this figure. Approval from ODOT is required to implement any improvements to intersections on a state highway.

- **US 101/Munsel Lake Road intersection (PRJ-9)** – This intersection is projected to operate unacceptably in 2035, based on ODOT mobility standards. A traffic signal was identified in the 2008 TSP, consistent with the analysis provided in this TSP update.
- **US 101/27th Street (PRJ-10)** – This intersection is projected to operate unacceptably in 2035, based on ODOT mobility standards. A traffic signal would restore future operations to meet ODOT mobility standards. (Note: The 2002 TSP identified the need for a future traffic signal at 27th Street to address operational deficiencies. Subsequently, but prior to installation, a bicyclist fatality occurred at the US101/30th Street intersection, and the City revised its TSP to prescribe a signal at 30th Street instead. Signal warrants at 30th Street were not met and ODOT installed a pedestrian signal to address this safety issue.)
- **US 101/15th Street (PRJ-11)** – This intersection is projected to operate unacceptably in 2035, based on ODOT mobility standards. A traffic signal would restore future operations to meet ODOT mobility standards.
- **9th Street/Kingwood Street (PRJ-12)** – This intersection is projected to operate unacceptably in 2035, based on proposed City mobility standards. A traffic signal would restore future operations to meet City standards.

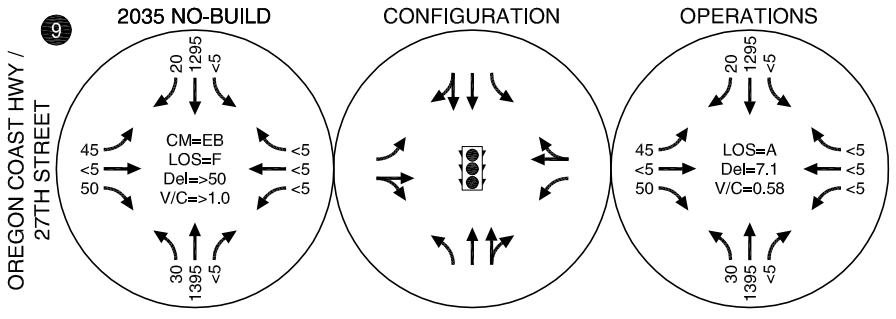
(NO SCALE)



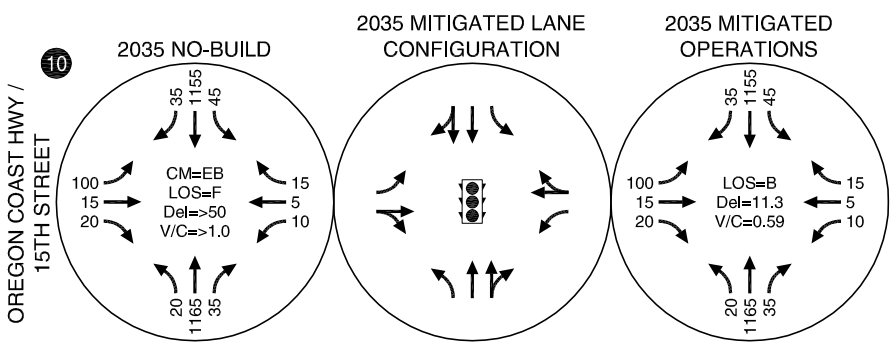
6 OREGON COAST HWY / MUNSEL LAKE RD



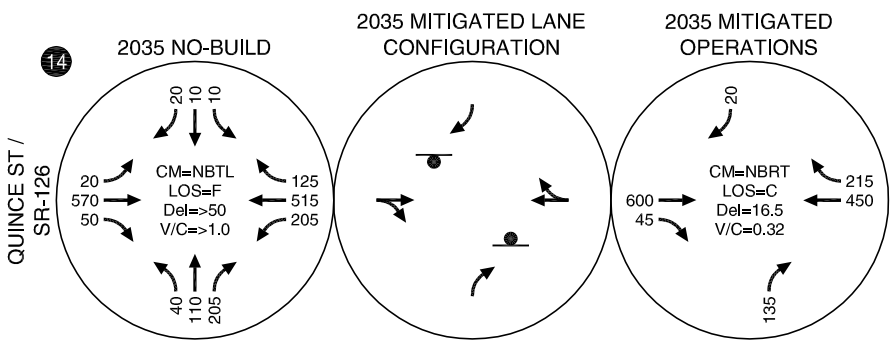
9 OREGON COAST HWY / 27TH STREET



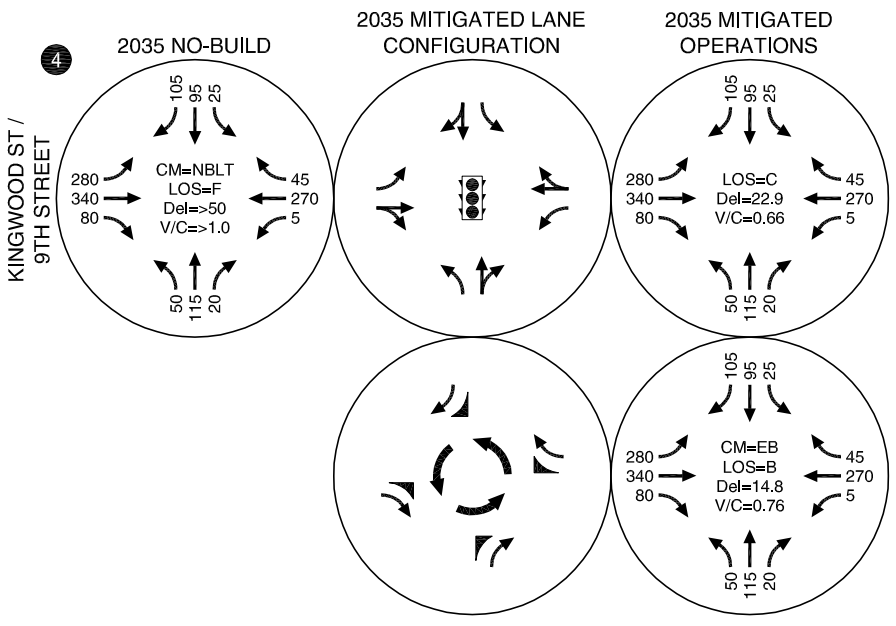
10 OREGON COAST HWY / 15TH STREET



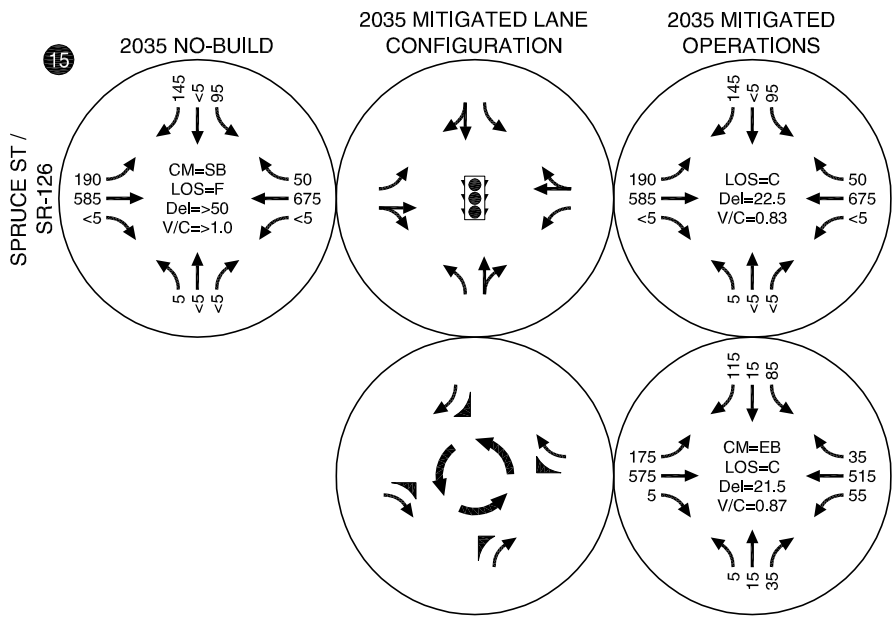
14 QUINCE ST / SR-126



4 KINGWOOD ST / 9TH STREET



15 SPRUCE ST / SR-126



NOTE: ROUNDABOUT VOLUMES BASED ON 2035 ALTERNATIVE 4 (8TH STREET EXTENSION) MODEL OUTPUT VOLUMES

LEGEND

- STOP SIGN
- TRAFFIC SIGNAL
- ROUNDABOUT

CM = CRITICAL MOVEMENT

LOS = CRITICAL MOVEMENT LEVEL OF SERVICE

Del = CRITICAL MOVEMENT CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

SUMMARY OF 2035 OPERATIONAL DEFICIENCIES AND POTENTIAL MITIGATIONS
WEEKDAY PM PEAK HOUR
FLORENCE, OREGON

FIGURE 5-1

- **OR 126/Quince Street (PRJ-13) –** This intersection is projected to operate unacceptably in 2035, based on ODOT mobility standards. Given the close proximity of this intersection to the US 101/OR 126 signalized intersection, neither a traffic signal nor roundabout is recommended at this location. The system improvement being considered at this intersection is to eventually restrict the northbound left-turn movement. ODOT has final authority at this intersection to determining appropriate movements.

- **OR 126/Spruce Street (PRJ-14) –** This intersection is projected to operate unacceptably in 2035, based on ODOT mobility standards. A traffic signal would restore future operations to meet ODOT mobility standards.

- **US 101 Widening (PRJ-15)** – This project would widen US 101 to provide two northbound travel lanes from 42nd Street to Munsel Lake Road.

- **27th Street Widening (PRJ-16)** – This project would widen 27th Street to a three-lane cross-section (12-foot center turn lane) with bike lanes and sidewalks between Oak Street and US 101.

- **Rhododendron Drive Improvement (PRJ-17)** – This project would implement the vision for Rhododendron Drive as described in the Rhododendron Drive Integrated Transportation Plan. Because of its length and various user groups, this project is segmented into five sections:

    - **US 101 to Hemlock Street (PRJ-17A)** – Construct the full Collector (Bike Sharrows with On-Street Parking) cross-section for this segment (See Figure 9-7).

    - **Hemlock Street to 9th Street (PRJ-17B)** – Construct the Transition Collector cross-section for Rhododendron Drive for this segment (See Figure 9-6).
    - **9th Street to 35th Street (PRJ-17C)** - Construct the Rhododendron Drive standard minor arterial

Photo: Chris Tiesler

cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section should be used (See Figure 9-3).

- **35th Street to N Jetty Road (PRJ-17D)** - Construct the Rhododendron Drive standard minor arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section should be used (See Figure 9-3).

- **N Jetty Road to Heceta Beach Road (PRJ-17E)** - Construct the Rhododendron Drive standard minor arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section should be used (See Figure 9-3).

- **US 101 Bike Lanes (PRJ-18)** - Provide bike lanes between the Siuslaw River Bridge and OR 126.

ACCESS MANAGEMENT

Access management is the systematic implementation and control of the locations, spacing, design, and operations of driveways, median openings, roundabouts, and street connections to a roadway, according to the Access Management Manual (AMM). Access management involves managing the location, spacing and design of driveways, medians, turn lanes and public road intersections on major roadways to improve the safety and operation of the roadway for all modes of travel. Access points located too close together on major roads cause safety problems and contribute to traffic congestion. Each access point creates potential conflicts between through traffic and traffic using the access points. When the number of access points increase, so does the number of crashes. Access points also cause drivers to change lanes or slow down to turn into an access, forcing other drivers to have to slow down too. Managing roadway access improves safety, reduces congestion, and creates a more attractive business environment.

ODOT and Lane County have the authority to regulate approaches on state highways and county roads in Florence. ODOT and the City adopted the Access Management Plan for US 101 in Downtown Florence in 2004, which applies to the portion of US 101 between the Siuslaw River Bridge and OR 126. On other portions of US 101 and OR 126, statewide access management standards apply. Access spacing standards resulting from Senate Bill 264 went into effect in January 2012; these standards call for

spacing of 500 feet between approaches where the speed limit is 30 or 35 miles per hour, and spacing of 800 feet where the speed limit is 40 or 45 miles per hour.

Table 5-1 shows that average approach spacing on US 101 and OR 126 in Florence currently exceed Senate Bill 264 standards except for a segment of OR 126 west of Spruce Street. Specific corridors that should be prioritized for access management refinement plans are discussed further below. The observed access spacing that exists today for each of these corridors is also shown in Table 5-1.

Table 5-1 Observed Average Access Point Spacing

Corridor	Segment	Distance (feet)	Number of Access Points / Average Spacing Between Accesses (feet)	
			Northbound (US 101) or Eastbound (OR 126)	Southbound (US 101) or Westbound (OR 126)
US 101	2nd Street to OR 126	2,400	12 / 200 feet	11 / 218 feet
	OR 126 to 21st Street	3,790	19 / 199 feet	20 / 190 feet
	21st Street to 35th Street	4,250	18 / 236 feet	17 / 250 feet
	35th Street to Munsel Lake Road	4,730	13 / 363 feet	18 / 263 feet
	Munsel Lake Road to Heceta Beach Road	2,730	8 / 341 feet	8 / 341 feet
OR 126	US 101 to Spruce Street	1,080	3 / 360 feet	2 / 540 feet
	Spruce Street to N Fork Siuslaw Road	3,950	6 / 658 feet	2 / 1,975 feet

A person must apply to ODOT for a permit before constructing or altering any highway approach, or when a change of use increases trips from a property over specified thresholds. While ODOT will seek to limit approaches to state highways to achieve spacing standards applicable at the time of permit review, Senate Bill 264[4] limits the ability of ODOT to deny reasonable access to any property abutting the highway.

[4] Enrolled Senate Bill 1024 (2010) directed ODOT, in cooperation with stakeholders, to develop proposed legislation to codify, clarify and bring consistency to issuance of access based on objective standards and to establish less stringent access management rules, measures and spacing and mobility standards for highway segments where the annual amount of daily traffic is 5,000 vehicles or fewer.

http://www.oregon.gov/ODOT/HWY/ACCESSMGT/SB264.shtml

Local access management standards apply on local streets. The City of Florence may want to develop and adopt access management standards to protect the operation of local streets, particularly in commercial districts such as downtown Florence and the Pacific View Business Park.

Local access management standards can also apply on State and County roadways if the local standards are more restrictive than the State or County standards. The City of Florence may want to develop and adopt local access management standards that apply to State highways and County roadways to give the City standing to ensure that approach patterns are consistent with the City's vision and planned land uses along these roadways. Local standards can augment State and County standards by, for example, providing a mechanism for negotiation of property cross-easements to allow consolidation of driveways.

Access Management Recommendations

Currently, the City of Florence and ODOT do not have access management policies specific to OR 126 or US 101 north of OR 126 in Florence. While ODOT has general access spacing standards and policies for highways in urban areas across the state that can be applied to Florence, an access management plan could be specifically designed for the US 101 and OR 126 corridors. This will allow the character, context, and vision for the roadway to be considered when standards are developed. The City of Florence could develop and adopt local access management standards as provisions in the City's development code, or in conjunction with ODOT as formal plans that apply to specific highway segments in Florence.

As such, the following projects are identified for future access management plan development:

- US 101 Access Management Plan (**PRO-1**) – US 101 serves both as the primary north/south route through the City of Florence, as well as a principal provider of local access to commercial development within the City. As such, access and mobility along this corridor north of OR 126 should be balanced.
- OR 126 Access Management Plan (**PRO-2**) – OR 126 serves as the primary route connecting to the Eugene/Springfield area to the east, as well as a principal provider of access to local businesses and residential areas. As such, access and mobility along this corridor should be balanced.

Case Study: Downtown Florence

US 101 between the intersection with OR 126 and the Siuslaw River Bridge is designated as a Special Transportation Area (STA) in the Oregon Highway Plan. An STA is a district of compact development where the need for local access outweighs considerations of highway mobility.

The City and ODOT have collaborated on a variety of studies to implement the STA designation on US 101, and to support and revitalize downtown Florence as the center for cultural, commercial, and community activities for residents and visitors. These studies have identified the City's vision for land uses in the downtown Florence area and transportation investments needed to support those land uses. These studies include:

- The *1999 Florence Downtown Implementation Plan*, which identifies US 101 as the center of Florence's downtown, includes commercial districts on both sides of US 101 in downtown Florence, and seeks to improve access and visibility to Old Town from US 101.
- The *1999 Gateway District: OR 126 and Quince Street Study*, which describes the OR 126/Quince Street intersection as an important gateway to downtown Florence and identifies design guidelines and transportation improvements needed to improve the appearance and function of this area.
- The *2004 Access Management Plan for US 101 in Downtown Florence*, which describes a range of measures for improving the operation of US 101 between the Siuslaw River Bridge and OR 126, including approaches for consolidation or closure, intersection realignments, and a new signal on US 101 at 2nd Street.

A variety of measures identified in these plans have been implemented, including the realignment of 2nd Street, development of parking lots in Old Town, and the provision of marked mid-block pedestrian crossings on US 101. These plans include many proposed improvements to the roadway system in Florence that have not been implemented; these proposed improvements should be reflected in the City's updated TSP. Proposed improvements from previous plans for downtown Florence that should be included in the City's TSP include the following:

- Stripe / mark on-street parking spaces on US 101. (Implementation Plan, p. 6)
- Extend Old Town historic street light program to US 101. (Implementation Plan, p. 6)
- Install irrigation and plant street trees in Siuslaw Bridge Gateway area on US 101. (Implementation Plan, p. 6)

- Improve connectivity in Old Town by extending and connecting local streets. (Implementation Plan, p. 6)
- Create a Downtown Green between US 101, 2nd Street, and Maple Street as a center for downtown Florence and a gateway to Old Town. (Implementation Plan, p. 9)
- Implement parking signage system to direct visitors to available parking. (Implementation Plan, p. 9)
- Develop parking district plan for Old Town and development of parking lots and accessways. (Implementation Plan, p. 16; Access Management Plan, Figures 2a and 2b)
- Extension of 8th Street east of Quince Street to connect to Redwood Street (Gateway District, p. 10)
- Signal at US 101 and 2nd Street to provide access to Old Town. (Access Management Plan, Figure 2a)

Additional analysis of traffic circulation at OR 126 and Quince Street has been conducted for this TSP update, in light of the turn restrictions identified for this intersection. An extension of 8th Street east of Quince Street to Spruce Street has been identified as an improvement that would allow westbound traffic on OR 126 to turn left at Spruce Street to access Old Town Florence without using the OR 126/Quince Street intersection or US 101. This extension would require a bridge over Munsel Creek, one block south of OR 126.

TRANSPORTATION SYSTEM MANAGEMENT (TSM)

TSM strategies include a wide variety of measures aimed at improving operations of existing transportation facilities. TSM measures can be focused on improving transportation "supply" through enhancing capacity and efficiency, typically with advanced technologies to improve traffic operations. Or they may be focused on reducing transportation demand, through promoting travel options and ongoing programs intended to reduce demand for drive alone trips, especially during peak travel periods.

The sections below present possible TSM alternatives that could be applied in the City of Florence to improve the capacity and efficiency of the transportation system.

Signal Retiming/Optimization (PRO-3)

Signal retiming and optimization refers to updating timing plans to better match prevailing traffic conditions and coordinating signals. Timing optimization can be applied to existing systems or may

include upgrading signal technology, including signal communication infrastructure or signal controllers or cabinets. Signal retiming can reduce travel times and be especially beneficial to improving travel time reliability. Signal retiming could also be implemented to improve or facilitate pedestrian movements through intersections by increasing minimum green times to accommodate pedestrian crossing movements during each cycle in high pedestrian or desired pedestrian traffic areas, eliminating the need to push pedestrian crossing buttons. Bicycle movements could be facilitated by installing bicycle detection along existing or proposed bicycle routes. Signal upgrades often come at a higher cost and usually require further coordination between jurisdictions.

ODOT operates and maintains the timing of traffic signals along US 101. Although several of the signals were updated in 2008 and 2009, the traffic signal at the US 101/OR 126 intersection has not been updated since its installation in 2002. A system wide update to traffic signal timings and/or hardware/software may benefit the efficiency of the transportation system.

Advanced Signal Systems (PRO-4)

Advanced signal systems incorporate various strategies in signal operations to improve the efficiency of a transportation network. Strategies may include coordinated signal operations across jurisdictions as well as centralized control of traffic signals. Advanced signal systems can reduce delay, travel time and the number of stops for vehicles, while potentially increasing average vehicle speed. In addition, these systems may help reduce vehicle emissions and have a high impact on improving travel time reliability.

Advanced signal systems may be applied to several innovative control strategies. The costs of these systems vary as a function of the types of controllers, programming needs and detection needs. Implementing any of these systems would require coordination between the City of Florence, Lane County, and ODOT. Alternative signal systems include:

- **Adaptive or active signal control systems** improve the efficiency of signal operations by actively changing the allotment of green time for vehicle movements, thus reducing average delay for vehicles. Adaptive or active signal control systems require several vehicle detectors at intersections and hardware and software upgrades to detect traffic flows adequately.

  Potential City of Florence Application: US 101/OR 126 intersection

- **Traffic responsive control** uses data collected by traffic detectors to change signal timing plans for intersections. The data is used by the system to automatically select a timing plan

best suited to current traffic conditions. This system is able to determine times when peak-hour timing plans begin or end; potentially reducing vehicle delays.

Potential City of Florence Application: US 101/OR 126 intersection

- **Truck signal priority systems** use sensors to detect approaching heavy vehicles and alter signal timings to improve truck freight travel. While truck signal priority may improve travel times for trucks, its primary purpose is to improve the overall performance of intersection operations by clearing any trucks that would otherwise be stopped at the intersection and subsequently have to spend a longer time getting back up to speed. Implementing truck signal priority requires additional advanced detector loops, usually placed in pairs back from the approach to the intersection.

  Potential City of Florence Application: US 101

TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM measures include any method intended to shift travel demand from single occupant vehicles to non-auto modes or carpooling, travel at less congested times of the day, or to divert trips to locations with more available vehicle capacity. Some common examples of TDM strategies include programs such as carpool matching assistance or flexible work shifts; parking management strategies; direct financial incentives such as transit subsidies; or facility or service improvements, such as bicycle lockers or increased bus service.

Some of the most effective TDM strategies are best implemented by employers and are aimed at encouraging non-single occupancy vehicle (SOV) commuting. Strategies include preferential carpool parking, subsidized transit passes, and flexible work schedules. Cities and other public agencies can play a critical role in support of TDM through provision of facilities and services, as well as development policies that encourage TDM.

While many TDM strategies are most effectively implemented by employers, there are numerous strategies that cities can implement or support with other agencies. These include access management and connectivity strategies (that enhance pedestrian and bicycle travel) that are more often associated with roadway elements of planning. Other strategies include provision of facilities (sidewalks, bicycle lanes, transit amenities) and management of existing resources (parking). Another critical role that cities play is in the policies related to development activities. Through support, incentive, and mandate, cities can ensure that new development supports a balanced transportation system. Several broad TDM strategies are summarized in Table 5-2. The table also identifies typical implementation roles.

Table 5-2 TDM Strategies and Typical Implementing Roles

TDM Strategy		City	County	Transportation Management Association[1]	Developers	Transit Provider	Employers	State
TDM-1	Public parking management	P			S	S	S	
TDM-2	Flexible parking requirements	P			S		S	
TDM-3	Access management	P	S					P
TDM-4	Connectivity standards	P			S			P
TDM-5	Pedestrian facilities	P	S		S		S	S
TDM-6	Bicycle facilities	P	S		S			P
TDM-7	Transit stop amenities	S			S	P		
TDM-8	Parking management	P			S		S	
TDM-9	Limited parking requirements	P			S			
TDM-10	Carpool match services	S		P			S	
TDM-11	Parking cash out			S		S	P	
TDM-12	Subsidized transit passes					S	P	
TDM-13	Carsharing program support	P		S	S	S	S	
TDM-14	Electric Vehicle Charging Stations	P	S		S		S	S

[1] A Transportation Management Association does not currently exist in Florence
P: Primary role
S: Secondary/Support role
Note: Primary implementation depends on roadway jurisdiction

While all the strategies listed in Table 5-2 could be implemented in the City of Florence, the city faces a difficult challenge related to TDM strategies. Given the climate and culture, not all of the options listed would receive strong public support or involvement. As such, care should to be taken to implement strategies that are consistent with City of Florence lifestyles, while still effectively reducing travel demand. Below is a list of specific strategies that could be effective in the City of Florence.

- Access Management
- Connectivity Standards
- Pedestrian Facilities
- Bicycle Facilities
- Parking Management
- Developer Incentives

- Transit Stop Amenities
- Electric Vehicle Charging Stations

Incentives can also be used to encourage development to incorporate facilities, strategies and programs that promote TDM. For example, a tiered system of SDC credits could be provided to developers that implement two or more TDM strategies such as special carpool parking, free transit passes, shower facilities, electric vehicle charging stations, etc.

Many of the above TDM strategies would require coordination between the City/County and future developments that occur within the City of Florence. This can be accomplished by outlining clear standards related to access management, connectivity, complete street design, and parking requirements, to name a few. Consistency between the City and Lane County is important to maximize the effectiveness of any new standards developed. Under the current structure, Lane County retains Code authority to properties outside the City limits.

CAPACITY ENHANCING ROADWAY PROJECTS

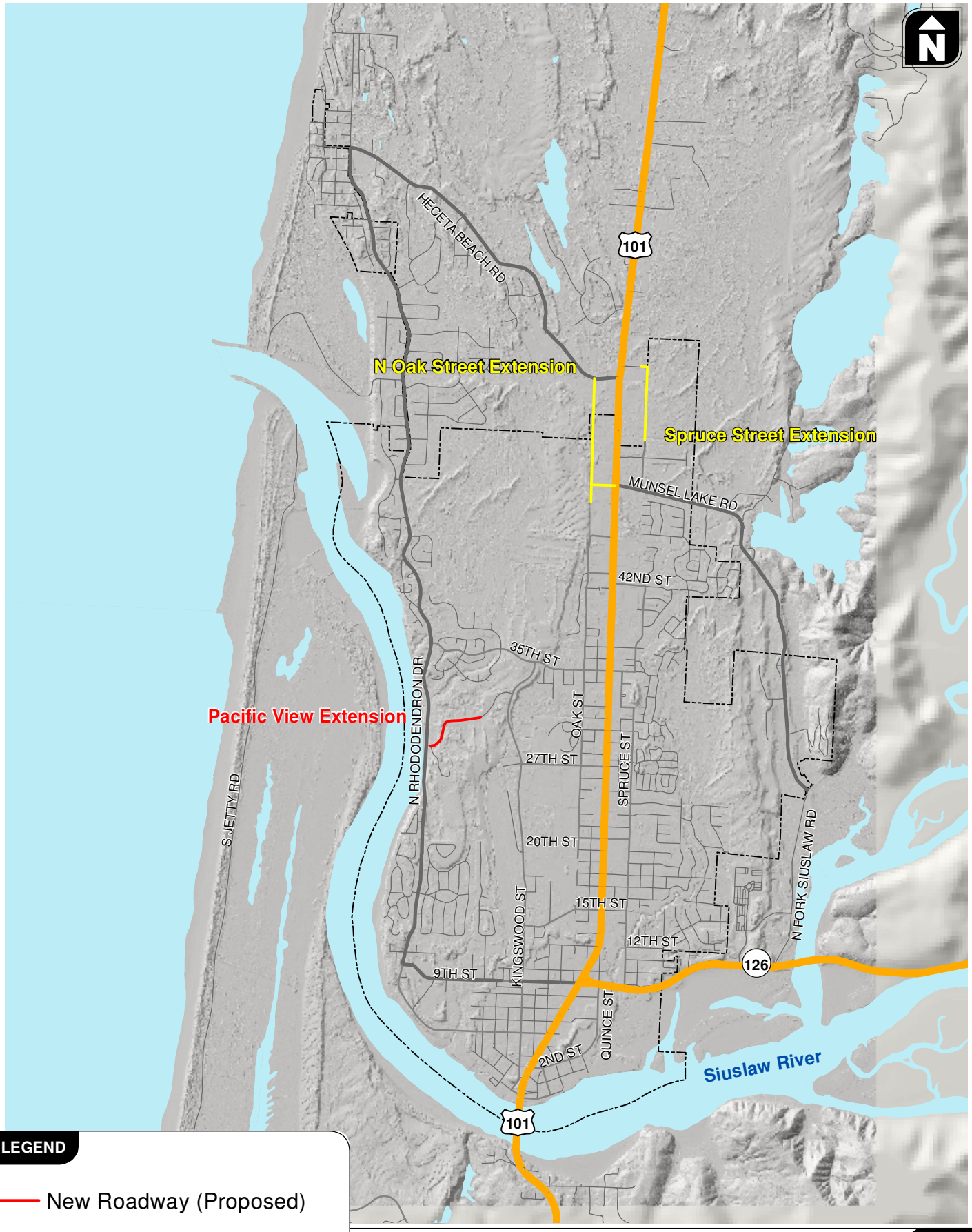
The following subsections present roadway capacity projects for the auto mode (local street system). These are based on existing and future no build conditions analyses as well as input from project stakeholders. The treatments, strategies and approaches are organized in the following subsections:

- **Roadway Segment Projects** – Presents new roadway segment projects including new roads, roadway extensions and roadway widening projects that are in addition to the local street connectivity projects.
- **Intersection Projects** – Presents specific intersection projects to address forecasted operational deficiencies.

Roadway Segment Projects

The Lane Council of Governments (LCOG) Travel Demand Model was used to evaluate the potential impact of the identified projects. Figure 5-2 shows the location and extent of the roadway segment projects in this TSP update. They include the local street connectivity projects described previously plus the following additional roadway projects:

- Pacific View Drive Extension (PRJ-1)
- Oak Street South Extension (PRJ-6)
- 20th Street Public Works Driveway (PRJ-7)
- Spruce Street Extension (PRJ-8)



ROADWAY PROJECTS
FLORENCE, OREGON

FIGURE
5-2

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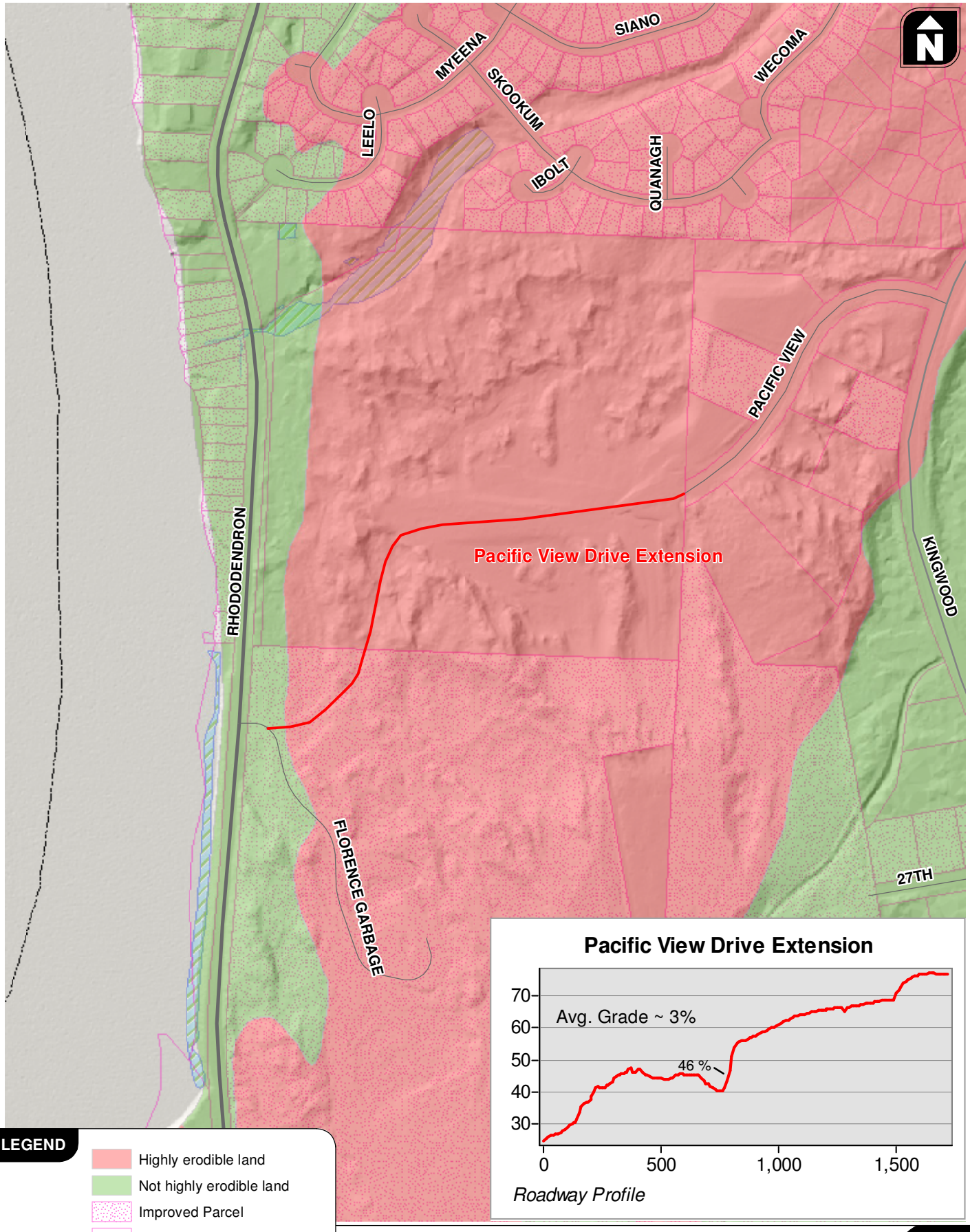
An analysis was conducted to determine the feasibility of constructing these alternatives, and the benefit that these alternatives will have on future congestion in Florence. Figure 5-2 shows the street connection for which a detailed evaluation was conducted with respect to physical feasibility and traffic operations. It was determined that the remaining street connections did not require a detailed evaluation.

Pacific View Drive Extension (PRJ-1)

The Pacific View Drive extension would provide an east-west connection from Kingwood Street to Rhododendron Drive. Based on an analysis of the topography, wetlands, and soil stability, it appears that this local street connection can be feasibly constructed. Figure 5-3 shows the preliminary alignment of this street, which connects with New Hope Drive near the Humane Society. This connection would have an average grade of about three percent, and due to topography has a curve that traverses a gully. It appears that this gully can be filled to construct the street within allowable grades.

The impact that this connection would have on traffic operations is summarized in Figure 5-4. As shown, this connection would help to relieve traffic at three key arterial intersections: US 101/35th Street, 35th Street/Rhododendron Drive, and 9th/Rhododendron Drive. As shown in Figure 5-4, there is a relatively limited benefit that these intersections would experience with this connection (approximately 20-50 peak hour vehicles would be rerouted from each intersection). This connection would likely not eliminate the need for improvement at the 9th Street/Kingwood Street intersection. However, this connection would improve capacity at the described intersections by approximately three to fifteen percent, except at the US 101/35th Street, which would see slightly more traffic due to the new connection. This new connection would also provide a more convenient and efficient route for many Florence residents, resulting in a potential reduction of about 150,000 vehicle-miles-traveled annually.



PACIFIC VIEW DRIVE EXTENSION
FLORENCE, OREGON

FIGURE 5-3

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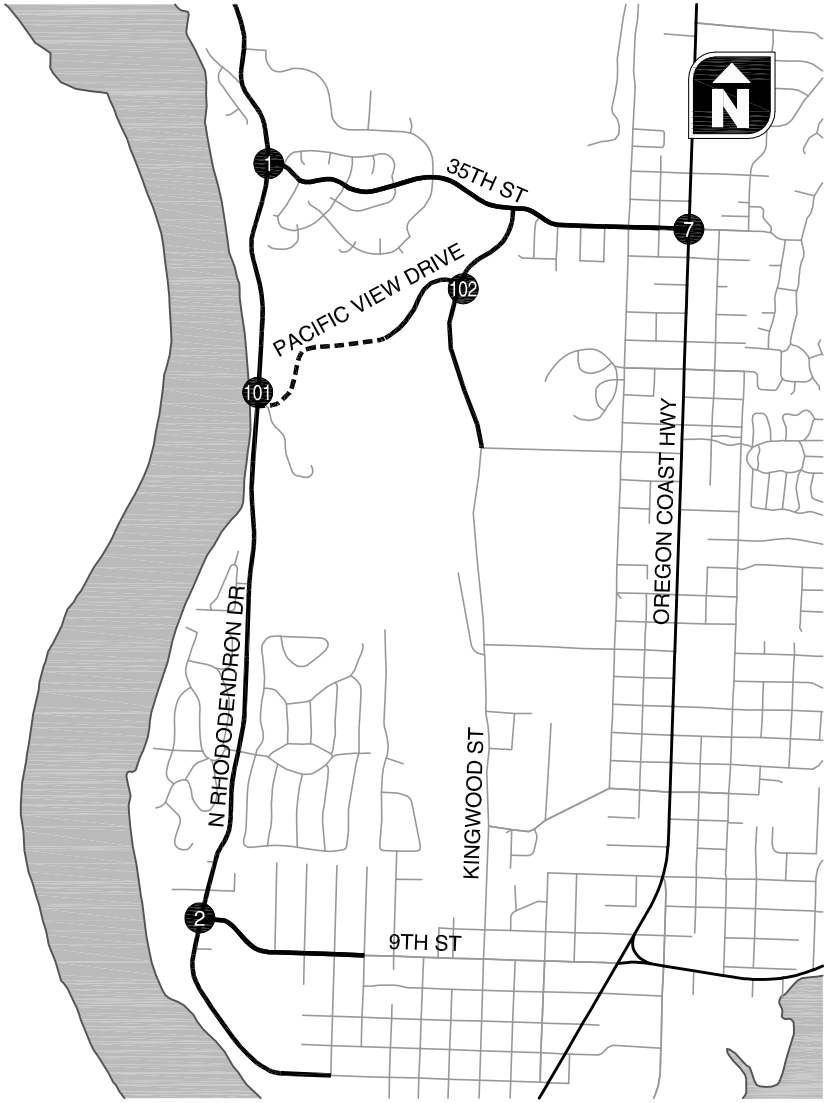
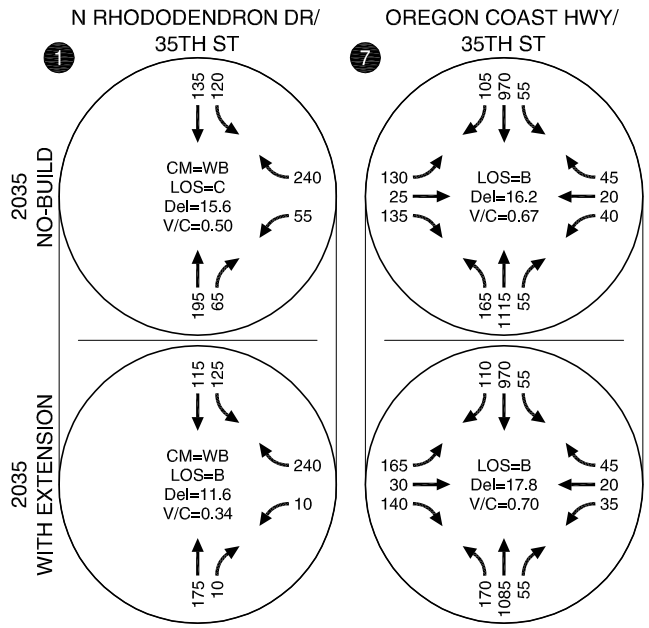
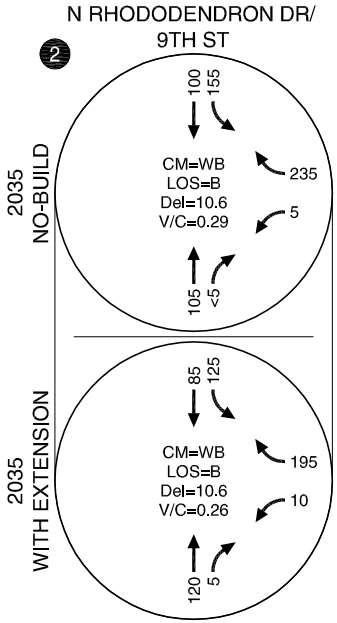
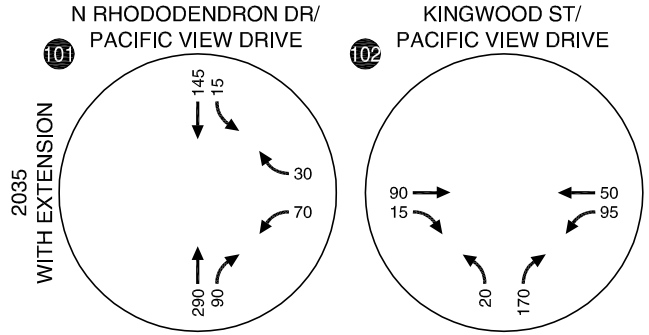








LEGEND

LOS = INTERSECTION LEVEL OF SERVICE

Del = INTERSECTION AVERAGE CONTROL DELAY

V/C = CRITICAL VOLUME-TO-CAPACITY RATIO

ROADWAY EXTENSION

2035 ALTERNATIVE 1 - PACIFIC VIEW DRIVE EXTENSION
WEEKDAY PM PEAK HOUR
FLORENCE, OREGON

FIGURE 5-4

These local connectivity projects may provide some system benefits, and even some capacity improvements at several intersections. However, the proposed connections do not necessarily resolve the anticipated forecast deficiencies identified under the 2035 no-build analysis (see Figure 4-8 in the previous Section). The benefit of these projects, however, will be apparent in serving future growth and development, in addition to limited improvements in localized congestion. As such, all of the projects discussed above (shown in Figure 5-2) are included in this TSP update and should be constructed when development or demand dictates.

