



GROWTH
MANAGEMENT

Executive Summary Strategic Implementation Plan for Pedestrian and Bike Infrastructure

This is a summary of the Strategic Implementation Plan for Pedestrian and Biking Infrastructure as well as the public process that was followed in development of this plan. The strategy summarized here achieves a unified pedestrian and biking transportation system through the incremental but systematic deployment of safe and accessible facilities and places high importance on the use of state of the art design techniques to increase user comfort and perception of safety in order to support and encourage increased levels of walking and biking in targeted areas of the community. The approach provides a priority assessment for capital projects and uses multiple deployment mechanisms including the use of alternative funding sources and maximizing implementation during maintenance activities.

Public Outreach

A citizens' advisory committee was created to guide the development of this implementation plan. Named the Bicycling and Walking Improvement Priorities (BWIP) Committee, members represented appointed committees of both the Deschutes County Commission and the Bend City Council, as well as bicycling and accessibility advocacy groups in the community. The committee met frequently throughout 2013 and 2014. The group completed a chartering process to document their goals, objectives and roles in the development of the strategic implementation plan. The committee hosted a forum open to the public to begin creating the strategy and then presented draft and final strategies to the following committees:

- City of Bend Accessibility Advisory Committee
- Central Oregon Coalition for Access
- Deschutes County Bike and Pedestrian Advisory Committee
- Bend Metropolitan Planning Organization Citizens Advisory Committee
- Bend Metropolitan Planning Organization Policy Board
- Neighborhood Association Roundtable
- City of Bend Traffic Safety Advisory Committee
- City of Bend Planning Commission.

Strategic Implementation Plans

Biking Facilities

The recommended bicycling system deployment strategy includes the following delivery techniques:

- Focus on central core where densities and land use intensity are greatest (Century Drive to Purcell; Butler Market to Reed Market);
- Capitalize on private development provided infrastructure;
- Capitalize on maintenance projects (e.g. overlays);
- Provide the next level of bike facility (not just a bike lane) (e.g. buffered, cycle track, separated, bike box, etc.) to serve the broadest range of community members; and
- Create complete street to accommodate multimodal trips along & across the street.

A new system element, Bike Boulevards, has been incorporated to broaden the reach of the existing bike lane system. Whereas bike lanes are provided on arterial and collector roadways which carry heavier traffic loads and freight traffic, Bike Boulevards are located on local streets to provide a less stressful and more

comfortable route for a broader range of community members. Bike Boulevards are important to achieve increased mode split and safety.

Next Steps for implementing the City of Bend's Bicycle Facilities:

1. Develop and issue design RFP which will provide concept designs for the projects identified in Table 1.
2. Create a revolving fund and budget system that creates concept plans, provides project designs and constructs projects.
3. Identify funding for on-going bicycle system maintenance.

The MPO Policy Board has provided a separate budgetary line item within Bend's Surface Transportation Program funding for bike facility maintenance which would include on-going sign and pavement marking maintenance.

Pedestrian Facilities

The recommended deployment strategy for pedestrian facilities includes three delivery techniques:

- Focus on Pedestrian Zones: Complete Neighborhoods that already have many of the elements that make them attractive to pedestrians;
- Continue to require Complete Streets: streets serving all modes, all abilities, along and across the street;
- Provide less stressful and more comfortable, safe & secure pedestrian facilities (not only technically ADA compliant but also attractive, safe and inviting by including street crossings, buffered sidewalks, street trees, illumination, etc.).

Next Steps for the Pedestrian System Deployment

1. Develop and issue design RFP which will provide concept designs for many of the projects identified in this deployment strategy.
2. Create a revolving funding and budgeting system that creates concept plans, designs projects, and constructs projects.
3. Develop a program and identify funding for on-going pedestrian system maintenance.

