

**CITY OF LA GRANDE
“COMPREHENSIVE PLAN”
ORDINANCE NUMBER 3058
SERIES 2007**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF LA GRANDE,
OREGON, AMENDING THE CITY OF LA GRANDE LAND DEVELOPMENT CODE
ORDINANCE NUMBER 3047, SERIES 2006, AND COMPREHENSIVE PLAN
ORDINANCE NUMBER 3038, SERIES 2005, AND THE TRANSPORTATION SYSTEM
PLAN TO INCORPORATE THE LA GRANDE BICYCLE AND PEDESTRIAN
IMPROVEMENT PLAN**

WHEREAS, the City of La Grande has conducted an evaluation of the entire bicycle and pedestrian transportation system throughout the City of La Grande and its Urban Growth Boundary; and,

WHEREAS, a Bicycle and Pedestrian Improvement Plan has been prepared, which will replace the bicycle and pedestrian elements of the 1999 La Grande/Island City Transportation System Plan (TSP); and,

WHEREAS, the Goals of the City of La Grande Comprehensive Plan Ordinance Number 3038, Series 2005, will be amended to include Goals, Policies and other elements necessary to support and encourage the implementation of the Plan elements, and,

WHEREAS, the City of La Grande Land Development Code will be amended to include implementation standards, which are necessary for implementing some of the Plan elements;

THE CITY OF LA GRANDE ORDAINS AS FOLLOWS:

SECTION 1. The City of La Grande Land Development Code Ordinance Number 3047, Series 2006, is amended as referenced in Appendix E, Pages A-57 thru A-62 of the La Grande Bicycle and Pedestrian Improvement Plan.

SECTION 2. The City of La Grande Comprehensive Plan Ordinance Number 3038, Series 2005, is amended as referenced in Appendix E, Pages A-51 thru A-57 of the La Grande Bicycle and Pedestrian Improvement Plan.

SECTION 3. The City of La Grande Comprehensive Plan Ordinance Number 3038, Series 2005, *1999 La Grande/Island City Transportation System Plan* is amended to incorporate the La Grande Bicycle and Pedestrian Improvement Plan as a supporting document, and replacing all bicycle and pedestrian elements of the 1999 La Grande/Island City Transportation System Plan, as provided in Exhibit “A”, attached hereto and incorporated herein as if fully set forth.

SECTION 3. The City Council adopts the Findings of Fact and Conclusions of Law in the Planning Commission Decision on April 24, 2007, as its own Findings and Conclusions.

SECTION 4. If any court of competent jurisdiction declares any Section of this Ordinance invalid, such decision shall be deemed to apply to that section only, and shall not affect the validity of the Ordinance as a whole or any part thereof other than the part declared invalid.

SECTION 5. This Ordinance shall become effective thirty (30) days after its adoption by the City Council of the City of La Grande, Oregon and its approval by the Mayor; specifically, July 6, 2007.

ADOPTED this Sixth (6th) day of June 2007, by six (6) of six (6) Councilors present and voting in the affirmative.

APPROVED this Sixth (6th) day of June, 2007.

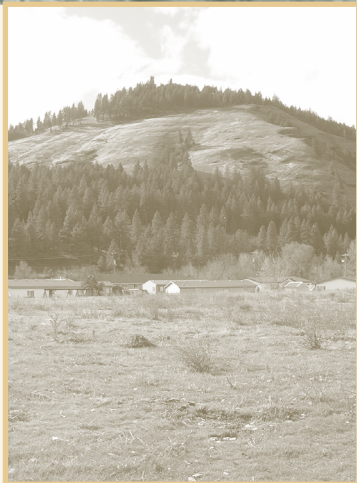

Colleen F. Johnson, Mayor

ATTEST:


Alexandra Norgan Lund, City Recorder

APPROVED AS TO FORM AND CONTENT:

 for
Ricker and Roberson, City Attorneys



La Grande

Pedestrian & Bicycle Improvement Plan



CITY of LA GRANDE
THE HUB OF NORTHEASTERN OREGON

June 2007

Acknowledgements

The City of La Grande appreciates the efforts of the numerous residents who participated in the development of this Plan. Their creativity, energy, and commitment to the future of La Grande were the driving force behind this planning effort. In addition, the following citizens, City staff, and other agency and organization members significantly contributed to the development of the Pedestrian and Bicycle Improvement Plan.

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Table of Contents

Executive Summary	vii
1. Introduction	1-1
Benefits of Walking and Bicycling	1-1
Plan Overview	1-2
Goals, Policies, and Implementation Strategies.....	1-3
Goal	1-3
Policies.....	1-3
Implementation Strategies.....	1-3
Plan Organization.....	1-5
Public Involvement	1-5
2. Existing Conditions	2-1
Pedestrian Facilities – An Overview	2-1
Existing Pedestrian Facilities	2-1
System Deficiencies	2-4
Bicycle Facilities – An Overview	2-6
Existing Bikeways	2-6
Bicycle Parking	2-10
System Deficiencies	2-10
Pedestrian and Bicycle Destinations	2-12
Connections with Transit.....	2-12
Connections to Schools and EOU	2-13
EOU, Central School, La Grande Middle School, La Grande High School	2-13
Greenwood School	2-14
Willow School	2-15
3. Recommended Pedestrian and Bicycle Network	3-1
Introduction	3-1
Recommended Pedestrian Network	3-1
Sidewalks.....	3-1
Intersection Improvements	3-3
Streetscape Improvements	3-5
Shared-use Paths.....	3-5
Recommended Bicycle Network.....	3-10
Bicycle Lanes.....	3-10
Shoulder Bikeways	3-10
Shared Roadways/Bicycle Boulevards	3-12
Project Prioritization	3-14
Project Costs.....	3-15
4. Recommended Pedestrian and Bicycle Programs	4-1
Introduction	4-1

Safe Routes to School	4-1
Why Do We Need SR2S?	4-1
What are the Benefits of a SR2S Program?	4-2
Local Coordination and Involvement.....	4-2
Funding	4-4
Bicycle Parking	4-5
Bicycle/Pedestrian Access to Transit	4-6
Providing Good Sidewalks and Bikeways to Transit Stops.....	4-7
Addressing Bicycle and Pedestrian Needs at Transit Centers	4-7
Providing Secure Bicycle Parking	4-7
Allow Bicycles on Transit	4-8
Alternative Transportation Advisory Committee	4-8
Wayfinding/Signing Program	4-9
Spot Improvement Program.....	4-9
Becoming a Bicycle Friendly Community	4-9
What Does it Take?	4-10
Strategies.....	4-10
Action Plan for Bicycle-Friendly Communities.....	4-10
Sidewalk Infill Program	4-11
Potential Implementation Process	4-12
Accommodating People with Disabilities.....	4-12
Developing an ADA Transition Plan	4-12
Education Programs	4-15
School-based Education Programs	4-15
Safety Handbook	4-16
Educate Motorists, City Staff, Maintenance, and Construction Crews	4-16
Bicycle Patrol Unit	4-16
Encouragement Programs	4-17
Facilitate the Development of Employer Incentive Programs	4-17
Community Bikeway/Walkway Adoption	4-17
Create a Multi-Modal Access Guide.....	4-17
Work with Businesses to Develop Incentives for Bicycling and Walking.....	4-18
Walk- and Bike-to-School Days.....	4-18
Bike Fairs, Organized Rides, and Races.....	4-18
TravelSmart™ Programs.....	4-19
Enforcement Programs.....	4-19

5. Design Guidelines and Standards 5-1

Introduction	5-1
Sidewalks.....	5-1
Width	5-2
Surface	5-2
Addressing Obstructions	5-3
Alternatives to Sidewalks.....	5-4
Bicycle Lanes	5-4
Other Bicycle Lane Treatments.....	5-5
Shoulder Bikeways	5-7
Shared Roadways/Bicycle Boulevards	5-7

Bicycle Boulevards	5-8
Bicycle Boulevard Applications.....	5-8
Recommended Street Standards.....	5-15
ODOT Street Design Standards.....	5-15
City of La Grande Street Design Standards	5-16
Transition Zones.....	5-17
Intersection Treatments	5-18
Signal Timing Evaluation and Modification	5-18
Innovative Pedestrian Signal Features.....	5-18
Curb Ramps.....	5-19
Crosswalks.....	5-19
Signals and Signal Warrants	5-20
Full Signalized Crossings.....	5-20
Half Signalized Crossings.....	5-22
Pedestrian-Ways.....	5-23
Shared-Use Paths	5-23
Shared-Use Paths along Roadways	5-25
Sidewalks as Shared-use Paths.....	5-26
Path/Roadway Crossings	5-26
Trailheads	5-33
Path Amenities.....	5-35
Path Safety and Security.....	5-36
Internal Circulation Standards.....	5-38
Automobile Infrastructure	5-38
Pedestrian Infrastructure	5-39
Bicycle Infrastructure	5-39
Bicycle Parking	5-40
Short-Term Bicycle Parking.....	5-40
Long-Term Bicycle Parking.....	5-43
Transit Stops	5-44
Sidewalk and Path Approaches.....	5-44
Landing Pads.....	5-44
Bus Pullouts	5-44
Bus Shelters	5-44
Railroad Crossings.....	5-45
Maintenance Guidelines.....	5-45
6. Funding Sources	6-1
Federal Funding Sources.....	6-1
SAFETEA-LU	6-1
Community Development Block Grants	6-3
Rivers, Trails and Conservation Assistance Program.....	6-3
Land and Water Conservation Fund.....	6-3
Transportation, Community and System Preservation Program.....	6-4
State Funding Sources	6-4
Statewide Transportation Improvement Program	6-4
Oregon Revised Statute 366.514.....	6-4
Oregon Transportation Infrastructure Bank.....	6-4

Measure 66 Funds – Oregon State Lottery	6-5
Special Transportation Fund	6-5
Bicycle and Pedestrian Program Grants	6-5
Bicyclist Safety Mini-Grant Program	6-5
Pedestrian Safety Mini-Grant Program	6-5
Local Funding Sources	6-6
Local Bond Measures	6-6
Tax Increment Financing/Urban Renewal Funds.....	6-6
System Development Charges/Developer Impact Fees	6-6
Street User Fees	6-6
Local Improvement Districts (LIDs).....	6-7
Business Improvement Districts.....	6-7
Other Local Sources	6-7
Other Funding Sources	6-7
American Greenways Program	6-7
Appendix A. Facts and Findings Report	A-1
Appendix B. Potential Traffic Impacts of Recommended Pedestrian and Bicycle Improvements	A-17
Appendix C. Project Evaluation Matrix	A-29
Appendix D. Review of Plans, Policies, Guidelines, And Standards	A-37
Appendix E. Recommended Comprehensive Plan and Land Development Code Changes.....	A-51

List of Figures

Figure 3-1.	Concept Depicting Potential Cove Avenue and Albany Street Phase I Improvements ...	3-3
Figure 3-2.	Concept Depicting Potential Cove Avenue and Albany Street Phase II Improvements ...	3-4
Figure 3-3.	Concept Depicting Potential Spruce Street and “V” Avenue Crossing Improvements ..	3-4
Figure 3-4.	Recommended Bicycle Boulevard Applications by Street	3-13
Figure 5-1.	Driveway Apron Utilizing a Planter Strip	5-3
Figure 5-2.	Sidewalk Wrapped around Driveway.....	5-3
Figure 5-3.	Entire Sidewalk Dips at Driveway.....	5-3
Figure 5-4.	Bicycle Lane Pavement Stencil and Arrow	5-4
Figure 5-5.	Bicycle-Safe Drainage Grates.....	5-5
Figure 5-6.	Potential Blue Bike Lane Locations.....	5-6
Figure 5-7.	Oregon 82/Island Avenue at I-84 (Existing Conditions).....	5-6
Figure 5-8.	Oregon 82/Island Avenue at I-84 (with Potential Blue Bike Lane).....	5-6
Figure 5-9.	Existing Bicycle Lane Striping on Oregon 82/Island Avenue	5-7
Figure 5-10.	Potential Supplemental Striping to Clarify Bicycle Lanes	5-7
Figure 5-11.	Wayfinding Signage Concept.....	5-8
Figure 5-12.	Warning Sign.....	5-9
Figure 5-13.	Directional pavement marking	5-9
Figure 5-14.	Shared Lane Marking.....	5-9
Figure 5-15.	Shared Lane Marking Placement Guidelines	5-10
Figure 5-16.	Concept Depicting Shared Lane Markings on Spruce Street.....	5-10

Figure 5-17.	Loop Detector Marking	5-10
Figure 5-18.	Intersection with Curb Extensions Installed	5-11
Figure 5-19.	Crossing with a Median/Refuge Island	5-11
Figure 5-20.	Chicane	5-12
Figure 5-21.	Traffic Circle	5-12
Figure 5-22.	Speed Hump	5-12
Figure 5-23.	Choker at Entrance of Two-Way Local Street	5-13
Figure 5-24.	Traffic Diverters: Median Island (Left) and Bike/Ped Only Refuge on NE 16th and Tillamook in Portland (Right).	5-13
Figure 5-25.	Sample Bicycle Boulevard Treatments	5-14
Figure 5-26.	Pedestrian-Ways (or "Accessways")	5-23
Figure 5-27.	Shared-Use Paths	5-24
Figure 5-28.	Directional and Trail Etiquette Signage	5-27
Figure 5-29.	Type 2 Crossing Treatment	5-30
Figure 5-30.	Major Trailhead	5-33
Figure 5-31.	Trailhead with Small Parking Area	5-34
Figure 5-32.	Informational Kiosk and Informational Sign	5-34
Figure 5-33.	Inverted "U" Rack	5-41
Figure 5-34.	Ribbon, Spiral, and Freestanding Racks	5-41
Figure 5-35.	Cycle-Safe Lockers	5-43

List of Tables

Table 3-1.	Planning Level Cost Estimates for Tier 1, 2, and 3 Projects	3-15
Table 3-2.	Planning Level Unit Cost Estimates for La Grande Projects	3-16
Table 3-3.	Recommended Pedestrian and Bicycle Projects	3-18
Table 5-1.	ODOT HDM Bicycle/Pedestrian Standards	5-15
Table 5-2.	City of La Grande Existing Street Design Standards	5-17
Table 5-3.	Shared-Use Path Design Recommendations	5-25
Table 5-4.	Summary of Path/Roadway At-Grade Crossing Recommendations	5-32
Table 5-5.	Safety Recommendations	5-36
Table 5-6.	Bicycle Rack Placement Guidelines	5-42
Table 5-7.	Maintenance Guidelines	5-45

List of Maps

Map 2-1.	Existing Pedestrian Facilities in La Grande	2-2
Map 2-2.	Existing Bicycle Facilities in La Grande	2-9
Map 3-1.	Proposed Pedestrian System in La Grande	3-2
Map 3-2.	La Grande Greenway Corridor Subarea Map	3-8
Map 3-3.	Eastern Oregon University Subarea Map	3-9
Map 3-4.	Proposed Bicycle System in La Grande	3-11

EXECUTIVE SUMMARY

Transportation and recreation are critical facets of life in La Grande, and necessitate parks and natural areas, play and sports facilities, recreational amenities and programs, public transit services and connections, and on-street and off-street bikeways and walkways. These elements provide benefits to residents across the spectrum of age, economic status, physical ability, neighborhood location, and daily activity set. These elements also offer residents, employees, and visitors complete community connectivity and interrelated opportunities work, play, shopping, and exercise for in and between every neighborhood in the city.

The Pedestrian and Bicycle Improvement Plan replaces the bicycle and pedestrian element of the 1999 La Grande/Island City Transportation System Plan (TSP). The goal of this Plan is to provide a detailed assessment of La Grande's existing walking and bicycling environment, with a more comprehensive list of projects and strategies for system-wide improvements.



Sidewalks, bicycle lanes, shoulder bikeways, shared roadways and shared-use paths comprise La Grande's existing pedestrian and bicycle network. Obstacles currently facing pedestrian and bicycle travel generally include:

- Maintenance issues
- Poor pavement conditions in some areas
- Lack of well-defined routes
- Inconsistent application of sidewalk standards (e.g., lack of required planter strips in some areas)
- Fragmented sidewalk network
- Conflicts between pedestrians/cyclists and other transportation users
- Difficult pedestrian/bicyclist crossings at intersections and other locations
- Natural and man-made barriers
- Lack of adequate bicycle parking facilities in some areas
- Difficult pedestrian/bicycle connections to schools and transit

This Plan lays out a comprehensive system of recommended bikeways and walkways connecting key pedestrian and bicycle destinations and surrounding areas. The recommended system was developed based on input from City staff, stakeholder groups and La Grande residents. The network also builds upon recommendations from previous planning efforts, including the La Grande/Island City TSP, the Union County TSP, and the Downtown Design Plan. Current on-going neighborhood planning efforts also contributed to the recommended pedestrian and bicycle network. The system includes a variety of facilities including sidewalks, bicycle lanes, shoulder bikeways, an expanded shared roadway/bicycle boulevard network, and shared-use paths. The recommended system also includes a variety of intersection and streetscape improvements.

Equally important to the walkway and bikeway network are support programs. Additional strategies for improving walking and bicycling in La Grande include:

- Developing a Safe Routes to School program to encourage children to walk and bicycle to school
- Improving bicycle parking facilities
- Improving pedestrian/bicycle access to transit
- Creating an alternative transportation advisory committee
- Developing a wayfinding/signing program
- Developing a “spot improvement” program for small-scale capital upgrades
- Developing a sidewalk infill program
- Creating an ADA Transition Plan (a plan for getting public transportation infrastructure in compliance with the 1990 Americans with Disabilities Act)
- Developing education programs (e.g., bicycle/pedestrian safety training)
- Developing encouragement programs (e.g., employer incentives, multi-modal access guide, bicycle/pedestrian events)
- Enforcing traffic laws relating to pedestrians and cyclists

A variety of potential sources could help fund La Grande’s future pedestrian and bicycle system. Funding could potentially come from Federal sources (including the recently-authorized SAFETEA-LU transportation bill); State sources (including grant programs); and local sources.

When implemented, the Pedestrian and Bicycle Improvement Plan will place La Grande among Oregon’s best communities for walking and bicycling.

La Grande

Pedestrian & Bicycle Improvement Plan



1. INTRODUCTION

La Grande is situated in Northeast Oregon's Grande Ronde Valley between the Blue and Wallowa Mountains. Located along the historic Oregon Trail and incorporated in 1885, its name reflects an early Frenchman's description of the surrounding valley. Today, La Grande is the county seat of Union County and home to Eastern Oregon University.

The City of La Grande recognizes that bicycling and walking are an important part of daily transportation for residents, commuters, and other visitors to the city. This Plan is for all residents who desire to bicycle or walk to school or work, improve their level of daily physical activity, or go for a family bicycle ride to the park, library, or downtown.



Downtown La Grande

Benefits of Walking and Bicycling

Walking and bicycling are healthy, efficient, low-cost modes of travel, available to nearly everyone. Walking is the most basic form of transportation. Almost everyone is a pedestrian at some point in the day, since walking is often the quickest way to accomplish short trips in urban areas. Pedestrians also include persons using wheelchairs and other forms of mobility devices. Bicycling also provides many community benefits. Bicycling can help reduce traffic congestion, improve air quality, and improve physical fitness. This mode of transportation is also within reach for many people who cannot afford an automobile.



Walking and bicycling help increase physical fitness.

Walking and bicycling help develop and maintain "livable communities," make neighborhoods safer and friendlier, save on motorized transportation costs, and reduce transportation-related environmental impacts, auto emissions, and noise. They create transportation system flexibility by providing alternative mobility options, particularly in combination with

transit systems, to people of all ages and abilities. Active living that integrates walking and bicycling into daily activities is key to improving public health and reducing Oregon's obesity crisis. Planners and city leaders are encouraged to create more walkable and bikeable communities that promote healthier lifestyles.

Walking and bicycling are important to the health of all those living and working in La Grande, not just to those doing the walking or cycling. People choosing to ride or walk rather than drive are typically replacing short automobile trips, which contribute disproportionately high amounts of pollutant emissions to the environment. Since bicycling and walking contribute no pollution, require no external energy source, and use land efficiently, they effectively move people from one place to another without adverse environmental impacts.

Bicycling and walking require less space and infrastructure compared with automobile facilities. Improvements made for bicyclists often result in better conditions for other transportation users as well. For instance, paved shoulders, wide curb lanes, and bicycle lanes not only provide improved conditions for bicyclists, but also create a safe location for disabled vehicles to stop.

Walking and bicycling are also good choices for families. A bicycle enables a young person to explore her neighborhood, visit places without being driven by her parents, and experience the freedom of personal decision-making. More trips by bicycle and on foot mean fewer trips by car. In turn, this means less traffic congestion around schools and in the community, and less time parents spend driving their children.



Roadway shoulders accommodate bicycle travel and also provide a safe location for disabled vehicles to stop.

Bicycling and walking create opportunities to speak to neighbors and put more "eyes on the street" to discourage crime and violence. Communities with high levels of walking and bicycling often have lower crime rates, and are generally attractive and friendly places to live.

The extent of bicycling and walking in a community has been described as a barometer of how well that community is advancing its citizens' quality of life. Streets that are busy with bicyclists and walkers are working at a human scale, fostering a sense of neighborhood and community.

Plan Overview

The Pedestrian and Bicycle Improvement Plan replaces the bicycle and pedestrian element of the 1999 La Grande/Island City Transportation System Plan (TSP). The goal of this Plan is to provide a detailed assessment of La Grande's existing walking and bicycling environment and a more comprehensive list of projects and strategies for system-wide improvements. This plan incorporates most of the projects proposed by the TSP, in addition to other projects and programs that further enhance bicycling and walking in La Grande.



Goals, Policies, and Implementation Strategies

The goal sets forth the long-range vision of what the Pedestrian and Bicycle Improvement Plan is trying to achieve. Policies demonstrate what the City of La Grande will do to reach the goal, while implementation strategies identify specific measures that need to be taken in order to implement the policies.

Goal

To promote non-motorized travel and provide a safe, interconnected system of pedestrian and bicycle facilities in La Grande.

Policies

The City of La Grande shall:

1. Continue to improve, expand, and maintain pedestrian and bicycle facilities, as needed, throughout the community.
2. Ensure that pedestrian and bicycle networks provide direct connections between major activity centers (e.g., downtown La Grande, EOU, area schools, parks, and recreation facilities), and minimize conflicts with other transportation modes.
3. Regard facilities for pedestrians and bicyclists as important parts of the overall transportation system and not just recreational facilities.
4. Increase the bicycle and pedestrian mode share throughout the City and improve bicycle and pedestrian access to the City's transportation system.

Implementation Strategies

1. Determine the actual location, design, and routing of pedestrian and bicycle facilities with user safety, convenience, and security as primary considerations.
2. Schedule and coordinate all pedestrian and bicycle improvements with the City's on-going Capital Improvement Program.
3. Establish pedestrian and bicycle construction standards and incorporate them into the City's right-of-way design standards.
4. Continue to provide sidewalks on both sides of all streets with appropriate buffering (e.g., planter strips) wherever possible as part of new roadway construction, roadway reconstruction, and development of other projects affecting City right-of-way.
5. Establish a Sidewalk Infill Program to identify sidewalk gaps, and develop strategies, project prioritization criteria and funding for completing these gaps.



6. Develop a comprehensive network of shared-use paths to serve the transportation and recreational needs of residents and visitors.
7. Retrofit existing pedestrian and bicycle facilities to current standards (where possible) to promote safety, connectivity, and consistency, as funds become available.
8. Require that all walkways and bikeways be constructed in a manner that addresses environmental conditions, such as natural, cultural, and historical features.
9. Discourage the use of cul-de-sac street designs that lack pedestrian and bicycle connectivity when feasible alternatives exist to establish a system of connecting local streets.
10. Require pedestrian and bicycle connections within and between developments to provide convenience and safety for pedestrians and bicyclists.
11. Revise appropriate Land Development Code sections to require pedestrian connections between building entrances, streets, and adjoining buildings.
12. Require development of secondary walkways and bikeways internal to individual developments, consistent with the Oregon Transportation Planning Rule.
13. Develop an Americans with Disabilities Act (ADA) Transition Plan to identify strategies and priorities for upgrading the City's current public transportation infrastructure to accommodate persons with disabilities.
14. Establish a routine maintenance schedule for pedestrian and bicycle facilities, including bikeway sweeping and cracked sidewalk repair.
15. Develop and fund a "Spot Improvement" Program to respond quickly to location-specific bicycle/pedestrian infrastructure improvement needs.
16. Coordinate with the La Grande School District to develop a Safe Routes to School Program to promote walking and bicycling as viable travel modes to school.
17. Develop a safe, secure and convenient network of short- and long-term public bicycle parking facilities, and enforce Land Development Code bicycle parking requirements for private development.
18. Develop seamless pedestrian/bicycle connections to the Community Transit system through improved crossings, connections, and transit stops.
19. Develop education programs to increase the awareness of pedestrian and bicyclist needs and rights.



20. Develop encouragement programs to promote walking and bicycling as convenient, healthy, safe and viable transportation modes.
21. Develop enforcement programs to ensure pedestrians, cyclists, and motorists obey traffic laws.
22. Create a bicycle and pedestrian advisory committee to monitor, advise, and coordinate the efforts of local and regional agencies to develop a convenient, safe, accessible and appealing pedestrian and bicycle system.
23. Identify and apply for all available state and federal grant funding opportunities to fund the system improvements identified in the Pedestrian and Bicycle Improvement Plan.

Plan Organization

The Plan begins with a description and assessment of La Grande's existing pedestrian and bicycle facilities (Section 2). Based on the assessment, a recommended pedestrian and bicycle network is presented in Section 3, including a detailed list of proposed projects. Along with a recommended network of facilities, the Plan discusses recommended pedestrian and bicycle programs (Section 4) highlighting other methods for addressing walkers' and cyclists' needs. The design guidelines and standards section (5) expands on the facility types recommended for La Grande and also provides additional information on roadway crossings, and signing and striping facilities for bicyclists and pedestrians. Finally, Section 6 identifies potential strategies for funding the recommended pedestrian and bicycle projects and programs. Appendices at the end of the report include a Facts and Findings Report documenting existing traffic operations at key intersections (Appendix A), along with a discussion of potential traffic impacts associated with the proposed pedestrian/bicycle improvements (Appendix B). Additional appendices include a detailed project evaluation matrix (Appendix C); a summary of relevant plans, policies, guidelines and standards (Appendix D); and recommended changes to La Grande's Comprehensive Plan and Land Development Code (Appendix E).

Public Involvement

Stakeholder groups, advisory committees, and La Grande residents played a major role in developing the Pedestrian and Bicycle Improvement Plan. A Technical Advisory Committee (TAC) provided oversight in the Plan's development. Various community members comprised the TAC, including representatives from the City, the La Grande School District, Oregon Department of Transportation (ODOT), Union County, Eastern Oregon University (EOU), Community Transit, individuals representing visually- and mobility-impaired interests, and walking and bicycling enthusiasts.



Various stakeholders participated in a citywide bicycle tour in September 2006.



The City also formed a stakeholder group to provide input on the existing pedestrian and bicycle network and contribute ideas for system improvements. This group was comprised of representatives from the La Grande Chamber of Commerce, Downtown Business Association, as well as cycling clubs and bicycle shop owners. In September 2006, these groups accompanied City staff and other project team members on citywide bicycling and walking tours that highlighted areas with good walking and bicycling environments, as well as areas needing improvements.

Several outreach events were held to solicit widespread community input. Community open houses were held in September and November 2006 to provide opportunities for residents to “sound off” on La Grande’s existing walking and bicycling environment, and to also offer suggestions for making the system better. A joint Planning Commission/City Council/public workshop was held in February 2007. The project team catalogued all comments from these events and made changes to the Plan where appropriate.



La Grande

Pedestrian & Bicycle Improvement Plan



2. EXISTING CONDITIONS

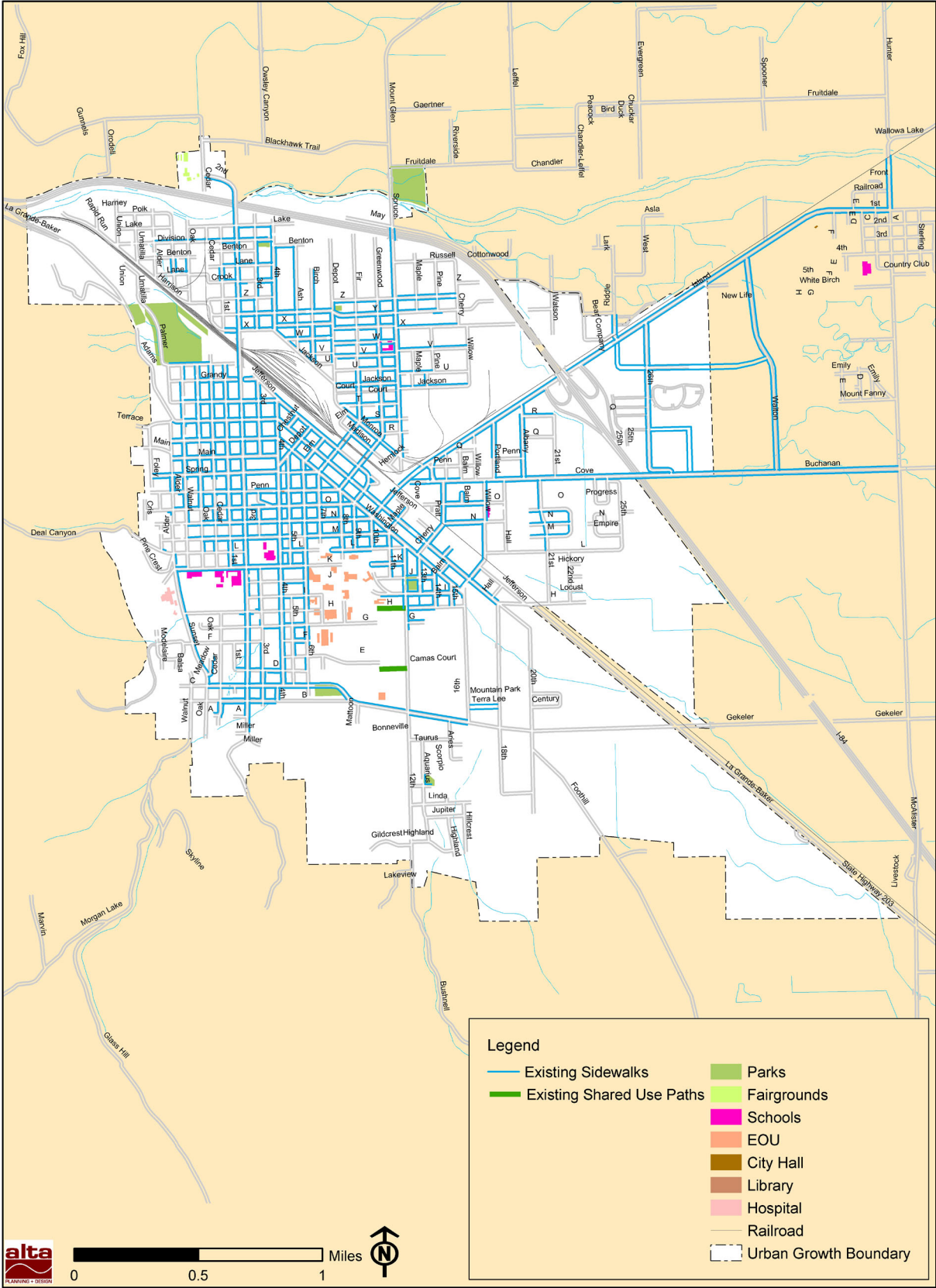
Pedestrian Facilities – An Overview

The Oregon Bicycle and Pedestrian Plan defines pedestrian facilities as any facilities utilized by a pedestrian. Pedestrian travel is accommodated and enhanced by walkways, traffic signals, crosswalks, curb ramps, and other features like illumination or benches. La Grande has several different types of “walkways”, which are defined in the Oregon Bicycle and Pedestrian Plan as “transportation facilities built for use by pedestrians and persons in wheelchairs.” Walkways include the following facilities:

- **Sidewalks:** The most common type of walkway, sidewalks generally parallel roadways. Sidewalks have a hard, smooth surface (e.g., concrete), with separation from the roadway typically consisting of a curb and/or planter strip.
- **Shared-use Paths:** Shared-use paths are used by various non-motorized users, including pedestrians, cyclists, in-skaters, and runners. Shared-use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets Americans with Disabilities Act (ADA) standards.
- **Roadway Shoulders:** Roadway shoulders often serve as pedestrian routes in rural Oregon communities. On roadways with low traffic volumes (e.g., less than 3,000 Average Daily Traffic (ADT) volumes), roadway shoulders are often adequate for pedestrian travel. Similar to “shoulder bikeways” (described later), these roadways should have shoulders wide enough to accommodate both pedestrians and bicyclists.

Existing Pedestrian Facilities

The Existing Pedestrian Facilities Map (Map 2-1) on the following page depicts La Grande’s current pedestrian network. Sidewalks comprise the vast majority of existing walkways within the city.



Map 2-1. Existing Pedestrian Facilities in La Grande



Sidewalks

La Grande currently benefits from a nearly complete sidewalk network in many parts of the city. Sidewalks exist on both sides of most streets within downtown, in adjacent neighborhoods, and along some major roadways. Within the city's older residential neighborhoods, streets generally include five-foot sidewalks and eight- to 14-foot planter strips on both sides. In downtown La Grande, sidewalks are five to 12 feet wide on U.S. 30/Adams Avenue. In outlying areas, many streets either have sidewalks on one side only, or lack sidewalks altogether. Recent street improvement projects in these areas have added sidewalks to existing streets (e.g., 26th Street) and on new streets (e.g., Mulholland Drive).

Most areas of downtown La Grande are very pedestrian friendly. U.S. 30/Adams Avenue, Washington Avenue, and most side streets have sidewalks in good condition with a variety of complimentary pedestrian facilities including textured crosswalks, pedestrian signals, ADA-accessible curb ramps, pedestrian-scale lighting, and sidewalk amenities like benches and trash receptacles. Most of Jefferson Avenue, however, has sidewalks on one side, or lacks sidewalks altogether. La Grande's Downtown Design Plan includes a comprehensive list of recommended streetscape treatments to improve the pedestrian environment, including adding curb extensions, informational kiosks, and reducing pedestrian/vehicle conflicts by eliminating driveways where appropriate.

In addition to a list of specific sidewalk projects, the La Grande/Island City TSP proposes strategies for improving the city's sidewalk environment, including:

- Constructing sidewalks on arterials and collector streets where they currently do not exist
- Providing continuous sidewalks on downtown streets
- Replacing broken sidewalks
- Widening existing sidewalks to meet the City's minimum width standard



Sidewalk on Willow Street near U.S. 30/Adams Avenue



Wide sidewalks with pedestrian features on U.S. 30/Adams Avenue in downtown La Grande



Sidewalk missing curb ramp and detectable warning strips on Washington Avenue



The quality of intersections from a pedestrian perspective varies by location. Marked crosswalks and curb ramps exist at most major intersections on Arterial streets and within downtown La Grande. Most signalized intersections include pedestrian-activated signals or have pre-timed signal phasing allowing pedestrian crossing movements concurrent with parallel vehicle movements. Conditions along Collector and Local streets also vary by location. Marked crosswalks exist at intersections near schools and other pedestrian generators. Some intersections have relatively new curb ramps with detectable warning strips, but most intersections either lack curb ramps or have existing ramps that are in poor condition. The TSP includes a list of proposed intersection improvements and also includes an overall strategy to provide curb ramps where needed.

Shared-Use Paths

La Grande currently lacks a comprehensive shared-use path system. A short path (about 9 feet wide) exists along U.S. 30/Adams Avenue north of Gekeler Lane, but the path is in relatively poor condition with vegetation growing between pavement cracks. Other facilities include internal paths within city parks, Eastern Oregon University (EOU) and school campuses. The TSP identifies a potential shared-use path along the south side of the Grande Ronde River near Island City. The TSP also directs the City to consider developing shared-use paths along maintenance roads near major flood-control facilities.

System Deficiencies

Pedestrians face daily obstacles in La Grande, as described below.

Maintenance Issues

Existing sidewalks in many parts of La Grande (e.g., portions of “Y” Avenue) suffer from cracking or heaving. Additionally, overgrown vegetation obstructs the sidewalk in some places, forcing pedestrians to walk in the adjacent planter strip (if one exists) or road.

Parked Vehicles Encroaching into the Sidewalk

Though sidewalks are generally excellent in the downtown core, some sidewalks (e.g., along Washington Avenue) adjacent to angled parking are often narrowed by vehicles that overhang the extruded parking curb.



Sidewalk in relatively poor condition on “Y” Avenue

Lack of Transit Stop Amenities

Most designated stops along the EOU-La Grande-Island City shuttle route lack shelters, benches, and posted schedules. Walkways providing access to some stops are also in substandard condition. This is described in more detail in a later section.



Lack of Signage

La Grande's pedestrian system would benefit from signage and other wayfinding tools to orient pedestrians and direct them to and through major destinations like EOU and downtown.

Inconsistent Application of Sidewalk Standards

Although the City's Land Development Code prescribes standards for new sidewalk construction, the requirements are not entirely clear. The Code requires planter strips to be constructed in conjunction with new sidewalks, but it does not specify that the planter strip must be located between the sidewalk and curb. Consequently, curb-tight sidewalks are being constructed along new streets (e.g., portions of 16th Street) in some parts of the city. While this practice does not violate the City's street standards, the result has been lost opportunities to maximize the pedestrian-friendliness of new streets.

Fragmented Sidewalk Network

Although a relatively complete sidewalk network exists in downtown La Grande and adjacent neighborhoods, the system is fragmented in other areas. Several streets (e.g., "K" Avenue) near pedestrian destinations like Central School, La Grande Middle and High schools, Greenwood School, Willow School, Grande Ronde Hospital and EOU have sidewalks on one side or no sidewalks at all. Neighborhoods in the city's northern, southwestern and eastern areas also have a fragmented sidewalk network (see Map 2-1).

Difficult Crossings

Pedestrians face a variety of difficult street crossing conditions:

- Crossing Oregon 82/Island Avenue is challenging due to relatively long distances between signalized intersections and marked crossings. This discourages pedestrians from walking to services along the roadway. Many chose to dart across the roadway to reach their desired destinations.
- The break between La Grande's downtown street grid and surrounding neighborhood streets is characterized by skewed intersections and five-way intersections (e.g., Washington Avenue at "N" Avenue and 10th Street), some of which include complex crossings. Skewed and offset intersections along Oregon 82/Island Avenue also complicate pedestrian travel.



Although crosswalks exist on "K" Avenue near schools, sidewalks are present on one side only.



Some crosswalks are difficult for approaching motorists to see due to minimal markings.



- In several locations (such as Spruce Street at “V” Avenue), crosswalks are difficult to see for approaching motorists. Crosswalk bars on many of the City’s longitudinal (also known as “ladder style”) crosswalks are fairly narrow and spaced far apart. Furthermore, many of these crosswalks do not meet Manual on Uniform Traffic Control Devices (MUTCD) crosswalk marking standards.
- Pedestrians encounter difficult crossings on higher-volume streets where minimal or no crossing treatments exist. For example, pedestrians (especially children) encounter relatively high vehicle traffic volumes when crossing Spruce Street near Greenwood School. Additional treatments beyond an existing crosswalk may be necessary to facilitate safe and convenient crossings.
- Pedestrians with disabilities experience crossing difficulties in La Grande. Curb ramps at many intersections are in poor condition or disrepair, while some intersections lack curb ramps altogether. This can make traveling by wheelchair or motorized mobility device challenging, if not impossible. Visually and mobility impaired pedestrians experience difficulty navigating through intersections with curb ramps oriented diagonally toward the intersection’s center rather than toward a crosswalk. Signalized intersections also lack audible pedestrian signals to facilitate safe crossings for the visually impaired.



Intersection lacking curb ramps on “K” Avenue

Barriers

Natural and man-made barriers, including the Union Pacific and Idaho Northern Pacific railroads, Interstate 84 and the Grande Ronde River, limit the ability for pedestrians to walk directly from one part of town to the other.

Bicycle Facilities – An Overview

According to AASHTO’s Guide for the Development of Bicycle Facilities (1999) and the Oregon Bicycle and Pedestrian Plan, there are several types of “bikeways.” Bikeways are distinguished as preferential roadways accommodating bicycle travel. Accommodation can take the form of bicycle route designation or bicycle lane striping. Shared-use paths are separated from a roadway for use by cyclists, pedestrians, in-line skaters, runners, and others.

Existing Bikeways

The Existing Bicycle Facilities Map (Map 2-2) depicts La Grande’s current bikeway network. Existing facilities include bicycle lanes, shoulder bikeways, and shared-use paths in some areas, although shared roadways constitute the majority of existing bikeways in the City.

Bicycle Lanes

Bicycle lanes currently exist on several streets, including:



- Oregon 82/Island Avenue (from Monroe Avenue to and beyond the east city limits)
- 26th Street/27th Street/"Q" Avenue (from Island Avenue to Cove Avenue)
- Cove Avenue (from Portland Street to and beyond the east city limits)
- Gekeler Lane (from 6th Street to 16th Street)
- Riddle Road/Mulholland Drive (from May Lane to and beyond the east city limits)

Most bicycle lanes in La Grande are approximately five feet wide, reflecting the City's minimum standard. Bicycle lanes on Oregon 82/Island Avenue are six to 10 feet wide depending on location. The 10-foot-wide lanes are used as truck parking lanes when Interstate 84 is shut down during winter weather events.

The TSP proposes bicycle lanes on the following streets:

- 2nd Street (Grandy Avenue to "Y" Avenue)
- 20th Street (U.S. 30/Adams Avenue to south of Gekeler Lane)
- Pine Street/Cove Avenue (Oregon 82/Island Avenue to Portland Street)
- Gekeler Lane (16th Street to U.S. 30/Adams Avenue)

Shoulder Bikeways

Typically found in rural areas, shoulder bikeways are paved roadways with striped shoulders wide enough for bicycle travel. Shoulder bikeways often include signage alerting motorists to expect bicycle travel along the roadway.

A shoulder bikeway exists on U.S. 30/Adams Avenue south of "H" Avenue, with shoulder widths ranging from four to seven feet. Although the La Grande/Island City TSP does not list any proposed shoulder bikeways, the Union County TSP proposes shoulder bikeways on Foothill Road south of 20th Street, and on Mount Glen Road north of Blackhawk Trail.



Shoulder bikeway on U.S. 30/Adams Avenue in southeast La Grande

Shared Roadways

The most common type of bikeway, shared roadways accommodate vehicles and bicycles in the same travel lane. The most suitable roadways for shared vehicle/bicycle use are those with low posted speeds (25 MPH or less) or low traffic volumes (3,000 ADT or less). These facilities may include traffic-calming devices to reduce vehicle speeds while limiting conflicts between motorists and bicyclists. If a shared roadway is upgraded with these features, they are often called "bicycle boulevards" and can be a permanent feature in a bikeway network. A common practice includes signing shared roadways with



bicycle route signs, directional arrows and other wayfinding information. Most minor collector and local streets in La Grande can be categorized as shared roadways given their relatively low vehicle volumes.

Most of La Grande's Collector and Local streets can be classified as shared roadways, as they can accommodate bicyclists of all ages and currently have little need for dedicated bicycle facilities (e.g., bicycle lanes). These streets generally have low vehicle volumes (3,000 ADT or less) and low posted speeds (25 MPH or less). Curb-to-curb widths generally range between 36 and 45 feet, and the typical street cross-section includes two vehicle travel lanes with on-street parking.

Shared-Use Paths

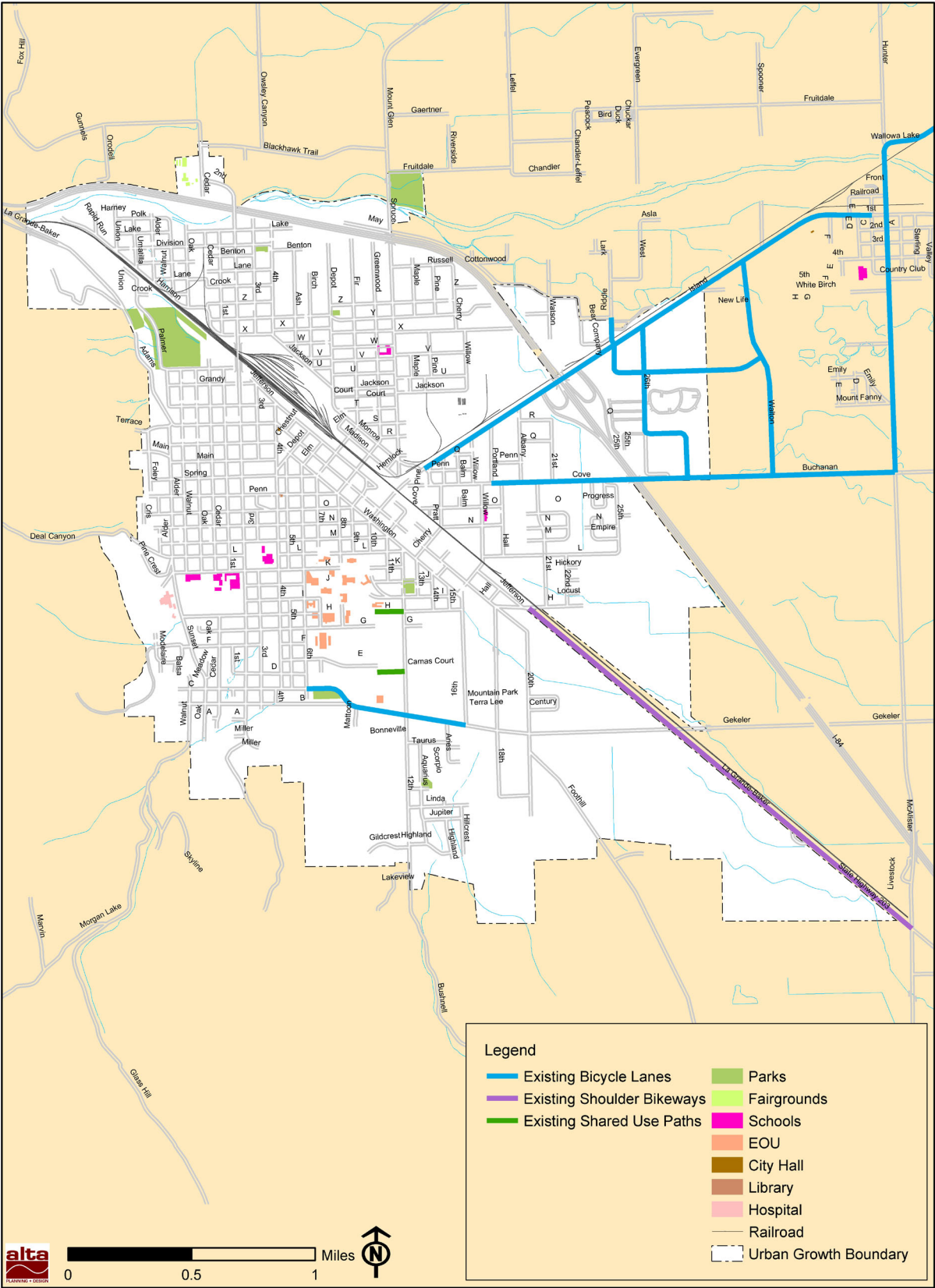
Described earlier, shared-use paths are used by various non-motorized users, including pedestrians, cyclists, in-skaters, and runners. Shared-use paths are typically paved (asphalt or concrete) but may also consist of an unpaved smooth surface as long as it meets ADA standards.

Discussed earlier, La Grande currently lacks a comprehensive shared-use path system. A short path (about 9 feet wide) exists along U.S. 30/Adams Avenue north of Gekeler Lane, but the path is in relatively poor condition with vegetation growing between pavement cracks. Other facilities include internal paths within city parks, EOU, and school campuses. The TSP identifies a potential shared-use path along the south side of the Grande Ronde River near Island City. The Plan also directs the City to consider developing shared-use paths along the maintenance roads near major flood-control facilities.



Shared-use path/private maintenance road connecting EOU with 12th Street





Map 2-2. Existing Bicycle Facilities in La Grande



Bicycle Parking

The provision of bicycle parking is an important component in planning bicycle facilities and encouraging widespread use. Minimum bicycle parking requirements for various land uses are set out in La Grande's Land Development Code, Section 5.7.009, while Section 5.7.005E sets out location and design standards.

Bicycle racks comprise the vast majority of formalized bicycle parking facilities in La Grande. Bicycle racks in good condition can be found within the Eastern Oregon University campus, and in newer commercial areas throughout the city. In completing field work and in discussions with the public, however, there is a general perception that not enough bicycle parking is provided in some areas, particularly in desirable locations such as school campuses and downtown La Grande. The quality of existing bicycle parking is also poor in some locations, due to the style of rack chosen and/or placement of the rack. Racks situated immediately adjacent to walls or shrubbery limit user access to one side of the rack only. Some existing racks are also considered substandard because they do not provide sufficient points of contact to support a bicycle at two locations. In other words, they do not allow a bicycle frame and at least one wheel to be locked to the rack without the use of a long bicycle cable or unless the bicycle is mounted over the rack. The shortage of quality bicycle racks in high-demand locations means cyclists secure their bikes to hand rails, street signs, light poles and other objects. These activities occasionally occur at the schools along "K" Avenue and near commercial destinations in downtown La Grande.

System Deficiencies

Bicyclists face various issues, including:

Maintenance Issues

Gravel, glass and other debris are routinely present on the bikeway system. This typically occurs when passing motor vehicles blow debris into the adjacent bicycle lane or shoulder.



The placement of this rack at Central School limits user access to one side only, effectively reducing the rack's capacity.



Cyclists lock their bikes to whatever pole they can find where formal parking is lacking in downtown La Grande.



Debris in the bikeway on 2nd Street



Poor Pavement Conditions

Several on-street bikeways are characterized by poor pavement conditions (e.g., portions of 16th and 20th Streets), including potholes and uneven surfaces.

Lack of Signage

La Grande's bikeway system lacks signage and other wayfinding tools to orient riders and direct them to and through major bicycling destinations like EOU and downtown.

Conflicts Between Cyclists and Other Transportation Users

- Cyclist safety and comfort issues arise on higher volume roadways lacking dedicated bicycle facilities or traffic-calming treatments. For example, Spruce Street provides a direct bicycle route between downtown, Greenwood School, and Riverside Park. However, the street's relatively narrow cross-section and high vehicle volumes create an uncomfortable bicycling environment.
- The segment of Monroe Avenue north of Oregon 82/Island Avenue lacks bicycle lanes and sidewalks, forcing cyclists to either use vehicle travel lanes or share a gravel shoulder with pedestrians.
- Stated earlier, dedicated bicycle lanes exist on Oregon 82/Island Avenue, and are about 10 feet wide in some locations to accommodate truck parking when Interstate 84 shuts down during winter weather events. Motorists often use the bicycle lane as a right-turn lane, indicating the need for additional pavement markings and/or signage clarifying the lane's purpose as a bicycle facility. In addition, the relatively high number of driveways associated with commercial development on Island Avenue creates several potential conflict points between bicyclists and motor vehicles.



Cyclists must either use vehicle travel lanes or gravel shoulders on Monroe Avenue near Oregon 82/Island Avenue.



Motorists on Oregon 82/Island Avenue often use the wide bicycle lanes as right-turn lanes.

Difficult Intersections

The break between La Grande's downtown street grid and surrounding neighborhood streets is characterized by skewed intersections and 5-way intersections with difficult transitions for bicyclists. Skewed and off-set intersections along Oregon 82/Island Avenue also complicate bicycle travel.



Barriers

Direct bicycle travel across town is limited by natural and man-made barriers, including the Union Pacific and Idaho Northern Pacific railroads, Interstate 84 and the Grande Ronde River.

Lack of Shared Roadway Treatments

The La Grande/Island City TSP proposes a designated shared roadway network; however, no treatments (e.g., signage, pavement markings, traffic calming) are present to facilitate safe, comfortable and convenient bicycle travel.

Cyclist Behavior

A number of local bicyclists were observed riding on sidewalks and against traffic. This may indicate the need for education about safe bicycling techniques.

Pedestrian and Bicycle Destinations

Major pedestrian and bicycle destinations include downtown, educational facilities, employment centers, shopping centers, neighborhood commercial areas, and parks. In addition, Oregon 82/Island Avenue, U.S. 30/Adams Avenue and other roads provide direct bicycle connections to other communities like Island City, Union and Cove.

Within La Grande, popular pedestrian/bicycle destinations include:

- Downtown
- EOU
- Grande Ronde Hospital
- Central School, La Grande Middle and High schools
- Greenwood School
- Riverside Park
- Pioneer Park
- Services along Oregon 82/Island Avenue

Connections with Transit

Ensuring a strong pedestrian and bicycle link to transit is an important part of making non-motorized transportation a part of daily life in La Grande. There are four main components of bicycle/pedestrian-transit integration:



- Allowing bicycles on transit
- Providing benches, shelters, posted schedules, bicycle parking and other features at transit stops
- Improving connections between walkways, bikeways and transit
- Encouraging use of bicycle and transit programs

Community Transit, La Grande's transit provider, provides fixed route shuttle service between EOU and Island City via downtown La Grande and adjacent neighborhoods. In addition to serving designated stops, the shuttle makes "flag stops" anywhere on the route (with the exception of Island Avenue), and all shuttle buses are ADA-accessible. The buses currently lack bike racks, and bikes are not allowed inside buses. La Grande's bikeway network provides relatively good access to the shuttle route, as the route primarily travels along streets with bicycle lanes and on other roads suitable for bicycle travel.

The quantity and quality of pedestrian infrastructure along the shuttle route varies by location. Most streets along the route have sidewalks on both sides, including 6th Street, U.S. 30/Adams Avenue, "Y" Avenue, Cove Avenue and Oregon 82/Island Avenue. Several streets however lack sidewalks on one or both sides, including Gekeler Lane, 12th Street, Fir Street and Monroe Avenue. It should be noted that sidewalks on several streets listed above are in substandard condition (e.g., cracked or in disrepair). Substandard sidewalks or the lack of sidewalks decreases accessibility for all users, especially during the winter months when inclement weather is expected. Most designated stops lack passenger amenities like shelters, benches, posted schedules and bicycle parking. This also decreases the value of transit as a viable transportation option.



Sidewalks on 12th Street are discontinuous, making it difficult for passengers to walk to and from bus stops.



The curb ramp and crosswalk do not align on "K" Avenue at Central School.

Connections to Schools and EOU

EOU, Central School, La Grande Middle School, La Grande High School

Most schools (including Central School and La Grande Middle and High schools) are concentrated in southwest La Grande, specifically along "K" Avenue between Sunset Drive and 4th Street. EOU is also located just east of these schools. With the exception of existing bicycle lanes on portions of Gekeler Lane, nearly all streets in this area lack dedicated bicycle facilities. Predominantly residential in character, most streets handle relatively low traffic volumes and are suitable for bicycle travel. Streets providing direct access to areas outside the immediate vicinity however (e.g., 2nd, 4th, and 6th streets) handle higher vehicle volumes.



The pedestrian environment surrounding EOU and schools in southwest La Grande varies by location. The sidewalk network is fairly continuous along streets in established neighborhoods immediately north and west of EOU. South and east of campus, streets either lack sidewalks or have discontinuous segments. Shared-use paths near the EOU's Plant Services Building and the State of Oregon Integrated Services Building also provide access between the campus and 12th Street. These paths also serve as access roads for campus and City maintenance vehicles, and gates are used to restrict general vehicle use.