Intersection Projects

Year 2035 traffic volumes, operations, lane configurations and traffic control devices required at each study area intersection to mitigate the deficient intersections are shown on Figure 5-1. Table 5-3 summarizes the proposed intersection improvement projects and their resulting traffic operations. These projects address the capacity deficiencies identified in the existing and future conditions analyses. *Technical analysis worksheets are included in Attachment "A" of Technical Memorandum #4 in Volume II of the Technical Appendix.*

Based on ridership counts for the Rhody Express bus, it can reasonably be concluded that improvements in transit service will not appreciably change the needed transportation improvements. The Rhody Express transit system is currently more a convenient system serving the transportation disadvantaged than it is a peak hour/commuter-based system, and hence is not designed or intended to significantly reduce peak hour traffic congestion. Moreover, it is also reasonable to conclude that TDM and TSM enhancements will not reduce the need for the mitigations described in this memorandum. The City should continue to seek opportunities to employ these non-capital intensive methods of reducing traffic congestion. Use of TDM, TSM, and transit can postpone the need for capital improvements prescribed from this analysis. Rather, this can be considered a conservative analysis by assuming that these methods will not significantly reduce capital transportation needs.

Table 5-3 Proposed Intersection Improvements

Project	Intersection	Mobility Standard	2035 No-Build Performance Level	Proposed Mitigation Measure	Resultant Performance Level	Considerations
PRJ-9	US 101/Munsel Lake Road	v/c = 0.85	v/c > 1.0 LOS "F"	Install Traffic Signal	v/c = 0.65 LOS "C"	A traffic signal was recommended in the 2008 TSP; this conclusion is confirmed in this analysis. A traffic signal would restore future operations to meet ODOT mobility standards.
PRJ-10	US 101/27th Street	v/c = 0.85	v/c > 1.0 LOS "F"	Install Traffic Signal	v/c = 0.58 LOS "A"	The analysis herein reveals that a signal at 27th Street is needed to restore future operations to meet ODOT mobility standards. The current TSP identifies the need for a signal at 30th Street to address a safety issue, which has since been addressed with a signalized pedestrian crossing.
PRJ-11	US 101/15th Street	v/c = 0.85	v/c > 1.0 LOS "F"	Install Traffic Signal	v/c = 0.59 LOS "B"	A traffic signal would restore future operations to meet ODOT mobility standards.
PRJ-12	9th Street/Kingwood Street	LOS "E"	v/c > 1.0 LOS "F"	Install Traffic Signal	v/c = 0.66 LOS "C"	A traffic signal would restore future operations to meet City standards.
PRJ-13	OR 126/Quince Street	v/c = 0.85	v/c > 1.0 LOS "F"	Turning movement restrictions (right-in/right-out only)	v/c = 0.32 LOS "C"	Given the close proximity of this intersection to the US 101 signalized intersection, a traffic signal is not recommended. The system improvement being considered at this intersection is to eventually restrict the northbound left-turn movements.
PRJ-14	OR 126/Spruce Street	v/c = 0.85	v/c > 1.0 LOS "F"	Install Traffic Signal	v/c = 0.83 LOS "C"	A traffic signal would restore future operations to meet ODOT mobility standards.

Key Development Areas

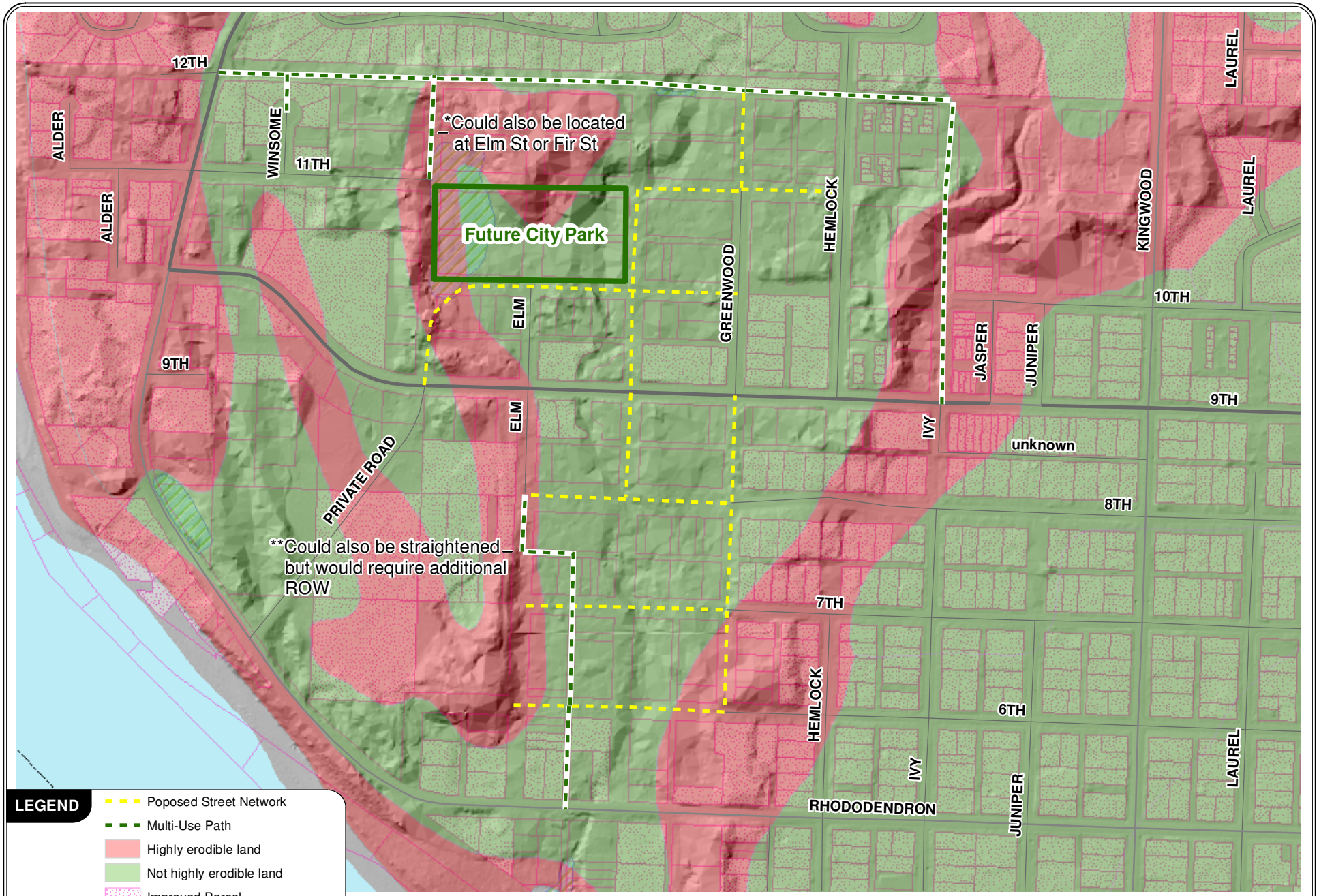
Due to operational performance standards and roadway connectivity issues, the transportation system can at times be a barrier for development. Below is a summary of the proposed street improvements for several key areas targeted for growth in the City.

WEST 9TH STREET AREA

The West 9th Street Area is bordered by 12th Street on the north, Hemlock Street to the east, and Rhododendron Drive to the south and west. This area has significant physical constraints to constructing a grid system of local streets, which has in turn substantially inhibited development. This area is intended for development of professional offices, continuation of institutional uses primarily related to health care, and development of residential units. West 9th Street, classified as a collector street, has been developed to full urban standards in this area. Since the early days in Florence, this area has been platted with a local street grid that has since proved to be undevelopable due to physical constraints. There are two stream corridors which traverse this area from north to south, along with a large dune in the northwest corner. This section presents specific local street alignments to facilitate vehicular, bicycle and pedestrian travel movements within the area, documenting considerations of the following:

- Existing street system
- Existing platting
- Development pattern
- Land ownership
- Topography
- Soils
- Provision of utility services in the right-of-way

Figure 5-5 shows the proposed street grid, superimposed on the topography, wetlands, property boundaries and rights-of-way. As this figure shows, it is infeasible to provide a complete grid; however, street connections are identified where topography and wetlands allow. As a general rule, it was assumed that streets should: 1) follow property boundaries where possible, 2) avoid wetlands, 3) avoid major sand dunes, and 4) be built on stable soil (or minimize traversing highly erodible land), 5) serve undeveloped parcels and not negatively impact existing developments, and 6) connect at both ends (no dead ends).



WEST 9TH STREET AREA LOCAL STREET NETWORK
FLORENCE, OREGON

FIGURE **5-5**

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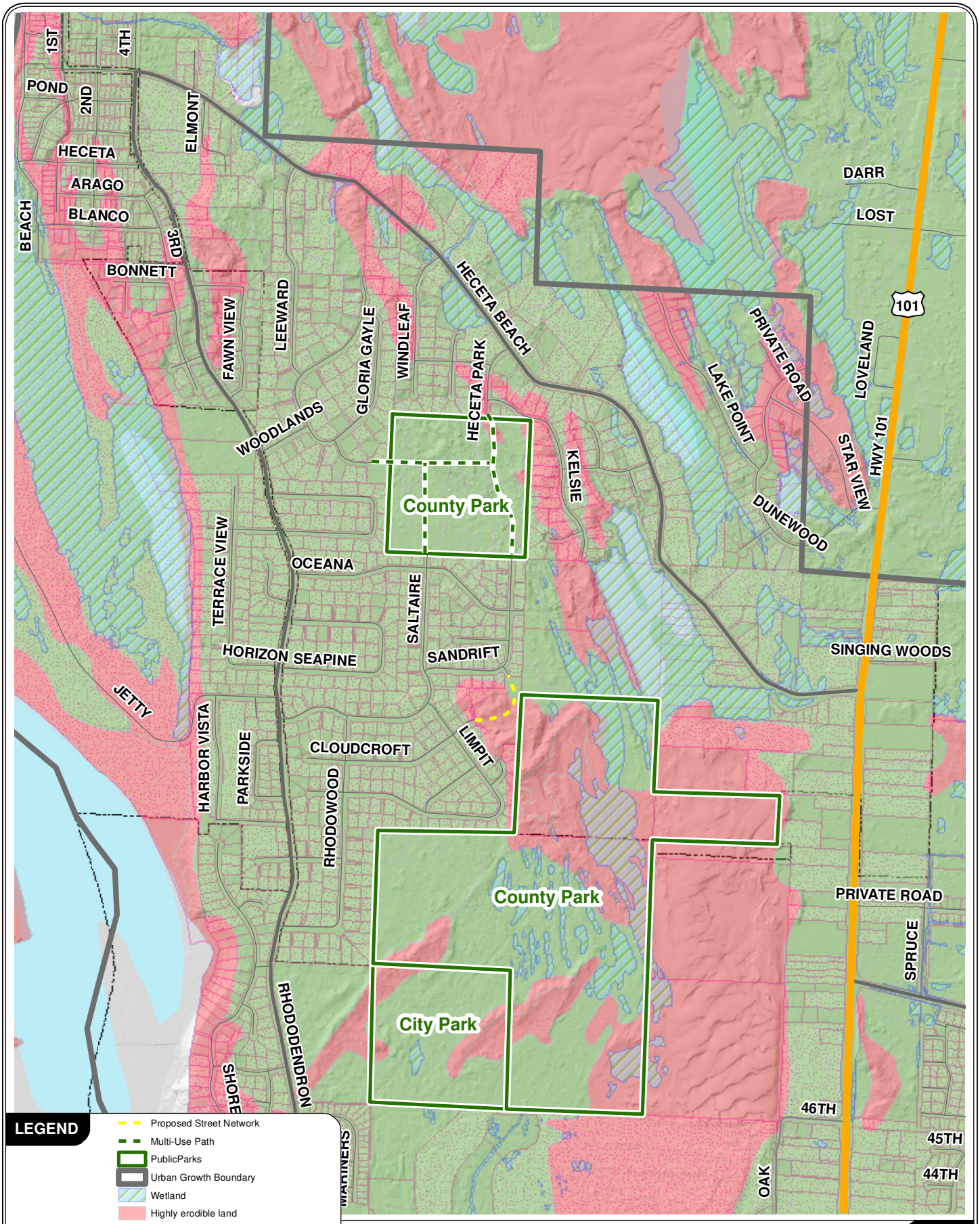
In addition, where local streets are not feasible, multi-use paths are prescribed, where practicable. *Attachment "B" of Technical Memorandum #5 in Volume II of the Technical Appendix shows the centerline grade and height of each street identified on this map.*

NORTH FLORENCE

The North Florence Area is defined as that area within Florence's Urban Growth Boundary, west of US 101, east of Rhododendron Drive and north of Sandpines Golf Course. This is a topographically and environmentally challenging area to build new streets. Most development in this area is accessed via Rhododendron Drive, and has been built on the most physically compatible land, leaving very little developable land for future development. Based on an analysis of the physical geography including soils, slopes, wetlands, and existing built environment, there are relatively limited opportunities for new local street connections. Figure 5-6 shows the local and collector street connections that appear to be feasible, albeit with likely greater cost than would be experienced on level, good soil, and with concerns regarding impacts to dune areas and Three-Mile Prairie. This local street network provides connections for residential uses to the planned extension of Oak Street.



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NORTH FLORENCE LOCAL STREET NETWORK
FLORENCE, OREGON

FIGURE **5-6**

Section 6

Local Pedestrian and Bicycle System

LOCAL PEDESTRIAN AND BICYCLE SYSTEM

Purpose

The purpose of this plan is to improve connectivity for pedestrians and bicyclists within the Urban Growth Boundary.

Transportation Planning Rule

The following are the key excerpts from the Transportation Planning Rule (Oregon Administrative Rule 660-12) pertaining to bicycles and pedestrians within a Transportation System Plan (TSP).

SECTION 0020

(2) The TSP shall include the following elements:

(b) A road plan for a system of arterials and collectors and standards for the layout of local streets and other important non-collector street connections. Functional classifications of roads in regional and local TSP's shall be consistent with functional classifications of roads in state and regional TSP's and shall provide for continuity between adjacent jurisdictions. The standards for the layout of local streets shall provide for safe and convenient bike and pedestrian circulation necessary to carry out OAR 660-012-0045(3)(b). New connections to arterials and state highways shall be consistent with designated access management categories. The intent of this requirement is to provide guidance on the spacing of future extensions and connections along existing and future streets which are needed to provide reasonably direct routes for bicycle and pedestrian travel. The standards for the layout of local streets shall address:

(A) Extensions of existing streets;

(B) Connections to existing or planned streets, including arterials and collectors; and

(C) Connections to neighborhood destinations.

(D) A bicycle and pedestrian plan for a network of bicycle and pedestrian routes throughout the planning area. The network and list of facility improvements shall be consistent with the requirements of ORS 366.514;

SECTION 0045

(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. The purposes of this section are to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely if connections are provided, and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.

(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;

(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways.

(6) In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.

Parks and Recreation Policies, Recommendations and Projects

In February 2011, the City adopted Comprehensive Plan policies and recommendations for Parks, Recreation and Open Space. The City Council also acknowledged the Florence Parks and Recreation Master Plan. The following Comprehensive Plan policies and recommendations relate to bicycle and pedestrian travel and recreation in Florence.

PARKS AND RECREATION POLICIES

In February 2011, the City adopted Comprehensive Plan policies and recommendations for Parks, Recreation, and Open Space (Chapter 8). The City Council also acknowledged the Florence Parks and Recreation Master Plan. The following Comprehensive Plan policies and recommendations related to bicycle and pedestrian travel and recreation in Florence.

Parks and Recreation Policies

1. To provide a comprehensive trail plan that includes bicycle, pedestrian and boating facilities.

2. The City shall develop an interconnecting trail system, providing a full circular route around the Florence area and incorporating Rhododendron Drive, Munsel Lake, beaches, dunes, Old Town, Port and Siuslaw Estuary. The system shall also connect the various parks, residential areas, business, public places through the following actions:

    a. Consider the potential to establish or maintain bikeways and/or walkways prior to vacating any public easement or right-of-way;

    b. Develop and adopt a Comprehensive Trail Plan that includes bicycle and pedestrian facilities and provides for park connections;

    c. Develop the bike lanes and multi-use paths identified in the Florence Transportation System Plan to connect bicyclists and pedestrians to parks, commercial centers and nature areas;

    d. Develop and adopt bike and pedestrian facility design standards; and

    e. Develop a system of trails and pathways to provide a safe network that links neighborhoods, parks, natural open space, schools, employment centers, shopping locations, recreation facilities and other key community destinations.

3. The City shall support Federal, State, County and City efforts to develop bicycle paths, such as the Oregon Coast Trail, connecting the City to nearby recreation areas.

4. The City, in conjunction with the Port of Siuslaw, Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw Indians and the Siuslaw Watershed Council, shall plan and provide estuary and aquatic trails and put in and take out points along the Siuslaw River.

5. In pursuing funding for parks and recreational facility maintenance and enhancement, the City shall give priority to the following, not necessarily in this order:

a. pedestrian, bicycle, and multi-use trail and path development;

b. improved public access to existing public open space areas through public trails, signage and education in order to reconnect youth with nature and provide more close-to-home recreational opportunities that are free of cost, consistent with the State's recreational planning priorities;

c. acquisition of new park and open space areas in existing developed areas; (could be connectors)

6. The City shall explore parks and open space funding through sources such as grants, systems development charges, use of a special levy, proceeds from street and right-of-way vacations, maintenance fees, and other available funding mechanisms. Where desirable, partnerships with federal, state, county and regional agencies, non-profit organizations, and private interests shall be formed to help secure and possibly finance land acquisition and facility development and redevelopment and maintenance of existing and proposed facilities (moved from Chapter 11, Policy #2).

RECOMMENDATIONS

1. The City should continue to apply for transportation enhancement funds, or other available funds to develop bicycle paths connecting the City to nearby recreation areas, particularly to:

   a. implement the Rhododendron Drive Integrated Transportation Plan;

   b. extend the Munsel Creek bike/pedestrian trail south to Gallagher Park and north to Munsel Lake;

   c. develop a bike/pedestrian system in the West 9th Street area; and,

   d. improve linkages within the Oregon Coast Trail that connects the North Jetty area with the Oregon Dunes National Recreation Area.

2. The City should pursue establishment of an estuary trail connecting the Boardwalk with the Munsel Creek bike/pedestrian trail. ODOT has indicated a preference for an in-culvert pedestrian crossing under OR 126. Absent that opportunity, ODOT prefers a surface crossing to be located midblock between Redwood and Spruce Streets (P-7).

3. To provide the public with increased and unrestricted access to the Siuslaw River and its estuary, the City should develop its public street rights-of-way which terminate at the River as river access parks, which may include parking to meet Old Town parking needs as appropriate.

Definitions

Bike Lane

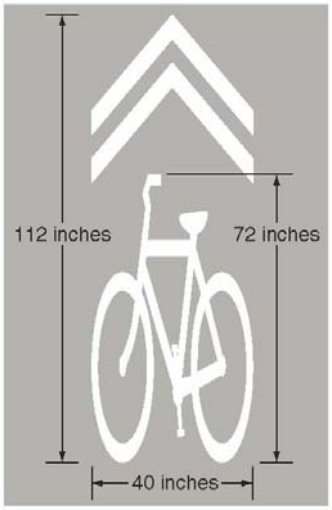
A separate lane adjacent to the vehicle travel lane for the exclusive use of bicyclists is a bike lane. Bike lanes are appropriate on arterials and collectors. Bike lanes must always be well marked to call attention to their use by bicyclists. Striped on-street bicycle lanes should be provided on all arterial and collectors streets in the following situations: collector streets that have daily volumes of more than 3,000 vehicles; where the collector street directly connects major residential areas with schools or parks; and where it may be necessary to ensure safe bicycle travel.

Multi-use Path (Shared-use Path)

A facility separated from the roadway by an open space or barrier, either within the roadway right-of-way or within an independent right-of-way. They are typically used by pedestrians, joggers, skaters and bicyclists as two-way facilities. Multi-use paths are appropriate in corridors not well served by the street system (if there are few intersecting roadways), to create short cuts that link destination and origin points, and as elements of a community trail plan.

Sharrows

Sharrows are on-street pavement marking stencils that reinforce that bicyclists are legitimate road users, and sharrows are helpful connectors between multi-use paths or bike lanes when roadway widths are too narrow for a bike lane. Additional guidance related to shared lane markings can be found in the 2009 *Manual on Uniform Traffic Control Devices* (Section 9C.07).



Shared Roadway

Bicyclists and motorists ride in the same travel lanes. A shared roadway facility is best used where there is minimal vehicle traffic to conflict with bicycle traffic.

Bicycle Projects

Identified bicycle improvements are described below and illustrated in Figure 6-1.

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BICYCLE PROJECT MAP
FLORENCE, OREGON

FIGURE
6-1

HECETA BEACH ROAD BIKE LANES (B-1)

Provide a bike lane on both sides of Heceta Beach Road. This street is currently a narrow 26-28 foot roadway with no shoulders. Heavy vegetation adjacent to the street provides a scenic "feel" to the traveler, but may also make widening difficult.

US 101 ALTERNATIVE BIKE ROUTE FOR COASTAL BICYCLISTS (B-4)

Provide an alternative bike route for US 101 bicyclists and local residents via Heceta Beach Road and Rhododendron Drive/9th Street, then connecting to Kingwood Street to ultimately connect to Old Town.

KINGWOOD STREET (B-5)

Provide sharrows on Kingwood Street south of 10th Street. Kingwood Street is classified as a collector extending from 35th Street to 2nd Street. It is anticipated that this street will experience traffic volumes in excess of 3,000 trips per day by the year 2035. Bike lanes are not necessary at this time. However, as the traffic volumes increase, there may ultimately be a need to provide bike lanes. The right-of-way should be sufficient to provide for on-street parking on one side of the street.

Photo: Dan Seeman

SPRUCE STREET SOUTH BIKE LANES (B-6)

Provide bike lanes on Spruce south of 25th Street. This street is an important north-south route east of US 101. There are few homes fronting on Spruce Street, so there is little need for on-street parking and bike lanes could be added relatively easily.

SPRUCE STREET NORTH BIKE SHARROWS (B-7)

Provide bike sharrows on Spruce Street between 37th Street and 42nd Street. There are no sidewalks on Spruce Street between 37th and 42nd, but this street is used as a major bike connection as both 35th and 42nd Streets have bicycle lanes. However, on this segment of Spruce Street, there are several homes fronting on Spruce. Traffic volumes on this section of Spruce Street are generally lower than the

southern section of Spruce Street, so sharrows would be more appropriate and would allow for on-street parking to be retained through this section.

OAK STREET BIKE LANES (B-8)

Provide bike lanes south of 24th Street to 20th Street. Bike lanes in this location will enhance safe travel to the elementary school. As part of this project, the Elementary School may need to increase on-site parking to compensate for the loss of on-street parking. It may also be beneficial to extend the school driveway to Kingwood Street to allow for uncongested circulation by parents dropping off or picking up their children.

2ND STREET BIKE SHARROWS (B-10)

Provide bike sharrows on 2nd Street from Harbor Street to US 101. At Harbor Street, travel speeds on 2nd Street are generally lower and traffic tends to disperse toward Old Town. The use of bike sharrows along this portion of 2nd Street will also retain needed on-street parking.

9TH STREET BIKE LANES AT US 101 (B-12)

Provide bike lanes on 9th Street between Nopal Street and US 101. Currently there is not enough width of right-of-way on this section of 9th Street to accommodate bike lanes. This would complete the bicycle connection to US 101.

BICYCLE PROGRAMS

Regular Street Sweeping of Highway 101

Each year, especially in the summer, many bicyclists ride through Florence as they ride the Oregon Coast. When there is an accumulation of debris within the bicycle lanes, it becomes unpleasant and sometimes dangerous for bicyclists. Regular street sweeping would keep these bicycle lanes clear. In addition to the sweeping the streets, ODOT could post a schedule of street-sweeping.

Regular Enforcement of "No Parking in Bicycle Lanes"

Regular enforcement of this requirement would ensure that the bicycle lanes are not blocked by parked vehicles that create a safety hazard for bicyclists. Problem areas that have been identified are: 27th Street during football games; Spruce Street between 35th Street and 37th Street; and 42nd Street.

Bicycle Parking

The City currently requires the provision of bicycle parking as part of new development. The City could also institute a program of educating and encouraging existing businesses that are not already

providing bicycle parking to do so. This project could be performed in conjunction with the Chamber of Commerce as a way to create a more inviting environment for the local bicycle community as well as all the bicyclists travelling through as they ride to or along the Oregon Coast.

Become a Bicycle-Friendly Community

The City should work toward becoming a "Bicycle-Friendly Community." The Bicycle Friendly Community Program (BFC) provides incentives, hands-on assistance, and award recognition for communities that actively support bicycling. A Bicycle Friendly Community welcomes cyclists by providing safe accommodation for cycling and encouraging people to bike for transportation and recreation. http://www.bikeleague.org/programs/bicyclefriendlyamerica/communities/

Bicycle Map

Create a map (available on paper and electronically) showing the designated bicycle routes through town (roads with bicycle lanes, shared-use paths, sharrows) with mileage indications. It could include traffic/bicycle safety cautions as an educational opportunity. This map could feature tourist locations, bicycle-friendly shopping opportunities, parks and recreation sites, and/or scenic spots. It could also include business sponsorships/advertisements to pay for the printing.

Partner with Port to Promote Bicycle Camping

If some of the thousands of bicyclists that ride the Oregon Coast knew about camping opportunities at the Port, some may choose to overnight in Florence where they would have ready access to dining, shopping, and recreation opportunities in Old Town.

Educate Bicyclists about Rules of the Road

The City could provide information/education to both bicyclists and drivers about state law (see "Pedal Power – a Legal Guide for Oregon Bicyclists" at http://www.stc-law.com/pdf/PP7thEdition.pdf) as well as the City Code (Title 7 Chapter 1 Traffic Regulations, Section 4 General Driving Regulations) through outreach efforts.

Bike to Work/School Promotion

Partner with Peace Health to promote Bike to Work/School month, week, day to promote bicycling and walking as a convenient, healthy, safe, and viable transportation modes.

Replace Dangerous Storm Drains

Some storm drains are installed such that bicycle tires can get caught in them, a safety hazard. These storm drains should be replace with drains that have cross-members going in opposite direction of bicycle tire with no gaps between pavement and metal grate.

Multi-Use Path/Trail Projects

Identified multi-use path/trail projects are described below and illustrated in Figure 6-2.

RHODODENDRON DRIVE MULTI-USE PATH (MU-1)

Recognizing the scenic value of this key transportation corridor, the City adopted the Rhododendron Drive Integrated Transportation Plan after extensive public involvement. This Plan divided Rhododendron Drive into segments and identified several viewing waysides. Further discussion regarding the appropriate treatment of various sections resulted in this project being broken down into new segments:

- **Rhododendron Drive [9th Street to 35th Street] (MU-1A)** - Provide a separated 12-foot multi-use path north of 9th Street to 35th Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road – See Figure 9-3).
  - **MU-1AA** – 9th Street to Wildwinds Street
  - **MU-1AB** – Wildwinds Street to 35th Street
- **Rhododendron Drive [35th Street to N Jetty Road] (MU-1B)** - Provide a separated 12-foot multi-use path from 35th Street to N Jetty Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road -Figure 9-3).
- **Rhododendron Drive [N Jetty Road to Heceta Beach Road] (MU-1C)** - Provide a separated 12-foot multi-use path from N Jetty Road to Heceta Beach Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road –Figure 9-3).

MULTI-USE PATH/TRAIL PROJECT MAP
FLORENCE, OREGON

FIGURE 6-2

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US 101-MUNSEL CREEK MULTI-USE PATH (MU-2)

Construct and/or improve and pave the segments of the Munsel Creek Trail between Quince Street and 16th Street and between 25th Street and 29th Street. Between 16th and 25th Streets, the path uses the existing West Park Drive, 18th Street, Willow Loop, 23rd Street, and Willow Street roadway alignments (MU-2A). Extend the path from the Munsel Lake Greenway to Munsel Lake Road (MU-2B). There should be more access points to this path, including a connection with Gallagher Park. The Munsel Lake Boat Launch and Lake Access Area on Munsel Lake Road is a logical destination for water habitat and related trails. The path is proposed to extend from its termination point west of the City well fields through City lands to City owned overlook over the Florentine Estates wetland and then east across City land to the service road for the well sites north of City lands. The last section from the service road to Munsel Lake Road will require dedication and development of shared-use path right-of-way and/or easements as the owner develops his property for residential uses.

ESTUARY TRAIL (MU-3)

Connect Boardwalk in Old Town to south end of Munsel Creek Path. (The Siuslaw Estuary Partnership is currently working on Recommended Trail Designs and Location Options). This connection will require either an improved culvert passable by pedestrians and bicycles under OR 126 or connection to a future at-grade crossing location.

12TH STREET MULTI-USE PATH [RHODODENDRON DRIVE TO KINGWOOD STREET] (MU-4)

This path between Kingwood and Rhododendron was recently developed into a bark path. The next stage is to pave the entire path.

Photo: Diego Arguea

12TH STREET MULTI-USE PATH [US 101 TO MUNSEL CREEK PATH] (MU-5)

Construct a multi-use path from US 101 to Spruce Street to connect to the Estuary Trail and Munsel Creek Path. There is existing right-of-way that is undeveloped that would be a good location for a shared use path between the Munsel Creek Path and US 101, south of the former Rite Aid store.

OAK STREET MULTI-USE PATH (MU-6)

Construct a multi-use path between 15th Street and 10th Street. This segment of existing right-of-way is not likely to be developed as a full street due to the topography and location of existing house that will prevent achieving necessary slopes. However, paving a path from 15th to 10th would provide a continuous bicycle/pedestrian connection from 46th Street to Downtown.

IVY STREET MULTI-USE PATH (MU-7)

Construct a multi-use path in the existing Ivy Street right-of-way between 12th Street and 8th Street for enhanced pedestrian/bicycle connectivity.

ELM STREET MULTI-USE PATH (MU-8)

Construct a multi-use path in the existing Elm Street right-of-way between 8th Street and Rhododendron Drive for enhanced pedestrian/bicycle connectivity.

DRIFTWOOD STREET MULTI-USE PATH (MU-9)

Construct a multi-use path in the existing Driftwood Street right-of-way between 12th Street and 11th Street for enhanced pedestrian/bicycle connectivity.

NORTH FLORENCE COUNTY PARK MULTI-USE PATH (MU-10)

Construct a network of multi-use paths within the County Park in the North Florence Area (see Figure 5-6 for a conceptual network).

Finally, a series of brochures could be developed to promote bicycling and walking within Florence. One brochure concept could illustrate appropriate pedestrian/bicycle routes for travel in and around Florence. Another brochure could focus on more recreational routes and scenic areas and park connections.

Pedestrian Projects

Identified pedestrian improvements are described below and illustrated in Figure 6-3.

US 101 SIDEWALKS & PEDESTRIAN ACCESS TO SIUSLAW RIVER BRIDGE (P-1)

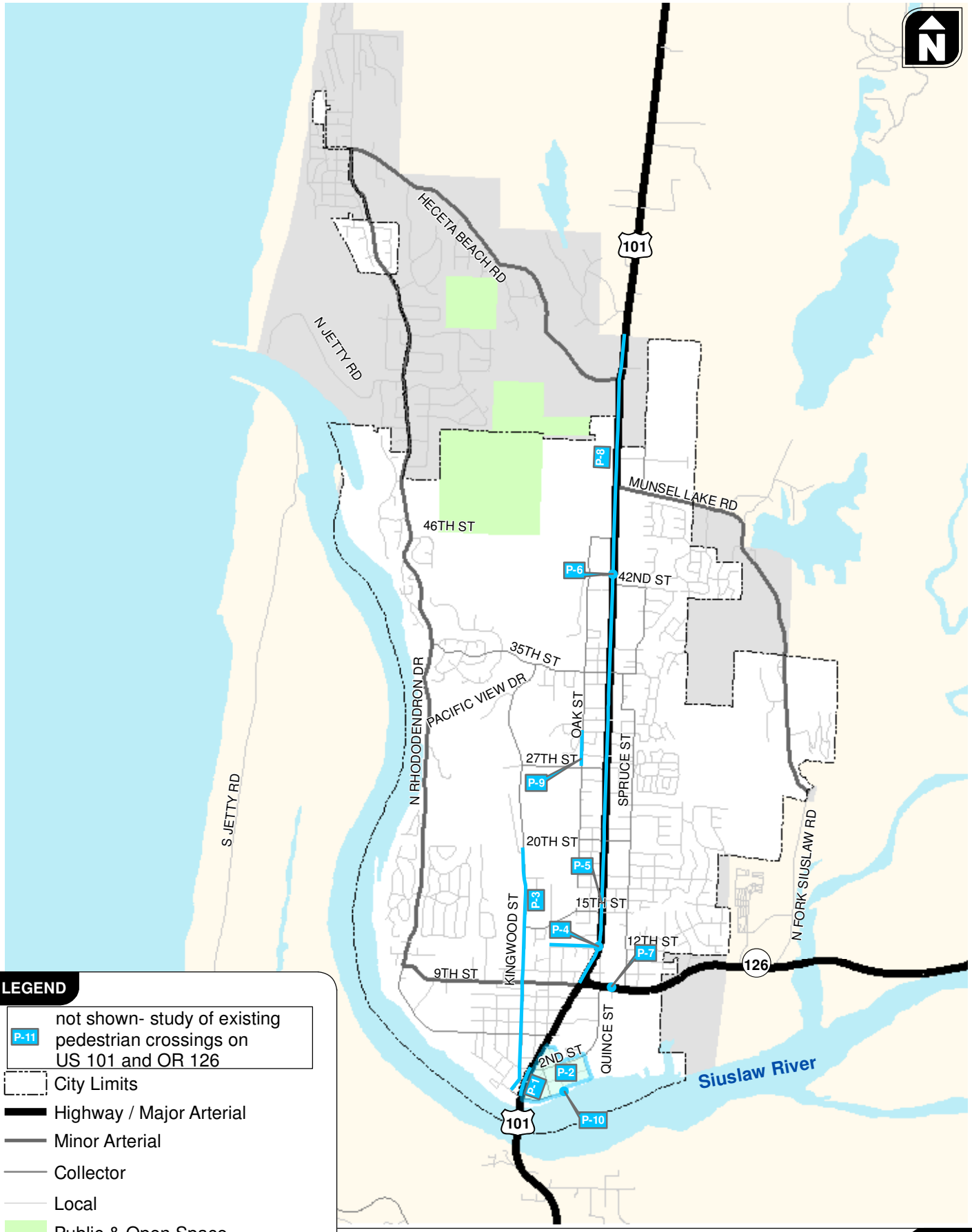
Construct sidewalks along US 101 north of the Siuslaw River Bridge to connect to existing sidewalks that begin around 2nd Street. Also restore western stairs from Bay Street to the Siuslaw River Bridge and construct interpretive overlook at northeast location of bridge.

OLD TOWN SIDEWALKS (P-2)

Construct missing sidewalk segments within Old Town area. Old Town is one of the primary tourist areas within Florence developed with vibrant retail stores, quality restaurants, views of the Siuslaw Estuary and Historic Bridge, the Boardwalk, and the Port's docks and marina.

This part of town is developed to a pedestrian scale with historic lighting. However, there are some segments without sidewalks that discourage walking or result in people walking in the street. Plantings and street trees are desirable to create a greenway effect.

Photos: Chris Tiesler
Diego Arguea



PEDESTRIAN PROJECT MAP
FLORENCE, OREGON

FIGURE 6-3

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KINGWOOD STREET SIDEWALKS (P-3)

Construct sidewalks on Kingwood Street from 20th Street south to Bay Street. Kingwood Street is a major north-south route and forecast to carry traffic volumes exceeding 3,000 trips per day by the year 2035. Sidewalks should be installed to provide appropriate areas for pedestrians. Kingwood Street also provides connections to the Senior Center, Singing Pines, the Airport, the 12th Street Path, and Downtown.

US 101 PEDESTRIAN RRFB CROSSING AT 12TH STREET (P-4)

Construct a marked pedestrian crossing of US 101 at 12th Street with RRFBs and a raised median island, and construct sidewalks on the south side of 12th Street on the west side of US 101. This crossing location is appropriate considering the planned path within the 12th Street right-of-way between the Munsel Creek Path and US 101. This crossing location was also identified with an accompanying potential design shown in the US 101 Pedestrian Study by Alta and CH2MHill (2006). The City has obtained preliminary design plans from Branch Engineering for this crossing. For safe pedestrian access to the crossing, sidewalk should be constructed on the south side of 12th Street west of US 101.

