



6. Key Challenges and Opportunities

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Introduction

Through the public process and technical approach for this Plan, the following key issues emerged:

- Crossing I-5
- Crossing the Willamette River
- Improving Bicycle/Pedestrian Conditions in Town Center
- Pedestrian/Bicyclist Access to Transit
- Regional Connectivity
- Crossing Wilsonville Road

Each issue was consistently identified as a gap or barrier in the bicycle and pedestrian system, preventing residents, employees, and visitors from fully taking advantage of biking and walking around Wilsonville. Below, these issues and their potential solutions are explained.

In examining these six issues, evaluation criteria identified by the members of the ACMP (see discussion on page 82) was applied where possible to arrive at a recommended alternative when multiple options existed. The criteria include: connectivity (25 points), user generator (25 points), land uses (15 points), regional benefits (10 points), and ease of implementation (10 points). Arriving at a recommended alternative was not possible for some of the issues.

Crossing I-5

The presence of I-5 running through Wilsonville creates unique challenges for all users of the roadway system in getting through and around Wilsonville. Just as drivers must select the best route to cross I-5 to reach



Elligsen Road overpass

the west or east side of Wilsonville, so do pedestrians and bicyclists. These crossings—Elligsen Road, Boeckman Road, Wilsonville Road, and Miley Road, are

difficult for bicyclists and pedestrians to use due to traffic volumes, traffic speeds, roadway width, maintenance issues, and lack of appropriate facilities. In addition to the three street crossings, one non-motorized crossing, the Memorial Park/Boones Ferry Park Trail, primarily serves recreational users within the city. Map 9 on page 90 shows the I-5 crossing locations.