The sidewalk network is fragmented near Central School and La Grande Middle and High schools. Within the immediate vicinity, streets lacking sidewalks on both sides include Walnut, Oak and Cedar streets, in addition to nearly all east-west streets. Other streets, including "K" Avenue, Sunset Drive and 2nd Street have sidewalks on one side only. The TSP includes several proposed projects to complete sidewalk gaps in this area. Marked crosswalks exist along most streets leading to the schools, including 2nd Street and "K" Avenue. Curb ramps in varying conditions exist at some intersections where sidewalks are provided. In some locations however (such as "K" Avenue), curb ramps and marked crosswalks do not align with each other.

Greenwood School

Greenwood School is located in a predominantly residential neighborhood in northern La Grande. While streets in the immediate vicinity lack dedicated bicycle facilities, most streets have relatively low vehicle traffic volumes and are suitable for bicycle travel. Spruce Street forms the eastern boundary of Greenwood School and handles relatively high traffic volumes (about 4,000 ADT), as the roadway serves as a major north-south corridor in the area. Discussions with the public indicate that some cyclists favor this corridor due to its direct links with other cyclist destinations, while others do not feel comfortable or safe riding on this street given its relatively high traffic volumes and narrow cross-section.



Community members identified the need for crossing improvements in some locations, such as Spruce Street at "V" Avenue near Greenwood School.

Most streets north and west of Greenwood School have continuous sidewalks on both sides, while streets to the south and east either have sidewalks on one side or no sidewalks at all. The TSP proposes sidewalks on portions of Spruce Street where they currently do not exist, which would enhance north-south pedestrian connectivity near the school. Marked crosswalks exist at several nearby intersections, including a crosswalk on Spruce Street at the off-set intersection of "V" Avenue. Located adjacent to the school, this crossing experiences frequent pedestrian activity associated with children walking between the school and a nearby playground. The crossing currently lacks curb ramps, and was highlighted by community members as needing enhancements beyond the existing pavement markings.



Willow School

Located on Willow Street between “N” and “O” avenues, Willow School serves residential neighborhoods in southeastern La Grande. (This school is currently closed.) Unlike other schools that are surrounded by a well-connected street grid, Willow School is generally surrounded by cul-de-sac streets and the nearby Union Pacific Railroad. With the exception of Cove Avenue (east of Portland Street), most streets in the school’s immediate vicinity lack dedicated bicycle facilities. The TSP proposes bicycle lanes on Cove Avenue west of Portland Street.

With the exception of sidewalks on portions of Willow Street, Cove Avenue and on streets immediately west of Willow School, most area streets do not have sidewalks (see Map 2-1). The TSP proposes sidewalks on Willow Street where they currently do not exist, and along “L” Avenue and portions of 21st Street. Sidewalks will become even more critical when planned subdivisions east of Willow School increase traffic volumes on streets currently lacking dedicated pedestrian facilities.



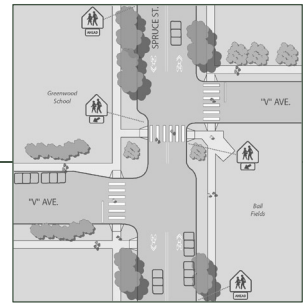
Many streets near Willow School lack dedicated bicycle and pedestrian facilities.





La Grande

Pedestrian & Bicycle Improvement Plan



3. RECOMMENDED PEDESTRIAN AND BICYCLE NETWORK

Introduction

This chapter lays out the recommended pedestrian and bicycle network, a comprehensive system of bikeways and walkways connecting key destinations and surrounding areas. City staff, stakeholder groups, consultants, and La Grande residents all worked together to develop this recommended system. The network recommendations build upon current and past planning efforts, including the La Grande/Island City TSP, Union County TSP, Downtown Design Plan, and ongoing neighborhood planning efforts.

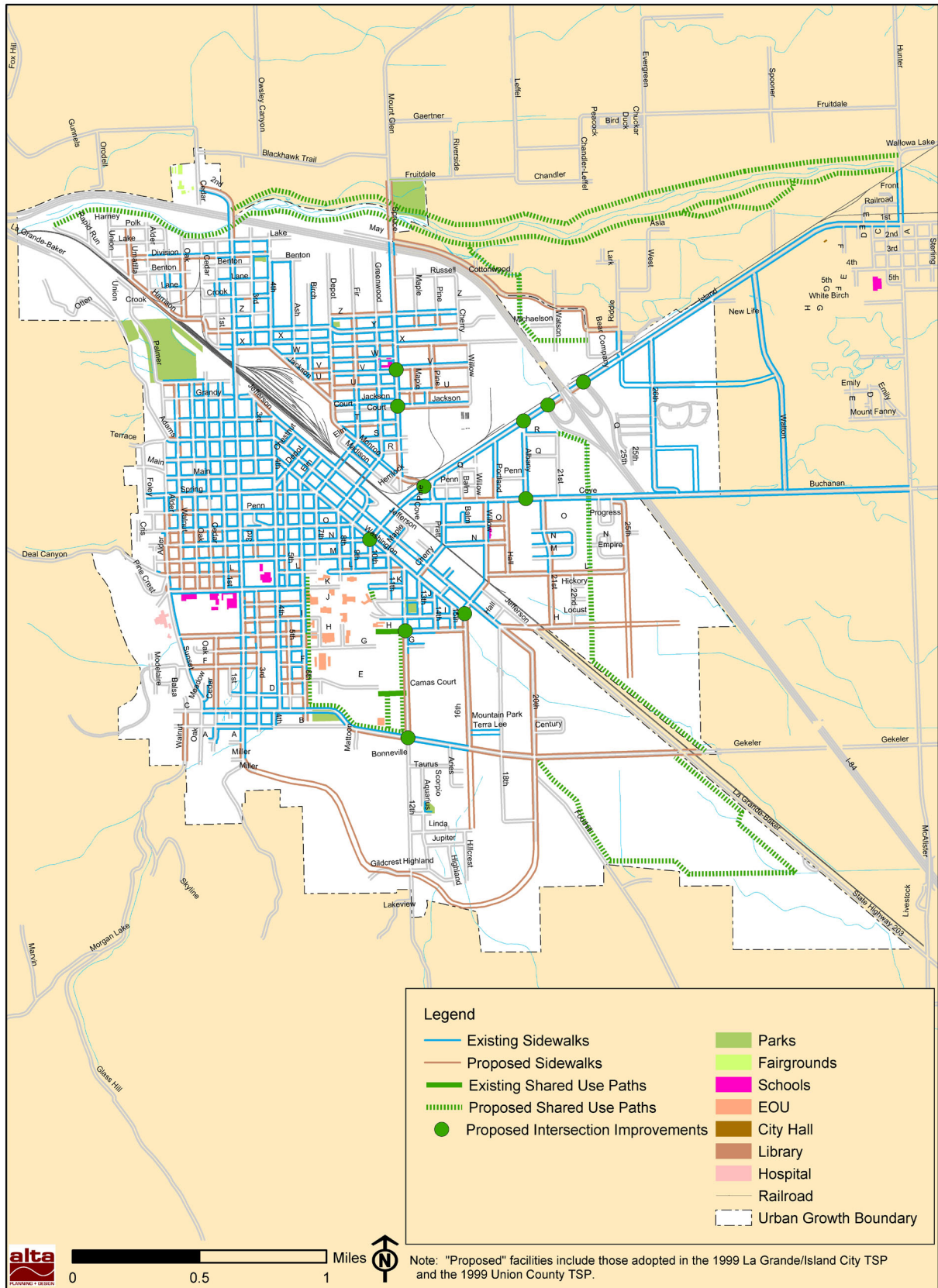
The following maps and text depict and discuss the recommended walkway and bikeway network. A list provided at the end of this chapter outlines individual project proposals.

Recommended Pedestrian Network

The Proposed Pedestrian System Map (Map 3-1) on the following page depicts existing and proposed pedestrian facilities. Proposed improvements include filling major gaps in the existing sidewalk system and providing sidewalks on new streets. Although the map does not depict sidewalks on every street, it is the City's policy to require or provide sidewalks on both sides of all streets (where possible). Other pedestrian system recommendations include shared-use paths and intersection improvements to accommodate safe and convenient pedestrian crossings.

Sidewalks

The projects depicted on the Proposed Pedestrian System Map (and listed in the project table at the end of this chapter) build upon recommendations of the TSP, and reflect input received from City staff and La Grande residents. The City's Land Development Code requires sidewalks to be built on both sides of new streets. To complete the sidewalk network along existing streets, special emphasis should be given to completing sidewalk gaps and providing sidewalks on routes serving major pedestrian destinations (e.g., schools and EOU).



Map 3-1. Proposed Pedestrian System in La Grande



Intersection Improvements

Pedestrian crossings at intersections represent a major challenge in La Grande's existing walking environment. This Plan contains an overall strategy to improve intersections and other pedestrian crossings citywide through a variety of treatments (outlined in Section 5, Design Guidelines). The TSP proposes several projects to improve pedestrian conditions at select intersections along Oregon 82/Island Avenue, U.S. 30/Adams Avenue, and along Washington Avenue. This Plan includes most of the TSP recommended projects as well as additional improvements. Although many intersections throughout La Grande could be targeted for enhancements, City staff and residents identified the locations highlighted on the map as having a relatively high level of importance.

Select Intersection Improvements

Cove Avenue & Albany Street

City staff and community residents identified the need for pedestrian crossing improvements at the Cove Avenue/Albany Street intersection. Pedestrians currently cross Cove Avenue and Albany Street to access nearby destinations like the Union County Senior Center and a nearby senior housing development. Pedestrian improvements in this area will become especially important if Community Transit develops a transit center at the Senior Center.

Pedestrian travel across Cove Avenue represents the major challenge at this intersection which has a posted speed of 25 MPH and relatively high traffic volumes. Illustrated conceptually in Figure 3-1, the Plan proposes a two-phased approach for improving the pedestrian environment. Phase 1 replaces the existing crosswalks with high-visibility "longitudinal" crosswalk markings, and adding warning signs advising approaching motorists of pedestrian crossings. Phase 2 (see Figure 3-2) would include a pedestrian refuge island on the intersection's west leg to accommodate pedestrians traveling between the Senior Center and the senior housing development on Cove Avenue's south side. The refuge island breaks up the pedestrian crossing, enabling pedestrians to focus on one direction of vehicle traffic at a time. Note: Figures 3-1 and 3-2 also depict shared lane markings ("sharrows") on Albany Street, reflecting a separate project recommendation.

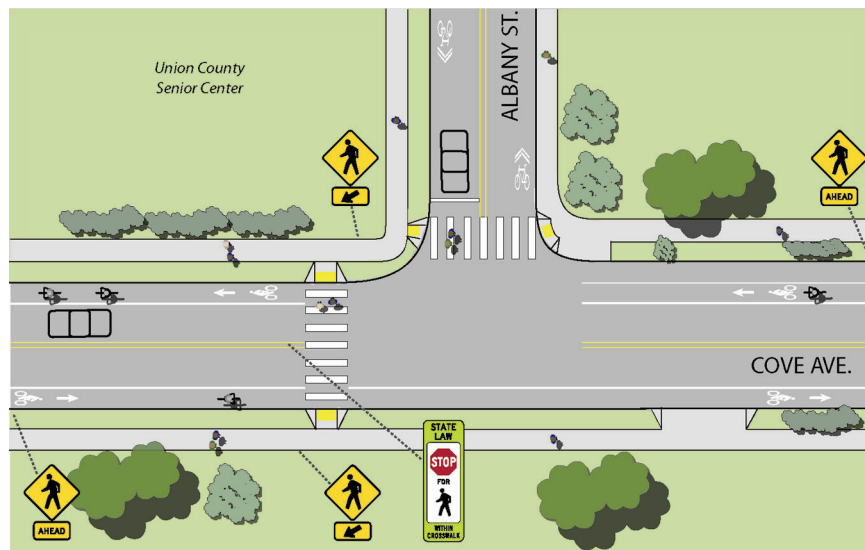


Figure 3-1. Concept Depicting Potential Cove Avenue and Albany Street Phase I Improvements



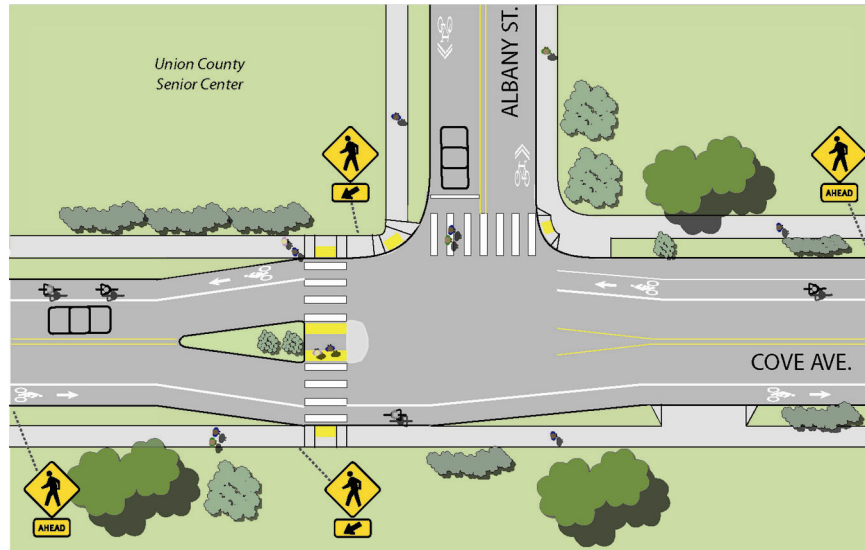


Figure 3-2. Concept Depicting Potential Cove Avenue and Albany Street Phase II Improvements

Spruce Street & "V" Avenue

City staff and community residents also identified the need for pedestrian crossing improvements at the intersection of Spruce Street and "V" Avenue. Located immediately adjacent to Greenwood School and a nearby playground, the intersection handles high volumes of pedestrian traffic, especially students during the morning and afternoon. The off-set intersection is currently constrained by high vehicle speeds on Spruce Avenue, crosswalks with relatively low visibility, and a lack of accommodations for disabled pedestrians on some corners. To improve the pedestrian crossing environment, curb extensions are proposed on Spruce Street to reduce the pedestrian crossing distance, as depicted conceptually in Figure 3-3. Other proposed improvements include high-visibility crosswalks, curb ramps with detectable warning strips, and signage.

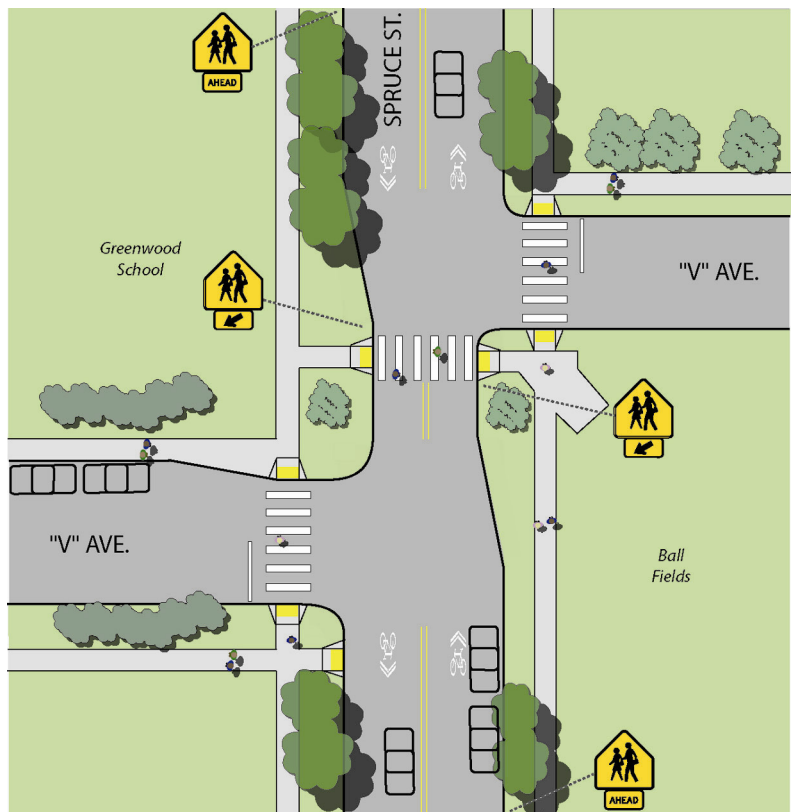


Figure 3-3. Concept Depicting Potential Spruce Street and "V" Avenue Crossing Improvements



Streetscape Improvements

Recent and ongoing planning efforts (independent of the Pedestrian and Bicycle Improvement Plan) include streetscape projects that could enhance La Grande's walking and bicycling environment. The City's Downtown Design Plan, adopted in 1999, proposes a comprehensive list of streetscape improvements in the area bounded by 4th Street, Jefferson Avenue, Greenwood Street and Washington Avenue. Current planning efforts in the South Central Neighborhood also include potential streetscape improvements on Gekeler Lane between 6th and 12th Streets, such as wide sidewalks, a landscape median and other amenities. The City should also explore opportunities to improvement the streetscape environment on other streets as funding becomes available.

Shared-use Paths

Shared-use paths are proposed throughout La Grande to provide transportation and recreational benefits to residents and visitors. This section briefly discusses these recommendations.

Grande Ronde River Path

A shared-use path could potentially follow the Grande Ronde River in northern La Grande, and could provide non-motorized access to a potential expansion of Riverside Park on the river's south side. Although most land parcels near the river are privately owned, the City of La Grande and the City of Island City are in the process of acquiring properties that provide opportunities for path development. Several underutilized drainage ditches along the river's south side also provide potential path alignment options. To further identify opportunities and constraints of developing a Grande Ronde River path, the City of La Grande should partner with Island City and Union County to conduct a feasibility study. The study should identify property, environmental and other issues, lay out a preferred path alignment, and identify potential connections to the local street system. The study should also identify opportunities to extend the path westward to connect with trails near Hilgard State Park, as well as eastward into Wallowa County.

La Grande Greenway Corridor Path

The City is currently working to develop a "La Grande



Street banner in downtown La Grande



A shared-use path could potentially follow the Grande Ronde River in northern La Grande.



The City owns properties along several drainage ditches in eastern La Grande, providing opportunities to develop a "Greenway Corridor" path.



Greenway Corridor” path on a series of City-owned properties in eastern La Grande. Depicted on the La Grande Greenway Corridor Subarea Map (Map 3-2), the parcels generally parallel (and contain) active drainage ditches following a north-south corridor. Parcel widths range between 35 and 80 feet. In most cases, sufficient width exists to construct a path adjacent to existing drainage ditches.

The Greenway Corridor’s southern segment (south of “R” Avenue) provides the most immediate path development opportunity. Parcel widths are generally wide, and the path would include a relatively low number of at-grade street crossings. To avoid “dead ending” the path near the Union Pacific Railroad (an area where there are no City-owned parcels), the City may need to acquire easements or develop agreements with the Railroad or nearby property owners to extend the trail south toward Gekeler Lane.

A number of challenges face path development on the Greenway Corridor’s northern and central segments. The City owns several parcels along the northern segment near May Lane, but potential connections to destinations beyond this area (e.g., the Grande Ronde River) are constrained by surrounding private properties. The Greenway Corridor’s central segment is constrained by several physical barriers including the I-84/Oregon 82 interchange, the Idaho Northern Pacific Railroad, and the current lack of City-owned properties to develop an off-street path system in this area. To identify opportunities for addressing path development challenges in the Greenway Corridor’s northern and central segments, the City should conduct a path feasibility study.

Paths near Eastern Oregon University

The Eastern Oregon University Subarea Map (Map 3-3) depicts several potential shared-use paths to link the University with surrounding neighborhoods. The EOU Master Plan identifies a network of future internal paths on the campus’s south side, and also includes a potential extension of 10th Street between Gekeler Lane and “I” Avenue (which will presumably include bicycle/pedestrian facilities). The University is also developing an “Historic Walk” along existing and future sidewalks and paths to highlight prominent buildings and other campus landmarks of historical significance.

EOU/South Central Neighborhood Perimeter Path

Current planning efforts in La Grande’s South Central Neighborhood (independent of this Plan) include a potential shared-use path roughly following 6th Street, Gekeler Lane and 12th Street. This path would be integrated with a proposed mixed-use development near the 12th Street/Gekeler Lane intersection, as well as with proposed streetscape improvements along Gekeler Lane in this area. In most cases, the path could be constructed within the public right-of-way (along 6th Street, Gekeler Lane, and 12th Street), although property easements could be necessary in some areas. It should be noted that the South Central Neighborhood planning efforts originally proposed a loop path that would circle the entire campus, but physical constraints and private property issues likely preclude path development along “L” Avenue and on 12th Street north of “H” Avenue. When fully developed, this path would



Improvements to this path on Gekeler Lane could be incorporated with a future path along the EOU campus boundary.



serve both transportation and recreational uses, and provide connections to other proposed paths in the area.

Opportunities to Formalize Existing Paths

Opportunities also exist to formalize existing bicycle/pedestrian routes between campus and surrounding areas. The EOU Subarea Map (Map 3-3) depicts the area near Eastern Oregon University in greater detail (compared with the citywide maps). The map shows a short path segment connecting the University with “K” Avenue. The existing unpaved path is currently used by students traveling between campus, surrounding neighborhoods, and commercial services on U.S. 30/Adams Avenue.

A shared-use path could also be formalized south of the University’s Plant Services Building along an existing private maintenance road. This corridor provides direct east-west access to and through campus along the “H” Avenue corridor. An existing maintenance road north of the State of Oregon Integrated Services Building could also be formalized as a shared-use path to provide east-west access between EOU and 12th Street. Formalizing these paths would consist of replacing existing gates with removable bollards, and providing sufficient signage, lighting and other appropriate path amenities.

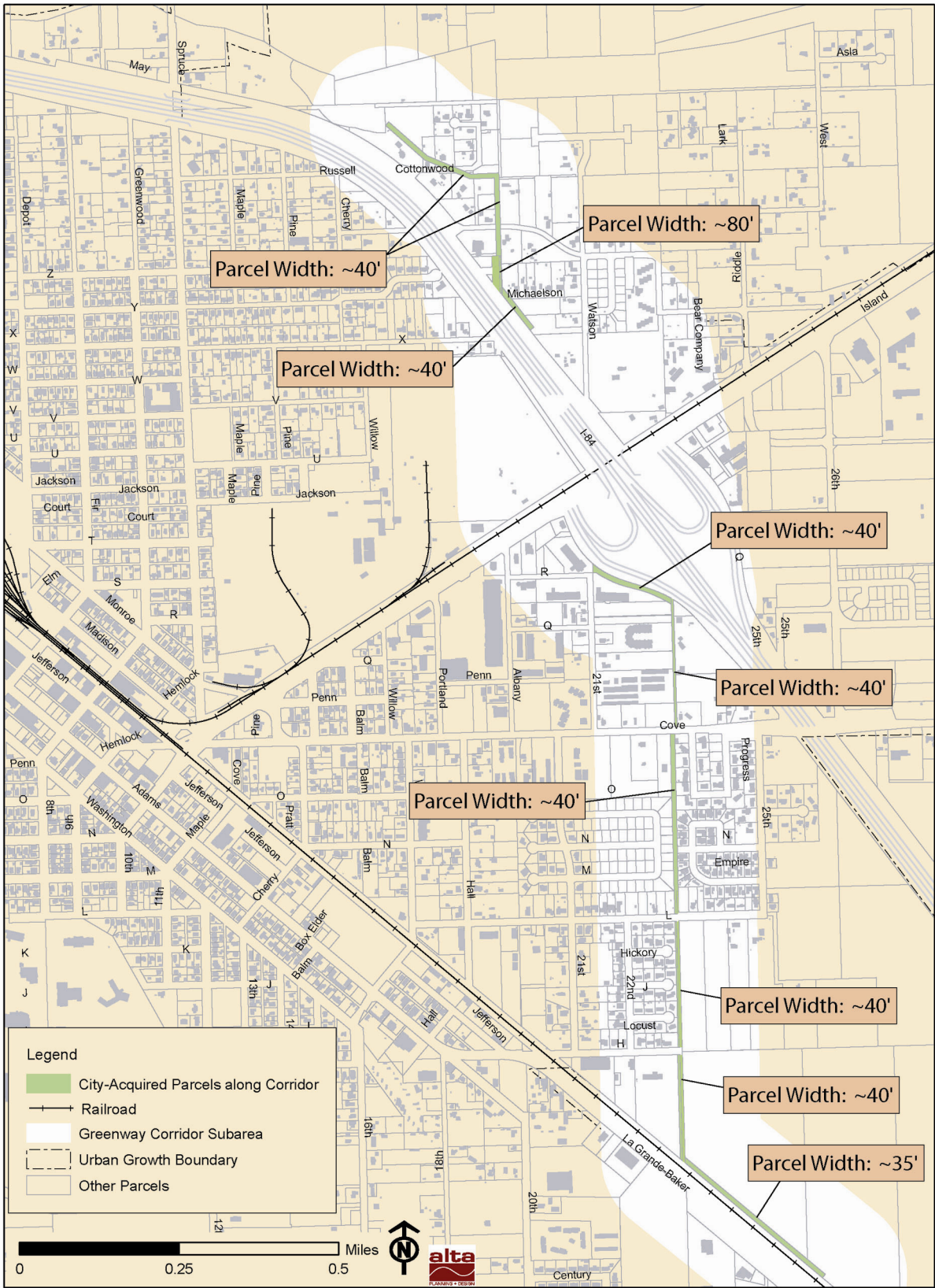


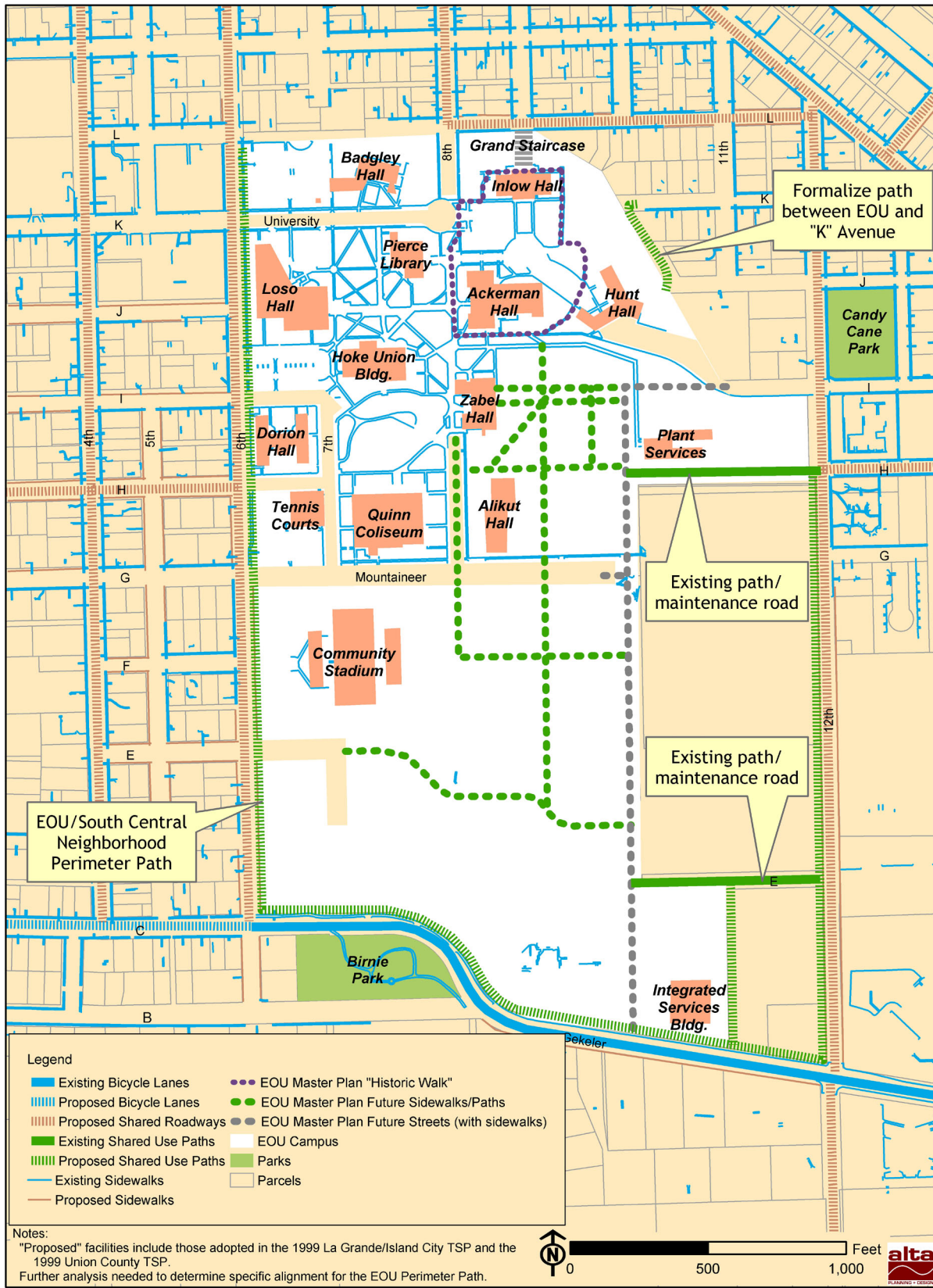
This informal path between EOU and “K” Avenue could be enhanced to better serve multiple users.

Paths in Southeast La Grande

Opportunities exist to develop shared-use paths in conjunction with planned development in Southeast La Grande. Easements exist along several drainage ditches in areas targeted for a future business park south of Gekeler Lane.







Map 3-3. Eastern Oregon University Subarea Map



Recommended Bicycle Network

The Proposed Bicycle System Map (Map 3-4) depicts existing and proposed bicycle facilities. Proposed facilities include bicycle lanes and shared roadways/bicycle boulevards. The proposed system also includes shared-use paths and intersection improvements, described earlier in this chapter. The proposed bicycle system builds upon previous planning efforts, and also addresses input received from City staff, La Grande residents, and other stakeholders.

Bicycle Lanes

To safely accommodate bicycle travel on corridors with current or anticipated high traffic volumes, bicycle lanes are proposed on several existing and future streets, based on several factors, including:

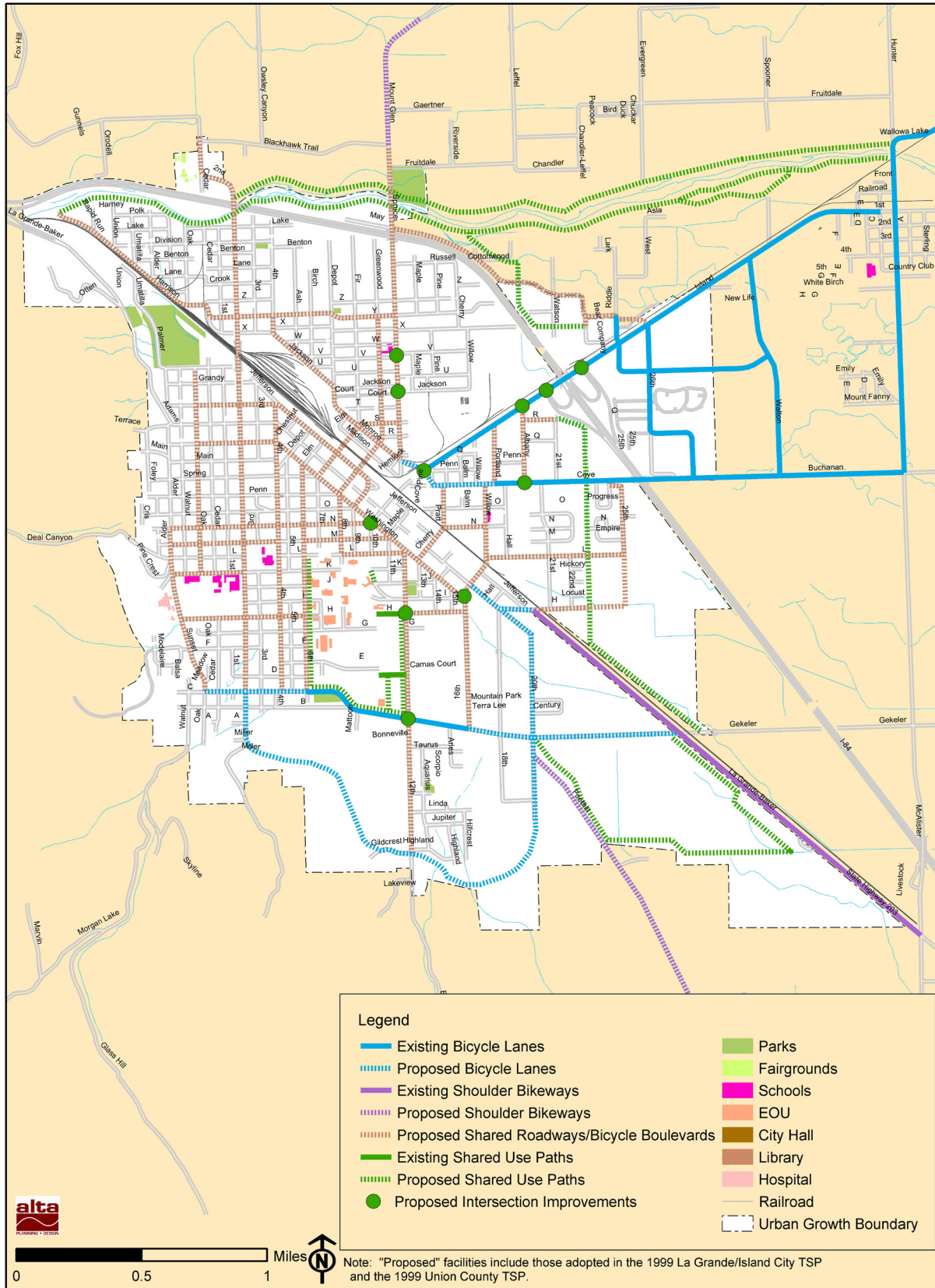
- Gaps in the existing bicycle lane system
- Existing and forecasted traffic volumes
- Previous planning efforts identifying the need for bicycle lanes on specific streets
- Planned street improvements that will include bicycle lanes as part of construction
- Whether an existing street could be retrofitted to include bicycle lanes with minimal parking or private property impacts
- Planned land development projects with the potential to generate higher bicycle volumes

A variety of physical and other constraints create challenges for retrofitting many existing streets with bicycle lanes in La Grande. As a result, most bicycle lanes are proposed on streets with relatively wide rights-of-way or few physical constraints, such as Gekeler Lane and the future loop road that will serve new residential development in southern La Grande. Table 3-2 at the end of this section provides a full list of recommended bicycle lanes. The City should continually monitor vehicle and bicycle travel patterns throughout the entire community, and identify opportunities to provide bicycle lanes on higher-volume streets wherever possible. Furthermore, as required by Oregon Revised Statute 366.514 (described in Section 6) the City should endeavor to place bicycle lanes on all major roadways during construction and reconstruction where conditions permit.

Shoulder Bikeways

Reflecting a project in Union County's 1999 TSP, a shoulder bikeway is proposed on Foothill Road south of 20th Street. Shoulder bikeways are common in rural areas, and typically consist of a paved shoulder for pedestrian and bicycle travel. Given the predominantly rural character of Southeast La Grande, a shoulder bikeway would suitably accommodate non-motorized traffic on Foothill Road at this time. However, future development in the area could change the character of Foothill Road, potentially creating the need for greater separation between bicyclists/pedestrians and motor vehicles.





Map 3-4. Proposed Bicycle System in La Grande



Shared Roadways/Bicycle Boulevards

A number of streets are proposed as shared roadways and include various applications that can be used to improve bicyclist safety and comfort on these corridors. These applications can be used on most streets in La Grande, including streets where physical or other constraints preclude the use of dedicated bicycle lanes. Shared roadways that incorporate treatments to accommodate cyclists are often called “bicycle boulevards.” Bicycle boulevards are developed through a combination of traffic calming measures and other streetscape treatments, and are intended to prioritize safe and convenient bicycle travel. Appropriate treatments depend on several factors including traffic volumes, vehicle and bicycle circulation patterns, street connectivity, street width, physical constraints, and other parameters.

Bicycle Boulevard Applications

Treatments for La Grande’s shared roadway/bicycle boulevard network have been divided into five main categories based on their level of “intensity”, with Level 1 representing the least intensive treatments that could be implemented at relatively low cost with minimal physical impacts. Described in detail in the Design Guidelines section (5), the five bicycle boulevard application levels include the following:

- Level 1: Signage
- Level 2: Pavement markings
- Level 3: Intersection treatments
- Level 4: Traffic calming
- Level 5: Traffic diversion

Figure 3-4 depicts the recommended application levels for La Grande’s shared roadway/bicycle boulevard system. It should be noted that corridors proposed for higher-level applications would also receive relevant lower-level treatments. For instance, a street targeted for Level 3 applications should also include Level 1 and 2 applications as necessary. It should also be noted that some applications may be appropriate on some streets while inappropriate on others. In other words, it may not be appropriate or necessary to implement all “Level 2” applications on a Level 2 street. To identify and develop specific treatments for each bicycle boulevard, the City should involve the bicycling community, neighborhood groups, and the Public Works Department. Further analysis and engineering work may also be necessary to determine the feasibility of some applications.



	LEVEL 1 Signage	LEVEL 2 Pavement Markings	LEVEL 3 Intersection Treatments	LEVEL 4 Traffic Calming	LEVEL 5 Traffic Diversion
"L" (8th to 12th)					
Harrison/"Z"/Cedar/"Y" (G.R. River Path to 2nd)					
May (Spruce to Island)					
2nd ("C" to Adams)					
2nd ("Y" to Blackhawk Tr.)					
2nd (Adams to Grandy)					
4th/Jackson/Depot/Monroe ("Y" to Spruce)					
12th (Gildcrest to Gekeler)					
16th (Gekeler to Washington)					
25th ("H" to Cove)					
"H" (Adams to 25th)					
"K" (Sunset to 2nd)					
"L" (Willow to 25th)					
"M" (6th to Washington)					
"M" (Alder to 4th)					
"N" (4th to Washington)					
"N" (Alder to 4th)					
"N" (Cherry to Willow)					
"R" (Albany to 21st)					
"Y" (2nd to Spruce)					
Cherry (Washington to Cove)					
Fir/"S" (Jefferson to Spruce)					
Portland (Cove to Island)					
Southern L.G. loop road (2nd to 12th)					
Southern L.G. loop road (12th to Foothill)					
Spruce ("Z" to Blackhawk Tr.)					
Sunset/Alder ("C" to "N")					
4th ("C" to "O")					
6th ("C" to Washington)					
4th ("O" to Jefferson)					
"H" (Sunset to 6th)					
Albany (Cove to Island)					
Fir (Washington to Jefferson)					
Jefferson (Oak to 4th)					
Jefferson/Hemlock (4th to Washington)					
Spruce (Monroe to "Z")					
Washington (4th to Greenwood)					
Washington (Oak to 4th)					
Willow (Washington to "L")					
"H" (12th to 16th)					
Greenwood (Jefferson to "Y")					
Greenwood (Washington to Jefferson)					
Oak ("K" to Palmer)					
Washington (Greenwood to Willow)					
Willow ("L" to Cove)					
8th ("L" to Washington)					

Figure 3-4. Recommended Bicycle Boulevard Applications by Street



Project Prioritization

Several evaluation criteria were developed to identify and prioritize projects for improving La Grande's walking and bicycling environment. Specifically, the criteria were applied in two ways:

- To lay out the best possible future pedestrian/bicycle network by identifying the features of a network most important to the residents of La Grande
- To rank projects against each other as an indication of their relative importance

The goal was to develop three tiers of project priorities so that the City may focus funding and funding applications on the highest priority projects. Each evaluation criterion was assigned a range of points, with the number of potential points reflecting the criterion's relative importance (based on input from City staff and the public). Specific evaluation criteria used in this Plan include the following:

- *Connectivity.* To what degree does the project fill a missing gap in the bicycle and/or pedestrian system?
- *User Generator.* To what degree will the project likely generate transportation or recreational usage based on population, corridor aesthetics, etc.?
- *Land Uses.* How many user generators does the project connect within one-fourth to one-half of a mile, such as schools, parks, hospitals, EOU, employment and commercial districts, etc.?
- *Overcomes Barrier.* How well does the project overcome a barrier in the current bicycle and pedestrian network?
- *Safety and Comfort.* Can the project potentially improve bicycling and walking at locations with perceived or documented safety issues? This criterion takes into account available crash data as well as feedback from the local bicycling and walking community.
- *Regional Benefit.* To what degree does the project offer potential benefits to the wider, regional community by offering opportunities for increased connectivity to parks, view points, connections to Island City and Union County bicycle/pedestrian facilities, etc.?
- *Ease of Implementation.* How difficult will it be to implement the project? This criterion takes into account constraints like topography, existing development, and environmental, political and economic issues, which should be considered only after the project has been evaluated on merit.

Using the above criteria, the project team ranked each project based on information obtained from site visits, field work, City officials, and the public; and grouped the projects into Tier 1 (short-term, 0-5 years), Tier 2 (medium-term, 5-10 years) and Tier 3 (long-term, 10-20 years) priorities. Appendix C summarizes the evaluative scores for each project proposed in this Plan.

The short-, medium-, and long-term priorities may change according to available funds, changing priorities, new roadway projects that coincide, new development and redevelopment opportunities, or other factors.



It should be noted that the purpose of this exercise is to understand the relative priority of the projects so that the City may apportion available funding to the highest priority projects. Medium- and long-term projects are also important, and may be implemented at any point in time as part of a development or public works project. The ranked lists should be considered a “living document” and should be frequently reviewed to ensure they reflect current La Grande priorities.

The list of proposed pedestrian and bicycle projects (and relative prioritization) is located at the end of this chapter.

Project Costs

This section summarizes planning level cost estimates associated with the recommended pedestrian and bicycle improvement projects. The estimates were based on similar Pedestrian and Bicycle Improvement Plans and experience in other communities. Table 3-2 summarizes cost estimates for individual pedestrian and bicycle treatments, while Table 3-3 at the end of this chapter summarizes costs by project. The estimates also include contingency and construction management costs, which represent a proportion of the original project costs.

The table at the end of this chapter provides cost estimates for individual projects proposed in this Plan. The table below provides a cost summary for Tier 1 (0-5 years), Tier 2 (5-10 years) and Tier 3 (10-20 years) projects combined. The total implementation cost of the Pedestrian and Bicycle Improvement Plan is estimated at approximately \$18.6 million. Chapter 6 discusses potential funding sources for implementing projects in this Plan.

Table 3-1. Planning Level Cost Estimates for Tier 1, 2, and 3 Projects

Projects	Planning Level Cost Estimate
Tier 1 (0-5 years)	\$3,350,200
Tier 2 (5-10 years)	\$4,306,720
Tier 3 (10-20 years)	\$10,963,750
Total	\$18,620,670

Note: Estimates may vary, based on the actual costs of path feasibility studies and Downtown Design Plan implementation.



Table 3-2. Planning Level Unit Cost Estimates for La Grande Projects

Item	Unit	Unit Cost	Source	Comments
Curb ramp (dual)	Each	\$2,500	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
Detectable warning strip (truncated domes)	Each	\$300	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
Curb extension	Each	\$5,000	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	Minor curb extension without landscaping
Sidewalk	Linear Foot	\$35	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	
Longitudinal Crosswalk	Each	\$600	Previous pedestrian and bicycle planning projects conducted by Alta Planning + Design	Thermoplastic bars measuring 2' x 10'
Transverse (parallel bar) crosswalk	Linear Foot	\$170	Previous pedestrian and bicycle planning projects conducted by Alta Planning + Design	Thermoplastic bars
Pedestrian refuge island	Each	\$20,000	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
Bicycle lane (street widening)	Mile	\$300,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	Both sides of street
Bicycle lane (signing and striping only)	Mile	\$25,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	Both sides of street
Blue bicycle lane (striping and paint)	Linear Foot	\$45	City of Portland, OR	6' wide on State highway, one side of street
Supplemental bicycle lane striping (fog line and hash marks)	Mile	\$34,000	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	Both sides of street
Roadway shoulder (rural roadways)	Mile	\$635,000	Florida Dept. of Trans. "2004 Transportation Costs"	Both sides of street
Stop sign	Each	\$200	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
Warning sign	Each	\$200	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
In-street Pedestrian Crossing Sign with mounting device	Each	\$200	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	
Shared-use path	Mile	\$400,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	Cross-section includes 2' shoulder, 12' paved surface, and 6' unpaved surface; cost excludes treatments for path/ roadway crossings
Shared-use path feasibility	Mile	\$20,000 – \$100,000	Previous trail feasibility studies conducted by Alta	Depends on complexity of issues, such as environmental



3. Recommended Pedestrian and Bicycle Network

Item	Unit	Unit Cost	Source	Comments
study			Planning + Design	analysis, land ownership, topography, public process, etc.
Type 1 path/roadway crossing	Each	\$5,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	
Type 1+ path/roadway crossing	Each	\$15,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	
Type 2 path/roadway crossing	Each	\$10,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	
Type 3 path/roadway crossing	Each	\$100,000	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	
Level 1 bicycle boulevard applications	Mile	Wayfinding sign: \$125 Warning sign: \$200	City of Portland, OR; City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	Approx. 12 wayfinding signs per mile; number of warning signs depends on location
Level 2 bicycle boulevard applications	Mile	Sharrow: \$120 Directional marking: \$20	City of Portland, OR	1 sharrow per 200 feet (both sides of street), or 1 directional marking per 600 feet (both sides of street) and at key intersections
Level 3 bicycle boulevard applications	By project	Stop sign: \$200 Bike loop detector: \$3,000 Curb extension: \$5,000 Median/ refuge island: \$20,000 Half signal: \$100,000	City of Berkeley, CA; City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	Type and number of treatments depend on location
Level 4 bicycle boulevard applications	By project	Chicane: \$20,000 Mini traffic circle: \$4,000 Speed hump: \$2,000	City of Seattle, WA; City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	Type and number of treatments depend on location
Level 5 bicycle boulevard applications	By project	Choker entrance: \$8,000 Traffic diverter: \$20,000	City of Santa Barbara, CA Pedestrian Master Plan (adopted 2006)	Type and number of treatments depend on location
Contingency	--	30% of original project cost	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	Addresses potential inflation costs of materials and labor, and time leading to a project's implementation
Design and Construction Management	--	25% of original project cost	City of Wilsonville, OR Bicycle and Pedestrian Master Plan (adopted 2006)	



Table 3-3. Recommended Pedestrian and Bicycle Projects

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements)⁴
Intersection Improvements					
"H" Avenue & 12th Street	N/A	Add crosswalks on north, south and east legs; install warning signs on north and south approaches and at crosswalks advising motorists of ped/bike crossings; install curb extensions with curb ramps on NE and SE corners to reduce the pedestrian crossing distance on 12th; install curb ramps on NW and SW corners in conjunction with future sidewalk/ shared-use path on west side of street; install warning signage and striping on shared-use path west of intersection to alert path users of approaching intersection	La Grande	Tier 1	\$29,800
Gekeler Lane & 12th Street	N/A	Change traffic control to 4-way stop; add crosswalks on south and west legs; provide direct connection to future shared-use path along Gekeler and 12th	La Grande	Tier 2	\$6,000
Cove Avenue & Albany Street (Phase 1)	N/A	Re-stripe existing crosswalk on north leg with longitudinal lines; add longitudinal crosswalk on west leg; install warning signs on EB and WB vehicle approaches and at crosswalk advising motorists of pedestrian crossings; place removable In-Street Pedestrian Crossing signs on Cove Avenue centerline to increase visibility of pedestrians in crosswalk	La Grande	Tier 1	\$6,500
Cove Avenue & Albany Street (Phase 2)	N/A	Construct pedestrian refuge island on west leg; reconstruct curb ramps on NW and SW corners in conjunction with reconstructed curbs	La Grande	Tier 2	\$45,100
Oregon 82/ Island Avenue & Albany Street ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	ODOT	Tier 2	\$212,800
Oregon 82/ Island Avenue & I-84 eastbound ramps ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	ODOT	Tier 1	\$212,800



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Oregon 82/ Island Avenue & I-84 westbound ramps ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	ODOT	Tier 1	\$212,800
Oregon 82/ Island Avenue & I-84 eastbound ramps	N/A	Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area	ODOT	Tier 1	\$12,900
Oregon 82/ Island Avenue & I-84 westbound ramps	N/A	Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area	ODOT	Tier 1	\$12,900
Oregon 82/ Island Avenue & Pine Street/ Monroe Avenue ¹	N/A	Realign intersection so that the Pine and Monroe Avenue approaches are directly aligned. This project should include appropriate treatments to safely and conveniently facilitate bicycle and pedestrian travel to and through the intersection	ODOT	Tier 1	\$420,000
Spruce Street & “V” Avenue	N/A	Construct curb extensions with curb ramps on Spruce between off-set legs of “V”; install curb ramp on far NE corner and far SW corner of intersection; re-stripe existing crosswalks; install warning signs on NB and SB approaches advising motorists of pedestrian crossings	La Grande	Tier 1	\$27,900
Spruce Street & Jackson Avenue	N/A	Construct curb extensions with ramps on NW and NE corners; install curb ramp on SE corner; install longitudinal crosswalks on north and east legs; install warning signs on NB and SB approaches and at crosswalk on north leg advising motorists of pedestrian crossings	La Grande	Tier 2	\$25,100
Washington Avenue & “N”/10th ¹	N/A	Reconstruct intersection and eliminate 10th Street leg (maintain pedestrian and bicycle access to 10th Street	La Grande	Tier 2	\$56,000
Washington Avenue & Willow Street/ 16th Street	N/A	Reconstruct intersection to orient Willow and 16th as the primary legs, and reduce turning radii to reduce pedestrian crossing distances; change traffic control to stop approach on Washington; construct curb ramps on all corners; install longitudinal crosswalks on all legs	La Grande	Tier 3	\$36,700



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Intersection improvements near Central School, La Grande Middle School and La Grande High School	N/A	Inventory intersections in area roughly bounded by 6th, "C", Sunset/Alder, and Adams to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes	La Grande	Tier 1	\$50,000
Intersection improvements near Greenwood School	N/A	Inventory intersections in area roughly bounded by I-84, Idaho Northern Pacific Railroad, Union Pacific Railroad, and 4th to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes	La Grande	Tier 1	\$50,000
Streetscape Improvements					
Gekeler Lane ³	6th Street to west of 12th Street	Construct sidewalks and planter strips on both sides of street (10' sidewalks on north side); construct 12' landscape center median; preserve existing bicycle lanes	La Grande	Tier 1	\$480,700
<i>Downtown Design Plan</i> Implementation	N/A	Prioritize and implement the non-completed streetscape recommendations in the 1999 <i>City of La Grande Downtown Design Plan</i>	ODOT/ La Grande	Tier 1, 2, 3	To be determined based on selection and prioritization of specific projects by City
Sidewalks					
1st Street ¹	"K" Avenue to "N" Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 2	\$27,100



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
2nd Street	"H" Avenue to "K" Avenue	Complete sidewalk gaps on east side of street	La Grande	Tier 1	\$29,300
2nd Street ¹	Lake Avenue to Union County Fairgrounds	Construct sidewalks on east side of street	La Grande	Tier 3	\$33,600
3rd Street	"D" Avenue to "F" Avenue	Construct sidewalks on east side of street	La Grande	Tier 2	\$85,700
3rd Street	"F" Avenue to "G" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 2	\$28,200
3rd Street	"G" Avenue to "H" Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 1	\$27,100
3rd Street	"H" Avenue to "K" Avenue	Construct sidewalks on east side of street	La Grande	Tier 1	\$40,700
3rd Street	"M" Avenue to "N" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 1	\$29,300
5th Street	"D" Avenue to "E" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$27,100
5th Street	"E" Avenue to "G" Avenue	Construct sidewalks on west side of street	La Grande	Tier 2	\$29,300
5th Street	"G" Avenue to "I" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 2	\$54,200
5th Street	"L" Avenue to "N" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 2	\$13,500
6th Street ¹	Gekeler Lane to Washington Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 1	\$95,000
16th Street ¹	Gekeler Lane to Washington Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$276,700
16th Street ¹	Linda Lane to Gekeler Lane	Construct sidewalks in conjunction with new street	La Grande	Tier 3	\$844,200
21st Street ¹	"H" Avenue to "L" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$112,800



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
21st Street	"L" Avenue to Cove Avenue	Construct sidewalks on east side of street	La Grande	Tier 3	\$71,600
25th Street ¹	"L" Avenue to Cove Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$164,900
25th Street ¹	"L" Avenue to east of Union Pacific Railroad	Construct sidewalks in conjunction with new street	La Grande	Tier 3	\$147,000
"E" Avenue	4th Street to 6th Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$43,400
"F" Avenue	4th Street to 5th Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$16,300
"F" Avenue	Sunset Drive to 3rd Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$135,600
"G" Avenue	Cedar Street to 3rd Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$100,400
"G" Avenue	3rd Street to 5th Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 2	\$27,100
"H" Avenue	14th Street to 16th Street	Construct sidewalks on both sides of street	La Grande	Tier 2	\$58,300
"H" Avenue ¹	22nd Street to east of future 25th Street	Construct sidewalks in conjunction with new street	La Grande	Tier 3	\$233,300
"H" Avenue	Sunset Drive to 6th Street	Construct sidewalks on both sides of street	La Grande	Tier 1	\$222,400
"H" Avenue ¹	U.S. 30/ Adams Avenue to 22nd Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$97,700
"I" Avenue	2nd Street to 4th Street	Construct sidewalks on both sides of street	La Grande	Tier 2	\$65,100
"I" Avenue	4th Street to 6th Street	Construct sidewalks on north side of street	La Grande	Tier 2	\$26,000
"J" Avenue	2nd Street to 4th Street	Construct sidewalks on both sides of street	La Grande	Tier 2	\$65,100
"J" Avenue	4th Street to 6th Street	Construct sidewalks on north side of street	La Grande	Tier 1	\$26,000
"K" Avenue	Sunset Drive to 2nd Street	Complete sidewalk gaps on north side of street	La Grande	Tier 1	\$25,000
"L" Avenue	8th Street to 11th Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 1	\$29,800
"L" Avenue ¹	11th Street to 12th Street	Construct sidewalks on both sides of street	La Grande	Tier 1	\$27,100



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
"L" Avenue	Sunset Drive to 2nd Street	Construct sidewalks on both sides of street	La Grande	Tier 2	\$131,300
"L" Avenue ¹	Willow Street to 25th Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$266,000
"M" Avenue ¹	Alder Street to Oak Street	Construct sidewalks on south side of street	La Grande	Tier 3	\$54,600
"M" Avenue	Alder Street to Walnut Street	Construct sidewalk on north side of street	La Grande	Tier 3	\$12,500
"N" Avenue ¹	Alder Street to Oak Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$54,600
"N" Avenue	Willow Street to Hall Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$40,100
"O" Avenue	Alder Street to 3rd Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$51,500
"O" Avenue	Willow Street to Hall Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$40,100
"T" Avenue	Depot Street to Spruce Street	Complete sidewalk gaps on south side of street	La Grande	Tier 2	\$40,700
"U" Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$38,200
"U" Avenue	Depot Street to Fir Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$48,800
"U" Avenue	Fir Street to Greenwood Street	Construct sidewalks on south side of street	La Grande	Tier 1	\$21,700
"U" Avenue	Pine Street to Willow Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$37,200
"U" Avenue	Spruce Street to Pine Street	Construct sidewalks on south side of street	La Grande	Tier 1	\$27,100
"V" Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$41,200
"V" Avenue	Spruce Street to Willow Street	Construct sidewalks on south side of street	La Grande	Tier 1	\$78,700