RRFB Installation Midblock 7th/8th Streets
Photo: City of Florence Public Works

US 101 MID-BLOCK PEDESTRIAN RRFB CROSSING BETWEEN 15TH AND 16TH (P-5)

Construct a mid-block marked pedestrian crossing with RRFB and a raised median island on US 101 between 15th Street and 16th Street. The City has also obtained preliminary design plans from Branch Engineering for this crossing.

US 101 PEDESTRIAN RRFB CROSSING AT 43rd STREET (P-6)

Construct a marked pedestrian crossing with RRFB and a raised median island on US 101 at 43rd Street. The US 101 Pedestrian Study by Alta and CH2MHill includes a pedestrian crossing at 43rd Street. As Cannery Station was approved on the east side of US 101, it was determined that a pedestrian crossing

should be built between it and Fred Meyer. Timing of this improvement will be dictated by the development of the Cannery Station project.

OR 126 PEDESTRIAN RRFB CROSSING AT REDWOOD STREET (P-7)

Construct a marked pedestrian crossing with RRFB and a raised median island on OR 126 at Redwood Street. The timing of this improvement will be determined by the anticipated approval of ODOT flex funds.

US 101 SIDEWALKS (P-8)

Construct missing sidewalk segments along US 101 north to the Urban Growth Boundary (UGB). All areas along US 101 should have sidewalks to provide safe pedestrian travel and access to adjacent businesses within the UGB.

OAK STREET SIDEWALKS (P-9)

Construct sidewalks on east side of Oak Street between 27th Street and 32nd Street and marked crosswalks at 27th Street and 30th Street. This project should also include striping a crosswalk across Oak Street in line with the existing pedestrian path between Oak Street and Myrtle Loop (just south of 34th Street). These improvement swill improve overall pedestrian safety/connectivity and enhance safe routes to schools.

BAY STREET/NOPAL STREET MID-BLOCK MARKED PEDESTRIAN CROSSING (P-10)

Construct a marked mid-block crosswalk across Bay Street at Nopal Street including ADA-compliant ramps. This crossing will heighten driver awareness to the high number of pedestrians crossing between Old Town and boardwalk area at this location.

SUGGESTED CODE REQUIREMENTS AND ENFORCEMENT TO ENSURE SAFE, PASSABLE SIDEWALKS

The 2006 Alta study made the following recommendations.

1. Require landscape material such as large bark chips and rocks to be secured or kept away from the sidewalk. If landscaping rocks or chips blow or roll onto the sidewalk, they can become a trip hazard or an impediment to wheel chairs.

2. Keep shrubs and other landscaping trimmed to prevent encroachment onto/over sidewalk and to maintain vision clearance areas.

3. Where parking lots are adjacent to sidewalks, require curbs or wheelstops to keep the vehicles from overhanging the sidewalk.

4. Request ODOT install Leading Pedestrian Interval (LPI) signals at all signal controlled intersections. These LPI signals provide the pedestrian a three- to four-second head start to begin crossing the intersection prior to release of turning vehicles. With the demographics of Florence weighted heavily towards those 55 and older, the additional crossing time provided by LPI would improve pedestrian safety and comfort.

In addition, the City should maintain and enhance ADA accessibility on sidewalks by preventing and removing obstacles such as steps, mailboxes, vending boxes, benches, displays and café tables that encroach into the accessible path.

PEDESTRIAN PROGRAMS

Walking Map

Create a map (available on paper and electronically) showing safe walking routes indicating mileage. The map could include traffic safety reminders. These could include walks to scenic vistas, parks and recreation opportunities, points of interest, and/or shopping opportunities. It could also include business sponsorships/advertisements to pay for the printing.

Educate Pedestrians about Rules of the Road

Provide information about state law (see "Oregon Pedestrian Rights – A Legal Guide for Persons on Foot" at http://www.stc-law.com/pdf/OPRlegal_guide.pdf) as well as the City Code (Title 7 Chapter 1 Traffic Regulations, Section 8 Pedestrians).

Pedestrian Access to Parks

There are three parks within the City that currently lack sidewalks for convenient pedestrian access. The parks/locations are identified below, along with identified improvements.

1. Singing Pines Park – construct sidewalks along Airport/15th Street and Kingwood Street.

2. Miller Park & Singing Pines Park – pave the path between these two parks.

3. Munsel Greenway Park - reconstruct the 29th Street path from Spruce Street to Munsel Greenway Park. Consideration should be given to allow for an appropriate redesign of the barrier along Spruce Street. Signage should be included for the path indicating access to Munsel Greenway Park.

Sidewalks on Arterials and Collectors

Of all the streets in the UGB, arterial and collector streets have the most traffic and vehicles travelling at higher speeds than local streets. As such, these types of streets should accommodate pedestrians on sidewalks or multi-use paths. They should also allow for safe crossings with treatments such as crosswalks, pedestrian activated crossings, medians, curb-extensions. Where development occurs adjacent to these streets, sidewalks should be required as part of development approval (or if immediate construction is impractical, obtain a commitment for construction in the form of a non-remonstrance agreement). However, in other cases where adjacent land uses are already developed, the State/City/County may need to create projects with identified funding sources in order to construct sidewalks. These projects could be funded through Local Improvement Districts, grants, and/or system development charges.

The following arterials and collectors have been identified through this planning process as being the most critical:

- **Kingwood Street**: Kingwood Street a major north-south street and expected traffic volumes exceeding 3,000 trips per day by the year 2035. Kingwood Street also provides connections to the Senior Center, Singing Pines, the Airport, the 12th Street Multi-Use Path, and downtown. There is also a school bus stop between 9th and 10th Streets.
- **US 101:** All areas along Highway should have sidewalks to provide safe pedestrian travel and access to adjacent businesses.
- **Munsel Lake Road:** Today there are no sidewalks on Munsel Lake Road (currently a County road). It is projected to have traffic volumes exceeding 3,000 trips per day by the year 2035. Part of the street is inside the City and part of it lies outside the City. There is residential development around Ocean Dunes that in particular should be provided with sidewalks to provide access to the Mormon Church, Munsel Road Park, and Ocean Dunes Golf Course.

Section 7

Local Transit System

LOCAL TRANSIT SYSTEM

This section serves as an update to the Community Transit Plan, and includes a summary of existing service, transit survey results, and recommendations for future transit service in Florence.

LOCAL BUS SERVICE

The City of Florence, in collaboration with Lane Transit District (LTD), has an agreement with River Cities Taxi to operate the Rhody Express, a fixed-route bus system that loops through Florence hourly on weekdays between 10 a.m. and 6 p.m. One 16-seat bus is used to operate two routes, with the bus alternating service between the two routes:

- The *North Loop* serves areas north of 20th Street, along US 101, Spruce Street and Oak Street, between the Grocery Outlet and Fred Meyer.
- The *South Loop* serves areas south of 20th 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, and the Old Town District.

The Rhody Express operates under a flag stop system, with the bus stopping at any safe location along the route to pick up and drop off passengers. The bus will deviate up to two blocks to pick up and drop off passengers who have difficulty walking to a street with bus service; this service must be requested in advance. The bus is equipped with a wheelchair lift. The fare is $1 for a one-way trip, or $2 for an all-day ticket.

Passengers with disabilities unable to use the regular fixed-route bus service may use the Rhody Dial-a-Ride service. This service is offered to eligible passengers weekdays between 10 a.m. and 6 p.m. between points located within ¾ mile of the Rhody Express route. The fare is $2 per one-way trip, and trips must be scheduled in advance. The service area, service hours, fare, and pre-scheduling requirement meet the minimum Americans with Disabilities Act (ADA) requirements for "complementary paratransit service." In-person assessments to determine functional capability are conducted through the local Senior and Disabled Services (S&DS) office.

SPECIALIZED TRANSIT SERVICES

Several Florence-area organizations and programs provide transportation services to older adults and persons with disabilities with most trips being to and from medical services. These services include:

- Friends of Florence Van for individuals needing cancer treatment in Eugene,

- Medicaid Non-Emergency Medical Transportation (NEMT) for individuals that qualify for the Oregon Health Plan Plus,
- Veteran's Transportation, and
- Florence S&DS Volunteer Escort and Senior Companion drivers serve older adults living independently without any other means of transportation.

Transportation is also provided by some retirement centers.

INTERCITY BUS SERVICE

Porter Stage Lines operates a daily intercity service traveling from Coos Bay, through Reedsport and Florence to Eugene with an "on call" stop at the Eugene Amtrak Station. The route proceeds from Eugene through Sisters to Bend. Florence and Reedsport Stops are "drop off only" on the return trip. As an Amtrak Thruway bus it operates twice daily on weekdays (once daily on weekends) between Florence City Hall and the Amtrak and Greyhound stations in Eugene. The one-way fare is $23 for those connections.

NEIGHBORING PUBLIC TRANSIT SERVICE

Lane Transit District operates bus service from Eugene to Veneta, 48 miles east of Florence, seven times daily on weekdays and twice daily on Saturday. Lincoln County Transit operates bus service from Newport to Yachats, 25 miles north of Florence, four times daily on weekdays and Saturdays. Coos County Area Transit provides one round-trip from Reedsport, 22 miles south of Florence, to Coos Bay on Wednesdays only.

TRANSIT NEEDS

As part of the development of the Transportation System Plan, the City of Florence conducted several surveys about the city's current transit service. These surveys consisted of a survey mailed to all residents with their city utility bill, an on-board survey of Rhody Express riders, and employee surveys at Fred Meyer, Grocery Outlet, and Peace Health. In addition, a survey of delivery services and public agency staff included questions about transit service.

Nearly all (95%) of respondents to the general survey were aware of Rhody Express service, but most (75%) had never used it. Service improvements most desired by this group were: expanded route coverage (52%), weekend service (39%), more frequent service (33%), and expanded AM/PM service hours (23%/26%). Respondents could pick multiple improvements; retirees were over-represented in the general survey responses. The most-requested service locations in or near Florence were

Florentine Estates, Driftwood Shores/Heceta Beach, Sutton Lake, and the dunes area. The most-requested more-distant service locations were Eugene (primarily), with Yachats/Newport and Reedsport also requested.

The typical Rhody Express rider is a senior citizen or a person with a disability who uses the bus to go shopping and uses the service more than once a week. Rhody Express is most commonly used for shopping trips (80% of respondents use it this way), while about 25% of respondents use it for social trips and about 25% use it to get to and from medical appointments (respondents could pick multiple trip purposes). Riders' most-desired service improvement by far is weekend service (84%), with expanded AM service hours, more frequent service, and expanded route coverage desired by 25–30% of respondents, respectively (respondents could pick multiple improvements).

The employee survey found that most respondents do not use Rhody Express because it is not available when or where they need to travel, they need their car for personal errands or to save time, and/or (particularly for the retail employees) they have an irregular work schedule. More convenient service hours and a guaranteed ride home program were the actions that would be most likely to get some employees to switch travel modes.

Transit-related results from the delivery service/public agency survey were: (1) there are many gaps in the sidewalk network and many sidewalks in disrepair (this makes it harder to access transit, particularly for seniors and persons with disabilities), and (2) a desire to keep the bus on public streets and not divert into parking lots (diverting tends to slow the bus down and creates more conflict opportunities with cars; on the other hand, good sidewalk connections from the street into sites are needed for passengers to safely access a site).

Detailed results from all four surveys were presented in Project Memorandum #4.

HISTORIC RIDERSHIP

The most recent five years of ridership data is summarized below. Ridership data before 2007 was not readily available. Table 7-1 summarizes annual Rhody Express ridership for years 2007 through 2011.

Table 7-1 Rhody Express Annual Ridership (2007 – 2011)

Year	Ridership
2007	11,836
2008	11,126
2009	11,823
2010	12,255
2011	14,658

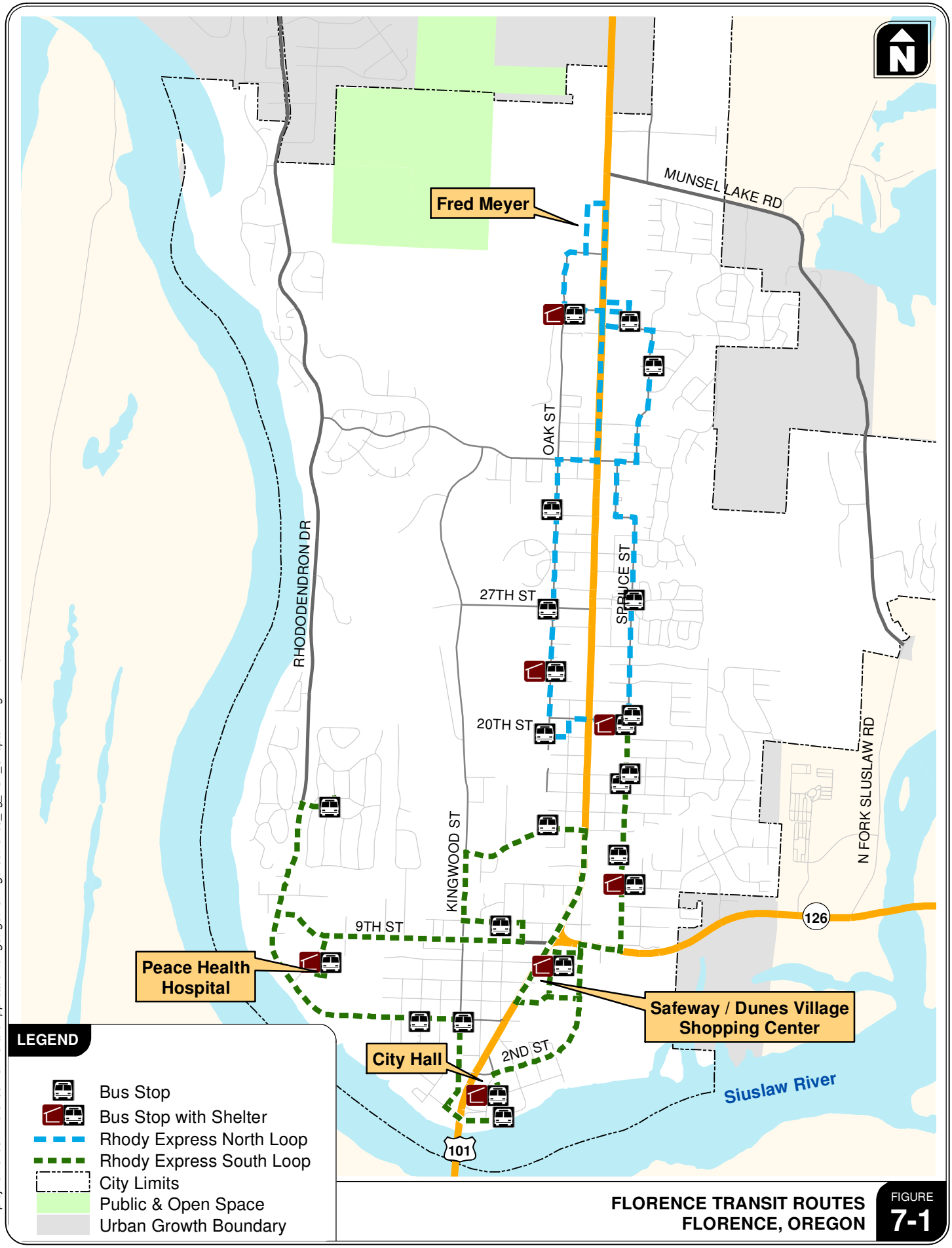
As shown in Table 7-1, ridership was relatively constant from 2007 through 2009. The addition of complementary ADA paratransit service in late 2009 caused a slight increase in ridership numbers, as have minor route adjustments to capture older adults living in assisted living facilities and/or senior housing.

Future Transit Service

LOCAL TRANSIT ROUTES

The two existing transit routes shown in Figure 7-1 serve as much as Florence as possible, while maintaining hourly service with the use of a single bus. Expanding service would require operating a second bus, which would double the cost of operating the fixed-route component of the system and—to the extent that new areas within ¾ mile of new service would be required to receive ADA complementary paratransit service—would also increase the cost of the demand-response component of the system. Given current funding constraints, no significant changes to the current routes are proposed.

However, at locations where Rhody Express currently diverts into parking lots to serve businesses, consideration should be given to keeping the bus on the street, particularly where a sidewalk connection exists from the street across the parking lot to a business' front door. The City of Florence recently relocated an existing bus stop from the Safeway/Dunes Village Shopping Center on 8th Street to 8th Street itself, and has plans to transition other stops from internal parking fields out to the street. This action will help speed up bus service, providing some protection against increased traffic delays in the future, while also allowing Rhody Express to accommodate increased ridership in the future (i.e., additional stops to serve passengers) without shortening bus routes or requiring an additional bus to maintain the schedule.



FLORENCE TRANSIT ROUTES
FLORENCE, OREGON

FIGURE **7-1**

H:\projfile\10103 - Florence TGM Grant Application\dwgs\figs\TSP figures\10103_fig_TSP_Chapter 7 Fig7-1.mxd

Locations where keeping the bus on the street can be considered include:

- North Loop
  - Eliminate use of Fred Meyer property (south of Munsel Lake Road) for current bus stop location. A bus pull-out or stop/shelter could be constructed at 45th Street at the south end of Fred Meyer.
  - Eliminate the use of the Bi-Mart (south of Munsel Lake Road) parking area as current bus stop location. A bus pull-out or stop/shelter could be constructed along 42nd Street near US 101.
- South Loop
  - The diverted stop at the senior center located along Kingwood Street (north of 15th Street) near 17th Place could be eliminated.

Per conversations with City of Florence staff, it is recommended that the stop location within the Peace Harbor Hospital be maintained. This existing shelter serves a large complex consisting of a hospital and clinic land uses with limited access. Public feedback has indicated that retaining the "Greentrees" development turnaround is important for residents living in that neighborhood. While the driveway is used as a turnaround for the bus, several residents use this as an opportunity to access the bus as a flag stop. *Comments and notes from City of Florence staff have been provided on an existing transit route map as Attachment "A" of Technical Memorandum #7 in Volume II of the Technical Appendix.*

Locations where survey respondents requested new service be provided were generally located outside Florence's city limits (Florentine Estates being the exception), which raises the issue of how to pay for extended service. Unlike the counties to the north of Florence and the interior of Lane County, where service is funded throughout a large area and consequently provided over a large area, Rhody Express is a service of the City of Florence, with a portion of its funding coming from city residents. Service should not be expanded outside the city limits at this time unless paid for by those benefiting from the service (for example, through a direct monetary contribution or by charging a premium fare).

TRANSIT STOPS

The Rhody Express currently operates on a flag-stop system with some designated stops. This type of system works fine for smaller transit systems and avoids the expense of installing and maintaining bus stop signs and other stop infrastructure. At the same time, designated stops serve as a form of advertising for the bus service, confirming that service is available at a location. Given that a large majority of Florence residents are aware that bus service exists, and given that present passenger volumes are not creating schedule reliability problems, the current system should be maintained until ridership increases to the point where schedule reliability issues begin to occur. At that time, more designated stops could be installed to concentrate passenger pick-up and drop-off activity at specific locations.

Rhody Express Transit Stop
Photo: Chris Tiesler

Oregon's Transportation Planning Rule (TPR) requires Transportation System Plans to designate "major transit stops." In Florence's context, a major transit stop would be a stop with a relatively high ridership relative to most stops or a transfer location. The TPR (OAR 660-12-0045(4)(b)) requires local jurisdictions to adopt regulations that require new retail, office, and institutional uses located within 300 feet of major transit stops to provide reasonably direct pedestrian connections from the building to the stop and to adjacent properties. In addition, new uses located at a major transit stop should provide a paved ADA-compliant landing pad, an easement for a shelter (if requested by the transit agency), and lighting. Cities may go beyond these requirements; for example, by requiring new uses anywhere along a transit route to provide a reasonably direct pedestrian connection to the street. These locations should also receive the highest priority for stop improvements, particularly bus shelters.

Based on the rider survey results, the following locations shown on Figure 7-1 should be designated as "major transit stops":

- Fred Meyer (high-ridership location),
- Safeway/Dunes Village Shopping Center (high-ridership location),
- Peace Health Hospital (high-ridership location), and
- City Hall (transfer point to the Amtrak Thruway bus to Eugene).

Grocery Outlet is the location where the North Loop switches to the South Loop (and vice versa), but is not a transfer location *per se,* as passengers simply remain on the bus. As the rider survey did not indicate a high level of ridership at this location, relative to other locations, this location should not be designated as a major transit stop.

No park-and-ride facilities currently exist in Florence and none will be required unless intercity service is started in the future.

SERVICE LEVELS

The current hourly headway provided by Rhody Express provides a basic level of service to a large portion of Florence. Improving the headway would either require adding an additional bus (doubling fixed-route operating costs) or shortening the routes so that the bus could complete a round-trip in half the time. However, two other improvements were identified by survey respondents that could be implemented at a lower cost. In order of priority, these are:

- Providing Saturday service between 10 a.m. and 6 p.m., serving social and shopping trips on the weekend. The added service would increase fixed-route operating costs by approximately 20% from current levels.
- Adding weekday service between 6 a.m. and 10 a.m., making Rhody Express an option for those who wish to use it to commute to work or get to morning classes. The added service would increase fixed-route operating costs by approximately 50% from current levels.

INFRASTRUCTURE IMPROVEMENTS

Transit passengers are typically pedestrians before and after their transit trip. Therefore, a potential impediment to using transit service – particularly for seniors and persons with disabilities – is a poor sidewalk network. This TSP update includes priorities of filling sidewalk gaps along transit routes and taking steps citywide to make sure that property owners fulfill their obligation to maintain public sidewalks in a state of good repair.

Bus shelters with ADA-compliant landing pads should be installed at all designated major transit stops. The City should also periodically (e.g., annually) conduct a ridership check to identify the locations where passengers (generally) and lift users (specifically) are picked up and dropped off, to help prioritize locations for future shelter and landing pad projects.

TRANSPORTATION DISADVANTAGED NEEDS

Rhody Express currently fills an important transportation need in Florence, as evidenced by the rider survey results showing that Rhody Express is the only transportation option for 57% of its riders. The surveys did not identify any particular improvement needs for Rhody Express or Rhody Dial-a-Ride targeted at the transportation disadvantaged, other than the need to improve Florence's sidewalk network generally. Several programs are available to provide medical transportation to cities outside Florence for those without other transportation options; however, the $46 round-trip fare to Eugene using Porter Stage Lines is a barrier to travel for low-income residents of Florence.

INTERCITY TRANSPORTATION

The need for lower-cost public transportation to and from Florence at convenient times was raised in the surveys. The current Amtrak Thruway bus schedule provides approximately 6 hours in Eugene, some of which would be used up traveling between the Amtrak or Greyhound station and one's final destination, which is not enough time to support work- or education-related commuting between Florence and Eugene.

Providing intercity public transit bus connections from Florence is not a far-fetched concept – Tillamook County, for example, operates a bus twice daily to Portland, while Sunset Empire Transit operates a bus 26 miles east to Westport, where connections can be made via Columbia County Rider to Kelso, Washington and Portland, Oregon. Furthermore, it is possible – slowly, over a period of several days – to travel the length of U.S. 101 from Yachats to Olympia, Washington using a combination of eight different connected public transit systems. The important difference is that all of those systems are county-wide systems, with broader funding bases, whereas Florence is a city-owned system. Lane County does not operate transit service itself: Lane Transit District (LTD) is a separate mass transit district serving most cities in the interior of the county, however, the portion of Lane County west of Veneta lies outside LTD's boundaries that are defined by participation in a Business Payroll Tax.

To be attractive to commuters and higher-education students, intercity transit service between Florence and Eugene would need to be offered early in the morning and in the evening, with at least one midday trip to serve shorter shopping and medical trips. Intercity transit service to Eugene could end in Veneta, where a timed transfer to LTD service continuing into Eugene-Springfield would be possible. A three-trip east-west schedule would also potentially offer two time windows (mid-morning and mid-afternoon) where a transit vehicle could be used for an intercity trip either to the north (Yachats) or the south (Reedsport).

One option to improve intercity transit service in Florence is for the City to operate and fund the service itself. Given the challenge of operating and funding transit service, however, a better option may be for the City to partner with other agencies and organizations to operate and fund this service. Potential partners for operating intercity transit service include:

- River City Taxi, which has been a reliable partner for operation of the Rhody Express and might be interested in operating intercity transit services serving Florence.
- Porter Stage Lines, which currently operates Amtrak Thruway service between Coos Bay and Florence, and may be willing to add trips serving Florence.
- Lane Transit District, which currently partners with the City for administration of the Rhody Express service.
- Coos Area Transit and Lincoln County Transit may be willing to extend their transit services from the south (Reedsport) and north (Yachats) to Florence.
- Special Mobility Services is a non-profit agency that operates the Diamond Express service between Oakridge and Eugene, and the RideSource Call Center.

In addition to these potential partners for operation of intercity transit service, there are also a variety of potential funding sources for intercity transit service:

- The ODOT Public Transit Division pools transit funding and allocates this funding through a variety of formulaic and competitive grant programs for capital and operating expenses. In Lane County, ODOT Public Transit funds are distributed through the Lane Transit District.
- Other agencies and organizations with a need for intercity transit services may be willing to contribute toward improved services. For example, the Confederated Tribes of Coos, Lower Umpqua and Siuslaw Indians may have a need for transit services for employees at the Three Rivers Casino and for member travel to access tribal services.
- The City could seek to annex the Highway 126 corridor west of Veneta into the Lane Transit District. Such an annexation could occur through an ordinance passed by the LTD Board of Directors or through a ballot measure that would require a majority vote of the voters in the current district and the voters in the area proposed to be annexed (ORS 267.207). In this case, LTD would operate service to and within Florence. All employers and self-employed persons within the expanded district would be subject to LTD's payroll tax. LTD already provides a number of longer-distance routes in Lane County, including up the McKenzie River as far east as McKenzie Bridge.

Determining the ridership potential, funding potential, and feasibility of possible intercity routes is beyond the scope of a transportation system plan, but could be the focus of a follow-up planning effort. To pursue improved intercity transit services in Florence, the City should work with Lane Transit District to identify potential grant funding sources, and work with potential partners for operating or funding intercity transit services to identify opportunities for improving intercity transit services.

Section 8

Local Rail, Pipeline, Air, and Surface Water Plans

LOCAL RAIL, PIPELINE, AIR, AND SURFACE WATER PLANS

Rail Plan

There is no rail service directly to Florence. The nearest rail freight facilities are in the rail corridor between Mapleton and Cushman. The rail line passing near Florence is owned by the Oregon International Port of Coos Bay, which acquired the line from its previous owner RailAmerica, Inc. The Coos Bay rail line is operated as the Coos Bay Rail Link – CBR by a private-sector short-line railroad operating company, ARG TRANS Inc. The Coos Bay rail line corridor is scheduled to be annexed into the Coos Bay port district during 2012. This track parallels OR 126 from the east, until it crosses OR 126 and the Siuslaw River in Cushman to turn south to Coos Bay. Passenger rail is available in Eugene via AMTRAK with bus connections from Florence.

The potential of a barge/rail freight terminal in the Mapleton/Cushman area is a possibility that continues to be considered by the Port of Siuslaw should the economies of transportation of goods make this a feasible option once again.

The rail overpass over OR 126 at Cushman has less than the optimal 18' clearance for vehicles on OR 126. In addition, due to its low elevation and proximity to the Siuslaw River, the road is often flooded for several hours each day during high water/high tides. This situation creates a hazard to the traveling public, creates potential disruptions for emergency services, and a disruption to general transport of goods and services.

IMPROVEMENT TO THE OR 126 RAIL OVERPASS AT CUSHMAN

Port of Coos Bay staff corresponded with ODOT staff in 2009 after the Port acquired the Coos Bay rail line from RailAmerica Inc. ODOT was interested to know if the Port had plans to improve the clearance at the rail overpass over OR 126. Port staff explained that increasing the vertical clearance to help alleviate the high water problem with the roadway would require raising the height of the Siuslaw River swing-span railroad bridge (likely requiring a complete new bridge), raising the height of the north approach embankment above the highway, and constructing a new south approach span. Very rough cost estimates put this project somewhere between $100 million and $150 million. The Port, as owner of the Coos Bay rail line, simply does not have the resources and does not expect to generate enough freight rail revenue to fund this project.

Pipeline Plan

The City of Florence, together with other coastal communities and counties continues to explore the possibility of extending a natural gas pipeline north along the coast to serve these cities and counties, including Florence. Natural gas would provide an alternative energy source for economic development, as well as for heating of homes and businesses. In 1999, voters in Coos County approved a ballot measure authorizing expenditures for building a natural gas pipeline from Roseburg into Coos County. The costs of such a project are high, and the likelihood of a second line being constructed to the coast is low. Natural gas is available to the north in Newport, from a pipeline in Lincoln County, but there is no additional capacity to serve areas south of Newport. If such an option is ever determined to be feasible, pipeline routes, funding sources and agreements about wholesale and retail provision of natural gas will need to be determined.

NATURAL GAS LINE FEASIBILITY STUDY

Should such a gas line prove feasible, transportation/economic development funds for an analysis of the feasibility of extension of natural gas service to the Florence area should be provided. At a minimum the feasibility study should include a cost analysis and identification of potential funding resources for engineering and construction. This study would need to occur prior to the preliminary engineering work on the approved natural gas trunk line, so that, if needed, additional capacity can be included in the initial engineering.

Air Plan

The City of Florence recently updated their Airport Master Plan and Airport Layout Plan (ALP) drawing set for Florence Municipal Airport (6S2) in cooperation with the Federal Aviation Administration (FAA). This plan was approved by City Council resolution in 2010 but will be formally adopted into the TSP through this update.

The Plan defines the current, short-term and long-term needs of the airport through a comprehensive evaluation of conditions and Federal Aviation Administration (FAA) airport planning and design standards. It provides specific guidance in making the improvements necessary to maintain a safe and efficient airport that is economically, environmentally, and socially sustainable.

NATIONAL AIRPORT SYSTEM

Florence Municipal Airport is included in the National Plan of Integrated Airport Systems (NPIAS). Participation in the NPIAS is limited to public use airports that meet specific FAA activity criteria.

NPIAS airports are eligible for federal funding of improvements through FAA programs such as the current Airport Improvement Program (AIP). There are more than 3,300 NPIAS airports, of which more than 75 percent are general aviation airports similar to Florence. Three other Lane County communities (Eugene, Creswell and Cottage Grove) also have NPIAS airports, although the nearest is located 60 driving miles from Florence. Along the coast, Newport and North Bend have the NPIAS airports closest to Florence Municipal Airport (45 to 50 driving miles from Florence).

The FAA has recognized NPIAS airports as being vital to serving the public needs of air transportation. In doing so, the FAA recognizes that access to the nation's air transportation system is not limited to commercial air service. The Airport Master Plan was prepared by the City to meet the FAA's requirement to maintain an up-to-date plan.

AIRPORT MASTER PLAN SUMMARY

1. Florence Municipal Airport is owned and operated by City of Florence, Oregon.

2. The Airport is located approximately 1 mile north of Florence, between U.S. Highway 101 and the Pacific Ocean. Surface access to the Airport is provided by Kingwood Street, which has several connections (9th, 10th, 27th Streets; Airport Road, etc.) to Highway 101. The Airport is located within the Florence city limits.

3. The Airport consists of approximately 139.77 acres.

4. The Airport is included in the National Plan of Integrated Airport System (NPIAS), making it eligible for federal funding through the Federal Aviation Administration (FAA).

5. The Airport has a "Local General Aviation" service level designation in the current Oregon State Aviation System Plan.

6. The Airport has one runway that is oriented in a generally northwest-southeast direction. The runway (15/33) is paved and lighted with basic (visual) markings. Runway 15/33 is 3,000 feet by 60 feet and is served by a full-length parallel taxiway located on its west side.

7. The published pavement strength for Runway 15/33 is 12,500 pounds for aircraft with single wheel landing gear (FAA 5010 and A/FD data).

8. The airfield facilities are capable of accommodating small single-engine or light twin-engine weighing less than 12,500 pounds, generally consistent with aircraft included FAA Airport Design Group I (ADG-I). ADG I aircraft have wingspans less than 49 feet.

9. Airfield lighting currently includes an airport rotating beacon, medium-intensity runway edge lighting (MIRL), threshold lights, and a 2-light precision approach path indicator (PAPI) on Runway 33. The runway lighting is pilot-activated (radio) and the PAPI operates continuously. The rotating beacon operates on a photo-cell switch.

10. All landside facilities (aircraft parking, hangars, etc.) at the airport are located on the east side of Runway 15/33. The Airport has a single paved aircraft apron located near the middle of runway that accommodates aircraft fueling, the fixed base operator (FBO), and aircraft parking.

11. As of summer 2008, the airport had 24 conventional hangars (various sizes) located on the east side of the runway. Twenty two hangars are located north of the main apron and two larger hangars are located south of the apron.

12. The Airport operates under day and night visual flight rules (VFR) and does not currently have instrument approach capabilities. The airport is equipped with a federally funded Automated Weather Observation System (AWOS).

13. Aviation fuel is available at the Airport through the City of Florence. Current airport directories indicate that 100LL AVGAS and Jet Fuel are available.

14. The most recent estimates of activity for Florence Municipal Airport (from the February 2008 Oregon Aviation System Plan Forecast Update): 31 based aircraft and 5,162 operations in 2005. The current FAA 5010 form lists 31 based aircraft and 7,000 annual operations (for the 12 months ending 7/12/05).

AIRPORT MASTER PLAN PROJECTS & FINDINGS

1. All federally-funded projects are subject to the environmental regulations contained in the National Environmental Policy Act (NEPA), including property acquisition, major facilities rehabilitation, and new construction.

2. A regular schedule of pavement maintenance (vegetation control, crack filling, fog seals, slurry seals, patching, etc.) should be conducted on airfield pavements to maximize the useful life and optimize life cycle maintenance expenditures. Runway and taxiway markings should be periodically repainted to maintain good visibility.

3. Current and future design standards for Runway 15/33 are based on FAA airport reference code (ARC) B-I (small) for “utility” runways (per FAR Part 77). Future airspace planning for Runway 15/33 is based on visual approach capabilities (see item 4, below). New hangar

developments and aircraft parking aprons should be designed to conform to FAA taxilane/taxiway and airspace clearing standards.

4. A non-precision instrument approach is recommended for Florence Municipal Airport. The development of a satellite-based Wide Area Augmentation System (WAAS) approach (or other comparable platform) is recommended, with circling procedures developed for both ends of Runway 15/33 if FAA obstruction clearance standards for the procedure design can be met. The recommendation to develop a circling procedure is consistent with the visual designation for Runway 15/33.

5. A 400-foot extension at the north end of Runway 15/33 is recommended based on the runway length required to accommodate 100 percent of the small airplane fleet at Florence. The parallel taxiway will also be extended. The runway and parallel taxiway extension will not require property acquisition. The project will require the removal of approximately 203,000 cubic yards (CY) of the sand dune located beyond the north end of the runway. The runway extension and obstruction removal project is anticipated to be conducted in phases (depending on funding availability):

    a. Phase 1: Construct the 400-foot north runway extension with a 200-foot displaced threshold for obstruction clearance. Runway End Siting Requirements will be applied to provide an unobstructed 20:1 obstacle clearance surface (OCS) for Runway 15 and 33. The runway length available for landing on Runway 33 is 3,400 feet; the runway length available for landing on Runway 15 is 3,200 feet. Extend the parallel taxiway to connect to the new runway end; extend runway edge lights; add/realign precision approach slope indicator (PAPI).

    b. Phase 2: Eliminate the 200-foot displaced threshold for Runway 15 by removing approximately 87,100 CY of material from the sand dune to accommodate an unobstructed visual 20:1 OCS at the runway end. Modify existing runway lighting and PAPI aiming angle, as required. The resulting useable runway length for all aircraft operations is 3,400 feet.

    c. Phase 3: Remove approximately 116,200 CY of additional material from the sand dune to accommodate and unobstructed FAR Part 77 visual 20:1 approach surface to Runway 15. Modify PAPI aiming angle, as required. Phase 2 and 3 terrain removal may be consolidated into a single phase depending on the availability of funding.

6. The 1997 Airspace Plan depicts a 20:1 visual obstacle clearance surface (OCS) for Runway 33. The areas located beyond the south end and along the west side of the runway should be surveyed to verify the location and elevation of terrain and/or tree obstructions and develop an action plan for removal, if necessary.

7. The north hangar area is capable of accommodating hangar demand during the current planning period and beyond. The preferred alternative includes space reserved for development of additional conventional hangars, T-hangars and aircraft apron. As currently planned, the north landside area provides storage capacity for approximately 60 additional aircraft:

    a. Eleven (11) conventional hangar spaces with current taxilane access. One vacant hangar site (2-C) located at the north end of the main apron is reserved for commercial use. Two rows of T-hangars and two additional hangar taxilanes located immediately north of existing hangar development. The physical limits of the site will accommodate one 8-unit T-hangar (or multiple smaller T-hangars) per row. The first T-hangar will utilize the northern-most existing hangar taxilane with a new taxilane constructed to access the north side of the T-hangar. The second T-hangar row and north-side taxilane would be developed based on demand.

    b. An aircraft parking apron and reserve area is located north of the planned T-hangar rows. As conceptual configured, the apron has three rows of tiedowns (27 spaces total), which significantly exceeds forecast demand for parking. It is anticipated that the north apron would be constructed in phases, only in the event that the capacity of terminal apron becomes inadequate.

    c. Six additional conventional hangar spaces are located beyond the north apron.

    d. Existing airport fencing and gates will be modified at the 27th Street connection to the airport, with controlled access provided via pedestrian and automated vehicle gates located adjacent to the apron. Public vehicle parking and a passenger pick-up/drop off area will be provided adjacent to the apron (outside the fence). An automated access vehicle gate is recommended to provide tenant access to the north hangar area from the 27th Street connection.

8. The City of Florence and Lane County should maintain airport overlay zoning based on the FAR Part 77 airspace surfaces (height and hazard) depicted in the updated Airport Layout Plan.

9. The City of Florence and Lane County should ensure through their comprehensive planning/zoning that development of lands in the vicinity of the airport is compatible with airport activities to the greatest extent possible (see ORS 836 for more details).

10. Any proposed changes in land use or zoning in the vicinity of the airport (within the boundaries of the FAR Part 77 airspace surfaces) should be coordinated with Oregon Department of Aviation to ensure consistency with Oregon airport land use planning requirements (see ORS 836).

11. The City of Florence should require all development proposals involving construction of structures on the airport to complete and submit FAA Form 7460-1 – Notice of Proposed Construction or Alteration, prior to approval of ground leases. Any development proposal that receives an objection by the Oregon Department of Aviation (ODA) and/or FAA should not be approved without first addressing ODA and FAA concerns.

12. City of Florence and/or Lane County planning and building officials should require that applicants for proposed development within the boundaries of the airport's FAR Part 77 imaginary surfaces (as defined by the Airport Airspace Plan) submit FAA Form 7460-1 – Notice of Proposed Construction or Alteration. A written determination of "No Hazard" should be required prior to approval/issuance of building permits, approval of plats, binding site plans, etc. Any development proposal that receives an objection by FAA or ODA should not be approved without first addressing FAA or ODA concerns.