Table 1 Project List

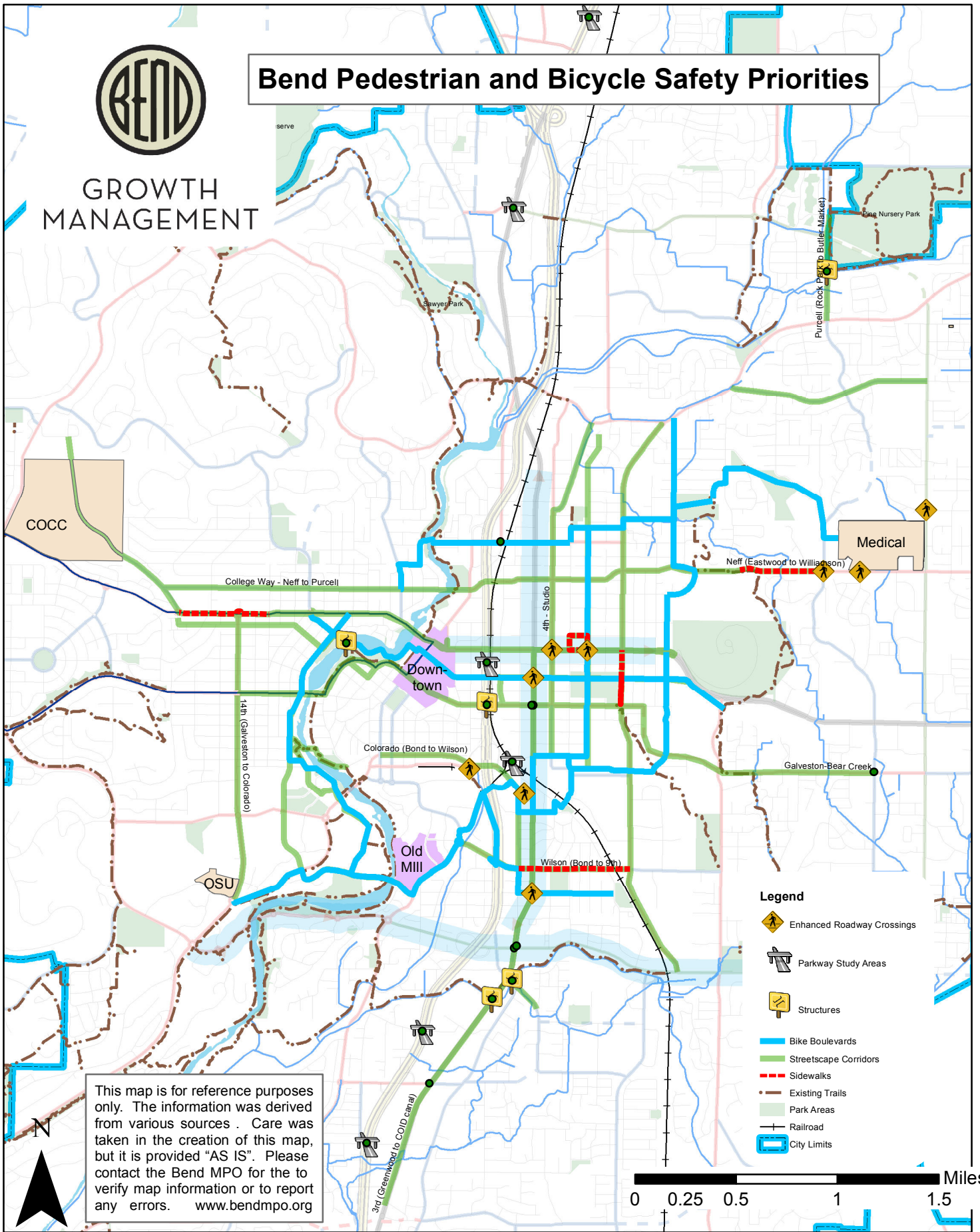
2014 Pedestrian and Bicycle Safety Project Priorities		
Prioritized System Element	Location	Project Description & Class 5* Cost Estimate
 <p>Structures</p>	Drake Park Footbridge 3 rd Street canal (south of Brosterhaus) Brosterhaus canal (east of 3 rd) Purcell Blvd canal (north of Empire) Franklin Undercrossing of RR & Parkway	Add or enhance pedestrian and biking facilities at these locations. \$2 to \$10 million (estimate includes Corridor Study below)
 <p>Corridor Study</p>	Parkway over/under crossings (corridor concept)	US97 Study for safety crossings with ODOT, city of Bend and Bend MPO to determine mitigation to congestion and strategies for multimodal comfort/performance & connectivity
 <p>Sidewalks</p>	Bend Community Center (perimeter streets 5 th , 6 th , Greenwood, Kearney) CIP Sidewalks: Newport, 8 th , Wilson, Neff/Purcell.	Add sidewalks. \$3 to \$5 million
 <p>Streetscape Corridors</p>	College Way-Portland-Olney-Neff (COCC to St. Charles) Newport-Greenwood (College Way to NE 12 th Street) Galveston-Riverside-Franklin-Bear Creek (14 th to Purcell) Colorado-2 nd Street (Bond to Wilson) Wilson (Bond to 9 th) 14 th (Colorado to Newport) 3 rd Street (Greenwood to COID canal) 4 th /Studio (Alden to Butler Market) 8 th -9 th (Reed Market to Butler Market)	Prioritized for both pedestrian and biking upgrade-create integrated streetscape projects (e.g. landscaping, illumination, enhanced roadway crossing & bike lanes, missing sidewalk). \$10 - \$15 million
<p>Overlays (not mapped)</p>	<p>Up to 8 overlays</p>	Take advantage of 'clean slate' afforded with fresh pavement surface to facilitate complete biking corridors (e.g. enhanced connectivity, use of state of the art bike lanes such as buffered bike lanes, green conflict zones, bike boxes, and protected bike lanes). \$1 to \$2 million
<p>Stormwater Grate Inlet Elevation Changes (not mapped)</p>	Wilson Avenue Bond Street 8 th /9 th Street Franklin Avenue 3 additional corridors	Smooth pavement transitions for stormwater grate inlets located in bike lanes. \$50,000 to \$100,000 per year
<p>Trip Facilities (not mapped)</p>	Way Finding Signage	Add way finding signage along key routes to provide travel times and directions to community destinations \$500,000 implementation and \$25,000 per year
 <p>Bike Boulevards</p>	COCC to St. Charles Hosp (4 mi) via 1 st Street Rapids COCC to Larkspur Trail (3.2 mi) via Hawthorne OSU-OMD-Coyner Trail via Aune (4 miles) Juniper Swim-Bend High-Marshall High via 6 th St (2.3 miles) Harmon-Columbia route (2 miles) Kenwood to OMD 12 th Street (2 miles) Bend High to Butler Mkt	Deploy 6 initial neighborhood bikeways on local streets and providing enhanced crossings of busy streets. \$2 to \$3 million
<p>Downtown</p>	Bike Parking Pedestrian Facility Enhancements Bike Facility Enhancements	Add group bike parking downtown to optimize safety of all users. Upgrade traffic signal equipment and phasing/timing to enhance safety of all users. Add pedestrian safety features such as enhanced crossings, curb extensions, illumination. Add bikeway facilities throughout downtown. \$2 to \$3 million
 <p>Enhanced Roadway Crossings</p>	3 rd at Hawthorne 3 rd at Roosevelt Greenwood at 6 th Greenwood at 4 th Neff at Williamson Neff at Purcell 27 th at Conners	Enhanced crossings include median refuge, high visibility signing and pavement marking and can include activated flashing lights. \$1 to \$5 million