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
"X" Avenue	2nd Street to 4th Street	Construct sidewalks on south side of street	La Grande	Tier 3	\$33,600
"X" Avenue	Greenwood Street to Willow Street	Construct sidewalks on south side of street	La Grande	Tier 1	\$92,200
"Y" Avenue ¹	Cedar Street to 2nd Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$54,600
"Y" Avenue	Spruce Street to Cherry Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$78,700
"Z" Avenue	Depot Street to Spruce Street	Construct sidewalks on north side of street	La Grande	Tier 3	\$62,400
"Z" Avenue ¹	Walnut Street to Cedar Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$40,600
Alder Street	"K" Avenue to "L" Avenue	Construct sidewalks on west side of street	La Grande	Tier 1	\$6,800
Alder Street	"L" Avenue to Penn Avenue	Construct sidewalks on both sides of street	La Grande	Tier 1	\$105,800
Cedar Street	"C" Avenue to "H" Avenue	Construct sidewalks on north side of street	La Grande	Tier 3	\$146,500
Cedar Street	"K" Avenue to "L" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 2	\$29,900
Cedar Street	"L" Avenue to "M" Avenue	Construct sidewalks on east side of street	La Grande	Tier 1	\$12,500
Cedar Street	"M" Avenue to "N" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 2	\$29,800
Cedar Street	"O" Avenue to Penn Avenue	Construct sidewalks on east side of street	La Grande	Tier 3	\$16,300
Cedar Street ¹	"Y" Avenue to "Z" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$19,600
Cherry Street	Washington Avenue to U.S. 30/ Adams Avenue	Construct sidewalks on east side of street	La Grande	Tier 1	\$5,400
Cove Avenue	Balm Street to Portland Street	Construct sidewalk on north side of street	La Grande	Tier 1	\$31,500



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Depot Street	Jackson Avenue to “X” Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$67,800
Depot Street/ Monroe Avenue	Jackson Avenue to Elm Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$58,000
Division Avenue	Umatilla Street to 3rd Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$102,000
Fir Street	“U” Avenue to “Z” Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$125,900
Hall Street	“L” Avenue to Cove Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$155,200
Harrison Avenue ¹	Umatilla Street to Walnut Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$116,200
Jackson Avenue	4th Street to Birch Street	Construct sidewalks on south side of street	La Grande	Tier 3	\$59,700
Jackson Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$29,800
Jackson Avenue	Spruce Street to Willow Street	Construct sidewalks on south side of street	La Grande	Tier 2	\$78,100
Jefferson Avenue	3rd Street to 4th Street	Construct sidewalks on both sides of street	La Grande	Tier 3	\$54,200
Maple Avenue	“Y” Avenue to “Z” Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$27,100
Maple Avenue	Jackson Avenue to “V” Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$70,500
May Lane ¹	Spruce Street to Riddle Road	Construct sidewalks on both sides of street	La Grande	Tier 3	\$590,800
Oak Street ¹	“K” Avenue to “L” Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 1	\$29,900
Oak Street ¹	“L” Avenue to “M” Avenue	Construct sidewalks on west side of street	La Grande	Tier 2	\$12,500
Oak Street ¹	“M” Avenue to “O” Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 1	\$29,900



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Oak Street	Benton Avenue to Division Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$29,900
Oak Street	Harrison Avenue to Lane Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$51,500
Oak Street	Lane Avenue to Benton Avenue	Construct sidewalks on east side of street	La Grande	Tier 3	\$16,800
Oregon 82/ Island Avenue	I-84 eastbound ramps to I-84 westbound ramps	Complete sidewalk gaps on south side of street	ODOT	Tier 1	\$43,400
Palmer Avenue	Alder Street to Cedar Street	Construct sidewalks on south side of street	La Grande	Tier 2	\$38,000
Penn Avenue	Alder Street to 3rd Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$47,800
Pine Street	"U" Avenue to "X" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$46,700
Pine Street	"Y" Avenue to "Z" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$27,100
Pine Street	Jackson Avenue to "U" Avenue	Construct sidewalks on east side of street	La Grande	Tier 3	\$13,600
Portland Street ¹	Cove Avenue to Oregon 82/ Island Avenue	Complete sidewalk gaps on west side of street	La Grande	Tier 1	\$23,100
Spring Avenue ¹	4th Street to 6th Street	Complete sidewalk gaps on both sides of street	La Grande	Tier 3	\$16,300
Spruce Street ¹	"Z" Avenue to Fruitdale Lane	Construct sidewalks on both sides of street	La Grande	Tier 2	\$192,600
Spruce Street ¹	Monroe Avenue to "S" Avenue	Construct sidewalks on west side of street	La Grande	Tier 1	\$34,200
U.S. 30/ Adams Avenue ¹	Alder Street to Walnut Street	Construct sidewalks on north side of street	ODOT	Tier 3	\$8,100
Umatilla Street ¹	Harrison Avenue to Division Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$40,600
Umatilla Street	Division Avenue to Polk Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$56,400



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Walnut Street ¹	"K" Avenue to "N" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 1	\$81,400
Walnut Street ¹	"N" Avenue to "O" Avenue	Construct sidewalks on west side of street	La Grande	Tier 1	\$13,600
Walnut Street ¹	La Grande south city limits to "C" Avenue	Construct sidewalks on both sides of street	La Grande	Tier 3	\$128,800
Walnut Street ¹	Penn Avenue to Spring Avenue	Construct sidewalks on east side of street	La Grande	Tier 3	\$14,100
Walnut Street	U.S. 30/ Adams Avenue to Palmer Avenue	Complete sidewalk gaps on both sides of street	La Grande	Tier 2	\$54,800
Walnut Street ¹	Washington Avenue to U.S. 30/ Adams Avenue	Complete sidewalk gaps on east side of street	La Grande	Tier 3	\$19,000
Willow Street ¹	"N" Avenue to Cove Avenue	Construct sidewalks on west side of street	La Grande	Tier 1	\$100,800
Willow Street ¹	Jefferson Avenue to "N" Avenue	Construct sidewalks on east side of street	La Grande	Tier 2	\$47,500
Sidewalks and Bicycle Lanes					
20th Street ¹	Gekeler Lane to U.S. 30/ Adams Avenue	Construct bicycle lanes and sidewalks on both sides of street	La Grande	Tier 3	\$1,400,000
Monroe Avenue	Hemlock Street to Oregon 82/ Island Avenue	Construct bicycle lanes and sidewalks on both sides of street	La Grande	Tier 1	\$98,200
Southern La Grande loop road (Phase 1) ¹	2nd Street to 12th Street	Construct bicycle lanes and sidewalks in conjunction with new street	La Grande	Tier 3	\$1,079,400
Southern La Grande loop road (Phase 2) ¹	12th Street to Foothill Road	Construct bicycle lanes and sidewalks in conjunction with new street	La Grande	Tier 3	\$1,079,400
U.S. 30/ Adams Avenue	20th Street to "H" Avenue	Stripe bicycle lanes and complete sidewalk gaps on both sides of street	ODOT	Tier 2	\$33,900
U.S. 30/ Adams Avenue ¹	Willow Street to 20th Street	Stripe bicycle lanes and complete sidewalk gaps on both sides of street	ODOT	Tier 1	\$43,100



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Bicycle Lanes					
"C" Avenue	Sunset Drive/ Oak Street to 6th Street	Construct bicycle lanes on both sides of street	La Grande	Tier 2	\$185,000
Oregon 82/Island Avenue	Monroe Avenue to Riddle Road/ Mulholland Drive	Provide additional striping to clarify bicycle lanes (to discourage motorists from using the bicycle lane as a right-turn lane)	ODOT	Tier 2	\$34,500
Pine Street/ Cove Avenue ¹	Oregon 82/ Island Avenue to Portland Street	Construct bicycle lanes on both sides of street	La Grande	Tier 1	\$106,600
Shoulder Bikeways					
Foothill Road ²	20th Street to La Grande south city limits	Construct shoulders on both sides of road to accommodate bicycle and pedestrian travel	La Grande/ Union County	Tier 3	\$442,700
Shared Roadways/Bicycle Boulevards					
2nd Street	"C" Avenue to U.S. 30/ Adams Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 1	\$13,000
2nd Street	"Y" Avenue to Blackhawk Trail	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$9,800
2nd Street	U.S. 30/ Adams Avenue to "Y" Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$5,500
4th Street	"C" Avenue to "O" Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 2	\$39,800
4th Street	"O" Avenue to Jefferson Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 2	\$67,200
4th Street/ Jackson Avenue/ Depot Street/ Monroe Avenue	"Y" Avenue to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$2,200



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
6th Street	"C" Avenue to Washington Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 2	\$55,200
8th Street	"L" Avenue to Washington Avenue	Implement Level 1, 2, 3, 4, and 5 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming, traffic diversion)	La Grande	Tier 3	\$41,800
12th Street	Gildcrest Drive to Gekeler Lane	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$3,800
12th Street	Gekeler Lane to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 1	\$1,600
16th Street	Gekeler Lane to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$1,300
25th Street	"H" Avenue to Cove Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$1,500
"H" Avenue	12th Street to 16th Street	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 2	\$4,000
"H" Avenue	Sunset Drive to 6th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 2	\$17,500
"H" Avenue	U.S. 30/ Adams Avenue to 25th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$1,000
"K" Avenue	Sunset Drive to 2nd Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 1	\$800
"L" Avenue	8th Street to 12th Street	Implement Level 1 bicycle boulevard applications (signage)	La Grande	Tier 2	\$800
"L" Avenue	Willow Street to 25th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$1,500
"M" Avenue	6th Street to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$1,000



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
"M" Avenue	Alder Street to 4th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$1,200
"N" Avenue	4th Street to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$700
"N" Avenue	Alder Street to 4th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$1,200
"N" Avenue	Cherry Street to Willow Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$500
"R" Avenue	Albany Street to 21st Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$500
"Y" Avenue	2nd Street to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$7,400
Albany Street	Cove Avenue to Oregon 82/ Island Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$3,800
Cherry Street	Washington Avenue to Cove Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$1,000
Fir Street	Washington Avenue to Jefferson Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 2	\$63,500
Fir Street/ "S" Avenue	Jefferson Avenue to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$900
Greenwood Street	Jefferson Avenue to "Y" Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 3	\$15,500
Greenwood Street	Washington Avenue to Jefferson Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 2	\$48,000
Harrison Avenue/ "Z" Avenue/ Cedar Street/ "Y" Avenue	Future Grande Ronde River Path to 2nd Street	Implement Level 1 bicycle boulevard applications (signage)	La Grande	Tier 3	\$1,250



3. Recommended Pedestrian and Bicycle Network

Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Jefferson Avenue	Oak Street to 4th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 3	\$17,100
Jefferson Avenue/ Hemlock Street	4th Street to Washington Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 1	\$79,200
May Lane	Spruce Street to Oregon 82/ Island Avenue	Implement Level 1 bicycle boulevard applications (signage)	La Grande	Tier 3	\$2,700
Oak Street	"K" Avenue to Palmer Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 3	\$38,300
Portland Street	Cove Avenue to Oregon 82/ Island Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 3	\$600
Spruce Street	Monroe Avenue to "Z" Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 1	\$23,400
Spruce Street	"Z" Avenue to Blackhawk Trail	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande/ Union County	Tier 3	\$7,500
Sunset Drive/ Alder Street	"C" Avenue to "N" Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	La Grande	Tier 2	\$1,720
Washington Avenue	4th Street to Greenwood Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 1	\$113,000
Washington Avenue	Greenwood Street to Willow Street	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 2	\$45,100
Washington Avenue	Oak Street to 4th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 3	\$17,100
Willow Street	"L" Avenue to Cove Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	La Grande	Tier 1	\$25,300



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Willow Street	Washington Avenue to “L” Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	La Grande	Tier 3	\$11,500
Shared—Use Paths					
EOU/South Central Neighborhood Perimeter Path	6th (between “L” and Gekeler); Gekeler (between 6th and 12th); 12th (between Gekeler and “H”)	Construct shared-use path on east side of 6th, north side of Gekeler, and west side of 12th	La Grande	Tier 2	\$938,200
EOU northeast access path	EOU campus (near Hunt Hall) to “K” Avenue	Construct shared-use path to improve EOU campus access	La Grande	Tier 3	\$22,700
EOU southeast access path	12th Street to west of future 10th Street extension	Formalize existing trail on city-owned access road through signage, bollards and other treatments	La Grande	Tier 2	\$20,000
EOU southern access path	Gekeler Lane to existing path near State of Oregon Integrated Services Building	Construct shared-use path to improve EOU campus access	La Grande	Tier 3	\$88,100
Grande Ronde River Path	La Grande west city limits (near Harrison Avenue) to Oregon 82 (in Island City)	Coordinate with Island City and Union County to conduct a study to determine feasibility of constructing a shared-use path along the Grande Ronde River	La Grande/ Island City/ Union County	Tier 1	\$20,000 - \$100,000
La Grande Greenway Corridor Path (central segment)	Northern terminus of La Grande Greenway Path (south segment) to southern terminus of La Grande Greenway Path (north segment)	Conduct study to determine feasibility of constructing a shared-use path or improving on-street bike/ped facilities between Greenway Path’s northern and southern segments	La Grande	Tier 3	\$20,000 - \$100,000
La Grande Greenway Corridor Path (north segment)	May Lane/ Riddle Road to Grande Ronde River	Conduct study to determine feasibility of constructing a shared-use path connecting north La Grande to the Grande Ronde River	La Grande	Tier 3	\$20,000 - \$100,000
La Grande Greenway Corridor Path (south segment)	Gekeler Lane to “R” Avenue	Construct shared-use path along existing drainage ditch	La Grande	Tier 2	\$1,259,300



Project	From – to	Description	Lead Agency	Priority (Tier 1, 2, 3)	Planning Level Cost Estimate (excluding property acquisitions and easements) ⁴
Southeast La Grande loop path	Future stormwater corridor roughly following Foothill Road, La Grande south city limits, and U.S. 30 (south of Gekeler Lane)	Construct shared-use path within future stormwater corridor	La Grande	Tier 3	\$1,174,200
Southern La Grande east-west path	Future stormwater corridor from 12th Street to U.S. 30 (north of Camas Court Drive)	Conduct study to determine feasibility of constructing a shared-use path along future stormwater corridor	La Grande	Tier 2	\$20,000 - \$100,000
Other Projects					
Bicycle wayfinding signage plan	N/A	Develop a citywide bicycle wayfinding signage plan identifying: appropriate locations for signs, destinations to be highlighted on each sign, and approximate distance and “riding time ” to each destination.	La Grande	Tier 1	\$20,000

1 This project was adopted in the 1999 La Grande/Island City Transportation System Plan.

2 This project was adopted in the 1999 Union County Transportation System Plan.

3 This project was recommended as part of recent planning efforts in the South Central Neighborhood.

4 For uncompleted projects adopted in the 1999 La Grande/Island City Transportation System Plan, the original 1999 cost estimate was increased by 40%. Cost estimates for all other projects include 30% for contingency and 25% for design and construction management (beyond the original project cost).



La Grande

Pedestrian & Bicycle Improvement Plan



4. RECOMMENDED PEDESTRIAN AND BICYCLE PROGRAMS

Introduction

Bicycle and pedestrian programs enhance the biking and walking experience in ways other than the provision of traditional walkways and bikeways. Support programs include educational programs, the provision of bicycle parking, and various city programs and policies.

Safe Routes to School

Safe Routes to School (SR2S) refers to a variety of multi-disciplinary programs aimed at promoting walking and bicycling to school, and improving traffic safety around school areas through education, incentives, increased law enforcement, and engineering measures. Safe Routes to School programs typically involve partnerships among municipalities, school districts, community and parent volunteers, and law enforcement agencies. La Grande's SR2S efforts are a vital component of the Pedestrian and Bicycle Improvement Plan, as they will facilitate the implementation and funding for specific improvements that will help increase bicyclist and pedestrian safety and encourage fewer auto trips.



Student escorting fellow students across the street

The City has a vested interest in encouraging school children to lead active lifestyles. Safe Routes to School programs offer ancillary benefits to neighborhoods by helping to slow traffic and provide reasonable facilities for walking by all age groups. The City benefits from a generally well-connected street system near most schools, a critical element in encouraging children to bike and walk to school.

Why Do We Need SR2S?

The purpose of a SR2S program is to identify and improve school commute routes, to increase the number of students who walk and/or bicycle to school in La Grande, to lessen traffic congestion, and to improve health. Although most children walked or biked to school before and during the 1980s, the number of children walking or bicycling to school has sharply declined since, due to urban growth patterns and design which have made it less safe to do so, in addition to other factors such as higher obesity rates and changes in lifestyle emphasizing more driving. Walking and bicycling to school are

healthy alternatives to being driven, and can provide a sense of independence for children who may otherwise be restricted by school bus or parents' schedules.

What are the Benefits of a SR2S Program?

The primary benefit of implementing a SR2S program is the resulting increase in safety for children walking and riding bicycles to school. A comprehensive strategy based on a cooperative effort between school officials, parents, residents and city planning staff will ensure that specific school-related traffic calming projects and pedestrian and bicycle improvements will become priority projects eligible for State, Federal or other grant funding. The involvement of various stakeholders throughout the Safe Routes process increases the likelihood for implementation of needed safety improvements. While

the primary focus of a SR2S program is improving safety for children walking and biking to school, these safety benefits often extend to all age and activity groups. In addition to safety enhancements, a SR2S program helps integrate physical activity into the everyday routine of schoolchildren. Health concerns related to sedentary lifestyles have become the focus of efforts both statewide and nationally to reduce health risks associated with being overweight. Identifying and improving routes for children to safely walk and bicycle to school is one of the most cost-effective means of reducing weekday morning traffic congestion (especially at school drop-off and pick-up sites) and can help reduce auto-related pollution.



Children walking to school

Local Coordination and Involvement

In order to be successful, a SR2S program in La Grande will need buy-in from individuals and organizations throughout the community. While each individual school will have unique concerns and goals for developing a SR2S program, an organizational strategy that promotes the sharing of ideas between schools can be more effective than several isolated school groups. The key components of an effective SR2S program include champions (individuals at each school who spearhead their school's organizing effort), stakeholders (a team of people from an individual school), and a task force made up of all the stakeholder teams in the community.

The basic components of the proposed SR2S program include: bicycle/pedestrian safety education, encouragement, engineering improvements, and enforcement of traffic laws.

Education

Curriculum programs implemented in schools can teach children the basics regarding pedestrian and bicycle safety. Classroom educational materials should be presented in a variety of formats (safety videos, printed materials, and classroom activities), and should continually be updated to make use of the most recent educational tools available. Classroom education programs should also be expanded to promote the health and environmental benefits of bicycling and walking. Outside schools, educational materials



should be developed for different audiences, including elected officials (describing the benefits of and need for a SR2S program), and parents (proper school drop-off procedures and safety for their children).

Educational programs should be linked with events and incentive programs when appropriate, and students should be included in task force activities, such as mapping locations for improvements. Involving students can serve as an educational tool and can also provide the task force with meaningful data that is useful for prioritizing improvement locations. Educational programs, and especially on-bike training, should be expanded to more schools and for more hours per year.



In-class training



On-bike training

Encouragement

School commute events and frequent commuter contests are used to encourage participation. Programs that may be implemented include a “Walking School Bus Program,” which involves parents taking turns walking (or bicycling) with groups of children to school. A good opportunity to kick-off a SR2S program is during International Walk to School Day, held annually in early October. Good resources and start-up material can be found at the City of Portland’s new Safe Routes to School website, <http://www.trans.ci.portland.or.us/saferoutes/program/>. Organized Bike and Walk to School Days should be held monthly or weekly to keep the momentum going and encourage more children and their parents to walk or bike to school. Prizes or drawings for prizes offered to participants have been used in some schools as an incentive. Events related to bicycling and walking should be incorporated into existing curricula when practical. Involving local celebrities or publishing the names of student participants in events can be effective means of encouraging student involvement. Another key to successful events is promotion. Ensuring that parents are aware of events (whether classroom-specific or district-wide) is crucial to gaining maximum student participation.

Other contests and event ideas to encourage bicycling and walking to school include: competitions in which classrooms compete for the highest proportion of students walking or biking to school, themed or seasonal events, and keeping classroom logs of the number of miles biked and walked by children and plotting these distances on a map of Oregon or the U.S. A wealth of information and ideas for promoting SR2S programs can be found at: www.nhtsa.dot.gov/people/injury/pedbimot/ped/saferouteshtml/index.html.

Enforcement

Various techniques are employed to ensure traffic laws are obeyed. The SR2S task force and stakeholder teams should develop priority areas in need of enforcement by the La Grande Police Department. One option to avoid the cost of providing physical police presence is to use innovative signage, such as in-roadway crosswalk signs to alert motorists that children may be crossing, or speed feedback signs that



indicate to motorists their current speed. Neighborhood speed watch programs, in which community members borrow a radar device and use it to record the license plate numbers of speeding vehicles, can also be effective. These measures could be effective for schools near higher-volume roadways (e.g., Spruce Street near Greenwood School).

Engineering

To provide safe access for children, school sites should have designated pedestrian access points that do not require students to cross in front of drop-off and pickup traffic. Locations identified through the SR2S process should be considered for SR2S grant funding.

Streetscape improvements should ensure adequate sight distance on all access routes, crossings, and intersections. School zone designations for speed limits should be an element of a comprehensive circulation plan that also includes school-based student as well as Police Department crossing guard programs and identification of safe routes for bicycling and walking to school.

Funding

While much of the initial work involved in starting a SR2S program can be conducted by stakeholder team volunteers, eventually funding will be needed to plan and implement physical improvements, hold events, and develop and implement educational programs and materials.

Capital Funding

Capital funding for infrastructure improvements is available from a variety of sources. The SR2S task force should work with City staff to identify all potential funding sources and to provide support on funding requests. La Grande may be able to pursue federal funds recently made available with the new Safe Routes to School Program established in the Safe, Accountable, Flexible, Efficient Transportation Equity Act - A Legacy for Users (SAFTEA-LU). This section of the bill provides \$612 million in funding over the next five years with no state receiving less than \$1 million per fiscal year. Other portions of SAFETEA-LU, such as the Transportation Enhancements (TE) and the Congestion Mitigation and Air Quality (CMAQ) funds may also provide funding opportunities for bicycle and pedestrian projects.

Program Funding

As La Grande's SR2S program develops, funding will be needed to support the overall program, including coordination assistance, purchasing incentives, printing newsletters, staffing events, and developing educational materials. Both school-based and program-based funding will be essential for success. When program funding is pursued, it should be emphasized that a SR2S program improves the entire community by relieving traffic congestion, contributing to cleaner air, creating alternative transportation routes, and improving the health and safety of children and the entire community. In order to maintain and expand the program, new sources of funding need to be obtained. Other possible funding sources include:

- **Corporations and Businesses:** Local corporations (such as Boise Cascade) and businesses may be able to provide cash, prizes, and/or donations, such as printing services, through community



giving or other programs. Parents or other members of stakeholder teams may be a good source for contacting companies.

- **Foundations:** There are institutions throughout the country that provide funding to non-profit organizations. The Foundation Center is a national organization dedicated to collecting and communicating information about philanthropy in the U.S., and is an excellent source for researching potential foundation funding sources. Potential foundation funding sources can be searched by geographic region and by category. Some categories that may be applicable include transportation, health, environment, and community building.
- **Individuals:** Statistically, individuals give more money than corporations and foundations combined. A local fund drive can quickly reach a large number of people if outreach is conducted by stakeholder team members.
- **Events:** Many SR2S programs have raised funds by holding special events, often using a related themed event such as a walkathon or a bicycling event. More traditional fundraising efforts, such as bake sales, concerts, talent shows, etc., can also help raise funds. Events such as Celebrate La Grande provide opportunities to promote and raise funds for SR2S programs.
- **Parent Teacher Associations (PTAs) and School Districts:** Many PTAs have funds to distribute to school programs, and often schools have their own safety funding sources. Stakeholder teams should work with local PTAs and school districts to see if there is a method for applying for a grant.
- **City and County Funds:** Some cities and counties allocate funds to support SR2S programs. Some also allocate a portion of their local Transportation Enhancement funds to SR2S educational programs.
- **State Funds:** Each state receives Federal Highway Safety Funds, also called 402 Funds. Although each state handles this program differently, most funding is available on a competitive basis for projects that increase road safety.

Bicycle Parking

Lack of secure, convenient bicycle parking is a deterrent to bicycle travel. Bicyclists need parking options that can provide security against theft, vandalism, and weather. Like automobile parking, bicycle parking is most effective when it is located close to trip destinations, is easy to access, and is easy to find. Where quality bicycle parking facilities are not provided, determined bicyclists lock their bicycles to street signs, utility poles or trees. These alternatives are undesirable as they are usually not secure, may interfere with pedestrian movement, and can create liability or damage street furniture or trees. Bicycle parking facilities that are conveniently located and adequate in both quantity and quality can help reduce bicycle theft and eliminate inappropriate parking, benefiting everyone. Bicycle parking is highly cost-effective compared with automobile parking.

As discussed in Section 2, convenient bicycle parking facilities are located in several parts of town including the EOU campus and in some commercial areas. Other areas, including downtown La Grande, could benefit from a more comprehensive network of facilities. Chapter 5 of the Land Development



Code contains language governing the provision of bicycle parking in La Grande. Section 5.7.009 outlines minimum vehicle and bicycle parking standards for various land uses. For example, the Code requires at least four bicycle parking spaces per classroom for elementary and junior high schools, and at least two spaces (or 20 percent of the number of vehicle parking spaces, whichever is greater) for libraries and museums.

Most of La Grande's parking minimums meet or exceed the recommended guidelines set out by the Oregon Bicycle and Pedestrian Plan, which is commendable. However, parking requirements for some land uses are not as stringent as the guidelines recommended by the Oregon Bicycle and Pedestrian Plan, occasionally leading to a lack of accessible bicycle parking.

The City should revisit the current bicycle parking requirements and revise them if deemed necessary. The City might also undertake a bicycle parking analysis to determine whether all of the bicycle parking required by the Land Development Code is being provided, and if so, that it is being provided in locations that are visible and free of obstacles. It should also be noted that the Code only establishes parking minimums, and new commercial establishments should be encouraged to exceed the standards as set out in the Land Development Code.

Recommendations for the type and placement of bicycle parking facilities are presented in the Section 5, Design Guidelines.

Bicycle/Pedestrian Access to Transit

The EOU-La Grande-Island City shuttle system provides great opportunities for increasing pedestrian/bicycle-transit partnerships in La Grande and throughout Community Transit's service area. Improvements to the pedestrian environment around transit stops and transit centers increases pedestrian safety, comfort, and may generate more ridership since most passengers start and end their trips as pedestrians. Integrating bicycles with transit allows the bicyclist to overcome barriers such as hills, inclement weather, night riding, and breakdowns. To improve the pedestrian/bicycle-transit link, La Grande and Community Transit need to:

- Complete the sidewalk network on both sides of the roadway along the EOU-La Grande-Island City shuttle route to ensure connectivity and accessibility for all users. This can be accomplished as new development or redevelopment occurs, or as part of a Sidewalk Infill Program.
- Provide benches, shelters, lighting, posted maps and schedules and other amenities at transit stops;
- Provide secure bicycle parking at or near transit stops;
- Address the needs of bicycle and pedestrian circulation in the design of future transit centers; and
- Ensure that bicycles are always allowed on buses



Providing Good Sidewalks and Bikeways to Transit Stops

Improvements to the pedestrian environment around transit stops increases pedestrian safety, comfort, and may generate more transit ridership since most transit trips include a pedestrian trip at one or both ends. Most streets along the EOU-La Grande-Island City shuttle route have sidewalks on both sides, though some streets have sidewalks on one side only or no sidewalks at all (e.g, portions of Gekeler Lane, 12th Street, and Fir Avenue). Furthermore, sidewalks on several streets are in substandard condition (e.g., cracked or in disrepair).

La Grande's bikeway network should also provide good access to transit. Most streets along the shuttle route are suitable for bicycle travel either through low-volume streets or the provision of bicycle lanes on higher-volume roads.

The Design Guidelines chapter provides further recommendations for the design of transit stop amenities.

Addressing Bicycle and Pedestrian Needs at Transit Centers

Community Transit has identified the Union County Senior Center as a potential location for a future transit center serving the EOU-La Grande-Island City shuttle and other potential transit routes. Pedestrian/bicycle access and internal circulation and amenities should be a high priority in the design of transit centers. High visibility crosswalks should be provided on adjacent access points, and crosswalk and sidewalk widths should be adequate to accommodate peak pedestrian flows. Internal circulation should be direct, well-signed, and meet ADA standards; and appropriate amenities such as shelters, benches, restrooms, and other features provided. Transit centers should also provide secure and convenient bicycle parking facilities.

Providing Secure Bicycle Parking

Long-term bicycle parking facilities (e.g., lockers) may be the most appropriate parking provision along the EOU-La Grande-Island City shuttle route. "BikeStations" may also be appropriate in "higher-activity" areas like EOU, downtown La Grande and the potential future transit center at the Union County Senior Center, which serve as major bicycle and transit trip origins and destinations. BikeStations are public/private community support facilities designed to encourage bicycling and transit use by providing:

- Secure, valet bicycle parking
- Transit amenities and services
- Close connections to transit

BikeStations may also provide other amenities such as:



San Jose, CA BikeStation™



- Bicycle accessory retail sales
- Bicycle rentals
- Restrooms/changing facilities
- Electric bicycles
- Safety/education information

Depending on specific design and location parameters, BikeStations can cost several hundred thousand dollars to build and operate. However, costs can be significantly reduced by utilizing existing buildings or covered structures. Opportunities to develop BikeStations could arise if new development or redevelopment occurs in high-activity areas like downtown or EOU.

Allow Bicycles on Transit

Dozens of American cities currently allow bikes on trains and buses in some form. In La Grande, the Community Transit shuttle fleet currently lacks bicycle racks, and bicycles are not allowed onboard. Community Transit should consider adding bicycle racks to their shuttle buses. Racks typically cost about \$500 each. This would allow cyclists to make longer trips (e.g., from EOU to Island City).



Bicycles on transit

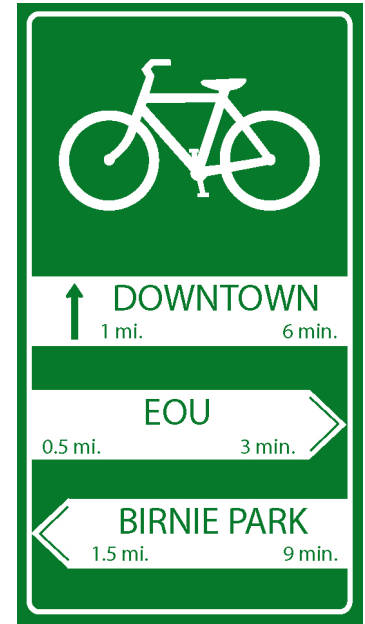
Alternative Transportation Advisory Committee

The City of La Grande should consider creating an Alternative Transportation Advisory Committee. This committee would oversee implementation of the various related plans, such as the Pedestrian and Bicycle Improvement Plan. The committee would also coordinate with other City departments (e.g., Public Works and Planning) and other organizations (e.g., Community Transit) to ensure that the needs of bicyclists and pedestrians are being considered in all new projects and relevant programs.



Wayfinding/Signing Program

The ability to navigate through a town or city is informed by landmarks, natural features, and other visual cues. A signage system is a key component of a navigable environment and would inform pedestrians, bicyclists, and motorists, while also enhancing the identity of La Grande. An effective wayfinding system communicates information clearly and concisely. Placing signs throughout the city indicating to bicyclists and pedestrians their direction of travel, location of destinations, and the time/distance to those destinations will increase users' comfort and accessibility to the bicycle and pedestrian system. Costing about \$125 each, wayfinding signs are a relatively cost-effective means for improving the walking and bicycling environment.



Wayfinding sign concept

Spot Improvement Program

Having the ability to respond quickly to the requests of bicyclists and pedestrians will enhance La Grande's standing as a bicycle- and pedestrian-friendly community. A Spot Improvement Program could be funded once a year, with all funds dedicated to smaller spot improvements identified by City staff and residents. Such improvements might include:

- Striping and signing of a particular path to increase safety and path user compliance along a heavily-used path
- Adding bicycle parking to locations that currently lack appropriate or insufficient parking, such as areas in downtown
- Sidewalk infill to safely connect vital pedestrian routes, especially in school areas
- Adding appropriate directional and informational signage along paths, sidewalks, and bicycle routes
- Re-striping of bicycle lanes or crosswalks where the striping has worn away
- ADA improvements in parks

Becoming a Bicycle Friendly Community

The Bicycle Friendly Community (BFC) Campaign is a national awards program that recognizes municipalities that actively support bicycling. A Bicycle-Friendly Community provides safe accommodations for cycling and encourages its residents to bike for transportation and recreation. The Bicycle Friendly Community Campaign is administered by the League of American Bicyclists, an education and advocacy organization working to bring better cycling to communities around the country. The BFC designation is awarded at one of four levels (from lowest to highest): bronze, silver, gold, and platinum. To date, there have been no platinum designations awarded. In Oregon, five communities have been



designated Bicycle Friendly Communities: Portland (Gold), Corvallis (Gold), Eugene (Silver), Ashland (Bronze) and Beaverton (Bronze).

What Does it Take?

Determining whether a community is bicycle-friendly involves considering many factors and conditions. The application is an audit of a community's efforts to provide a more bicycle-friendly environment. The audit reviews engineering, education, encouragement, enforcement, and evaluation and planning efforts for bicycling. The entire application and feedback from cyclists in the community is sought to determine whether the League will award the BFC designation. The application is available online at <http://www.bicyclefriendlycommunity.org/apply.cfm>.²⁴ The BFC campaign effort can be initiated by anyone; however, the application process requires information that only the City and City staff would possess, and requires the enthusiastic support of La Grande.

Strategies

There are a number of short- and long-term steps La Grande can take to become a "Bicycle Friendly Community." The City should first commit to becoming a BFC. The League of American Bicyclists provides an "Action Plan for Bicycle Friendly Communities," which identifies ten specific steps that the community should take to improve bicycling conditions. The City should then adopt the Action Plan publicly with the full backing of the Mayor and City Council.

Action Plan for Bicycle-Friendly Communities

1. Adopt a target level of bicycle use (e.g., percent of trips) and safety to be achieved within a specific timeframe, and improve data collection necessary to monitor progress.
2. Provide safe and convenient bicycle access to all parts of the community through a signed network of on- and off-street facilities, low-speed streets, and secure parking. Local cyclists should be involved in identifying maintenance needs and on-going improvements.
3. Establish information programs to promote bicycling for all purposes, and to communicate the many benefits of bicycling to residents and businesses (e.g., with bicycle maps, public relations campaigns, neighborhood rides, a ride with the Mayor).
4. Make the City a model employer by encouraging bicycle use among its employees (e.g., by providing parking, showers and lockers, and establishing a city bicycle fleet).
5. Ensure all city policies, plans, codes, and programs are updated and implemented to take advantage of every opportunity to create a more bicycle-friendly community. Staff in all departments should be offered training to better enable them to complete this task.
6. Educate all road users to share the road and interact safely. Road design and education programs should combine to increase the confidence of bicyclists.



7. Enforce traffic laws to improve the safety and comfort of all road users, with a particular focus on behaviors and attitudes that cause motor vehicle/bicycle crashes. Bicyclists should be educated to always ride in the direction of vehicle traffic.
8. Develop special programs to encourage bicycle use in communities where significant segments of the population do not drive and where short trips are most common, such as the Safe Routes to School program discussed earlier in this chapter.
9. Promote intermodal travel between Community Transit and bicycles (e.g., by installing bicycle racks on buses, improving parking at transit stops, and improving bicycle access to transit stops).
10. Establish a citywide, multi-disciplinary committee for non-motorized mobility to submit to the Mayor/Council a regular evaluation and action plan for completing the items in this action plan.

The City should educate community members and City staff on how to become more bicycle-friendly. This could entail holding a workshop or other public forum to introduce community leaders to the basic elements of a BFC. The City should also work with Oregon's Bicycle Transportation Alliance and Safe Routes to School programs to further the education effort.

Finally, the City should implement the Action Plan. Once the Action Plan has been adopted, the City needs to ensure that the Plan is implemented, and prepare and submit its BFC application.

Sidewalk Infill Program

It is a major objective of this Plan to expand sidewalks in order to increase walking for transportation and recreation, and to overcome gaps in sidewalks that inhibit walking. The very qualities that make La Grande unique and livable are inextricably linked to its pedestrian-friendliness. The City also recognizes the intrinsic health, safety, economic, and environmental benefits of improving pedestrian facilities and the level of walking.

Completing some sidewalk links can be challenging, especially in older residential areas where residents have developed fencing and landscaping within the public right-of-way and may consider those areas to be part of their personal space. In addition, some residents may not want traditional sidewalks due to the rural look of their neighborhoods, and potential impacts to mature landscaping and trees. Regardless, the public right-of way that is generally located on either side of the paved driving and parking area is intended for walking, whether or not a sidewalk currently exists.

La Grande should develop a Sidewalk Infill Program where City staff periodically inventory the street network to identify sidewalk gaps, and develop strategies, project prioritization criteria and funding for completing these gaps. Potential project prioritization criteria include filling gaps along key pedestrian routes, near major pedestrian trip generators like schools, and along streets with high vehicle volumes.



Potential Implementation Process

In order to inform adjacent property owners of plans to construct a sidewalk in the public right-of-way, the Public Works Department could conduct extensive public outreach. The outreach could include of the following steps:

At the beginning of design, City staff would send a notification letter to all residents on the block face (owner and resident) on blocks that would have sidewalk infill construction on either side of the street. The letter would notify them that their location has been chosen for the Sidewalk Infill Program, that design has started, and to contact Public Works with any questions about the program.

City staff would send a notification postcard to the resident list at 50 percent design completion. This would allow the design to be far enough along to answer specific questions on a location-by-location basis, but still allow changes to the design as appropriate before finalizing the design. City staff would meet with any residents who contact the City regarding design/construction details, and they would refer any questions about the general Sidewalk Infill Program to the Public Works Department.

When design is complete and the project goes out to bid, City staff would send a third notification postcard to the resident list informing them that the project is out to bid. Council would award the construction contract and receive a map of all locations where sidewalks are to be constructed. When construction contracts are approved by Council, City staff would send a 4th notification postcard to the resident list informing them that Council has approved the construction contract and the anticipated construction schedule, and that the residents would receive a door hanger notice at least 72 hours before construction begins at their particular location.

Accommodating People with Disabilities

With the advent of the Americans with Disabilities Act (ADA) in 1990, the nation recognized the need to provide equal access to all residents. Since its inception, ADA has significantly changed the design requirements for the construction of public space. However, much of the pedestrian environment built prior to the ADA's inception does not adequately accommodate people with disabilities. The City of La Grande's approach is to gradually change this situation through land development project requirements, unrelated capital street improvement projects, and capital projects that specifically retrofit antiquated public pedestrian facilities.

It is important to note that a pedestrian environment that is strategically built to be accessible for people with disabilities is also more accessible for all. Curb ramps, for instance, can accommodate strollers, shopping carts and dollies for the movement of goods. Accessible intersection crossings can increase the safety for people regardless of ability. In recognition of this, the City's philosophical approach is to create pedestrian environments that are attractive, functional, and accessible to all people.

Developing an ADA Transition Plan

As a part of the implementation of ADA, the Justice Department requires that all municipal jurisdictions have an ADA Transition Plan, which is intended to spell out the City's intentional retrofitting of its built



environment to an accessible state. Much of this work is already accomplished under the City's Sidewalk Maintenance Program. Under this program, City inspectors evaluate all neighborhood sidewalks once every ten years, and all sidewalks in the downtown core once every five years. Using inspection guidelines outlined in the Sidewalk Maintenance Program Handbook, inspectors evaluate the sidewalk network to identify potential tripping hazards such as cracks, uneven joints, holes, and protruding tree roots. Affected property owners are subsequently notified and given six months to complete necessary repairs.

While the elements of the Pedestrian and Bicycle Improvement Plan are purposely written to accommodate people with disabilities, a separate document with greater specificity is required. The ADA Transition Plan should use all the relevant strategies of this document and the Sidewalk Maintenance Program Handbook, as well as other current practices that have merit. Monies set aside to implement the ADA Transition Plan should be focused to accomplish the priorities of the Plan, rather than diverting them to ADA compliance in an unrelated project.

In order to adequately plan the pedestrian environment for people with disabilities, the ADA Transition Plan must take into account each of the disabilities and the limitations they present. It is also important to be aware of how planning for people with one disability affects people with another. For example, gradual ramps and smooth transitions to the street help people in wheelchairs, but present challenges for the sight-impaired if they cannot easily find the end of the sidewalk and beginning of the street. Additionally, the Plan should also consider the needs of children and older adults.

The section below identifies populations whose needs must be taken into account in creating an accessible pedestrian environment.

People with Mobility Impairments

People with mobility impairments range from those who use wheelchairs, crutches, canes, orthotics, and prosthetic devices, to those who do not use such devices but face constraints for many reasons when walking long distances, on non-level surfaces, or on steep grades. Curb ramps are particularly important to people with mobility impairments. Prosthesis users often move slowly and often have difficulty with steep grades or cross slopes.

People with mobility impairments are affected by:

- Uneven surfaces that hinder movement or cause loss of balance
- Rough surfaces that make rolling difficult, cause a loss of balance, or cause pain especially for people with back injuries
- Steep uphill slopes that can make movement slow or impossible
- Steep downhill slopes that can cause a loss of control or are difficult to negotiate
- Cross slopes that cause instability or loss of balance
- Narrow sidewalks that impede the ability of users to turn or to cross paths with others



- Devices that are hard to reach, such as push buttons for walk signals and doors
- Long distances
- Situations that require fast reaction time
- Signalized walk phases that are shorter than the time it takes for them to cross the street

People with Sensory Impairments

People with sensory impairments include those who are partially or fully blind or deaf. They also include people whose perception of touch or balance is not good, as well as those who are colorblind.

Visually-impaired people have the following characteristics:

- Limited or no perception of the path ahead
- Limited or no information about their surroundings, especially in a new place
- Changing environments in which they rely on memory
- Lack of non-visual information
- Inability to react quickly
- Unpredictable situations, such as complex intersections that are not at 90 degrees
- Inability to distinguish the edge of the sidewalk from the street
- Compromised ability to detect the proper time to cross a street
- Compromised ability to cross a street along the correct path (especially when a curb ramp is oriented diagonally toward an intersection's center point)
- Need for more time to cross the street

Hearing impaired people rely on visual information, which is often inadequate. They face most of their mobility difficulties in not being able to hear approaching vehicles and not being able to detect the time of their arrival. This is especially an issue in locations with limited sight distances, such as where streets curve or landscaping blocks the view.

People with Cognitive Impairments

People with cognitive impairments encounter difficulties in thinking, learning, responding, and performing coordinated motor skills. Cognitive disabilities can cause some to become lost, or to have difficulty finding their way. They may also not understand standard street signage. People who are not able to read benefit from signs with symbols and colors.



Children and Other Adults

Children and many older adults do not fall under specific categories for disabilities, but must be taken into account in pedestrian planning. Children are less mentally and physically developed than adults. They have the following characteristics:

- Less peripheral vision
- Less ability to judge speed and distance
- Difficulty locating sounds
- Read less than adults or not at all, so do not understand text signs
- Sometimes act impulsively or unpredictably
- Lack familiarity with traffic
- Face difficulty carrying packages

Other adults often exhibit degrading sensory or physical capabilities. This can cause them to:

- Gradually lose vision, especially at night
- Have decreased ability to hear sounds and detect where they come from
- Have less endurance; have less strength to walk up hills
- Have less balance, especially on uneven or sloped sidewalks
- React slowly to dangerous situations
- Walk slowly

Education Programs

School-based Education Programs

A school-based bicycle and pedestrian education program educates students about the rules of the road, proper use of bicycle equipment, bicycling skills, street crossing skills, and the benefits of bicycling and walking. These types of education programs are usually sponsored by a joint City/school district committee that includes appointed parents, teachers, student representatives, administrators, police, active bicyclists and engineering department staff. These programs can also be rolled into a Safe Routes to School Program.

Education need not be limited to younger schoolchildren. Adult bicycle education and safety programs can be developed from existing courses, such as the League of American Bicyclists courses. Additionally, the La Grande Police Department may want to utilize adult bicycle education programs as a “bicycle traffic school” in lieu of fines for bicycle-related traffic violations.



Safety Handbook

Safety handbooks are generally developed as part of a school-based bicycle and pedestrian safety program. Handbooks may include a circulation map of the campus and immediate neighborhood showing the preferred circulation and parking patterns, suggested routes to school, locations of crosswalks, crossing guards and signalized intersections, instructions for bicycle maintenance and use, instructions for fitting and wearing a helmet, instructions for crossing the street, and lists of emergency and school numbers. A general handbook can be published by the City and used by each school in conjunction with the school-specific map.

Educate Motorists, City Staff, Maintenance, and Construction Crews

Motorist education on the rights of bicyclists and pedestrians is limited. Many motorists mistakenly believe, for example, that bicyclists do not have a right to ride in travel lanes and that they should be riding on sidewalks. Education about the rights and responsibilities of pedestrians and cyclists can include:

- Incorporating bicycle and pedestrian safety into traffic school curriculum.
- Producing a brochure on bicycle and pedestrian safety and laws for public distribution.
- Enforcing traffic laws for cyclists.
- Providing bicycle and pedestrian planning training for all City planners.
- Working with contractors, subcontractors and city maintenance and utility crews to ensure they understand the needs of bicyclists and pedestrians and follow standard procedures when working on or adjacent to roadways and walkways.



Bicycle Patrol Unit

The City of La Grande may want to work with the Police Department, local business and neighborhood groups to establish local Bicycle Patrol Units. A Bicycle Patrol Unit may be an official law enforcement unit, a private security guard patrol, or a volunteer network. Bicycles are an excellent community policing tool, as officers on bikes are often viewed as more approachable, thus improving trust and relations between the citizens and police. Bicycle patrol units can work closely with citizens to address concerns before they become problems. Bicycle patrol units can have a direct impact on bicycle safety by enforcing bicycle traffic laws (e.g., wrong-way riding, sidewalk riding, obeying traffic controls, children wearing helmets), and providing bicycle safety education.



Encouragement Programs

Strategies for community involvement in bicycle and pedestrian improvements will be important to ensure broad-based support – which translates into political support – to help secure financial resources. Involvement by the private sector in raising awareness of the benefits of bicycling can range from small incremental activities by non-profit groups, to efforts by the largest employers in the City. Specific programs are described below.

Facilitate the Development of Employer Incentive Programs

Employer incentive programs to encourage employees to walk and bike to work include strategies like providing bicycle lockers and shower facilities, offering more flexible arrival and departure times, and fun incentives such as entry into monthly raffle contests. The City may offer incentives to employers to institute these improvements through air quality credits, lowered parking requirements, reduced traffic mitigation fees, or other means.

Community Bikeway/Walkway Adoption

Community Bikeway/Walkway Adoption programs are similar to the widely-instituted Adopt-a-Highway programs throughout the country. These programs identify local individuals, organizations, or businesses that would be interested in “adopting” a bikeway, walkway, or shared-use path. Adopting a facility would mean that person or group would be responsible for the facility’s maintenance either through direct action or as the source of funding for the City’s maintenance of that facility. For example, members of a local recreation group may volunteer every other weekend to sweep a bikeway and identify and address larger maintenance needs. Or, a local bike shop may adopt a bikeway by providing funding for the maintenance costs. The managers of an adopted bikeway may be allowed to post their name on bikeway signs throughout the bikeway in order to display their commitment to bicycling in La Grande.

Create a Multi-Modal Access Guide

A multi-modal access guide provides concise customized information on how to access specific destinations with emphasis on bicycling, walking and transit. Access guides can be as simple as a map printed on the back as a business card or as complex as a multi-page packet distributed to employees. Some items commonly included in access guides are:

- A map of the area depicting bus stops, recommended walking and bicycling routes, landmarks, facilities such as restrooms and drinking fountains, locations of bicycle and vehicle parking, and major roads
- Information on transit service, including frequency, fares, accepted methods of payment, first and last runs, schedules, phone numbers and websites of transit service providers and taxis
- Information on how long it takes to walk or bike from a transit center to a destination
- Accessibility information for people with disabilities



Best practices include using graphics, providing specific step-by-step travel directions, providing parking location and pricing information, and providing information about the benefits of walking and bicycling. High quality access guides should be concise and accurate and should incorporate input from key stakeholders, including public transportation operators, public officials, employees, staff who will be distributing the access guide, and those with disabilities.

Work with Businesses to Develop Incentives for Bicycling and Walking

Incentive programs to encourage bicycling and walking to local businesses can be developed in coordination with individual businesses, the Chamber of Commerce, and the Bicycle Transportation Alliance. Such efforts may include:

- Creating promotional events such as “Bicycle to the Grocery Store” days, when cyclists get vouchers for, or discounts on items in the store, or “bicycle to the video store” days, when cyclists receive free popcorn or a discount on a movie rental.
- Holding an annual community event to encourage residents to replace one car trip a week with a bicycle trip. This type of event could be integrated with current special events like “Celebrate La Grande.”
- Developing, promoting and publicizing bicycle commuter services, such as bike shops selling commute gear, bikes-on-transit policies, and regular escorted commute rides.
- Creating an annual commuter challenge for area businesses.

Walk- and Bike-to-School Days

The City and School District should encourage residents to participate in the annual international Walk-to-School Day held each October. The City and School District could also create a Bike-to-School day. These events raise the profile of bicycling and walking among children. Local Bike- and Walk-to-Work days can be held annually in conjunction with the school-related events.



Bike Fairs, Organized Rides, and Races

Hosting bike fairs, organized rides, and races in La Grande (such as Cycle Oregon), can raise the profile of bicycling in the area and provide entertainment for all ages at the same time. Bike fairs and races provide an opportunity to educate and encourage current and potential bicyclists. These events can also bring visitors to La Grande that may also contribute to the local economy. These events could be sponsored and implemented through collaboration between the City and local employers.



TravelSmart™ Programs

TravelSmart™ is an innovative way to encourage environmentally-friendly ways to travel. The concept, used in more than 300 projects around the world, identifies individuals who want to change the way they travel and uses personal, individualized contact to motivate them to think about their travel options. TravelSmart™ provides customized information and training to help people take transit, bike, walk or carpool for some of their trips. TravelSmart™ projects provide many benefits including individual health and financial improvements, and community-wide benefits such as reduced air pollution and enhanced community safety.

TravelSmart™ gives participants just the information they ask for to help them get started, or to keep on walking, biking, taking transit or carpooling. Those who do not want information are left alone. Materials are delivered by a “Travel Ambassador” in the most efficient and cost effective way – by bicycle. Travel Ambassadors are cross-trained to answer participants’ questions concerning all alternative travel modes. Depending on the information requested by an individual participant, marketing materials could include maps identifying safe, convenient and direct walking and bicycling routes in La Grande, public bicycle parking locations, EOU campus maps, Community Transit maps and schedules, and free bus passes. Travel Ambassadors would contact program participants periodically to answer questions about alternative transportation. The City could also periodically survey participants about their travel habits to gauge the program’s success.

Enforcement Programs

The best protection for pedestrians and bicyclists traveling along and across streets are motorists who are aware of and follow laws regarding bicycle/pedestrian right-of-way. Many people however are unaware of these laws.

Targeted enforcement action should be focused in those areas with high bicycle and pedestrian volumes or where non-motorized travelers are especially vulnerable. Law enforcement efforts should be targeted during periods and at locations where motorists and the general public will become aware of bicycle/pedestrian laws and their penalties. It is recommended that such targeted enforcement occur at least four times per year and last one week. Focused enforcement should also take place at the start of the school year at selected schools near their primary access points by children walking and cycling. An effective form of targeted enforcement is the use of a Police Officer posing as a pedestrian crossing the street. Motorists who do not yield to the officer are ticketed by other Police Officers further down the street. Another example of effective enforcement of the bicycle and pedestrian right-of-way is ticketing cars parked across the sidewalk or within striped bicycle lanes.

All targeted enforcement actions should be coordinated with the Public Works Department. The La Grande Police Department should also be surveyed for input on appropriate educational material, advisory and warning signs, and other tools to help them accomplish their mission. Finally, it is recommended that the Police Department vigorously pursue legal action against motorists who cause a bicycle/pedestrian injury or fatality.



Pedestrians and bicyclists are protected in the public right-of-way by the Oregon Vehicle Code, as enforced by the La Grande Police Department. Some of the key provisions of the Oregon Vehicle Code pertaining to pedestrians and bicyclists are shown below.

811.015 Failure to obey traffic patrol member; penalty.

(1) The driver of a vehicle commits the offense of failure to obey a traffic patrol member if:

(a) A traffic patrol member makes a cautionary sign or signal to indicate that students have entered or are about to enter the crosswalk under the traffic patrol member's direction; and

(b) The driver does not stop and remain stopped for students who are in or entering the crosswalk from either direction on the street on which the driver is operating.

(2) Traffic patrol members described in this section are those provided under ORS 339.650 to 339.665.

(3) The offense described in this section, failure to obey a traffic patrol member, is a Class A traffic violation. [1983 c.338 §545; 1995 c.383 §12; 2003 c.278 §2]

811.020 Passing stopped vehicle at crosswalk; penalty.

(1) The driver of a vehicle commits the offense of passing a stopped vehicle at a crosswalk if the driver:

(a) Approaches from the rear another vehicle that is stopped at a marked or an unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway; and

(b) Overtakes and passes the stopped vehicle.

(2) The offense described in this section, passing a stopped vehicle at a crosswalk, is a Class B traffic violation. [1983 c.338 §546]

811.025 Failure to yield to pedestrian on sidewalk; penalty.

(1) The driver of a vehicle commits the offense of failure to yield to a pedestrian on a sidewalk if the driver does not yield the right of way to any pedestrian on a sidewalk.

(2) The offense described in this section, failure to yield to a pedestrian on a sidewalk, is a Class B traffic violation. [1983 c.338 §547; 1995 c.383 §42]

811.028 Failure to stop and remain stopped for pedestrian; penalty.

(1) The driver of a vehicle commits the offense of failure to stop and remain stopped for a pedestrian if the driver does not stop and remain stopped for a pedestrian when the pedestrian is:

(a) Proceeding in accordance with a traffic control device as provided under ORS 814.010 or crossing the roadway in a crosswalk, as defined in ORS 801.220; and



(b) In any of the following locations:

(A) In the lane in which the driver's vehicle is traveling;

(B) In a lane adjacent to the lane in which the driver's vehicle is traveling;

(C) In the lane into which the driver's vehicle is turning;

(D) In a lane adjacent to the lane into which the driver's vehicle is turning, if the driver is making a turn at an intersection that does not have a traffic control device under which a pedestrian may proceed as provided under ORS 814.010; or

(E) Less than six feet from the lane into which the driver's vehicle is turning, if the driver is making a turn at an intersection that has a traffic control device under which a pedestrian may proceed as provided under ORS 814.010.

(2) For the purpose of this section, a bicycle lane or the part of a roadway where a vehicle stops, stands or parks that is adjacent to a lane of travel is considered to be part of that adjacent lane of travel.

(3) This section does not require a driver to stop and remain stopped for a pedestrian under any of the following circumstances:

(a) Upon a roadway with a safety island, if the driver is proceeding along the half of the roadway on the far side of the safety island from the pedestrian; or

(b) Where a pedestrian tunnel or overhead crossing has been provided at or near a crosswalk.