Elligsen Road

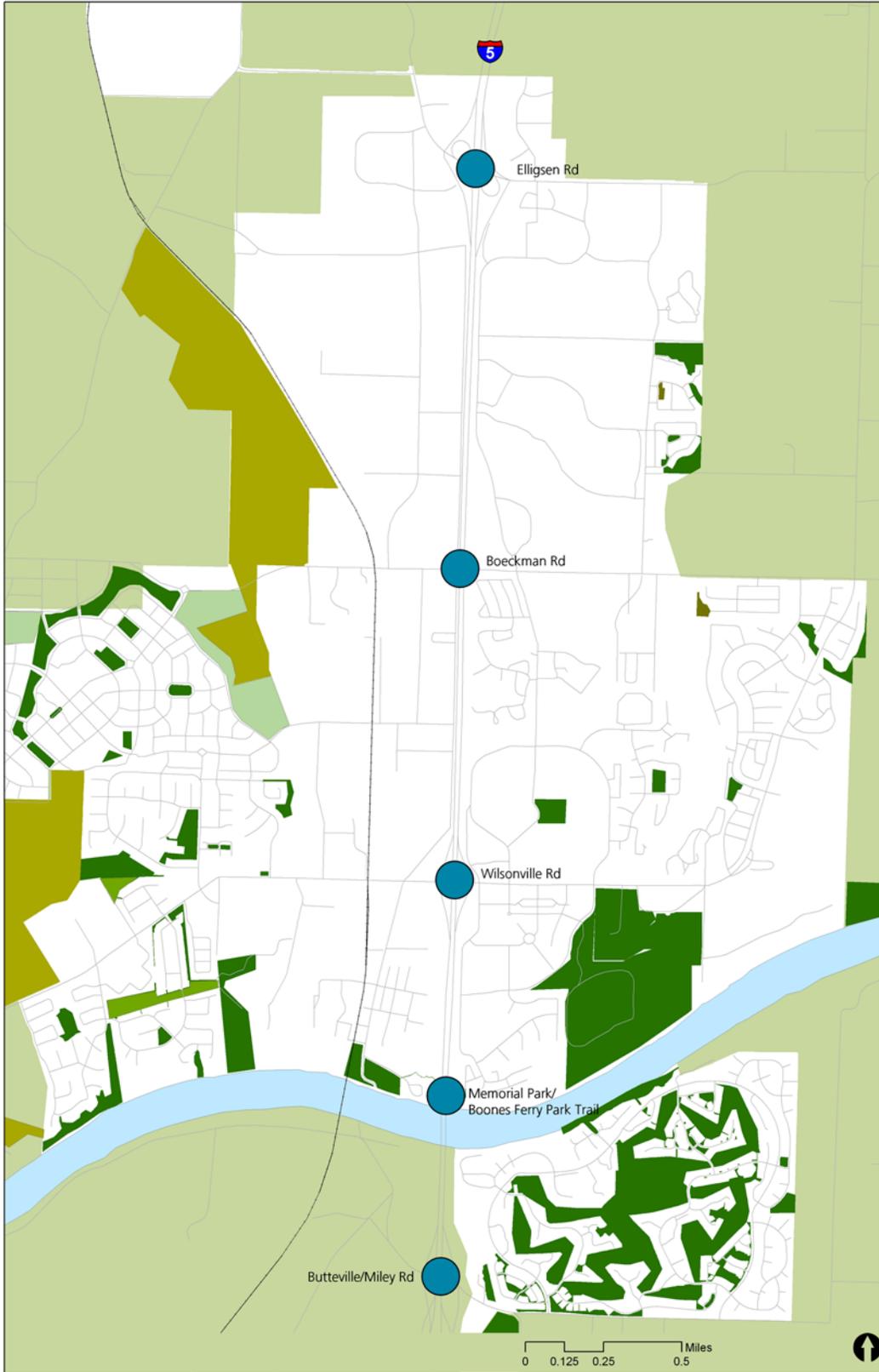
Existing Conditions

Elligsen Road is the northernmost I-5 crossing, and is one of three freeway interchanges in Wilsonville controlled by ODOT. Elligsen Road provides access to Wilsonville to those visitors and residents coming from Sherwood, Tualatin, and Portland. Residents, employees, and visitors to Argyle Square, the Xerox campus, and Mentor Graphics commonly use Elligsen Road to reach their destinations. However, Elligsen Road east of Parkway Center Drive needs pedestrian and bicycle improvements.



Bike lane leading to stop sign and out-of-direction travel

Elligsen Road is a five-lane overpass of I-5 with a posted speed limit of 35 mph. A five-foot wide sidewalk on the south side of the overpass accommodates pedestrians; no sidewalk is provided on the north side. Six-foot wide bicycle lanes are provided on both the north and south sides. The bicycle lane suffers from poor maintenance (see photo above), which is a deterrent to bicycle use. There are multiple conflict points for bicyclists and pedestrians traveling in both directions.



Map 9. I-5 Crossing Locations

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Bicycle counts taken at the Boones Ferry Road²/I-5 Southbound ramp between 4:15 and 5:15 pm on September 14, 2004 counted a total of 14 bicyclists, eight heading in the eastbound direction, one southbound, and five westbound. Counts taken at the Boones Ferry Road/I-5 Northbound ramp on the same day between 4:45 and 5:45 pm counted a total of 14 bicyclists, three heading eastbound and 11 heading westbound.

Recommendations

- Coordinate with ODOT to ensure bike lane maintenance to be conducted at regular intervals to provide clean, debris-free bike lanes for users. May require memorandum of understanding (MOU) or intergovernmental agreement (IGA).
- Initiate an "Adopt-a-Trail" program.
- Work with ODOT to re-evaluate the geometry of the bike lane and on-/off-ramp interactions to

2. West of I-5, the Elligsen alignment is named Boones Ferry Road.

improve safety. This might be accomplished by straightening the bicycle lane at the northwest and southeast ramps, so that bicyclists are directed to continue traveling straight and vehicles turning right are required to yield to the through bicycle movement. (Figure 4) Striping a "blue bicycle lane"³ through all of the potential conflict areas should also be evaluated to highlight those areas where both bicyclists and drivers need to have a heightened awareness of all road users. In addition, opportunities to improve signage along the roadway to indicate to motorists that bicyclists will be on the roadway and to expect bicyclists to make through movements across the travel lane should be reviewed.

3. A "blue bicycle lane" is not an official standard in Oregon at this time. "Blue" bicycle lanes continue to be successfully used in the City of Portland. For further information, please see "Portland's Blue Bike Lanes: Improved Safety Through Enhanced Visibility."



Figure 4. Crossing I-5 at Elligsen Road

Boeckman Road

Existing Conditions

Boeckman Road connects neighborhoods, Xerox, Mentor Graphics, and other large employers with west Wilsonville. The posted speed limit along Boeckman Road is 40 mph; however,



Boeckman Road looking west on I-5

it drops to 25 mph at the dip and resumes at 40 mph on the other side. Boeckman Road will be an important connection to Villebois, the Wilsonville Business Parks, and the future Commuter Rail Station.