13. The City of Florence and FAA should approve/adopt this Airport Master Plan and Airport Layout Plan drawings in a timely manner to guide future airport development. (The Airport Capital Improvement Plan [ACIP] found it the 2007 Oregon Aviation Plan [OAP] identifies possible projects for the Florence Municipal Airport)

14. The City of Florence should initiate the identified improvements and major maintenance items in a timely manner, requesting funding assistance under FAA and other federal or state funding programs for all eligible capital improvements.

Surface Water Plan

The Siuslaw River is a navigable waterway that connects Florence to other inland communities as well as the Pacific Ocean. 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 Coos Bay Rail Link railroad line crosses the river on the Cushman swing bridge at RM 8.2. OR 126 crosses the Siuslaw River in Mapleton at RM 22.5. The Mapleton Bridge and shallow water upstream effectively limit waterborne commerce at that point.

Industrial activities on the navigable waterway include private industry shipping terminals at RM 6.5, 7.5 and 16. Tug, barge and marine construction services operate from a site at RM 6.5. Within the City of Florence, the Port of Siuslaw operates a commercial shipping and seafood buying terminal at RM 4.8, commercial and recreational marinas at RM 5.0, a waterfront campground and parks, and multiple water-dependent, water-related leased or marketable properties.

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 the City of 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 RM5.0, 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.

Data from the mid-1990s show that commercial vessels arrived and departed the port with an average of about 82,000 tons of cargo annually, consisting mostly of logs and fish. Value of cargo was approximately $15,000,000 per year for the period of 1993-95. According to an annual report from the Oregon Coastal Zone Management Association (OCZMA)[5], 117 jobs with an annual payroll of $2.3

[5] Navigation and Other Activities on Oregon Coastal and Columbia River Waterways and Harbors in 1996, The Research Group for OCZMA

million are directly attributable to port-enabled economic activities. Total related economic activity was estimated in the report to be about $13.5 million.

PORT OF SIUSLAW

The Port of Siuslaw currently oversees and operates several services, including:

- Moorage and storage
- Transient vessel docks in Florence and Mapleton
- Freight transport in water
- Fueling facilities over the water
- Diesel and gasoline over the water
- Transfer facilities located on the wharf
- Transfer facilities on the river
    - Used by semi-trucks for transport of commodities such as fish and crab products (located on Bay Street)
- Tourism facilities
    - The Marina, a RV campground, waterfront boardwalk, and a 199-space parking area adjacent to Old Town which serves as a parking facility for tourists visiting old town.

The wharf and Mo's and ICM Restaurants, the Port's two tenants, serve as an attraction for many people coming to Florence, including bus tours.

Funding Concerns

Operation and maintenance costs for the Port are substantial, and include:

- Maintenance of federally-authorized navigation channel (rely on Federal funding)
- Maintenance of infrastructure
    - The Marina itself
    - Parking
    - Wharf
    - RV campground facilities

- Public Boat Ramp
- Associated buildings

Operational Concerns

During instances where bridge lifts (Siuslaw River Bridge) are required for ship passage, delays in response time can be an issue. Boats are required to call in advance (a much as two hours to get the bridge lifted), and this often causes delays for both commercial and recreational boats/boaters.

Projects

Several water transportation-related improvements to the Port of Siuslaw have been identified and are summarized below.

PORT OF SIUSLAW GATEWAY

The improvements listed below, together with recent improvements, will provide improved facilities and enhance the Gateway function of the Port. As the fishing industry, and water-based transport of wood products continues to decline, facility improvements which attract recreational users, as well as those persons traveling by boat for business or pleasure will become a greater part of the mix of facilities at the Port and will further enhance its gateway function.

MAINTAIN THE FEDERALLY AUTHORIZED NAVIGATION CHANNEL

The US Army Corps of Engineers, who have traditionally provided maintenance dredging at the small Oregon coastal ports, are under pressure to recoup the cost of dredging, and to consider cost-effectiveness of their dredging activities. Smaller ports like the Port of Siuslaw that do not have the activity of large ports are at a disadvantage when competing for diminishing dredging funds. The cost of dredging is beyond the resources of the Port district and supporting communities.

REHABILITATE THE OLD TOWN WHARF

Originally constructed during the 1960's and restored after a fire in the 1980's, the Old Town Wharf structure supports the seafood buying station, one hoist, the public transfer dock, commercial ice house, and two waterfront restaurant facilities. Adjoining the Old Town Wharf is the Maple Street Landing and Transient Dock. The timbers in the wharf are approaching the end of their design life and rehabilitation is necessary to maintain the economy dependent upon the structures. Partial wharf repairs are scheduled to begin November 2012.

DREDGE THE WEST AND EAST MOORAGE BASINS

The two marinas combined provide 51 commercial vessel moorage slips and 54 moorage slips for recreational vessels. Maintenance dredging is required periodically to maintain sufficient water depth in the marinas.

REHABILITATE EAST MOORAGE BASIN

The East Moorage Basin provides the only operational public recreational marina on the Siuslaw River in Florence. The marina suffered severe storm damage in 1996. Partial repairs were completed in 1999, but full capacity has not been restored. Permanent repairs are needed to restore economic viability of the facility. A new landing needs to be constructed and twenty-four (24) substandard slips need to be rehabilitated.

ESTABLISH A DOWNRIVER BOAT LAUNCH FACILITY

The Port operated public boat ramp at RM 5.0 is the closest ramp to the ocean. The ramp is becoming capacity-limited due to the increased tourism activity and commercial development in the Old Town district of Florence. An additional ramp and transient boarding facility downriver will be needed to serve the increasing motorized boater traffic on the river. The facility should also be designed to provide additional access for non-motorized users.

INSTALL INFRASTRUCTURE AT PORT INDUSTRIAL PARK

Extension of Pacific View Drive and related utility systems, plus addition of fiber optic cable, into an undeveloped 40-acre Port-owned parcel will provide up to 38 additional acres for industrial job creation in Florence. Access to the Siuslaw River will support water-dependent and water-related business and industrial development.

Section 9

Facility Standards

FACILITY STANDARDS

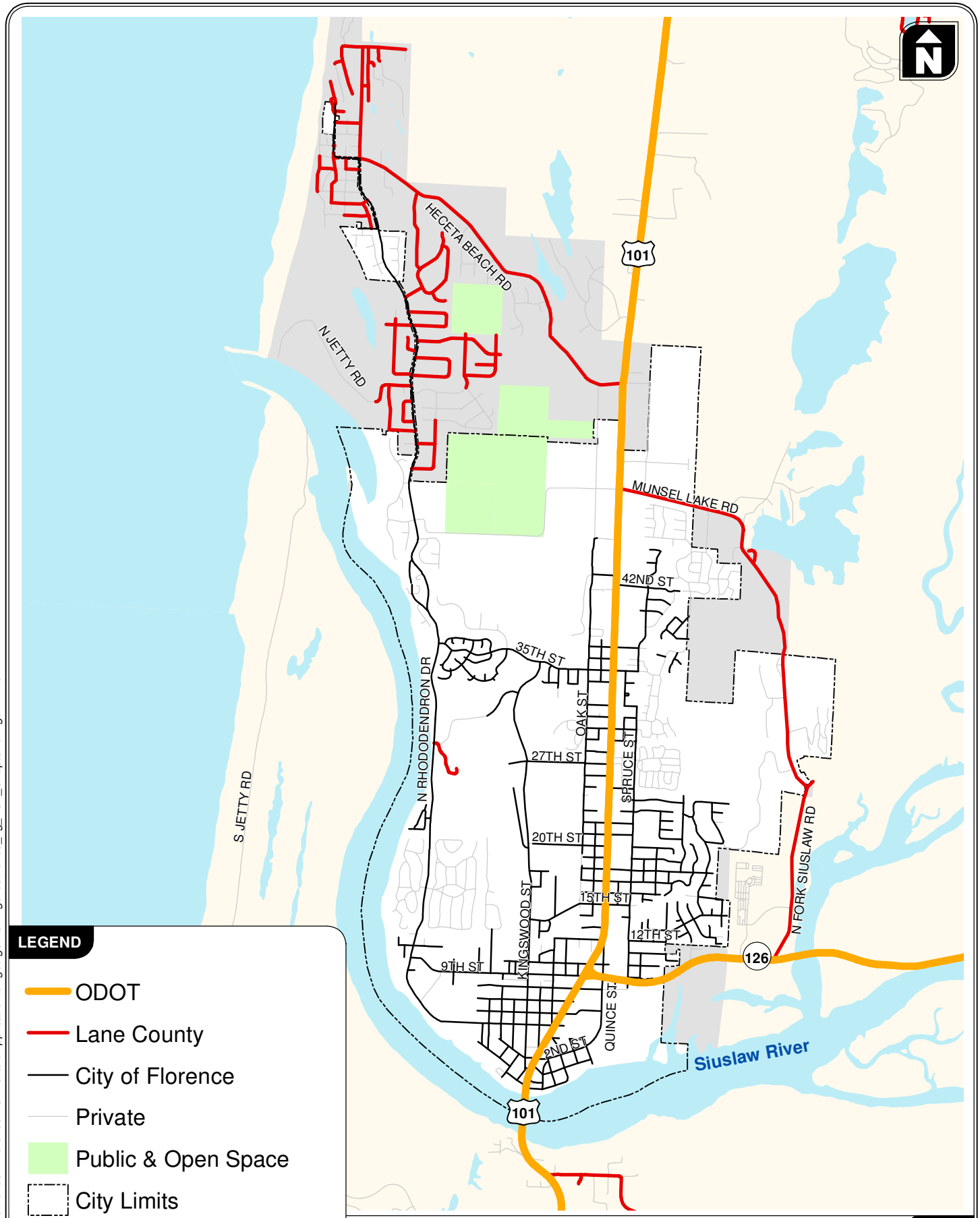
Highways and streets are the primary means of mobility for Florence's citizens, serving the majority of trips over multiple modes. Pedestrians, bicyclists and motorists all utilize public roads for the vast majority of their trips. These public facilities are controlled by multiple jurisdictions and are classified based on traffic loads, permitted speeds, and accessibility.

JURISDICTION

Public roads within the study area are operated by three different jurisdictions: the City of Florence, Lane County and ODOT. Each jurisdiction is responsible for the following:

- Determining the road's functional classification;
- Defining the roadway's major design and multi-modal features;
- Maintenance; and,
- Approving construction and access permits.

Coordination is required among the jurisdictions to ensure that the transportation system is planned, maintained, and expanded to safely and efficiently meet the needs of travelers in the area. The jurisdiction of roadways is shown in Figure 9-1 (also previously in Figure 4-2).



JURISDICTION OF FLORENCE ROADWAYS
FLORENCE, OREGON

FIGURE **9-1**

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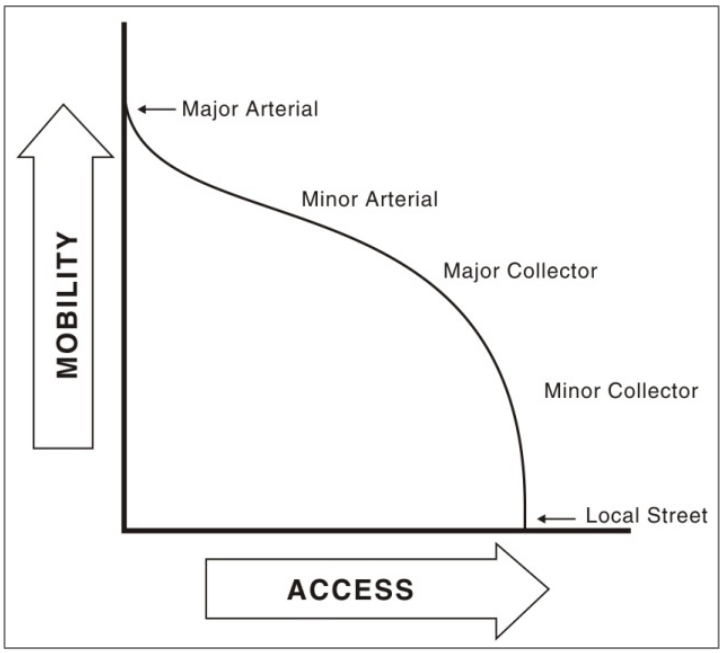
ROADWAY FUNCTIONAL CLASSIFICATION



The purpose of classifying roadways is to create a mechanism through which a balanced transportation system can be developed that facilitates mobility for all modes of transportation as well as access to adjacent land uses. A roadway's functional classification determines its intended purpose, the amount and character of traffic it is expected to carry, the degree to which non-auto travel is emphasized, and the roadway's design standards and overall management approach. It is imperative that a roadway's classification considers the adjacent land uses and the transportation modes that should be accommodated. The public right-of-way must also provide sufficient space for utilities to serve adjacent land uses.

ODOT has a separate classification system for its highways, which guide 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* on the National Highway System (NHS). The OHP defines *Statewide Highways* on the NHS as follows:

> Statewide Highways (NHS) typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas (STAs), local access may also be a priority.

The OHP designates the portion of US 101 between OR 126 and the Siuslaw River Bridge (MP 190.23 to 190.84) as a Freight Route and as a STA. The OHP defines a STA as a district of compact development where the need for appropriate local access outweighs the considerations of highway mobility except on designated Freight Routes where highway mobility has greater importance.

The OHP designates the portion of US 101 between 30th Street and OR 126 (MP 188.97 to 190.23) as an Urban Business Area (UBA), which is defined as an area where vehicular accessibility is important to continued economic viability. In areas with a posted speed above 35 miles per hour, the OHP states that a management plan is required to balance the needs for vehicular, pedestrian, bicycle, and transit accessibility in an Urban Business Area.

The Florence functional classification plan is shown in Figure 9-2.

ROADWAY STREET SECTION STANDARDS

Florence street standards have been refined and updated to complement the functional classification plan shown in Figure 9-2. General characteristics of arterials, collectors, and local streets are described in subsequent sections.

The functional classification plan incorporates three functional categories: arterials, collectors, and local streets. Within these broad classifications are specific arterial treatments for the long range vision for Rhododendron Drive, 9th Street, Heceta Beach Road, and Munsel Lake Road.

FUNCTIONAL CLASSIFICATION
FLORENCE, OREGON

FIGURE 9-2

H:\projfile\10103 - Florence TGM Grant Application\dwgs\figs\TSP figures\10103_fig_TSP_Chapter 4 Fig4-3.mxd

MINOR ARTERIALS

It should be noted that the major arterials in Florence are state highways (US 101 and OR 126). As such, they are subject to ODOT plans, policies, and standards, and improvements are to be undertaken according to ODOT approval and permitting processes.

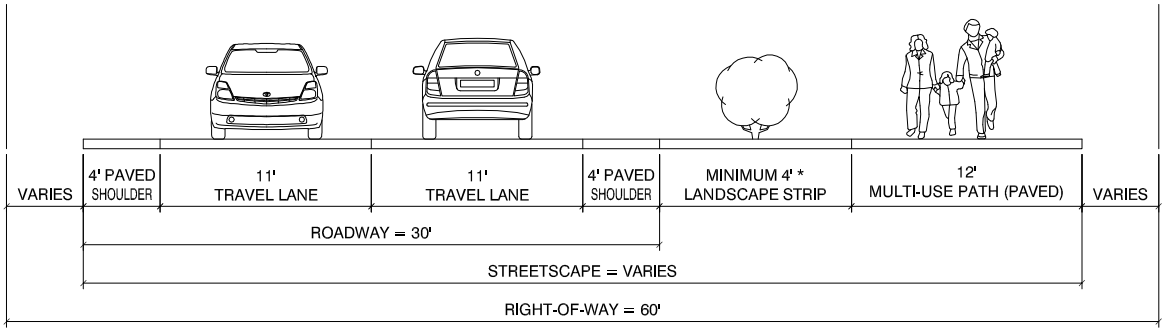
Minor arterials provide a higher degree of access than major arterials. The primary function of minor arterials is to serve local and through traffic between neighborhoods and to community and regional facilities. Bicycle lanes (or equivalent adjacent facilities, such as multi-use paths) should be provided on minor arterials in most cases. Sidewalks are slightly wider on arterials (six feet as compared with five feet on collector and local streets), providing additional space for pedestrians and greater protection from higher speed traffic. Four roadways within the City of Florence have been identified as minor arterials and specific cross-sections have been developed for each.

The cross-sections are shown in Figure 9-3, Figure 9-4, and Figure 9-5. As shown in Figure 9-3, Rhododendron Drive has a distinctive cross-section for the segment from 9th Street to Heceta Beach Road:

- *Scenic section: from 9th Street to Heceta Beach Road* – This section should be widened with two 11-foot travel lanes and 4-foot shoulder bike lanes, accompanied by a 12-foot meandering multi-use path on the east side.

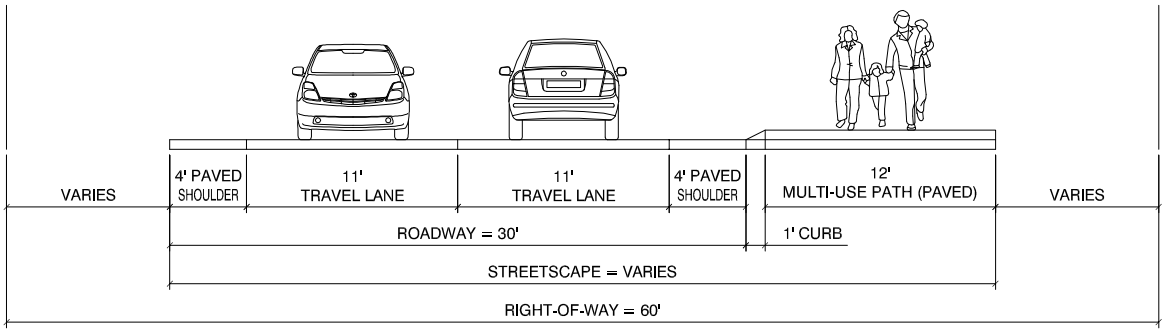
In some sections, particularly immediately north of 9th Street, there may be physical or built-environment impediments to facilitate the full cross-section on Rhododendron Drive to be constructed as shown in the "standard section" (top section) in Figure 9-3. Accordingly, the Rhododendron Drive Integrated Transportation Plan specifies an alternate section (middle section) in Figure 9-3 which separates the multi-use path from motor vehicles with a 1-foot sloped curb.

Munsel Lake Road and Heceta Beach Road should be constructed to standards as shown in Figure 9-3 (bottom section), to include a 6-foot sidewalk on the "town" side (where physical and built environments allow), and 6-foot bike lanes on both sides. Similar to Rhododendron Drive, these scenic minor arterials may be constructed with an alternate cross-section to include a 12-foot multi-use path on one side (town side), separated by a landscape strip wherever possible (see Figure 9-4 for Alternate Section A). Munsel Lake Road, between US 101 and Spruce Street should be constructed to the cross-section prescribed in Figure 9-5. This section includes three travel lanes (including a center left turn lane), bike lanes, landscaping and bio-swale, sidewalk, and multi-use path. Ninth Street should be constructed to the standard cross-section in Figure 9-5.



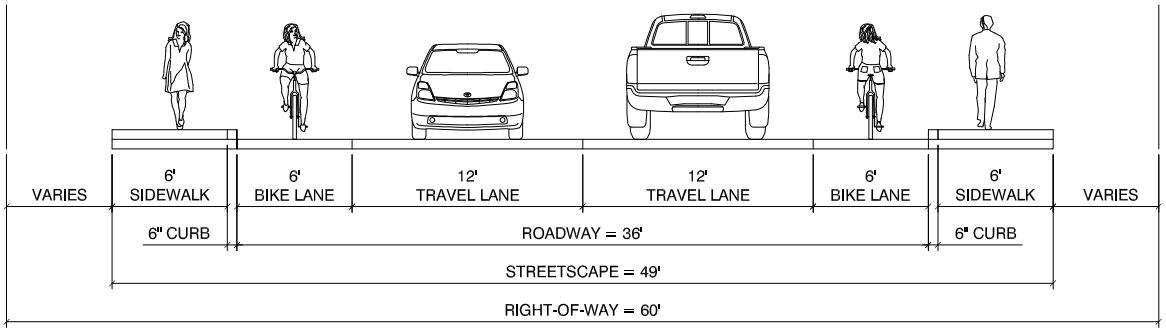
RHODODENDRON DRIVE: 9TH STREET TO HECETA BEACH ROAD **
(STANDARD SECTION WITH SEPARATED PATH)

* 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 RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (JAN 2008).



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

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

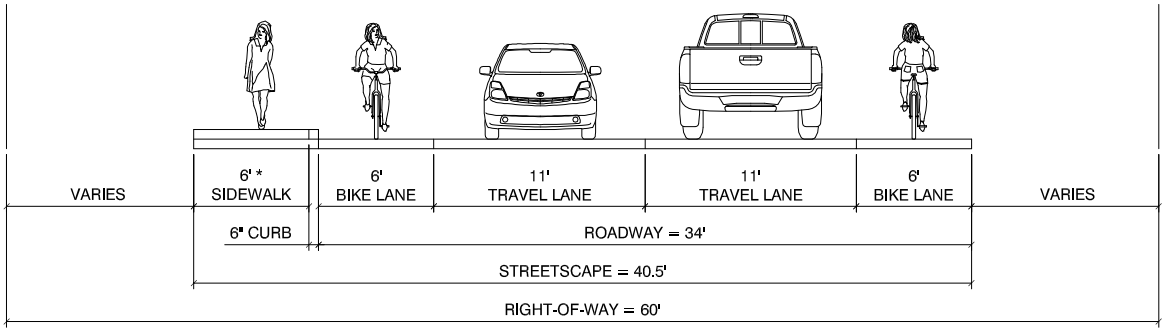


9TH STREET

NOTES:
1. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

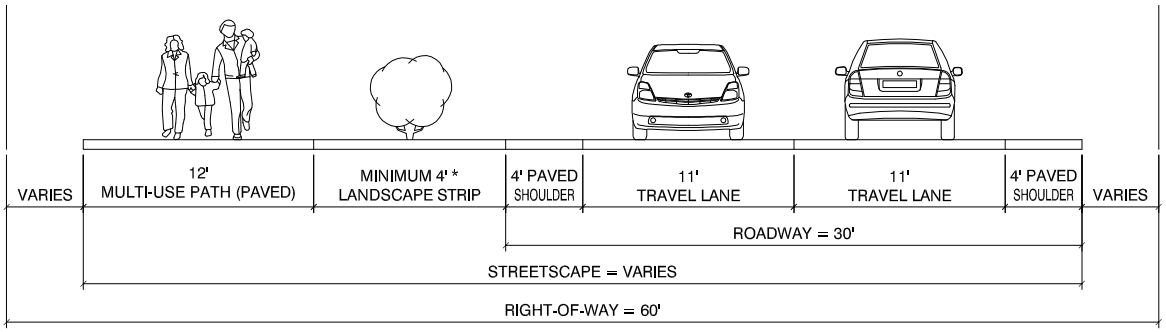
MINOR ARTERIAL CROSS-SECTION STANDARDS
FLORENCE, OREGON

FIGURE 9-3



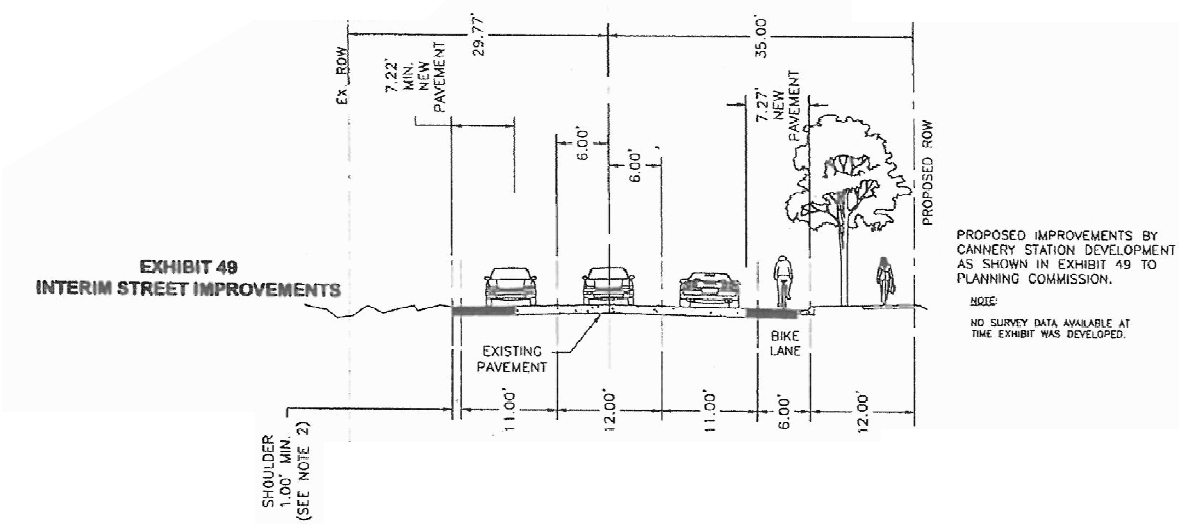
MUNSEL LAKE ROAD & HECETA BEACH ROAD **
(STANDARD SECTION)

* SIDEWALK LOCATION TO BE ON "TOWN SIDE" (SOUTH AND WEST SIDES OF STREET), AND MAY VARY AND IS TO BE DETERMINED BASED ON PHYSICAL AND BUILT ENVIRONMENT.
** SEE ALTERNATE SECTION OF MUNSEL LAKE ROAD BETWEEN US 101 AND SPRUCE (FIGURE 9-5)



MUNSEL LAKE ROAD & HECETA BEACH ROAD
(ALTERNATE SECTION A)

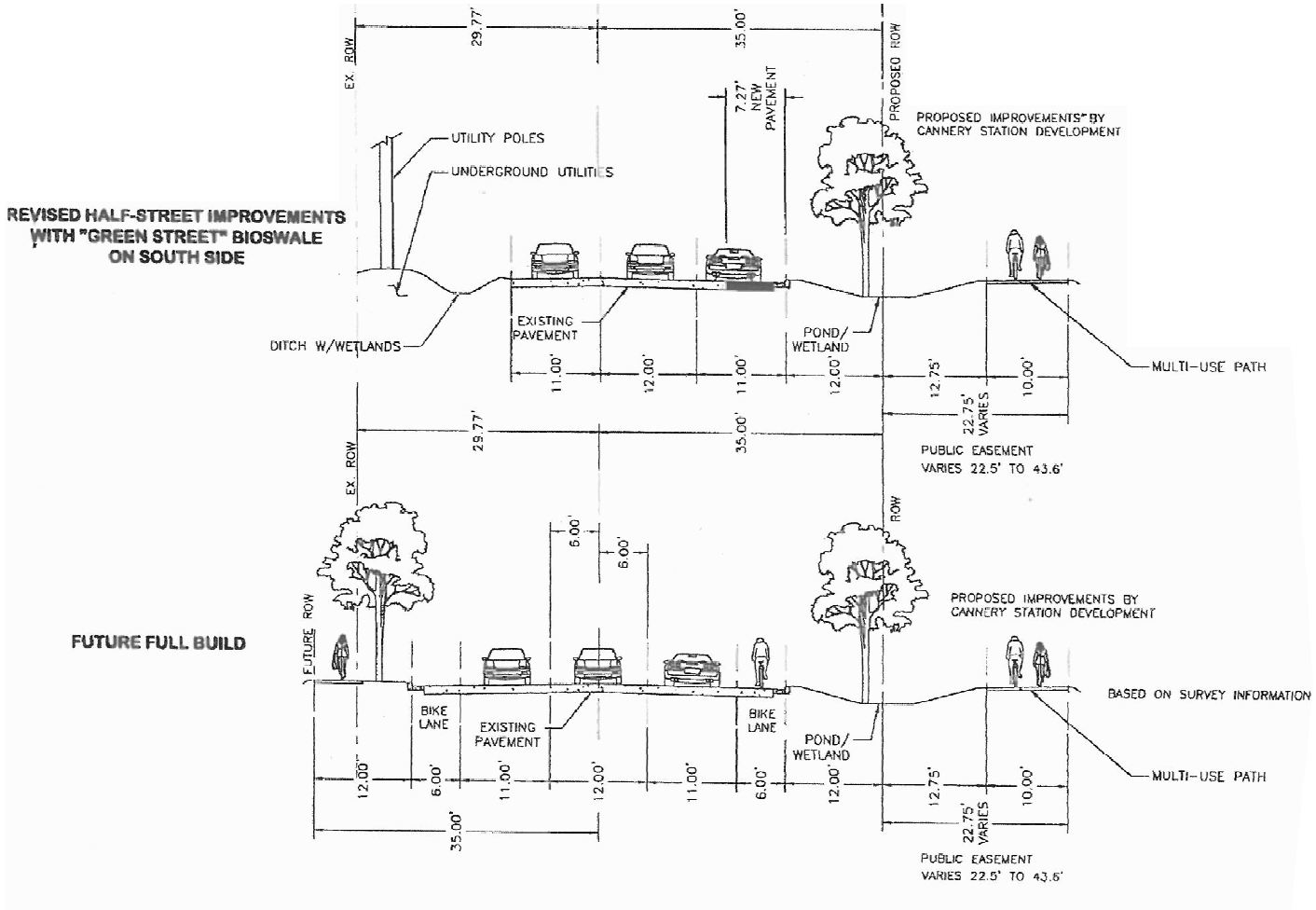
* WHERE PHYSICAL SPACE DOES NOT ALLOW A 4' SEPARATION, A VERTICAL CURB, BARRIER, OR RAIL SHOULD BE USED TO SEPARATE MOTOR VEHICLE TRAFFIC AND THE MULTI-USE PATH.



NOTES:
1. EXHIBIT 49 TAKEN FROM CANNERY STATION PUD.
2. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

MINOR ARTERIAL CROSS-SECTION STANDARDS
FLORENCE, OREGON

FIGURE 9-4



NOTES:
1. CROSS-SECTIONS SHOWN TAKEN FROM CANNERY STATION PUD.
2. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

MINOR ARTERIAL CROSS-SECTION STANDARDS
FLORENCE, OREGON

FIGURE 9-5

COLLECTORS

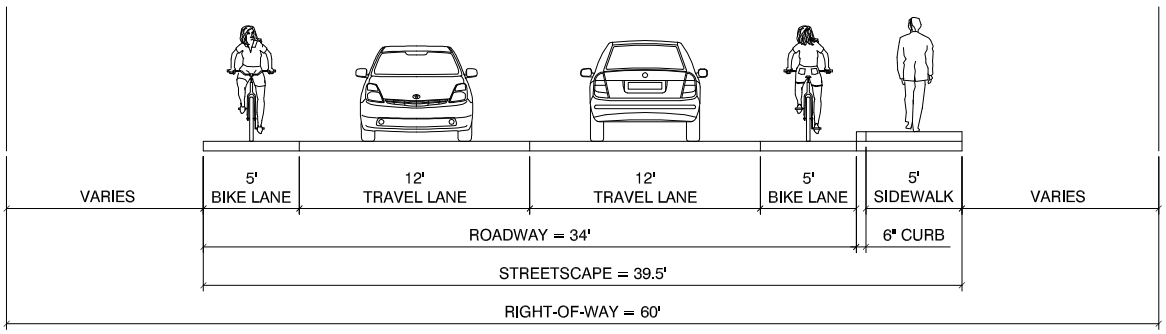
Collector streets facilitate the movement of city traffic within the urban growth boundary of the city. Collectors provide some degree of access to adjacent properties, while maintaining circulation and mobility for all users. Sidewalks are slightly narrower on collectors (five feet plus ½ foot curb vs. arterial sidewalks of six feet), due to the slightly lower speeds on these facilities. Figure 9-6 illustrates the specific cross-sectional transition segment of Rhododendron Drive between Hemlock Street and 9th Street.

- *Transition section: from Hemlock Street to 9th Street* – This section is currently narrower, and its physical character and surrounding topography makes widening more difficult. In recognition of the physical challenges, the existing section should be widened to two 12-foot travel lanes with two 5-foot bike lanes and a 5-foot sidewalk on the north side.

Figure 9-7 and Figure 9-8 illustrate more generalized cross-sections for remaining collector facilities within the City to provide both flexibility and guidance when improving or constructing collector facilities. These collector cross-sections provide the City the ability to provide exclusive or shared bike lanes and/or on-street parking, as needed on a particular collector segment.

LOCAL STREETS

Local streets are primarily intended to provide access to abutting land uses. Local street facilities offer the lowest level of mobility and consequently tend to be short, low-speed facilities. As such, local streets should primarily serve passenger cars, pedestrians, and bicyclists; heavy truck traffic is discouraged. On-street parking is common. Sidewalks are typically present (5 feet plus ½ foot curb), though the relatively low travel speeds and traffic volumes allow bicycles to share the vehicle travel lanes. Local street cross-sections are shown in Figure 9-9. The narrower section shown on bottom of Figure 9-9, which allows parking on only one side, requires approval by the City engineer.

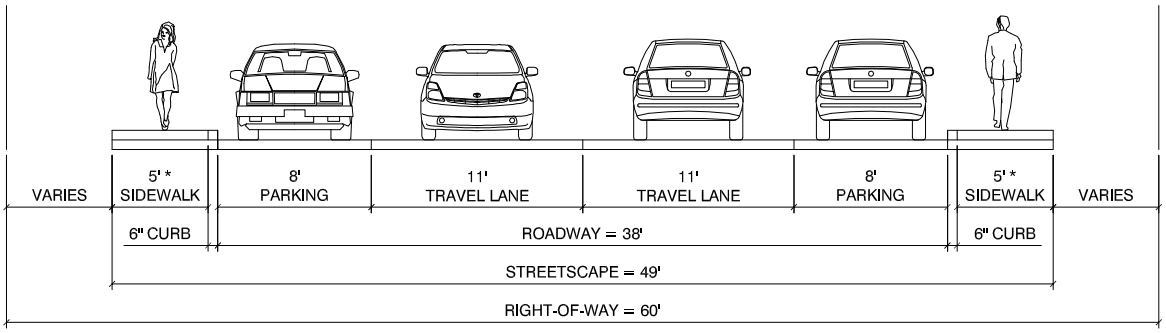


RHODODENDRON DRIVE
(HEMLOCK STREET TO 9TH STREET)

NOTES:
1. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

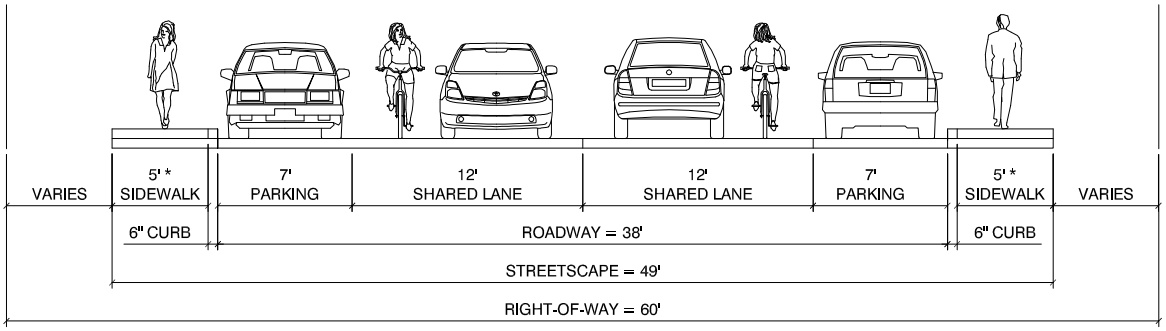
COLLECTOR ROADWAY CROSS-SECTION STANDARDS
RHODODENDRON DRIVE - TRANSITION SECTION
FLORENCE, OREGON

FIGURE
9-6



COLLECTOR
(ON-STREET PARKING)

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



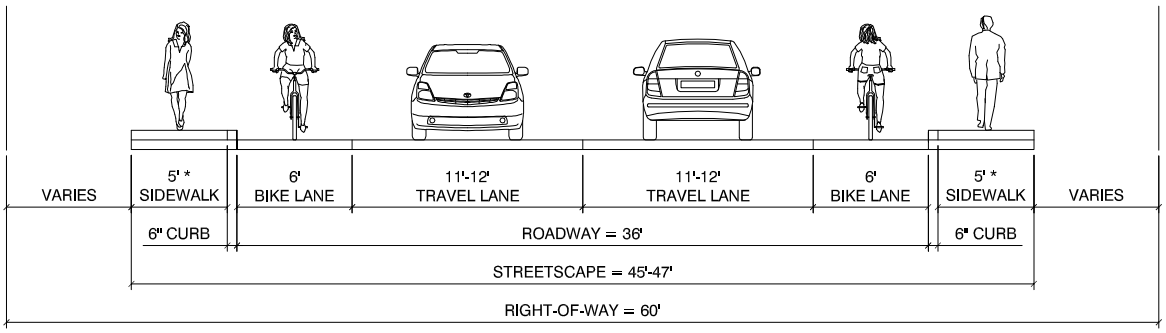
COLLECTOR
(BIKE SHARROWS WITH ON-STREET PARKING)

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

NOTES:
1. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

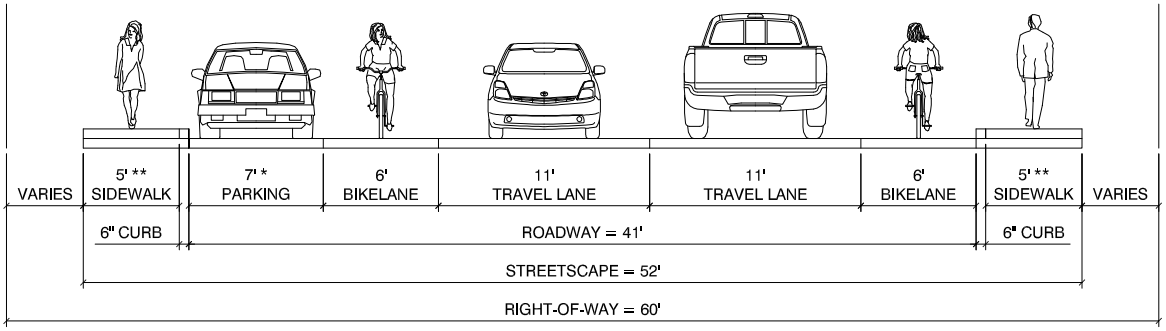
COLLECTOR ROADWAY CROSS-SECTION STANDARDS
NO BICYCLE LANE OPTION
FLORENCE, OREGON

FIGURE 9-7



COLLECTOR
(NO PARKING)

* 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.



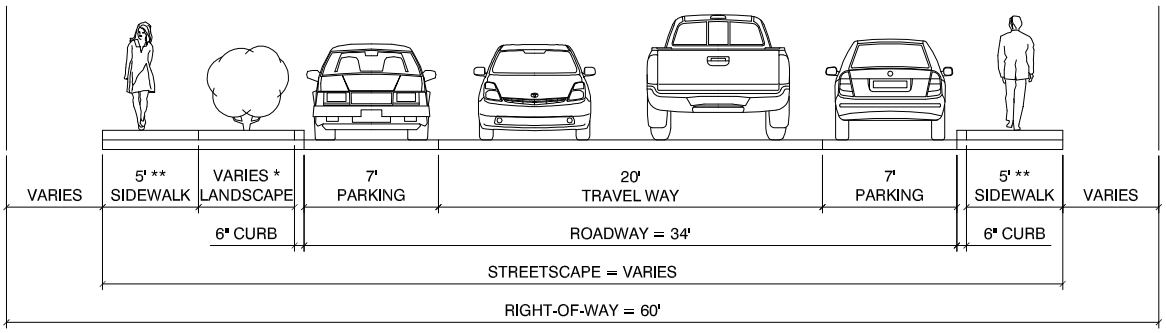
COLLECTOR
(BIKE LANES WITH ON-STREET PARKING)

* 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.