(4) The offense described in this section, failure to stop and remain stopped for a pedestrian, is a Class B traffic violation. [2005 c.746 §2]

811.035 Failure to stop and remain stopped for blind pedestrian; penalty.

(1) The driver of a vehicle commits the offense of failure to stop and remain stopped for a blind pedestrian if the driver violates any of the following:

(a) A driver approaching a blind or blind and deaf pedestrian carrying a white cane or accompanied by a dog guide, who is crossing or about to cross a roadway, shall stop and remain stopped until the pedestrian has crossed the roadway.

(b) Where the movement of vehicular traffic is regulated by traffic control devices, a driver approaching a blind or blind and deaf pedestrian shall stop and remain stopped until the pedestrian has vacated the roadway if the blind or blind and deaf pedestrian has entered the roadway and is carrying a white cane or is accompanied by a dog guide. This paragraph applies notwithstanding any other provisions of the vehicle code relating to traffic control devices.



(2) This section is subject to the provisions and definitions relating to the rights of pedestrians who are blind or blind and deaf under ORS 814.110.

(3) The offense described in this section, failure to stop and remain stopped for a blind pedestrian, is a Class B traffic violation. [1983 c.338 §549; 1985 c.16 §280; 2003 c.278 §3]

811.050 Failure to yield to rider on bicycle lane; penalty.

(1) A person commits the offense of failure of a motor vehicle operator to yield to a rider on a bicycle lane if the person is operating a motor vehicle and the person does not yield the right of way to a person operating a bicycle, electric assisted bicycle, electric personal assistive mobility device, moped, motor assisted scooter or motorized wheelchair upon a bicycle lane.

(2) This section does not require a person operating a moped to yield the right of way to a bicycle or a motor assisted scooter if the moped is operated on a bicycle lane in the manner permitted under ORS 811.440.

(3) The offense described in this section, failure of a motor vehicle operator to yield to a rider on a bicycle lane, is a Class B traffic violation. [1983 c.338 §698; 1985 c.16 §336; 1991 c.417 §4; 1997 c.400 §8; 2001 c.749 §23; 2003 c.341 §7]

811.060 Vehicular assault of bicyclist or pedestrian; penalty.

(1) For the purposes of this section, “recklessly” has the meaning given that term in ORS 161.085.

(2) A person commits the offense of vehicular assault of a bicyclist or pedestrian if:

(a) The person recklessly operates a vehicle upon a highway in a manner that results in contact between the person’s vehicle and a bicycle operated by a person, a person operating a bicycle or a pedestrian; and

(b) The contact causes physical injury to the person operating a bicycle or the pedestrian.

(3) The offense described in this section, vehicular assault of a bicyclist or pedestrian, is a Class A misdemeanor. [2001 c.635 §5]

811.435 Operation of motor vehicle on bicycle trail; exemptions; penalty.

(1) A person commits the offense of operation of a motor vehicle on a bicycle trail if the person operates a motor vehicle upon a bicycle lane or a bicycle path.

(2) Exemptions to this section are provided under ORS 811.440.

(3) This section is not applicable to mopeds. ORS 811.440 and 814.210 control the operation and use of mopeds on bicycle lanes and paths.



(4) The offense described in this section, operation of a motor vehicle on a bicycle trail, is a Class B traffic violation. [1983 c.338 §643]

814.400 Application of vehicle laws to bicycles.

(1) Every person riding a bicycle upon a public way is subject to the provisions applicable to and has the same rights and duties as the driver of any other vehicle concerning operating on highways, vehicle equipment and abandoned vehicles, except:

(a) Those provisions which by their very nature can have no application.

(b) When otherwise specifically provided under the vehicle code.

(2) Subject to the provisions of subsection (1) of this section:

(a) A bicycle is a vehicle for purposes of the vehicle code; and

(b) When the term “vehicle” is used the term shall be deemed to be applicable to bicycles.

(3) The provisions of the vehicle code relating to the operation of bicycles do not relieve a bicyclist or motorist from the duty to exercise due care. [1983 c.338 §697; 1985 c.16 §335]

811.440 When motor vehicles may operate on bicycle lane.

This section provides exemptions from the prohibitions under ORS 811.435 and 814.210 against operating motor vehicles on bicycle lanes and paths. The following vehicles are not subject to ORS 811.435 and 814.210 under the circumstances described:

(1) A person may operate a moped on a bicycle lane that is immediately adjacent to the roadway only while the moped is being exclusively powered by human power.

(2) A person may operate a motor vehicle upon a bicycle lane when:

(a) Making a turn;

(b) Entering or leaving an alley, private road or driveway; or

(c) Required in the course of official duty.

(3) An implement of husbandry may momentarily cross into a bicycle lane to permit other vehicles to overtake and pass the implement of husbandry.

(4) A person may operate a motorized wheelchair on a bicycle lane or path.



(5) A person may operate a motor assisted scooter on a bicycle lane or path.

(6) A person may operate an electric personal assistive mobility device on a bicycle lane or path. [1983 c.338 §645; 1991 c.417 §1; 2001 c.749 §24; 2003 c.341 §8]



La Grande

Pedestrian & Bicycle Improvement Plan



5. DESIGN GUIDELINES AND STANDARDS

Introduction

This chapter discusses recommended design guidelines for La Grande's pedestrian and bicycle system. Design recommendations are proposed for each of the non-motorized facility types proposed in this Plan including bikeways and walkways. This chapter also discusses other important issues that should be considered as the City improves existing facilities and expands the pedestrian and bicycle network.

Sidewalks

A variety of considerations are important in sidewalk design. Providing adequate and accessible facilities should lead to increased numbers of people walking, improved safety, and the creation of social space. Attributes of well-designed sidewalks include the following:

- **Accessibility:** A network of sidewalks should be accessible to all users and meet ADA requirements.
- **Adequate width:** Two people should be able to walk side-by-side and pass a third person comfortably and different walking speeds should be possible. In areas of intense pedestrian use, sidewalks should be wider to accommodate the greater volume of walkers.
- **Safety:** Design features of the sidewalk should allow pedestrians to have a sense of security and predictability. Sidewalk users should not feel they are at risk due to the presence of adjacent traffic.
- **Continuity:** Walking routes should be obvious and should not require pedestrians to travel out of their way unnecessarily.
- **Landscaping:** Plantings and street trees within the roadside area should contribute to the overall psychological and visual comfort of sidewalk users, without providing hiding places for attackers.
- **Social space:** Sidewalks should be more than areas to travel; they should provide places for people to interact. There should be places for standing, visiting, and sitting. The sidewalk area should be a place where adults and children can safely participate in public life.
- **Quality of place:** Sidewalks should contribute to the character of neighborhoods and business districts and strengthen their identity.

Width

Required sidewalk widths in La Grande vary based on a street's ownership and functional classification. In La Grande, ODOT requires six-foot sidewalks with four-foot planter strips on Oregon 82/Island Avenue and on most segments of U.S. 30/Adams Avenue. Within downtown La Grande, sidewalks on U.S. 30/Adams Avenue must be eight to 10 feet wide, reflecting the street's "Special Transportation Area" (STA) designation by ODOT in this area. Within an STA, local auto, pedestrian, bicycle and transit movements on a state highway are considered equally important as the movement of through traffic. The City of La Grande requires five-foot sidewalks and up to eight-foot planter strips on all streets, except on U.S. 30/Adams Avenue in the downtown core. In this area, the City's 12-foot width standard exceeds the ODOT standard.

Generally, sidewalks should be at least 6 feet wide, exclusive of the curb and other obstructions. This width enables two pedestrians (including wheelchair users) to walk side by side, or to pass each other comfortably. It also allows two pedestrians to pass a third pedestrian without leaving the sidewalk.

Surface

Sidewalk surfaces should be smooth and continuous. It is also desirable that the sidewalk surface be stable, firm and slip resistant. Preferred materials include Portland Cement Concrete (PCC) and Asphalt Concrete (AC). PCC provides a smooth, long-lasting and durable finish that is easy to grade and repair. AC has a shorter life expectancy but may be more appropriate in less urbanized areas and in park settings. Crushed aggregate may also be used as an all-weather walkway surface in park areas, but this material generally requires a higher level of maintenance to maintain accessibility.

La Grande's Downtown Design Plan recommends using brick pavers on some sidewalks and crosswalks in the downtown core. Brick pavers can be used if they are constructed to avoid settling or removal of bricks, which can create tripping hazards. This treatment should also be constructed to provide a high level of smoothness to accommodate wheelchairs and other mobility devices. Alternatives to brick pavers include "stamping" molds to create the visual appearance of bricks.

The Americans with Disabilities Act allows a maximum two percent cross-slope on sidewalks and other walkways. Where sidewalks meet driveways, curb cuts or intersections, a three-foot-wide area should be maintained with a two percent cross-slope.



Addressing Obstructions

Obstructions to pedestrian travel in the sidewalk corridor typically include sign posts, utility and signal poles, mailboxes, fire hydrants and street furniture. Obstructions should be placed between the sidewalk and the roadway to create a buffer for increased pedestrian comfort. When sidewalks abut perpendicular or angle on-street parking, wheelstops should be placed in the parking area to prevent parked vehicles from overhanging in the sidewalk. When sidewalks abut hedges, fences, or buildings, an additional two feet of lateral clearance should be added to provide appropriate shy distance.

Driveways represent another sidewalk obstruction, especially for wheelchair users. The following techniques can be used to accommodate wheelchair users at driveway crossings:

- Reducing the number of accesses reduces the need for special provisions. This strategy should be pursued first.
- Constructing wide sidewalks avoids excessively steep driveway slopes. The overall width must be sufficient to avoid an abrupt driveway slope.
- Planter strips allow sidewalks to remain level, with the driveway grade change occurring within the planter strip (see Figure 5-1).
- Where constraints preclude a planter strip, wrapping the sidewalk around the driveway has a similar effect. However, this method may have disadvantages for visually-impaired pedestrians who follow the curb line for guidance (see Figure 5-2).
- When constraints only allow curb-tight sidewalks, dipping the entire sidewalk at the driveway approaches keeps the cross-slope at a constant grade. However, this may be uncomfortable for pedestrians and could create drainage problems behind the sidewalk (see Figure 5-3).

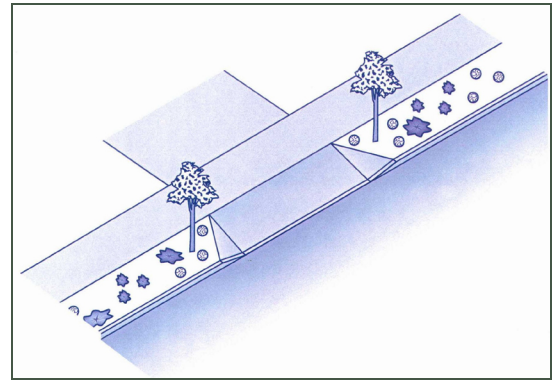


Figure 5-1. Driveway Apron Utilizing a Planter Strip

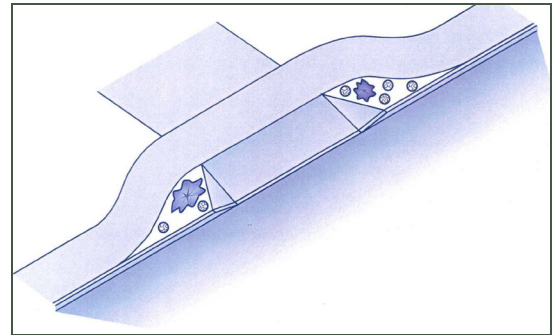


Figure 5-2. Sidewalk Wrapped around Driveway

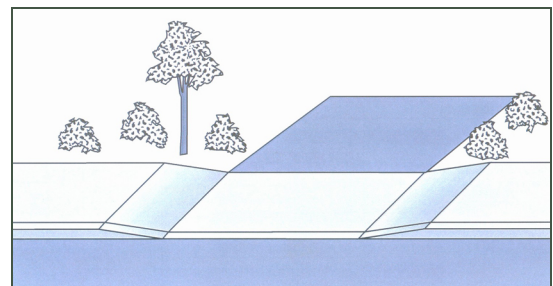


Figure 5-3. Entire Sidewalk Dips at Driveway



Alternatives to Sidewalks

Although the City of La Grande has a goal of providing sidewalks on both sides of all streets, physical and other constraints (especially in older neighborhoods) could preclude sidewalks in some parts of the city. Alternative sidewalk treatments could be used to accommodate foot traffic in these areas.

Soft Paths

In areas where paved sidewalks are not feasible or appropriate due to site conditions such as existing trees, walls, or other obstacles, a soft path alternative should be explored. A soft path is a pedestrian path constructed of a pervious material such as decomposed granite or other universally accessible material. Another option is rubberized sidewalks, which use one recycled automobile tire per square foot of sidewalk. Rubberized sidewalks cost approximately one-third more than the cost of typical concrete sidewalks, but require significantly less maintenance than concrete sidewalks that are located near trees, since they can be lifted out of the ground for periodic tree root trimming. Rubberized sidewalks are less likely than concrete to be broken up by tree roots, further reducing long-term costs. Soft paths should be at least 5 feet wide. Constricted areas may have a reduced width consistent with ADA guidelines.

Colored Shoulders

Colored shoulders visually narrow the roadway and slow traffic, making it more pedestrian friendly. They are optional treatments for neighborhoods with no room for traditional sidewalks. Drivers see only travel lanes as available road space, so the roadway appears narrower than it is when the shoulders are a different color. Painting the road surface requires frequent maintenance; lower-maintenance methods include:

- Paving travel lanes with concrete, and bicycle/pedestrian facilities with asphalt, or the reverse
- Slurry sealing or chip-sealing the roadway, and not the pedestrian path
- Incorporating dyes into concrete or asphalt
- Colored unit pavers that resemble brick

Bicycle Lanes

This Plan proposes bicycle lanes on several existing and future streets in La Grande. The City currently requires five-foot bicycle lanes on city streets while ODOT requires six-foot bicycle lanes on State highways. Cyclists need at least four feet of lateral clearance while operating in a bicycle lane. A lane's usable width is normally measured from the curb face to the center of the lane stripe, although adjustments should be made for drainage grates and longitudinal joints between the street pavement and the curb gutter pan. If parking is permitted on a street, bicycle lanes should be placed between the parking lane and the travel lane. Oregon Administrative Rules require bicycle lanes to be striped with an eight-inch solid white line to increase the visual separation between the vehicle lane and bicycle lane. A four-inch solid white line may also be striped between the bicycle lane and adjacent on-street



Figure 5-4. Bicycle Lane Pavement Stencil and Arrow



parking to encourage parking closer to the curb and to provide additional separation from motor vehicles. Bicycle lanes should also be marked with stencils and directional arrows. The Oregon Bicycle and Pedestrian Plan recommends placing stencils after most intersections to alert motorists and cyclists of the exclusive nature of bicycle lanes. For long street segments with few intersections, the appropriate frequency of stencils is calculated by multiplying the street's design speed by 40. For instance, stencils should be placed every 1,400 feet on streets with a 35 MPH design speed.

Other Bicycle Lane Treatments

Addressing Drainage Grates and Other Obstacles

Bicycle lanes should be provided with adequate drainage to prevent ponding, washouts, debris accumulation and other potentially hazardous situations for cyclists. Drainage grates should be bicycle-safe (see Figure 5-5). When an immediate replacement of an incompatible grate is not possible, a temporary correction of welding thin metal straps across the grates perpendicular to the drainage slots (four to six inches apart, center-to-center spacing) should be considered. Bicycle lanes should also include a smooth riding surface, and utility covers should be adjusted flush with the street surface. Furthermore, raised pavement markings (e.g., reflectors and truncated domes) can cause steering difficulties for bicyclists, and should not be used to delineate bicycle lanes.

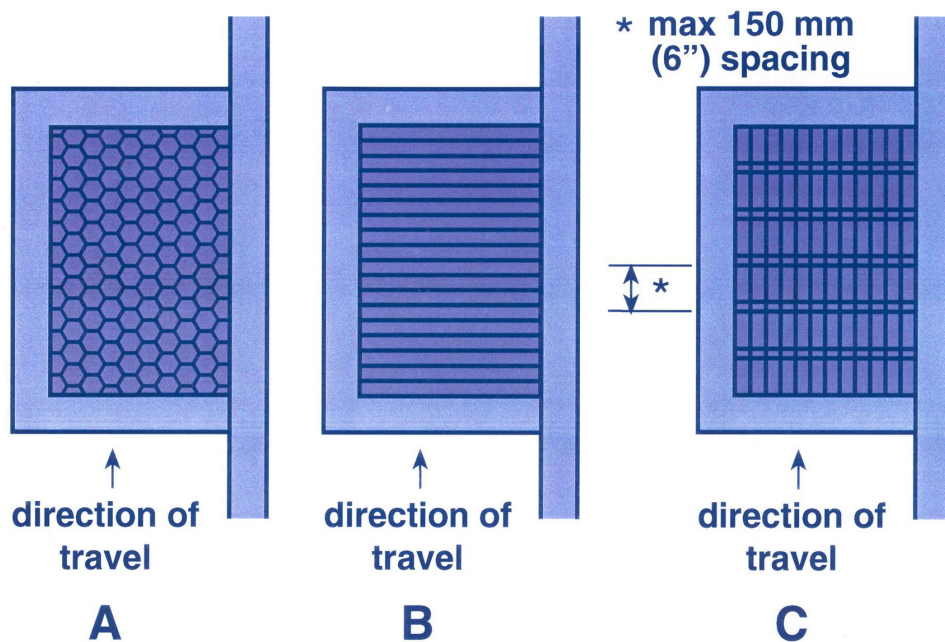


Figure 5-5. Bicycle-Safe Drainage Grates

Blue Bike Lanes

Blue bike lanes are used in some cities to guide cyclists through major vehicle/bicycle conflict points. These conflict areas are locations where motorists and cyclists must cross each other's path (for instance, where a motorist must cross an adjacent bicycle lane to make a right-hand turn). Cyclists are especially vulnerable at locations where the volume of "conflicting" vehicle traffic is high, and where the



vehicle/bicycle “conflict area” is long (e.g., at an intersection with a wide turning radius promoting vehicle turning movements at higher speeds).

The Interstate 84 interchange ramps with Oregon 82/Island Avenue currently exhibit the characteristics described above. At these intersections, eastbound through cyclists on Island Avenue conflict with vehicle and truck traffic entering and leaving the freeway. Furthermore, the ramp terminal intersections are fairly wide with broad turning radii (to accommodate truck movements), thereby creating a relatively long conflict area. Depicted in Figures 5-6 through 5-8, a blue bike lane could be striped through these conflict areas to highlight where motorists and cyclists need to have a heightened awareness of one-another.



Figure 5-6. Potential Blue Bike Lane Locations

While blue bike lanes are not an official standard in Oregon at this time, they continue to be successfully used in other cities. The City of La Grande and ODOT should evaluate the feasibility of applying these treatments at major vehicle/bicycle conflict points.



Figure 5-7. Oregon 82/Island Avenue at I-84 (Existing Conditions)



Figure 5-8. Oregon 82/Island Avenue at I-84 (with Potential Blue Bike Lane)

Supplemental Bicycle Lane Striping

Although bicycle lanes widths greater than five or six feet may be desirable in some areas (e.g., streets with high vehicle or bicycle volumes), care must be taken so they are not mistaken for vehicle travel lanes or on-street parking. Supplemental striping is needed to clarify existing wide bicycle lanes in some areas of La Grande. On portions of Oregon 82/Island Avenue, motorists often travel within the 10-foot-wide bicycle lane before making right-hand turns into nearby commercial businesses. Shown in Figures 5-9 and 5-10, additional striping treatments could be added to minimize confusion and clearly depict the lane



for bicycle travel. Because Oregon 82/Island Avenue is a State highway, the additional striping would need ODOT approval and would need to meet ODOT standards.

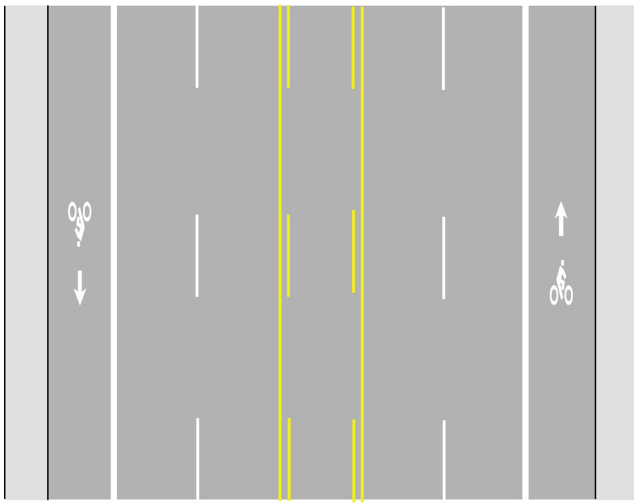


Figure 5-9. Existing Bicycle Lane Striping on Oregon 82/Island Avenue

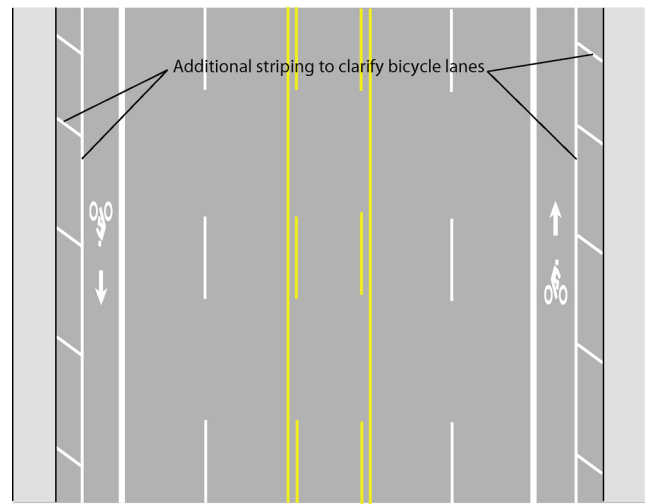


Figure 5-10. Potential Supplemental Striping to Clarify Bicycle Lanes

Shoulder Bikeways

A shoulder bikeway is proposed on Foothill Road south of 20th Street, reflecting a recommendation of the Union County TSP. Shoulder bikeways serve bicyclists and pedestrians in rural areas, and are typically separated from vehicle traffic through striping treatments. Union County's shoulder bikeway standards on Foothill Road include a four-foot paved shoulder and a two-foot gravel shoulder. The Oregon Bicycle and Pedestrian Plan recommends a six-foot paved shoulder which allows a cyclist to ride far enough from the edge of the pavement to avoid debris, yet far enough from passing motorists to avoid conflicts. In addition, the Oregon Bicycle and Pedestrian Plan recommends that gravel driveways approaching the road be paved at least 15 feet from the roadway to prevent gravel from spilling onto the shoulders. Driveway paving can take place if and when the road is widened or receives a pavement overlay. Although Foothill Road is currently within Union County's jurisdiction, the road lies within the City's urban growth boundary. If a jurisdictional transfer of Foothill Road occurs, the City of La Grande should implement relevant pedestrian and bicycle upgrades based on its new functional classification.

Shared Roadways/Bicycle Boulevards

Typically the most common type of bikeway, shared roadways are streets with relatively low traffic volumes and posted speeds that enable cyclists and motorists to share the same travel lanes. These streets usually have two travel lanes with or without adjacent on-street parking. Additional treatments, described below, vary by street.



Bicycle Boulevards

Shared roadways that incorporate treatments to accommodate cyclists are often called “bicycle boulevards.” Bicycle boulevards are developed through a combination of traffic calming measures and other streetscape treatments, and are intended to slow vehicle traffic while facilitating safe and convenient bicycle travel. Appropriate treatments depend on several factors including traffic volumes, vehicle and bicycle circulation patterns, street connectivity, street width, physical constraints, and other parameters. Most streets could be provided relatively inexpensive treatments like new signage, pavement markings, striping and signal improvements to facilitate bicyclists’ mobility and safety. Other potential treatments include curb extensions, medians, on-street parking delineation and other features that can be implemented at reasonable cost and are compatible with snow plowing and emergency vehicle accessibility. It should be noted that many bicycle boulevard treatments can also benefit pedestrians. Curb extensions, for instance, can reduce vehicle speeds on a street by creating a visual “pinch point” for motorists. They also improve the pedestrian environment by shortening the pedestrian crossing distance.

Bicycle Boulevard Applications

The following section describes recommended applications for La Grande’s proposed shared roadway/bicycle boulevard system. The treatments have been divided into five main categories based on their level of “intensity”, with Level 1 representing the least intensive treatments that could be implemented at relatively low cost. It should be noted that each successive application “level” would also include (where necessary) treatments identified for the previous levels. Furthermore, several treatments could fall within multiple categories as they achieve multiple goals.

Level 1: Signage

Bikeway signage is a cost-effective treatment the can improve the bicycling environment along La Grande’s bicycle boulevard system. Described below, signage can serve both wayfinding and safety purposes.

Wayfinding Signs

Bicycle wayfinding signs should be installed along La Grande’s bicycle boulevards and other cycling routes. Placing signs throughout the city indicating to bicyclists their direction of travel, location of destinations, and the riding time/distance to those destinations will increase users’ comfort and accessibility to the bicycle system. Wayfinding signs also visually cue motorists that they are driving along a bicycle route and should correspondingly use caution. Signs are typically placed at key locations leading to and along bicycle routes, including where multiple routes intersect. Note that too many road signs tend to clutter the right-of-way, and it is recommended that these signs be posted at a level most visible to bicyclists and pedestrians, rather than per vehicle signage standards. Care also needs to be taken that any signs are posted at the proper location and orientation to be visible to bicyclists.

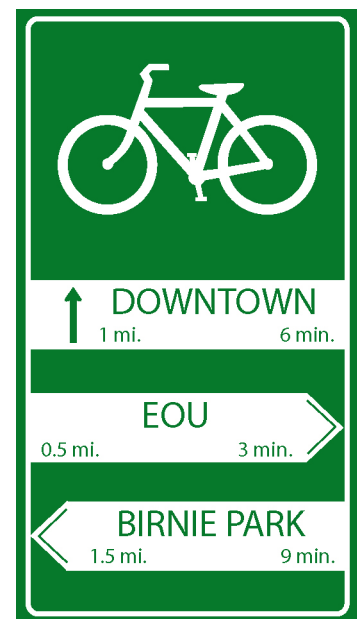


Figure 5-11. Wayfinding Signage Concept



Warning Signs

On bicycle boulevards with higher vehicle and bicycle volumes (e.g., 2nd, 4th, Spruce), the City should also consider installing additional warning signs advising motorists to “share the road” with cyclists. This signage would also be effective in areas with higher numbers of bicycle trips, such as schools, EOU and downtown.

Level 2: Pavement Markings

A variety of pavement marking techniques can effectively improve bicycling conditions along bicycle boulevards.

Directional Pavement Markings

Directional pavement markings effectively lead cyclists along a bicycle boulevard (and reinforce cyclists that they are on a designated route). The markings take the form of small bicycle symbols (about one foot in diameter) placed every 600-800 feet along a linear corridor. When a bicycle boulevard travels along several streets (with multiple turns at intersections), additional markings accompanied by directional arrows are provided to guide cyclists through turns and other complex routing areas. Directional pavement markings also visually queue motorists that they are traveling along a bicycle route and should exercise caution.

Shared Lane Markings (“Sharrows”)

Some communities use high-visibility pavement markings to delineate specifically where bicyclists should operate within the travel lane. These markings, known as shared lane markings or “sharrows,” are often used on streets where dedicated bicycle lanes are desirable but are not possible due to physical or other constraints. Sharrows are placed strategically in the travel lane to alert motorists of bicycle traffic, while also encouraging cyclists to ride at an appropriate distance from the “door zone” of adjacent parked cars. Placed in a linear pattern along a corridor (typically every 100-200 feet), sharrows also encourage cyclists to ride in a straight line so their movements are predictable to motorists. Although these pavement markings are not yet a nationally adopted standard, they are successfully used in many small and large communities throughout the U.S. Sharrows made of thermoplastic tend to last longer than traditional paint. In La Grande, sharrows could be used on bicycle boulevards with higher vehicle volumes, such as 2nd, 4th, 6th, Spruce, and other streets.



Figure 5-12. Warning Sign



Figure 5-13. Directional pavement marking

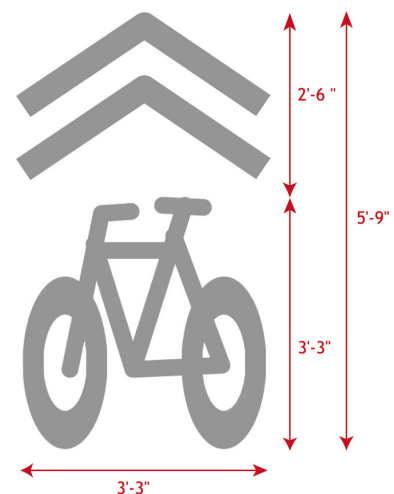


Figure 5-14. Shared Lane Marking



On-Street Parking Delineation

Delineating on-street parking spaces represents another effective pavement marking treatment. Delineation through paint or other materials clearly indicates where a vehicle should be parked, and can discourage motorists from parking their vehicles too far into the adjacent travel lane. This could help cyclists by maintaining a wide enough space to safely share a travel lane with moving vehicles while minimizing the need to swerve farther into the travel lane to maneuver around parked cars. In addition to benefiting cyclists, delineated parking spaces also promote the efficient use of on-street parking by maximizing the number of spaces in high-demand areas, such as EOU.

Level 3: Intersection Treatments

Described below, a variety of intersection treatments can be used to safely and conveniently facilitate bicycle travel on bicycle boulevards.

Stop Sign Placement

Placing stop signs on cross-streets approaching a bicycle boulevard can facilitate convenient through bicycle travel. A reduced number of stop signs on a designated bicycle route enables riders to maintain their momentum and exert less energy with fewer “stops and starts”. This treatment should be used judiciously to minimize the potential for increasing vehicle speeds on the bicycle boulevard. Additionally, appropriate traffic control measures should be used where bicycle boulevards intersect major streets.

Bicycle Detection at Signalized Intersections

Several treatments can be used to streamline bicycle travel where bicycle boulevards approach intersections with actuated signals. In-pavement bicycle loop detectors can sense a bicyclist's presence (in the way that vehicle loop detectors sense automobiles) and trigger the signal to provide a “green” phase for the cyclist. Bicycle loop detectors should be placed within the bicyclist's expected path, (including left turn lanes and shoulders), and should be accompanied with a pavement marking indicating the optimal location for detection. Vehicle loop detectors can also be used for bicycle detection, provided they are located within the bicycle travel path and their “sensitivity” levels are adjusted for cyclists.

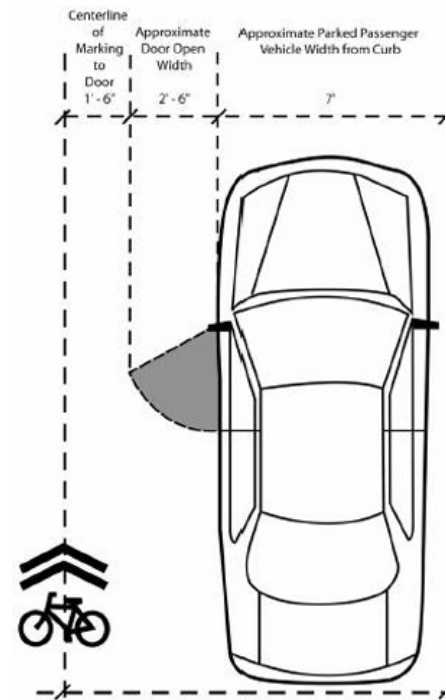


Figure 5-15. Shared Lane Marking Placement Guidelines



Figure 5-16. Concept Depicting Shared Lane Markings on Spruce Street



Figure 5-17. Loop Detector Marking



Similar to pedestrian activation buttons, bicyclist activation buttons can also be used at signalized intersections as long as they do not require cyclists to dismount or make unsafe leaning movements. These devices should be placed as close to the street as possible in a location that is unobstructed by parked vehicles or motorists making right-hand turns.

Half Signals

Because bicycle boulevards generally travel along lower-volume minor streets, they typically have minimal treatments to accommodate bicycle/pedestrian crossings when they approach major streets. In situations where there are few “crossable” gaps and where vehicles on the major street do not stop for pedestrians and cyclists waiting to cross, “half signals” could be installed to improve the crossing environment. Half signals include pedestrian and bicycle activation buttons and may also include bicycle loop detectors on the bicycle boulevard. Many of these models have been used successfully for years overseas, and their use in the United States has increased dramatically over the last decade. Discussed in the “Signals and Signal Warrants” section (later in this chapter), a variety of half signal applications could be used on La Grande’s bicycle boulevard network.

Curb Extensions

Curb extensions slow vehicle traffic by creating a visual “pinch point” for approaching motorists. Typically constructed within the on-street parking lane, these devices can calm vehicle traffic passing through or turning at an intersection. Curb extensions also benefit cyclists and pedestrians on cross-streets by reducing the crossing distance within the roadway. Curb extensions should be designed with sufficient radii to accommodate the turning movements of snow plows, school buses and emergency vehicles.

Medians/Refuge Islands

Medians are elevated or delineated islands that break up non-motorized street crossings into multiple segments. Where shared roadways intersect major streets at unsignalized intersections, medians can be used to simplify bicyclist and pedestrian crossings on the major street. Appropriate signage should be installed on the major street to warn motorists of bicyclist/pedestrian crossings. Additionally, vegetation within the median should be low to maintain adequate sight distances for both motorists and bicyclists/pedestrians. Medians can also be used along the bicycle boulevard to create a visual pinch point for motorists as well as to accommodate mid-block bicycle/pedestrian crossings.

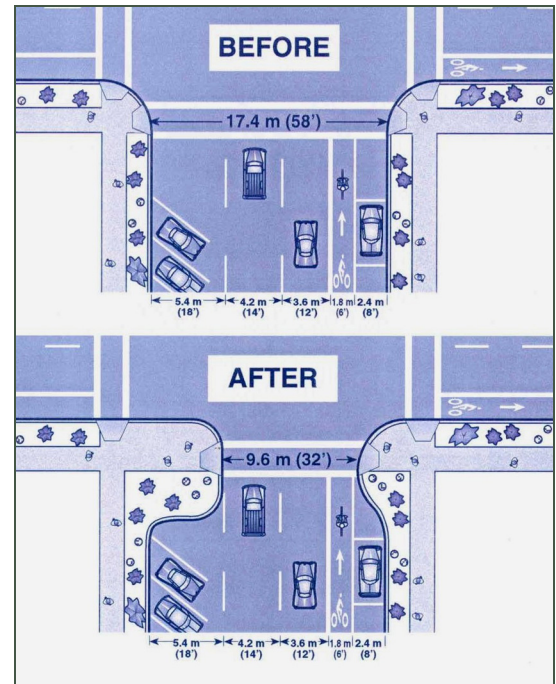


Figure 5-18. Intersection with Curb Extensions Installed

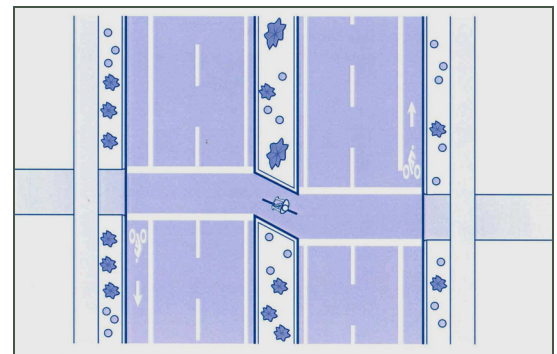


Figure 5-19. Crossing with a Median/Refuge Island



Level 4: Traffic Calming

Traffic calming treatments on bicycle boulevards improve the bicycling environment by reducing vehicle speeds to the point where they generally match cyclists' operating speeds, enabling motorists and cyclists to safely co-exist on the same facility. Specific traffic calming treatments are described below.

Chicanes

Chicanes are a series of raised or delineated curb extensions on alternating sides of a street forming an S-shaped curb, which reduce vehicle speeds through narrowed travel lanes. Chicanes can also be achieved by establishing on-street parking on alternate sides of the street. These treatments are most effective on streets with narrower cross-sections.

Mini Traffic Circles

Mini traffic circles are raised or delineated islands placed at intersections, reducing vehicle speeds through tighter turning radii and narrowed vehicle travel lanes. These devices can effectively slow vehicle traffic while facilitating all turning movements at an intersection. Mini traffic circles can also include a paved apron to accommodate the turning radii of larger vehicles like fire trucks or school buses.

Speed Humps

Speed humps are rounded raised areas of the pavement requiring approaching motor vehicles to reduce speed. These devices also discourage through vehicle travel on a street when a parallel through route exists.

Level 5: Traffic Diversion

Traffic diversion treatments maintain through bicycle travel on a street while physically restricting through vehicle traffic. These treatments direct through vehicle traffic onto parallel higher-order streets while accommodating bicyclists and local vehicle traffic on the bicycle boulevard. Traffic diversion is most effective when the higher-order streets can sufficiently accommodate the diverted traffic associated with these treatments.



Figure 5-20. Chicane



Figure 5-21. Traffic Circle



Figure 5-22. Speed Hump



Choker Entrances

Choker entrances are intersection curb extensions or raised islands allowing full bicycle passage while restricting vehicle access to and from a bicycle boulevard. When they approach a choker entrance at a cross-street, motorists on the bicycle boulevard must turn onto the cross-street while cyclists may continue forward. These devices can be designed to permit some vehicle turning movements from a cross-street onto the bicycle boulevard while restricting other movements.

Traffic Diverters

Similar to choker entrances, traffic diverters are raised features directing vehicle traffic off the bicycle boulevard while permitting through bicycle travel.

Figure 5-25 on the following page illustrates an example of bicycle boulevard applications on a hypothetical street.

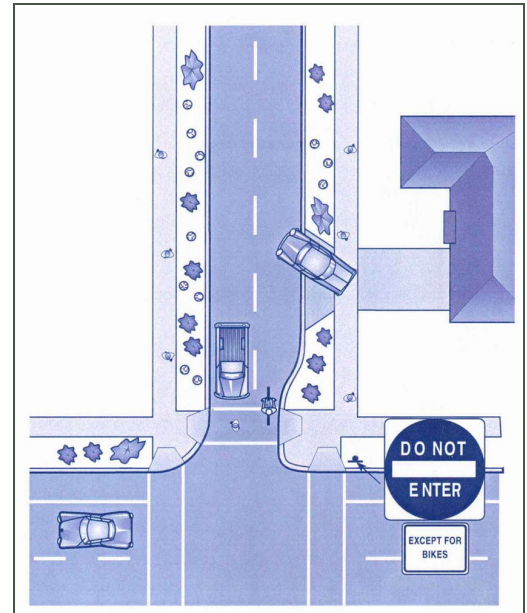


Figure 5-23. Choker at Entrance of Two-Way Local Street



Figure 5-24. Traffic Diverters: Median Island (Left) and Bike/Ped Only Refuge on NE 16th and Tillamook in Portland (Right).



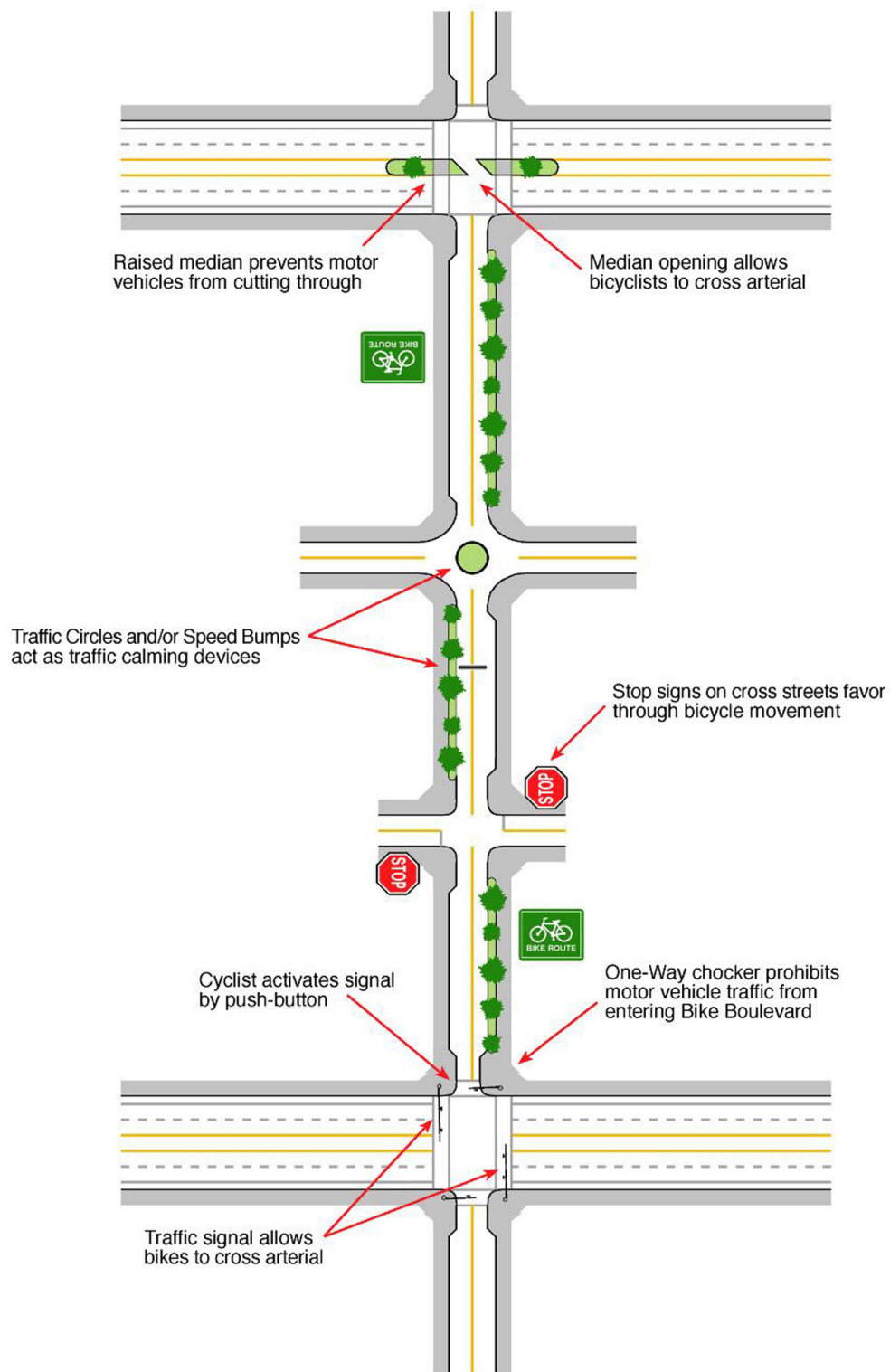


Figure 5-25. Sample Bicycle Boulevard Treatments



Recommended Street Standards

This section discusses recommended changes to street design standards pertaining to walking and bicycling fatalities. Depending on the corridor under focus, standards are either dictated by the City of La Grande or ODOT.

ODOT Street Design Standards

Within La Grande, U.S. 30/Adams Avenue and Oregon 82/Island Avenue are State highways and are therefore subject to ODOT design standards. These standards are laid out in the agency's Highway Design Manual (HDM), updated in 2003. The HDM standards are based on several parameters, including a highway's functional classification and posted speed. Within the La Grande city limits, both U.S. 30/Adams Avenue and Oregon 82/Island Avenue are classified as "Urban Principal Arterial-Other" by the HDM. This classification dictates the type and width of bicycle and pedestrian facilities on these highways. In most locations, bicycle lanes/shoulders must be six to eight feet wide, and sidewalks must be at least six feet wide.

Mentioned earlier, the STA designation on U.S. 30/Adams Avenue in downtown La Grande provides differing standards. Curb-tight sidewalks must be at least 10 feet wide, but may be eight feet wide if separated from the street by a four- to eight-foot wide strip with tree wells, planter boxes or other amenities. Bicyclists must be accommodated either by a five-foot-wide striped bicycle lane or a 12-foot-wide combined bicycle/parking lane. On-street parking should be provided (where possible) to buffer pedestrians from moving vehicles and to maintain the overall vitality of downtown La Grande through convenient business access. It should be noted that on-street parking tends to increase conflicts between vehicles and cyclists, especially if parking and bicycle travel is accommodated in the same lane. In these areas, bicyclists need room to operate and safely maneuver around open car doors, side mirrors, and vehicles entering or leaving parking spaces.

The table below summarizes HDM bicycle/pedestrian design standards for U.S. 30/Adams Avenue and Oregon 82/Island Avenue. ODOT's standards reflect the recommended design standards for bicycle lanes and sidewalks, therefore this Plan recommends no changes to ODOT's standards.

Table 5-1. ODOT HDM Bicycle/Pedestrian Standards

Highway	Segment	Within STA?	Relevant Standards			
			Bicycle Lane/Shoulder	On-street Parking	Sidewalk	Planter Strip
U.S. 30/Adams Avenue	La Grande west city limits to 4th	No	6 ft	N/A	6 ft (min.) ¹	4 ft (min.)
U.S. 30/Adams Avenue	4th to Hemlock	Yes	5 ft ²	7-12 ft ²	8-10 ft ³	4 ft (min.) ⁴



Highway	Segment	Within STA?	Relevant Standards			
			Bicycle Lane/ Shoulder	On-street Parking	Sidewalk	Planter Strip
U.S. 30/Adams Avenue	Hemlock to "H"	No	6 ft	N/A	6 ft (min.) ¹	4 ft (min.)
U.S. 30/Adams Avenue	"H" to La Grande south city limits	No	8 ft	N/A	6 ft (min.) ¹	4 ft (min.)
Oregon 82/Island Avenue	U.S. 30/Adams Avenue to La Grande east city limits	No	6 ft	N/A	6 ft (min.) ¹	4 ft (min.)

1 If signs, mailboxes or other obstructions in the sidewalk corridor become numerous, the sidewalk should be widened to 8'.

2 The parking lane must be seven feet wide if adjacent to a striped bicycle lane. A 12-foot combined bicycle/parking lane may be provided in lieu of a dedicated bicycle lane.

3 Sidewalks adjacent to a curb-tight planter strip must be at least eight feet wide. Curb-tight sidewalks must be at least 10 feet wide (and provide at least eight feet of lateral clearance for pedestrian movement).

4 Continuous planter strips are not traditionally used in these areas. If they are used, they should be four to eight feet wide. Tree wells and planter boxes may also be constructed in this zone to provide a buffer between pedestrians and vehicles.

City of La Grande Street Design Standards

La Grande's Land Development Code and the 1999 La Grande/Island City TSP outline design standards for City-owned streets, as shown in Table 5-2. The standards were reviewed to explore the possibility of providing wider bicycle lanes and sidewalks (to reflect best practices). Consideration was also given to the possibility of requiring bicycle lanes on all new arterial and major collector streets, in addition to minor collectors with high traffic volumes (3,000 ADT or above) or where conditions warrant the separation of bicyclists and motor vehicles. Ultimately, the City expressed a preference to retain the existing street design standards.

The Land Development Code should be clarified, requiring a planter strip to be constructed between the sidewalk and curb. It should also be noted that the City's Downtown arterial standards for U.S. 30/Adams Avenue slightly differ from ODOT's standards. Although the City's required planter strip width is slightly below ODOT's minimum standard, the City's required sidewalk width compensates for this difference by exceeding ODOT's minimum sidewalk width requirement.



Table 5-2. City of La Grande Existing Street Design Standards

Functional Classification	Bicycle Lanes	Sidewalks	Planter Strip
Downtown Arterial ¹	Not required	12 ft minimum	3.5 ft ⁴
Arterial	Optional (5 ft minimum) ²	5 ft minimum	8 ft
Major Collector	5 ft minimum	5 ft minimum	8 ft
Minor Collector	Optional (5 ft minimum) ³	5 ft minimum	8 ft
Local Street	Not required	5 ft minimum	8 ft

Source: La Grande Land Development Code, Section 6.2.004.

¹ This standard applies to Adams Avenue within the downtown core.

² Bicycle lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicyclists.

³ Bicycle lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designated and designed as shared roadway facilities with wide outside travel lanes of 14 feet on important bicycle routes.

⁴ Plantings would be specified in the Downtown Design Plan.

Transition Zones

ODOT's Highway Design Manual (HDM) discusses the importance of accommodating pedestrians and cyclists in "transition zones." These transitions often occur when high-speed rural highways (e.g., U.S. 30) enter urbanized areas. The HDM indicates that visual queues and other design elements are critical to informing motorists that they are entering a changing environment that is urbanized, requires slower speeds, and greater attention to pedestrians, cyclists and transit vehicles. The HDM recommends various treatments on rural State highways where they enter urbanized areas, including bicycle lanes, sidewalks with planter strips, marked crosswalks and landscape features. On the State highway system in La Grande, the primary rural/urban transition area exists along U.S. 30/Adams Avenue on the south end of town. A variety of treatments are proposed to visually queue motorists that they are entering the city, including bicycle lanes on U.S. 30/Adams Avenue between "H" Avenue and Willow Street, as well as completing sidewalk gaps in this area. Bicycle lanes and sidewalks will also address urban/rural transitions on other roads entering La Grande, as well as other treatments like pavement markings and signage.

The HDM also discusses the importance of transitions between "Special Transportation Areas" (STAs) and other parts of the city. Within a STA, the primary objective in managing a state highway is to provide access to community activities, businesses and residences; and to accommodate pedestrian movement along and across the highway in a downtown or other business district. Direct street connections and on-street parking are also encouraged. Local auto, pedestrian, bicycle and transit movements on the state highway are generally as important as the movement of through traffic. ODOT has designated U.S. 30/Adams Avenue between 4th and Hemlock streets as a STA. The HDM suggests various treatments to serve as visual queues, including curb extensions, on-street parking, wide sidewalks, pedestrian-scale lighting and landscaping. La Grande's Downtown Design Plan recommends a variety of applications to



improve the downtown streetscape environment, including curb extensions, crosswalks with pavement texturing, ornamental lighting, street furniture and other amenities.

Intersection Treatments

Several design and operational treatments could be implemented to improve the pedestrian environment at intersections. Attributes associated with good intersection design include the following:

- **Clarity:** It should be obvious to motorists that there will be pedestrians present; it should be obvious to pedestrians where to cross.
- **Predictability:** The placement of crosswalks should be predictable. Additionally, the frequency of crossings should increase where pedestrian volumes are greater.
- **Visibility:** The location and illumination of the crosswalk allows pedestrians to see and be seen by approaching traffic while crossing.
- **Short wait:** The pedestrian does not have to wait unreasonably long for an opportunity to cross.
- **Limited exposure:** Conflict points with traffic are few, and the distance to cross is short or is divided into shorter segments with crossing islands.
- **Clear crossing:** The crosswalk is free of barriers, obstacles, and hazards and is accessible to all users. Pedestrian crossing information is available in accessible locations.

Signal Timing Evaluation and Modification

Traffic signals in La Grande are either pre-timed (e.g., signals along U.S. 30/Adams Avenue), or actuated (e.g., signals along Oregon 82/Island Avenue). Pedestrian accommodation at intersections with pre-timed signals is provided through automatic “phasing” concurrent with parallel vehicle traffic. At actuated signals, pedestrians usually push an activation button to trigger the walk signal. Providing adequate pedestrian crossing time is a critical element of the walking environment at signalized intersections. The Manual on Uniform Traffic Control Devices (MUTCD) recommends traffic signal timing to assume a pedestrian walking speed of four feet per second, meaning that the length of a signal phase with parallel pedestrian movements should provide sufficient time for a pedestrian to safely cross the adjacent street. It should be noted however that the four feet per second walking speed does not reflect the walking rates of many users. At crossings where older pedestrians or pedestrians with disabilities are expected, crossing speeds as low as three feet per second may be assumed. All existing traffic signals in La Grande are operated by ODOT, therefore the City and ODOT should periodically evaluate signal timing plans to ensure adequate pedestrian crossing times are provided.

Innovative Pedestrian Signal Features

Pedestrian Countdown Signals

According to the MUTCD, “Pedestrian Signal Heads provide special types of traffic signal indications exclusively intended for controlling pedestrian traffic. These signal indications consist of the illuminated symbols of a WALKING PERSON (symbolizing WALK) and an UPRaised HAND (symbolizing DON’T



WALK).” An advanced type of pedestrian signal head contains a countdown signal, in addition to the WALK/DON'T WALK symbol. The countdown signal displays the number of seconds remaining for the individual to complete their crossing. These applications could be effective throughout La Grande, including in the downtown core (where higher volumes of pedestrians exist) and along Oregon 82/Island Avenue (which is characterized by wider pedestrian crossing distances).

Leading Pedestrian Interval (LPI)

Including LPIs at signalized crossings provides pedestrians with a three- to four-second head start into the intersection before parallel traffic is released by the green light. LPIs ensure that pedestrians are well into the intersection and visible to turning vehicles prior to vehicles entering the crosswalk.

Curb Ramps

Curb ramps are a fundamental element of an accessible public realm. A sidewalk without a curb ramp can be useless to someone in a wheelchair, forcing them back to a driveway and out into the street for access. Likewise, street crossings must be aligned and properly designed to accommodate the needs and desires of all people. Many of the single access ramps built in previous decades direct users diagonally into the street intersection (rather than straight into the crosswalk area). This can be problematic for visually-impaired pedestrians as they could experience difficulty orienting themselves toward the crosswalk. Where possible, all intersection corners should provide dual curb ramps oriented directly across the street. Curb ramps should also have detectable warning strips to accommodate the visually-impaired. AASHTO's Guide for the Planning, Design, and Operation of Pedestrian Facilities, the Oregon Bicycle and Pedestrian Plan, and La Grande's Sidewalk Maintenance Program Handbook provide further guidance on curb ramp design.

Crosswalks

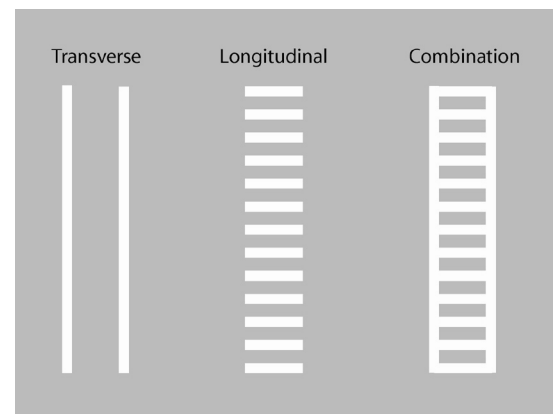
La Grande currently uses a variety of crosswalk treatments, including “transverse” (also called “parallel bar”) markings consisting of two bars crossing an intersection;



Pedestrian crossing countdown signal



Dual curb ramps with detectable warning strips



Crosswalk types in La Grande



“longitudinal” (also called “ladder style”) markings; and combinations of these marking styles. Crosswalks with pavement texturing and color also exist in the downtown core. Field observations indicate that the city’s crosswalk markings do not meet nationally-adopted standards and guidelines in some locations. The MUTCD indicates that transverse crosswalks should include solid white lines six to 24 inches wide (extending across the full pavement width), with a minimum of six feet between the lines. Longitudinal crosswalk bars should be 12 to 24 inches wide, at least six feet long, with one- to five-foot spacing between each bar (the space between bars should not exceed 2.5 times the bar width). To minimize maintenance costs, the bars should not be placed directly within vehicle wheel paths (where possible).

Signals and Signal Warrants

Full Signalized Crossings

The Federal government has provided guidance to determine where traffic control signals should be considered for installation. The Pedestrian Volume signal warrant is intended for the application where traffic volumes on a major street are high enough that pedestrians on an approaching side street or path experience excessive delay in crossing the major street. Section 4C.05 of the MUTCD details Warrant 4, Pedestrian Volume. For signal warrant analysis, a location with a wide median, even if the median width is greater than nine meters (30 feet), should be considered as one intersection.