Boeckman Road is a two-lane overpass with 20-foot-wide travel lanes that narrow back down to 12-foot-wide travel lanes with narrow shoulders on either side of the overpass. There are currently no dedicated bicycle or pedestrian facilities across the bridge. In addition, Boeckman Road has inadequate bicycle and pedestrian facilities leading up to the bridge. This is particularly noticeable where Boeckman Road crosses Boeckman Creek. At this location, Boeckman Road is a narrow, two-lane road with no shoulders or bicycle lanes and poor sightlines due to the natural topography. Bicyclists are allowed by law to operate as a vehicle and share the travel lane with motor vehicles; however, many bicyclists are uncomfortable riding in this manner.

Recommendations

Short-term:

- Re-stripe the overpass section to provide two 6-foot-wide bicycle lanes and two 14-foot-wide travel lanes, or
- Provide two 6-8-foot-wide multi-use paths and 12-14-foot travel lanes, depending on the width of the multi-use path. Additional precautions, such as raising the path slightly, coloring the path, or adding barriers of some sort should be explored.
- Re-stripe the roadway between Boberg Road and the overpass on the west side of the freeway and Parkway Avenue and the overpass on the east side of the freeway to gain additional room to stripe

bicycle lanes, or at least gain additional shoulder width.

- Install a shared-use path along the south side of Boeckman Road from Parkway Avenue to Canyon Creek. A two-way shared-use path running parallel to a roadway is generally not recommended. However, this location is a good candidate for such a path since it has no crossings, and presents an opportunity to provide bicycle and pedestrian facilities where none currently exist.
- Explore with Mentor Graphics the possibility of widening the existing path along Boeckman Road to 10 feet and adding curb cuts.

Long-term:

- Add dedicated bicycle and pedestrian facilities to the Boeckman Road overpass. If the overpass is rebuilt, include sidewalks and bicycle lanes on both sides from Boberg Road to Parkway Avenue. If the overpass is not going to be rebuilt in the next 10 years, identify funding for a bicycle and pedestrian bridge to be cantilevered off the south side of the Boeckman Road overpass.

Wilsonville Road/I-5 Interchange

Existing Conditions

Wilsonville Road, a six-lane underpass of I-5 with a posted speed limit of 25 mph, is the primary freeway interchange located in Wilsonville. There are sidewalks and



bicycle lanes on both sides of the road. Wilsonville Road is a vital east-west road, connecting schools, neighborhoods, shopping centers, parks, and employment centers. The City is currently preparing plans to widen the I-5/Wilsonville Road interchange to handle projected traffic volumes.

Recommendations

- Develop alternatives to road widening projects related to Wilsonville Road to improve the overall bicycling and pedestrian environment.⁴ The ODOT Bicycle and Pedestrian Plan notes, "Motorists

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typically drive at a speed they perceive as safe; this is usually related to the road design, especially available width."⁵ Widening Wilsonville Road would encourage motorists to drive at faster speeds, increasing the safety risks for bicyclists and pedestrians, while decreasing the suitability of Wilsonville Road for non-motorized users.

- Provide additional landscaping next to the sidewalk and pedestrian-scale lighting along Wilsonville Road under I-5 to increase the attractiveness and comfort of the pedestrian environment.
- Provide an elevated/raised shared-use path underneath I-5 to provide greater separation between traffic and bicyclists and pedestrians.
- Add blue bicycle lanes through the dotted bike lane section where motor vehicles transition over the bicycle lane to access the freeway on-ramps.

Memorial Park/Boones Ferry Park Trail

The Memorial Park/Boones Ferry Park Trail connects two major parks in the Wilsonville system, as well as the neighborhoods that surround them. The trail is accessed from a dead-end street on either side of the trail with a short on-street connection leading to Memorial Park and Boones Ferry Park.



Trail access from neighborhood

The trail is an eight-foot-wide asphalt path with concrete connections to the existing sidewalk on the east side. Currently, there are Jersey barriers extending onto the path to prevent vehicles from driving underneath the I-5 bridge. The Jersey barriers



Pinch point on trail

create a pinch point, narrowing the usable width of the trail to less than six feet. No lighting or other amenities are provided along the length of the trail. In addition, nearby plants are uprooting and breaking the trail surfacing, and this existing condition, along with poor alignment in places, reduces the accessibility of the trail for many users.