NOTES:
1. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

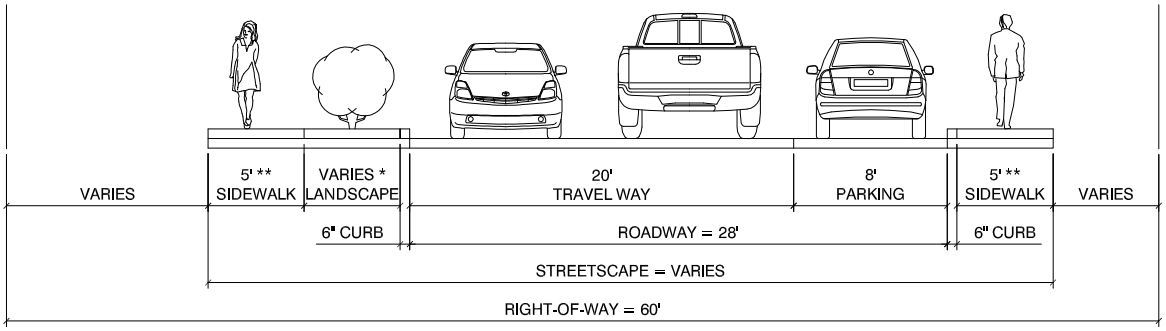
COLLECTOR ROADWAY CROSS-SECTION STANDARDS
BICYCLE LANE OPTIONS
FLORENCE, OREGON

FIGURE
9-8



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 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.



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.

NOTES:
1. ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED AS NEEDED FOR DRAINAGE SYSTEMS OR UTILITIES.

LOCAL ROADWAY CROSS-SECTION STANDARDS
BICYCLE LANE OPTIONS
FLORENCE, OREGON

FIGURE
9-9

Bicycle Facilities

Similar to pedestrian facilities, bicycle facilities (dedicated bicycle lanes in the paved roadway, multi-use paths shared with pedestrians, etc.) may serve a variety of trips. These include:

- Trips to major attractors, such as schools, parks and open spaces, retail centers, and public facilities;
- Commute trips, where changing and showering facilities are provided at the workplace;
- Recreational trips; and,
- Access to transit, where bicycle storage facilities are available at the stop, or where space is available on bus-mounted bicycle racks.

As this list suggests, supporting bicycling as a viable alternative to the automobile requires more than simply providing bicycle lanes. Support facilities, such as secure parking and worksite changing facilities, are also needed before many potential users will consider choosing a bicycle as a practical alternative.

Dedicated bicycle facilities should be provided along major streets where automobile traffic speeds are significantly higher than bicycle speeds. Bicycle facilities should connect residential neighborhoods to schools, retail centers, and employment areas. However, allowing bicycle traffic to mix with automobile traffic is acceptable where the average daily traffic (ADT) on a roadway is less than 3,000 vehicles per day, according to the *Oregon Bicycle and Pedestrian Plan*. Lower volume roadways should be considered for bike shoulders or lanes if anticipated to be used by children as part of Safe Routes to School as described in the following sections. In areas where no street connection currently exists or where substantial out-of-direction travel would otherwise be required, a multi-use path may be appropriate to provide adequate facilities for bicyclists.

There is currently no separate bicycle plan for City of Florence. The local bicycle system improvements should be consistent with the *State of Oregon Bicycle Facilities Master Plan*. The following issues were identified through general review of the bicycle network and in consultation with City of Florence staff:

- The City's bicycle and pedestrian facilities are discontinuous, thereby discouraging travel via these modes;
- Heceta Beach Road, Munsel Lake Road, and a large portion of Rhododendron Drive currently lack facilities for bicycles and pedestrians, and travel speeds have been observed to be high; and,

- US 101 south of OR 126 lacks bicycle lanes near and on the Siuslaw River Bridge.

Pedestrian Facilities

Pedestrian facilities serve a variety of needs, including:

- Relatively short trips (under a mile) to major pedestrian attractors, such as schools, parks, and public facilities;
- Recreational trips—for example, jogging or hiking—and circulation within parklands;
- Access to transit (generally trips under ½-mile to bus stops); and,
- Commute trips, where mixed-use development is provided and people have chosen to live near where they work.

Pedestrian facilities should be integrated with transit stops and effectively separate pedestrians from vehicular traffic. Furthermore, pedestrian facilities should provide continuous connections among neighborhoods, employment areas, and nearby pedestrian attractors. Pedestrian facilities usually refer to sidewalks or paths, but also include pedestrian crossings for high volume roadways.

The majority of the arterial and collector roadways in Florence provide sidewalks, though there are some gaps in the pedestrian network. These identified gaps include:

- On US 101 from Siuslaw River Bridge to OR 126
- Missing sidewalk segments in Old Town
- Kingwood Street – 9th Street to 20th Street
- US 101 – north of about 37th, complete sidewalks on both sides
- Safe Routes to School:
    - Along the east side of Oak Street from 27th Street to 32nd Street
    - Crosswalks at the 27th Street/Oak Street intersection
    - Crosswalks at the 30th Street/Oak Street intersection
    - Crosswalks across Oak Street in line with the pedestrian path between Oak Street and Myrtle Loop (just south of 34th Street)
- Pedestrian Access to Parks:

- Singing Pines Park – along Airport/15th Street and Kingwood Street
- Miller to Singing Pines – pave the path between these two parks
- 29th Street Path – reconstruct path from Spruce Street to Munsel Greenway Park

PEDESTRIAN CROSSINGS

In the state of Oregon, all intersections are considered legal crosswalks and motor vehicles are required to yield the right-of-way to pedestrians to allow them to cross. However, motorist stopping compliance is not consistent and pedestrians may have difficulty crossing high volume roadways.

The City recently installed marked pedestrian crossings with RRFB and raised median islands on US 101 at the following locations:

- US 101/2nd Street
- US 101/7th-8th Street (mid-block)
- US 101/17th-18th Street (mid-block)
- US 101/30th Street

These crossings use Rapid Rectangular Flashing Beacons (RRFBs) that are push-button activated by pedestrians, with striped crosswalks and a raised median island that provides a pedestrian refuge. The City is also considering similar installations at the following locations:

- US 101/12th Street
- US 101/15th/16th Street (mid-block)
- US 101/43rd Street
- OR 126/Redwood Street

It would be useful to conduct a study of existing RRFB crossings to establish if these installations have altered pedestrian behavior. Information gathered through such a study can be used to identify and/or confirm additional crossing locations where such a treatment is appropriate as well as priorities for such efforts.

MULTI-USE PATHS

Multi-use paths should be paved asphalt and provide a minimum of ten feet in width with a two-foot gravel, bark, or earthen shoulder and a maximum 1:6 slope. The full paved width and shoulders should

be clear of obstructions. In no case should the multi-use path be less than eight feet wide at pinch points.

The City has adopted the Rhododendron Drive Corridor Plan, which prescribes a minimum ten-foot multi-use path on the east side of this street. Ideally these multi-use paths can be constructed with a width of 12 feet. Accordingly, rights-of-way designated for both Munsel Lake Road and Heceta Beach Road include sufficient width in addition to the prescribed street cross-section to add a 12-foot multi-use path on one side, as the City is able. Future multi-use paths on these facilities should be located as the topography, physical and built environment allow.

SIDEWALKS

As shown in the street section figures, sidewalks should be five feet wide (plus a ½ foot curb) on local and collector streets, and six (6) feet wide on arterials, constructed in concrete (see Figure 9-3 through Figure 9-9). The full sidewalk width should be clear of obstructions. Downtown streets are to have 8-foot sidewalks, with the exception of collectors with no on-street parking (6-foot) and high traffic streets (12-foot sidewalks).

Please refer to the *Oregon Bicycle and Pedestrian Plan* for more details regarding design details for bicycles, multi-use paths, and sidewalks.

Section 10

Costs and Priorities for the Transportation System

COSTS AND PRIORITIES FOR THE TRANSPORTATION SYSTEM

This section presents planning-level cost estimates for identified improvements for the City of Florence Transportation System Plan (TSP) Update. Identified projects have been refined to a level commensurate with the level of detail appropriate for future incorporation into the City's Capital Improvement Plan. The level of funding available from existing and potential future sources[6] for transportation improvements has helped to drive the prioritization of projects as described within this memorandum.

Transportation projects and policies have been identified and prioritized to address the City of Florence goals. Goals and policies are documented in more detail in *Project Memorandum #2: Goals, Policies, and Performance Measures* (see Volume II of the Technical Appendix) and are referenced throughout this section. Planning level cost estimates were developed for the identified projects to inform a realistic plan based on the City's financial constraints.

The City currently lacks the necessary funding to maintain its existing transportation system, and there are no readily-available funds in its current budget to construct new capital projects. Aside from transportation infrastructure projects that may be funded and constructed in conjunction with new developments, any new capital projects that the City plans to build will need to be funded through grants sought from federal, state, or county sources. Hence, as a part of this transportation funding analysis, a list of high priority projects has been developed, based on:

- An immediate need to address capacity or safety deficiencies;
- A value-driven project that has been identified as desirable and provides above-average benefit;
- A project that is likely to be funded by identifiable grant monies or urban renewal funds, and;
- A project that is relatively low cost, and may be easily implemented with limited City funds.

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[6] ***NOTE***: The "Likely Funding Source(s) identified in Tables 10-1 through 10-4, 10-6, and 10-7 represent the current "best guess," and is still in the process of being refined by City and ODOT staff. It is important to note that the identified funding source(s) are not binding, and in fact may change over time depending on a variety of factors such as available grant funding or future funds not currently identified (from a variety of sources) that may be available.

This section is organized as follows:

- **Projects:** Projects are identified and prioritized.
- **Funding Sources and Strategy:** An overview of available funding as provided in Section 3 is presented herein to establish a base for prioritization. A project funding strategy is presented that includes local, state, federal, and private funding sources. In some cases, one or more sources may be identified.
- **Prioritization of City Projects:** This subset of projects is prioritized for potential inclusion in the City's Capital Improvement Plan.

Projects

Projects included in the City's TSP are summarized below in Table 10-1 through Table 10-4, Table 10-6, and Table 10-7. The projects are organized by project type and provide planning level cost estimates, general implementation time frames, and the lead agency for project construction. The cost estimates are subject to change throughout the conceptual and construction phase.

Table 10-1 Arterial and Collector Roadway and Intersection Projects

Project Number	Name	Description	Estimated Cost	Time Frame (years)	Likely Funding Source(s)
PRJ-1	Pacific View Drive Extension	Construct Pacific View Drive west from its current terminus to connect to N Rhododendron Drive at New Hope Way.	$1,613,000	Based on development of Port's property	Development of Port's Property
PRJ-2	Munsel Lake Road Extension	Construct Munsel Lake Road from US 101 west to Oak Street.	$312,000	2026-2035	Development
PRJ-6	Oak Street North	Extend Oak Street south from Heceta Beach Road to the northern portion of Fred Meyer.	$3,715,000	2026-2035	Development
PRJ-7	Driveway	Provide driveway to Lane County Public Works	$30,000	2013-2017	County
PRJ-8	Spruce Street Extension	Construct a new section of Spruce Street north from Munsel Lake Road to Heceta Beach Road.	$3,494,000	2026-2035	Development
PRJ-9	US 101/Munsel Lake Road Intersection	Install traffic signal when warranted.	$490,000	2018-2025	Partial Development/ ODOT
PRJ-10	US 101/27th Street	Install traffic signal when warranted.	$490,000	2026-2035	ODOT
PRJ-11	US 101/15th Street	Install traffic signal when warranted.	$490,000	2026-2035	ODOT
PRJ-12	9th Street/ Kingwood Street	Install a traffic signal when warranted.	$700,000	2018-2025	Partial Development/ City
PRJ-13	OR 126/Quince Street	The system improvement being considered at this intersection is to eventually restrict the northbound left-turn movements.	$350,000	2013-2017	ODOT
PRJ-14	OR 126/Spruce Street	Install a traffic signal when warranted.	$1,400,000	2018-2025	ODOT
PRJ-15	US 101 Widening	Widen US 101 to provide two northbound travel lanes from 42nd Street to Munsel Lake Road when warranted	$1,617,000	2026-2035	Partial ODOT/Development

PRJ-16	27th Street Widening	Widen 27th to a three-lane cross-section (12-foot center turn lane) with bike lanes and sidewalks between Oak Street and US 101.	$166,000	2026-2035	City
PRJ-17A	Rhododendron Drive Roadway Improvements – US 101 to Hemlock Street	Construct the full Collector (Bike Sharrows with On-Street Parking) cross-section for this segment.	$26,000	2018-2025	City
PRJ-17B	Rhododendron Drive Roadway Improvements – Hemlock Street to 9th Street	Construct the Transition Collector cross-section for Rhododendron Drive for this segment.	$698,000	2018-2025	City
PRJ-17C	Rhododendron Drive Roadway Improvements –9th Street to 35th Street	Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.	$752,000	2013-2017	City
PRJ-17D	Rhododendron Drive Roadway Improvements – 35th Street to N Jetty Road	Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.	$336,000	2017-2025	City
PRJ-17E	Rhododendron Drive Roadway Improvements – N Jetty Road to Heceta Beach Road	Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.	$301,000	2026-2035	City
PRJ-18	US 101 Bike Lanes	Provide bike lanes between the Siuslaw River Bridge and OR 126 as determined by ODOT public process.	$46,000	2018-2025	ODOT

Note: PRJ = Existing Roadway Project

Table 10-2 Local Street Projects

Project Number	Name	Description	Cost	Time Frame (years)	Likely Funding Source(s)
R-1	11th Street	Construct 11th Street between Hemlock Street and Fir Street.	$594,000	2018-2025	Development
R-2	10th Street	Construct 10th Street between Greenwood and 9th Street (at Peace Health access).	$1,189,000	2018-2025	Development
R-3	8th Street	Extend 8th Street west from Greenwood Street to Elm Street.	$594,000	2018-2025	Development
R-4	7th Street	Extend 7th Street west from Greenwood Street to Elm Street.	$594,000	2018-2025	Development
R-5	6th Street	Extend 6th Street west from Greenwood Street to Elm Street.	$594,000	2018-2025	Development
R-6	Greenwood Street	Construct Greenwood Street between 11th Street and 12th Street. Extend Greenwood Street south from 9th Street to 6th Street.	$891,000	2018-2025	Development
R-7	Fir Street	Construct Fir Street between 8th Street and 11th Street.	$891,000	2018-2025	Development
R-8	Cloudcroft Lane	Construct Cloudcroft Lane from current eastern terminus to Sandrift Street.	$637,000	2018-2025	Development
R-12	Elm Street	Construct Elm Street between 9th Street and 8th Street.	$297,000	2026-2035	Development

Note: R = New Roadway Project

Table 10-3 Bicycle Projects

Project Number	Name	Description	Cost	Time Frame (years)	Likely Funding Source(s)
B-1	Heceta Beach Road Bike Lanes	Construct bike lanes along the entire length of Heceta Beach Road (see Heceta Beach Road standard cross-section). In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.	$3,720,000	2018-2025	Partial ODOT/City
B-4	US 101 Alternative Bike Route	Provide signage & striping for alternative bike route for US 101 bicyclists and local residents via Heceta Beach Road and Rhododendron Drive/9th Street.	$185,000	2018-2025	TBD
B-5	Kingwood Street south of 10th Street	Provide bike sharrows as appropriate.[1]	$16,000	2013-2017	City
B-6	Spruce Street South Bike Lanes	Construct bike lanes from 25th Street south to OR 126.	$51,000	2018-2025	City
B-7	Spruce Street North Bike Sharrows	Provide bike sharrows north of 37th Street.	$17,000	2013-2017	City
B-8	Oak Street Bike Lanes	Construct bike lanes south of 24th Street to 20th Street.	$250,000	2013-2017	City
B-10	2nd Street Bike Sharrows	Provide bike sharrows on 2nd Street from Harbor Street to US 101.	$7,000	2013-2017	City
B-12	9th Street Bike Lane at US 101	Develop bike lanes on 9th Street between Nopal Street and US 101.[2]	$105,000	2017-2025	City

Note: B = Bicycle Project
[1] Eliminate parking on one side of Kingwood between 9th and 10th. Continuous sidewalks a priority.
[2] More ROW needed in this area to develop full bike lanes due to lane configuration at US 101. Interim solution could include bike sharrows.

Table 10-4 Multi-Use Path/Trail Projects

Project Number	Name	Description	Cost[1]	Time Frame (years)	Likely Funding Source(s)
MU-1AA	Rhododendron Drive Multi-Use Path – 9th Street to Wildwinds Street	Provide a separated multi-use path north of 9th Street to Wildwinds Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	$1,043,000	2013-2017	Grant/ODOT/City match
MU-1AB	Rhododendron Drive Multi-Use Path –Wildwinds Street to 35th Street	Provide a separated multi-use path north of Wildwinds Street to 35th Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	$1,200,000	2013-2017	Grant/ODOT/City match
MU-1B	Rhododendron Drive Multi-Use Path –35th Street to N Jetty Road	Provide a separated multi-use path from 35th Street to N Jetty Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	$721,000	2018-2025	Grant/ODOT/City match
MU-1C	Rhododendron Drive Multi-Use Path – N Jetty Road to Heceta Beach Road	Provide a separated multi-use path from N Jetty Road to Heceta Beach Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	$645,000	2026-2035	Grant/ODOT/City match
MU-2	Munsel Creek Multi-Use Path	Construct/improve and pave the segments of the Munsel Creek Trail between Quince Street and 16th Street and between 25th Street and 29th Street. Between 16th and 25th Streets, the path uses the existing West Park Drive, 18th Street, Willow Loop, 23rd Street, and Willow Street roadway alignments.	$640,000	2018-2025	Grant/ODOT/City match
MU-3	Estuary Trail	Connect the Boardwalk in Old Town to the south end of the Munsel Creek Path as described through work of Siuslaw Estuary Partnership.	$684,000	2018-2025	Refer to Siuslaw Estuary Partnership
MU-4	12th Street Multi-Use Path (Kingwood to Rhododendron)	Pave the existing bark multi-use path between Kingwood Street and Rhododendron Drive.	$224,000	2018-2025	TBD
MU-5	12th Street Multi-Use Path (Munsel Creek Path to US 101)	Construct a multi-use path from US 101 to Spruce Street to connect to the Estuary Trail and Munsel Creek Path.	$60,000	2018-2025	TBD
MU-6	Oak Street Multi-Use Path	Construct a multi-use path between 15th Street and 10th Street.	$161,000	2013-2017	TBD
MU-7	Ivy Street Multi-Use Path	Construct a multi-use path in the existing Ivy Street right-of-way between 12th Street and 8th Street.	$136,000	2013-2017	TBD

MU-8	Elm Street Multi-Use Path	Construct a multi-use path in the existing Elm Street right-of-way between 8th Street and Rhododendron Drive.	$101,000	2013-2017	City
MU-9	Driftwood Street Multi-Use Path	Construct a multi-use path in the existing Driftwood Street right-of-way between 12th Street and 11th Street.	$35,000	2013-2017	City
MU-10	North Florence County Park Multi-Use Path	Construct a network of multi-use paths within the County Park in the North Florence Area (see Figure 5-6 for a conceptual network).	$151,000	2026-2035	Other

Note: MU = Multi-Use/Trail Project
[1] Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

MULTI-USE PATHS/TRAILS

Multi-use paths may be constructed from a variety of materials, depending on factors such as accessibility, expected volume/type of use, topography, and other considerations. To remain conservative, the costs shown in Table 10-4 assume a 12-foot asphalt paved path; however, costs can vary widely depending on the surface material chosen. Table 10-5 summarizes costs for a 12-foot path (per lineal foot) for a variety of surface materials.

Table 10-5 Multi-Use Path/Trail Surface Construction Costs[1]

Surface Type	Per Square Foot (SF)	12-Foot Path (LF)	Annual Maintenance Cost (SF)
Native Soil	$1.25	$15.00	$0.70
Bark/Mulch	$2.50	$30.00	$0.42
Gravel/Decomposed Granite	$3.00	$36.00	$0.50
Asphalt	$6.00	$72.00	$0.35
Permeable Asphalt	$8.75	$105.00	$0.75

[1] Costs are unburdened (do not include contingencies) and are based on recent trail projects in Oregon and indexed to inflation.

It should also be noted that there may be cost savings if a path/trail is first constructed as a bark or gravel path and then later paved (assuming an appropriate base depth of gravel was installed to begin with).

Table 10-6 Pedestrian Projects

Project Number	Name	Description	Cost	Time Frame (years)	Likely Funding Source(s)
P-1	US 101 Sidewalk near Bridge	Construct sidewalks on US 101 north of the Siuslaw River Bridge to connect to 2nd Street. Restore western stairs from Bay Street to US 101 bridge.	$76,000	2013-2017	Partial City/ODOT
P-2	Old Town Sidewalks	Fill in missing sidewalk segments within Old Town area.	$168,000	2013-2017	Urban Renewal/City
P-3	Kingwood Street Sidewalks	Construct sidewalks on Kingwood Street from 20th Street south to Bay Street.	$473,000	2013-2017	Urban Renewal/City
P-4	US 101 Pedestrian RRFB Crossing at 12th Street	Construct a signalized RRFB pedestrian crossing of US 101 at 12th Street, and construct sidewalks on the south side of 12th Street on the west side of US 101.	$140,000	2018-2025	Partial City/ODOT
P-5	Mid-block US 101 Pedestrian RRFB Crossing between 15th and 16th	Construct a mid-block signalized RRFB pedestrian crossing of US 101 between 15th Street and 16th Street.	$140,000	2013-2017	Partial City/ODOT
P-6	US 101 Pedestrian RRFB Crossing at 43rd Street	Construct a signalized RRFB pedestrian crossing of US 101 at 43rd Street. Timing to be determined by approved Cannery Station development.	$140,000	2013-2017	Partial City/ODOT
P-7	OR 126 Pedestrian RRFB Crossing at Redwood Street	Construct a signalized RRFB pedestrian crossing of OR 126 at Redwood Street. Timing to be determined by approval of ODOT flex funds.	$140,000	2013-2017	Partial City/ODOT
P-8	US 101 Sidewalks	Fill in missing sidewalk segments along US 101 north to the Urban Growth Boundary.	$266,000	2013-2017	Development/City
P-9	Oak Street Sidewalks	Construct sidewalks on east side of Oak Street between 27th Street and 32nd Street and marked crosswalks at 27th Street and 30th Street.	$60,000	2013-2017	Safe Routes to School Grant with City match
P-10	Bay Street/Nopal Street Mid-Block Marked Pedestrian Crossing	Construct a marked mid-block crosswalk across Bay Street at Nopal Street including ADA-compliant ramps.	$9,000	2013-2017	City

Note: P = Pedestrian Project
[1] Assumes 4 full blocks of new sidewalk
[2] Provide reflective painting on curb bulb-outs. Bulb-outs can be difficult for bicyclists to see at night when no cars are present in the parking lane.
[3] RRFB = Rectangular Rapid Flashing Beacon

Table 10-7 Transit Projects

Project Number	Name	Description	Cost	Time Frame (years)	Likely Funding Source(s)
TR-1	New Bus for Rhody Express Service	Add second bus to expand existing transit service within Florence.	$100,000[1]	2026-2035	Grant/City match
TR-2	Extend transit service to Saturday	Add Saturday transit service to Rhody Express.	$0[2]	2017-2025	City

Note: TR = Transit Project
[1] Also requires funding for operations and maintenance.
[2] This is an Operations and Maintenance Project, not a Capital Improvement Project

Additional details regarding each individual project is provided in project summary sheets (prospectus sheets) that are included as Appendix A in Volume I of the Technical Appendix. Figure 10-1 illustrates all 63 projects.

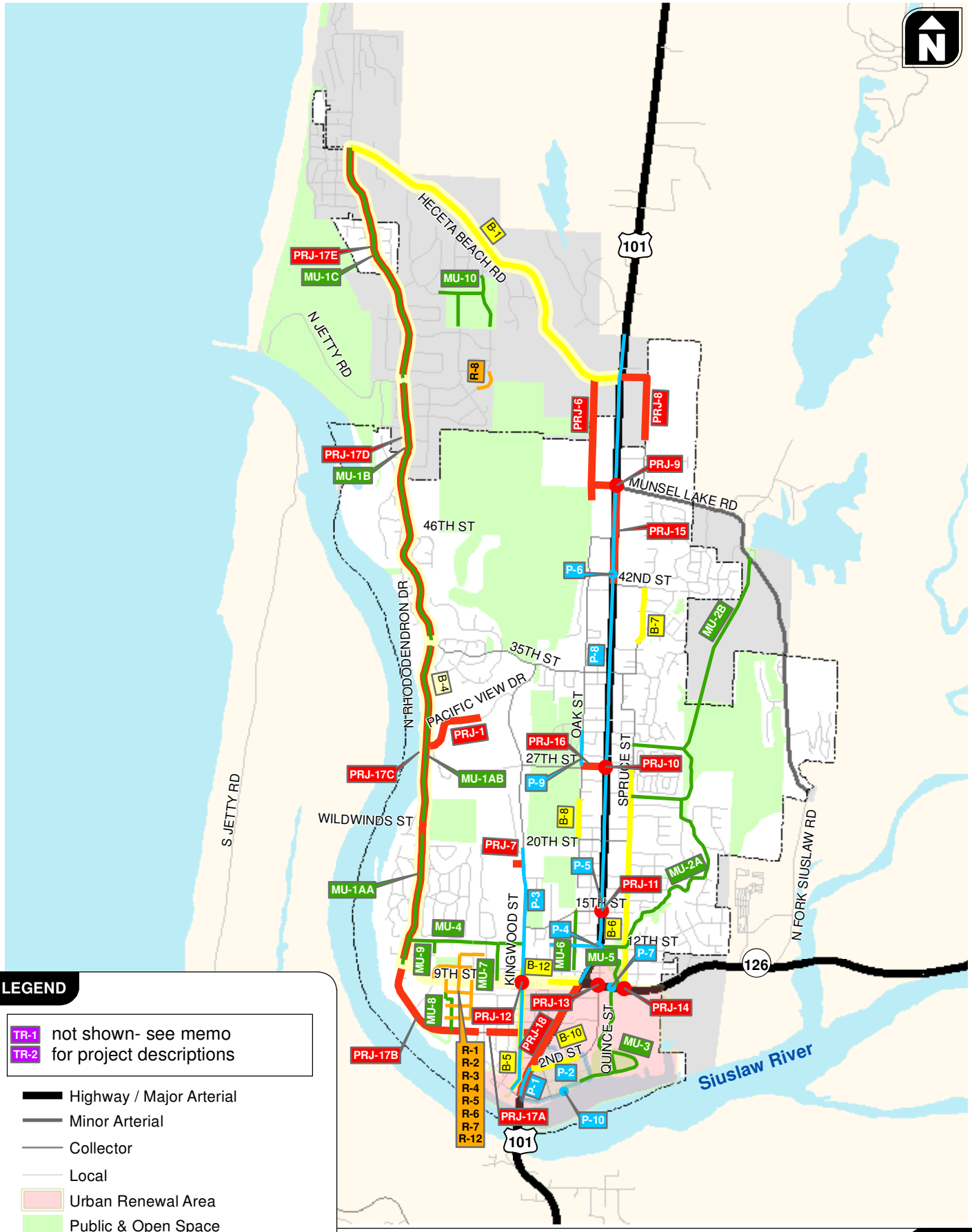
It is important to note that no projects have been identified as a result of existing measured safety or capacity issues. In fact, all of the study intersections and major roadways have been found to operate acceptably under existing conditions and are likely to do so for some time. Still, several intersections have identified concerns, and some are likely to exceed acceptable performance standards by the end of the planning horizon (year 2035).

Recognizing current financial constraints and the limited/sporadic availability of funds for capital improvements, it is essential to develop a flexible and strategic approach for prioritizing projects that can work to improve the transportation system as a whole while remaining responsive to any future issues that may arise.

A majority of the identified projects are geared toward addressing general connectivity issues and improved connectivity for all modes. Many projects are relatively small in scale, and lend themselves to being combined in several ways to maximize their benefit. Therefore, in many cases the desired flexibility and adaptability is already inherently built into the projects.

PARKING PROGRAM

The City's Downtown Implementation Plan identifies parking as a key concern in Old Town, and less so on US 101 between the Bridge and OR 126. The City should continue to look for opportunities to increase available parking in the downtown area, which helps support pedestrian activity in Old Town. Grants are likely the most realistic funding source, but the City may also consider purchasing property. Urban Renewal funds may also be applicable to funding parking projects in the downtown area.



TRANSPORTATION SYSTEM PLAN PROJECT MAP
FLORENCE, OREGON

FIGURE **10-1**

H:\proj\file\10103 - Florence TGM Grant Application\dwgs\figs\TSP figures\10103_fig_TSP_Chapter 10 Fig10-1.mxd

Funding Sources and Strategy

The City of Florence has identified existing and future potential sources to secure funding. Funding sources have been categorized into State/Federal Funding for Roadway, Pedestrian, and Bicycle Improvements, and Transit Funding. It should also be noted that at this time, Lane County has not been identified to receive federal funds from either Oregon Transportation Investment Act (OTIA) or Secure Rural Schools (timber payments) to fund any capital improvement projects. As such, the 2012-2016 CIP reflects this funding scenario and no capital improvements are proposed for the next five years. While the full and optimal implementation of the identified projects are important to realize over time, the total cost for these projects exceeds the current available and projected funding, and additional funding sources should be identified/pursued.

A summary of historical revenues, anticipated expenditures, and future projects are summarized below in Table 10-8.

Table 10-8 City of Florence Current Funding Summary

Historical Revenue Sources	Historical State/Federally Funded Projects	Reasonable Assumptions for Anticipated State/Federal Funding	New Street Fees Assumptions
• State Fuel Tax • Street Light Fee • Street LID Assessments • Grant Revenue • Intergovernmental[1] • System Development Charges	• 9th Street Inlay (ARRA Project) • 30th Street Pedestrian Crossing of US 101 • 2nd, 7th/8th, 18th/19th Pedestrian Crossings • Rhododendron Drive/6th Street intersections with US 101 • Siuslaw River Bridge Interpretive Wayside • 12th Street Multi-Use Path	• ODOT to continue maintenance of US 101 and OR 126 in Florence • ODOT responsible for improvements of OR 126 from Spruce Street east to the City's Urban Growth Boundary. • ODOT responsible for improvements to US 101 and OR 126. • ODOT anticipates improvements to the State highway system will be funded by some combination of federal, state, local, and private funding • ODOT funding for highway improvements in Florence depends on the statewide level of funding and needs for transportation investments. • ODOT to fund highway-related improvements to address safety. • Developments affecting traffic conditions on state highways may be required to contribute funding for measures to mitigate traffic impacts. • The City of Florence should continue to pursue funding available from grant programs administered by ODOT and other Federal and State agencies.	• The Street Fee will increase annually by 2%. • System Development Charges are projected to increase annually by 2% but actual increases will depend on level of development activity. • Forecasted grant/Urban Renewal revenues and expenses will remain at same levels as they have over past ten years. • Major capital improvements would likely be funded through debt. In general, for every $1,000,000 that is borrowed, the annual cost for debt service is $100,000 over a 20 year term. • Operating expenses provide the staff, materials, and services needed for minor maintenance such as crack seals. Microseals and overlays would be paid for as capital projects. • The City will continue to receive a portion of State Highway Fund revenue. It is expected that that annual revenue will be about $220,000 in FY 2012 and increase to around $550,000 by FY 2035.

[1] Intergovernmental funds have historically included Lane County Partnership Payments. Since 2007, the County no longer shares the federal money received with the City.

Additional details, as well as specific dollar amounts that have already been secured are provided in Project Memorandum #3, *Funding for Roadway, Pedestrian, Bicycle, and Transit Improvements (see Volume II of the Technical Appendix).*

On June 4, 2012 the city developed a street maintenance fee. This fee is sufficient to cover only the maintenance of existing facilities (assuming a two percent annual increase to account for inflation). As such, the only reasonable source of capital improvement projects will be grant funding (federal and state sources) with local matching. Over time, and as development occurs, Florence will be increasing the pool of SDC funds, from which the City will then be able to use that money to provide the match necessary for grants and fund improvement through debt. Table 10-9 are additional potential funding sources at the federal, state, and local level that could be sought for further improving the existing street system beyond only maintenance of existing facilities.

Table 10-9 Potential Funding Sources

Federal Sources	State Sources (ODOT and Development)	Local Sources (City and Development)
• SAFETEA-LU • Highway Safety Improvement Program • Transportation Enhancements • Congestion Mitigation/Air Quality Program • Recreational Trails Program • Safe Routes to School (SR2S) • New Freedom Initiative • Community Development Block Grants • Rivers, Trails, and Conservation Assistance Program • Land and Water Conservation Fund • Transportation, Community, and System Preservation Program	• Statewide Transportation Improvement Program • Oregon Revised Statute 366.514 • Oregon Transportation Infrastructure Bank • Measure 66 Funds – Oregon State Lottery • Special Transportation Fund • Bicycle and Pedestrian Program Grants • Bicyclist Safety Mini-Grant Program • Pedestrian Safety Mini Grant Program • Connect Oregon Fund	• Local Bond Measures • Tax Increment Financing/Urban Renewal Funds • System Development Charges/Developer Impact Fees • Street User Fees • Local Improvement Districts (LIDs) • Other Local Sources (volunteers, community groups, local schools) • Urban Renewal District

The identified funding strategy is to initiate strategic high-priority project improvements using a combination of funding sources and attempt to leverage grants for City-related improvements. All funding options assume that the City of Florence begins to consider holistic funding requirements. Existing and future local, state, and federal funding sources should all be explored. The ability to obtain funding from multiple program sources typically enhances a project's chances for funding. It can enable some programs to fund worthy projects that might otherwise be beyond their financial capacity. Conversely, it also can reduce the liability to a program and, thereby, enable additional projects to be financed. This is demonstrated by the fact that ODOT project selection criteria typically reward local government for "over matching."

The likelihood of state and federal participation in City-related projects may be expected to vary by the attributes of particular elements of the improvement program. These include the following: current

eligibility for state funding, the ability to leverage funding from multiple sources, and regional prioritization. These factors should be the focus of the City of Florence's efforts to obtain state contributions.

While the City may also make use of state financing sources such as the Oregon Infrastructure Bank to pay for improvements, this memorandum focuses primarily on funding sources, not financing sources.

The funding strategies with the greatest chance of near term success likely include: local SDC updates, creation of new Local Improvement Districts or Reimbursement Districts, and developer exactions. These could go a long way toward filling in the funding gap for needed improvements.

In light of the increasing number of high-cost local projects competing for limited state funding, the City of Florence must be firm on its priorities and expectations for state contributions. This more complex and less predictable funding climate creates challenges for local government. Jurisdictions must strive to keep current on the type of selection criteria ODOT is likely to adopt for managing project competitions. The roles of regional and special purpose decision-making bodies are factors to consider as the Oregon Transportation Commission (OTC) tries to increase local participation in project selection. Less obvious may be the benefits from proactive participation in developing future funding packages.

URBAN RENEWAL DISTRICT

The purpose of the Urban Renewal District is to revitalize the Downtown Area as the primary cultural, tourist, commercial and community core to serve all Florence's citizens and visitors, encouraging continuing growth, development and enhancement consistent with Florence's small-town ambiance and character.

The District is roughly bounded by the Siuslaw River to the south, Kingwood Street to the west, 12th Street to the north, and Spruce Street to the east.

The Florence Urban Renewal Plan consists of activities and actions which help prevent and correct the cause of blight and deterioration in the Florence Urban Renewal Area. Project activities are intended to implement the vision and guiding principles of the Florence Downtown Implementation Plan, while providing incentives to new public and private building investments and facilitating repair of inadequate infrastructure, pedestrian safety, streetscape, and public facilities. To this end, projects identified by the Transportation System Plan within the district may be eligible for funding.

Prioritization of Key Projects

Overall, 61 projects were identified in the TSP totaling nearly $35.2 Million in improvement costs. Of these 61 projects, 34 have been identified as being either solely or partially City-funded projects (roughly 56% of all projects). City-funded projects are assumed to be paid for through grants and/or SDCs, though could also be funded by the City's street fund (if funding is available).

Recognizing the limited capital funds and funding sources available, 13 key projects have been identified as high priority. Transportation projects were assigned to this high priority list based on the criteria identified below. Accordingly, the 13 high priority projects meet one or more of the following criteria:

- An immediate need to address capacity or safety deficiencies;
- A value-driven project that has been identified as desirable and provides above-average benefit;
- A project that is likely to be funded by identifiable grant monies or urban renewal funds, and;
- A project that is relatively low cost, and may be easily implemented with limited City funds.

Table 10-10 Prioritized Key Projects

Project Number	Name	Description	Priority Rank	Estimated Cost	Key Objective(s)
MU-1AA	Rhododendron Drive Multi-Use Path – 9th Street to Wildwinds Street	Provide a multi-use path north of 9th Street to Wildwinds Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	**1**	$1,043,000	• Enhance non-motorized safety and accessibility • Connect to existing bike system at 35th Street • Enhance recreational and scenic amenities of the Rhody corridor
MU-1AB	Rhododendron Drive Multi-Use Path –Wildwinds Street to 35th Street	Provide a multi-use path north of Wildwinds Street to 35th Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road)..	**2**	$1,200,000	
MU-3	Siuslaw River Estuary Trail	Connect the Boardwalk in Old Town to the south end of the Munsel Creek Path.	**3**	$684,000	• Enhance non-motorized safety and accessibility • Enhance recreational and scenic experience for users
P-5	Mid-block US 101 Pedestrian RRFB Crossing between 15th and 16th	Construct a mid-block marked RRFB pedestrian crossing of US 101 between 15th Street and 16th Street.	**4a.**	$140,000	• Heighten driver awareness of pedestrian presence • Focus pedestrian movements to/from boardwalk area to a marked crossing location
P-4	US 101 Pedestrian RRFB Crossing at 12th Street	Construct a signalized RRFB pedestrian crossing of US 101 at 12th Street, and construct sidewalks on the south side of 12th Street on the west side of US 101.	**4b.**	$140,000	
P-7	OR 126 Pedestrian RRFB[2] Crossing at Redwood Street	Construct a signalized RRFB pedestrian crossing of OR 126 at Redwood Street. Timing to be determined by approval of ODOT flex funds.	**4c.**	$140,000	
P-9	Oak Street Sidewalks	Construct sidewalks on east side of Oak Street between 27th Street and 32nd Street and marked crosswalks at 27th Street and 30th Street.	**5**	$60,000	• Enhance pedestrian safety and accessibility in the vicinity of schools

Table 10-10 Prioritized Key Projects (continued)

Project Number	Name	Description	Priority Rank	Estimated Cost	Key Objective(s)
N/A	Annual Street Preservation	Maintenance of existing transportation system	**6**	$250,000 annually	• Maintain existing transportation system to acceptable standards
B-6	Spruce Street South Bike Lanes	Construct bike lanes from 25th Street south to OR 126.	**7a.**	$51,000	• Enhance bicycle connectivity and driver awareness
B-7	Spruce Street North Bike Sharrows	Provide bike sharrows north of 37th Street.	**7b.**	$17,000	
P-3	Kingwood Street Sidewalks south of 20th Street	Construct sidewalks on Kingwood Street south of 20th Street.	**8**	$473,000	• Enhance pedestrian safety and accessibility
B-8	Oak Street Bike Lanes	Construct bike lanes south of 24th Street to 20th Street.	**9**	$250,000	• Enhance bicycle connectivity and driver awareness
PRJ-12	Kingwood Street/9th Street Intersection	Install a traffic signal at this location, when warranted.	**10**	$700,000	• Improve operations and safety at intersection • Provide opportunity for aesthetic improvements
PRJ-18	US 101 Bike Lanes	Provide bike lanes between the Siuslaw River Bridge and OR 126	**11**	$46,000	• Enhance bicycle connectivity and driver awareness
MU-1B	Rhododendron Drive Multi-Use Path –35th Street to N Jetty Road	Provide a multi-use path from 35th Street to N Jetty Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).	**12**	$721,000	• Enhance non-motorized safety and accessibility • Connect to existing bike system at 35th Street • Enhance recreational and scenic amenities of the Rhody corridor
B-1	Heceta Beach Road Bike Lanes	Construct bike lanes along the entire length of Heceta Beach Road (see Heceta Beach Road standard cross-section).	**13**	$3,720,000	• Enhance bicycle connectivity and driver awareness

As shown in Table 10-10, the 13 high priority projects would total $9,635,000, roughly 27% of the combined total cost of all projects that are either solely or partially funded by the City.