Warrant 4, Pedestrian Volume

Support:

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard:

The need for a traffic control signal at an intersection or mid-block crossing shall be considered if an engineering study finds that both of the following criteria are met:

- A. The pedestrian volume crossing the major street at an intersection or mid-block location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour;
- B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular travel.

At non-intersection crossings, the traffic control signal should be pedestrian-actuated, parking and other sight obstructions should be prohibited for at least 30 m (100 ft) in advance of and at least 6.1 m (20 ft) beyond the crosswalk, and the installation should include suitable standard signs and pavement markings if a traffic control signal is justified by both this signal warrant and a traffic engineering study.

The criterion for the pedestrian volume crossing the major roadway may be reduced as much as 50 percent if the average crossing speed of pedestrians is less than 1.2 m/sec (4 ft/sec).



Warrant 5, School Crossing, is another signal warrant that could have applications in La Grande. Several Collector streets in La Grande connect schools and surrounding neighborhoods, with some of these streets serving primary commuter routes for students. Furthermore, cities like Sacramento have modified their usage projections by upwardly accounting for youth, disabled, and elderly populations through the “Equivalent Adult Units” factors (see the chart at right) at intersections that are deemed to present special circumstances:

Equivalent Adult Units	
Type	Factor
Child	2
Senior	1.5

- Forty pedestrians cross during a one-hour period, or 25 cross per hour for four consecutive hours using the Equivalent Adult Units system.¹
- Fewer than five gaps in traffic during the peak five-minute period.³

Warrant 5, School Crossing

Support:

The School Crossing signal warrant is intended for the application where the fact that schoolchildren cross the major street is the principal reason to consider installing a traffic control signal.

Standard:

The need for a traffic control signal shall be considered when an engineering study of the frequency and adequacy of gaps in the vehicular traffic stream as related to the number and size of groups of school children at an established crossing across the major street shows that the number of adequate gaps in the traffic stream during the period when the children are using the crossing is less than the number of minutes in the same period (see Section 7A.03²) and there are a minimum of 20 students during the highest crossing hour.

Before a decision is made to install a traffic control signal, consideration shall be given to the implementation of other remedial measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.

The School Crossing signal shall not be applied at locations where the distance to the nearest traffic control signal along the major street is less than 90 m (300 ft), unless the proposed traffic control signal will not restrict the progressive movement of traffic.

Guidance:

If this warrant is met and a traffic control signal is justified by an engineering study, then:

- If at an intersection, the traffic control signal should be traffic-actuated and should include pedestrian detectors.
- If at a nonintersection crossing, the traffic control signal should be pedestrian-actuated, parking and other sight obstructions should be prohibited for at least 30 m (110 ft) in advance of and at least 6.1 m (20 ft) beyond the crosswalk, and the installation should include suitable standard signs and pavement markings.
- Furthermore, if installed within a signal system, the traffic control signal should be coordinated.

¹ Use of a system of Equivalent Adult Units is recommended in order to recognize intersections that require special attention due to the presence of seniors or children, even if they don't meet the volume requirement. These two groups are disproportionately represented in collision and fatality statistics.

² “Alternate gaps and blockades are inherent in the traffic stream and are different at each crossing location. For safety, students need to wait for a gap in traffic that is of sufficient duration to permit reasonably safe crossing. When the delay between the occurrence of adequate gaps becomes excessive, students might become impatient and endanger themselves by attempting to cross the street during an inadequate gap.”

³ Average number of gaps per five-minute period = total usable gap time in seconds divided by pedestrian crossing rate at four feet per second, multiplied by 12.



Half Signalized Crossings

In situations where there are few “crossable” gaps and where vehicles do not stop for pedestrians waiting to cross (or because of multiple lanes, it is unsafe to cross in front of a stopped vehicle), there are a number of innovative pedestrian traffic signals that do not operate as full signals that could be installed. Many of these models have been used successfully for years overseas, and their use in the United States has increased dramatically over the last decade.

Pelican Signals

A Pelican (**P**edestrian **L**ight **C**ontrol **A**ctivated crossing) signal incorporates a standard red-yellow-green signal light that rests in green for vehicular traffic until a pedestrian wishes to cross and presses the button. The signal then changes to yellow, then red, while WALK is shown to the pedestrian. The signal can be installed as either a one-stage or two-stage signal, depending on the street’s characteristics. In a two-stage crossing, the pedestrian crosses first to a median island and is then channelized along the median to a second signalized crossing point. At that point, the pedestrian then activates a second crossing button and another crossing signal changes to red for the traffic while the pedestrian is given a WALK signal. The two crossings only delay the pedestrian minimally and allow the signal operation to fit into the arterial synchronization, thus reducing the potential for stops, delays, accidents, and air quality issues. A Pelican crossing is quite effective in providing a pedestrian crossing at mid-block locations when the technique can be integrated into the roadway design.



Pelican signal in Tucson, AZ



Puffin signal



Hawk signal

Puffin Signals

A Puffin (**P**edestrian **U**ser **F**riendly **I**ntelligent) crossing signal is an updated version of a Pelican crossing. The signal consists of traffic and pedestrian signals with push-button signals and infrared or pressure mat detectors. After a pedestrian pushes the button, a detector verifies the presence of the pedestrian at the curbside. This helps eliminate false signal calls associated with people who push the button and then decide not to cross. When the pedestrian is given the WALK signal, a separate motion detector extends the WALK interval (if needed) to ensure that slower pedestrians have time to cross safely. Conversely, the signal can also detect when the intersection is clear of pedestrians and return the green signal to vehicles, reducing vehicle delay at the light. Puffin signals are designed to be crossed in a single movement by the pedestrian, unlike the Pelican signal, which can be designed to cross in either one or two stages.



Hawk Signals

A Hawk (**H**igh-Intensity **A**ctivated Cross**w**alk) signal is a combination of a beacon flasher and traffic control signaling technique for marked crossings. The beacon signal consists of a traffic signal head with a red-yellow-red lens. The unit is normally off until activated by a pedestrian. When pedestrians wish to cross the street, they press a button and the signal begins with a flashing yellow indication to warn approaching drivers. A solid yellow, advising the drivers to prepare to stop, then follows the flashing yellow. The signal is then changed to a solid red, at which time the pedestrian is shown a WALK indicator. The beacon signal then converts to an alternating flashing red, allowing the drivers to proceed after stopping at the crosswalk, while the pedestrian is shown the flashing DON'T WALK signal.

Pedestrian-Ways

Pedestrian-ways (also known as “accessways”) provide direct connections to schools, parks, community centers, retail areas, neighborhoods, and other paths. They are intended to be short, direct connections to reduce unnecessary out-of-direction travel for bicyclists and pedestrians. According to La Grande’s Land Development Code, pedestrian-ways must be at least 10 feet wide, and “be of such design and location as reasonably required to pedestrian travel, and shall be dedicated to the public.”⁴

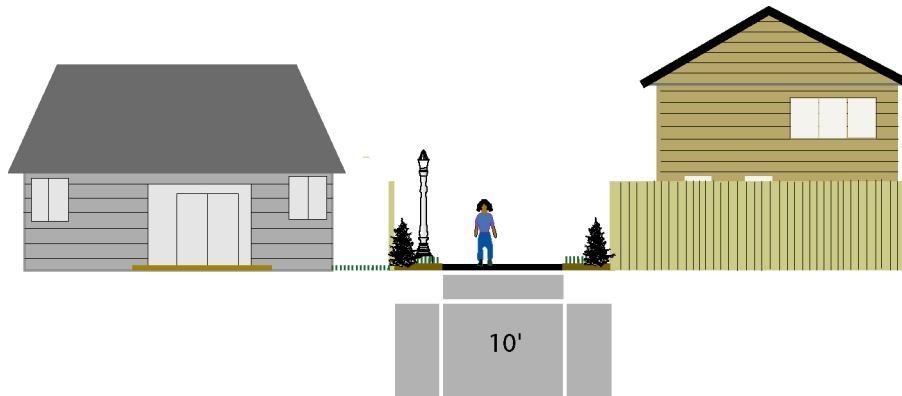


Figure 5-26. Pedestrian-Ways (or “Accessways”)

Shared-Use Paths

As the City of La Grande develops its shared-use path network, several design issues should be taken into consideration. Shared-use paths should be designed to accommodate two-way bicycle and pedestrian traffic, and typically should have their own rights-of-way (for a minimum of 75 percent of their length to reinforce the experience of traveling on a path). Because most of the proposed paths will be also serve maintenance vehicles, the paved surface should be asphalt or concrete (or a durable unpaved surface that is smooth and meets ADA requirements).

The graphic below depicts the recommended cross-section for shared-use paths in La Grande. The City’s current paved path width standard is 12 feet, which is consistent with widths recommended by AASHTO

⁴ Section 6.3.001.



and the Oregon Bicycle and Pedestrian Plan. A narrower path width may be allowed (eight feet minimum) in physically constrained areas. Wider path widths are recommended in areas where user volumes are expected to be high. Soft shoulders (at least two feet wide) should be provided on both sides of the path, and a wider shoulder should be provided to accommodate runners and joggers where space permits. Soft shoulders may consist of bark or wood chips. For paths in outlying areas of town, the City should consider providing a parallel soft surface equestrian trail.

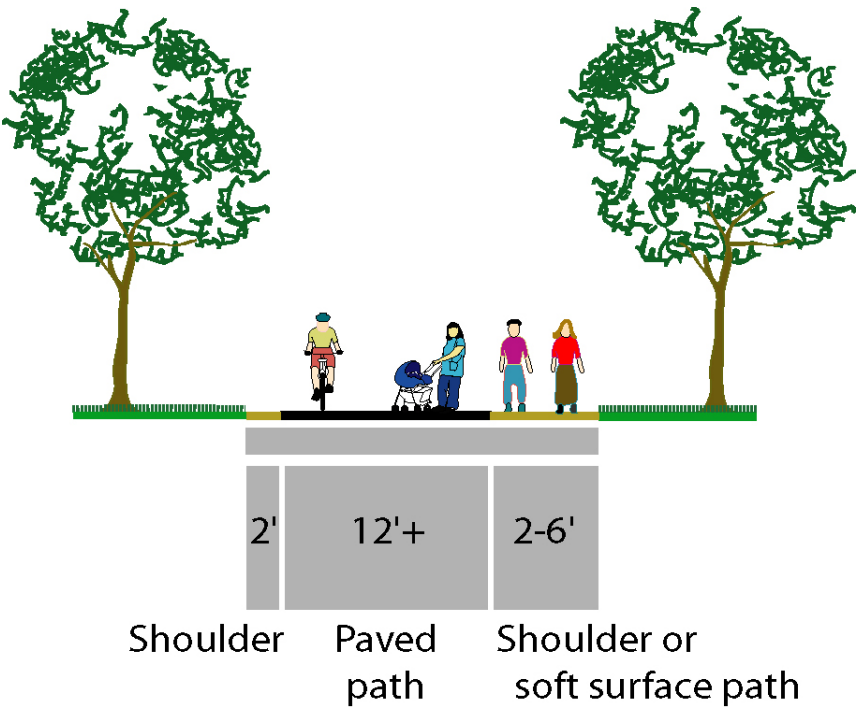


Figure 5-27. Shared-Use Paths

Shared-use paths should also be designed to restrict access from unauthorized vehicles. Bollards can be placed at path/roadway crossings to permit bicycle/pedestrian access while restricting vehicle access. Removable or unlockable bollards should replace gates along La Grande’s existing paths, as gates complicate trail access for cyclists and mobility-impaired users. Removable and unlockable bollards also maintain easy path access for maintenance and emergency vehicles.

Table 5-3 highlights additional design recommendations for La Grande’s shared-use path network. The recommendations are based on experience in other communities, as well as guidelines prescribed by AASHTO and the Oregon Bicycle and Pedestrian Plan.



Table 5-3. Shared-Use Path Design Recommendations

Parameter	Recommendation
Paved width	12 ft (8 ft in constrained areas)
Soft surface width ¹	6 ft minimum
Shoulder width ¹	2 ft minimum
Lateral clearance between path and adjacent signs	3-6 ft
Overhead clearance	8 ft minimum
Separation from parallel roadway	5 ft minimum
Grade/running slope	5% maximum
Cross-slope	2% maximum
Fence height	54 inches
Bollards	5 ft minimum between bollards

Source: AASHTO Guide for the Development of Bicycle Facilities; ODOT Oregon Bicycle and Pedestrian Plan.

1 A soft surface path paralleling the paved path can take the place of a shoulder on one side.

Shared-Use Paths along Roadways

Shared-use paths should not be placed directly adjacent to roadways (e.g., with minimal or no separation) for variety of reasons:

- Half of bicycle traffic would ride against the normal flow of vehicle traffic, contrary to the rules of the road.
- When the path ends, cyclists riding against traffic tend to continue to travel on the wrong side of the street, as do cyclists making their way to the path. Wrong-way bicycle travel is a major cause of vehicle/bicycle crashes.
- At intersections, motorists crossing the path often do not notice bicyclists approaching from certain directions, especially where sight distances are poor.
- Bicyclists on the path are required to stop or yield at cross-streets and driveways, unless otherwise posted.
- Stopped vehicles on a cross-street or driveway may block the path.
- Because of the closeness of vehicle traffic to opposing bicycle traffic, barriers are often necessary to separate motorists from cyclists. These barriers serve as obstructions, complicate facility maintenance and waste available right-of-way.
- Paths directly adjacent to high-volume roadways diminish users' experience by placing them in an uncomfortable environment. This could lead to a path's underutilization.



Shared-use paths can successfully be placed along roadways, provided several design considerations are met:

- A minimum five-foot buffer should be provided between the path and roadway to address potential conflicts between motorists and path users.
- There are few vehicle/path user conflict points (e.g., cross-streets and driveways).
- There is a commitment to provide path continuity along the corridor.
- The path can be terminated at each end onto streets with good bicycle and pedestrian facilities or onto another safe, well-designed path through appropriate street crossing treatments.
- The path should not take the place of bicycle/pedestrian facilities (e.g., sidewalks and bicycle lanes) on the parallel street.

These issues should be carefully considered as the City develops shared-use paths along roadways, including the proposed path along U.S. 30 and the proposed perimeter path near EOU.

Sidewalks as Shared-use Paths

Utilizing or providing a sidewalk as a shared-use path is unsatisfactory for several reasons. Sidewalks are typically designed for pedestrian speeds and maneuverability and are not safe for higher bicycle speeds. Conflicts are common between pedestrians traveling at low speeds (e.g., exiting stores, parked cars, etc.) and bicyclists, as are conflicts with fixed objects (e.g., utility poles, mailboxes, parked cars extending into the sidewalk from a driveway). Walkers, joggers, skateboarders and in-line skaters can (and often do) change their speed and direction almost instantaneously, leaving bicyclists insufficient reaction time to avoid collisions.

Similarly, pedestrians often have difficulty predicting the direction an oncoming cyclist will take. At intersections, motorists are often not looking for bicyclists who are traveling at higher speeds than pedestrians) entering a crosswalk area, particularly when motorists are making a turn. Sight distance is often impaired by buildings, walls, fences and shrubs along sidewalks, especially at driveways. In addition, bicyclists and pedestrians often prefer to ride or walk side-by-side when traveling in pairs. Sidewalks are typically too narrow to enable this to occur without serious conflict between users.

It should also be noted that developing extremely wide sidewalks does not necessarily add to the safety of sidewalk bicycle travel. Wide sidewalks might encourage higher speed bicycle use and can increase the potential for conflicts with motorists at intersections, as well as pedestrians with fixed objects.

Path/Roadway Crossings

Like most paths in built urban areas, paths in La Grande must cross roadways at certain points. While at-grade crossings create a potentially high level of conflict between path users and motorists, well-designed crossings have not historically posed a safety problem, as evidenced by the thousands of successful paths around the United States with at-grade crossings. In most cases, path crossings can be properly designed at-grade to a reasonable degree of safety and meet existing traffic and safety standards.



Evaluation of path crossings involves analysis of vehicular and anticipated path user traffic patterns, including vehicle speeds, traffic volumes (average daily traffic and peak hour traffic), street width, sight distance and path user profile (age distribution, destinations served). Crossing features for all roadways include warning signs both for vehicles and path users. The type, location, and other criteria are identified in the AASHTO's Guide for the Development of Bicycle Facilities and the MUTCD.

Consideration must be given for adequate warning distance based on vehicle speeds and line of sight, with visibility of any signing absolutely critical. Catching the attention of motorists jaded to roadway signs may require additional alerting devices such as a flashing light, roadway striping or changes in pavement texture. Signing for path users must include a standard "STOP" sign and pavement marking, sometimes combined with other features such as bollards or a kink in the pathway to slow bicyclists. Care must be taken not to place too many signs at crossings lest they begin to lose their impact.

Directional signing may be useful for pathway users and motorists alike. For motorists, a sign reading "Path Xing" along with a La Grande emblem or logo helps both warn and promote use of the path itself. For path users, directional signs and street names at crossings help direct people to their destinations. The directional signing should impart a unique theme so path users know which path they are following and where it goes. The theme can be conveyed in a variety of ways: engraved stone, medallions, bollards, and mile markers. A central information installation at trailheads and major crossroads also helps users find and acknowledge the rules of the path. They are also useful for interpretive education about plant and animal life, ecosystems, and local history.



Figure 5-28. Directional and Trail Etiquette Signage



A number of striping patterns have emerged over the years to delineate path crossings. A median stripe on the path approach will help to organize and warn path users. The actual crosswalk striping is a matter of local and State preference, and may be accompanied by pavement treatments to help warn and slow motorists. The effectiveness of crosswalk striping is highly related to local customs and regulations. In areas where motorists do not typically defer to pedestrians in crosswalks, additional measures may be required.

The following section identifies several path/roadway crossing treatments that should be considered for La Grande's shared-use path system.

Path/Roadway Crossing Prototypes

The proposed intersection approach that follows is based on established standards, published technical reports,⁵ and experiences from cities around the country.⁶ At-grade path/roadway crossings generally will fit into one of four basic categories:

- Type 1: Marked/Unsignalized; Type 1+: Marked/Enhanced
- Type 2: Route Users to Existing Signalized Intersection
- Type 3: Signalized/Controlled
- Type 4: Grade-separated crossings

Type 1: Marked/Unsignalized Crossings

A marked/unsignalized crossing (Type 1) consists of a crosswalk, signage, and often no other devices to slow or stop traffic. The approach to designing crossings at mid-block locations depends on an evaluation of vehicular traffic, line of sight, path traffic, use patterns, vehicle speed, road type and width, and other safety issues such as proximity to schools. The following thresholds recommend where unsignalized crossings may be acceptable:

Maximum traffic volumes:

- $\leq 9,000$ -12,000 Average Daily Traffic (ADT) volumes
- Up to 15,000 ADT on two-lane roads, preferably with a median.
- Up to 12,000 ADT on four-lane roads with median.



Type 1 Crossing

⁵ Federal Highway Administration (FHWA) Report, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations."

⁶ In particular, the recommendations in this report are based in part on experiences in cities like Portland (OR), Seattle (WA), Tucson (AZ), and Sacramento (CA), among others



Maximum travel speed:

- 35 MPH

Minimum line of sight:

- 25 MPH zone: 155 feet
- 35 MPH zone: 250 feet
- 45 MPH zone: 360 feet

If well-designed, crossings of multi-lane higher-volume arterials over 15,000 ADT may be unsignalized with features such as a combination of some or all of the following: excellent sight distance, sufficient crossing gaps (more than 60 per hour), median refuges, and/or active warning devices like flashing beacons or in-pavement flashers. These are referred to as “Type 1 Enhanced” (Type 1+). Such crossings would not be appropriate; however, if a significant number of schoolchildren used the path. Furthermore, both existing and potential future path usage volume should be taken into consideration.

On two-lane residential and collector roads below 15,000 ADT with average vehicle speeds of 35 MPH or less, crosswalks and warning signs (“Path Xing”) should be provided to warn motorists, and stop signs and slowing techniques (bollards/geometry) should be used on the path approach. Curves in paths that orient the path user toward oncoming traffic are helpful in slowing path users and making them aware of oncoming vehicles. Care should be taken to keep vegetation and other obstacles out of the sight line for motorists and path users. Engineering judgment should be used to determine the appropriate level of traffic control and design.

On roadways with low to moderate traffic volumes (<12,000 ADT) and a need to control traffic speeds, a raised crosswalk may be the most appropriate crossing design to improve pedestrian visibility and safety. These crosswalks are raised 75 millimeters above the roadway pavement (similar to speed humps) to an elevation that matches the adjacent sidewalk. The top of the crosswalk is flat and typically made of asphalt, patterned concrete, or brick pavers. Brick or unit pavers should be discouraged because of potential problems related to pedestrians, bicycles, and ADA requirements for a continuous, smooth, vibration-free surface. Detectable warning strips are needed at the sidewalk/street boundary so that visually impaired pedestrians can identify the edge of the street.

Type 2: Route Users to Existing Signalized Intersection

Crossings within 250 feet of an existing signalized intersection with pedestrian crosswalks are typically diverted to the signalized intersection for safety purposes. For this option to be effective, barriers and signing may be needed to direct trail users to the signalized crossings. In most cases, signal modifications would be made to add pedestrian detection and to comply with the Americans with Disabilities Act.



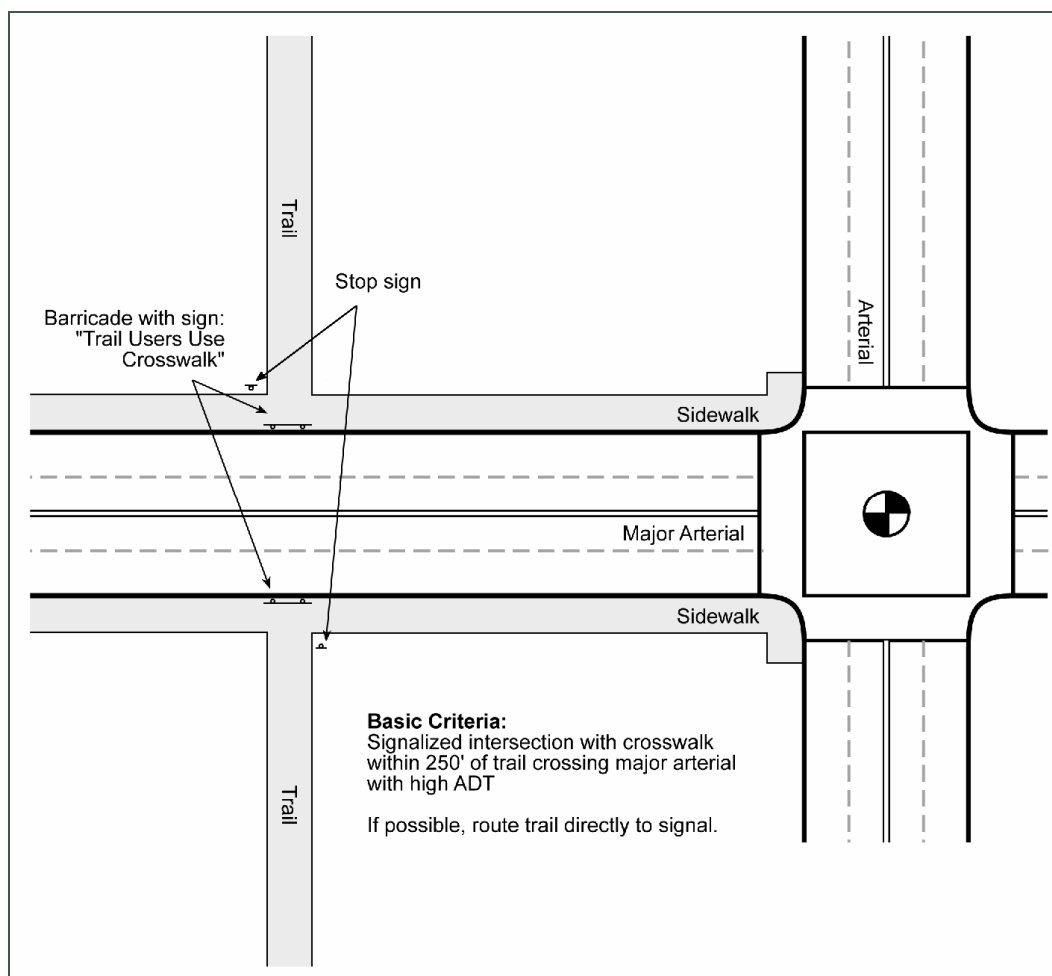


Figure 5-29. Type 2 Crossing Treatment

Type 3: Signalized/Controlled Crossings

New signalized crossings may be recommended for crossings that meet pedestrian, school, or modified warrants, are located more than 250 feet from an existing signalized intersection and where 85th percentile travel speeds are 40 MPH and above and/or ADT exceeds 15,000 vehicles. Each crossing, regardless of traffic speed or volume, requires additional review by a registered engineer to identify sight lines, potential impacts on traffic progression, timing with adjacent signals, capacity, and safety.



Type 3 Crossing

Trail signals are normally activated by push buttons, but also may be triggered by motion detectors. The maximum delay for activation of the signal should be two minutes, with minimum crossing times determined by the width of the street. The signals may rest on flashing yellow or green for motorists when not activated, and should be supplemented by standard



advanced warning signs. As described in the “Half Signalized Crossings” section earlier in this chapter, various types of pedestrian signals exist and can be used at Type 3 crossings.

Type 4: Grade-separated Crossings

Grade-separated crossings may be needed where existing bicycle/pedestrian crossings do not exist, where ADT exceeds 25,000 vehicles, and 85th percentile speeds exceed 45 MPH. Safety is a major concern with both overcrossings and undercrossings. In both cases, trail users may be temporarily out of sight from public view and may have poor visibility themselves. Undercrossings, like parking garages, have the reputation of being places where crimes occur. Most crime on trails, however, appears to have more in common with the general crime rate of the community and the overall usage of the trail than any specific design feature.

Design and operation measures are available which can address trail user concerns. For example, an undercrossing can be designed to be spacious, well-lit, equipped with emergency cell phones at each end and completely visible for its entire length prior to entering. Other potential problems with undercrossings include conflicts with utilities, drainage, flood control, and maintenance requirements. Overcrossings pose potential concerns about visual impact and functional appeal, as well as space requirements necessary to meet ADA guidelines for slope.

Type 4 crossings could potentially be used to overcome major bicycle/pedestrian barriers, such as Interstate 84, the Union Pacific Railroad and the Grande Ronde River.

Summary of At-Grade Path/Roadway Crossing Recommendations

Table 5-4 provides guidance on how to implement at-grade path/roadway crossings in La Grande.



Type 4 Grade-Separated Undercrossing



Type 4 Grade-Separated Overcrossing



Table 5-4. Summary of Path/Roadway At-Grade Crossing Recommendations⁷

Roadway Type (Number of Travel Lanes and Median Type)	Vehicle ADT ≤ 9,000			Vehicle ADT > 9,000 to 12,000			Vehicle ADT > 12,000 to 15,000			Vehicle ADT > 15,000		
	Speed Limit **											
	30 mi/h	35 mi/h	40 mi/h	30 mi/h	35 mi/h	40 mi/h	30 mi/h	35 mi/h	40 mi/h	30 mi/h	35 mi/h	40 mi/h
2 Lanes	1	1	1/1+	1	1	1/1+	1	1	1+/3	1	1/1+	1+/3
3 Lanes	1	1	1/1+	1	1/1+	1/1+	1/1+	1/1+	1+/3	1/1+	1+/3	1+/3
Multi-Lane (4 or more lanes) with raised median ***	1	1	1/1+	1	1/1+	1+/3	1/1+	1/1+	1+/3	1+/3	1+/3	1+/3
Multi-Lane (4 or more lanes) without raised median	1	1/1+	1+/3	1/1+	1/1+	1+/3	1+/3	1+/3	1+/3	1+/3	1+/3	1+/3
*General Notes: Crosswalks should not be installed at locations that could present an increased risk to pedestrians, such as where there is poor sight distance, complex or confusing designs, a substantial volume of heavy trucks, or other dangers, without first providing adequate design features and/or traffic control devices. Adding crosswalks alone will not make crossings safer, nor will they necessarily result in more vehicles stopping for pedestrians. Whether or not marked crosswalks are installed, it is important to consider other pedestrian facility enhancements (e.g., raised median, traffic signal, roadway narrowing, enhanced overhead lighting, traffic-calming measures, curb extensions), as needed, to improve the safety of the crossing. These are general recommendations; good engineering judgment should be used in individual cases for deciding which treatment to use.												
For each pathway-roadway crossing, an engineering study is needed to determine the proper location. For each engineering study, a site review may be sufficient at some locations, while a more in-depth study of pedestrian volume, vehicle speed, sight distance, vehicle mix, etc. may be needed at other sites.												
** Where the speed limit exceeds 40 mi/h (64.4 km/h), marked crosswalks alone should not be used at unsignalized locations.												
*** The raised median or crossing island must be at least 4 ft (1.2 m) wide and 6 ft (1.8 m) long to adequately serve as a refuge area for pedestrians in accordance with MUTCD and AASHTO guidelines. A two-way center turn lane is not considered a median.												
1= Type 1 Crossings. Ladder-style crosswalks with appropriate signage should be used.												
1/1+ = With the higher volumes and speeds, enhanced treatments should be used, including marked ladder style crosswalks, median refuge, flashing beacons, and/or in-pavement flashers. Ensure there are sufficient gaps through signal timing, as well as sight distance.												
1+/3 = Carefully analyze signal warrants using a combination of Warrant 2 or 5 (depending on school presence) and EAU factoring. Make sure to project pathway usage based on future potential demand. Consider Pelican, Puffin, or Hawk signals in lieu of full signals. For those intersections not meeting warrants or where engineering judgment or cost recommends against signalization, implement Type 1 enhanced crosswalk markings with marked ladder style crosswalks, median refuge, flashing beacons, and/or in-pavement flashers. Ensure there are sufficient gaps through signal timing, as well as sight distance.												

⁷ This table is based on information contained in the U.S. Department of Transportation Federal Highway Administration Study, "Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations," February 2002.



Trailheads

Good access to a path system is a key element for its success. Trailheads (formalized parking areas) serve the local and regional population arriving to the path system by car, transit, bicycle or other modes. Trailheads provide essential access to the trail system and include amenities like parking for vehicles and bicycles, restrooms (at major trailheads), and posted maps. A central information installation also helps users find their way and acknowledge the rules of the path. They are also useful for interpretive education about plant and animal life, ecosystems and local history.

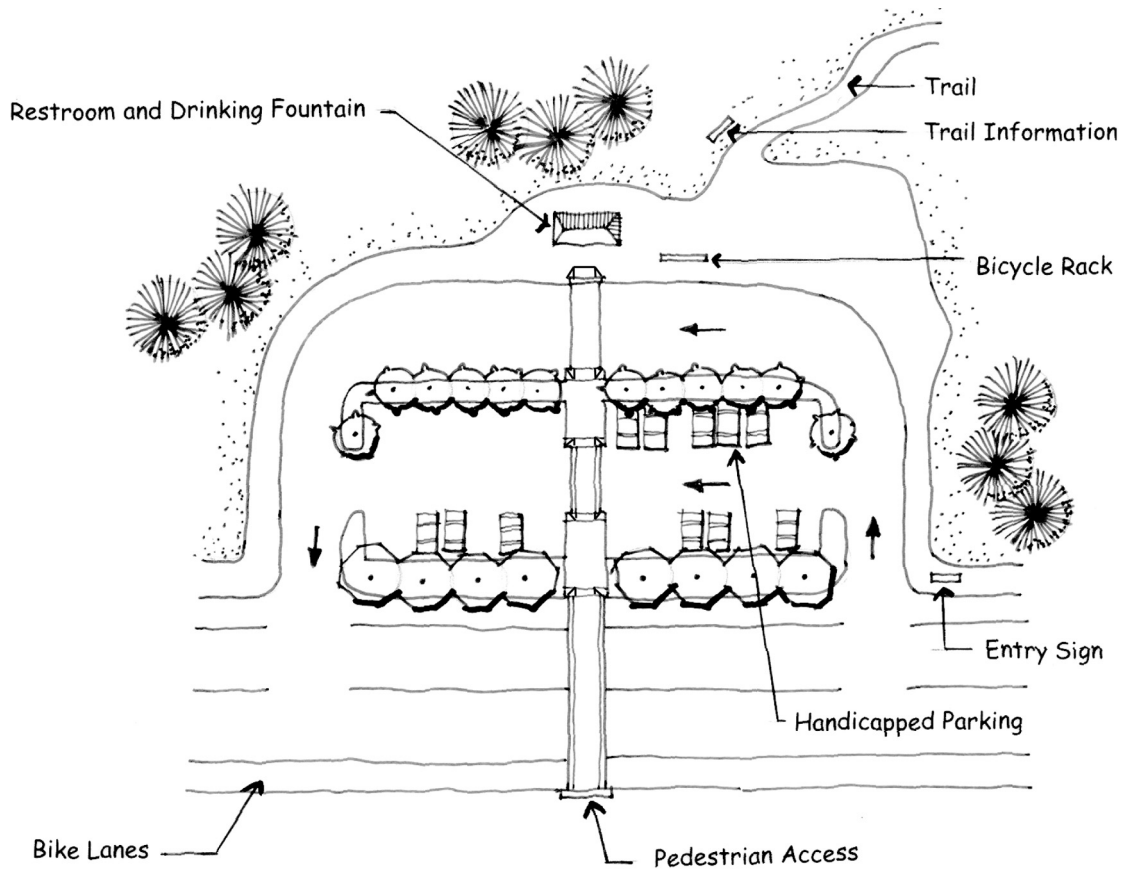


Figure 5-30. Major Trailhead



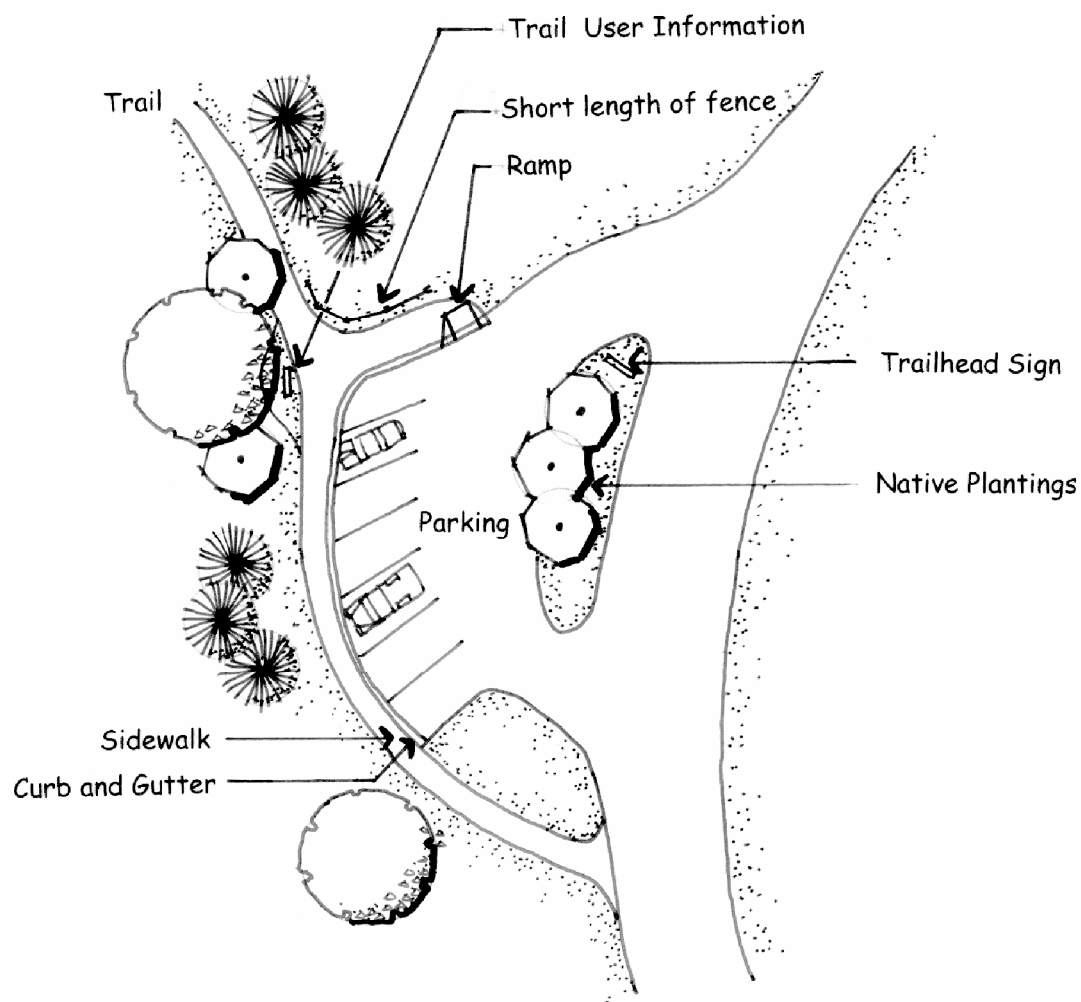


Figure 5-31. Trailhead with Small Parking Area

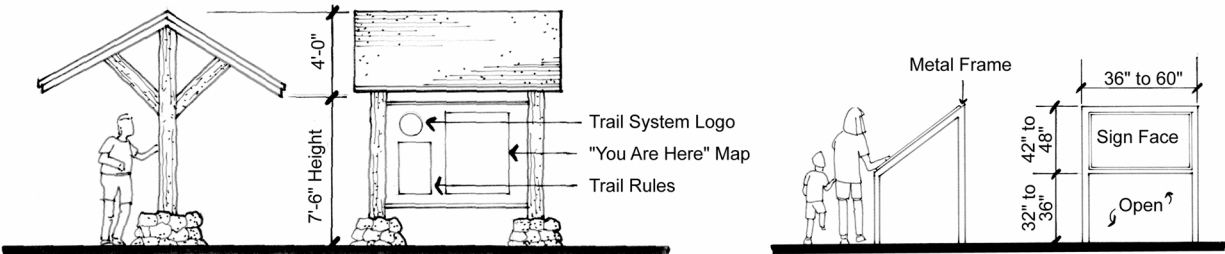


Figure 5-32. Informational Kiosk and Informational Sign



Path Amenities

A variety of amenities can make a path inviting to the user. The following table highlights some common items that make path systems stand out. Costs vary depending on the design and materials selected for each amenity.



Interpretive Installations

Interpretive installations and signs can enhance the users experience by providing information about the history of La Grande and the surrounding area. Installations can also discuss local ecology, environmental concerns, and other educational information.



Water Fountains and Bicycle Parking

Water fountains provide water for people (and pets, in some cases) and bicycle racks allow recreational users to safely park their bikes if they wish to stop along the way, particularly at parks and other desirable destinations.



Pedestrian-Scale Lighting and Furniture

Pedestrian-scale lighting improves safety and enables the facility to be used year-round. It also enhances the aesthetic of the pathway. Lighting fixtures should be consistent with other light fixtures in the city, possibly emulating a historic theme.

Providing benches at key rest areas and viewpoints encourages people of all ages to use the pathway by ensuring that they have a place to rest along the way. Benches can be simple (e.g., wood slates) or more ornate (e.g., stone, wrought iron, concrete).



Maps and Signage

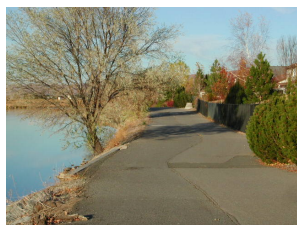
A comprehensive signing system makes a bicycle and pedestrian system stand out. Informational kiosks with maps at trailheads and other pedestrian generators can provide enough information for someone to use the network with little introduction – perfect for areas with high out-of-area visitation rates as well as the local citizens.



Art Installations

Local artists can be commissioned to provide art for the pathway system, making it uniquely distinct. Many pathway art installations are functional as well as aesthetic, as they may provide places to sit and play on.





Landscaping

Landscape features, including street trees or trees along paths, can enhance the visual environment and improve the path user experience. Trees can also provide shade from heat and also provide protection from rain.



Restrooms

Restrooms benefit path users, especially in more remote areas where other facilities do not exist. Restrooms can be sited at major trailheads or at other strategic locations along the path system.

Path Safety and Security

Various design and programmatic measures can be taken to address safety issues on a shared-use path. Table 5-5 summarizes key safety issues and strategies for minimizing impacts.

Table 5-5. Safety Recommendations

Safety Issue	Recommended Improvements
Unwanted vehicle access on the path	<ul style="list-style-type: none"> • Utilize landscaping to define the corridor edge and path, including earth berms and large boulders. • Use bollards at intersections • Pass a motorized vehicle prohibited ordinance and sign the path. • Create a Path Watch Program and encourage citizens to photograph report illegal vehicle use of the corridor. • Lay the trail out with curves that allow bike/ped passage, but are uncomfortably tight for automobile passage.
Privacy of adjacent property owners	<ul style="list-style-type: none"> • Encourage the use of neighborhood friendly fencing and also planting of landscape buffers. • Clearly mark path access points. • Post path rules that encourage respect for private property. • Strategically placed lighting.
Litter and dumping	<ul style="list-style-type: none"> • Post path rules encouraging pack-it-in/pack-it-out etiquette. • Place garbage receptacles at trailheads. • Strategically-placed lighting, utilizing light shields to minimize unwanted light in adjacent homes. • Manage vegetation within the right-of-way to allow good visual surveillance of the path from adjacent properties and from roadway/path intersections. • Encourage local residents to report incidents as soon as they occur. • Remove dumpsites as soon as possible.



Safety Issue	Recommended Improvements
Trespassing	<ul style="list-style-type: none"> Clearly distinguish public path right-of-way from private property through the use of vegetative buffers and the use of good neighbor type fencing. Post path rules that encourage respect for private property.
Crime	<ul style="list-style-type: none"> Manage vegetation so that corridor can be visually surveyed from adjacent streets and residences. Select shrubs that grow below 3 ft in height and trees that branch out greater than 6 ft in height. Place lights strategically and as necessary. Place benches and other path amenities at locations with good visual surveillance and high activity. Provide mileage markers at quarter-mile increments and clear directional signage for orientation. Create a "Path Watch Program" involving local residents. Proactive law enforcement. Utilize the corridor for mounted patrol training.
Private use of corridor	<ul style="list-style-type: none"> Attempt to negotiate win/win solutions with property owners. Eliminate where detrimental impact to path cannot be reasonably ameliorated.
Local on-street parking	Post local residential streets as parking for local residents only to discourage path user parking. Place "no outlet" and "no parking" signs prior to path access points.
Trailhead safety	Clearly identify trailhead access areas.
Vandalism	<ul style="list-style-type: none"> Select benches, bollards, signage and other site amenities that are durable, low maintenance and vandal resistant. Respond through removal or replacement in rapid manner. Keep a photo record of all vandalism and turn over to local law enforcement. Encourage local residents to report vandalism. Create a Trail Watch Program; maintain good surveillance of the corridor. Involve neighbors in path projects to build a sense of ownership. Place amenities (benches, etc.) in well used and highly visible areas.

Community Involvement with Safety on the Path

Creating a safe path environment goes beyond design and law enforcement and should involve the entire community. The most effective and most visible deterrent to illegal activity on La Grande's path system will be the presence of legitimate path users. Getting as many "eyes on the corridor" as possible is a key deterrent to undesirable activity. There are several components to accomplishing this as outlined below.

Provide good access to the path

Access ranges from providing conveniently located trailheads along the path, to encouraging the construction of sidewalks to accommodate access from private developments adjacent to the path. Access points should be inviting and signed so as to welcome the public onto the path.

Good visibility from adjacent neighbors

Neighbors adjacent to the path can potentially provide 24-hour surveillance of the path and can become La Grande's biggest ally. Though some screening and setback of the path is needed for privacy of adjacent neighbors, complete blocking out of the path from neighborhood view should be discouraged.



This eliminates the potential of neighbors' "eyes on the path," and could result in a "tunnel effect" on the path.

High level of maintenance

A well-maintained path sends a message that the community cares about the public space. This message alone will discourage undesirable activity along the path.

Programmed events

Community events along the path will help increase public awareness and thereby attract more people to use the path. Neighbors and residents can help organize numerous public events along the path which will increase support for the path. Events might include a day-long path clean up or a series of short interpretive walks led by long time residents or a park naturalist.

Community projects

The support generated by community groups could be further capitalized by involving neighbors and friends of the path in a community project. Ideas for community projects include volunteer planting events, art projects, interpretive research projects, or even bridge building events. These community projects are the strongest means of creating a sense of ownership along the path that is perhaps the strongest single deterrent to undesirable activity along the path.

Adopt-a-Path Program

Nearby businesses, community institutions, and residential neighbors often see the benefit of their involvement in the path development and maintenance. Businesses and developers may view the path as an integral piece of their site planning and be willing to take on some level of responsibility for the path. Creation of an adopt-a-path program should be explored to capitalize on this opportunity and build civic pride.

Path Watch Program

Partnering with local and county law enforcement, a path watch program would provide an opportunity for local residents to become actively involved in crime prevention along La Grande's path system. Similar to Neighborhood Watch programs, residents are brought together to get to know their neighbors, and are educated on how to recognize and report suspicious activity.

Internal Circulation Standards

Pedestrian circulation in larger residential and commercial developments is influenced by the infrastructure provided for the pedestrian as well as the infrastructure and design of auto circulation and parking.

Automobile Infrastructure

Parking lots should be located in such a manner as to encourage pedestrian access to the development, connect uses to the street and decrease the distance between adjacent developments. To accomplish this, parking should be located behind and to the side of buildings wherever possible. Landscaping



should be provided between the pedestrian circulation system and automobile areas to provide protection, security, and accessibility for the pedestrian while providing sufficient sight distance. Parallel parking can also be used to buffer pedestrian routes from moving vehicles.

Pedestrian Infrastructure

An internal pedestrian circulation system should:

- Be barrier-free and designed for safety and security
- Ensure continuous sidewalks and safe crossing points
- Connect all uses within a development (buildings, parking areas, etc.)
- Clearly link public sidewalks with all internal walkways
- Clearly link the individual sites within a development to each other and to surrounding off-site uses (mixed-use and residential areas)
- Be defined with landscaping, paving, and pedestrian-scale lighting
- Meet ADA guidelines
- Provide adequate sight distance

Pedestrian circulation routes could be composed of treated surfaces such as scored or brushed concrete in order to differentiate the pedestrian system from the auto system. Where pedestrian routes cross an auto circulation route, striping should be provided.

To provide greater opportunity for pedestrian connectivity and to prevent autos from having to use the public street system to travel between adjacent developments, parking and pedestrian circulation should be designed to accommodate connections between developments.

Pedestrian circulation plans should be required with each large lot development. These plans must emphasize connectivity through sidewalk design, traffic circulation, landscaping, and lighting.

Bicycle Infrastructure

Internal circulation for bicyclists is as important a consideration as for cars and pedestrians. Bicyclists should have a clearly delineated travel path through any development, as well as clear travel paths that link individual sites within the development and provide safe travel. In smaller developments or constrained situations, this can be accomplished through directional signage, lane markings, and signage that clearly show a shared roadway system (such as a shared lane marking), and signage and markings indicating slow speeds (10 MPH) required while in the development.

In larger developments, bicycle lanes should be striped to both indicate the travel route to bicyclists and to constantly inform motorists to expect bicyclists within the development. The bicycle lanes should be supplemented with appropriate directional signage for bicyclists. Signage and markings indicating slow



speeds (10 MPH) are also recommended. Bicycle circulation plans should be required with each large lot development.

Bicycle Parking

Bicycle parking can be broadly defined as either short-term or long-term parking:

- **Short-term parking:** Bicycle parking meant to accommodate visitors, customers, messengers and others expected to depart within two hours; requires approved standard rack, appropriate location and placement, and weather protection.
- **Long-term parking:** Bicycle parking meant to accommodate employees, students, residents, commuters, and others expected to park more than two hours. This parking is to be provided in a secure, weather-protected manner and location.

Short-Term Bicycle Parking

Short-term bicycle parking facilities are intended to provide short-term bicycle parking, and include racks which permit the locking of the bicycle frame and one wheel to the rack and support the bicycle in a stable position without damage to wheels, frame or components. Short-term bicycle parking is currently provided at no charge at most locations. Such facilities should continue to be free, as they provide minimal security, but encourage cycling and promote proper bicycle parking.

The Land Development Code's bicycle rack dimensions requirements meet or exceed those recommended by the Oregon Bicycle and Pedestrian Plan, including the following:

- Bicycle parking spaces should be at least six feet long and two-and-a-half feet wide, and overhead clearance for covered spaces should be at least seven feet.
- A five-foot aisle for bicycle maneuvering should be provided and maintained beside or between each row of bicycle parking.
- Bicycle racks or lockers should be securely anchored to the surface or structure.



Bolt-on ring rack



Sleeve ring rack



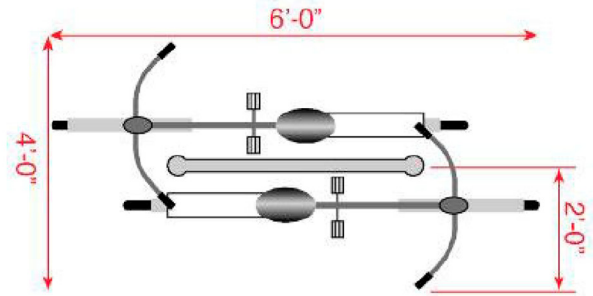


Figure 5-33. Inverted "U" Rack

Ribbon, Spiral, or Freestanding Racks

(with access from only one side)

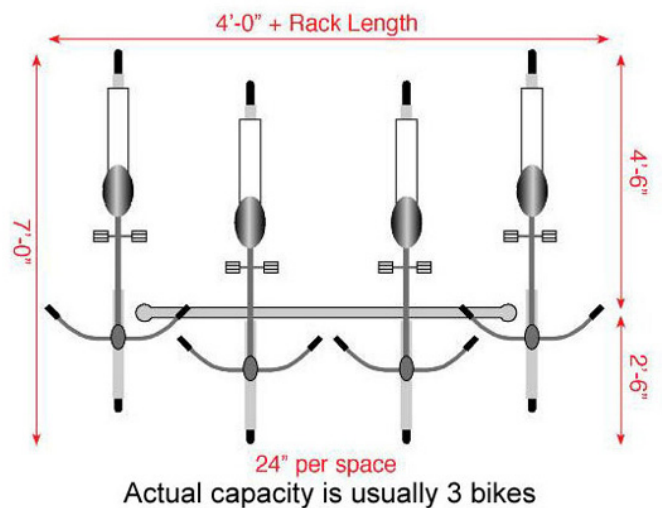


Figure 5-34. Ribbon, Spiral, and Freestanding Racks

Where racks are not possible on sidewalks (because of narrow sidewalk width, sidewalk obstructions, or other issues), bicycle parking can be created in the street where on-street vehicle parking is allowed. Two possible options for creating parking in the street include clustered racks in a car parking space protected by bollards or curbs, and racks installed on sidewalk curb extensions where adequate sight distance can be provided. Installing bicycle parking directly in a car parking space incurs only the cost of the racks and bollards or other protective devices.



On-street bicycle parking

A curb extension is more expensive to install, and can be prohibitively expensive if substantial drainage and/or utility work is necessary. Costs may be less if the curb extension is installed as part of a larger street or pedestrian improvement project. While on-street bicycle parking may take space away from the automobile parking, there are ways to mitigate auto



parking loss: Additional auto parking spaces can be created by consolidating driveways, moving fire hydrants, or otherwise finding places where it may be possible to admit auto parking where it is currently prohibited. Options for combining bicycle and motorcycle parking also exist.

On-street bicycle parking may be installed at intersection corners or at mid-block locations. Mid-block on-street parking may be closer to cyclists' destinations, although it could force cyclists to dismount and walk to the parking site if access from the street is difficult or dangerous. Combining a mid-block pedestrian crossing with mid-block on-street parking facilities could mitigate this situation.

Table 5-6. Bicycle Rack Placement Guidelines

Design Issue	Recommended Guidance
Minimum Rack Height	To increase visibility to pedestrians, racks should have a minimum height of 33 inches or be indicated or cordoned off by visible markers.
Signing	Where bicycle parking areas are not clearly visible to approaching cyclists, signs at least 12 inches square should direct them to the facility. The sign should give the name, phone number, and location of the person in charge of the facility, where applicable.
Lighting	Lighting of not less than one foot-candle illumination at ground level should be provided in all bicycle parking areas.
Frequency of Racks on Streets	In popular retail areas, two or more racks should be installed on each side of each block. This does not eliminate the inclusion of requests from the public which do not fall in these areas. Areas officially designated or used as bicycle routes may warrant the consideration of more racks.
Location and Access	Access to facilities should be convenient; where access is by sidewalk or walkway, curb ramps should be provided where appropriate and ADA compliant. Parking facilities intended for employees should be located near the employee entrance, and those for customers or visitors near the main public entrances. (Convenience should be balanced against the need for security if the employee entrance is not in a well traveled area). Bicycle parking should be clustered in lots not to exceed 16 spaces each. Large expanses of bicycle parking make it easier for thieves to operate undetected.
Locations within Buildings	Provide bike racks within 50 feet of the entrance. Where a security guard is present, provide racks behind or within view of a security guard. The location should be outside the normal flow of pedestrian traffic.
Locations near Transit Stops	To prevent bicyclists from locking bikes to bus stop poles - which can create access problems for transit users, particularly those who are disabled - racks should be placed in close proximity to transit stops where there is a demand for short-term bike parking.
Locations within a Campus-Type Setting	Racks are useful in a campus-type setting at locations where the user is likely to spend less than two hours, such as classroom buildings. Racks should be located near the entrance to each building. Where racks are clustered in a single location, they should be surrounded by a fence and watched by an attendant. The attendant can often share this duty with other duties to reduce or eliminate the cost of labor being applied to the bike parking duties; a cheaper alternative to an attendant may be to site the fenced bicycle compound in a highly visible location on the campus. For the long-term parking needs of employees and students, attendant parking and/or bike lockers are recommended.
Retrofit Program	In established locations, such as schools, employment centers, and shopping centers, the City should conduct bicycle parking audits to assess the bicycle parking availability and access, and add in additional bicycle racks where necessary.



Long-Term Bicycle Parking

Long-term bicycle parking facilities are intended to provide secure long-term bicycle storage. Long-term facilities protect the entire bicycle, its components and accessories against theft and against inclement weather, including snow and wind-driven rain. Examples include lockers, check-in facilities, monitored parking, restricted access parking, and personal storage.

Long-term parking facilities are more expensive to provide than short-term facilities, but are also significantly more secure. Although many bicycle commuters would be willing to pay a nominal fee to guarantee the safety of their bicycle, long-term bicycle parking should be free wherever automobile parking is free. Potential locations for long-term bicycle parking include large employers and institutions where people use their bikes for commuting, and not consistently throughout the day. An advantage of lockers is that they can be configured to more easily accommodate different styles of bicycles, such as recumbent bicycles.