Recommendations

- Widen the trail to 10 feet to meet minimum regional trail standards.
- Add pedestrian-scale lighting, seating, water fountains, and other amenities so that trail users might stop and enjoy the view of the river.
- Replace the Jersey barriers with bollards (see Chapter 7. Design Standards and Guidelines) at the entrance to improve bicycle and pedestrian accessibility to the trail while preventing motor vehicles from accessing the trail.
- Create a connection to the proposed Boone Bridge / Willamette River crossing that is shown on Map 5 on page 47 and described in greater detail in "Crossing the Willamette River" on page 97.
- Change the many right-angle turns to more gentle curves.
- Change the grade of the path underneath the underpass to make it more easily accessible.

Potential New Crossings

There are several potential locations for non-motorized crossings of I-5. Such crossings would connect east and west Wilsonville while providing bicyclists, pedestrians, skaters, and other non-motorized users a safe, comfortable and convenient method of crossing the freeway. If fully implemented, the crossings would form a highly connected bicycle and pedestrian network that could attract new users to the system based on the ease and availability of the crossings. The first two crossings described below would be 12-foot-wide overpasses of I-5, while the third crossing would be an undercrossing of I-5.

Wiedeman Trail Bridge

The Wiedeman Trail crossing (see Figure 5) would connect Canyon Creek Park, the surrounding neighborhoods, Argyle Square, Xerox, and Mentor Graphics with the Wilsonville industrial area. The Wiedeman Trail crossing would be a desirable location since it would provide a safe bicycle- and pedestrian-only alternative just south of the I-5/Elligsen Road

4. This recommendation conflicts with other goals found in the Wilsonville TSP.
5. Oregon Bicycle and Pedestrian Plan, p.160.

interchange. A Wiedeman Trail Crossing would ensure a northern east-west connection between two regional trails, the Tonquin Trail and the Boeckman Creek / Stafford Spur Trails. The trail and crossing would complete a primarily off-road non-motorized loop of Wilsonville, providing numerous recreational and commuter opportunities to visitors and residents of Wilsonville. A safety study would be required to determine the available space and how the bridge would be located in the right-of-way with sufficient separation from the freeway.

Finding the available right-of-way on the west side of Wilsonville to site a bicycle and pedestrian bridge presents a challenge, due to the level of development occurring on the west side of the freeway. Two potential locations on the west side are:

Option A: Directly north of the Tonkin Auto Dealership near the powerline corridor. This would require a longer structure to span both the freeway and Boones Ferry Road and acquisitions with the surrounding

landowners. However, this option provides a direct connection to the existing bicycle and pedestrian infrastructure located on 95th. The option is constrained by the potential use of the creek buffer area for a stormwater facility. The site is identified in the City's Stormwater Master Plan as project CLC-5.

Option B: In the Boones Ferry Road / I-5 right-of-way, which would result in a shorter span and fewer acquisitions with private landowners. Boones Ferry Road, currently a two-lane road with no bike lanes or sidewalks, would require improvements to the bicycle and pedestrian environment so that users of the bridge are able to reach and use the overcrossing safely and comfortably.

On the east side of I-5, the bridge would be located within the street right-of-way of the unbuilt Wiedeman Road extending on Parkway Drive. A trail would continue east, connecting users with Canyon Creek Road, Canyon Creek Park, and the surrounding neighborhoods.