Figure 10-2 illustrates the 13 high priority projects.

Generally, the 13 high priority projects meet current needs to improve multi-modal mobility in the City. Many of the projects are relatively low cost, and thus may be implemented in the short term. There are ten pedestrian-related improvements (sidewalks, crosswalks), four bicycle-related projects (bike lanes and sharrows), and a multi-use path (on Rhododendron Drive). These projects will cost-effectively improve current missing links in the pedestrian and bicycle network within the City.

Photo: Diego Arguea

LEGEND

- Highway / Major Arterial
- Minor Arterial
- Collector
- Local
- Urban Renewal Area
- Public & Open Space
- City Limits
- Urban Growth Boundary

PRIORITY PROJECT MAP
FLORENCE, OREGON

FIGURE **10-2**

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Section 11

Plan Policies and Development Code Amendments

PLAN POLICIES AND DEVELOPMENT CODE AMENDMENTS

The Goals and Policies that are part of the Transportation System Plan (TSP) update will be in included in Chapter 12 of the Florence Realization 2020 Comprehensive Plan upon adoption. While some other chapters of the Comprehensive Plan also include "Objectives" and "Recommendations," currently Chapter 12 of the TSP includes only Goals and Policies.

Definitions from Comprehensive Plan

The following terms, as used in the Florence Realization 2020 Comprehensive Plan, are defined as stated below.

> ***GOALS.*** *Goals are general statements of intent. They describe the kind of community and environment desired by the City. Generally a goal reflects an ideal that will not change or be invalidated as a result of future developments. In many cases, a stated goal may seem unachievable, but is intended to indicate a direction for continuing effort rather than a point to be reached.*
>
> ***POLICIES.*** *Policies are the positions the City will take in order to reach the Goals. Policies are more specific and are subject to interpretation by the Planning Commission and City Council. They are intended to be used on a day-to-day basis and deal with particular aspects or ramifications of the broad goal stated for each category.*
>
> ***SHALL.*** *Shall is used in laws, regulations and directives to express what is mandatory.*
>
> ***SHOULD.*** *Should is used to express what is probable or expected.*

Policies are statements that provide a specific course of action moving the community toward the attainment of its goals and objectives. Policies have the force of law. Each new capital improvement project, land use application, or implementation measure must be consistent with the policies.

Amendments to Goals and Policies

Appendix B (Volume I of the Technical Appendix) illustrates approved amendments to the transportation Policies of the Comprehensive Plan. The changes are shown in legislative format with the strike-out indicating proposed deletion and double underline indicating proposed insertion. Explanations are shown in brackets and with italic font. There are no suggested changes to the Comprehensive Plan Goals.

AMENDMENTS TO THE RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (RDITP)

The segment of Rhododendron Drive from Hemlock Street to 9th Street has been modified from bicycle lanes and sidewalks on both sides to a separated multi-use path on the northeast side of the street.

The segment of Rhododendron Drive from 9th Street to 12th Street is no longer one of transition between the multi-use path at 12th Street and then sidewalks and bicycle lanes to the south of 9th Street. Rather, this segment has been modified to show a separated multi-use path on the east side of the street.

Priorities documented in the RDITP for the various segments of Rhododendron Drive improvements have been modified so that the highest priority project is from 9th Street to the north, each segment to the north decreasing in priority until the intersection with North Jetty Road. At that point, priority then shifts back to the segments of Rhododendron Drive south of 9th Street.

AMENDMENTS TO FLORENCE CITY CODE

Appendix C (Volume I of the Technical Appendix) shows the amendments to the Florence City Code in legislative format with the strike-out indicating deletion and double underline indicating insertion. Explanations are shown in brackets and with italic font.

Key chapters in the Florence City Code that implement the transportation policies in the Comprehensive Plan are found in Title 10: Zoning Regulations. The following Chapters and Sections are most relevant:

Chapter 1: Zoning Administration, Section 1: Administrative Regulations

In FCC 10-1-1-4-D, Traffic Impact Studies, the amendment implements a new policy (after Policy 8) and ensures that amendments to the Comprehensive Plan, Zoning Map, and Zoning regulations are consistent with the function, capacities and levels of service of facilities designated in the Transportation System Plan.

The amendments to the notice requirements ensure that the City provides notice to affected transportation facility and service providers, including ODOT.

Chapter 2: General Zoning Provisions, Section 12: Uses and Activities Permitted in All Zones

These amendments ensure compliance with Transportation Planning Rule TPR 660-012-0045(1) that requires local governments to implement the Transportation System Plan through its land use regulations. The adopted code specifies that in most cases, the construction, operation, maintenance, and repair of transportation facilities does not necessitate land use approval.

Chapter 21: Public Use Airport Zone

As part of the adoption of an updated Transportation System Plan, the City Council has also adopted portions of the Florence Municipal Airport, Airport Master Plan Update. The code amendments reference this new plan and implement recommendations 13 and 14 in Chapter One of that Plan with regard to use of FAA Form 7460-1 – Notice of Proposed Construction or Alteration. Paragraph D in Section 2-6: Procedures includes language as requested by the Oregon Department of Aviation in a letter to the City dated October 10, 2011.

Chapter 35: Access and Circulation

While the city has required traffic studies for some types of development (see Chapter 1), new code language in Section 2-5: *Traffic Study Requirements*, explains what is required by the analysis.

Code language for sidewalks is shown as Section 3-1: *Sidewalk Requirements*. Several options for approaching sidewalk requirements were considered by the PAC, which are summarized in Technical Memorandum #10: *Plan Policies and Development Code Amendments* (Volume II of the Technical Appendix).

Currently, FCC 10-35-3 stipulates that "All new development shall be required to install sidewalks along the street frontage, unless the City has a planned street improvement, which would require a non-remonstrance agreement." Additional exceptions to required sidewalk installation are listed in the code.

A new section, Section 4: *Transit Facilities*, implements transit-supportive policies and requires that new development at or near transit stops provide convenient pedestrian access to transit and in some cases provide or accommodate transit facilities.

Chapter 36: Public Facilities

A change in Section 2: *Street Standards* changes approach from a minimum right-of-way and street section to one referencing the standards illustrated in Section 9 of this TSP.

Amendments to Section 2-10: *Block Length and Block Perimeter* promote pedestrian connectivity, reduce vehicle miles travelled by providing shorter routes, and promote public safety by increasing the number of alternate routes available in case of accidents or closures.

Amendments to Section 2-16: *Sidewalks, Planter Strips, Bicycle Lanes*, reflect the street standards illustrated in Section 9 of this TSP, which allow for five foot bicycle lanes in some cases. They also clarify that sidewalks are required on both sides of the street unless otherwise noted.

COMMUNITY TRANSIT PLAN AMENDMENTS

Chapter Six in the Community Transit Plan identifies Transit Goals. Appendix D (Volume I of the Technical Appendix) shows the previous goals and adopted amendments in legislative format. The goals were not numbered in the Community Transit Plan, but they have been reordered and numbered for ease of discussion. The Goals shown as Long Term Goals 12-14 are the ones worthy of discussion. Tourism, conferences at the Florence Event Center, and after-hours service were not major topics of discussion for the Project Advisory Committee and warrant consideration as to whether they should continue to be included as Transit Goals.

Appendix A
Project Prospectus Sheets

Project #: PRJ-1	**Pacific View Drive Extension**

Description: Construct Pacific View Drive west from its current terminus to connect to N Rhododendron Drive at New Hope Way.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $1,613,000
Approximate Lineal Feet: 1,900
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Improves local east-west connectivity

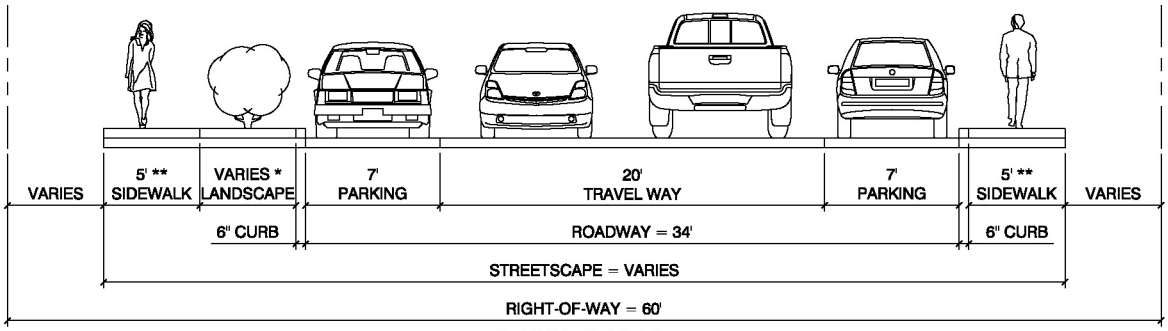
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: n/a

Typical Cross-Section:



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 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.

Project #: PRJ-2	**Munsel Lake Road Extension**

Description: Construct Munsel Lake Road from US 101 west to Oak Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $312,000
Approximate Lineal Feet: 374
Cost per Lineal Foot: $834

SDC Eligibility: 50%

Purpose: Improves local east-west connectivity

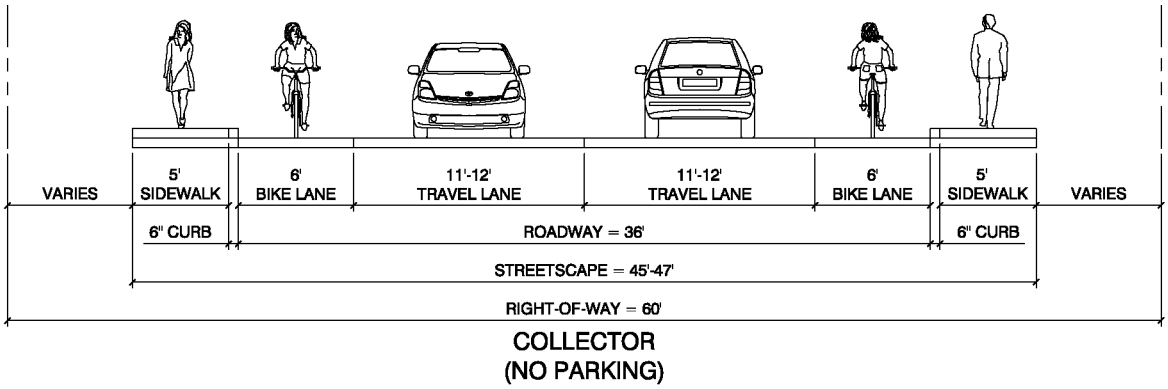
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: PRJ-9

Notes: n/a

Typical Cross-Section:



Project #: PRJ-6	**Oak Street North**

Description: Extend Oak Street north from 46th Street to Heceta Beach Road.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $3,715,000

Approximate Lineal Feet: 4,100

Cost per Lineal Foot: $906

SDC Eligibility: 100%

Purpose: Reduce north/south reliance on US 101 and improve operations at the US 101/Munsel Lake Road and US 101/Heceta Beach Road intersections

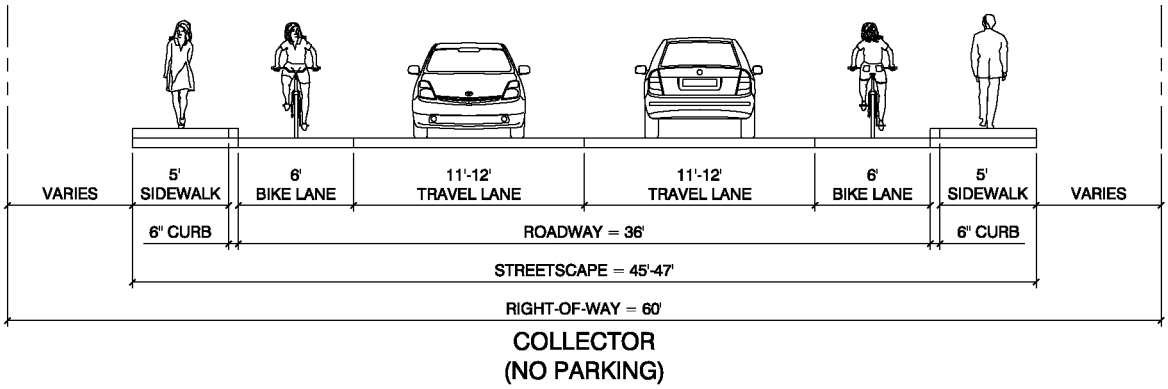
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: n/a

Typical Cross-Section:



Project #: PRJ-7	**20th Street Public Works Driveway**

Description: Provide driveway from 20th Street to Lane County Public Works.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $30,000
Approximate Lineal Feet: 32
Cost per Lineal Foot: $936

SDC Eligibility: 0%

Purpose: Provides local access to public facility.

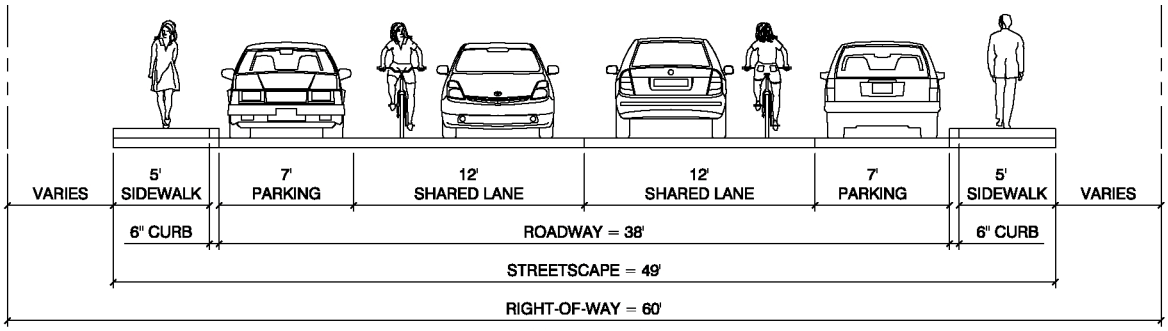
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
		X				

Related Projects: n/a

Notes: n/a

Typical Cross-Section:



COLLECTOR
(BIKE SHARROWS WITH ON-STREET PARKING)

Project #: PRJ-8	**Spruce Street Extension**

Description: Construct a new section of Spruce Street north from Munsel Lake Road to Heceta Beach Road.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $3,494,000
Approximate Lineal Feet: 3,900
Cost per Lineal Foot: $896

SDC Eligibility: 100%

Purpose: Provide local access to future development areas and reduce reliance on US 101.

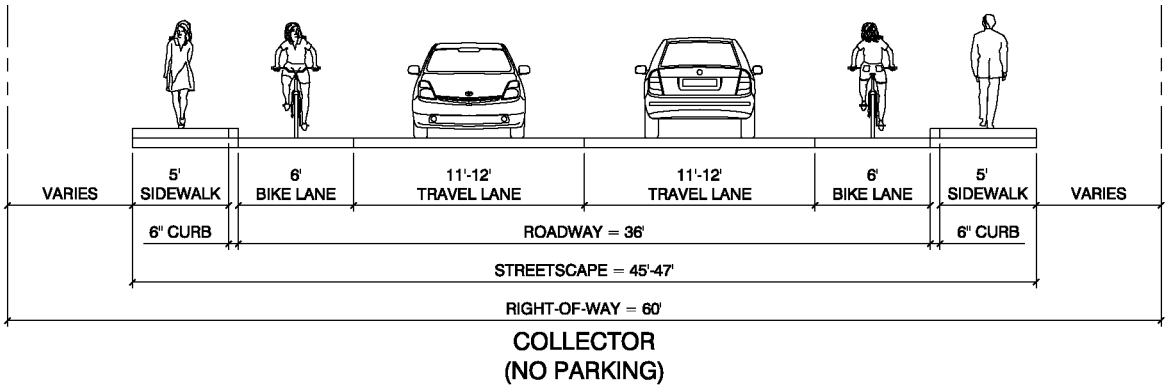
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: At the time a fourth leg at the Heceta Beach Road/US 101 intersection is constructed, a traffic signal should be considered (to be installed when warrants are met), as well as appropriate pedestrian crossing treatments.

Typical Cross-Section:



Project #: PRJ-9	**US 101/Munsel Lake Road Intersection**

Description: Install traffic signal when warranted.

Location: US 101/Munsel Lake Road intersection

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $490,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 50%

Purpose: A traffic signal was recommended in the 2008 TSP; this conclusion is confirmed in this analysis. A traffic signal would restore future operations to meet ODOT mobility standards.

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
Partial	Partial					

Related Projects: PRJ-2

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-10	**US 101/27th Street**

Description: Install traffic signal when warranted.

Location: US 101/27th Street intersection

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $490,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: A signalized control at this intersection would allow the intersection to operate acceptably and provide a protected pedestrian crossing

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	X					

Related Projects: P-6

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-11	**US 101/15th Street**

Description: Install traffic signal when warranted.

Location: US 101/15th Street intersection

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $490,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: A signalized control at this intersection would allow the intersection to operate acceptably

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	X					

Related Projects: P-5

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-12	**9th Street/Kingwood Street**

Description: Install a traffic signal when warranted.

Location: 9th Street/Kingwood Street intersection

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $700,000
Approximate Lineal Feet: n/a
Cost per Lineal Foot: n/a

SDC Eligibility: 50%

Purpose: A traffic signal would restore future operations to meet ODOT mobility standards.

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
Partial				Partial		

Related Projects: B-5

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: PRJ-13	**OR 126/Quince Street**

Description: The system improvement being considered at this intersection is to eventually restrict the northbound left-turn movements.

Location: OR 126/Quince Street

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $350,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Allow intersection to operate within ODOT mobility standards

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	X					

Related Projects: PRJ-14, PRJ-4

Notes: Restriction of turning movements at this location should occur at such time that safety or operational issues are becoming readily apparent.

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-14	**OR 126/Spruce Street**

Description: Install a traffic signal when warranted.

Location: OR 126/Spruce Street

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $1,400,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: A traffic signal would restore future operations to meet ODOT mobility standards.

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	X					

Related Projects: PRJ-13, PRJ-4

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-15	**US 101 Widening**

Description: Widen US 101 to provide two northbound travel lanes from 42nd Street to Munsel Lake Road when warranted.

Location: US 101 (42nd to Munsel Lake Road)

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $1,617,000

Approximate Lineal Feet: 3,500

Cost per Lineal Foot: $462

SDC Eligibility: 0%

Purpose: Improve mobility for through trips while better facilitating local access to businesses along this segment of highway

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
Partial	Partial					

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

ODOT HIGHWAY DESIGN MANUAL STANDARDS APPLY

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: PRJ-16	**27th Street Widening**

Description: Widen 27th to a three-lane cross-section (12-foot center turn lane) with bike lanes and sidewalks between Oak Street and US 101.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $166,000
Approximate Lineal Feet: 600
Cost per Lineal Foot: $277

SDC Eligibility: 0%

Purpose: Improve bike/ped access, truck access to industrial areas

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: PRJ-17A	**Rhododendron Drive Improvements - US 101 to Hemlock Street**

Description: Construct the full Collector (Bike Sharrows with On-Street Parking) cross-section for this segment.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $26,000
Approximate Lineal Feet: 1,700
Cost per Lineal Foot: $15

SDC Eligibility: 0%

Purpose: Improve mobility and accessibility for non-motorized users and enhance scenic and recreational experience for all users

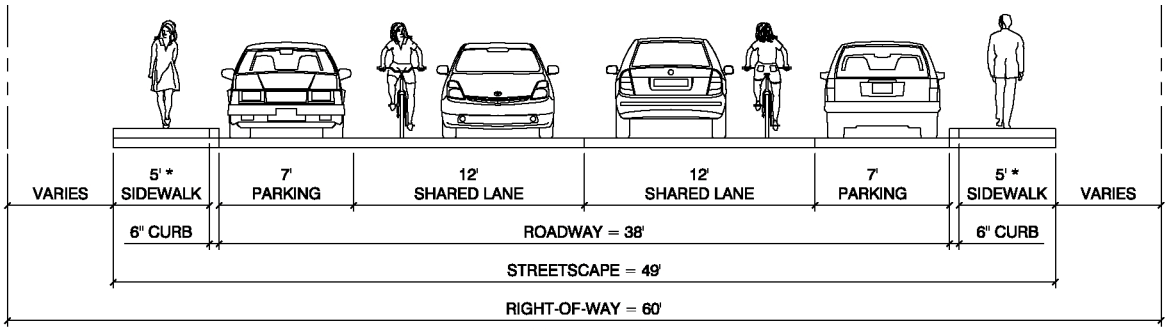
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: Assumes construction of standard Rhododendron Drive Collector (Bike Sharrows with On-Street Parking) cross-section for this segment.

Typical Cross-Section:



COLLECTOR
(BIKE SHARROWS WITH ON-STREET PARKING)

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

Project #: PRJ-17B	**Rhododendron Drive Improvements - Hemlock Street to 9th Street**

Description: Construct the Transition Collector cross-section for Rhododendron Drive for this segment.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $698,000

Approximate Lineal Feet: 3,350

Cost per Lineal Foot: $208

SDC Eligibility: 0%

Purpose: Improve mobility and accessibility for non-motorized users and enhance scenic and recreational experience for all users

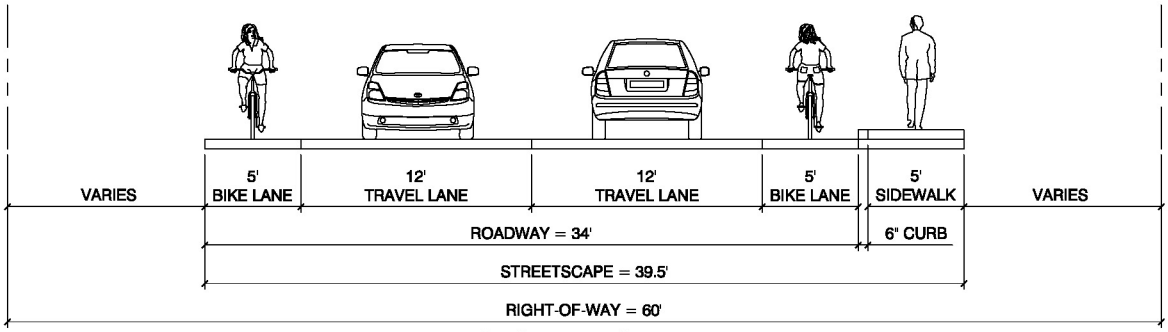
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: Assumes construction of standard Rhododendron Drive collector transition cross-section for this segment.

Typical Cross-Section:



RHODODENDRON DRIVE
(HEMLOCK STREET TO 9TH STREET)

Project #: PRJ-17C	**Rhododendron Drive Improvements - 9th Street to 35th Street**

Description: Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Minor Arterial	60 feet	Short Term 2013-2017

Estimated Construction and Engineering Cost: $752,000

Approximate Lineal Feet: 8,450

Cost per Lineal Foot: $89

SDC Eligibility: 0%

Purpose: Improve mobility and accessibility for non-motorized users and enhance scenic and recreational experience for all users

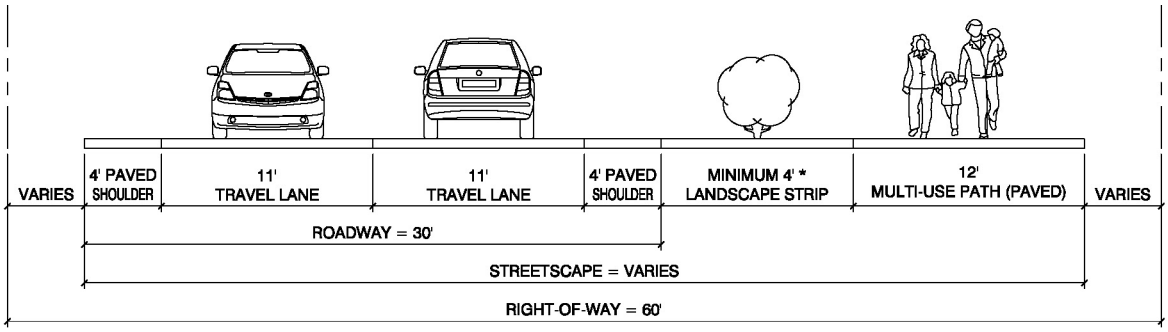
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: MU-1A

Notes: Assumes construction of standard Rhododendron Drive minor arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used. NOTE: Cost reflects roadway improvements only. Muti-use path cost is shown as Project MU-1A.

Typical Cross-Section:



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 RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (JAN 2008).

Project #: PRJ-17D	**Rhododendron Drive Improvements - 35th Street to N Jetty Road**

Description: Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Minor Arterial	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $336,000

Approximate Lineal Feet: 7,150

Cost per Lineal Foot: $47

SDC Eligibility: 0%

Purpose: Improve mobility and accessibility for non-motorized users and enhance scenic and recreational experience for all users

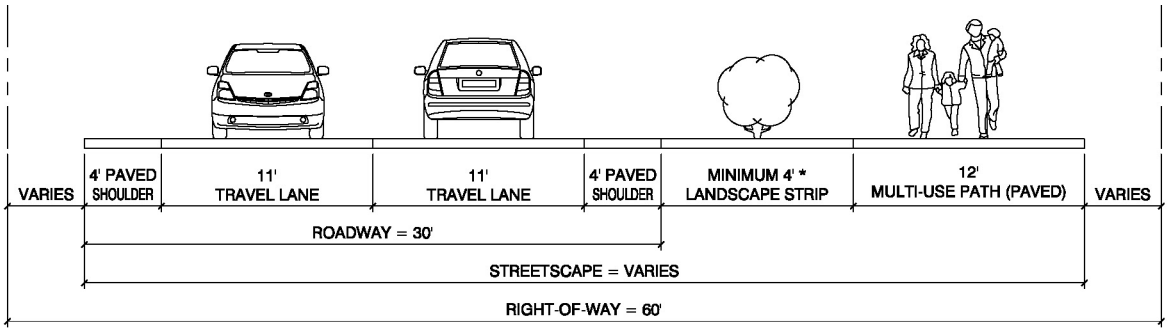
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: MU-1B

Notes: Assumes construction of standard Rhododendron Drive minor arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used. NOTE: Cost reflects roadway improvements only. Muti-use path cost is shown as Project MU-1B.

Typical Cross-Section:



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 RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (JAN 2008).

Project #: PRJ-17E	**Rhododendron Drive Improvements - N Jetty Road to Heceta Beach Road**

Description: Construct the Rhododendron Drive standard arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Minor Arterial	60 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $301,000

Approximate Lineal Feet: 6,400

Cost per Lineal Foot: $47

SDC Eligibility: 0%

Purpose: Improve mobility and accessibility for non-motorized users and enhance scenic and recreational experience for all users

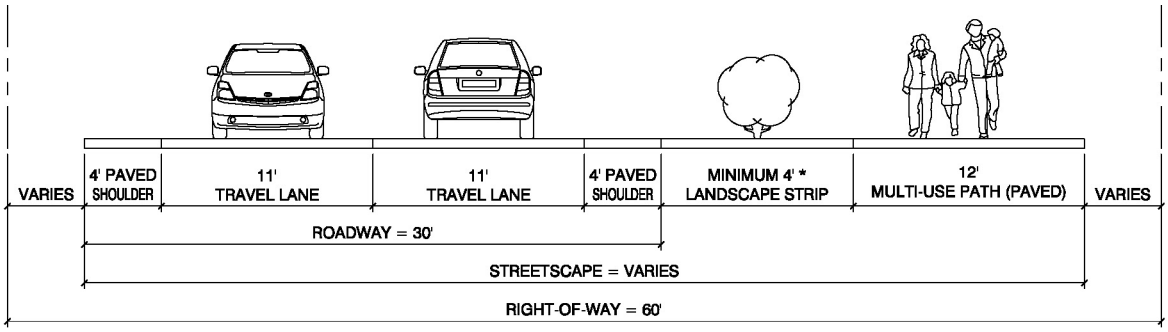
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: MU-1C

Notes: Assumes construction of standard Rhododendron Drive minor arterial cross-section for this segment. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used. NOTE: Cost reflects roadway improvements only. Muti-use path cost is shown as Project MU-1C.

Typical Cross-Section:



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 RHODODENDRON DRIVE INTEGRATED TRANSPORTATION PLAN (JAN 2008).

Project #: PRJ-18	**US 101 Bike Lanes**

Description: Provide bike lanes between the Siuslaw River Bridge and OR 126 as determined by ODOT public process.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $46,000
Approximate Lineal Feet: 3,300
Cost per Lineal Foot: $14

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity and safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	X					

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: R-1	**11th Street**

Description: Construct 11th Street between Hemlock Street and Fir Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $594,000
Approximate Lineal Feet: 700
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

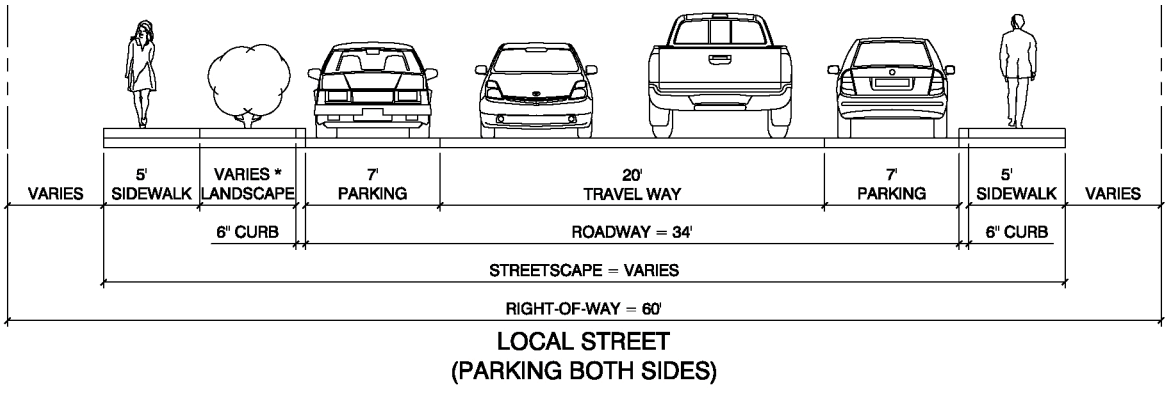
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-2	**10th Street**

Description: Construct 10th Street between Greenwood and 9th Street (at Peace Health access).

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $1,189,000
Approximate Lineal Feet: 1,400
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

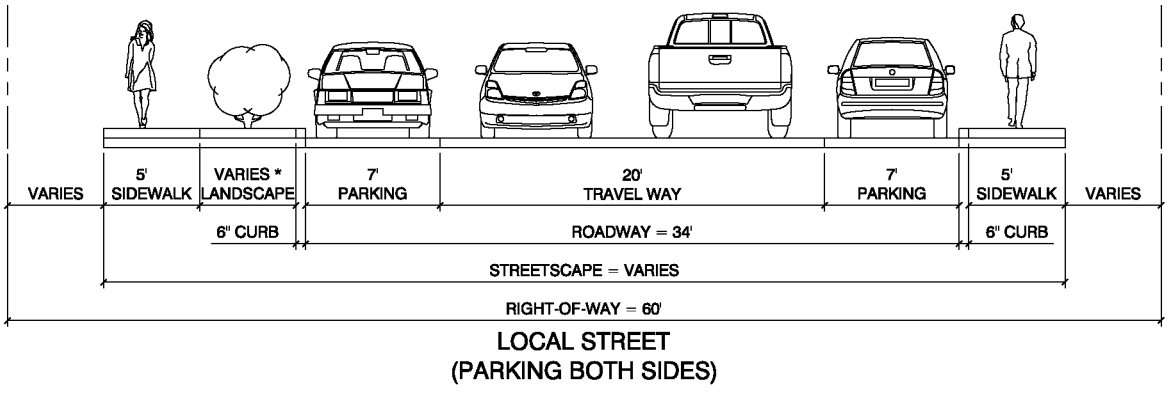
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-3	**8th Street**

Description: Extend 8th Street west from Greenwood Street to Elm Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $594,000
Approximate Lineal Feet: 700
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

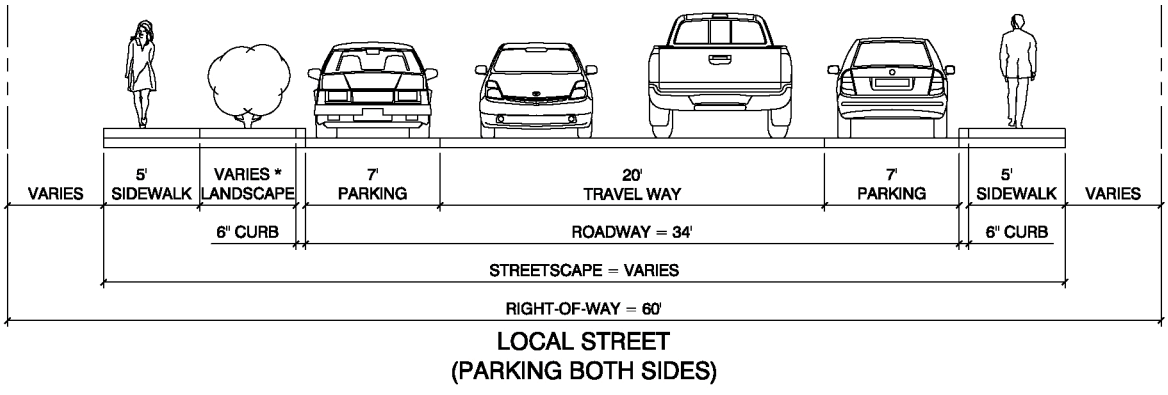
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-4	**7th Street**

Description: Extend 7th Street west from Greenwood Street to Elm Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $594,000
Approximate Lineal Feet: 700
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

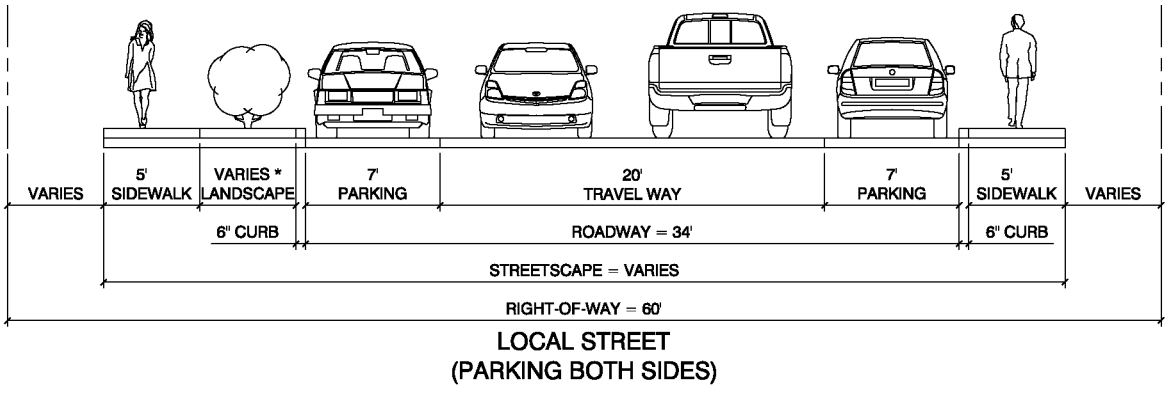
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-5	**6th Street**

Description: Extend 6th Street west from Greenwood Street to Elm Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $594,000
Approximate Lineal Feet: 700
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

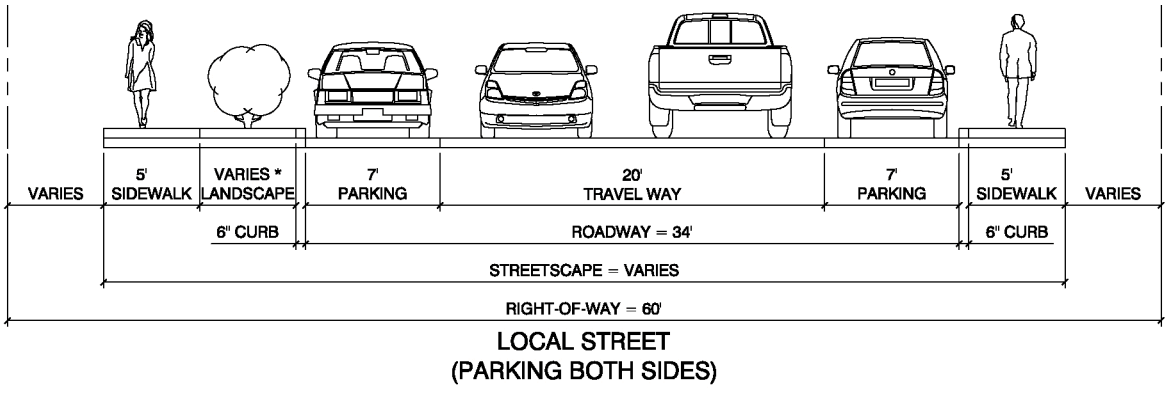
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-6	**Greenwood Street**

Description: Construct Greenwood Street between 11th Street and 12th Street. Extend Greenwood Street south from 9th Street to 6th Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $891,000

Approximate Lineal Feet: 1,050

Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

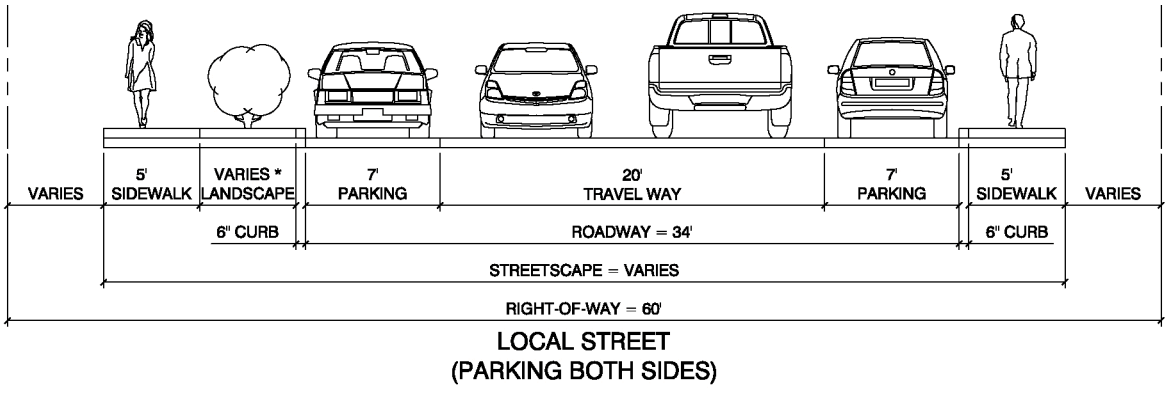
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-7	**Fir Street**

Description: Construct Fir Street between 8th Street and 11th Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $891,000

Approximate Lineal Feet: 1,050

Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

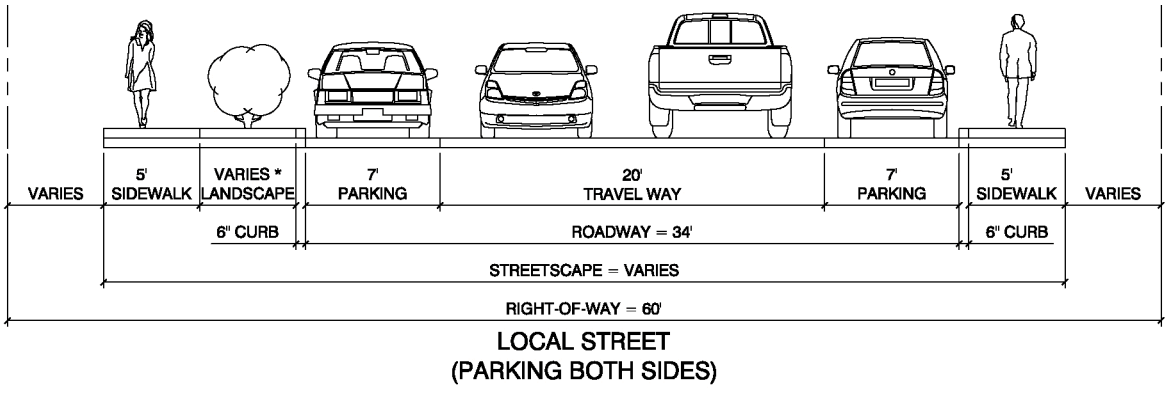
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-8	**Cloudcroft Lane**

Description: Construct Cloudcroft Lane from current eastern terminus to Sandrift Street.