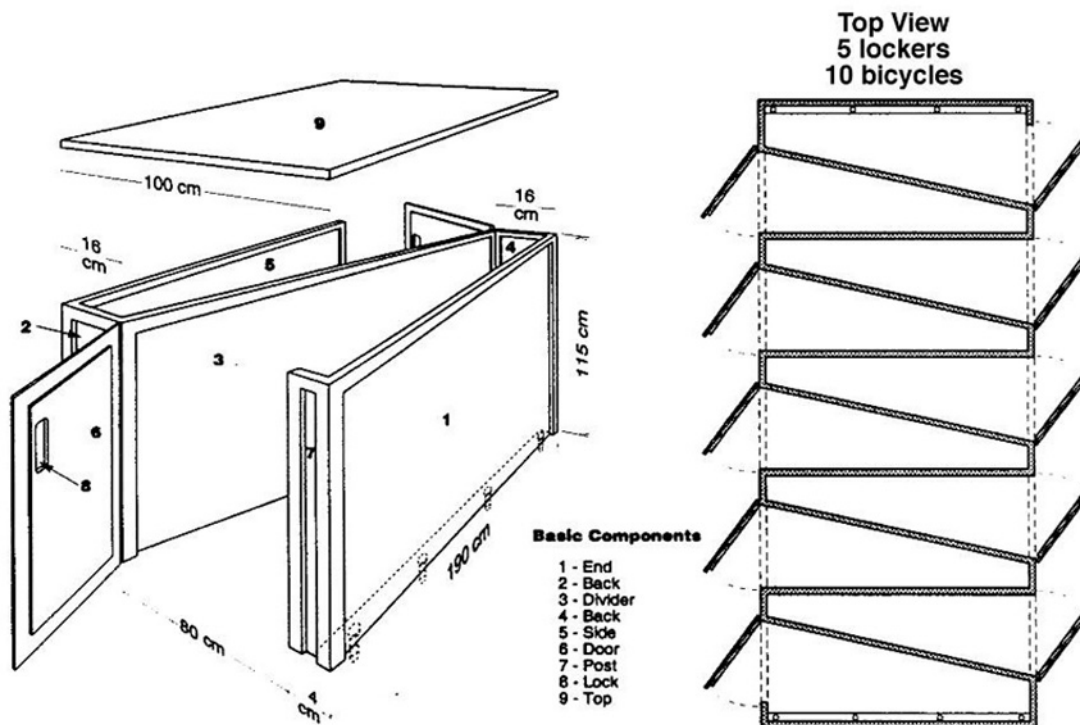


Figure 5-35. Cycle-Safe Lockers



Transit Stops

This section provides guidance for the design of specific transit stop elements, including sidewalk approaches, landing pads, bus pullouts and bus shelters.

Sidewalk and Path Approaches

Pedestrian connections should be designed to provide the most direct route to transit stops to avoid out-of-direction travel and minimize travel distance. Direct routes will also reduce the damage to landscaping by providing pedestrians with other preferred routes. Connections should be a continuation of the sidewalk and path system to reduce dead-end paths. At transit stops, sidewalks should be provided at a minimum to the nearest intersection or to the nearest section of existing sidewalk. It may also be necessary to wrap a sidewalk around a corner to join an existing sidewalk on a side street. If a transit route does not have complete sidewalks, it is still important to provide a suitable area for waiting pedestrians.

Landing Pads

At permanent bus stops, the ADA requires an eight- by five-foot landing pad to accommodate disabled users. For bus stops along streets without curbs, the roadway shoulder should be at least eight feet wide to serve as the landing pad.

Bus Pullouts

Where traffic conditions warrant a bus pullout at an intersection, a far-side location is preferred. The needs of passengers boarding or exiting the bus should not conflict with the needs of pedestrians and cyclists moving through the area. A curb extension helps pedestrian crossing movements, prevents motorists from entering the bus pullout area, and reduces conflicts with through bicyclists. Each pullout should be designed to meet roadway conditions and bus characteristics.

Where parking is allowed on streets, a curb extension can be placed within the parking lane so that passengers may board or exit the bus without stepping into the street. This also makes it easier to meet ADA requirements (the bus pulls up right next to the curb).

Bus Shelters

A standard-size bus shelter requires a six- by ten-foot pad. The shelter should be placed at least two feet from the curb when facing away from the street and at least four feet when facing toward the street. The adjacent sidewalk must still have a five-foot clear passage. Orientation of the shelter should take into account prevailing winter winds. Sidewalks separated from the roadway with a planter strip offer a unique opportunity to provide a bus shelter out of the path of passing pedestrians.



Railroad Crossings

With the exception of some crossings, most at-grade railroad/street crossings in La Grande intersect perpendicularly (the ideal crossing angle for bicyclists, pedestrians and wheelchair users). Ninety-degree crossings prevent the wheels of bicycles, wheelchairs, strollers and other devices from becoming trapped in the flangeway. Where a 90-degree railroad/street crossing is not possible, additional shoulder width should be provided to enable a cyclist to cross at a safe angle. If a safe crossing angle cannot be provided (due to physical constraints or other factors), and where train speeds are low, commercially-available compressible flangeway fillers could be used. Consideration should also be given to street and sidewalk crossing surface materials, as well as flangeway depth and width. Rubber and concrete crossing materials typically last longer than wood or asphalt, and are less likely to crack or create uneven surfaces that complicate wheelchair travel (it should be noted however that rubber surfaces can become slippery when wet). It is also important that the roadway approach has the same elevation as the railroad.

Maintenance Guidelines

Proper maintenance of pedestrian and bicycle facilities is a critical element of providing a safe and user-friendly system. Table 5-7 summarizes a recommended maintenance schedule for La Grande's bicycle/pedestrian system. These guidelines address maintenance of the system's off-street portions. On-street segments should be maintained according to the standards of the responsible jurisdiction (e.g., City, ODOT, etc.).

Table 5-7. Maintenance Guidelines

Maintenance Task	Frequency
Inspections	Seasonal – at both beginning and end of summer
Signage replacement	1-3 years
Site furnishings; replace damaged components	As needed
Fencing repair	Inspect monthly for holes and damage, repair immediately
Pavement markings replacement	1-3 years
Pavement sweeping/blowing	As needed; before high use season
Pavement sealing; pothole repair	5-15 years
Lighting repair	Annually
Introduced tree and shrub plantings, trimming	1-3 years
Shrub/tree irrigation for introduced planting areas	Weekly during summer months until plants are established
Shoulder plant trimming (weeds, trees, branches)	Twice a year; middle of growing season
Major damage response (fallen trees, washouts, flooding)	Schedule based on priorities
Culvert inspection	Before rainy season; after major storms
Maintaining culvert inlets	Inspect before onset of wet season
Waterbar maintenance (earthen trails)	Annually
Trash disposal	Weekly during high use; twice monthly during low use
Litter pick-up	Weekly during high use; twice monthly during low use
Graffiti removal	Weekly; as needed





La Grande

Pedestrian & Bicycle Improvement Plan

6. FUNDING SOURCES

Federal Funding Sources

Federal funding is primarily distributed through a number of different programs established by the Federal Transportation Act. The latest act, The Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users (SAFETEA-LU) was enacted in August 2005 as Public Law 109-59. SAFETEA-LU authorizes the Federal surface transportation programs for highways, highway safety, and transit for the five-year period 2005-2009.

In Oregon, Federal funding is administered through State (ODOT) and regional planning agencies. Most, but not all, of these funding programs are oriented toward transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. Federal funding is intended for capital improvements and safety and education programs, and projects must relate to the surface transportation system.

SAFETEA-LU

There are a number of programs identified within SAFETEA-LU that provide for the funding of bicycle and pedestrian projects.

Surface Transportation Program

The Surface Transportation Program (STP) provides states with flexible funds which may be used for a wide variety of projects on any Federal-aid Highway including the National Highway System, bridges on any public road, and transit facilities.

Bicycle and pedestrian improvements are eligible activities under the STP. This covers a wide variety of projects such as on-street facilities, off-road trails, sidewalks, crosswalks, bicycle and pedestrian signals, parking, and other ancillary facilities. SAFETEA-LU also specifically clarifies that the modification of sidewalks to comply with the requirements of the Americans with Disabilities Act is an eligible activity.

As an exception to the general rule described above, STP-funded bicycle and pedestrian facilities may be located on local and collector roads which are not part of the Federal-aid Highway System. In addition, bicycle-related non-construction projects, such as maps, coordinator positions, and encouragement programs, are eligible for STP funds. ODOT estimates that they will receive an average of \$84 million annually for this program through the lifetime of SAFETEA-LU.

Highway Safety Improvement Program

This program funds projects designed to achieve significant reductions in traffic fatalities and serious injuries on all public roads, bikeways and walkways. This program includes the Railway-Highway Crossings Program and the High Risk Rural Roads Program. ODOT estimates that they will receive an average of \$14 million annually for this program through the lifetime of SAFETEA-LU. This program replaces the Hazard Elimination Program from TEA-21.

Railway-Highway Crossing Program (RHC)

Administered by ODOT, this program is funded by a set-aside of STP funds and is designated for improvements to highway-rail grade crossings to eliminate safety hazards. Funding for this program comes out of Highway Safety Improvement Program funds. ODOT estimates that they will receive an average of \$3.1 million annually for this program through the lifetime of SAFETEA-LU.

Transportation Enhancements

Administered by ODOT, this program is funded by a set-aside of STP funds. Projects must serve a transportation need. These funds can be used to build a variety of pedestrian, bicycle, streetscape and other improvements that enhance the cultural, aesthetic, or environmental value of transportation systems. The statewide grant process is competitive.

Congestion Mitigation/Air Quality Program

The Congestion Mitigation/Air Quality Improvement Program (CMAQ) provides funding for projects and programs in air quality non-attainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions.

These federal funds can be used to build bicycle and pedestrian facilities that reduce travel by automobile. Recreational facilities generally are not funded. ODOT estimates that they will receive an average of \$14 million annually for this program through the lifetime of SAFETEA-LU.

Recreational Trails Program

The Recreational Trails Program of the Federal Transportation Bill provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized and motorized uses. These funds are available for both paved and unpaved trails, but may not be used to improve roads for general passenger vehicle use or to provide shoulders or sidewalks along roads.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails
- Purchase and lease of trail construction and maintenance equipment
- Construction of new trails, including unpaved trails
- Acquisition or easements of property for trails



- State administrative costs related to this program (limited to seven percent of a State's funds)
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds)

Safe Routes to School (SR2S)

Under the SR2S Program, Federal funds are administered by ODOT. Under the Oregon Safe Routes to School Program, approximately \$3.7 million will be available for grants between 2006 and 2010. The grants can be used to identify and reduce barriers and hazards to children walking or bicycling to school. ODOT estimates that they will receive an average of \$1.37 million annually for this program through the lifetime of SAFETEA-LU.

New Freedom Initiative

SAFETEA-LU creates a new formula grant program that provides capital and operating costs to provide transportation services and facility improvements that exceed those required by the Americans with Disabilities Act.

Community Development Block Grants

The Community Development Block Grants program provides money for streetscape revitalization, which may be largely comprised of pedestrian improvements. Federal Community Development Block Grant grantees may “use Community Development Block Grants funds for activities that include (but are not limited to): acquiring real property; reconstructing or rehabilitating housing and other property; building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities; paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds; provide public services for youths, seniors, or the disabled; and initiatives such as neighborhood watch programs.”

Rivers, Trails and Conservation Assistance Program

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based on criteria that include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation, and focusing on lasting accomplishments.

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a Federally-funded program that provides grants for planning and acquiring outdoor recreation areas and facilities, including trails. Funds can be used for right-of-way acquisition and construction. These funds are administered by the Oregon Parks and Recreation Department.



Transportation, Community and System Preservation Program

The Transportation, Community and System Preservation Program provides federal funding for transit-oriented development, traffic calming and other projects that improve the efficiency of the transportation system, reduce the impact on the environment, and provide efficient access to jobs, services and trade centers. The program is intended to provide communities with the resources to explore the integration of their transportation system with community preservation and environmental activities. The Transportation, Community and System Preservation Program funds require a 20 percent match.

State Funding Sources

Statewide Transportation Improvement Program

The Statewide Transportation Improvement Program (STIP) is ODOT's short-term capital improvement program, providing project funding and scheduling information for the department and Oregon's metropolitan planning organizations. It is a four-year program developed through the coordinated efforts of ODOT, federal and local governments, Area Commissions on Transportation, tribal governments and the public.

In developing this funding program, ODOT must verify that the identified projects comply with the Oregon Transportation Plan (OTP), ODOT Modal Plans, Corridor Plans, local comprehensive plans, and SAFETEA-LU planning requirements. The STIP must fulfill Federal planning requirements for a staged, multi-year, statewide, intermodal program of transportation projects. Specific transportation projects are prioritized based on Federal planning requirements and the different State plans. ODOT consults with local jurisdictions before highway-related projects are added to the STIP.

Oregon Revised Statute 366.514

Often referred to as the "Oregon Bike Bill," this law applies equally to bicycle and pedestrian facilities. The statute's intent is to ensure that future roads be built to accommodate bicycle and pedestrian travel. The statute requires the provision of bicycle and pedestrian facilities on all major arterial and collector roadway construction, reconstruction or relocation projects where conditions permit. The statute also requires that in any fiscal year, at least one percent of highway funds allocated to a jurisdiction must be used for bicycle/pedestrian projects.

Oregon Transportation Infrastructure Bank

The Oregon Transportation Infrastructure Bank is a statewide revolving loan fund designed to promote innovative transportation funding solutions. Oregon's program was started in 1996 as part of a 10-state Federal pilot program. Additional legislation passed in 1997 by the Oregon Legislature establishes the program in state law and includes expanded authority. Eligible borrowers include cities, counties, transit districts, other special districts, port authorities, tribal governments, state agencies, and private for-profit and non-profit entities. Eligible projects include:

- Highway projects, such as roads, signals, intersection improvements and bridges
- Transit capital projects, such as buses, equipment, and maintenance or passenger facilities



- Bikeway or pedestrian access projects on highway right-of-way

Eligible project costs include preliminary engineering, environmental studies, right-of-way acquisition, construction (including project management and engineering), inspections, financing costs, and contingencies.

Measure 66 Funds – Oregon State Lottery

Ballot Measure 66 amends the Oregon Constitution to allow money from the State Lottery to be used for restoring and protecting Oregon's parks, beaches, watersheds and critical fish and wildlife habitat. Funds are coordinated by Oregon State Parks, and may be used for trail-related right-of-way acquisition and construction.

Special Transportation Fund

The State's Special Transportation Fund Program provides financial support to designated counties, transit districts and Indian tribal governments for special transportation services benefiting seniors and people with disabilities. The majority of the STF money (75 percent) is allocated on a population-based formula. The remaining funds are distributed by the Public Transportation Discretionary Grant Program.

Bicycle and Pedestrian Program Grants

The Pedestrian and Bicycle Grant Program is a competitive grant program that provides approximately \$5 million every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities. Proposed facilities must be within public rights-of-way. Grants are awarded by the Oregon Bicycle and Pedestrian Advisory Committee.

Bicyclist Safety Mini-Grant Program

The Community Cycling Center Bicyclist Mini-Grant Program provides funding to public agencies and non-profit 501(c)(3) organizations to promote the safety of bicyclists in Oregon. Funding is available statewide through a grant to the Community Cycling Center from ODOT's Transportation Safety Division. Funding is available for projects targeting youth and/or adults, with a focus on projects that incorporate a strong educational element, especially in communities that do not currently have access to bike safety education resources. For communities that currently do have access to these resources, innovative and creative project proposals are highly encouraged. Applicants may apply for grants between \$800 and \$5,000.

Pedestrian Safety Mini-Grant Program

Administered by Oregon's Bicycle Transportation Alliance and the Willamette Pedestrian Coalition, the Pedestrian Safety Mini-Grant Program is funded through ODOT's Traffic Safety Division. The program provides funds to police departments around the state to stage crosswalk enforcement actions against motorists who fail to yield to pedestrians. In these operations, a decoy police officer attempts to cross a street at an intersection or marked crosswalk (crosswalk laws apply to unmarked crosswalks as well). If passing motorists fail to stop and yield for the pedestrian, they are issued either a warning or a citation. The operations include a media outreach component, with the purpose of raising awareness around



motorists' responsibility toward pedestrians. Grant funds may also be used to offer diversion classes that violators can take in lieu of paying tickets. Applicants may apply for grants up to \$5,000.

Local Funding Sources

Local Bond Measures

Local bond measures, or levies, are usually initiated by voter-approved general obligation bonds for specific projects. Bond measures are typically limited by time based on the debt load of the local government or the project under focus. Funding from bond measures can be used for right-of-way acquisition, engineering, design and construction of pedestrian and bicycle facilities.

Tax Increment Financing/Urban Renewal Funds

Tax Increment Financing (TIF) is a tool to use future gains in taxes to finance the current improvements that will create those gains. When a public project (e.g., sidewalk improvements) is constructed, surrounding property values generally increase and encourage surrounding development or redevelopment. The increased tax revenues are then dedicated to finance the debt created by the original public improvement project. Tax Increment Financing typically occurs within designated Urban Renewal Areas (URA) that meet certain economic criteria and approved by a local governing body. To be eligible for this financing, a project (or a portion of it) must be located within the URA.

An Urban Renewal Area currently encompasses a relatively large portion of the City, focused on the U.S. 30/Adams Avenue and Cove Avenue corridors. The City indicates, however, that projected TIF revenues have already been committed. When the URA designation expires, the City should consider extending the designation to fund pedestrian and bicycle projects within the URA boundary.

System Development Charges/Developer Impact Fees

System Development Charges (SDCs), also known as Developer Impact Fees, represent another potential local funding source. SDCs are typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- or off-site pedestrian improvements that will encourage residents to walk or use transit rather than drive. In-lieu parking fees may be used to help construct new or improved pedestrian facilities. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit. Currently, the City of La Grande applies SDCs to specific park improvement projects.

Street User Fees

The City of La Grande currently administers street user fees through residents' monthly water bills. The revenue generated by the fee is used for operations and maintenance of the street system, and priorities are established by the Public Works Department. Revenue from this fund should be used to maintain on-street bicycle and pedestrian facilities, including routine sweeping of bicycle lanes and other designated bicycle routes.



Local Improvement Districts (LIDs)

Local Improvement Districts (LIDs) are most often used by cities to construct localized projects such as streets, sidewalks or bikeways. Through the LID process, the costs of local improvements are generally spread out among a group of property owners within a specified area. The cost can be allocated based on property frontage or other methods such as traffic trip generation. La Grande's LID ordinance allows the City Council to commit City funding for up to 50 percent of a project's cost.

Business Improvement Districts

Pedestrian improvements can often be included as part of larger efforts aimed at business improvement and retail district beautification. Business Improvement Districts collect levies on businesses in order to fund area-wide improvements that benefit businesses and improve access for customers. These districts may include provisions for pedestrian and bicycle improvements, such as wider sidewalks, landscaping, and ADA compliance.

Other Local Sources

Residents and other community members are excellent resources for garnering support and enthusiasm for a bicycle and pedestrian facility, and the City should work with volunteers to substantially reduce implementation and maintenance costs. Local schools, community groups, or a group of dedicated neighbors may use the project as a project for the year, possibly working with a local designer or engineer. Work parties can be formed to help clear the right-of-way for a new path or maintain existing facilities where needed. A local construction company could donate or discount services. Other opportunities for implementation will appear over time, such as grants and private funds. The City should look to its residents for additional funding ideas to expedite completion of the bicycle and pedestrian system.

Other Funding Sources

American Greenways Program

Administered by The Conservation Fund, the American Greenways Program provides funding for the planning and design of greenways. Applications for funds can be made by local, regional or statewide non-profit organizations and public agencies. The maximum award is \$2,500, but most awards range from \$500 to \$1,500. American Greenways Program monies may be used to fund unpaved trail development.





La Grande

Pedestrian & Bicycle Improvement Plan

APPENDIX A. FACTS AND FINDINGS REPORT

To support the development of the Pedestrian-Bicycle Improvement Plan for the City of La Grande, an investigation of the existing conditions of the transportation system was conducted through a tour of the study area and an examination of data collected describing traffic volumes, crash history, and the physical environment. This report presents the findings of this investigation and describes potential design treatments to address deficiencies identified.

Existing Transportation Facilities

Street Inventory

The City of La Grande has a population of approximately 12,300⁸ and sits between the Grande Ronde River to the north and the Blue Mountains to the west. Three state highways run through the city, including I-84, US 30, and OR 82, providing for regional and statewide travel, as well as for local access. However, most local travel occurs on a system of city-owned collectors and neighborhood local streets. Throughout most of the city, these streets provide a relatively consistent grid, with obstructions caused by I-84, the Union Pacific railroad line, Eastern Oregon University, and the Boise Building Solutions property. A vicinity map of the City of La Grande is provided in Map A-1.

While I-84 carries the most traffic volume through the city, as an interstate facility its main objective is to accommodate motor vehicle traffic traveling long distances. Shoulders are present on I-84 on which walking and biking are permitted, but they are often used for emergency parking and as a recovery area for errant vehicles. Furthermore, with only two locations of access within the city, I-84 would not be an attractive option for local travel, but may be used for regional travel. As no further improvements to this facility for accommodating bicycle or pedestrian travel would be consistent with the design standards, I-84 was not included for analysis as part of the Pedestrian-Bicycle Plan.

The major travel routes in the study area include Adams Avenue (US 30), traveling roughly east-west through the central downtown of the city, and Island Avenue (OR 82) traveling northeast from the city center. ODOT classifies Adams Avenue and Island Avenue as District Highways and in the 1999 La Grande/Island City Transportation System Plan (TSP) they have been designated as the only arterials in the city. Through most of La Grande, Adams Avenue maintains a two-lane cross-section, with three lanes (two travel lanes and a center turn lane) provided between 3rd Street and 20th Street. Island Avenue maintains a five-lane cross-section with wide shoulders varying from eight to ten feet in width. These

⁸ 2000 Census, United States Census Bureau.

shoulders are marked as bike lanes, but because of their width, are sometimes used to park trucks during winter weather events that shut down I-84 and are frequently used as right turn lanes by motorists.

An inventory of existing transportation facilities in the city was conducted, with various descriptive characteristics for corridors of interest documented. Tables A-1 and A-2 below provide physical descriptions of major travel corridors through the city, as well as identifying the functional classification⁹ of each, indicating intended management objectives and guiding the selection of potential design treatments. The adopted design standards for each functional classification are provided in Table A-3.

Table A-1. Jurisdictional Responsibility and Functional Classification of Key Corridors

Roadway	Jurisdiction	Functional Classification	Signalized Intersections
12th St	City	Minor Collector	-
16th St	City	Minor Collector	-
20th St	City	Minor Collector	-
2nd St	City	Minor/Major Collector*	Adams Ave
4th St	City	Major Collector	Adams Ave
6th St	City	Minor Collector	-
8th St	City	Local Street	-
Adams Ave	State	Arterial / District Hwy	2nd St, 4th St, Depot St, Fir St, Greenwood St, Island Ave, Cherry St.
C Ave	City	Minor/Major Collector**	-
Cove Ave	City	Major Collector	-
L Ave	City	Minor Collector	-
Gekeler Ave	City	Major Collector	-
Island Ave	State	Arterial / District Hwy	Adams Ave., Monroe Ave.
Jefferson Ave	City	Major Collector	-
N Albany St	City	Minor Collector	-
N Spruce St	City	Major Collector	-
Washington Ave	City	Minor Collector	-
Monroe Ave	City	Minor/Major Collector***	-
25th St	City	Minor Collector	-
Y Ave	City	Minor Collector	-
N Ave	City	Minor Collector	-
M Ave	City	Minor Collector	-
K Ave	City	Local Street	-

* 2nd Street is a minor collector north of Adams Avenue, but a major collector to the south.

** C Avenue is a minor collector west of 2nd Street, but a major collector to the east.

*** Monroe Avenue is a minor collector west of Fir Street, but a major collector to the east.

⁹ La Grande/Island City Transportation System Plan, Figure 7-1, September 1999.



Table A-2. Geometric Conditions of Key Corridors

Roadway	Street Width (ft)	ROW Width (ft)	Number of Travel Lanes	Width of Travel lanes (ft)	Posted Speed (mph)
12th St	44	50-80	2	14	25
16th St	24	60	2	12	25
20th St	24	60-80	2	12	(25)
2nd St	40	80	2	12	25
4th St	40-56	80	2	12	25
6th St	40	80	2	12	25
8th St	40	80	2	12	25
Adams Ave	28-56	80	2	14	35
C Ave	40	80	2	12	25
Cove Ave	44	60	2	14	25
L Ave	22-26	60	2	11-13	(25)
Gekeler	44	80	2	14	35
Island Ave	86	80	4	14	30 / 35
Jefferson Ave	30-58	80	2	12	25
N Albany St	28	40	2	14	(25)
N Spruce St	36-44	80	2	14	25
Washington Ave	40-54	80	2	12-14	25
Monroe Ave	40-44	80	2	12-14	25
25th St	22-26	60	2	11-13	(25)
Y Ave	36	40-80	2	12-14	(25)
N Ave	30-40	80	2	14	25
M Ave	36-40	80	2	14	25
K Ave	30-40	80	2	14	(25)

(#) = no posted speed, but assumed given environment and street design.



Table A-3. Recommended Street Standards, La Grande/Island City TSP

Functional Classification	ADT Volume	Speed (mph)	# of Travel Lanes	Travel Lane Width	Turn Lane or Median Width	Bike Lanes	Min. Bike Lane Width	On-Street parking	Sidewalks	Min. Sidewalk Width	Planting Strip Width ¹	Total Paved Width ²	Total ROW Width ³	Private Access Spacing
Arterial	10,000	40-55	2-5	12 ft	4-14 ft	optional ⁴	5 ft	none	required	5 ft	8 ft	36-72 ft	80-102 ft	200-400 ft
Downtown Arterial ⁵	10,000	20	2-3	11 ft	11 ft			both sides	required	12 ft	3 ft 6 in ⁶	49 ft	80 ft	200 ft
Major Collector	2,000 – 10,000	25-45	2-3	11 ft	12 ft	required	5 ft	one or both sides	required	5 ft	8 ft	52-60 ft	60-90 ft	150-300 ft
Minor Collector	1,000 - 2,000	25-35	2	11 ft	none	optional ⁷	5 ft	one or both sides	required	5 ft	8 ft	30-48 ft	60-80 ft	75-150 ft
Local Street	0 - 1,000	15-25	2	10 ft	none	none	none	one or both sides	required	5 ft	8 ft	28-36 ft	40-60 ft	each lot

¹A portion of the required planting strip width may be used instead as additional sidewalk width or reduced right of way, as appropriate.

²The minimum of the paved width was calculated with the following assumptions:

Arterials: Two travel lanes, four-foot median divider, no center turn lane, no bike lanes.

Major Collectors: Two travel lanes, two bike lanes, no center turn lane, parking on one side.

Minor Collectors: Two travel lanes, parking on one side of street, no bike lanes.

Local Streets: Two travel lanes, parking on one side of street.

The maximum paved width for each street was calculated assuming the inclusion of all required and optional facilities.

³These right-of-way width ranges are for new streets.

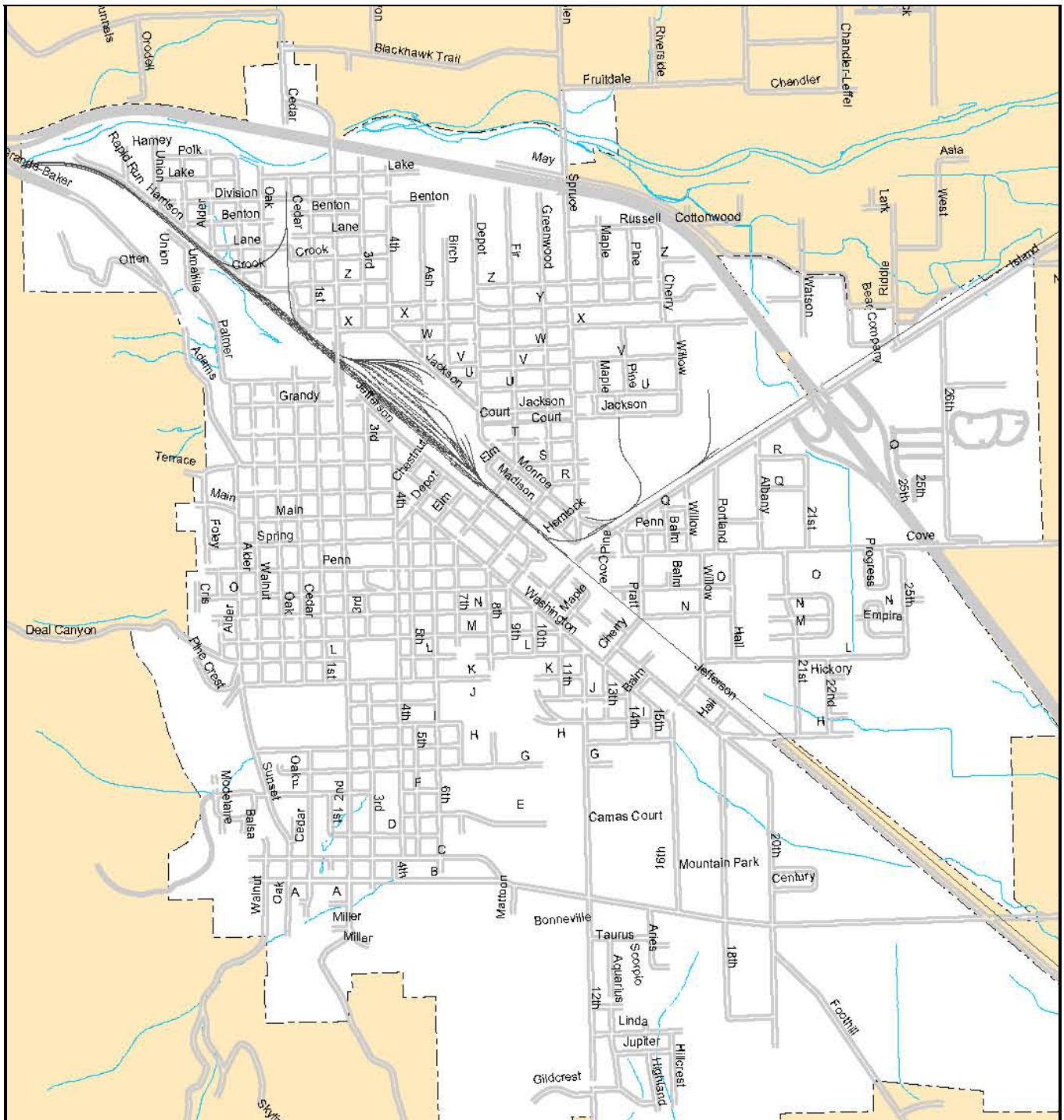
⁴Bike lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicycles.

⁵As developed for Adams Avenue in the Downtown Design Plan, adopted April, 1999, and in the City of La Grande TSP.

⁶Plantings would be as set for in the Downtown Design Plan.

⁷Bike lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designed and designated as shared roadway facilities with wide outside travel lanes of 14 feet on important bike routes.





Map A-1. City of La Grande Vicinity Map



Crash Analysis

The most recent five years (2001-2005) of crash data for all state highways and city streets within the City of La Grande was obtained and analyzed to identify high crash locations and crash patterns where countermeasures may be needed to improve safety. Crashes reported have been mapped in Map A-2, which has been organized to show areas experiencing the most crashes, as well as all reported crashes involving bicycles or pedestrians.

Highway Crash Rates

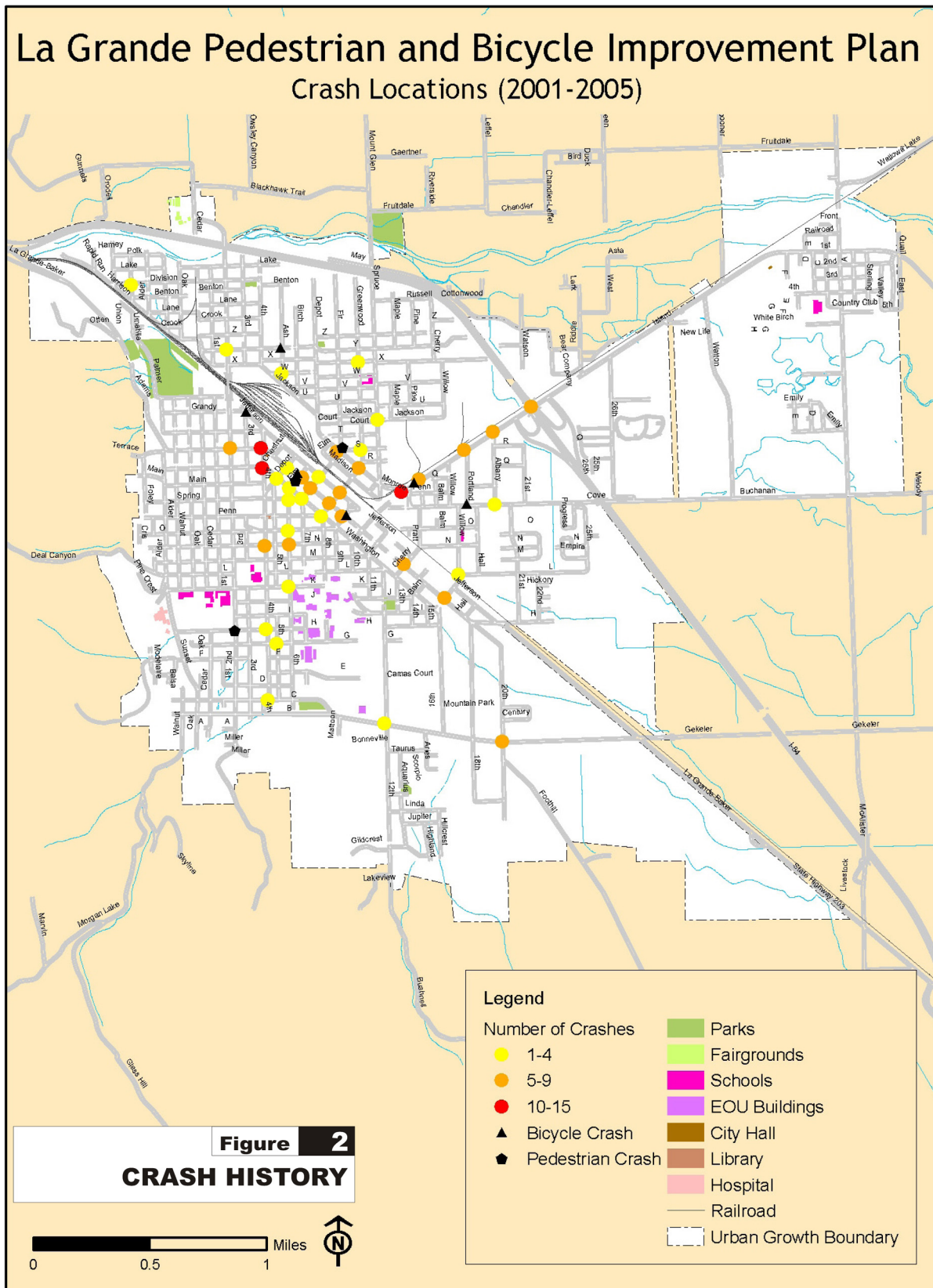
To help assess whether the number of crashes experienced on the state highways through the city is significant, crash rates per million vehicles miles (MVM) on Adams Avenue and Island Avenue were compared to those experienced on similar facilities throughout the state. The use of crash rates as a means of comparison between facilities is common practice because it accounts for the differences in traffic volumes served, which is typically proportional to the number of crashes.

Crash rates for study area highways were taken from an annual publication by the ODOT Crash Analysis Reporting Unit called the State Highway Crash Rate Tables.¹⁰ In this document crash rates for given segments of all state highways are calculated and listed for each of the last five years. In addition, this document provides average crash rates over each of the last five years for various types of facilities, separating urban and rural environments and freeways from non-freeways, to allow for comparison between similar facilities. When comparing highway segments from the study area to the statewide averages for similar facilities, the use of segments less than one mile in length was avoided, as crash rates for such short segments can be heavily influenced by a single problem location.

Adams Avenue through the City of La Grande was divided into three separate segments: the west urban growth boundary to the west city limits, the west city limits to the east city limits, and the east city limits to the east urban growth boundary. The environment surrounding the highway in the segments between the urban growth boundary and the city limits were considered to be “suburban”, whereas the environment surrounding the segment within the city limits was considered to be “urban city”. Comparing the crash rates recorded for these segments on Adams Avenue to the statewide averages for similar facilities, it was found that in the suburban areas, the crash rates were either very low or the data was limited. Therefore, no further investigation was warranted.

¹⁰ 2005 State Highway Crash Rate Tables, ODOT Transportation Data Section, Crash Analysis & Reporting Unit, August 2006.





Map A-2. Crash History



Within the city limits, the 1.96-mile segment of Adams Avenue was found to consistently maintain a higher crash rate than the statewide average for four of the last five years (see Table A-4). Because this larger segment was further broken into two segments divided by the junction with Island Avenue, it could be seen that the high crash rates were resulting from activity between Island Avenue and the west city limits, with much lower crash rates seen to the east. This finding is consistent with the crashes in Map A-2, where it can be seen that the quantity of crashes reported in this segment was similar to that on Island Avenue while serving approximately one half of the volume of traffic.

On Island Avenue, the crash rates experienced on the 1.61-mile segment between the junction with Adams Avenue and the La Grande city limits were also compared to the statewide average and were found to be consistently lower, indicating that no countermeasures are needed at this time.

Table A-4. US 30 Five-Year Crash Rate Comparison for Statewide Urban Cities

Section Limits (mile points)	Section Description	Crashes per Million Vehicles				
		2005	2004	2003	2002	2001
Statewide Average Rate		2.25	2.01	3.15	2.88	3.59
0.97 – 2.19	Adams Ave.: N. City Limits to S. City Limits	2.99	2.10	3.36	4.24	3.12

Note: Bold type indicates the crash rate is greater than the statewide average.

High Crash Locations

Considering the findings of the crash rate analysis above and the mapped crashes in Map A-2, areas of higher crash frequency were identified for further analysis. These included:

- Island Avenue at Monroe Avenue,
- Adams Avenue at 4th Street,
- Washington Avenue at 4th Street, and
- Adams Avenue from 2nd Street to Island Avenue.

Island Avenue at Monroe Avenue

While Island Avenue at Monroe Avenue was noted as being one of the highest crash locations in the city, only 12 crashes occurred over the five-year period examined, which is relatively low. The rate of crashes per million entering vehicles (MEV) is commonly used to gauge whether the number of crashes experienced at an intersection is significant. In general, a crash rate of 1.0 or higher is an indication that further investigation is warranted. The crash rate for this intersection was calculated to be 0.33 MEV, which suggests the number of crashes that have occurred are not disproportional to the volume of traffic served.

In addition, most of these crashes were rear-end collisions, which is very common at signalized intersections. Therefore, no countermeasures appear to be needed at this time.



Adams Avenue at 4th Street

Much like Island Avenue at Monroe Avenue, the number of crashes experienced at this intersection was relatively low, at only 13 over the five-year period. However, because the volume of traffic served is much lower than on Island Avenue, a higher intersection crash rate of 0.59 was calculated. Despite this, the crash rate found is still significantly lower than 1.0, indicating the number of crashes is not unusual.

Further investigation revealed that seven of the 13 crashes that occurred were related to turning movements, which could be associated with the permissive left turn phasing currently being employed at this signalized intersection. Because the number of crashes is still fairly low and the severity of these crashes predominantly involves only property damage, no countermeasures are necessary at this time. However, should the frequency or severity of crashes increase in the future, providing protected left turn phasing may be desirable at that time.

Washington Avenue at 4th Street

This intersection experienced 11 crashes over five years, which resulted in an intersection crash rate of 0.86 MEV. While much higher than the other intersections, this crash rate is still below 1.0, indicating the number of crashes is not unusual.

The types of crashes occurring at this intersection were varied, but over half of them were related to turning and crossing movements at this two-way stop-controlled intersection. Most crashes resulted in only property damage. No countermeasures are recommended at this time.

Adams Avenue: 2nd Street to Island Avenue

As previously noted, the crash rate for this segment of highway was found to be consistently higher than the statewide average crash rate for other urban non-freeways over four of the last five years. While seven different intersections were found to have experienced crashes within this corridor, none of them had a significantly high number of crashes considering the amount of traffic served. Furthermore, the severity of crashes occurring is consistently low, with most crashes only resulting in property damage.

With no other apparent trends found, it is concluded that the segment crash rate appears high because of the density of intersections associated with the downtown area. While each intersection within this area was found to maintain a relatively low number of crashes, putting them together in a short segment gives the appearance of a much greater problem. Therefore, no countermeasures are recommended at this time.

SPIS Locations

This analysis was supplemented by reviewing ODOT's Safety Priority Index System listing for locations on state highways ranked among the state's top 10% of hazardous locations. The Safety Priority Index System (SPIS) is a method developed by ODOT for identifying hazardous locations on state highways. The SPIS score is based on three years of crash data and considers crash frequency, crash rate, and crash severity. ODOT bases its SPIS on 0.10-mile segments to account for variances in how crash locations are reported. This information is a general comparison of the overall safety of the highway based on crash information for all sections throughout the state.



According to ODOT's 2006 SPIS ratings, there are no locations on any of the state highways within the study area with a SPIS score ranked among the state's top 10%.

Traffic Volumes

Ten intersections throughout the city on key biking and walking corridors were selected for closer examination. At each location, the intersection geometry and traffic controls present were documented and 14 hours of turn movement volume counts were collected on weekdays between 6:00 a.m. and 8:00 p.m., which recorded motor vehicles as well as bicycles and pedestrians. These study intersections are shown in Figure A-1, with lane configurations and traffic controls illustrated for reference.

Seasonal Factor

A common peak hour for the study intersections was selected for capacity analysis. At most locations, this peak hour occurred from approximately 4:00 to 5:00 p.m. However, for the intersections near schools including 6th Street at M Avenue, 8th Street at M Avenue, and Spruce Street at V Avenue, an early peak from approximately 12:00 to 1:00 p.m. was used.

For the purposes of transportation facility analysis and design, the 30th highest annual hour of traffic volume is typically the time period of interest. According to an Automatic Traffic Recorder (ATR) station on Island Avenue near Walton Road, the 30th highest annual hour (30 HV) of traffic volumes in the La Grande area occurs during the summer months of July and August. Therefore, a seasonal factor of 1.08 was applied to the peak hour traffic counts obtained for this study in the month of October to more closely represent the 30 HV. The 30 HV developed for the year 2006 are displayed in Figure A-1.

Annual Growth Factor

To forecast future conditions in the year 2026, a growth rate was applied to the existing 30 HV in 2006. This growth rate was calculated using ODOT's 2025 Highway Future Volume Table¹¹, which provides base year average daily traffic volumes for state highways, as well as projected average daily traffic volumes for the year 2025. The projected volumes for 2025 are based on historical growth trends or travel demand modeling where available.

The Future Volume Table includes projections for three roadways within La Grande: I-84, Adams Avenue, and Island Avenue. I-84 is not considered representative of growth within the City because it includes a high percentage of external traffic. Volumes identified for Island Avenue have r-squared values under 0.75 and are therefore not used. Forecasted volumes for Adams Avenue are based on travel demand model results, and were therefore considered the best source for estimating annual growth.

An average of the expected growth in volume at 13 locations along Adams Avenue was used to calculate average growth and then converted to an annual growth percentage. Using this method, an estimated annual growth rate of 1.03% was calculated. This growth rate was applied to the 30 HV developed for

¹¹ 2025 Highway Future Volume Table, Oregon Dept. of Transportation, obtained September 2006 at <http://www.oregon.gov/ODOT/TD/TP/TADR.shtml>



the year 2006 over a 20-year period to estimate traffic volumes at study intersections during the year 2026. These volumes are provided in Figure A-2.

Traffic Operations

To help understand the measures of effectiveness used in traffic analysis to evaluate the quality of traffic operations provided, as well as the quality of operation expected by each jurisdiction, the following sections describe the concepts of “level of service” and “volume-to-capacity ratios” and identify standards for traffic mobility adopted by ODOT and the City of La Grande that employ these concepts.

Level of Service (LOS) and Volume-to-Capacity (v/c) Ratio

An intersection’s LOS is similar to a “report card” rating, based on the average vehicle delay (seconds per vehicle) for all movements at the intersection. Level of service A, B, and C indicate conditions where vehicles can move freely. Level of service D and E are progressively worse and generally indicate intersections where queuing of vehicles occur. Level of service F is the worst performance an intersection can attain.

Another measure of effectiveness is the volume-to-capacity (v/c) ratio. This is a measure of the actual number of vehicles that utilize the intersection during the peak hour compared to the amount of capacity (number of vehicles and intersection can accommodate) available. As an intersection becomes more heavily utilized, the v/c ratio increases, heading toward a maximum value of 1.0. When traffic analysis indicates the v/c has exceeded 1.0, it essentially becomes a “demand-to-capacity” ratio, revealing that more traffic wants to use the intersection than it can actually serve.

Mobility Standards

The 1999 City of La Grande/Island City Transportation System Plan (TSP) states that LOS D is generally considered to represent the minimum acceptable design standard. Therefore, a LOS D will be used as a threshold to gauge adequate traffic operations provided by study intersections under City jurisdiction.



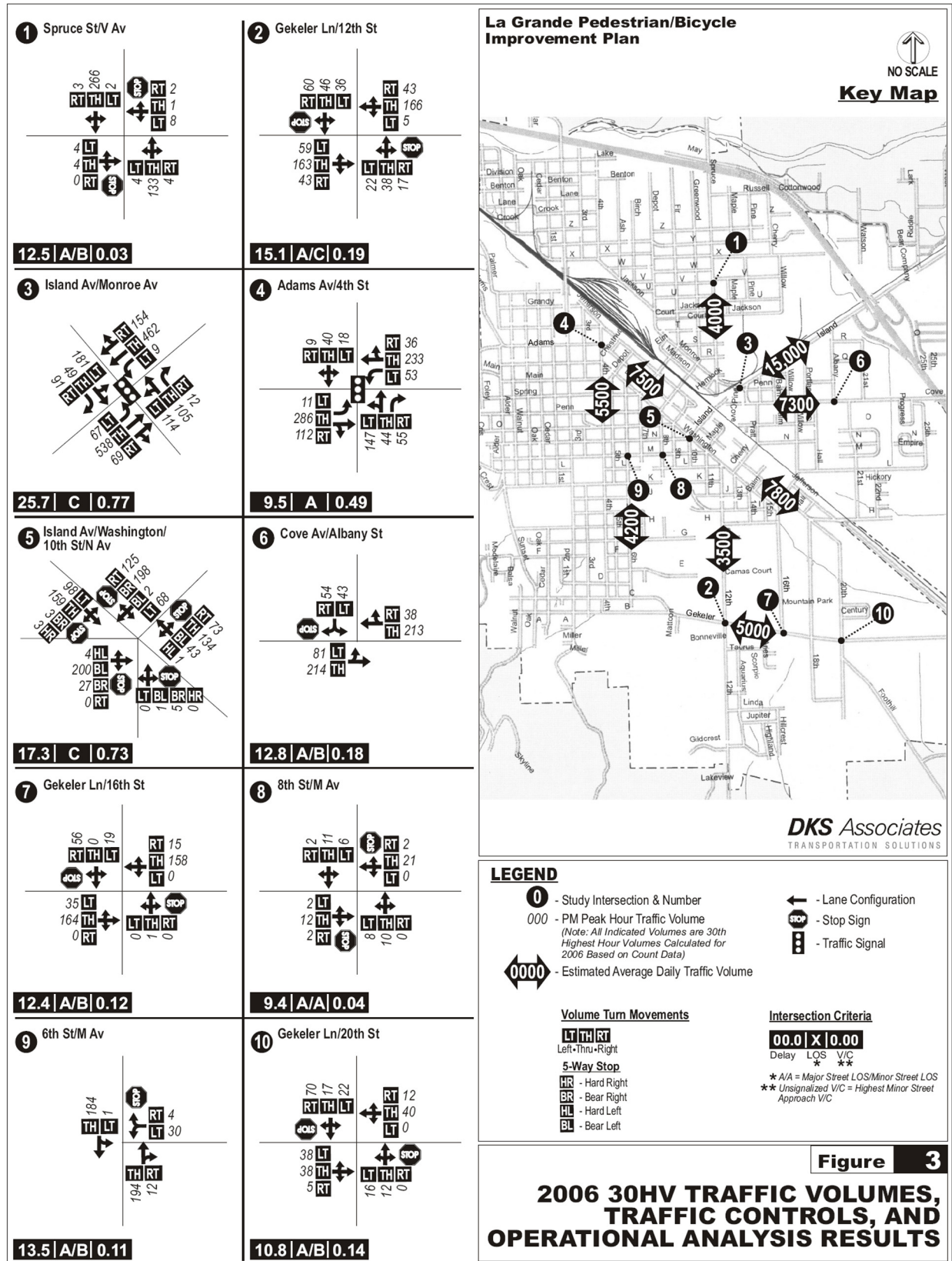


Figure A-1. 2006 Conditions



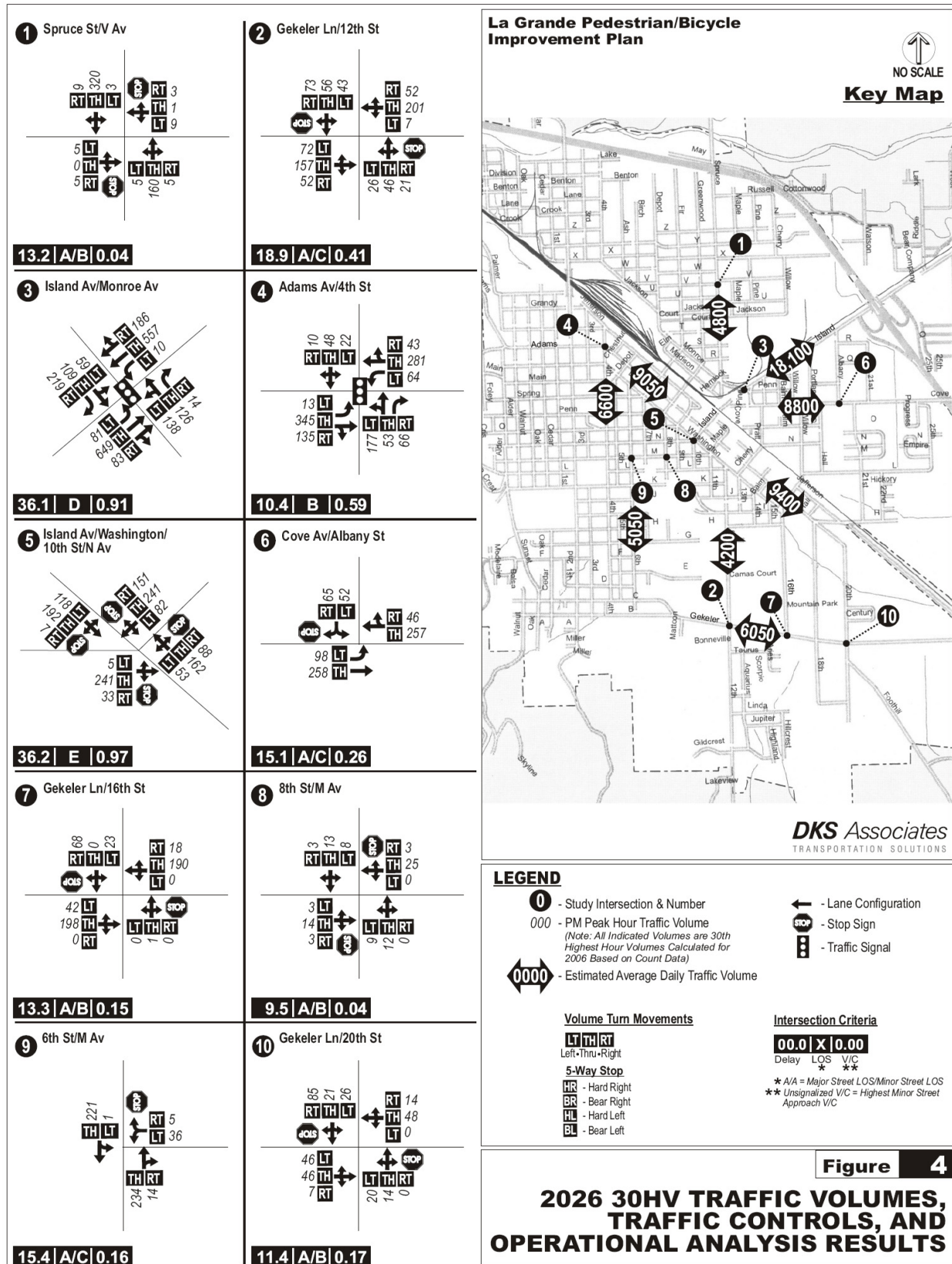


Figure 4

2026 30HV TRAFFIC VOLUMES, TRAFFIC CONTROLS, AND OPERATIONAL ANALYSIS RESULTS

Figure A-2. 2026 Conditions



For study intersections under ODOT jurisdiction, the 1999 Oregon Highway Plan¹² sets out mobility standards based on functional classification, posted speed limit, and location relative to urban growth boundaries, which employ v/c ratios rather than LOS. Selected relevant mobility standards from the 1999 Oregon Highway Plan, Policy 1F, that are to be applied to Adams Avenue (US 30) and Island Avenue (OR 82) can be seen in Table A-5.

Table A-5. Selected Mobility Standards from the 1999 Oregon Highway Plan

Maximum Volume to Capacity Ratios Inside Urban Growth Boundary, Non-MPO			
Highway Category	Speed \leq 35 mph	Speed = 40 mph	Speed \geq 45 mph
District Hwy/ Local Interest Roads	0.90	0.85	0.80

At signalized intersections, these v/c ratio are to be applied to the intersection as a whole. However, at unsignalized intersections, they are to be applied to movements that must stop or yield right of way as these movement are often the most critical for defining operating conditions.

Operational Analysis Results

Each study intersection was analyzed using the traffic volumes, lane configurations, and traffic controls shown in Figures A-1 and A-2. For conditions assumed to be present in 2026, lane configurations at study intersections were modified in accordance with planned improvement projects from the 1999 La Grande TSP and ODOT's 2006-2009 Statewide Transportation Improvement Program. Planned improvements included the addition of a center turn lane on Cove Avenue and the closure of the 10th Street approach at the five-legged intersection of Island Avenue, Washington Street, N Avenue, and 10th Street. For signalized intersections, which are all under ODOT jurisdiction, signal timing sheets were obtained from ODOT to accurately reflect operating conditions and a traffic analysis model was created to assess operations using Traffix[®] software, which employs the Highway Capacity Manual¹³ methodology. The results of this analysis are shown in Figures A-1 and A-2 for conditions in 2006 and 2026, respectively.

As shown, under existing conditions, all study intersections operate well and are in compliance with adopted mobility standards. By 2026, traffic volumes on area roadways will increase, but all study intersections will continue to meet the mobility standards with the exception of the intersection on Island Avenue at Monroe Avenue and the five-legged intersection of Island Avenue, Washington Street, and N Avenue. The Island Avenue/Monroe Avenue intersection was projected to operate at a LOS D and with a v/c ratio of 0.91, which would meet the City's mobility standard, but would fail to meet ODOT's standard

¹² 1999 Oregon Highway Plan, Oregon Dept. of Transportation, Amended August 2005.

¹³ 2000 Highway Capacity Manual, Transportation Research Board, Washington D.C., 2000.



requiring operation at a v/c ratio no greater than 0.90. The Island Avenue, Washington Street, and N Avenue intersection, which is under City jurisdiction, found to operate at a LOS E and with a high v/c ratio of 0.97, even with the planned project to close the 10th Street approach.