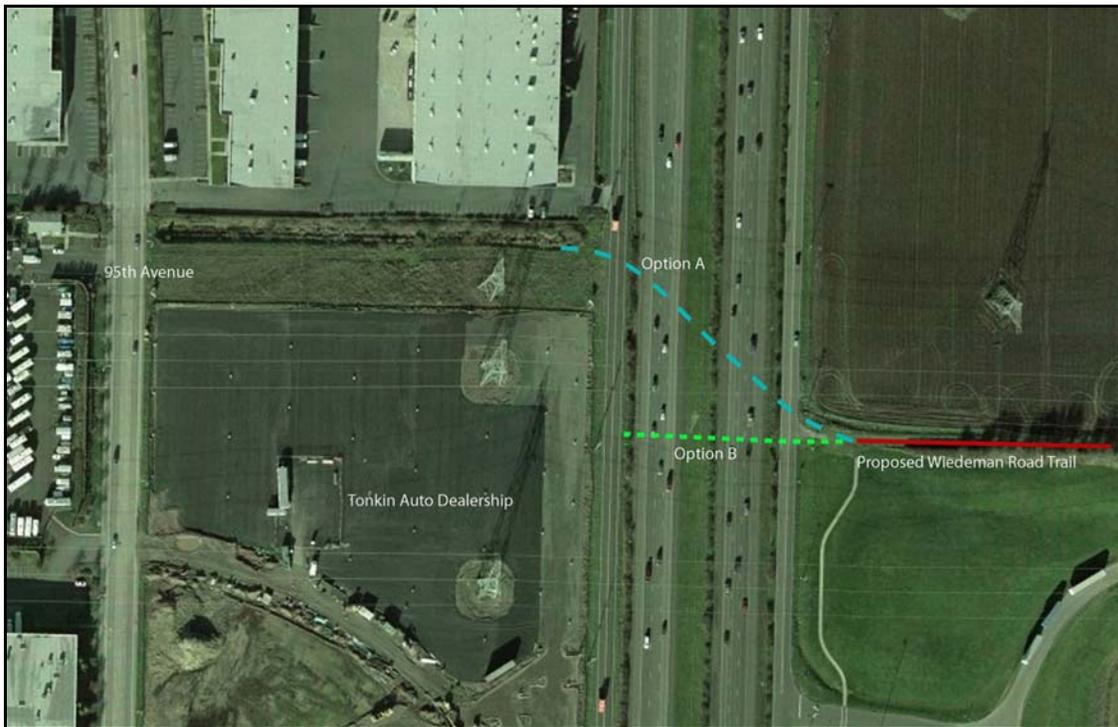


Figure 5. Potential Crossing at Weideman Road

Town Center Bridge

Town Center Loop is a major trip attractor and generator for all modes of travel, since it contains a number and variety of commercial uses. Currently,

bicyclists and pedestrians starting their trip on the west side of Wilsonville must use either Wilsonville Road to connect with Town Center Loop Road, or travel further north and cross over Boeckman Road

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and then use Parkway Avenue heading south to connect with Town Center Loop Road. Both of these routes can be challenging for many bicyclists and pedestrians. A bicycle and pedestrian overpass that connects users directly to Town Center Loop would increase the safety and connectivity of the entire bicycle and pedestrian network, increasing the ease of use and attractiveness of the system as a whole.

Two locations for a Town Center Bridge are (see Figure 6):

Option A. Barber Street overpass. The available space on the west side to install the overpass is constrained and the high level of truck traffic on Boones Ferry Road is likely to increase the necessary bridge clearance and termination area. With the redevelopment of surrounding parcels, more space on the west side may become available. Connections to the neighborhood and possibly to the Family Fun Center would have to be negotiated. The trail could also parallel I-5 for a short while as in Option B.

Option B. Peyton Lane overpass. Peyton Lane runs along the southern edge of the Hollywood Video headquarters, connecting Boones Ferry Road with Barber Street via Casting Street. As with the Wiedeman Trail, the available space on the west side to install the overpass is constrained and the high level of truck traffic on Boones Ferry Road is likely to increase the necessary bridge clearance and termination area. On the east side, the bridge and a short section of trail would utilize ODOT right-of-way, requiring negotiations between the City and ODOT. Depending on the location of the trail and the connection to the sidewalk on Town Center Loop, a small easement may also be required from the private property owner.

Option C. Boones Ferry Road to an existing shared-use path. On the west side of the freeway, the bridge access would be located in ODOT right-of-way just north of the pizza parlor, connecting to the existing bike lanes and sidewalks along Boones Ferry Road. Currently, bicycle and pedestrian facilities are non-existent along Boones Ferry Road, and the connections to west Wilsonville are less than ideal. However, once the Barber Street extension is completed, then bicycle and pedestrian access improves greatly. On the eastside access, the bridge would connect into the multi-use path that runs along a portion of Town

Center Loop West and ultimately into the existing sidewalk network around Town Center Loop.