Location: North Florence Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $637,000
Approximate Lineal Feet: 750
Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

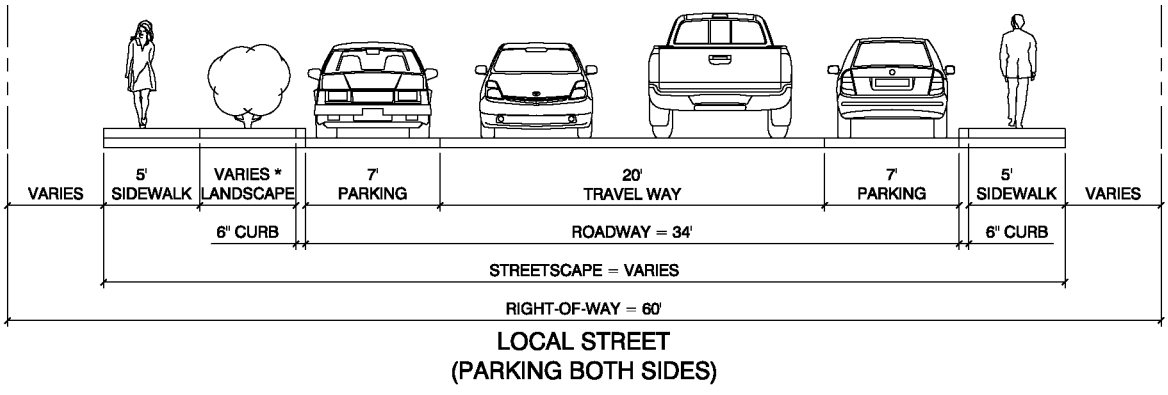
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: R-12	**Elm Street**

Description: Construct Elm Street between 9th Street and 8th Street.

Location: West 9th Street Area

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $297,000

Approximate Lineal Feet: 350

Cost per Lineal Foot: $849

SDC Eligibility: 100%

Purpose: Enhance local access

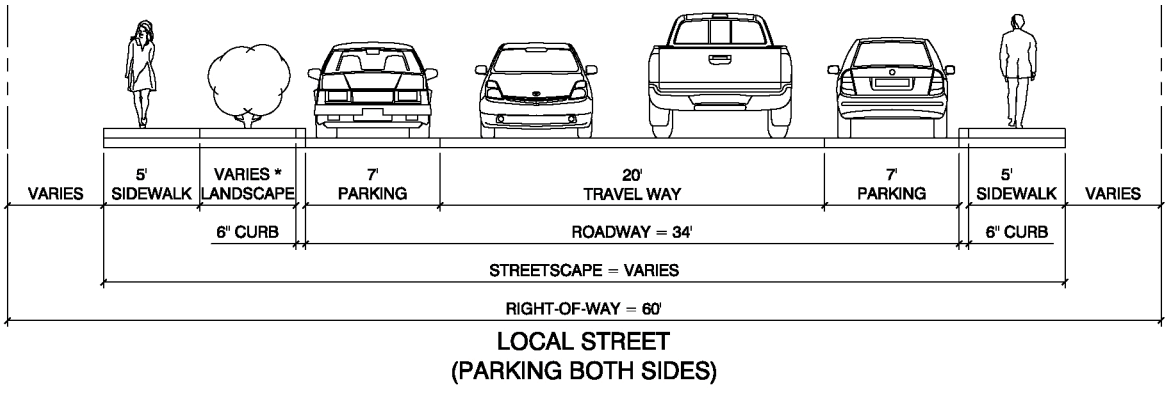
Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
X						

Related Projects: n/a

Notes: Project is development driven and will be built when/if needed.

Typical Cross-Section:



LOCAL STREET
(PARKING BOTH SIDES)

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

Project #: B-1	**Heceta Beach Road Bike Lanes**

Description: Construct bike lanes along the entire length of Heceta Beach Road (see Heceta Beach Road standard cross-section).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Minor Arterial	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $3,720,000
Approximate Lineal Feet: 10,000
Cost per Lineal Foot: $372

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: n/a

Notes: This project assumes that the standard Heceta Beach Road Minor Arterial cross-section is constructed between US 101 and Rhododendron Drive. In sections where right-of-way, topography, or other constraints preclude the construction of the standard cross-section, the alternative cross-section may be used.

Typical Cross-Section:

NOT APPLICABLE

Project #: B-4	**US 101 Alternative Bike Route**

Description: Provide signage & striping for alternative bike route for US 101 bicyclists and local residents via Heceta Beach Road and Rhododendron Drive/9th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $185,000
Approximate Lineal Feet: 37,000
Cost per Lineal Foot: $5

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
					X	

Related Projects: B-1, MU-1

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: B-5	**Kingwood Street south of 10th Street**

Description: Provide bike sharrows as appropriate.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $16,000
Approximate Lineal Feet: 3,200
Cost per Lineal Foot: $5

SDC Eligibility: 50%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: PRJ-12

Notes: Eliminate parking on one side of Kingwood between 9th and 10th. Install sharrows initially given lower traffic volumes anticipated - can be modified to full bike lanes if/when needed. Continuous sidewalks a priority.

Typical Cross-Section:

NOT APPLICABLE

Project #: B-6	**Spruce Street South Bike Lanes**

Description: Construct bike lanes from 25th Street south to OR 126.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $51,000
Approximate Lineal Feet: 5,100
Cost per Lineal Foot: $10

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: B-7	**Spruce Street North Bike Sharrows**

Description: Provide bike sharrows north of 37th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $17,000
Approximate Lineal Feet: 1,650
Cost per Lineal Foot: $10

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: B-8	**Oak Street Bike Lanes**

Description: Construct bike lanes south of 24th Street to 20th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $250,000
Approximate Lineal Feet: 1,360
Cost per Lineal Foot: $184

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity and enhance elementary school route safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: B-10	**2nd Street Bike Sharrows**

Description: Provide bike sharrows on 2nd Street from Harbor Street to US 101.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $7,000
Approximate Lineal Feet: 1,300
Cost per Lineal Foot: $5

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: B-12	**9th Street Bike Lane at US 101**

Description: Develop bike lanes on 9th Street between Nopal Street and US 101.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Minor Arterial	60-80 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $105,000
Approximate Lineal Feet: 400
Cost per Lineal Foot: $263

SDC Eligibility: 0%

Purpose: Enhance bicycle connectivity and safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: More ROW needed in this area to develop full bike lanes due to lane configuration at US 101. Interim solution could include bike sharrows.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-1AA	**Rhododendron Drive Multi-Use Path - 9th Street to Wildwinds Street**

Description: Provide a separated multi-use path north of 9th Street to Wildwinds Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $1,043,000

Approximate Lineal Feet: 9,650

Cost per Lineal Foot: $120

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestria connectivity and accessibility

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
			X			

Related Projects: PRJ-17C

Notes: Assumes construction of paved multi-use path. See PRJ-17C for cost associated with full implementation of the Rhododendron Drive Integrated Transportation Plan for this segment. Determination of surface material will be made at the time of project development. Costs range from approximately $23/lineal foot for unpaved paths, versus $72/lineal foot for an asphalt surface.

Typical Cross-Section:

SEE PROJECT DESCRIPTION FOR PRJ-17C

Project #: MU-1AB	**Rhododendron Drive Multi-Use Path - Wildwinds Street to 35th Street**

Description: Provide a separated multi-use path north of Wildwinds Street to 35th Street (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $1,200,000

Approximate Lineal Feet: 11,215

Cost per Lineal Foot: $116

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestria connectivity and accessibility

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
			X			

Related Projects: PRJ-17C

Notes: Assumes construction of paved multi-use path. See PRJ-17C for cost associated with full implementation of the Rhododendron Drive Integrated Transportation Plan for this segment. Determination of surface material will be made at the time of project development. Costs range from approximately $23/lineal foot for unpaved paths, versus $72/lineal foot for an asphalt surface.

Typical Cross-Section:

SEE PROJECT DESCRIPTION FOR PRJ-17C

Project #: MU-1B	**Rhododendron Drive Multi-Use Path - 35th Street to N Jetty Road**

Description: Provide a separated multi-use path from 35th Street to N Jetty Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $721,000

Approximate Lineal Feet: 7,150

Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestria connectivity and accessibility

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
			X			

Related Projects: PRJ-17D

Notes: Assumes construction of paved multi-use path. See PRJ-17D for cost associated with full implementation of the Rhododendron Drive Integrated Transportation Plan for this segment. Determination of surface material will be made at the time of project development. Costs range from approximately $23/lineal foot for unpaved paths, versus $72/lineal foot for an asphalt surface.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-1C	**Rhododendron Drive Multi-Use Path - N Jetty Road to Heceta Beach Road**

Description: Provide a separated multi-use path from N Jetty Road to Heceta Beach Road (see Rhododendron Drive standard cross-section from 9th Street to Heceta Beach Road).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $645,000

Approximate Lineal Feet: 6,400

Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestria connectivity and accessibility

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
			X			

Related Projects: PRJ-17E

Notes: Assumes construction of paved multi-use path. See PRJ-17E for cost associated with full implementation of the Rhododendron Drive Integrated Transportation Plan for this segment. Determination of surface material will be made at the time of project development. Costs range from approximately $23/lineal foot for unpaved paths, versus $72/lineal foot for an asphalt surface.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-2	**Munsel Creek Multi-Use Path**

Description: Construct/improve and pave the segments of the Munsel Creek Trail between Quince Street and 16th Street and between 25th Street and 29th Street. Between 16th and 25th Streets, the path uses the existing West Park Drive, 18th Street, Willow Loop, 23rd Street, and Willow Street roadway alignments.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $640,000

Approximate Lineal Feet: 6,350

Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestria connectivity and accessibility

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
			X			

Related Projects: MU-3

Notes: Assumes paved multi-use path for unimproved and/or new segments. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-3	**Estuary Trail**

Description: Connect the Boardwalk in Old Town to the south end of the Munsel Creek Path as described through work of Siuslaw Estuary Partnership.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $684,000

Approximate Lineal Feet: 4,700

Cost per Lineal Foot: $146

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
						X

Related Projects: MU-2

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path. Cost includes a new culvert under OR 126 capable of accomdating pedestrians and bikes.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-4	**12th Street Multi-Use Path (Kingwood to Rhododendron)**

Description: Pave the existing bark multi-use path between Kingwood Street and Rhododendron Drive.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $224,000
Approximate Lineal Feet: 3,000
Cost per Lineal Foot: $75

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
					X	

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path. Cost includes wetland impacts and culvert costs.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-5	**12th Street Multi-Use Path (Munsel Creek Path to US 101)**

Description: Construct a multi-use path from US 101 to Spruce Street to connect to the Estuary Trail and Munsel Creek Path.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $60,000

Approximate Lineal Feet: 600

Cost per Lineal Foot: $100

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
					X	

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-6	**Oak Street Multi-Use Path**

Description: Construct a multi-use path between 15th Street and 10th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $161,000
Approximate Lineal Feet: 1,600
Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
					X	

Related Projects: PRJ-5

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-7	**Ivy Street Multi-Use Path**

Description: Construct a multi-use path in the existing Ivy Street right-of-way between 12th Street and 8th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $136,000
Approximate Lineal Feet: 1,350
Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
					X	

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-8	**Elm Street Multi-Use Path**

Description: Construct a multi-use path in the existing Elm Street right-of-way between 8th Street and Rhododendron Drive.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $101,000

Approximate Lineal Feet: 1,000

Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-9	**Driftwood Street Multi-Use Path**

Description: Construct a multi-use path in the existing Driftwood Street right-of-way between 12th Street and 11th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $35,000

Approximate Lineal Feet: 350

Cost per Lineal Foot: $100

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: MU-10	**North Florence County Park Multi-Use Path**

Description: Construct a network of multi-use paths within the County Park in the North Florence Area (see Figure 5-6 for a conceptual network).

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	10-16 feet	Long Term 2026-2035

Estimated Construction and Engineering Cost: $151,000
Approximate Lineal Feet: 1,500
Cost per Lineal Foot: $101

SDC Eligibility: 0%

Purpose: Enhance bicycle/pedestrian system

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
						X

Related Projects: n/a

Notes: Assumes paved multi-use path. Determination of surface material will be made at the time of project development. Costs range from approximately $15/LF for dirt, to $36/LF for bark/gravel, to $72/LF for asphalt , to $105/LF for permeable asphalt for a 12-foot path.

Typical Cross-Section:

NOT APPLICABLE

Project #: P-1	**US 101 Sidewalk near Siuslaw River Bridge**

Description: Construct 8' sidewalks on US 101 north of the Siuslaw River Bridge to connect to 2nd Street. Restore western stairs from Bay Street to US 101 bridge.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $76,000
Approximate Lineal Feet: 600
Cost per Lineal Foot: $127

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: P-8

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-2	**Old Town Sidewalks**

Description: Fill in missing sidewalk segments within Old Town area.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Local Street	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $168,000
Approximate Lineal Feet: 1,400
Cost per Lineal Foot: $120

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: P-11

Notes: Assumes 4 full blocks of new sidewalk.

Typical Cross-Section:

NOT APPLICABLE

Project #: P-3	**Kingwood Street Sidewalks**

Description: Construct sidewalks on Kingwood Street from 20th Street south to Bay Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Collector	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $473,000
Approximate Lineal Feet: 6,300
Cost per Lineal Foot: $75

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: PRJ-12, B-5

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: P-4	**US 101 Pedestrian RRFB Crossing at 12th Street**

Description: Construct a signalized RRFB pedestrian crossing of US 101 at 12th Street, and construct sidewalks on the south side of 12th Street on the west side of US 101.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $140,000
Approximate Lineal Feet: n/a
Cost per Lineal Foot: n/a
SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: MU-5

Notes: Provide reflective painting on curb bulb-outs. Bulb-outs can be difficult for bicyclists to see at night when no cars are present in the parking lane.

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-5	**Mid-block US 101 Pedestrian RRFB Crossing between 15th and 16th**

Description: Construct a mid-block signalized RRFB pedestrian crossing of US 101 between 15th Street and 16th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $140,000
Approximate Lineal Feet: n/a
Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: PRJ-11

Notes: Bulb-outs in areas with bike lanes should be provided with Raised Pavement Markers (RPMs) or other reflective or tactile device.

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-6	**US 101 Pedestrian RRFB Crossing at 43rd Street**

Description: Construct a signalized RRFB pedestrian crossing of US 101 at 43rd Street. Timing to be determined by approved Cannery Station development.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $140,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: n/a

Notes: Bulb-outs in areas with bike lanes should be provided with Raised Pavement Markers (RPMs) or other reflective or tactile device.

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-7	**OR 126 Pedestrian RRFB Crossing at Redwood Street**

Description: Construct a signalized RRFB pedestrian crossing of OR 126 at Redwood Street. Timing to be determined by approval of ODOT flex funds.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $140,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
	Partial			Partial		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-8	**US 101 Sidewalks**

Description: Fill in missing sidewalk segments along US 101 north to the Urban Growth Boundary.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
Major Arterial	60-80 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $266,000

Approximate Lineal Feet: 3,800

Cost per Lineal Foot: $70

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
Partial				Partial		

Related Projects: P-1

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Projects on state highways are subject to ODOT design standards and access management rules.

Project #: P-9	**Oak Street Sidewalks**

Description: Construct sidewalks on east side of Oak Street between 27th Street and 32nd Street and marked crosswalks at 27th Street and 30th Street.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $60,000

Approximate Lineal Feet: 1,600

Cost per Lineal Foot: $37.5

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
						X

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

ODOT HIGHWAY DESIGN MANUAL STANDARDS APPLY

Project #: P-10	**Bay Street/Nopal Street Mid-Block Marked Pedestrian Crossing**

Description: Construct a marked mid-block crosswalk across Bay Street at Nopal Street including ADA-compliant ramps.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	60 feet	Near Term 2013-2017

Estimated Construction and Engineering Cost: $9,000
Approximate Lineal Feet: 50
Cost per Lineal Foot: $180

SDC Eligibility: 0%

Purpose: Enhance pedestrian access/safety

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: P-2

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: TR-1	**New Bus for Rhody Express Service**

Description: Add second bus to expand existing transit service within Florence.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	n/a	Long Term 2026-2035

Estimated Construction and Engineering Cost: $100,000

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Expand transit service and/or reduce bus headways

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				Partial		Partial

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Project #: TR-2	**Extend transit service to Saturday**

Description: Add Saturday transit service to Rhody Express.

Location: See project description.

Functional Classification:	**Required ROW:**	**Time Frame:**
N/A	n/a	Mid Term 2018-2025

Estimated Construction and Engineering Cost: $0

Approximate Lineal Feet: n/a

Cost per Lineal Foot: n/a

SDC Eligibility: 0%

Purpose: Add Saturday transit service to Rhody Express

Likely Funding Source(s)

Development	ODOT	County	Grant/ODOT/City Match	City	TBD	Other
				X		

Related Projects: n/a

Notes: n/a

Typical Cross-Section:

NOT APPLICABLE

Appendix B
Policy Amendments

Appendix B
Ordinance No. 5, Series 2012

Amendments to Florence Realization 2020 Comprehensive Plan Text for Consistency with *City of Florence 2012 Transportation System Plan*

Additions are shown in double underline and deletions shown as strike-out.
[Change Directions are shown in Bold, Red and within Brackets]

Introduction

Comprehensive Plan Organization and Contents

The following sections of this Comprehensive Plan are incorporated into, and are a part of this Comprehensive Plan. Changes to these sections of this Comprehensive Plan necessitate a Comprehensive Plan amendment, either at the time of the Comprehensive Plan amendment or as part of a required Periodic Review process, in accordance with applicable state law and Oregon Administrative Rules:

1. Goals, Policies, Recommendations, Population Projections, and Background Information arranged according to the LCDC (Land Conservation and Development Commission) goals and guidelines.

2. The Official Comprehensive Plan Map, which is incorporated into this Plan and is on file at City Hall, and other maps specifically adopted as part of this Plan in Plan policies.

3. Appendices, or portions of the Appendices, listed in Part II of the Table of Contents that are specifically adopted by reference as part of this Comprehensive Plan. These portions of the Appendices include:

    - Chapter 11: portions of the Public Facility Plan, as specifically described in Chapter 11;
    - Chapter 12: portions of the Transportation System Plan, as specifically described in Chapter 12; and
    - Other portions of Appendices specifically adopted by reference in the Comprehensive Plan.

DEFINITIONS

Transportation System Plan (TSP): The City's adopted plan for one or more transportation facilities that are planned, developed, operated and maintained in a coordinated manner to supply continuity of movement between modes, and within and between geographic and jurisdictional areas. The TSP complies with OAR 660-0012.

Traffic Impact Study: An analysis of the impacts of specific land use actions on the transportation system.

CHAPTER 2: LAND USE

West 9th Street Area

The West 9th Street Area Plan designation applies to the area bordered by Ivy Street on the east and Rhododendron Drive on the west, and its boundary is shown on the Realization 2020 Comprehensive Plan Map 2-1 and Maps 2-3 and 2-4. Lands within the West 9th Street Area are zoned Professional Office/Institutional, except for the two areas that are zoned Open Space. A Plan designation of Public applies to these two Open Space areas.

The West 9th Street Plan area west of Kingwood Street has been re-zoned from Residential to Professional Office/Institutional. Medium and high density residential use of part of that area is envisioned. The Comprehensive Plan also recognizes the trend of development of professional office, government and institutional uses which has occurred with the establishment of the Peace Harbor Hospital in late 1989, the Health Associates office complex, and the Florence Justice Center in 1996. A more detailed discussion of recommendations for the West 9th Street Area is found in the Specific Plans section of this chapter.

Professional office development is a desirable local preference for land uses in this Plan designation, and a shift from residential to professional office/institutional uses is reflected on the Zoning Map. In addition to office use, sit-down restaurants, deli's, and other support services such as copy centers, pharmacies and day-care centers are also conditionally permitted land uses if clearly incidental to the principal office or institutional use. Apartments on upper levels of these commercial buildings can also add to the activity level within the planning area and should be a requirement of any retail or service commercial use proposed for the planning area.

Public space in the form of government buildings, parks for passive recreation, and pedestrian trails, is key to the mix within this professional office/institutional designation. City Hall may be relocated to this area in the future and should be designed as part of a larger government campus consisting of the Justice Center, City Hall, public parking and adjoining public park land north of 9th Street. The City should undertake a master planning process for this campus, and should encourage adjoining properties to enhance rather than detract from that campus master plan.

Continued residential development in the northerly sections of the West 9th Street Area should achieve relatively high densities. Although some single-family development has already started to occur at Juniper and 9th Street, single family or manufactured homes are not considered an efficient use of this available space. Townhouses and garden apartments, when proposed as part of a planned residential development, are strongly encouraged within the 9th Street West area. Senior-oriented developments like the

Spruce Point assisted living project are also appropriate. Any Restricted Residential or Single Family Residential District zoning should be removed from this western planning area, and the City's planned unit development process should be utilized to yield innovative, high quality, urban developments.

Office developments along 9th Street have sited on relatively large (½ acre or more) lots to accommodate generous street setbacks for buildings, berming to hide surface parking, and attractive landscaping. Office developments adjoining low-density residential development have used solid fencing and landscaped buffers of 25' to aid in compatibility. Future developments should demonstrate compatibility with adjoining land uses through the use of attractive architecture, vegetative buffers, significant building setbacks from streets and trails, low-profile exterior lighting for buildings and parking lots, berms to hide parking and extensive site landscaping. Natural contours should be observed in site design, and protection of significant vegetative stands should be encouraged through the City's design review process and vegetation clearing permit requirements. Paved trails and sidewalks should provide convenient access between office, commercial, residential and public uses.

A significant drainage way enters the West 9th Street Area at the southern boundary of the City airport between Greenwood Street right-of-way and Fir Street right-of-way. It continues south through the planning area and, after leaving the area, eventually outfalls to the Siuslaw River. A second drainage way, a smaller tributary of the above descried drainage way, borders this planning area at the southern airport boundary between Juniper and Ivy Street rights-of-way and continues south to 9th Street. At 9th Street, this natural drainageway is culverted, and a pipe conveys this drainage west under 9th Street to its outfall with the larger drainage way. A small wetland where this tributary enters the culvert at 9th Street is reflected in the City's 1997 Local Wetlands and Riparian Inventory. Both of these drainage ways are also shown as riparian areas on this inventory.

These drainage corridors create challenges for street improvements based on the platted right-of-way, and a street network, which avoids impacting these features, is necessary. These corridors have evolved into environmental features worth protection, and shall be incorporated as greenways in the overall build-out plan, rather than being piped or paved over. A paved trail with one or more bridge crossings will parallel the main greenway and provide pedestrian and bicycle access from Rhododendron Drive to the City's future park land north of 9th Street.

Greenwood Street is the main ~~N~~north ~~and~~ south through-street connections within the West 9th Street Area. ~~include Elm Street, Hemlock Street, and 10th Street between Driftwood and Elm Streets~~. 9th Street shall be the only east-west through street connection within this planning area. 12th Street, from Rhododendron Drive east to Kingwood ~~the creek,~~ should not be opened except for a multi-use path.~~bicycle trail~~. ~~12th Street, east of the creek, should be opened to Kingwood Street to provide the industrially planned and zoned property to the north suitable heavy vehicle access. This street connection will require FAA approval, as it crosses airport property and the airport glide path. In any case, industrial traffic shall not be routed via Greenwood or Hemlock Streets to 9th Street.~~ Other street recommendations are found in the subarea planning

sections of the Specific Plans section of this chapter.

Specific Plans:

West 9th Street Planning Area

The West 9th Street Planning Area of Florence is shown as a Plan designation on the Comprehensive Plan Map. The policies guiding development of this area are described in this section and in the Plan designation section of this chapter. This area is an important component of the Comprehensive Plan because it is one of the last relatively undeveloped areas within the older part of the City. It is platted into blocks and relatively small lots created for residential development. Public street rights-of-way are platted in grid-like fashion throughout, although many remain unopened. Because of its high development value to the community, it merits special planning attention.

The West 9th Street Planning Area lies west of Highway 101. In the 1988 Comprehensive Plan, the area was divided into commercial and residential Comprehensive Plan designations. The line previously used to divide residential and commercial plan designations and zoning district boundaries was Maple Street, although in actuality, that line was crossed many times by non-residential developments.

The Peace Harbor Hospital was constructed west of that line in 1990 near 9th and Elm Streets. Due to that development, other professional (medical) office buildings have been established west of that line. In addition, the city owns several vacant blocks of land in the 9th Street area, and in 1997, the City constructed the Florence Justice Center: a city/county combined police station, sheriff's office, city and county courthouse, and city detention facility. All of this non-residential development, west of the Plan's residential/commercial dividing line, was permitted conditionally under the City's Multi-family Residential Zoning District. The residential plan designation and dividing line shown on the 1988 Comprehensive Plan Map are no longer practical for serving the long-term planning needs for this area.

For planning purposes, the West 9th Street Planning Area is formed by Ivy Street on the east and Rhododendron Drive on the west, and its boundary is shown on the Comprehensive Plan Map. The West 9th Street Area is further divided into several planning subareas to address specific development issues. Maps of these subareas are included in this chapter, but are not shown on the Comprehensive Plan Map.

West 9th Street Subarea Recommendations (See Subareas in Map 2-3):

Subarea 1

This L-shaped area lies west of the City's property reserved for the airport landing glidpath, and northeast of the Justice Center. It is bounded on the east by Ivy Street, contains four full bocks, is currently undeveloped and is suitable for medium and high density residential development. The block adjacent to 9th Street

may also be developed with office uses. Hemlock Street shall run north-south through the subarea, providing access to 9th Street and ~~12th Street~~Park Village. ~~Greenwood Street shall not be extended north of 11th Street, in order to allow consolidation of the small parcel west of Greenwood Street right-of-way with the larger Block 8.~~ Ivy Street shall ~~remain unopened due to~~ be developed with a multi-use path due to environmental impacts if this street was constructed. 10th Street and 11th Street should not be built to cross the eastern drainage way~~, nor should they be extended west across the western drainage way. A suitable buffer should be maintained between this and the industrially planned and zoned property to the north opposite 12th Street.~~ The drainage way~~s bordering the west side, and also the east side, of this area, are~~is to be protected with undisturbed buffers of 50' ~~and 25' respectively~~.

Subarea 2

This rectangular shaped area lies between the 11th and 12th streets rights-of-way on the northwest corner of the West 9th Street Planning Area. It contains approximately four full blocks and is currently undeveloped. A large vegetated sand dune is located in the eastern half of the subarea, and any development of this subarea should work with that feature rather than eliminate it. Medium to high-density residential development is suitable for this subarea, utilizing the City's planned unit development (PUD) process. Office development may also be appropriate, provided vehicular access is obtained internal to the subarea, and not directly from Rhododendron Drive.

Any development should also be sensitive to the City's park land property located on Blocks 58 and 59. 12th Street should not be opened to vehicular traffic. 11th Street may be opened for vehicular traffic from Rhododendron Drive to provide access to this subarea, but should either be terminated at Driftwood Street right-of-way or drawn northward away from the City's park land. 11th Street shall not cross the drainage way. Driftwood Street may extend north from 9th Street and curve into 10th Street avoiding the wetland. ~~also be opened to 10th Street, where access from 10th can then be provided to 9th Street via Elm Street. Driftwood Street will remain unopened from 10th Street to 9th Street.~~

~~A suitable undisturbed~~ The multi-use path within the 12th Street right-of-way provides a buffer ~~shall be maintained~~ between this property and the Greentrees residential mobile home planned unit development to the north. The drainage way bordering the east side of this subarea is to be protected with an undisturbed buffer of 50'. There shall be a multi-use path that connects from 12th Street to the City Park. That path is shown on Map 2-4 as being located within the Driftwood Street right-of-way as the most logical location given the topography, but could instead be located at Elm Street or Fir Street or anywhere in between. ~~A 6' wide bicycle trail paralleling this greenway shall be constructed as part of an adjoining development in accord with the trail plan. In addition, a bike trail from Rhododendron Drive to a bridge crossing of this greenway shall also be constructed as part of an adjoining development in accord with the trail plan.~~

Subarea 3

This subarea is a rectangular shaped area on the western edge of the West 9th Street Planning Area, between the Peace Health medical complex and Rhododendron Drive. It slopes upward from Rhododendron Drive. Formerly planned and zoned for large lot residential development, it is now planned for medium or high density residential development. It may also be appropriate for office development, hospital or clinic expansion or medical complexes, provided vehicular access is obtained internal to the subarea rather than from Rhododendron Drive. ~~The Ninth Street right-of-way, currently unopened, may either be opened to provide access, or vacated as part of an alternatively proposed street or access plan.~~

Subarea 4

This area lies south of 9th Street and immediately east of the Peace Health medical complex. Its eastern boundary is formed by the eastern edge of the greenway, and its southern boundary is 6th Street. The 3.5 block subarea is bordered by the major north-south drainage way. A medical office building currently exists in the northwest corner of this subarea, which is otherwise undeveloped and heavily vegetated. Office or medium to high density residential development is appropriate within this subarea.

~~Elm Street shall run north-south through the subarea providing access to 9th Street and Rhododendron Drive.~~ Greenwood Street shall ~~also~~ run north-south to the east of ~~through~~ this subarea, providing access to 9th Street, but not to Rhododendron Drive to the south. Fir Street will be left unopened due to environmental impacts of constructing that portion. It may be vacated, provided the drainage way is placed in a protective easement or dedicated to the City as park land. 6th, 7th, and 8th Street ~~will intersect with Greenwood Street, but shall remain unopened from Greenwood to Elm Street~~ may extend west from Greenwood Street in order to provide access to the properties within the subarea.

The drainage way is to be protected with an undisturbed buffer of 50 feet.. A ~~6 foot wide bicycle trail paralleling this greenway~~ multi-use path extending north from Rhododendron Drive through the alleys between Elm and Fir Streets shall be constructed as part of an adjoining development ~~in accord with the trail plan~~. This path would connect to 8th Street.

- **[Replace Map 2-4 with Figure 5-5 in the TSP]**

Chapter 12: Transportation

- **[Delete the TSP Map in Chapter 12, Page XII-5]**

Goals

1. To create a safe transportation system.

2. To operate transportation facilities at a level of service that is cost-effective and appropriate for the area served.

3. To develop systematic annual maintenance plans for city streets, bike, pedestrian and air facilities.

4. To create a transportation network to support existing and proposed land uses.

5. To meet the needs of land development while protecting public safety, transportation operations and mobility of all transportation modes.

6. To provide a balanced transportation system that provides options for meeting the travel needs of all modes of transportation.

7. To enhance the quality of life for citizens and visitors by providing adequate access to residences, employers, services, social and recreational opportunities.

8. To minimize transportation-related energy consumption by using energy efficient modes of transportation for movement of goods, services and people where possible.

9. To provide economic health and diversity through the efficient and effective movement of goods, services and people.

10. To minimize the impacts on natural and cultural resources when constructing transportation facilities and ~~should~~ encouraging use of~~e~~ non-polluting transportation alternatives.

11. To choose transportation facilities which balance the requirements of other transportation goals with the need to minimize air, water and noise pollution.

12. To provide for adequate parking facilities in conjunction with other transportation facilities, as appropriate.

13. To collaborate and coordinate with state, county and other agencies during long range planning efforts, development review, design and construction of transportation projects.

Policies

* The Transportation System Plan (TSP) is part of the Florence Public Facility Plan and, as such, the TSP is adopted as a supporting document to this Comprehensive Plan.

* Use the project lists and maps, or described locations of projects, in the TSP to guide transportation facilities and their general location in the urban growth boundary. Use City Code, Capital Improvement Programming, and City Public Works work programs, engineering reports, and other administrative tools as the guide for project timing, detailed planning, financing and implementation.

* Amend the TSP and the Comprehensive Plan, in order to modify, add to, or delete projects from the project lists in the TSP or to make significant changes to project location from that described in the TSP. The following changes to the TSP do not require a Comprehensive Plan amendment unless changed as part of an overall update of the TSP:

  a. Modifications to a transportation project which are minor in nature and do not significantly impact the project's general description, location, sizing, capacity, or other general characteristic of the project; or

  b. Technical and environmental modifications to a transportation facility which are made pursuant to final engineering on a project; or

  c. Modifications to a transportation project which are made pursuant to findings of an Environmental Assessment or Environmental Impact Statement conducted under regulations implementing the procedural provisions of the National Environmental Policy Act of 1969 or any federal or State of Oregon agency project development regulations consistent with that act and its regulations.

1. ~~City street standards shall promote street design which provides for adequate lane widths, curvature and grades to create a street network which provides safe transportation at all seasons of the year.~~Provide safe transportation all seasons of the year through street standards that require lane widths, curvature and grades appropriate to all weather conditions.

2. ~~Vision clearance provisions shall be enforced~~. To protect public safety, property owners shall maintain vision clearance in accordance with City standards and the City shall enforce vision clearance requirements.

3. The City shall continue to work with ODOT to ~~improve~~ provide safe pedestrian crossings ~~ty~~ of ~~existing crosswalks on~~ state highways, and to cooperate in the location of additional crosswalks in safe locations.

*. The City shall utilize the mobility standards in the Oregon Highway Plan for the state highways. Elsewhere within the city, the minimum operating standards at intersections are as follows:

- LOS "D" is considered acceptable at signalized and all-way stop controlled intersections if the V/C (volume/capacity) ratio is not higher than 1.0 for the sum of critical movements.

- LOS “E” is considered acceptable for the poorest operating approach at two-way stop intersections. LOS “F” is allowed in situations where a traffic signal is not warranted.

Where a facility is maintained by the County, the more restrictive of the City or County standards apply.

4. The City shall develop systematic annual maintenance plans for streets, bike, pedestrian and air facilities.

5. The City shall continue to pursue grant and loan funds to supplement local transportation facility funds.

6. The City shall continue to require new development to pay its share of costs of development of, or improvements to, transportation facilities which will serve the proposed development.

~~The City shall continue to pursue grant and loan funds to supplement local transportation facility funds.~~

7. Development within a City right-of-way, including but not limited to excavation, clearing, grading, utility placement, culvert placement or replacement, other stormwater facilities, and construction or reconstruction of road or driveway approaches, is allowed only upon approval of a city permit.

8. The City shall protect the function of existing and planned transportation systems as identified in the TSP ~~this Plan~~ through application of appropriate land use and access management techniques.

*. Pursuant to the State Transportation Planning rule, any land use decisions which significantly affect a transportation facility shall ensure that allowed land uses are consistent with the function, capacity, level of service of the facility.

9. Land development shall not encroach within setbacks required for future expansion of transportation facilities. At the time of land development or land division, the City shall require dedication of adequate right-of-way or easements consistent with the adopted TSP in order to achieve connectivity; maintain adequate street widths, bikeways and walkways; and to accommodate transit facilities.

*. New development and redevelopment shall accommodate on-site traffic circulation on the site. For new development and redevelopment, “backing out” maneuvers onto all streets shall be avoided for uses other than single-family and duplex homes. “Backing out” maneuvers shall also be avoided for new single-family and duplexes accessing arterial or collector streets.

10. ~~New development shall gain access primarily from local streets. Driveway access onto arterials and collectors shall be evaluated based on access options, street classifications and the effects of new access on the function, operation and safety of surrounding streets and intersections.~~ Access to and from off-street parking

areas shall be designed to prevent backing onto a public street (other than an alley), except that single-family and duplex dwellings are exempt.

~~Land development shall not encroach within setbacks required for future expansion of transportation facilities.~~

* ODOT has authority to manage access to the state highway system. Where property abuts a state highway or is served by a private approach on a state highway, the City will work with ODOT to ensure coordinated and consistent application of applicable State and City policies.

11. The City shall provide an inter-connected trail system as directed in Comprehensive Plan Chapter 8 policy and shown in the TSP Project Maps.

* The City shall ~~C~~consider the potential to establish or maintain bikeways and/or walkways or provide access to coastal waters (ocean, estuary, and lakes) prior to vacating any public easement or right-of-way.

12. Convenient access for motor vehicles, transit, bicycles and pedestrians shall be provided to major activity centers, including public buildings and schools, the hospital, shopping areas, parks, and places of employment.

13. Streets, bikeways and walkways shall be designed to meet the needs of pedestrians and cyclists to promote safe and convenient bicycle and pedestrian circulation within the community. To promote bicycling and walking, ~~all new collector and arterial streets shall have bicycle lanes, and all new streets shall have sidewalks~~, marked bicycle lanes and sidewalks are required on all arterial and collector streets (other than those collectors identified as scenic drives) when those streets are newly constructed, reconstructed, or widened to provide additional vehicular capacity. For collector streets that are identified as scenic drives, provision shall be made to adequately accommodate bicycles and pedestrians when those streets are newly constructed, reconstructed, or widened to provide additional vehicular capacity.