Pedestrian & Bicycle Volumes

Bicycle and pedestrian traffic volumes were also collected for 14 hours at each study intersection. Summaries of the volumes counted are provided in Tables A-6 and A-7. As shown, bicycle volumes were found to be relatively low throughout the study corridors. The higher bicycle volumes were found to occur on Spruce Street, Gekeler Lane (west of 16th Street), Island Avenue, Washington Street, and Cove Avenue. It should be noted that these volumes may be influenced by the presence of bike lanes on Island Avenue, Cove Avenue, and Gekeler Lane.

Pedestrian volumes are significantly higher than bicycle volumes throughout the city, with Adams Avenue in the downtown area experiencing the most traffic. While there are relatively few bike lanes within the city, sidewalks are present on all study corridors shown, with the exception of the Gekeler Lane segment near 20th Street.

Table A-6. 14-Hour Bicycle Volumes

Intersection	EB	WB	NB	SB
Spruce St. @ V Ave.	4	6	5	10
Gekeler Ln. A 12th St.	4	8	2	3
Island Ave. @ Monroe Ave.*	5	7	4	0
Adams Ave. @ 4th St.	1	4	2	4
Island Ave. @ Washington St.**	8	7	8 / 15	9
Cove Ave. @ Albany Ave.	5	9	0	0
Gekeler Ln. @ 16th St.	5	5	0	0
8th St. @ M Ave.	4	6	0	0
6th St. @ M Ave.	0	0	0	0
Gekeler Ln. @ 20th St.	2	3	0	0

* EB = Island, WB = Island, NB = Monroe, SB = Monroe

** EB = Washington, WB = Washington, NB = 10th / N, SB = Island



Table A-7. 14-Hour Pedestrian Volumes

Intersection	EB	WB	NB	SB
Spruce St. @ V Ave.	31	15	27	42
Gekeler Ln. A 12th St.	18	12	15	18
Island Ave. @ Monroe Ave.*	22	10	33	5
Adams Ave. @ 4th St.	121	124	11	64
Island Ave. @ Washington St.**	14	24	22 / 15	44
Cove Ave. @ Albany Ave.	0	0	0	11
Gekeler Ln. @ 16th St.	0	0	0	35
8th St. @ M Ave.	17	16	9	17
6th St. @ M Ave.	0	31	10	17
Gekeler Ln. @ 20th St.	2	3	1	2

* EB = Island, WB = Island, NB = Monroe, SB = Monroe

** EB = Washington, WB = Washington, NB = 10th / N, SB = Island



APPENDIX B. POTENTIAL TRAFFIC IMPACTS OF RECOMMENDED PEDESTRIAN AND BICYCLE IMPROVEMENTS

The La Grande Pedestrian and Bicycle Improvement Plan recommends dozens of modifications to the transportation system throughout the city that are intended to enhance safety and mobility for walking and biking. However, because different modes of travel share many of the transportation corridors through the city (e.g. motor vehicles, pedestrians, bicycles), modifications made for the enhancement of travel by one mode could have a negative impact on travel by the other modes. While some negative impacts may be minor and may be accepted as necessary to balance needs for all modes, others that compromise safety or degrade operations below adopted standards should be avoided.

To ensure the recommended improvements in the plan are compatible with other travel modes and do not result in negative operational impacts that would be considered unacceptable, the proposed improvements were reviewed and evaluated to determine the associated impacts. The evaluation of some proposed improvements was made on a qualitative basis because actual data related to operations at some locations was unavailable (i.e. traffic volume counts) or because the associated impacts were anticipated to be minor. In other areas, typically where traffic controls were changed and data was available, quantitative analysis was performed to describe the impacts. The results of the evaluation are provided in this memorandum, with technical analysis worksheets included in the appendix.

Intersection Improvements

Improvements made at intersections are anticipated to have some of the greatest impacts on operations and safety, as intersections often represent the bottlenecks in travel corridors and are typically the locations where conflicts between travelers are the highest. Each intersection improvement recommended was examined, with the results described below.

H Avenue & 12th Street

Description:

Add crosswalks on north, south and east legs; install warning signs on north and south approaches and at crosswalks advising motorists of ped/bike crossings; install curb extensions with curb ramps on NE and SE corners to reduce the pedestrian crossing distance on 12th; install curb ramps on NW and SW corners in conjunction with future sidewalk/ shared-use path on west side of street; install warning signage and striping on shared-use path west of intersection to alert path users of approaching intersection.

Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Because bike lanes are proposed to be constructed as a separate project, curb extensions should not encroach within the area designated for bike travel.



Gekeler Lane & 12th Street

Description:

Change traffic control to four-way stop; add crosswalks on south and west legs; provide direct connection to future shared-use path along Gekeler and 12th.

Impact:

A majority of the traffic volumes through this intersection travel east and west on Gekeler Lane, with only 31% of the total entering volume coming from the stopped approaches on 12th Street. Converting this intersection to four-way stop control will benefit traffic movement from 12th Street, but will significantly increase delay for east-west travel on Gekeler Lane, which currently is not required to stop anywhere along the length of the corridor

The Manual on Uniform Traffic Control Devices¹⁴ (MUTCD) provides guidance on the appropriate application for multi-way stop control. While this document acknowledges that multi-way stop control can provide safety benefits to pedestrians and other modes of travel, it is also noted that this type of control is typically used where the volume of traffic on the intersecting streets is approximately equal. To help determine when conditions may be appropriate for multi-way stop control, the MUTCD provides criteria for consideration.

One application referenced involves using multi-way stop control as an interim measure at a location where a traffic signal has been justified, but not yet constructed. A future improvement alternative involving the installation of a traffic signal at this intersection was recommended as part of the La Grande South Central Neighborhood Plan Traffic Analysis, however, it was estimated that it would not be warranted for nearly 20 years. Following the guidance of the MUTCD would include installing multi-way stop control between the time the signal is found to be warranted and the time until it can be constructed. Therefore, the installation of multi-way stop control under this criterion may not be possible in the near-term.

The MUTCD also provides traffic volumes thresholds to determine when volumes on major and minor streets would be balanced enough to justify stopping all movements. In summary, this criterion requires major street (Gekeler Lane) volumes of at least 300 vehicles per hour (total of both approaches) during any 8 hours of an average day, with minor street (12th Street) volumes of at least 200 vehicles per hour (total of both approaches and including bikes and pedestrians) during the same eight hours.

Under existing conditions, the traffic volumes on Gekeler Lane are high enough to meet these warrants under at least 10 hours of an average day. However, the combined bike, pedestrian, and motor vehicle volumes on 12th Street are only high enough to meet these warrants for three of the eight required hours (see 14-hour count included in appendix). Applying historical growth rate assumptions from the Facts & Findings Report, it appears these warrants would be met by the year 2026.

¹⁴ Manual on Uniform Traffic Control Devices for Streets and Highways, 2003 edition, Federal Highway Administration, Washington, D.C., November 2004, p. 2B-7.



Because there is a significant amount of development activity that could occur in the area surrounding this intersection, including residential development south of Gekeler Lane and facility improvements on the Eastern Oregon University campus to the north, projecting the year the warrants would be met through the use linear interpolation between 2006 and 2026 would not be reliable. Therefore, traffic volumes on 12th Street should be monitored over time, especially after significant local development activity, to see when the multi-way stop control warrants would be met (i.e. when the combined north and south approach motor vehicle, pedestrian, and bicycle volumes exceed 200 per hour during any eight hours of the day). As a general guide, the development of an additional 50 single-family homes in the residential neighborhood on 12th Street to the south of Gekeler Lane may be enough to generate the needed trips.

Cove Avenue & Albany Street (Phase 1)

Description:

Re-stripe existing crosswalk on north leg with longitudinal lines; add longitudinal crosswalk on west leg; install warning signs on EB and WB vehicle approaches and at crosswalk advising motorists of pedestrian crossings; place removable In-Street Pedestrian Crossing signs on Cove Avenue centerline to increase visibility of pedestrians in crosswalk.

Impact:

In-street removable pedestrian crossing signs may present a hazard to motor vehicles and may require constant maintenance. It is recommended their application be limited to high pedestrian activity times only.

Cove Avenue & Albany Street (Phase 2)

Description:

Construct pedestrian refuge island on west leg; reconstruct curb ramps on NW and SW corners in conjunction with reconstructed curbs.

Impact:

The construction of the pedestrian refuge island on the west leg will eliminate the future median turn lane for eastbound to northbound left turns. Using an analysis of left turn lane warrants for this movement (included in appendix), it was found that a left turn lane should be provided at this location to enhance both safety and mobility at this intersection due to the high number of left turns and conflicting through volumes on Cove Avenue. Therefore, this improvement would preclude the provision of a left turn lane and would have a significant negative impact to motor vehicle travel. In addition, the design of the pedestrian refuge island must accommodate turning movements for heavy vehicles.

OR 82/Island Avenue & Albany Street

Description:

Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.).



Impact:

Signal installation must be approved by ODOT. The spacing between this signal and a future signal on OR 82/Island Avenue at the I-84 eastbound ramp terminal (approx. 630 feet) would not meet spacing standards (2,640 feet). Accommodation of bicycles and pedestrians may require additional green time to allow for crossings of OR 82/Island Avenue, but should not significantly impact operations of other modes.

OR 82/Island Avenue & I-84 Eastbound Ramps

Description:

Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.).

Impact:

Signal installation must be approved by ODOT. The spacing between this signal and the proposed signal on OR 82/Island Avenue at Albany Street (approx. 630 feet) would not meet spacing standards (2,640 feet). Accommodation of bicycles and pedestrians may require additional green time to allow for crossings of OR 82/Island Avenue, but should not significantly impact operations of other modes.

OR 82/Island Avenue & I-84 Westbound Ramps

Description:

Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)

Impact:

Signal installation must be approved by ODOT. The spacing between this signal and the existing signal on OR 82/Island Avenue at Riddle Road (approx. 850 feet) would not meet spacing standards (2,640 feet). Accommodation of bicycles and pedestrians may require additional green time to allow for crossings of OR 82/Island Avenue, but should not significantly impact operations of other modes.

OR 82/Island Avenue & I-84 Eastbound Ramps (Project #2)

Description:

Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area.

Impact:

The “blue bike lane” is not MUTCD compliant. The City of La Grande and ODOT may need to adopt this type of pavement marking as part of standard designs.



OR 82/Island Avenue & I-84 Westbound Ramps (Project #2)**Description:**

Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area.

Impact:

The “blue bike lane” is not MUTCD compliant. The City of La Grande and ODOT may need to adopt this type of pavement marking as part of standard designs.

OR 82/Island Avenue & Pine Street/Monroe Avenue**Description:**

Realign intersection so that the Pine and Monroe Avenue approaches are directly aligned. This project should include appropriate treatments to safely and conveniently facilitate bicycle and pedestrian travel to and through the intersection.

Impact:

This project would improve safety and mobility for all modes of travel by allowing for greater flexibility in signal timing, increasing sight distance, and shortening crossing distances.

Spruce Street & V Avenue**Description:**

Construct curb extensions with curb ramps on Spruce between off-set legs of “V”; install curb ramp on far NE corner and far SW corner of intersection; re-stripe existing crosswalks; install warning signs on NB and SB approaches advising motorists of pedestrian crossings.

Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Because bikes are expected to share the roadway with motor vehicles, the proposed curb extensions would not present a conflict with bike lanes. Therefore bicycle travel should not be significantly impacted. The design of the curb extensions must accommodate turning movements to and from both approaches of V Avenue.

Spruce Street & Jackson Avenue**Description:**

Construct curb extensions with ramps on NW and NE corners; install curb ramp on SE corner; install longitudinal crosswalks on north and east legs; install warning signs on NB and SB approaches and at crosswalk on north leg advising motorists of pedestrian crossings.



Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Because bikes are expected to share the roadway with motor vehicles, the proposed curb extensions would not present a conflict with bike lanes. Therefore, bicycle travel should not be significantly impacted. The design of the curb extensions must accommodate turning movements to and from Jackson Avenue. Because Jackson Avenue provides access to the Boise Cascade property, accommodation of heavy vehicle turning movements may be essential.

Washington Avenue & N Avenue/10th Street

Description:

Reconstruct intersection and eliminate 10th Street leg (maintain pedestrian and bicycle access to 10th Street).

Impact:

Motor vehicle movements to and from 10th Street at this intersection are very low and could be accommodated elsewhere if removed. While this intersection was projected to experience high delays for motor vehicles in the future, the all-way stop traffic control would make it very accommodating for pedestrians and bicyclists.

Washington Avenue & Willow Street/16th Street

Description:

Reconstruct intersection to orient Willow and 16th as the primary legs, and reduce turning radii to reduce pedestrian crossing distances; change traffic control move stop sign to Washington Street with no control on Willow Street or 16th Street approaches; construct curb ramps on all corners; install longitudinal crosswalks on all legs.

Impact:

According to field observations of current operations, modifying this intersection to orient Willow Street and 16th Street as the primary legs would not have a negative impact on motor vehicle operations. It is anticipated that this intersection will function well with stop control only on Washington Avenue, leaving Willow Street and 16th Street uncontrolled. Reducing the turning radii would help to slow traffic and establish Willow Street and 16th Street as the primary legs.

Intersection Improvements near Central School, La Grande Middle School, and La Grande High School

Description:

Inventory intersections in area roughly bounded by 6th, “C,” Sunset/Alder, and Adams to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes.



Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Where bikes are expected to share the roadway with motor vehicles, the proposed curb extensions would not present a conflict with bike lanes. Therefore, bicycle travel should not be significantly impacted. If bike lanes are present or would be constructed, curb extensions should not encroach within the area designated for bike travel.

Intersection Improvements near Greenwood School**Description:**

Inventory intersections in area roughly bounded by I-84, Idaho Northern Pacific Railroad, Union Pacific Railroad, and 4th to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes.

Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Where bikes are expected to share the roadway with motor vehicles, the proposed curb extensions would not present a conflict with bike lanes. Therefore, bicycle travel should not be significantly impacted. If bike lanes are present or would be constructed, curb extensions should not encroach within the area designated for bike travel.

Intersection Improvements near Willow School**Description:**

Inventory intersections in area roughly bounded by Island, 21st, Cove, 25th, and Union Pacific Railroad to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes.

Impact:

While the curb extensions may have a “calming” effect, there should be no significant impact to motor vehicle travel, assuming the curb extensions will not reduce travel lane widths to less than 12 feet. Where bikes are expected to share the roadway with motor vehicles, the proposed curb extensions would not present a conflict with bike lanes. Therefore bicycle travel should not be significantly impacted. If bike lanes are present or would be constructed, curb extensions should not encroach within the area designated for bike travel.



Streetscape Improvements

Streetscape improvements generally include those that involve changes to the street cross-section or roadside environment and are usually applied to specific corridors, rather than just at intersections. While some streetscape improvements can reduce roadway capacity or limit sight distance, not all have negative impacts associated with them. These types of projects also present opportunities to implement access management improvements, which can further enhance travel for all modes by reducing conflict points along the corridor. Proposed streetscape improvements are described below.

Gekeler Lane

Description:

From 6th Street to west of 12th Street, construct sidewalks and planter strips on both sides of street (10-foot sidewalks on north side); construct 12-foot landscape center median; preserve existing bicycle lanes.

Impact:

These improvements may have a minor “calming” effect on traffic, but capacity will not be significantly impacted. Because this is a fairly long distance (>2,000 feet), consideration should be given to providing an opening in the landscaped center median for pedestrian crossings at some point in between 6th and 12th Streets.

Downtown Design Plan Implementation

Description:

Prioritize and implement the non-completed streetscape recommendations in the 1999 City of La Grande Downtown Design Plan.

Impact:

One of the goals of the Downtown Design Plan is to slow traffic and create a more attractive environment for pedestrians. Therefore, implementing this plan would degrade motor vehicle operations, which has been accepted in the downtown area. Through the recommended improvements such as narrowing travel lanes, installing curb extensions, and widening sidewalks, pedestrian travel will be significantly enhanced. However, there are no provisions for dedicated bicycle facilities. Given the volume of motor vehicles moving through the downtown on Adams Avenue, unless travel speeds are dramatically dropped, it is unlikely that bicycle travel, which appears to be unpopular under existing conditions, would be improved.

Sidewalks

Sidewalk improvements generally include infilling gaps in the existing system and constructing new sidewalks along streets where none currently exist. These types of improvements typically have no negative impact on travel by other modes and can improve safety by appropriately accommodating pedestrians who may have been previously walking in the roadway.



Bicycle Lanes

The inclusion of bike lanes on a roadway can impact motor vehicle travel by potentially reducing travel lanes where right of way is limited. However, where a significant amount of bicycle traffic is expected, bike lanes can be beneficial by separating bikes and motor vehicles, enhancing both street capacity and safety. None of the bicycle lane projects proposed would reduce existing motor vehicle travel lanes, therefore, no negative impacts from these projects are anticipated.

Sidewalks and Bicycle Lanes

Projects falling under this category, including both sidewalks and bike lanes, would have impacts similar to projects described under both of the separate categories for sidewalks and bike lanes.

Shoulder Bikeways

The construction of shoulder bikeways generally consists of widening paved shoulders to an appropriate width (generally a minimum of six feet) to accommodate bicycle travel out of the motor vehicle travel lanes. These types of improvements enhance both capacity and safety by providing for the separation of bikes and motor vehicles. In addition, the widened shoulders can be used by pedestrians and generally enhance motor vehicle safety by providing additional opportunities for errant vehicles to recover and return to their travel lanes without running off of the road.

Shared Roadways/Bicycle Boulevards

These types of facilities provide for bicycle travel within an existing motor vehicle corridor without the added expense of constructing separate bike lanes. In general, corridors where bicycles are anticipated to share the roadway with motor vehicles would be anticipated to experience some reductions in capacity due to the presence of the slower moving bicycles. However, on the corridors identified for such improvements, the current posted speeds are no higher than 25 mph, which should limit the impact of bicycle presence.

The extent of the treatments applied to such corridors may vary from only signage to the implementation of traffic calming devices in the roadway. For this plan, a five-level system was employed to identify the degree of treatments recommended for each corridor. These levels are described below.

- Level 1: signage (wayfinding, "share the road", etc.)
- Level 2: pavement markings ("sharrows")
- Level 3: intersection treatments (flipping stop signs at some locations; bike loop detectors; "half signals"; curb extensions; medians/ped refuge islands)
- Level 4: traffic calming (chicanes; mini traffic circles; speed humps)
- Level 5: traffic diversion (choker entrances, traffic diverters)



The treatments related to Level 1 and Level 2 plans are aimed at increasing driver awareness and may result in lower travel speeds as times, but should have minimal impact on traffic operations. In addition, some types of pavement markings (e.g. sharrows) can guide bicycles to travel in certain parts of the lane, potentially limiting conflicts with other modes.

Level 3 treatments that involve modifications to traffic controls can significantly impact motor vehicle travel. Such impacts could be considered an acceptable trade-off where motor vehicle volumes are low, but on corridor where motor vehicle volumes are higher, the decision to delay motor vehicles for the facilitation of bicycle travel should be considered carefully. Such corridors include:

- 4th Street (C Avenue to Jefferson Avenue)
- 6th Street (C Avenue to Washington Avenue)
- Jefferson Avenue (Oak Street to Hemlock Street)
- Spruce Street (Monroe Avenue to Z Avenue)
- Washington Avenue (Oak Street to Greenwood Street)

Level 4 and Level 5 treatments include physical restrictions that slow or remove motor vehicle traffic and therefore result in major reductions in motor vehicle speeds or require out-of-direction travel. To determine the degree of impact, the specific treatment recommended for implementation must be considered. Much like the Level 3 treatments, such impacts could be considered an acceptable trade-off where motor vehicle volumes are low, but on corridor where motor vehicle volumes are higher, the decision to delay motor vehicles for the facilitation of bicycle travel should be considered carefully.

For the proposed plan, this would include the corridor on Washington Avenue between Greenwood Street and Willow Street, where improvements may include traffic circles at intersections and speed humps at mid-block locations. While the posted speed on Washington Avenue would remain at 25 mph, it is anticipated that the impact of such improvements would reduce the travel speeds to approximately 20 mph.

Shared-Use Paths

Shared-use paths provide for non-motorized travel modes on facilities that are constructed away from other roads where the motor vehicles travel. Travel along such facilities can be very safe and convenient, but conflicts with motor vehicles still occur at locations where the paths must cross roadways. Unless such crossings are signalized, impacts to motor vehicle operations are typically minimal, being limited to only minor “calming” effects. The design of shared-use path crossings with motor vehicles must account for needed vehicle turning radii, provide necessary shy distance between the travel lanes and medians or curb extensions, and must provide for adequate sight distance.



Fitzpatrick and Wolff

2026 DHV: Cove / Albany,
EB LT

20

Table 5. Guidelines for Installing Left-Turn Lanes on Two-Lane Highways.

Vo	Percent Left Turns		
	10	20	40
30 mph (50 km/h)			
800	197	148	121
700	217	162	133
600	238	178	146
500	261	196	160
400	286	215	175
300	314	236	193
200	345	259	211
100	380	285	232
0	418	313	256
50 mph (80 km/h)			
800	153	115	94
700	168	126	103
600	184	138	113
500	202	152	124
400	222	166	136
300	244	183	149
200	268	201	164
100	294	221	180
0	323	243	198
70 mph (110 km/h)			
800	88	66	54
700	97	73	59
600	106	80	65
500	117	88	71
400	128	96	78
300	141	105	86
200	154	116	95
100	170	127	104
0	187	140	114

warrant
met

Figure A-3. Left Turn Lane Warrants – Cove Avenue & Albany Street (eastbound left)



La Grande Pedestrian and Bicycle Improvement Plan

Start Time	12TH ST Southbound				GEKELER LN Westbound				12TH ST Northbound				GEKELER LN Eastbound				Major St. 60-min Volume	Minor St. 60-min Volume	2026 Major St. 60-min Volume	2026 Minor St. 60-min Volume
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Total	Total	Total	Total
06:00	3	0	0	0	0	0	3	2	0	2	0	1	0	1	4	0	103	60	124	72
06:15	1	0	3	0	0	0	14	1	0	3	1	1	0	0	4	0	0	0	0	0
06:30	2	0	5	0	0	0	17	2	0	5	5	1	0	6	8	0	0	0	0	0
06:45	2	5	7	0	0	0	22	5	0	7	6	0	0	2	10	2	0	0	0	0
07:00	0	0	10	0	0	0	13	7	1	7	14	0	0	4	16	0	301	164	363	198
07:15	3	5	5	1	1	16	3	0	12	7	0	0	7	11	2	0	0	0	0	0
07:30	1	3	10	0	0	34	7	0	11	6	2	0	4	8	1	0	0	0	0	0
07:45	4	2	24	1	0	97	17	0	16	16	4	0	9	39	5	0	0	0	0	0
08:00	7	9	33	1	3	43	4	0	31	11	1	0	11	36	11	0	336	184	405	222
08:15	3	0	5	2	4	30	7	0	15	6	5	1	9	27	9	0	0	0	0	0
08:30	2	3	6	1	2	25	6	1	2	1	1	0	5	16	3	1	0	0	0	0
08:45	5	2	18	0	1	46	7	0	5	6	2	0	7	24	0	2	0	0	0	0
09:00	4	4	8	0	0	25	6	0	8	9	1	1	5	17	7	0	257	126	310	152
09:15	4	3	6	0	1	14	9	1	6	8	4	0	10	21	2	0	0	0	0	0
09:30	4	4	4	2	0	17	8	2	7	2	1	0	9	18	3	1	0	0	0	0
09:45	3	4	12	0	3	35	9	2	6	10	1	0	8	27	3	1	0	0	0	0
10:00	5	5	8	0	1	24	7	0	2	4	5	0	8	22	11	0	292	139	352	168
10:15	1	4	9	0	2	15	4	0	2	11	0	2	4	14	6	0	0	0	0	0
10:30	3	8	11	1	2	30	5	0	8	6	1	1	6	20	4	0	0	0	0	0
10:45	6	7	13	0	4	40	12	0	7	8	1	0	11	30	10	0	0	0	0	0
11:00	3	10	13	2	2	26	14	1	7	5	1	1	7	30	6	0	343	146	414	176
11:15	7	10	6	0	0	32	9	0	4	4	0	0	7	32	8	2	0	0	0	0
11:30	2	7	15	0	0	26	5	2	1	4	4	0	7	33	8	0	0	0	0	0
11:45	5	3	15	0	4	23	9	2	5	8	4	0	17	25	13	1	0	0	0	0
12:00	8	19	16	1	6	22	9	0	4	7	2	1	26	38	12	0	355	211	428	254
12:15	7	8	11	0	2	24	7	1	8	5	0	0	11	25	9	0	0	0	0	0
12:30	5	7	11	0	0	30	7	1	11	11	2	1	5	18	6	0	0	0	0	0
12:45	2	10	24	2	4	45	12	0	16	9	3	0	6	25	6	0	0	0	0	0
13:00	4	6	13	0	2	32	6	0	13	10	1	1	18	44	10	0	346	148	417	178
13:15	3	4	12	1	3	28	5	0	3	7	2	0	15	14	9	1	0	0	0	0
13:30	0	8	9	0	2	37	11	0	3	8	1	0	3	19	5	0	0	0	0	0
13:45	4	8	12	0	3	32	6	0	8	7	0	0	14	24	4	0	0	0	0	0
14:00	9	8	14	0	2	26	9	0	7	8	4	0	10	24	3	2	368	193	444	233
14:15	3	6	16	2	0	32	7	1	6	7	1	0	11	27	4	3	0	0	0	0
14:30	8	7	16	0	3	28	7	1	6	7	0	0	12	36	5	1	0	0	0	0
14:45	6	8	19	1	1	38	12	0	8	12	3	1	11	50	10	0	0	0	0	0
15:00	9	4	15	1	5	41	8	0	8	8	2	1	6	39	3	0	448	184	540	222
15:15	7	5	10	0	3	28	12	1	13	9	1	0	15	55	8	0	0	0	0	0
15:30	1	9	18	1	4	40	9	0	4	5	6	0	17	48	10	0	0	0	0	0
15:45	5	10	18	1	5	31	10	0	4	8	1	0	15	27	9	0	0	0	0	0
16:00	7	16	15	0	0	41	10	0	2	6	4	0	13	31	2	0	445	203	537	245
16:15	7	8	12	0	2	44	10	1	11	6	5	0	10	41	11	2	0	0	0	0
16:30	8	10	12	0	0	32	16	0	2	12	0	0	17	46	15	0	0	0	0	0
16:45	11	9	17	0	3	37	4	0	5	11	7	0	15	33	12	0	0	0	0	0
17:00	12	10	6	0	8	24	9	0	6	10	0	0	21	50	12	0	418	199	504	240
17:15	6	9	14	0	2	30	5	0	4	3	4	0	10	40	16	0	0	0	0	0
17:30	16	10	9	0	0	38	10	1	14	9	1	2	11	36	16	0	0	0	0	0
17:45	8	14	16	0	2	19	9	0	4	10	2	0	8	32	10	0	0	0	0	0
18:00	6	9	20	0	3	24	10	0	7	6	1	0	26	33	8	0	306	184	369	222
18:15	6	9	5	0	3	23	8	0	6	9	1	1	13	19	5	1	0	0	0	0
18:30	9	10	13	0	3	31	4	0	8	4	3	0	8	22	9	0	0	0	0	0
18:45	5	10	12	0	1	20	4	1	12	6	3	3	10	13	6	0	0	0	0	0
19:00	3	8	11	0	1	22	4	0	10	5	3	0	9	15	8	1	226	156	273	188
19:15	6	10	5	0	3	16	5	0	10	7	4	0	7	21	10	2	0	0	0	0
19:30	4	7	10	0	1	19	2	0	7	2	2	0	3	16	9	0	0	0	0	0
19:45	7	9	10	0	2	20	4	0	9	6	1	0	6	19	4	0	0	0	0	0
Total	33	43	56		5	154	40		20	35	16		55	151	40					
% Peak HV	0.037879				0.035176				0.042254				0.020325							

In 2026, meets warrant for 7 hours, very nearly 8 hours.

Timing of warrant likely driven by timing of development on 12th, south of Gekeler.

Rough estimate, another 50 SFR units south of Gekeler could meet warrant (need about 50 a.m. peak period trips).

Figure A-4. Gekeler Lane @ 12th Street: 14-Hour Count (2006)



APPENDIX C. PROJECT EVALUATION MATRIX

Project	From – to	Description	Evaluation Criteria							
			User Generator (15 points)	Safety and Comfort (15 points)	Regional Benefit (15 points)	Land Uses (15 points)	Overcomes Barrier (10 points)	Connectivity (20 points)	Ease of Implementation (10 points)	Total Score
Intersection Improvements										
“H” Avenue & 12th Street	N/A	Add crosswalks on north, south and east legs; install warning signs on north and south approaches and at crosswalks advising motorists of ped/bike crossings; install curb extensions with curb ramps on NE and SE corners to reduce the pedestrian crossing distance on 12th; install curb ramps on NW and SW corners in conjunction with future sidewalk/ shared-use path on west side of street; install warning signage and striping on shared-use path west of intersection to alert path users of approaching intersection	10	10	5	15	5	15	10	70
Gekeler Lane & 12th Street	N/A	Change traffic control to 4-way stop; add crosswalks on south and west legs; provide direct connection to future shared-use path along Gekeler and 12th	5	15	15	5	10	5	10	65
Cove Avenue & Albany Street (Phase 1)	N/A	Re-stripe existing crosswalk on north leg with longitudinal lines; add longitudinal crosswalk on west leg; install warning signs on EB and WB vehicle approaches and at crosswalk advising motorists of pedestrian crossings; place removable In-Street Pedestrian Crossing signs on Cove Avenue centerline to increase visibility of pedestrians in crosswalk	5	15	15	10	10	5	10	70
Cove Avenue & Albany Street (Phase 2)	N/A	Construct pedestrian refuge island on west leg; reconstruct curb ramps on NW and SW corners in conjunction with reconstructed curbs	5	15	15	15	10	5	5	70
Oregon 82/ Island Avenue & Albany Street ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	5	15	15	15	10	5	5	70
Oregon 82/ Island Avenue & I-84 eastbound ramps ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	5	15	15	15	10	20	5	85
Oregon 82/ Island Avenue & I-84 westbound ramps ¹	N/A	Signalize intersection and provide appropriate pedestrian and bicycle treatments (e.g., crosswalks, curb ramps, activation buttons, etc.)	5	15	15	15	10	20	5	85
Oregon 82/ Island Avenue & I-84 eastbound ramps	N/A	Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area	10	15	15	15	5	20	10	90
Oregon 82/ Island Avenue & I-84 westbound ramps	N/A	Stripe eastbound “blue bike lane” through intersection to enhance motorist/ bicyclist awareness in this conflict area	10	15	15	15	5	20	10	90
Oregon 82/ Island Avenue & Pine Street/ Monroe Avenue ¹	N/A	Realign intersection so that the Pine and Monroe Avenue approaches are directly aligned. This project should include appropriate treatments to safely and conveniently facilitate bicycle and pedestrian travel to and through the intersection	5	15	15	15	10	10	5	75
Spruce Street & “V” Avenue	N/A	Construct curb extensions with curb ramps on Spruce between off-set legs of “V”; install curb ramp on far NE corner and far SW corner of intersection; re-stripe existing crosswalks; install warning signs on NB and SB approaches advising motorists of pedestrian crossings	10	15	15	15	10	5	10	80
Spruce Street & Jackson Avenue	N/A	Construct curb extensions with ramps on NW and NE corners; install curb ramp on SE corner; install longitudinal crosswalks on north and east legs; install warning signs on NB and SB approaches and at crosswalk on north leg advising motorists of pedestrian crossings	10	15	15	15	5	5	10	70
Washington Avenue & “N”/10th ¹	N/A	Reconstruct intersection and eliminate 10th Street leg (maintain pedestrian and bicycle access to 10th Street	5	10	5	15	10	5	10	65
Washington Avenue & Willow Street/ 16th Street	N/A	Reconstruct intersection to orient Willow and 16th as the primary legs, and reduce turning radii to reduce pedestrian crossing distances; change traffic control to stop approach on Washington; construct curb ramps on all corners; install longitudinal crosswalks on all legs	5	10	5	10	5	10	5	50



Project	From – to	Description	Evaluation Criteria							
			User Generator (15 points)	Safety and Comfort (15 points)	Regional Benefit (15 points)	Land Uses (15 points)	Overcomes Barrier (10 points)	Connectivity (20 points)	Ease of Implementation (10 points)	Total Score
Intersection improvements near Central School, La Grande Middle School and La Grande High School	N/A	Inventory intersections in area roughly bounded by 6th, “C”, Sunset/Alder, and Adams to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes	15	15	10	15	10	20	5	90
Intersection improvements near Greenwood School	N/A	Inventory intersections in area roughly bounded by I-84, Idaho Northern Pacific Railroad, Union Pacific Railroad, and 4th to identify crosswalk, curb ramp, and other deficiencies that complicate pedestrian travel. Re-stripe crosswalks, add new crosswalks, reconstruct existing curb ramps, construct new curb ramps, curb extensions and implement other intersection improvements where necessary. Assign higher prioritization to projects along major walk-to-school routes	15	15	10	15	10	20	5	90
Streetscape Improvements										
Gekeler Lane ³	6th Street to west of 12th Street	Construct sidewalks and planter strips on both sides of street (10’ sidewalks on north side); construct 12’ landscape center median; preserve existing bicycle lanes	10	10	15	10	5	15	10	75
Downtown Design Plan Implementation	N/A	Prioritize and implement the non-completed streetscape recommendations in the 1999 <i>City of La Grande Downtown Design Plan</i>	15	15	10	15	5	10	5	75
Sidewalks										
1st Street ¹	“K” Avenue to “N” Avenue	Complete sidewalk gaps on both sides of street	15	10	5	10	10	15	5	70
2nd Street	“H” Avenue to “K” Avenue	Complete sidewalk gaps on east side of street	15	15	15	15	10	20	10	100
2nd Street ¹	Lake Avenue to Union County Fairgrounds	Construct sidewalks on east side of street	5	10	15	5	5	5	10	55
3rd Street	“D” Avenue to “F” Avenue	Construct sidewalks on east side of street	10	10	5	15	10	5	10	65
3rd Street	“F” Avenue to “G” Avenue	Construct sidewalks on both sides of street	10	10	5	15	10	10	10	70
3rd Street	“G” Avenue to “H” Avenue	Complete sidewalk gaps on both sides of street	15	15	5	15	10	10	5	75
3rd Street	“H” Avenue to “K” Avenue	Construct sidewalks on east side of street	15	15	5	15	10	10	10	80
3rd Street	“M” Avenue to “N” Avenue	Construct sidewalks on both sides of street	15	15	5	15	10	20	5	85
5th Street	“D” Avenue to “E” Avenue	Construct sidewalks on both sides of street	10	10	5	15	5	5	5	55
5th Street	“E” Avenue to “G” Avenue	Construct sidewalks on west side of street	10	15	5	15	5	10	5	65
5th Street	“G” Avenue to “I” Avenue	Construct sidewalks on both sides of street	15	15	5	15	5	5	5	65
5th Street	“L” Avenue to “N” Avenue	Construct sidewalks on both sides of street	15	10	5	15	5	10	10	70
6th Street ¹	Gekeler Lane to Washington Avenue	Complete sidewalk gaps on both sides of street	15	15	5	15	10	20	5	85
16th Street ¹	Gekeler Lane to Washington Avenue	Construct sidewalks on both sides of street	10	10	5	5	10	5	10	55
16th Street ¹	Linda Lane to Gekeler Lane	Construct sidewalks in conjunction with new street	5	5	10	5	5	5	10	45
21st Street ¹	“H” Avenue to “L” Avenue	Construct sidewalks on both sides of street	5	10	5	10	5	5	5	45
21st Street	“L” Avenue to Cove Avenue	Construct sidewalks on east side of street	10	10	5	10	5	5	5	50
25th Street ¹	“L” Avenue to Cove Avenue	Construct sidewalks on both sides of street	5	5	5	5	5	5	10	40
25th Street ¹	“L” Avenue to east of Union Pacific Railroad	Construct sidewalks in conjunction with new street	5	10	5	5	5	5	10	45
“E” Avenue	4th Street to 6th Street	Construct sidewalks on both sides of street	10	10	5	15	5	5	5	55
“F” Avenue	4th Street to 5th Street	Construct sidewalks on both sides of street	10	10	5	15	5	5	5	55
“F” Avenue	Sunset Drive to 3rd Street	Construct sidewalks on both sides of street	10	10	5	15	5	5	5	55
“G” Avenue	Cedar Street to 3rd Street	Construct sidewalks on both sides of street	15	10	5	10	10	5	5	60
“G” Avenue	3rd Street to 5th Street	Complete sidewalk gaps on both sides of street	10	15	5	10	5	15	5	65
“H” Avenue	14th Street to 16th Street	Construct sidewalks on both sides of street	10	10	5	15	5	10	10	65



Project	From – to	Description	Evaluation Criteria							
			User Generator (15 points)	Safety and Comfort (15 points)	Regional Benefit (15 points)	Land Uses (15 points)	Overcomes Barrier (10 points)	Connectivity (20 points)	Ease of Implementation (10 points)	Total Score
"H" Avenue ¹	22nd Street to east of future 25th Street	Construct sidewalks in conjunction with new street	5	5	5	5	5	5	10	40
"H" Avenue	Sunset Drive to 6th Street	Construct sidewalks on both sides of street	15	15	5	15	10	5	10	75
"H" Avenue ¹	U.S. 30/ Adams Avenue to 22nd Street	Construct sidewalks on both sides of street	5	10	5	5	5	5	10	45
"I" Avenue	2nd Street to 4th Street	Construct sidewalks on both sides of street	15	15	5	15	5	5	10	70
"I" Avenue	4th Street to 6th Street	Construct sidewalks on north side of street	15	15	5	15	5	10	5	70
"J" Avenue	2nd Street to 4th Street	Construct sidewalks on both sides of street	15	15	5	15	5	5	10	70
"J" Avenue	4th Street to 6th Street	Construct sidewalks on north side of street	15	15	5	15	5	10	10	75
"K" Avenue	Sunset Drive to 2nd Street	Complete sidewalk gaps on north side of street	15	15	5	15	10	15	5	80
"L" Avenue	8th Street to 11th Street	Complete sidewalk gaps on both sides of street	15	10	5	15	5	15	10	85
"L" Avenue ¹	11th Street to 12th Street	Construct sidewalks on both sides of street	15	10	5	15	5	20	5	75
"L" Avenue	Sunset Drive to 2nd Street	Construct sidewalks on both sides of street	15	15	5	15	5	5	5	65
"L" Avenue ¹	Willow Street to 25th Street	Construct sidewalks on both sides of street	10	15	5	5	5	5	10	55
"M" Avenue ¹	Alder Street to Oak Street	Construct sidewalks on south side of street	15	10	5	15	5	5	5	60
"M" Avenue	Alder Street to Walnut Street	Construct sidewalk on north side of street	15	10	5	15	5	5	5	60
"N" Avenue ¹	Alder Street to Oak Street	Complete sidewalk gaps on both sides of street	15	10	5	10	5	5	5	55
"N" Avenue	Willow Street to Hall Street	Construct sidewalks on both sides of street	15	10	5	10	10	5	5	60
"O" Avenue	Alder Street to 3rd Street	Complete sidewalk gaps on both sides of street	10	10	5	10	5	15	5	60
"O" Avenue	Willow Street to Hall Street	Construct sidewalks on both sides of street	15	10	5	10	10	5	5	60
"T" Avenue	Depot Street to Spruce Street	Complete sidewalk gaps on south side of street	15	10	5	10	5	10	10	65
"U" Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	10	10	5	10	5	5	10	55
"U" Avenue	Depot Street to Fir Street	Construct sidewalks on both sides of street	15	10	5	10	5	5	5	55
"U" Avenue	Fir Street to Greenwood Street	Construct sidewalks on south side of street	15	15	5	15	10	10	5	75
"U" Avenue	Pine Street to Willow Street	Construct sidewalks on both sides of street	15	10	5	5	5	5	10	55
"U" Avenue	Spruce Street to Pine Street	Construct sidewalks on south side of street	15	15	5	10	10	10	10	75
"V" Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	10	15	5	15	5	5	5	60
"V" Avenue	Spruce Street to Willow Street	Construct sidewalks on south side of street	15	15	5	15	10	10	10	80
"X" Avenue	2nd Street to 4th Street	Construct sidewalks on south side of street	10	5	5	5	5	10	10	50
"X" Avenue	Greenwood Street to Willow Street	Construct sidewalks on south side of street	15	15	5	15	10	10	5	75
"Y" Avenue ¹	Cedar Street to 2nd Street	Construct sidewalks on both sides of street	10	10	5	5	5	5	5	45
"Y" Avenue	Spruce Street to Cherry Street	Complete sidewalk gaps on both sides of street	10	10	5	5	5	10	10	55
"Z" Avenue	Depot Street to Spruce Street	Construct sidewalks on north side of street	10	10	5	10	5	5	5	50
"Z" Avenue ¹	Walnut Street to Cedar Street	Construct sidewalks on both sides of street	10	10	5	5	5	5	10	50
Alder Street	"K" Avenue to "L" Avenue	Construct sidewalks on west side of street	15	15	10	15	10	5	5	75
Alder Street	"L" Avenue to Penn Avenue	Construct sidewalks on both sides of street	15	15	10	15	10	10	5	80
Cedar Street	"C" Avenue to "H" Avenue	Construct sidewalks on north side of street	15	10	5	10	10	5	5	60
Cedar Street	"K" Avenue to "L" Avenue	Construct sidewalks on both sides of street	15	15	5	15	10	5	5	70
Cedar Street	"L" Avenue to "M" Avenue	Construct sidewalks on east side of street	15	15	5	15	10	10	5	75
Cedar Street	"M" Avenue to "N" Avenue	Construct sidewalks on both sides of street	15	15	5	15	5	5	5	65
Cedar Street	"O" Avenue to Penn Avenue	Construct sidewalks on east side of street	10	15	5	10	5	10	5	60
Cedar Street ¹	"Y" Avenue to "Z" Avenue	Construct sidewalks on both sides of street	10	10	5	5	5	5	5	45
Cherry Street	Washington Avenue to U.S. 30/ Adams Avenue	Construct sidewalks on east side of street	10	15	10	10	10	20	5	80
Cove Avenue	Balm Street to Portland Street	Construct sidewalk on north side of street	10	15	15	15	10	20	5	90
Depot Street	Jackson Avenue to "X" Avenue	Complete sidewalk gaps on both sides of street	10	10	5	10	5	10	5	55
Depot Street/ Monroe Avenue	Jackson Avenue to Elm Street	Construct sidewalks on both sides of street	10	15	5	5	5	10	10	60
Division Avenue	Umatilla Street to 3rd Avenue	Complete sidewalk gaps on both sides of street	5	10	5	5	5	15	5	50
Fir Street	"U" Avenue to "Z" Avenue	Construct sidewalks on both sides of street	15	10	5	10	5	5	5	55
Hall Street	"L" Avenue to Cove Avenue	Construct sidewalks on both sides of street	15	10	5	10	5	5	10	60
Harrison Avenue ¹	Umatilla Street to Walnut Street	Construct sidewalks on both sides of street	5	10	5	5	5	5	5	40
Jackson Avenue	4th Street to Birch Street	Construct sidewalks on south side of street	10	10	5	5	5	10	10	55



Project	From – to	Description	Evaluation Criteria							
			User Generator (15 points)	Safety and Comfort (15 points)	Regional Benefit (15 points)	Land Uses (15 points)	Overcomes Barrier (10 points)	Connectivity (20 points)	Ease of Implementation (10 points)	Total Score
Jackson Avenue	Birch Street to Depot Street	Construct sidewalks on both sides of street	10	15	5	5	5	10	10	60
Jackson Avenue	Spruce Street to Willow Street	Construct sidewalks on south side of street	10	15	5	10	10	10	5	65
Jefferson Avenue	3rd Street to 4th Street	Construct sidewalks on both sides of street	10	10	5	10	10	10	5	60
Maple Avenue	“Y” Avenue to “Z” Avenue	Construct sidewalks on both sides of street	5	5	5	5	5	5	5	35
Maple Avenue	Jackson Avenue to “V” Avenue	Construct sidewalks on both sides of street	15	10	5	10	5	5	5	55
May Lane ¹	Spruce Street to Riddle Road	Construct sidewalks on both sides of street	5	10	10	5	10	5	10	55
Oak Street ¹	“K” Avenue to “L” Avenue	Complete sidewalk gaps on both sides of street	15	10	5	15	10	15	5	75
Oak Street ¹	“L” Avenue to “M” Avenue	Construct sidewalks on west side of street	15	10	5	10	5	15	5	65
Oak Street ¹	“L” Avenue to “M” Avenue	Construct sidewalks on west side of street	15	10	5	10	5	15	5	65
Oak Street ¹	“M” Avenue to “O” Avenue	Complete sidewalk gaps on both sides of street	15	10	5	15	10	15	5	75
Oak Street	Benton Avenue to Division Avenue	Construct sidewalks on both sides of street	10	15	5	15	5	5	10	65
Oak Street	Harrison Avenue to Lane Avenue	Construct sidewalks on both sides of street	10	15	5	5	5	5	10	55
Oak Street	Lane Avenue to Benton Avenue	Construct sidewalks on east side of street	10	15	5	5	5	10	10	60
Oregon 82/ Island Avenue	I-84 eastbound ramps to I-84 westbound ramps	Complete sidewalk gaps on south side of street	10	15	15	10	10	20	10	90
Palmer Avenue	Alder Street to Cedar Street	Construct sidewalks on south side of street	10	10	15	10	5	10	10	70
Penn Avenue	Alder Street to 3rd Street	Complete sidewalk gaps on both sides of street	10	10	5	10	5	15	5	60
Pine Street	“U” Avenue to “X” Avenue	Construct sidewalks on both sides of street	15	10	5	10	5	5	5	55
Pine Street	“Y” Avenue to “Z” Avenue	Construct sidewalks on both sides of street	5	5	5	5	5	5	5	35
Pine Street	Jackson Avenue to “U” Avenue	Construct sidewalks on east side of street	10	10	5	10	5	10	5	55
Portland Street ¹	Cove Avenue to Oregon 82/ Island Avenue	Complete sidewalk gaps on west side of street	5	10	15	10	10	20	5	75
Spring Avenue ¹	4th Street to 6th Street	Complete sidewalk gaps on both sides of street	10	10	5	5	5	20	5	60
Spruce Street ¹	“Z” Avenue to Fruitdale Lane	Construct sidewalks on both sides of street	5	10	15	10	10	10	5	65
Spruce Street ¹	Monroe Avenue to “S” Avenue	Construct sidewalks on west side of street	10	15	15	15	10	20	5	90
U.S. 30/ Adams Avenue ¹	Alder Street to Walnut Street	Construct sidewalks on north side of street	5	15	15	5	5	5	10	60
Umatilla Street ¹	Harrison Avenue to Division Avenue	Construct sidewalks on both sides of street	5	5	5	5	5	5	5	35
Umatilla Street	Division Avenue to Polk Avenue	Construct sidewalks on both sides of street	5	10	5	5	5	5	10	40
Walnut Street ¹	“K” Avenue to “N” Avenue	Construct sidewalks on both sides of street	15	15	5	15	10	15	5	80
Walnut Street ¹	“N” Avenue to “O” Avenue	Construct sidewalks on west side of street	15	15	5	15	10	15	5	80
Walnut Street ¹	La Grande south city limits to “C” Avenue	Construct sidewalks on both sides of street	5	10	10	5	5	5	5	45
Walnut Street ¹	Penn Avenue to Spring Avenue	Construct sidewalks on east side of street	10	10	5	10	5	15	5	60
Walnut Street	U.S. 30/ Adams Avenue to Palmer Avenue	Complete sidewalk gaps on both sides of street	10	10	15	10	5	15	5	70
Walnut Street ¹	Washington Avenue to U.S. 30/ Adams Avenue	Complete sidewalk gaps on east side of street	10	10	10	5	5	15	5	60
Willow Street ¹	“N” Avenue to Cove Avenue	Construct sidewalks on west side of street	15	15	10	10	10	15	5	80
Willow Street ¹	Jefferson Avenue to “N” Avenue	Construct sidewalks on east side of street	10	5	5	10	10	15	10	65
Sidewalks and Bicycle Lanes										
20th Street ¹	Gekeler Lane to U.S. 30/ Adams Avenue	Construct bicycle lanes and sidewalks on both sides of street	5	15	10	5	5	5	5	50
Monroe Avenue	Hemlock Street to Oregon 82/ Island Avenue	Construct bicycle lanes and sidewalks on both sides of street	10	15	15	10	10	20	5	85
Southern La Grande loop road (Phase 1) ¹	2nd Street to 12th Street	Construct bicycle lanes and sidewalks in conjunction with new street	5	10	10	5	5	5	10	50
Southern La Grande loop road (Phase 2) ¹	12th Street to Foothill Road	Construct bicycle lanes and sidewalks in conjunction with new street	5	10	10	5	5	5	10	50
U.S. 30/ Adams Avenue	20th Street to “H” Avenue	Stripe bicycle lanes and complete sidewalk gaps on both sides of street	5	15	15	10	5	10	10	70
U.S. 30/ Adams Avenue ¹	Willow Street to 20th Street	Stripe bicycle lanes and complete sidewalk gaps on both sides of street	5	15	15	10	10	15	10	80



Project	From – to	Description	Evaluation Criteria							
			User Generator (15 points)	Safety and Comfort (15 points)	Regional Benefit (15 points)	Land Uses (15 points)	Overcomes Barrier (10 points)	Connectivity (20 points)	Ease of Implementation (10 points)	Total Score
Bicycle Lanes										
“C” Avenue	Sunset Drive/ Oak Street to 6th Street	Construct bicycle lanes on both sides of street	15	15	10	10	5	10	5	70
Oregon 82/Island Avenue	Monroe Avenue to Riddle Road/ Mulholland Drive	Provide additional striping to clarify bicycle lanes (to discourage motorists from using the bicycle lane as a right-turn lane)	10	10	15	15	5	5	10	70
Pine Street/ Cove Avenue¹	Oregon 82/ Island Avenue to Portland Street	Construct bicycle lanes on both sides of street	10	15	15	10	10	15	5	80
Shoulder Bikeways										
Foothill Road²	20th Street to La Grande south city limits	Construct shoulders on both sides of road to accommodate bicycle and pedestrian travel	5	15	15	5	10	5	5	60
Shared Roadways/Bicycle Boulevards										
2nd Street	“C” Avenue to U.S. 30/ Adams Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	15	10	15	10	5	10	80
2nd Street	“Y” Avenue to Blackhawk Trail	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	10	15	5	5	5	10	55
2nd Street	U.S. 30/ Adams Avenue to “Y” Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	15	10	5	10	5	10	65
4th Street	“C” Avenue to “O” Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	10	15	5	15	5	5	5	70
4th Street	“O” Avenue to Jefferson Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	10	15	5	15	10	5	5	65
4th Street/ Jackson Avenue/ Depot Street/ Monroe Avenue	“Y” Avenue to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	5	5	5	5	10	50
6th Street	“C” Avenue to Washington Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	15	15	5	15	10	5	5	70
8th Street	“L” Avenue to Washington Avenue	Implement Level 1, 2, 3, 4, and 5 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming, traffic diversion)	15	10	5	15	5	5	5	60
12th Street	Gildcrest Drive to Gekeler Lane	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	5	15	5	5	5	10	50
12th Street	Gekeler Lane to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	15	10	15	10	10	10	80
16th Street	Gekeler Lane to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	5	5	5	5	10	50
25th Street	“H” Avenue to Cove Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	5	5	5	5	5	10	40
“H” Avenue	12th Street to 16th Street	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	15	15	5	10	10	10	5	70
“H” Avenue	Sunset Drive to 6th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	15	15	5	15	10	5	5	70
“H” Avenue	U.S. 30/ Adams Avenue to 25th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	5	5	5	5	5	10	40
“K” Avenue	Sunset Drive to 2nd Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	15	5	15	10	5	10	75
“L” Avenue	8th Street to 12th Street	Implement Level 1 bicycle boulevard applications (signage)	15	10	5	15	5	5	10	65
“L” Avenue	Willow Street to 25th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	5	10	5	5	10	55
“M” Avenue	6th Street to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	10	5	10	10	5	10	65
“M” Avenue	Alder Street to 4th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	10	5	15	5	5	10	65



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“N” Avenue	4th Street to Washington Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	10	5	10	10	5	10	65
“N” Avenue	Alder Street to 4th Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	10	5	10	5	5	10	60
“N” Avenue	Cherry Street to Willow Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	15	10	5	10	5	5	10	60
“R” Avenue	Albany Street to 21st Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	5	5	10	5	5	10	45
“Y” Avenue	2nd Street to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	5	10	5	5	10	55
Albany Street	Cove Avenue to Oregon 82/ Island Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	10	15	5	10	5	65
Cherry Street	Washington Avenue to Cove Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	15	10	10	5	5	10	65
Fir Street	Washington Avenue to Jefferson Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	10	15	10	15	5	5	5	65
Fir Street/ “S” Avenue	Jefferson Avenue to Spruce Street	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	10	10	5	5	10	60
Greenwood Street	Jefferson Avenue to “Y” Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	15	10	10	10	5	5	5	60
Greenwood Street	Washington Avenue to Jefferson Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	10	15	10	15	5	5	5	65
Harrison Avenue/ “Z” Avenue/ Cedar Street/ “Y” Avenue	Future Grande Ronde River Path to 2nd Street	Implement Level 1 bicycle boulevard applications (signage)	5	10	5	5	5	5	10	45
Jefferson Avenue	Oak Street to 4th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	5	10	10	5	10	10	5	55
Jefferson Avenue/ Hemlock Street	4th Street to Washington Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	15	15	10	10	10	10	5	75
May Lane	Spruce Street to Oregon 82/ Island Avenue	Implement Level 1 bicycle boulevard applications (signage)	5	5	15	5	5	5	10	50
Oak Street	“K” Avenue to Palmer Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	10	10	10	15	5	5	5	60
Portland Street	Cove Avenue to Oregon 82/ Island Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	10	10	10	5	10	10	60
Spruce Street	Monroe Avenue to “Z” Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	15	15	15	15	10	5	5	80
Spruce Street	“Z” Avenue to Blackhawk Trail	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	5	10	15	10	5	5	10	60
Sunset Drive/ Alder Street	“C” Avenue to “N” Avenue	Implement Level 1 and 2 bicycle boulevard applications (signage, pavement markings)	10	10	10	15	10	5	10	70
Washington Avenue	4th Street to Greenwood Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	15	15	10	15	10	10	5	80
Washington Avenue	Greenwood Street to Willow Street	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	15	10	10	10	10	10	5	70
Washington Avenue	Oak Street to 4th Street	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	5	10	10	5	10	10	5	55
Willow Street	“L” Avenue to Cove Avenue	Implement Level 1, 2, 3, and 4 bicycle boulevard applications (signage, pavement markings, intersection treatments, traffic calming)	15	15	10	10	10	10	5	75
Willow Street	Washington Avenue to “L” Avenue	Implement Level 1, 2, and 3 bicycle boulevard applications (signage, pavement markings, intersection treatments)	5	10	10	10	10	10	5	60



Project	From – to	Description	Evaluation Criteria							
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Shared-use Paths										
EOU/South Central Neighborhood Perimeter Path	6th (between “L” and Gekeler); Gekeler (between 6th and 12th); 12th (between Gekeler and “H”)	Construct shared-use path on east side of 6th, north side of Gekeler, and west side of 12th	15	10	10	15	5	10	5	70
EOU northeast access path	EOU campus (near Hunt Hall) to “K” Avenue	Construct shared-use path to improve EOU campus access	10	10	5	10	10	10	5	60
EOU southeast access path	12th Street to west of future 10th Street extension	Formalize existing trail on city-owned access road through signage, bollards and other treatments	15	10	5	10	10	5	10	65
EOU southern access path	Gekeler Lane to existing path near State of Oregon Integrated Services Building	Construct shared-use path to improve EOU campus access	10	10	5	10	10	5	10	60
Grande Ronde River Path	La Grande west city limits (near Harrison Avenue) to Oregon 82 (in Island City)	Coordinate with Island City and Union County to conduct a study to determine feasibility of constructing a shared-use path along the Grande Ronde River	15	15	15	10	5	5	10	75
La Grande Greenway Corridor Path (central segment)	Northern terminus of La Grande Greenway Path (south segment) to southern terminus of La Grande Greenway Path (north segment)	Conduct study to determine feasibility of constructing a shared-use path or improving on-street bike/ped facilities between Greenway Path’s northern and southern segments	5	10	5	10	10	10	10	60
La Grande Greenway Corridor Path (north segment)	May Lane/ Riddle Road to Grande Ronde River	Conduct study to determine feasibility of constructing a shared-use path connecting north La Grande to the Grande Ronde River	10	10	10	5	5	5	10	55
La Grande Greenway Corridor Path (south segment)	Gekeler Lane to “R” Avenue	Construct shared-use path along existing drainage ditch	15	10	10	5	10	5	10	65
Southeast La Grande loop path	Future stormwater corridor roughly following Foothill Road, La Grande south city limits, and U.S. 30 (south of Gekeler Lane)	Construct shared-use path within future stormwater corridor	10	5	10	5	5	5	10	50
Other Projects										
Bicycle wayfinding signage plan	N/A	Develop a citywide bicycle wayfinding signage plan identifying: appropriate locations for signs, destinations to be highlighted on each sign, and approximate distance and “riding time” to each destination.	15	15	15	15	10	20	10	100

1 This project was adopted in the 1999 La Grande/Island City Transportation System Plan.
2 This project was adopted in the 1999 Union County Transportation System Plan.
3 This project was recommended as part of recent planning efforts in the South Central Neighborhood.