*Class 5: Conceptual, predesign or preliminary estimate with accuracy range of -50% - +100%



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Bend Pedestrian and Bicycle Safety Priorities



Legend

- Enhanced Roadway Crossings
- Parkway Study Areas
- Structures
- Bike Boulevards
- Streetscape Corridors
- Sidewalks
- Existing Trails
- Park Areas
- Railroad
- City Limits

This map is for reference purposes only. The information was derived from various sources. Care was taken in the creation of this map, but it is provided "AS IS". Please contact the Bend MPO for the to verify map information or to report any errors. www.bendmpo.org



Planning Projects Synthesis

There are several large planning projects which have been initiated, but are not yet completed.

- Urban Growth Boundary Remand (UGB) Project
- Central Westside Plan
- Bend Central District Multimodal Mixed Use Area (BCD MMA) Plan
- OSU Cascades Master Planning (future)

Each of these planning efforts will have their own set of construction projects and priorities identified. It is anticipated that there will be some overlap of projects, as well as new projects. Once these projects are completed, there will need to be an integration and synthesis of these project lists and priorities. It is anticipated that this will be performed as part of the city's 5-Year CIP Update.

Standards and Specifications

Staff shall pursue amendments to the city's standards and specifications that enable incorporation of the elements of the Toolbox into new construction or reconstruction of older facilities. A link to the Toolbox can be found here:

<http://bendoregon.gov/modules/showdocument.aspx?documentid=17952> or you can review bendoregon.gov/growth under Transportation Planning Program with the Multimodal Safety Program for more information.

Figure 1 - Toolbox example improvements