* Development shall provide adequate on-site circulation for vehicles, buses, bicycles, and pedestrians and shall provide off-site transportation improvements necessary to ensure that the incremental demands placed on the transportation system by the development are met

14. Streets shall be designed to efficiently and safely accommodate emergency service vehicles.

*. In partnership with the School District, the City shall work toward a safe and convenient transportation system that accommodates school buses; children walking to and waiting at a bus stop; and children walking and riding their bicycles to school.

*. The City shall accommodate local freight traffic accessing the industrial areas along Kingwood Avenue via 9th, 27th, and 35th Streets by maintaining adequate clear street widths (unimpeded by parking or overhanging signs/trees), adequate turning radii, and visibility.
[To support economic development, this policy establishes local freight routes.]

15. The North, South and East Gateways shall be pursued as soon as funding can be obtained.

16. ~~City policies shall discourage the placement of streets serving primarily commercial or industrial development from negatively impacting adjoining residential development.~~ The placement of streets shall minimize negative impacts on residential neighborhoods.

~~17. Encourage placement of streets that minimizes negative impacts in residential development.~~

17. City shall cooperate with ODOT to implement the Access Management Plan for US 101 in Downtown Florence and elements of the Florence Downtown Implementation Plan that pertain to US 101.

18. The City shall encourage demand management programs such as park-and-ride facilities and vanpools to reduce single occupancy vehicle trips, especially to and from Eugene.

19. The City shall promote the use of telecommunications, transit and rail facilities as energy efficient alternatives to vehicular transport.

20. The City shall coordinate with the Port of Siuslaw regarding transportation projects that may affect facilities which are operated by the Port or which affect the Port's operations.

~~20. The City shall strongly promote a feasibility study to identify solutions to the deficient rail overpass in Cushman, and support implementation of the chosen alternative.~~

~~21. The City shall continue to be advocates for the provision of effective telecommunications facilities in Florence, including provision of quality basic telephone service.~~

22. The City shall continue to pursue the cooperative effort of coastal cities and counties to bring a natural gas pipeline north on the coast to Florence and other communities.

23. Design and construction of transportation facilities shall be responsive to topography and should minimize impacts on natural resources such as streams, wetlands and wildlife corridors.

24. ~~Stormwater shall be required to have appropriate pre-treatment prior to discharge.~~ All transportation improvements shall be consistent with the requirements for stormwater in Chapter 11 of the Comprehensive Plan.

~~25. The City shall amend the City Code as appropriate to include processes for identification, inventory, classification, and conflict resolution on sites which contain cultural resources.~~

26. As the use of the airport increases, and night operations become a reality, the City shall work with neighboring residential uses to ~~resolve~~ minimize issues of noise and vibration.

27. The City shall require that noise sensitive land uses (including uses involving sleeping, schools, hospitals, libraries) proposed in the airport noise impact boundary, as shown in Figure 8-1 of the Florence Municipal Airport – Airport Master Plan Update Final Report, provide a noise-abatement strategy to achieve indoor noise level equal to or less than 55 Day-Night Average Noise Level (DNL). ~~continue to discourage new residential uses, schools, hospitals, and similar facilities in the approach zones of the airport.~~

*. The City shall protect current and future viability of the airport and compatibility of land uses through the Public Airport Safety and Compatibility Overlay Zone and coordination with the Oregon Department of Aviation and the Federal Aviation Administration.

28. ~~On-site parking for motor vehicles shall continue to be provided, unless another adopted City plan expressly provides otherwise.~~

~~29. The policies and direction of Downtown Implementation Plan regarding the provision of on-street parking shall be implemented.~~
On-site parking for motor vehicles and bicycles is required except in Downtown Districts where some motor vehicle parking can be provided on the street.

2930. ~~Appropriate b~~Bicycle parking facilities shall be provided as part of new development at places of employment, ~~at~~ businesses, multi-family residential developments and at public buildings.~~.~~

301. The City shall notify ODOT of all project proposals and development applications adjacent to state highways or served by a private vehicular approach on a state highway. The City should notify Lane County of all project proposals and development applications adjacent to county roads.

312. The City shall notify ODOT and Lane County of all major development proposals which will generate more than 50 trips during an average peak hour, or more than 500 daily trips, or which require a traffic study.

323. The City shall notify ODOT, DLCD and Lane County of any proposed changes or amendments to this Transportation System Plan.

Recommendations

1. The City Council should consider opportunities to purchase land for extensions of right-of-way where connectivity is needed to promote efficient traffic flow.

2 The City should promote a feasibility study to identify solutions to the deficient rail overpass in Cushman, and support implementation of the chosen alternative.

Background

The City of Florence, in conjunction with the Oregon Department of Transportation (ODOT), initiated an update of the urban area's Transportation System Plan (TSP) in 2010. The TSP is intended to guide the management and implementation of the transportation facilities, policies, and programs, within the urban area over the next 25 years. It 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 City adopted a Transportation System Plan (TSP), as required by the State's Transportation Planning Rule (TPR) and as part of the City's update of its Comprehensive Plan. The adopted TSP is incorporated into this Comprehensive Plan and is physically located in Appendix 12. The TSP summarizes the technical analyses that have been performed in the development of the TSP, including coordination with the affected agencies.~~ The TSP also summarizes the technical analyses that have been performed in the development of the TSP and through coordination with affected agencies. The TSP has been adopted as a supporting document to the Comprehensive Plan and is physically located in Appendix 12

The City of Florence's location on the Oregon Coast makes it an attractive destination for tourists and summer vacationers with the associated traffic impacts. In addition, Florence is experiencing growth pressures from both development and increasing traffic. To address these issues, the TSP is based on an evaluation of future growth and includes recommendations for appropriate transportation improvements to serve that growth while maintaining and enhancing the character of the city. The TSP recognizes that state roadways must be used efficiently and an effective facilities management plan must be developed to allow the City's street system to operate effectively as in-fill development continues within the Urban Growth Boundary.

~~To minimize the adverse economic, social, energy and environmental impacts of further development in Florence, development of the TSP, and land use and transportation alternatives have been considered in combination with facilities management strategies. To maintain consistency and address further development of the local system, the findings, recommendations and policies of the U.S. 101 Oregon Coast Highway study were incorporated into this TSP study. The TSP also takes into account the complex system of state, county, and City roads, Port of Siuslaw facilities, rail, air, bike, pedestrian,~~

~~transit and other alternative modes, and recognizes that implementation of the TSP will require inter-jurisdictional cooperation.~~

A Comprehensive Plan that embraces coordinated and systematic development of all gateways is vital to achieving an efficient transportation system. The City of Florence recognizes the importance of the five existing transportation gateways to the community:

- East Highway 126 Gateway
- North Florence Highway 101 Gateway
- Siuslaw River Bridge/South Highway 101 Gateway
- Florence Airport Gateway
- Siuslaw River/Port of Siuslaw Gateway.

~~A Comprehensive Plan that embraces coordinated and systematic development of all gateways is vital to achieving an efficient transportation system.~~

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 Land Conservation and Development Commission (LCDC) Transportation Planning Rule (OAR Chapter 660 Division 12). These laws and rule 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 transportation system plan incorporate the needs of all users and abilities. In addition, the TPR requires that local jurisdictions adopt land use and land division 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.

The TSP also 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.

~~To address the requirements of the Transportation Planning Rule, the TSP addresses not only automobile and truck travel in the study area, but also alternative travel modes, such as pedestrian, bicycle, and public transit. Each mode was evaluated to determine how the level of service for the mode can be improved to allow development of a multi-modal transportation system with efficient interconnections to transportation systems within Florence, and to other transportation systems in the Lane County region. In addition, opportunities for new development patterns that encourage pedestrian, transit and bicycle travel were evaluated to allow the City to develop an effective transportation system within Florence that does not rely exclusively on any one mode of transportation.~~

~~Finally, the TSP includes an evaluation of funding approaches for the existing and future transportation system, and identifies financial constraints and opportunities. Recommendations for a Transportation Financing Program are included in Section 5 of the TSP.~~

~~The TSP is organized by geographic planning areas. It recommends 68 multi-modal transportation system improvements distributed among these planning areas. For more detailed descriptions of transportation planning projects and funding, refer to the TSP in Appendix 12.~~

The policies resulting from the Transportation System Plan (TSP) Update process have been inserted into this Chapter of the Comprehensive Plan. The policies provide direction for public and private developmental and program decision-making regarding transportation facilities and services. Development should be coordinated with the planning, financing, and construction of planned transportation facilities and services to ensure the efficient use and expansion of these facilities.

The project lists and maps, or written descriptions of locations, in the TSP are adopted as part of the Comprehensive Plan, and physically located in the TSP. The exact location of the projects shown on the TSP Maps, or described in writing in the TSP, is determined through City processes, outside of the Comprehensive Plan amendment process. The TSP will be updated as part of the City's Periodic Review process or in a TSP update process initiated by the City outside of Periodic Review.

Appendix C
City Code
Amendments

Appendix C
Ordinance No. 5, Series 2012
Planning Commission Recommended Amendments to Florence City Code Title 10

Additions are shown in double underline and deletions shown as strike-out.
[Change Directions are shown in Bold, Red within Brackets]

CHAPTER 1: ZONING ADMINISTRATION

10-1-1-4: APPLICATION

D. Traffic Impact Studies:

1. Purpose of Traffic Impact Study: The purpose of a Traffic Impact Study is to determine:

   a. The capacity and safety impacts a particular development will have on the City's transportation system:

   b. Whether the development will meet the City's minimum transportation standards for roadway capacity and safety;

   c. Mitigating measures necessary to alleviate the capacity and safety impacts so that minimum transportation standards are met; and

   d. To implement section 660-012-0045(2)(e) of the State Transportation Planning Rule.

2. Criteria for Warranting a Traffic Impact Study: All traffic impact studies shall be prepared by a professional engineer in accordance with the requirements of the road authority. The City shall require a Traffic Impact Study (TIS) as part of an application for development; a proposed amendment to the Comprehensive Plan, zoning map, or zoning regulations; a change in use, or a change in access, if any of the following conditions are met:

   a. A change in zoning or plan amendment designation where there is an increase in traffic or a change in peak-hour traffic impact.

   b. Any proposed development or land use action that may have operational or safety concerns along its facility(s), as determined by the Planning Director in written findings.

   c. The addition of twenty-five (25) or more single family dwellings, or an intensification or change in land use that is estimated to increase traffic

volume by 250 Average Daily Trips (ADT) or more, per the ITE Trip Generation Manual.

d. A change in land use that may cause an increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicle trips or more per day

.

e. The location of the access driveway does not meet minimum sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the State highway, creating a safety hazard.

f. A change in internal traffic patterns that may cause safety problems, such as backed up onto a street or greater potential for traffic accidents.

g. The Planning Director, based on written findings, determines that a TIS is necessary where traffic safety, street capacity, future planned facility, or multimodal concerns may be associated with the proposed development. The City will consider the following criteria when determining the need for a TIS:

i. If there exists any current traffic problems, such as high accident location, poor roadway alignment, or capacity deficiency that are likely to be compounded as a result of the proposed development.

ii. If it is anticipated the current or projected level of service of the roadway system in the vicinity of the development will exceed minimum standards.

iii. If it is anticipated that adjacent neighborhoods or other areas will be adversely impacted by the proposed development.

h. A road authority with jurisdiction within the City may also require a TIS under their own regulations and requirements.

3. Traffic Study Requirements: In the event the City determines a TIS is necessary, the information contained shall be in conformance with FCC 10-35-2-5, Traffic Study Requirements.

~~The or other road authority with jurisdiction may require a Traffic Impact Study (TIS) as part of an application for development, a change in use, or a change in access in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities and to implement Section 660-012-0045 (2) (e) of the State Transportation Planning Rule. All traffic impact studies shall be~~

~~prepared by a professional engineer in accordance with the requirements of the road authority. A TIS shall be required when a land use application involves one or more of the following actions:~~

~~1. A change in zoning or a plan amendment designation where there is an increase in traffic or a change in peak-hour traffic impact.~~

~~2. Any proposed development or land use action that may have operational or safety concerns along its facility(s).~~

~~3. The addition of twenty-five (25) or more single family dwellings, or an intensification or change in land use that is estimated to increase traffic volume by 250 Average Daily Trips (ADT) or more, per the ITE Trip Generation Manual.~~

~~4. A change in land use that may cause an increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles trips or more per day.~~

~~5. The location of the access driveway does not meet minimum sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate on the State highway, creating a safety hazard.~~

~~6. A change in internal traffic patterns that may cause safety problems, such as backed up onto a street or greater potential for traffic accidents.~~ ~~(Amended Ord. No. 9, Series 2009)~~

10-1-1-5: LAND USE HEARINGS:

B. Notification of Hearing:

1. At least twenty (20) days prior to a quasi-judicial hearing, notice of hearing shall be posted on the subject property and shall be provided to the applicant and to all owners of record of property within 100 feet of the subject property, except in the case of hearings for Conditional Use Permits, Variance, Planned Unit Development and Zone Change, which notice shall be sent to all owners of record of property within 300 feet of the subject property.

   a. Notice shall also be provided to the airport as required by ORS 227.175 and FCC 10-21-2-4 and any governmental agency that is entitled to notice under an intergovernmental agreement with the City or that is potentially affected by the proposal. For proposals located adjacent to a state roadway or where proposals are expected to have an impact on a state transportation facility, notice of the hearing shall be sent to the Oregon Department of Transportation.

b. For a zone change application with two or more evidentiary hearings, notice of hearing shall be mailed no less than ten (10) days prior to the date of the Planning Commission hearing and no less than ten (10) days prior to the date of the City Council hearing.

c. For an ordinance that proposes to rezone property, a notice shall be prepared in conformance with ORS 227.186 and ORS 227.175(8).

2. Prior to a quasi-judicial hearing, notice shall be published one (1) time in a newspaper of general circulation.

10-1-1-6: ADMINISTRATIVE REVIEW

D. Notice - Information:

1. Administrative Decisions: The City will post a notice on the subject property and provide Notice of Application to owners of property within 100 feet of the entire contiguous site for which the application is made. The list of property owners will be compiled from the most recent property tax assessment roll.

a. Notice shall also be provided to the airport as required by ORS 227.175 and FCC 10-21-2-4 and any governmental agency that is entitled to notice under an intergovernmental agreement with the City or that is potentially affected by the proposal. For proposals located adjacent to a state roadway or where proposals are expected to have an impact on a state transportation facility, notice of the application shall be sent to the Oregon Department of Transportation..

2. Property Owner Notice shall:

a. Provide a 14 day period of submission of written comments prior to the decision;

b. List applicable criteria for the decision;

c. Set forth the street address or other easily understood geographical reference to the subject property;

d. State the place, date and time that comments are due;

e. State that copies of all evidence relied upon by the applicant are available for review at no cost, and that copies can be obtained at a reasonable cost;

f. Include the name and phone number of local government representative to contact and the telephone number where additional information may be obtained.

CHAPTER 2: GENERAL ZONING PROVISIONS

10-2-12: USES AND ACTIVITIES PERMITTED IN ALL ZONES: The following uses and activities are permitted in all zones without review unless specifically required otherwise:

A. Operation, maintenance, repair or preservation of public roads and highway facilities, including, but not limited to sewer, water line, electrical power, or telephone or television cable system;

B. Operation, maintenance, and repair of existing transportation facilities identified in the Transportation System Plan, such as bicycle, pedestrian, port, airport and rail facilities, and major regional pipelines and terminals;

C. Authorization of construction and the construction of facilities and improvements identified in the Transportation System Plan or other Public Facilities Plan, where the improvements are consistent with clear and objective dimensional standards; and

D. Changes to the frequency of transit or airport service.

E. Exceptions: The following uses and activities require land use approval:

1. Reconstruction or modification of an historic building or other historic structure.

2. Development that requires acquisition of additional property other than the following widening of a public road or highway right-of-way.

   (a) Right-of-way identified for acquisition on an official map or that is consistent with an established special setback.

   (b) A minor right-of-way acquisition to permit public road or highway safety improvement or modernization that complies with Section 10-2-12.

3. Temporary location of industrial activities, such as sand and gravel extraction or processing and asphalt or concrete batch plants in, or adjacent to, residential development or sensitive resource areas.

4. Development or activities involving reconstruction or modernization in a location identified as environmentally or culturally sensitive, such as

floodplains, estuarine areas, wetlands, and archeological sites.

CHAPTER 3: OFF-STREET PARKING AND LOADING

10-3-3: MINIMUM STANDARDS BY USE: The number of required off-street vehicle parking spaces shall be determined in accordance with the standards in Table 10-3-1~~,~~ or alternatively, through a separate parking demand analysis prepared by the applicant and approved by the Design Review Board. Where a use is not specifically listed in this table, parking requirements are determined by finding that a use is similar to one of those listed in terms of parking needs, or by estimating parking needs individually using the demand analysis option described below~~above~~.

A. Parking that counts toward the minimum requirement is parking in garages, carports, parking lots, bays along driveways, and shared parking. Parking in driveways does not count toward required minimum parking.

B. The minimum number of parking spaces may also be determined through a parking demand analysis prepared by the applicant and approved by the Design Review Board/Planning Commission. This parking demand analysis may include an acceptable proposal for alternate modes of transportation, including a description of existing and proposed facilities and assurances that the use of the alternate modes of transportation will continue to reduce the need for on-site parking on an on-going basis. Examples of alternate modes include but are not limited to:

1. Transit-related parking reduction. The number of minimum parking spaces may be reduced by up to 10% if:

a. The proposal is located within a ¼ mile of an existing or planned transit route, and;

b. Transit-related amenities such as transit stops, pull-outs, shelters, park-and-ride lots, transit-oriented development, and transit service on an adjacent street are present or will be provided by the applicant.

10-3-10: BICYCLE PARKING REQUIREMENTS: All new development that is subject to Site Design Review, shall provide bicycle parking, in conformance with the standards and subsections A-H, below.

A. **Minimum Size Space:** Bicycle parking shall be on a two (2) feet by six (6) feet minimum.

B. **Minimum Required Bicycle Parking Spaces.** Short term bicycle parking spaces shall be provided for all non-residential uses at a ratio of one bicycle space for every ten vehicle parking spaces. In calculating the number of required spaces, fractions shall be rounded up to the nearest whole number, with a minimum of two spaces.

C. **Long Term Parking.** Long term bicycle parking requirements are only for new development of group living and multiple family uses (three or more units). The long term parking spaces shall be covered and secured and can be met by providing a bicycle storage room, bicycle lockers, racks, or other secure storage space inside or outside of the building; Multifamily= 1 per 4 units/ Group Living = 1per 20 bedrooms/ Dormitory = 1 per 8 bedrooms.

D. **Location and Design.** Bicycle parking should be no farther from the main building entrance than the distance to the closest vehicle space other than handicap parking, or fifty (50) feet, whichever is less and shall be easily accessible to bicyclists entering the property from the public street or multi-use path.

E. **Visibility and Security.** Bicycle parking for customers and visitors of a use shall be visible from street sidewalks or building entrances, so that it provides sufficient security from theft and damage;

F. **Lighting.** For security, bicycle parking shall be at least as well lit as vehicle parking.

G. **Reserved Areas.** Areas set aside for bicycle parking shall be clearly marked and reserved for bicycle parking only.

H. **Hazards.** Bicycle parking shall not impede or create a hazard to pedestrians. Parking areas shall be located so as to not conflict with vision clearance standards. If bicycle parking cannot be provided safely, the Design Review Board or Community Development Director may waive or modify the bicycle parking requirements.

CHAPTER 21: PUBLIC USE AIRPORT ZONE

10-21-1: PUBLIC USE AIRPORT ZONE

10-21-1-5: USES PERMITTED OUTRIGHT: The following uses and activities are permitted outright in the Public Use Airport District. Such uses should be in conformance with the ~~1997 Airport Plan~~Florence Municipal Airport, Airport Master Plan Update Final Report, February 2010. All structures require Design Review approval by the Planning Commission/Design Review Board, with the exception of aircraft hangars which may be approved by the Planning Director. Applicant shall complete FAA Form

7460 -1 – Notice of Proposed Construction or Alteration prior to approval of ground lease.

10-21-1-6: Uses Permitted subject to the Acceptance of the Airport Sponsor. The following uses and activities and their associated facilities and accessory structures are permitted in the Public Use Airport Zone upon demonstration of acceptance by the airport sponsor and approval of related structures by the Planning Commission/Design Review Board. Applicant shall complete FAA Form 7460 -1 – Notice of Proposed Construction or Alteration prior to approval of ground lease.

10-21-1-7: Uses Permitted Under Prescribed Conditions: The following uses and activities and their associated facilities are permitted in the Public Use Airport Zone upon approval by the airport sponsor, the Oregon Department of Aviation and the City of Florence Design Review Board. Such uses shall be compatible with the ~~2000/2020~~Florence Realization 2020 Comprehensive Plan, the ~~1997 Airport Plan~~Florence Municipal Airport, Airport Master Plan Update Final Report, February 2010, FCC Title 10, Chapter 6 – Design Review, and shall not create a safety hazard or otherwise limit approved airport uses. Applicant shall complete FAA Form 7460 -1 – Notice of Proposed Construction or Alteration and it shall have been reviewed by the Oregon Department of Aviation and the Federal Aviation Administration prior to approval of ground lease.

10-21-2: PUBLIC USE AIRPORT SAFETY AND COMPATIBILITY OVERLAY ZONE

10-21-2-2: DEFINITIONS

AIRPORT IMAGINARY SURFACES. Imaginary areas in space and on the ground that are established in relation to the airport and its runways. Imaginary areas are defined by the primary surface, runway protection zone, approach surface, horizontal surface, conical surface and transitional surface, and are delineated in Federal Air Regulations (FAR) Part 77 shown in Florence Municipal Airport, Airport Master Plan Update Final Report, February 2010 and summarized in Figures 4-4 and 4-5 of that Plan ~~Drawing 2 – Airspace of the Florence Municipal Airport Layout Plan Report, dated October 1997, which map shall remain~~ on file in the Florence ~~Community Development~~Planning Department.

10-21-2-3: IMAGINARY SURFACE AND NOISE IMPACT BOUNDARY DELINEATION: The airport elevation, the airport noise impact boundary, and the location and dimensions of the runway, primary surface, runway protection zone, approach surface, horizontal surface, conical surface and transitional surface are delineated in the ~~1997 Florence Municipal Airport Layout Plan Report~~ Florence Municipal Airport, Airport Master Plan Update Final Report, February 2010 and shall be made part of the Official Zoning Map. All lands, waters and airspace, or portions thereof, that are located within these boundaries or surfaces shall be subject to the requirements of this overlay zone.

10-21-2-4: NOTICE OF LAND USE AND PERMIT APPLICATIONS WITHIN OVERLAY ZONE AREA: Except as otherwise provided herein, written notice of applications for land use or~~f~~ limited land use decisions, including comprehensive plan or zoning amendments, in an area within this overlay zone, shall be provided to the airport sponsor and the Department of Aviation in the same manner as notice is provided to property owners entitled by law to written notice of land use or limited land use applications.

10-21-2-6: PROCEDURES: An applicant seeking a land use or limited land use approval in an area within this overlay zone shall provide the following information in addition to any other information required in the permit application:

A. A map or drawing showing the location of the property in relation to the airport imaginary surfaces. The Planning Department shall provide the applicant with appropriate base maps upon which to locate the property.

B. Elevation profiles and a site plan, both drawn to scale, including the location and height of all existing and proposed structures, measured in feet above mean sea level.

C. If a height variance is requested, letters of support from the airport sponsor the Department of Aviation and the FAA.

D. Applicant must file FAA form 7460-1 to the FAA and Department of Aviation and provide the City with the written "Determination of No Hazard".

10-21-2-7: LAND USE COMPATIBILITY REQUIREMENTS: Applications for zone changes and land use ~~or building permits~~ for properties within the boundaries of this overlay zone shall comply with the requirements of ORS 836 and this chapter as provided herein. Building permits shall also be required to conform the requirements of this chapter.

A. Noise. The Noise Contour Map for the Florence Municipal Airport is included in the ~~1997 Florence Municipal Airport Layout Plan Report – Land Use Drawing 3~~ Florence Municipal Airport, Airport Master Plan Update Final Report, February 2010 – Figure 8-1: Noise Contours, which is incorporated herein, and which shall remain on file in the Florence Community Development Department. Within the airport noise impact boundaries, land uses shall be established consistent with the levels identified in OAR 660, Division 13, Exhibit 5. A declaration of anticipated noise levels shall be attached to any subdivision or partition approval or other land use approval or building permit affecting land within airport noise impact boundaries. In areas where the noise level is anticipated to be at or above 55 DNL, prior to issuance of a building permit for construction of a noise sensitive land use (real property normally used for sleeping or as a school, church, hospital, public library or similar use), the permit applicant shall be required to demonstrate that a noise abatement strategy will be incorporated into the building design that will achieve an indoor noise level equal to or less than 55 DNL.

H. FAA Form 7460-1. Prior to Design Review approval, applicant shall consult with the FAA Seattle Airports District Office to determine if completion of FAA Form 7460-1 – Notice of Proposed Construction or Alteration is required. If so, it shall be completed and reviewed by the Oregon Department of Aviation and the Federal Aviation Administration prior to approval of ground leases and issuance of building permits.

CHAPTER 35: ACCESS AND CIRCULATION

10-35-2: VEHICULAR ACCESS AND CIRCULATION

10-35-2-5: Traffic Study Requirements. The City may require a traffic study prepared by an Oregon registered professional engineer with transportation expertise to determine access, circulation, and other transportation requirements in conformance with FCC 10-1-1-4-D, Traffic Impact Studies~~y~~.

A. The Traffic Impact Study shall:

1. Evaluate all streets where direct access is proposed, including proposed access points, nearby intersections, and impacted intersections with the state highway system.

2. Utilize the analysis procedures of the Highway Capacity Manual, latest edition.

3. Document compliance with Florence City Code, the goals and policies of the Transportation System Plan, and any other applicable standards.

4. Be coordinated with other affected jurisdictions and agencies such as Lane County, the Port of Siuslaw, and the Oregon Department of Transportation.

5. Identify mitigation measures that resolve the identified traffic safety problems, address the anticipated impacts from the proposed land use, and meet the city's adopted Level-of-Service standards. The study shall also propose funding for the proposed mitigation measures.

B. The applicant shall consult with City staff to determine the content and level of analysis that must be included in the TIS. A pre-application conference is encouraged.

C. Conditions of Approval: The City may deny, approve, or approve a development proposal with appropriate conditions needed to meet operations and safety standards and provide the necessary right-of-way and improvements to develop the future planned transportation system. Conditions of approval should be

evaluated as part of the land division and site development reviews, and may include but are not limited to:

1. Crossover or reciprocal easement agreements for all adjoining parcels to facilitate future access between parcels.

2. Access adjustments, where proposed access points do not meet the designated access spacing standards and/or have the ability to align with opposing access driveways.

3. Right-of-way dedications for future improvements.

4. Street improvements.

5. Turn restrictions such as “right in right out”.

10-35-2-7: Intersection Separation; Backing onto Public Streets. New and modified accesses shall conform to the following standards:

C. Access to and from off-street parking areas shall be designed to prevent backing onto a public street, except that single-family and duplex dwellings are exempt. ~~Existing non-conforming accesses and parking lots shall be brought into conformance, as practical, when expanded or redeveloped.~~

10-35-2-8: Access Standards. New development shall gain access primarily from local streets. Access onto arterials and collectors shall be evaluated based on access options, street classifications and the effects of new access on the function, operation and safety of surrounding streets and intersections and possible lower level street alternatives. Where such access to higher level street classification is necessary, shared driveways may be required in conformance with FCC 10-35. If vehicle access off a lower-level street is possible, then the City may prohibit access ot the higher-level street.

[Move the existing 10-36-2-19: Access Standards from Chapter 36 to this Chapter as 10-35-2-8 and renumber remaining paragraphs in this section.]

10-35-3: PEDESTRIAN ACCESS AND CIRCULATION: All new development shall be required to install sidewalks along the street frontage, unless the City has a planned street improvement, which would require a non-remonstrance agreement.

10-35-3-1: Sidewalk Requirements.

A. Requirements: Sidewalks shall be newly constructed or brought up to current standards concurrently with development under any of the following conditions:

1. Upon any new development of property.

2. Upon any redevelopment of property that expands the building square footage by 25% or more.

3. Upon any change of use that requires more than five additional parking spaces.

B. Exceptions: The Public Works Director may issue a permit and certificate allowing noncompliance with the provisions of subsection (A) of this section and obtain instead a non-remonstrance agreement for future improvements when, in the Public Works Director's determination, the construction of a sidewalk is impractical for one or more of the following reasons:

1. Sidewalk grades have not and cannot be established for the property in question within a reasonable period of time.

2. Future installation of public utilities or street paving would, of necessity, cause severe damage to existing sidewalks.

3. Topography or contours make the construction of a sidewalk impractical.

4. Physical improvements are present along the existing street that prevents a reasonable installation within the right-of-way or adjacent property.

5. If the proposed development is in a residential zoning district and there are no sidewalks within 400 linear feet; and

C. Appeals: If the owner, builder or contractor considers any of the requirements impractical for any reason, s/he may appeal the decision to the Planning Commission.

D. Timing: Sidewalks shall be constructed and approved by the Public Works Department prior to final inspection for the associated building permit. No certificate of occupancy may be issued until the required sidewalks are constructed or financially secured.

10-35-4: TRANSIT FACILITIES: Proposed uses other than single-family residences and duplexes must provide for transit riders by providing developmental improvements to accommodate current or planned transit stops pursuant to the following:

A. If proposed uses are located on a site within ¼ mile of an existing or planned transit stop, the proposed pedestrian circulation system must demonstrate a safe and direct pedestrian route from building entrances to the transit stop or to a public right-of-way that provides access to the transit stop.

B. Proposed development must accommodate on site any existing or planned transit facility, if identified in the Community Transit Plan, through one or more of the following:

1. Provide a transit passenger landing pad accessible to disabled persons.

2. Provide an easement or dedication of land to accommodate passenger seating or shelter if requested by the transit provider.

3. Provide lighting at the transit facility.

CHAPTER 36: PUBLIC FACILITIES

10-36-2: STREET STANDARDS

10-36-2-5: ~~Minimum~~ Rights-of-Way and Street Sections. Street rights-of-way and improvements shall be consistent with the Transportation System Plan and standards specified in Title 8 Chapter 2.

A. Street right-of-way and pavement widths shall be based on the following cross section standards. See individual zoning chapters for additional requirements regarding sidewalk width (for sidewalks wider than the standard 5 feet).

[Insert cross sections for the various functional classifications of streets from Technical Memo #8]

B. Modifications to the street standards identified in section A, above, may be made pursuant to Title 11 Chapter 7. Considerations based on the existing conditions along with the following factors would be reviewed as part of determining a hardship or meeting the purpose of Title 11:

1. Street classification in the Transportation System Plan
2. Anticipated traffic generation
3. On-street parking needs
4. Pedestrian and bicycle requirements based on anticipated level of use
5. Requirements for placement of utilities
6. Street lighting
7. Minimize drainage, slope, and sensitive lands impacts
8. Street tree location, when provided
9. Protection of significant vegetation, as provided for in Chapter 34
10. Safety and comfort for motorists, bicyclists, and pedestrians
11. Street furnishings (e.g., benches, lighting, bus shelters, etc.), when provided

12. Access needs for emergency vehicles
13. Transition between different street widths (i.e., existing streets and new streets).
14. Driveway Off-sets
15. Curve Radii
16. Queuing Factors

~~B~~C. Partial street improvements may be accepted only in the case of a collector or arterial street and only when requiring a full-width street improvement can not be justified based on the proportionate impact of the development on the transportation system. Where a less than full street is allowed, the minimum total paved width shall provide for two travel lanes, and for bicycle lanes if warranted.

10-36-2-10: Block Length and Block Perimeter. In order to promote efficient vehicular and pedestrian circulation throughout the city, subdivisions and site developments ~~of more than two (2) acres~~ shall be served by a connecting network of public streets and/or accessways, in accordance with the following standards (minimum and maximum distances between two streets or a street and its nearest accessway):

A. Residential Districts: Minimum of 100-foot block length and maximum ~~1,2~~600-foot length; maximum ~~3,0~~1400-foot block perimeter

B. Old Town and Main Street Districts: Block lengths shall be consistent with the existing town plat, as of June 2009.

C. General Commercial, North Commercial and Highway Commercial Districts: Minimum of 100-foot block length and maximum 600-foot length; maximum 1,400-foot block perimeter

D. Not applicable to the Industrial Districts

10-36-2-16: Sidewalks, Planter Strips, Bicycle Lanes. Sidewalks, planter strips, and bicycle lanes shall be installed in conformance with applicable provisions of the Florence Transportation System Plan, Comprehensive Plan, adopted street plans, City of Florence Standards and Specifications and the following standards:

A. Sidewalks may be placed adjacent to the street or at the property line with planter strips where practicable, or as otherwise directed by the Public Works Director.

C. In areas with high pedestrian volumes, the City may approve a minimum 12-foot wide sidewalk area, curb tight, with street trees in tree wells and / or landscape planters.

D. Bicycle lanes shall ~~be a minimum of 6 feet in width and~~ be constructed on all newly constructed arterial and collector streets as well as all arterial and ~~all~~ collector streets that are widened to provide additional vehicular capacity, ~~s~~ as indicated in the TSP, unless otherwise designated.

E. Sidewalks shall be provided on both sides of the street for all arterial and collector streets. Sidewalks shall be provided on at least one side of the street for local streets. Exceptions may be granted if the City determines that hillsides, drainage facilities, ditches, waters of the state, or natural landscapes are to be preserved, then sidewalk on one side or a mult-use path may be approved. Sidewalks are not required on T-courts (hammer-head).

~~F. In no instance shall a planter strip be wider than 7-feet at the intersection. This may require the sidewalk to taper from the property line alignment to within 7-feet of the curb.~~

G. Where practical, sidewalks shall be allowed to meander around existing trees if in conformance with the requirements of the Americans with Disabilities Act.

H. Maintenance of sidewalks and planter strips in the right-of-way is the continuing obligation of the adjacent property owner.

~~**10-36-2-19: Access Standards.** New development shall gain access primarily from local streets. Access onto arterials and collectors shall be evaluated based on access options, street classifications and the effects of new access on the function, operation and safety of surrounding streets and intersections. Where such access to a higher level street classification is necessary, shared driveways may be required in conformance with FCC 10-35. If vehicle access off a lower-level street is possible, then the City may prohibit access to the higher-level street.~~

Appendix D
Community Transit
Plan Amendments

Appendix D
Ordinance No. 5, Series 2012
Community Transit Plan Amendments

Additions are shown in double underline and deletions shown as strike-out.
[Change Directions are shown in Bold, Red within Brackets]

- **[Amend the Florence Community Transit Plan as follows:]**

The following Goals come from Chapter Six of the Community Transit Plan.

Mission
Provide safe, reliable and cost effective transit services that meet the widest possible range of community needs.

Foundation Goals
1. Provide transit service that meets the widest possible range of community needs within funding constraints.
   - o Establish a visible and accessible transit service open to the general public that also targets the needs of people who are older or have disabilities;
   - o Provide for vehicle accessibility; full ADA compliance
   - o Maintain ~~Develop and implement~~ an advertising and marketing program to inform Florence residents of transit availability.

2. Do not displace existing transportation services that are efficient and effective.

3. Meet existing and future transit demand; expand transit service over time to meet increasing needs.

4. Respond to and modify service as necessary to effectively meet the needs of seniors and the disabled.

5. Provide effective service to the general public in Florence ~~and surrounding communities~~.

6. Maintain a high level of customer service and good rider and community relations.

7. Provide stable and consistent operation and service within a local transit environment.

8. Maximize service efficiency while maintaining standards for safety and reliability
   - o Provide reliable service: good availability, short wait times.
   - o Provide safe service: low/no vehicular accidents, no passenger loading accidents.

9. Manage and provide local transit services in an efficient and cost-effective way.
   - o Maintain current levels of public funding (at a minimum).
   - o Adhere to an operations plan realistic to existing community resources.
   - o Minimize operating costs: (costs per mile, costs per passenger).
   - o Maintain vehicles for safety and reliability.
   - o Provide for a productive transit service: (passengers per vehicle mile).
   - o Minimize subsidy requirements: (fares and agency fees)
   - o Balance costs and revenues: (avoid significant cost overruns)
   - o Pursue a financing strategy to take advantage of state and federal funding opportunities.
10. Plan for ~~short-term (1 year) and~~ the long term (ten years).

11. Design a transit system to be attractive to future riders.

12. Address seasonal transportation needs.

~~Short-Term Goals~~

~~1. Establish general public service by July 1, 2000 (to meet FTA Section 5311 funding requirements).~~
~~2. Explore shuttle opportunities targeting (shopping) trips from existing voucher program (shopper shuttles).~~
~~3. Provide a combination bus-taxi system; establish a limited Dial-A-Ride service.~~
~~4. Provide a service to general public (workers) in combination with trips from voucher program.~~
~~Pursue (former) F.A.C.T. vehicle available in Eugene.~~

[These goals no longer apply with the Rhody Express in operation.]

Long-Term Goals

~~5.~~1. ~~Develop a combination service: comprehensive deviated route or fixed route service, and Taxi or Dial-A-Ride Service (door-to-door).~~At a minimum, continue the current fixed-route bus service (with limited deviations) that provides hourly service between 10 am and 6 pm five days a week.

2. Continue to meet ADA requirements for complementary paratransit by providing Dial-A-Ride Service (door to door).

3. Maintain current schedule as ridership increases by minimizing diversions onto private property such as shopping centers and creating designated bus stops (instead of allowing flag stops).

~~6.~~4. As resources are available, expand Rhody Express service to include Saturday service first, then expanded morning hours (starting earlier in the day).

~~7.~~5. In the longer term future and in response to growth, obtain a second bus in order to expand the service area and provide more frequent service.

~~8.~~6. ~~Develop a Transit Center as part of service delivery system (transit hub or dispatch center).~~Establish major transit stops at Fred Meyer, Safeway/Dunes Village Shopping Center, Peace Harbor Hospital, and City Hall (Old Town and transfer point to Porter Stage) that include a paved ADA-compliant landing pad, a shelter, and lighting.

7. Conduct periodic transit surveys to determine ridership preferences in order to make route adjustments and prioritize locations for landing pads and bus shelters.

~~9.~~8. ~~Develop an Old Town summer tourist shuttle system; explore the use of trolleys.~~

~~10.~~9. ~~Pursue a public transit service connection to Eugene, (fill inter-city gaps not served by Porter Stage Lines and Greyhound Bus Lines).~~ *[moved part of policy to bullet below]*

~~11.~~10. Work collaboratively with other entities to ~~E~~establish regional transit connections north to ~~the north~~Yachats to complete the coastal link.~~, south, and east of Florence~~.

~~12. Determine feasibility of forming an independent transportation district, or establishing a local-based subsidiary of Lane Transit District.~~

~~13.~~11. Meet the City's long-term economic development goals (by serving tourists and the visiting population).

~~14.~~12. Provide transportation services for conferences at the Florence Events Center.

~~15.~~13. Provide for after-hours and/or evening transit service.

[Add the Transit Plan from the Transportation System Plan.]