APPENDIX D. REVIEW OF PLANS, POLICIES, GUIDELINES, AND STANDARDS

Introduction

Several related plans, policies, guidelines and standards helped guide the vision, development and recommendations of the La Grande Pedestrian and Bicycle Improvement Plan. Relevant goals, policies, recommendations, design standards and guidelines from these documents have been evaluated, and in most cases, incorporated into this Plan to maintain consistency between past and future planning efforts.

Federal

Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (2005)

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) was enacted in 2005. With guaranteed funding for highways, highway safety, and public transportation totaling \$244.1 billion, SAFETEA-LU represents the largest surface transportation investment in U.S. history. The two landmark bills that brought surface transportation into the 21st century – the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) and the Transportation Equity Act for the 21st Century (TEA-21) – shaped the highway program to meet the Nation’s changing transportation needs. SAFETEA-LU builds on this firm foundation, supplying the funds and refining the programmatic framework for investments needed to maintain and grow vital transportation infrastructure.

SAFETEA-LU addresses the many challenges facing our transportation system today – challenges such as improving safety, reducing traffic congestion, improving efficiency in freight movement, increasing intermodal connectivity, and protecting the environment – as well as laying the groundwork for addressing future challenges. SAFETEA-LU promotes more efficient and effective Federal surface transportation programs by focusing on transportation issues of national significance, while giving State and local transportation decision makers more flexibility for solving transportation problems in their communities.

Manual on Uniform Traffic Control Devices (2003)

The Federal Highway Administration, with the active assistance from the National Committee on Uniform Traffic Control Devices, adopted the most recent Manual on Uniform Traffic Control Devices (MUTCD) in 2003. Pedestrian and bicycle provisions are located in several sections of the Manual. In general, the MUTCD provides directives for traffic control devices that are to be used as standards, including warrants and design of pedestrian and bicycle pavement markings, signs, and signals. Relevant sections include:

- Section 3B.17 Crosswalk Markings



- Section 4C.05 Warrant 4, Pedestrian Volume
- Section 4D.03 Provisions for Pedestrians
- Section 4E.03 Application of Pedestrian Signal Heads
- Section 4E.06 Accessible Pedestrian Signals
- Section 4E.09 Accessible Pedestrian Signal Detectors
- Section 9C.04 Markings for Bicycle Lanes

Americans with Disabilities Act (1990)

The Americans with Disabilities Act (ADA) prohibits State and local governments from discriminating against people with disabilities in all programs, services, and activities. Under the ADA, the U.S. Access Board has developed and continues to maintain design guidelines for accessible buildings and facilities known as the ADA Accessibility Guidelines (ADAAG). These guidelines were adopted by the U.S. Department of Transportation and published as the ADA Standards for Accessible Design and are enforceable under the ADA.

“The implementing regulations for Titles II and III of the ADA require curb ramps to be provided in all existing facilities and for new construction and alterations”¹⁵ However, with the exception of curb ramps, accessibility standards have not yet been developed for sidewalks and trails.

Despite the current lack of enforceable standards, “public and private entities who design and construct sidewalks and trails are still obligated under ADA to make them accessible to and usable by people with disabilities. Until specific standards are adopted as part of ADAAG, some of the existing scoping and technical provisions for new construction and alterations can be applied to the design of pedestrian facilities, such as”¹⁶:

- Accessible Routes (ADAAG 4.3)
- Curb Ramps (ADAAG 4.7)
- Ramps (ADAAG 4.8)

In addition to maintaining the ADAAG, the U.S. Access Board has published draft public rights-of-way accessibility guidelines. While these guidelines have not been adopted into the ADAAG yet, the Access Board recommends that where ADA standards do not include applicable provisions, the November 23, 2005 draft Public Rights-of-Way Accessibility Guidelines be referenced as a best practices manual.¹⁷ The draft guidelines address the following:

¹⁵ Federal Highway Administration, U.S. Department of Transportation. “Designing Sidewalks and Trails for Access, Part I of II: Review of Existing Guidelines and Practices” Barbara McMillen, Program Manager; Beneficial Designs, Inc. Author. Clay Butler, Illustrations. September 2001. <http://www.fhwa.dot.gov/environment/sidewalk2/>

¹⁶ *ibid*

¹⁷ Available at <http://www.access-board.gov/provac/draft.htm>



- Pedestrian Access Route
- Alternate Circulation Path
- Curb Ramps and Blended Transitions
- Detectable Warning Surfaces
- Pedestrian Crossings
- Accessible Pedestrian Signals
- Street Furniture
- On-Street Parking
- Call Boxes

In an effort to highlight when ADAAG provisions apply to sidewalks and trails, and how to bridge the remaining gaps, the Federal Highway Administration released *Designing Sidewalks and Trails for Access* as a two-part guidebook – Part I: Review of Existing Guidelines and Practices and Part II: Best Practices Design Guide. Part I is a compilation of data, designs, and guidelines collected from literature reviews and site visits. Part II focuses on the design process and identifying best practices for designing sidewalks and trails for access by all users.

AASHTO Publications

The American Association of State Highway and Transportation Officials (AASHTO) has published two books: the 2004 *Guide for the Planning, Design, and Operation of Pedestrian Facilities* and the 1999 *Guide for the Development of Bicycle Facilities*. These publications are intended to provide guidance on the planning, design, and development of bicycle and pedestrian facilities to ensure safe accommodation for all modes of travel on public rights-of-way.

State of Oregon

Oregon Administrative Rules/Transportation Planning Rule

Adopted by the Land Conservation and Development Commission in 1991, the Transportation Planning Rule (Oregon Administrative Rule Chapter 660, Division 12) represents an element of Oregon's Statewide Planning Goal #12 – Transportation. The Transportation Planning Rule's (TPR) goal is to promote the development of safe, convenient and economic transportation systems designed to reduce reliance on the automobile so that air pollution, traffic and other livability problems faced by urban areas and other parts of the country might be avoided. The TPR requires each city and county to adopt a Transportation System Plan (TSP) and implementing regulations, and also includes specific items that must be addressed in the TSP. The following table summarizes TPR bicycle and pedestrian requirements relevant to La Grande.



Table A-8. Relevant Transportation Planning Rule Requirements

OAR Division	Language
660-12-0005 – Definitions	
660-12-0005(2)	"Accessway" means a walkway that provides pedestrian and or bicycle passage either between streets or from a street to a building or other destination such as a school, park, or transit stop. Accessways generally include a walkway and additional land on either side of the walkway, often in the form of an easement or right-of-way, to provide clearance and separation between the walkway and adjacent uses. Accessways through parking lots are generally physically separated from adjacent vehicle parking or parallel vehicle traffic by curbs or similar devices and include landscaping, trees and lighting. Where accessways cross driveways, they are generally raised, paved or marked in a manner which provides convenient access for pedestrians.
660-12-0005(18)	"Pedestrian connection" means a continuous, unobstructed, reasonably direct route between two points that is intended and suitable for pedestrian use. Pedestrian connections include but are not limited to sidewalks, walkways, accessways, stairways and pedestrian bridges. On developed parcels, pedestrian connections are generally hard surfaced. In parks and natural areas, pedestrian connections may be soft-surfaced pathways. On undeveloped parcels and parcels intended for redevelopment, pedestrian connections may also include rights of way or easements for future pedestrian improvements.
660-12-0005(21)	"Pedestrian scale" means site and building design elements that are dimensionally less than those intended to accommodate automobile traffic, flow and buffering. Examples include ornamental lighting of limited height; bricks, pavers or other modules of paving with small dimensions; a variety of planting and landscaping materials; arcades or awnings that reduce the height of walls; and signage and signpost details that can only be perceived from a short distance.
660-12-0005(24)	"Reasonably direct" means either a route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
660-12-0005(35)	"Walkway" means a hard surfaced area intended and suitable for use by pedestrians, including sidewalks and surfaced portions of accessways.
660-12-0045 – Implementation of the Transportation System Plan	
660-12-0045(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.
660-12-0045(3)(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.
660-12-0045(3)(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.
660-12-0045(3)(b)(B)	Bikeways shall be required along arterials and major collectors. Sidewalks shall be required along arterials, collectors and most local streets in urban areas, except that sidewalks are not required along controlled access roadways, such as freeways.
660-12-0045(3)(b)(D)	Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel.



OAR Division	Language
660-12-0045(3)(c)	Where off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors.
660-12-0045(3)(d)(A-C)	For purposes of subsection (b) "safe and convenient" means bicycle and pedestrian routes, facilities and improvements which: Are reasonably free from hazards, particularly types or levels of automobile traffic which would interfere with or discourage pedestrian or cycle travel for short trips; Provide a reasonably direct route of travel between destinations such as between a transit stop and a store; and Meet travel needs of cyclists and pedestrians considering destination and length of trip; and considering that the optimum trip length of pedestrians is generally 1/4 to 1/2 mile.
660-12-0045(3)(e)	Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.
660-12-0045(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.
660-12-0045(6)	Local governments shall establish standards for local streets and accessways that minimize pavement width and total right-of-way consistent with the operational needs of the facility. The intent of this requirement is that local governments consider and reduce excessive standards for local streets and accessways in order to reduce the cost of construction, provide for more efficient use of urban land, provide for emergency vehicle access while discouraging inappropriate traffic volumes and speeds, and which accommodate convenient pedestrian and bicycle circulation. Notwithstanding section (1) or (3) of this rule, local street standards adopted to meet this requirement need not be adopted as land use regulations.
660-12-0060 – Plan and Land Use Regulation Amendments	
660-12-0060(2)	Where a local government determines that there would be a significant effect [on a transportation facility], compliance with section (1) shall be accomplished through one or a combination of the following:
660-12-0060(2)(c)	Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes.
660-12-0060(6)	In determining whether proposed land uses would affect or be consistent with planned transportation facilities as provided in 0060(1) and (2), local governments shall give full credit for potential reduction in vehicle trips for uses located in mixed-use, pedestrian-friendly centers, and neighborhoods as provided in (a)-(d) below:
660-12-0060(6)(a-d)	Absent adopted local standards or detailed information about the vehicle trip reduction benefits of mixed-use, pedestrian-friendly development, local governments shall assume that uses located within a mixed-use, pedestrian-friendly center, or neighborhood, will generate 10% fewer daily and peak hour trips than are specified in available published estimates, such as those provided by the Institute of Transportation Engineers (ITE) Trip Generation Manual that do not specifically account for the effects of mixed-use, pedestrian-friendly development. The 10% reduction allowed for by this section shall be available only if uses which rely solely on auto trips, such as gas stations, car washes, storage facilities, and motels are prohibited; Local governments shall use detailed or local information about the trip reduction benefits of mixed-use, pedestrian-friendly development where such information is available and presented to the local government. Local governments may, based on such information, allow reductions greater than the 10% reduction required in (a); Where a local government assumes or estimates lower vehicle trip generation as provided in (a) or (b) above, it shall assure through conditions of approval, site plans, or approval standards that subsequent development approvals support the development of a mixed-use, pedestrian-friendly center or neighborhood and provide



OAR Division	Language
	<p>for on-site bike and pedestrian connectivity and access to transit as provided for in 0045(3) and (4). The provision of on-site bike and pedestrian connectivity and access to transit may be accomplished through application of acknowledged ordinance provisions which comply with 0045(3) and (4) or through conditions of approval or findings adopted with the plan amendment that assure compliance with these rule requirements at the time of development approval; and</p> <p>The purpose of this section is to provide an incentive for the designation and implementation of pedestrian-friendly, mixed-use centers and neighborhoods by lowering the regulatory barriers to plan amendments which accomplish this type of development. The actual trip reduction benefits of mixed-use, pedestrian-friendly development will vary from case to case and may be somewhat higher or lower than presumed pursuant to (a) above. The Commission concludes that this assumption is warranted given general information about the expected effects of mixed-use, pedestrian-friendly development and its intent to encourage changes to plans and development patterns. Nothing in this section is intended to affect the application of provisions in local plans or ordinances which provide for the calculation or assessment of systems development charges or in preparing conformity determinations required under the federal Clean Air Act.</p>
660-12-0060(7)	<p>Amendments to acknowledged comprehensive plans and land use regulations which meet all of the criteria listed in (a)-(c) below shall include an amendment to the comprehensive plan, transportation system plan the adoption of a local street plan, access management plan, future street plan or other binding local transportation plan to provide for on-site alignment of streets or accessways with existing and planned arterial, collector, and local streets surrounding the site as necessary to implement the requirements in Section 0020(2)(b) and Section 0045(3) of this division</p>
660-12-0060(8) (entire)	<p>A "mixed-use, pedestrian-friendly center or neighborhood" for the purposes of this rule, means:</p> <p>Any one of the following:</p> <p>An existing central business district or downtown;</p> <p>An area designated as a central city, regional center, town center or main street in the Portland Metro 2040 Regional Growth Concept;</p> <p>An area designated in an acknowledged comprehensive plan as a transit oriented development or a pedestrian district; or</p> <p>An area designated as a special transportation area as provided for in the Oregon Highway Plan.</p> <p>An area other than those listed in (a) which includes or is planned to include the following characteristics:</p> <p>A concentration of a variety of land uses in a well-defined area, including the following:</p> <p>Medium to high density residential development (12 or more units per acre);</p> <p>Offices or office buildings;</p> <p>Retail stores and services;</p> <p>Restaurants; and</p> <p>Public open space or private open space which is available for public use, such as a park or plaza.</p> <p>Generally include civic or cultural uses;</p> <p>A core commercial area where multi-story buildings are permitted;</p> <p>Buildings and building entrances oriented to streets;</p> <p>Street connections and crossings that make the center safe and conveniently accessible from adjacent areas;</p> <p>A network of streets and, where appropriate, accessways and major driveways that make it attractive and highly convenient for people to walk between uses within the center or neighborhood, including streets and major driveways within the center with wide sidewalks and other features, including pedestrian-oriented street crossings, street trees, pedestrian-scale lighting and on-street parking;</p> <p>One or more transit stops (in urban areas with fixed route transit service); and</p> <p>Limit or do not allow low-intensity or land extensive uses, such as most industrial uses, automobile sales and services, and drive-through services.</p>



Oregon Highway Plan (1999)

The Oregon Highway Plan (OHP) defines policies and investment strategies for Oregon's state highway system over a 20-year period, and represents an element of the Oregon Statewide Transportation Plan. The OHP contains three main sections, including an overall vision, a policy element, and system element.

State highways in La Grande include U.S. 30/Adams Avenue and Oregon 82/Island Avenue. Because they are owned and maintained by ODOT, these highways are subject to the policies set forth in the OHP. Relevant to the Pedestrian and Bicycle Improvement Plan, the OHP designates a portion of U.S. 30/Adams Avenue as a "Special Transportation Area" (STA). A STA is a designation that can be applied when a downtown, business district or community center straddles a state highway within an urban growth boundary. Within a STA, the primary objective in managing a state highway is to provide access to community activities, businesses and residences; and to accommodate pedestrian movement along and across the highway in a downtown or other business district. Direct street connections and on-street parking are also encouraged. Local auto, pedestrian, bicycle and transit movements on the state highway are generally as important as the movement of through traffic. Traffic speeds are slow, generally 25 MPH or less. Typical land use characteristics include mixed uses, and buildings spaced close together with minimal or no setbacks from the street.

Within downtown La Grande, the segment of U.S. 30/Adams Avenue between 4th Street and Hemlock Street falls within the STA designation. This designation includes different design standards for pedestrian and bicycle facilities compared with state highways lacking the STA designation. ODOT's Highway Design Manual (discussed below) describes the relevant standards).

ODOT Highway Design Manual (2003)

Updated in 2003, the ODOT Highway Design Manual (HDM) provides uniform standards and procedures for the construction, reconstruction, resurfacing and rehabilitation of state highways. The standards are based on several parameters, including a highway's functional classification and posted speed. In La Grande, HDM standards apply to U.S. 30/Adams Avenue and Oregon 82/Island Avenue. These standards are summarized in the Design Guidelines chapter of this Plan.

Oregon Bicycle and Pedestrian Plan (1995)

The Oregon Bicycle and Pedestrian Plan is the planning and design manual for pedestrian and bicycle transportation in Oregon. Published by ODOT's Bicycle and Pedestrian Program, the document was adopted by the Oregon Transportation Commission in 1995. The standards and designs shown in the Plan represent ODOT standards used on State highway projects. The standards meet or exceed national standards prescribed by AASHTO as well as Americans with Disabilities Act Accessibility Guidelines. Although standards prescribed by the Plan are required on State highways, they are recommended but not required for use by local jurisdictions.



Union County

Union County Transportation System Plan (1999)

The Union County Transportation System Plan (TSP) identifies existing transportation facilities and provides guidelines for future transportation facilities until the year 2018. The TSP updates the transportation element of the Union County Land Use Plan and replaces the 1979 Union County Transportation Plan. Relevant goals and supporting objectives include the following:

- Goal 1: “Improve and enhance safety and traffic circulation on the county road system.”
Objective F: “Review and revise, if necessary, street cross section standards for local, collector, and arterial streets to enhance safety and mobility.”
- Goal 2: “Preserve the function, capacity, level of service, and safety of the state highway system.”
Objective C: “Promote alternative modes of transportation.”
- Goal 4: “Increase the use of alternative modes of transportation (walking, bicycling, rideshare/carpooling, and transit) through improved access, safety, and service.”
Objective A: “Identify where shoulder bikeways are appropriate on rural collector and arterial roads.”
Objective B: “Promote alternative modes and rideshare/carpool programs through community awareness and education.”

The TSP’s street standards generally accommodate bicyclists and pedestrians on roadway shoulders. The standards require Arterials to include 4’ paved shoulders supplemented by 2’ gravel shoulders. Collectors must only include a 4’ paved shoulder. Shoulders are not required on Local roads.

City of La Grande

La Grande Comprehensive Plan (2005)

The purpose of the Comprehensive Plan is to guide growth within the city of La Grande. The document is separated into several sections, identifying goals, objectives and policies that support Oregon’s Statewide Planning Goals. Summarized below, several goals, objectives and policies directly and indirectly pertain to the walking and bicycling environment.

- One of the Plan’s “open space” policies addresses the possibility of using linear public corridors for recreational uses, potentially including trails: *“Multiple use of lands such as adjacent to reservoirs, river beds, land reclamation sites, power line rights-of-ways, flood control areas, public transportation right-of-way, under overpasses, etc., are encouraged as open space providing public health and safety standards are met.”*
- A policy regarding economic development states *“that adequate and convenient vehicle and bicycle access and parking to accommodate customers and employees be provided in commercial areas.”*



- Relevant policies supporting the City's housing goal state *"that the street pattern within the residential neighborhood permits convenient circulation and easy, safe access to neighborhood parks and schools,"* and *"that residential areas be developed in a manner that provides a healthful, aesthetically pleasing atmosphere, and in a manner that affords safe and convenient access to neighborhood commercial centers, schools, and other public facilities."*
- Serving as a support document for the Comprehensive Plan, the La Grande/Island City Transportation System Plan identifies goals relevant to walking and bicycling (described below).

La Grande/Island City Transportation System Plan (1999)

The purposes of the La Grande/Island City Transportation System Plan (TSP) are to comply with Oregon's Transportation Planning Rule, develop standards for the transportation system, address current problem areas, identify future roadway needs required to support predicted growth, and to provide guidelines for future transportation planning. The TSP contains goals designed to fulfill the City's transportation needs over a 20-year timeframe. Transportation goals relevant to walking and bicycling are summarized below:

- Transportation Access and Options
 - Goal 2: "Improve personal mobility and access to transportation services by expanding the variety and availability of travel modes throughout the region."
 - Goal 4: "Provide connectivity between transportation options and to locations outside the study area."
 - Goal 5: "Improve the overall safety and efficiency of transportation system operations by: (1) managing access to and development along state-maintained highway corridors; (2) promoting transportation demand management strategies; and (3) adopting ordinances to ensure safe and convenient connections between travel modes."
- Transportation System
 - Goal 3: "Ensure the integration of adequate bike and pedestrian pathways through the community, particularly to connect schools and activity centers."

La Grande Land Development Code (2006)

La Grande's Land Development Code outlines bicycle and pedestrian facility standards. The Code addresses facilities in the public right-of-way including bicycle lanes, sidewalks and "pedestrian ways"; as well as requirements associated with private development.

The Code prescribes standards regarding street layout and design. To maintain street system connectivity, block lengths must not exceed 500' (except for streets within commercial and industrial subdivisions).¹⁸ Within residential subdivisions, block lengths must not exceed 300'.¹⁹ Grades must not exceed six percent on arterial streets, 10 percent on collectors and 12 percent on local streets.²⁰ Cul-de-sacs are permitted only under certain circumstances. In most cases, pedestrian connections should be

¹⁸ Section 6.2.016.B.

¹⁹ Section 6.2.020.7.a.

²⁰ Section 6.2.008.



provided between the cul-de-sacs and other streets, trails, and schools (if a cul-de-sac is allowed in the first place).²¹

Summarized in the table below, the street design standards also address bicycle/pedestrian facilities within the public right-of-way. Sidewalks and planter strips must be provided on both sides of all public streets, and striped bicycle lanes must be included on Major Collector streets. The Code also states that planter strips must be provided on public streets, though available right-of-way would dictate widths on a case-by-case basis. Street trees must also be provided along all public rights-of-way abutting or within subdivisions and land partitions.

Table A-9. City of La Grande Existing Street Design Standards

Functional Classification	Bicycle Lanes	Sidewalks	Planter Strip
Downtown Arterial ¹	Not required	12 ft minimum	3.5 ft ⁴
Arterial	Optional (5 ft minimum) ²	5 ft minimum	8 ft
Major Collector	5 ft minimum	5 ft minimum	8 ft
Minor Collector	Optional (5 ft minimum) ³	5 ft minimum	8 ft
Local Street	Not required	5 ft minimum	8 ft

Source: La Grande Land Development Code, Section 6.2.004.

¹ This standard applies to Adams Avenue within the downtown core.

² Bicycle lanes should be provided on Arterials unless more desirable parallel facilities are designated and designed to accommodate bicyclists.

³ Bicycle lanes should be provided on Minor Collectors where traffic volumes or other factors warrant. Otherwise, Minor Collectors should be designated and designed as shared roadway facilities with wide outside travel lanes of 14 feet on important bicycle routes.

⁴ Plantings would be specified in the Downtown Design Plan.

The Land Development Code also outlines standards for “pedestrian ways” which provide off-street connections between cul-de-sacs, long blocks, schools, parks and other destinations. Pedestrian ways must be dedicated to the public, and measure at least 10 feet wide.²²

The Land Development Code outlines bicycle parking standards for private development. Parking facilities must either consist of an enclosed locker, a designated area within the ground floor of a building, or a “secure stationary rack which supports the frame so the bicycle cannot easily be pushed or fall to one side.”²³ Bicycle parking spaces must be located in a visible location that is well-lit and secure, and within 50 feet of a building’s main entrance. Required rack dimensions include a length of at least six feet, a width of two feet, and an overhead clearance of seven feet. Facilities may be located within the public right-of-way (subject to approval).

²¹ Section 6.2.009.B

²² Section 6.3.001.

²³ Section 5.007.005.E.1.a.



The following table summarizes bicycle parking requirements in terms of the required number of spaces. The number of required spaces largely depends on the type of development under focus.

Table A-10. City of La Grande Existing Bicycle Parking Requirements

Land Use	Minimum Required # of Spaces
Animal Shelters	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Athletic/Health Club	Minimum of 20% of the required vehicular parking with a minimum of two spaces
Automobile Courts (Motels)	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Banks, business or professional offices including real estate offices, personal service shops, utility computer offices	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Barber shops and beauty parlors	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Bowling Alley	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Churches	No requirements
Colleges, universities, and trade schools	Four spaces per classroom
Day Care Schools	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Elementary or Junior High	Four spaces per classroom
Establishments for the sale and consumption on the premises of food and beverages	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Group Care Homes	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Gymnasiums, lodges, meeting halls, stadiums, sports arenas, theaters, auditoriums, and other public assembly areas	Minimum of 20% of the required vehicular parking with a minimum of two spaces
High Schools	Four spaces per classroom
Hospitals	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Hotels	Minimum of 50% of the required vehicular parking with a minimum of two spaces
Library or Museum	Minimum of 20% of the required vehicular parking with a minimum of two spaces
Manufacturing uses, research and testing laboratories, creameries, bottling establishments, bakeries, printing and engraving or similar use	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Medical or dental clinics and medical professional schools	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Mortuaries and funeral homes	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Motor vehicles or machinery sales and automotive repair shops, wholesale stores	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Multiple dwelling housing for senior citizens over sixty (60) years of age whose income level qualified the occupants to receive HUD rent subsidies	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Nursing and convalescent homes	Minimum of 5% of the required vehicular parking with a minimum of two spaces



Land Use	Minimum Required # of Spaces
Offices not providing customer service on the premises	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Residential Use	One space per unit for multiple family
Rest homes, homes for the aged, or assisted living	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Retail sales lots such as lumber yards, builder supply stores, yards, nurseries, or any other retail use not listed herein and having portions of operations not within a building	Minimum of 5% of the required vehicular parking with a minimum of two spaces
Retail stores having more than 5,000 square feet of floor area	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Retail stores, except as otherwise specified herein, having not more than 5,000 square feet of floor area	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Rooming houses, lodging houses, dormitories, clubs and fraternity houses, bed and breakfasts, residential homes and residential facilities	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Swimming Pool	Minimum of 10% of the required vehicular parking with a minimum of two spaces
Trailer parks and/or mobile home parks	No requirements
Warehouses and Storage Buildings	Minimum of 10% of the required vehicular parking with a minimum of two spaces

Source: La Grande Land Development Code, Section 5.7.009.

Other private development requirements relevant to the bicycling and walking environment address fences, parking lot screening and parking stall “wheelstops”. To prevent parked vehicles from encroaching into a sidewalk, parking stall wheelstops must be placed at least three feet from a private property line, and the area between the property line and wheelstops must be landscaped.²⁴ Parking lots abutting public streets must include a minimum six-foot landscape buffer between the lot and adjacent street right-of-way.²⁵

La Grande Sidewalk Maintenance Program Handbook (2000, updated 2005)

La Grande’s Sidewalk Maintenance Program Handbook describes the goals, policies, and objectives of the City’s Sidewalk Maintenance Program. The program’s overall goal is to identify pedestrian hazards and assist property owners with abatement. Other goals include:

- Protecting the public from injury by identifying and removing sidewalk hazards
- Protecting the public’s investment in the sidewalk network
- Managing the maintenance of sidewalks, curbs and driveways in a way that protects streets, trees and other desirable vegetation wherever possible
- Protecting property owners from possible liability claims due to personal injuries caused by sidewalk hazards
- Protecting the City of La Grande from possible liability

²⁴ Section 5.7.006.C.2.

²⁵ Section 5.7.006.G.2.



La Grande Downtown Design Plan (1999)

The purpose of the Downtown Design Plan is to build upon La Grande's Central Business Zone Master Plan by refining its conceptual elements into specific design recommendations. Key bicycle/pedestrian-related recommendations include the following:

- Curb extensions at all downtown intersections, including where streets meet alleys
- Landscape buffers between sidewalks and parking lots along Adams, Jefferson and Washington avenues
- Pavement texturing at intersections along Washington and Jefferson avenues
- Enhanced pedestrian connections to the railroad depot
- Other pedestrian amenities including street trees, ornamental lighting, informational kiosks, benches and drinking fountains

Other Relevant Plans

Island City Comprehensive Plan (1996)

The Island City Comprehensive Plan contains an overall transportation goal to "provide and encourage a safe, convenient, and economic transportation system." Supporting policies relevant to bicycling and walking include the following:

- New streets will be designed and laid out to provide for the flow of through traffic, with a minimum of dead-end streets and cul-de-sacs.
- The City will work closely with La Grande and Union County to ensure that the design of new roads will provide desired traffic linkages.
- The City will support programs to improve conditions for the transportation disadvantaged.
- Island City will cooperate with other local, State, and Federal agencies to help provide an efficient and economical transportation system.

Eastern Oregon University Master Plan (2002)

Completed in 2002, The EOU Master Plan proposes additional academic buildings, residence halls and athletic fields to accommodate a projected on-campus student population of about 4,200 in 2022. The Plan illustrates a comprehensive internal sidewalk and path network connecting existing and future campus facilities, in addition to an extension of the central walkway roughly following the 8th Street corridor. The Plan also depicts a new north-south street connecting Gekeler Lane with an existing campus access road near the Plant Services Building. This street will presumably include bicycle and pedestrian facilities.





APPENDIX E. RECOMMENDED COMPREHENSIVE PLAN AND LAND DEVELOPMENT CODE CHANGES

Introduction

This appendix provides suggested changes to La Grande's Comprehensive Plan and Land Development Code to support the recommendations of the Pedestrian and Bicycle Improvement Plan.

Text in ~~strikethrough~~ format indicates text recommended for removal. Text in underline form indicates recommended additions.

La Grande Comprehensive Plan

Statewide Planning Goal 2 - Land Use Planning

5. That future urban development does not increase reliance on the automobile.

Statewide Planning Goal 5 - Open Spaces, Scenic and Historic Areas, and Natural Resources

Goals

6. The City should identify and preserve corridors for future shared-use path development, especially corridors linking parks and other recreation destinations.

[re-number goals accordingly]

Statewide Planning Goal 6 - Air, Water, and Land Resources Quality

Policies

4. Improve existing non-motorized transportation facilities and develop new facilities to reduce reliance on the automobile.

[re-number policies accordingly]

Statewide Planning Goal 8 - Recreational Needs

Objectives -

5. Develop a comprehensive network of shared-use paths to serve the transportation and recreational needs of La Grande residents and visitors.

[re-number objectives accordingly]



Statewide Planning Goal 9 - Economic Development

Policies

3. That adequate and convenient vehicle, and bicycle, and pedestrian access and parking to accommodate customers and employees be provided in commercial areas.

Statewide Planning Goal 10 – Housing

Policies

9. That medium density residential areas be located with reference to shopping and other public and private services and be provided with good multi-modal access to centers of employment.

11. That high density residential areas be located in such a manner as to be provided with good multi-modal access to arterial streets, shopping facilities, schools, and major employment centers.

14. That the street pattern within the residential neighborhood permits convenient circulation and easy, safe, multi-modal access to neighborhood parks and schools.

15. That residential areas be developed in a manner that provides a healthful, aesthetically pleasing atmosphere, and in a manner that affords safe and convenient multi-modal access to neighborhood commercial centers, schools, and other public facilities.

Statewide Planning Goal 11 - Public Facilities and Services

V.J.2. Pedestrian System Plan

The Pedestrian System in La Grande and Island City includes: sidewalks, walkways, crosswalks, curb ramps, signals, signing, supporting facilities, shared-use paths and shoulders in rural areas. All local, collector and arterial streets are required to have sidewalks or walkways, as dictated in the current design standards for both cities. In addition, the plan recommends a continuous system that is in good condition that will connect residential areas. The two municipalities wish to comply with this objective since the purpose of the system is to provide safe and direct inter-city access to all areas of the cities, while at the same time encouraging people to walk as an alternate mode of transportation.

The pedestrian system network for La Grande should support and provide access to the downtown retail area. As stated in the 1999 TSP and in the 2007 La Grande Pedestrian and Bicycle Improvement Plan, La Grande is striving to create a pedestrian-friendly civic commercial area in the historic downtown blocks. Please refer to the La Grande Downtown Design Plan for specific project information.

V.J.3. Proposed Pedestrian System Projects

The 2007 Pedestrian and Bicycle Improvement Plan replaces the pedestrian and bicycle element of the 1999 La Grande/Island City TSP. The Pedestrian and Bicycle Improvement Plan contains maps depicting recommended pedestrian projects, and also lists the projects based on short-, mid-, and long-term priorities. The projects identified in the Pedestrian and Bicycle Improvement Plan should replace the projects identified on Figure 7-5 and in Table V.X of this document for the City of La Grande. Because the Pedestrian and Bicycle Improvement Plan does not include Island City, Figure 7-5 and Table V.X may



continue to be used to identify recommended pedestrian projects in Island City.

Figure 7-5 and Table V.X at the end of this section contain complete indexes of the recommended pedestrian projects. The Table lists the specific locations and improvements to be accomplished over the next 20 years in the cities of La Grande and Island City. The projects are divided into categories of short-term (0 - 5 years), mid-term (5 - 10 years) and long-term (10 - 20 years).

As a part of the 2001 construction period, improvements are being made to the La Grande pedestrian system on Cove Avenue and Albany Street. These improvements have been funded with a grant from the Oregon Department of Transportation's Local Street Network Fund. Below in Table V.2 is a list of the short-term projects scheduled for the La Grande and Island City pedestrian systems.

Table V.2 Recommended Short-term Pedestrian Projects

	Street/Road	Beginning	Ending	Side of Road	Planning Period	Estimated Cost
1.	Albany Street	Cove Avenue	Island Avenue	Both	Currently ongoing	\$122,000
2.	Cove Avenue	Portland Street	East La Grande City Limits	South	Currently ongoing	*
3.	Cove Avenue	Portland Street	East La Grande City Limits	North	Currently ongoing	*
4.	East "L" Avenue	Willow Street	Twenty-Fifth Street	Both	2001-2004	\$190,000
5.	"H" Avenue	Sunset Drive	Eighth Street	North	2001-2004	=
6.	Island Avenue	Monroe Avenue	East La Grande City Limits	North	Completed 2001	=
7.	Twelfth Street	Gekeler Lane	"J" Avenue	West	2001-2004	\$219,000
8.	Twenty-Fifth Street	East "L" Avenue	Cove Avenue	Both	2001-2004	\$105,000
					TOTAL	\$636,000

* Included as part of roadway project cost estimate. (1999 TSP)

Source: City of La Grande, May 2001; 1999 La Grande/Island City TSP

V.J.4. Bike System Plan

As reported in the 1999 TSP and the 2007 La Grande Pedestrian and Bicycle Improvement Plan, the La Grande/Island City Bicycle System Plan includes: bikebicycle lanes, shared-use paths, shouldersshoulder bikeways on rural roads, shared roadways on low-traffic streets, signals, signing, pavement markings and parking facilities. When properly configured into most arterial and collector streets, the bicycle system would provide safe and direct access to all parts of the City, while at the same time encouraging people to consider alternatives to automobiles. The recommended bikeway improvements should be added when a new street is built or when improvements are being made to existing streets. The 1999 TSP and the 2007 La Grande Pedestrian and Bicycle Improvement Plan recommends that on arterials and collectors that are not scheduled to be improved as part of the street system plan, bikebicycle lanes should be constructed on these streets when the traffic volume exceeds 3,000 vehicles per day. In addition, the marking of bicycle lanes on streets with direct access to schools should be considered a high priority.

The selected bicycle projects for La Grande and Island City are based on corridors between likely destinations and frequently traveled areas. The planBoth the TSP and the Pedestrian and Bicycle



Improvement Plan also took into consideration the need for better bicycle facilities and access routes to nearby Eastern Oregon University. The City has been working closely with the University to identify projects that will enhance bicycle circulation in the area. Consideration was also given to bicycle routes that will link the University to the commercial and residential areas of La Grande.

V.J.5. Proposed Bicycle System Projects

The 2007 Pedestrian and Bicycle Improvement Plan replaces the pedestrian and bicycle element of the 1999 La Grande/Island City TSP. The Pedestrian and Bicycle Improvement Plan contains maps depicting recommended bicycle projects, and also lists the projects based on short-, mid-, and long-term priorities. The projects identified in the Pedestrian and Bicycle Improvement Plan should replace the projects identified on Figure 7-6 and in Table V.X of this document for the City of La Grande. Because the Pedestrian and Bicycle Improvement Plan does not include Island City, Figure 7-6 and Table V.X may continue to be used to identify recommended bicycle projects in Island City.

The recommended bicycle projects for both La Grande and Island City are catalogued in Figure 7-6 and Table V.X at the end of this section, and will most likely occur while improvements are being made to the identified streets. However during the short-term planning period, the majority of improvements projects will involve the installation of signs. For further information on the options recommended for the cities bike system, please refer to Chapter 7, Volume II, of the 1999 La Grande/Island City TSP. Below in Table V.3 the ongoing, short-term bicycle system improvements for the City of La Grande are listed.

Table V.3 Recommended Short-term Bicycle System Improvement Projects for the City of La Grande

Street/Road	Beginning	Ending	Facility	Side of Road	Planning Period	Cost Estimate
Cove Avenue	Pine Street	East La Grande City Limits	5-ft lanes	Both	Short-term; ongoing	\$99,000
					TOTAL	\$99,000

Source: City of La Grande, May 2001; 1999 La Grande/Island City TSP

Table V.4 Summary of Estimated Transportation Improvement Costs for the City of La Grande

Funding Priority	Improvement Type	Total Estimated Cost (1998 dollars)
Short-term (0-5 years)	Roadway and Intersection	\$3,691,000
Mid-term (5-10 years)	Roadway and Intersection	\$6,522,000
Long-term (10-20 years)	Roadway and Intersection	\$1,390,000
"As development occurs"	Roadway and Intersection	\$3,695,000
Varied	Pedestrian	\$3,542,000
Varied	Bicycle	\$298,000
	Total	\$19,138,000

Source: City of La Grande, May 2001; 1999 La Grande/Island City TSP

Note: These estimates should be refined upon adoption of the 2007 La Grande Pedestrian and Bicycle Improvement Plan.

For more information on the City of La Grande's transportation system and short term projects' location, please refer to Appendix Exhibits A-8, Recommended Roadway and Intersection Projects (Table 3); A-9,



Recommended Pedestrian System Improvements (Table 4); A-10, Recommended Bicycle System Improvements (Table 5); A-11, Recommended Roadway Plan (Figure 7-4); A-12, Recommended Pedestrian Plan (Figure 7-5); and A-13, Recommended Bicycle Plan (Figure 7-6). The La Grande Pedestrian and Bicycle Improvement Plan includes an updated project list and maps of recommended pedestrian and bicycle projects in La Grande.

Statewide Planning Goal 12 – Transportation

The City has adopted a Transportation Plan for the UGB which shall be considered a support document to the Comprehensive Land Use Plan. All major transportation needs are discussed within the Transportation Plan. Please refer to Volume I of the adopted La Grande/Island City Transportation System Plan. The City has also adopted a Pedestrian and Bicycle Improvement Plan, which replaces the pedestrian and bicycle element of the TSP.

The goals, policies and implementation measures set forth in the La Grande Pedestrian and Bicycle Improvement Plan are as follows:

Goal

To promote non-motorized travel and provide a safe, interconnected system of pedestrian and bicycle facilities in La Grande.

Policies

The City of La Grande shall:

1. Continue to improve, expand and maintain pedestrian and bicycle facilities, as needed throughout the community.
2. Ensure that pedestrian and bicycle networks provide direct connections between major activity centers (e.g., downtown La Grande, EOU, area schools), and minimize conflicts with other transportation modes.
3. Regard facilities for pedestrians and bicyclists as important parts of the overall transportation system and not just recreational facilities.
4. Increase the bicycle share mode throughout the City and improve bicycle access to the City's transportation system.

Implementation Measures

1. Determine the actual location, design, and routing of pedestrian and bicycle facilities with user safety, convenience, and security as primary considerations.
2. Schedule and coordinate all pedestrian and bicycle improvements with the City's on-going Capital Improvement Program.



3. Establish pedestrian and bicycle construction standards to be incorporated into the City's Public Works Standards.
4. Require bicycle lanes on all new or reconstructed arterial and major collector streets, and identify opportunities to provide bicycle lanes on minor collectors and other streets as necessary.
5. Require sidewalks on both sides of all streets with appropriate buffering (e.g. planter strips), and with emphasis on safety, accessibility, and functionality, unless other facilities can provide the same services.
6. Establish a Sidewalk Infill Program to identify sidewalk gaps, and develop strategies, project prioritization criteria and funding for completing these gaps.
7. Develop a comprehensive network of shared-use paths to serve the transportation and recreational needs of residents and visitors.
8. Retrofit existing pedestrian and bicycle facilities to current standards (where possible) to promote safety, connectivity, and consistency, as funds become available.
9. Require that all walkways and bikeways be constructed in a manner that addresses environmental conditions, such as natural, cultural, and historical features.
10. Discourage the use of cul-de-sac street designs without pedestrian and bicycle connectivity when feasible alternatives exist to establish a system of connecting local streets.
11. Require pedestrian and bicycle connections within and between developments to provide convenience and safety for pedestrians and bicyclists.
12. Revise appropriate Land Development Code sections (where necessary) to require pedestrian connections between building entrances, streets, and adjoining buildings.
13. Require development of secondary walkways and bikeways internal to individual developments, consistent with the Transportation Planning Rule.
14. Develop an ADA Transition Plan to identify strategies and priorities for improving the City's current infrastructure to accommodate persons with disabilities.
15. Establish a routine maintenance schedule for pedestrian and bicycle facilities, including bikeway sweeping and cracked sidewalk repair.
16. Develop and fund a Spot Improvement Program to respond quickly to location-specific bicycle/pedestrian infrastructure improvement needs.



17. Coordinate with the La Grande School District to develop a Safe Routes to School Program to promote walking and bicycling as a viable travel mode to school.

18. Develop a safe, secure and convenient network of short- and long-term public bicycle parking facilities, and enforce Land Development Code bicycle parking requirements for private development.

19. Develop seamless pedestrian/bicycle connections to the Community Transit system through improved transit stop amenities.

20. Develop education programs to increase the awareness of pedestrian and bicyclist needs and rights.

21. Develop encouragement programs to promote walking and bicycling as convenient, healthy, safe and viable transportation modes.

22. Develop enforcement programs to ensure pedestrians, cyclists and motorists obey traffic laws.

Statewide Planning Goal 13 - Energy Conservation

Policies

5. Develop a comprehensive bicycle network, including bicycle lanes, shared roadways and shared-use paths.

La Grande Land Development Code

Chapter 1 – Enactment and Purpose

Section 1.2.002 – Definitions Included by Reference

ALLEY - A public or private right-of-way permanently reserved as a means of secondary vehicular motorized or non-motorized access to the side or rear of properties abutting a street or highway.

AMERICANS WITH DISABILITIES ACT – Federal law prohibiting discrimination against people with disabilities. Requires public entities and public accommodations to provide accessible accommodations for people with disabilities.

AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES – Provides scoping and technical specifications for new construction and alterations undertaken by entities covered by the ADA.

BICYCLE – A vehicle having two tandem wheels, a minimum 14 inches (35 centimeters) in diameter, propelled solely by human power, upon which any person or persons may ride.

BICYCLE LANE – A portion of a roadway which has been designated by striping and pavement markings for the preferential or exclusive use of bicyclists.



BIKEWAY – A bikeway is created when a road has the appropriate design treatment for bicyclists, based on motor vehicle traffic volumes and speeds: shared roadway, shoulder bikeway, bicycle lane or bicycle boulevard. Another type of facility is separated from the roadway: shared-use path.

CROSSWALK – Portion of a roadway designated for pedestrian crossing, marked or unmarked. Unmarked crosswalks are the natural extension of the shoulder, curb line or sidewalk.

CROSS SLOPE – The slope measured perpendicular to the direction of travel.

CURB EXTENSION – A section of sidewalk extending into the roadway at an intersection or mid-block crossing that reduces the crossing width for pedestrians and may help reduce traffic speeds.

CURB RAMP – A combined ramp and landing to accomplish a change in level at a curb. This element provides street and sidewalk access to pedestrians using wheelchairs.

DETECTABLE WARNING – Standardized surface feature built in, or applied to, walking surfaces or other elements to warn pedestrians with vision impairments of hazards on a sidewalk and or landing platform, such as a curb line or drop-off.

DIAGONAL CURB RAMP – Curb ramp positioned at the apex of the curb radius at an intersection, bisecting the corner angle.

DRIVEWAY - An access to required off-street parking from a public street or alley. An access route for vehicular traffic extending from the roadway to a property line across a sidewalk, whether or not such a sidewalk is improved, for the purpose of providing access to parking or maneuvering space on abutting property.

DRIVEWAY CROSSING – Extension of a sidewalk across a driveway that meets the requirements of the Americans with Disabilities Act Accessibility Guidelines.

HEARING IMPAIREMENT – Condition of partial or total deafness.

LATERAL CLEARANCE – The width required for safe passage as measured in a horizontal plane.

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES – Approved by the Federal Highway Administration as a national standard for the placement and selection of all traffic control devices on or adjacent to all highways open to public travel.

MID-BLOCK CROSSING – A crossing point positioned within a block rather than at an intersection.

PEDESTRIAN – A person afoot; a person operating a pushcart; a person riding on, or pulling a coaster wagon, sled, scooter, tricycle, bicycle with wheels less than 14 inches in diameter, or a similar conveyance; or on roller skates, skateboard, wheelchair, or a baby in a carriage.



PERPENDICULAR CURB RAMP - Curb ramp design where the ramp path is perpendicular to the edge of the curb.

PLANTER STRIP – A landscaped area between a sidewalk and curb.

SHARED ROADWAY – A type of bikeway where bicyclists and motor vehicles share a travel lane.

SHARED-USE PATH – A bikeway physically separated from motorized vehicle traffic by an open space or barrier and either within the highway right-of-way or within an independent right-of-way. Shared-use paths may also be used by pedestrians, skaters, wheelchair users, joggers, and other non-motorized users.

SHOULDER BIKEWAY – A type of bikeway where bicyclists travel on a paved shoulder.

SHY DISTANCE – The distance between the edge of a travelway and a fixed object.

SIDEWALK - A pedestrian walkway with a permanent surface. A walkway constructed of a durable, hard and smooth surface, designed for preferential or exclusive use by pedestrians.

VERTICAL CLEARANCE – The height required for safe passage as measured in a vertical plane.

VISION IMPAIREMENT – Loss or partial loss of vision.

WALKWAY – A transportation facility built for use by pedestrians, including persons in wheelchairs. Walkways include sidewalks, paths and shoulders.

Chapter 2 – Land Use Zones

Section 2.2.013 – Public Facilities (PF)

B.6. Essential Services – Streets, Roads, Sidewalks, Alleys, Public Right-Of-Ways, Pipelines, Powerlines, Distribution Feeders and Poles.

Chapter 3 – Special Use Standards

Section 3.17.006 – Conceptual Plan Approval Criteria

D. The proposed Specific Plan is consistent with the La Grande Comprehensive Plan, and the La Grande/Island City Transportation System Plan, and the La Grande Pedestrian and Bicycle Improvement Plan.

Section 3.17.007 – Development Plan Content

A.6. A statement describing how the proposed Specific Plan is consistent with the provisions of the La Grande Comprehensive Plan, and the La Grande/Island City Transportation System Plan, and the La Grande Pedestrian and Bicycle Improvement Plan.



Section 3.19.006 – Permitted Activities within Wetland Protection Areas

B.10. Development of new roads, ~~and streets, and shared-use paths~~ including the installation of bridges and culverts where a State or Federal permit either has been obtained or is not required.

Chapter 4 – Subdivisions, Partitions and Lot Line Adjustment

Section 4.3.002 – Review Criteria

B. The circulation plan, which includes street, bicycle and pedestrian facilities for the proposed subdivision will permit its development in accordance with this Code, ~~and the La Grande/Island City Transportation System Plan, and the La Grande Pedestrian and Bicycle Improvement Plan..~~

Chapter 5 – Special Site Standards

Section 5.5.002 – Required and Permitted Fences, Hedges and Walls

I. Right-of-Way Encroachment – Fences may encroach on a public right-of-way only by agreement with the City in accordance with applicable City Ordinances. The City reserves the right to require such fences to be removed should the need to use the public right-of-way arise.

Section 5.7.005 – Parking Design Standards

B.3. Vehicle parking areas for four (4) or more vehicles are to be designed to prevent cars from backing out into a public street, public or private ~~pedestrian walk~~walkway, or public alley, in order to leave the area or to maneuver out of the parking space. Parking lots are to be designed and improved so as to prevent ingress and egress at any point other than designated entrance or exit drives.

B.6. The City Engineer may require joint or shared-use of a driveway by two properties in separate ownership. The City Engineer may recommend such conditions regarding the number and use of driveways necessary to ensure the safe and orderly flow of traffic, preserve on-street parking, and reduce pedestrian conflicts.

E.1.g. If ten (10) or more bicycle spaces are required for commercial development, then at least ~~twenty~~fifty percent (20%50%) of the bicycle spaces must be covered. A lockable enclosure shall be considered as a covered parking space. Covering should extend two feet beyond the parking area.

E.2.c. Bicycle parking may be located in the public right-of-way with the approval of the Public Works Director. Sufficient passageway for pedestrians (six feet) must be preserved.

Section 5.7.009 – Table of Off-Site Parking Requirements

USE TYPE	PARKING SPACE REQUIRED
Churches:	Vehicle – Based on total occupant load of the chapel; one (1) space for every three (3) people when occupancy is 0-300; one (1) space for every four (4) people when occupancy is 301-1,000; and one (1) space for every seven (7) people when occupancy is over 1,000, computed cumulatively, i.e. 320 occupant load would be calculated as follows: 300 @ 1:3 = 100, plus 20 @ 1:4 = 5; for a total of 105 spaces. <u>Bicycle – Minimum of 10% of the required vehicle parking, with a minimum of two spaces</u>



Chapter 6 – Public Facilities Standards

Section 6.1.002 – Application

B.3. Projects specifically identified in the La Grande/Island City Transportation System Plan and the La Grande Pedestrian and Bicycle Improvement Plan as not requiring further land use regulation.

B.5. Acquisition of right-of-way for public roads, highways, and other transportation improvements designated in the La Grande/Island City Transportation System Plan and the La Grande Pedestrian and Bicycle Improvement Plan except for those that are located in exclusive farm use or forest zones.

C.3. Landscaping as part of a transportation facility, e.g. landscaping medians or planter strips between sidewalks and curbs.

D. Construction, reconstruction, or widening of highways, roads, bridges or other transportation projects that are not improvements designated in the La Grande/ Island City Transportation System Plan, the La Grande Pedestrian and Bicycle Improvement Plan, or not designed and constructed as part of a Subdivision or Planned Unit Development subject to Site Plan and/or Conditional Use Permit review, shall require an amendment to the La Grande/ Island City Transportation System Plan and applicable standards. Amendments to the La Grande/Island City Transportation System Plan shall be reviewed according to the Comprehensive Plan Document Amendment provisions in Article 8.9 and in coordination with Island City, Union County, and the Oregon Department of Transportation.

Section 6.2.020 – Access Management Guidelines

C.2.a. Adjacent commercial or office properties classified as major traffic generators (i.e. shopping plazas, office parks), shall provide a cross access drive and bicycle/pedestrian access to allow circulation between sites.

Article 6.3 – Street Trees, Sidewalks, Curbs, and Sidewalks

Section 6.3.001 – Pedestrian Ways

When necessary for public convenience and safety, pedestrian ways ten feet (10') in width to permit access to cul-de-sacs, to pass through oddly shaped or unusually long blocks, or to provide access to schools, parks, recreation, or other public or private areas, may be required. Pedestrian ways shall be of such design and location as reasonably required to facilitate convenient and direct pedestrian travel, and shall be dedicated to the public.

Section 6.3.003 – Requirements for Sidewalks and Street Trees

A. Residential Development.

Sidewalks and planter strips shall be required for all new development on both sides of the street and shall be constructed in accordance with the City of La Grande Standards, Specifications and Guidelines Manual, adopted August 18, 1999, as it may be revised. Street trees shall be required for all new development according to spacing and locations as approved by the Community Development Director/Planner. Sidewalks and street trees shall be required for additions or series of additions to any residential structure valued in excess of thirty percent (30%) of the most recent assessed value of the



structure. Sidewalks and street trees shall be required for reconstruction of a residential casualty loss in excess of one hundred thirty percent (130%) of the most recent assessed value of the structure. If sidewalks do not exist adjacent to or within three hundred feet (300') of the subject property (measured along the same side of the street), an irrevocable consent to participate in a future Local Improvement District may be substituted for immediate improvements.

B. Commercial and Civic Development.

Sidewalks and planter strips are required for all new commercial and civic development on both sides of the street. The sidewalks shall be constructed to conform to the width of other sidewalks in the general area, and in accordance with the City of La Grande Standards, Specifications and Guidelines Manual, adopted August 18, 1999, as it may be revised. Street trees are required for all new commercial development according to spacing and locations as approved by the Community Development Director/Planner. Sidewalks and street trees shall be required for additions or series of additions to any commercial or civic structure valued in excess of thirty percent (30%) of the most recent assessed value of the structure. Sidewalks and street trees shall also be required for reconstruction of a commercial or civic casualty loss in excess of one hundred fifteen percent (115%) of the most recent assessed value of the structure. If sidewalks do not exist adjacent to or within three hundred feet (300') of the subject property (measured along the same side of the street), an irrevocable consent to participate in a future Local Improvement District may be substituted for immediate improvements.

C. Industrial Development.

Sidewalks and planter strips are required for all new industrial development on both sides of the street. Sidewalks shall be not less than five feet wide and constructed in accordance with the City of La Grande Standards, Specifications and Guidelines Manual, adopted August 18, 1999, as it may be revised. Street trees are required for all new industrial development according to spacing and locations as approved by the Community Development Director/Planner. Sidewalks and street trees shall be required for additions or series of additions to any industrial structure valued in excess of thirty percent (30%) of the most recent assessed value of the structure. Street trees and sidewalks shall also be required for reconstruction of an industrial casualty loss in excess of one hundred and fifteen percent (115%) of the most recent assessed value of the structure. If sidewalks do not exist adjacent to or within 300 feet of the subject property (measured along the same side of the street), an irrevocable consent to participate in a future Local Improvement District may be substituted for immediate improvements.