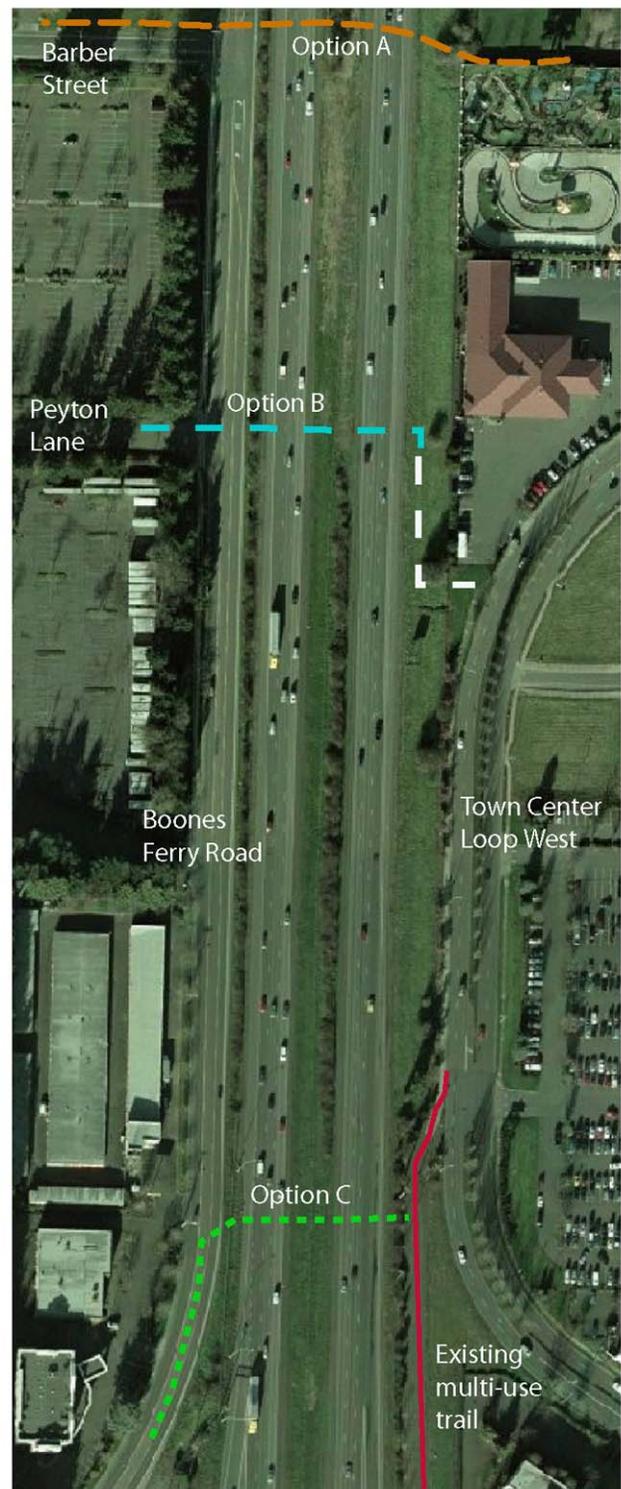


Figure 6. Potential Town Center Crossings

Memorial Drive / 5th Street

Memorial Drive / 5th Street (see Figure 7) would be an overcrossing of I-5 to connect Old Town Wilsonville, Boones Ferry Park, Memorial Park, the proposed Boone Bridge / Willamette River crossing (see "Recommended Bicycle and Pedestrian Network" on page 43), and neighborhoods on both sides of the freeway. Memorial Drive has sidewalks and bicycle lanes on both sides, while 5th Street has no dedicated bicycle or pedestrian facilities east of Boones Ferry Road. However, the current traffic volumes on 5th Street do not indicate the need for bicycle lanes. 5th Street is identified in the TSP as a minor collector, a 2-lane road with a design capacity for 1200-3000 vehicles per day. The Standards

shown in the TSP identify bicycle lanes on minor collectors after traffic volumes reach 1500 vehicles per day.

The connection on the west side would require negotiations with ODOT regarding access and use of their facility located at the end of 5th Street. The connection on the east side would require negotiations with the private landowners along Memorial Drive to locate a secure, sufficient space for the overcrossing. An undercrossing was considered for this location; however, City engineers identified existing utility conflicts.

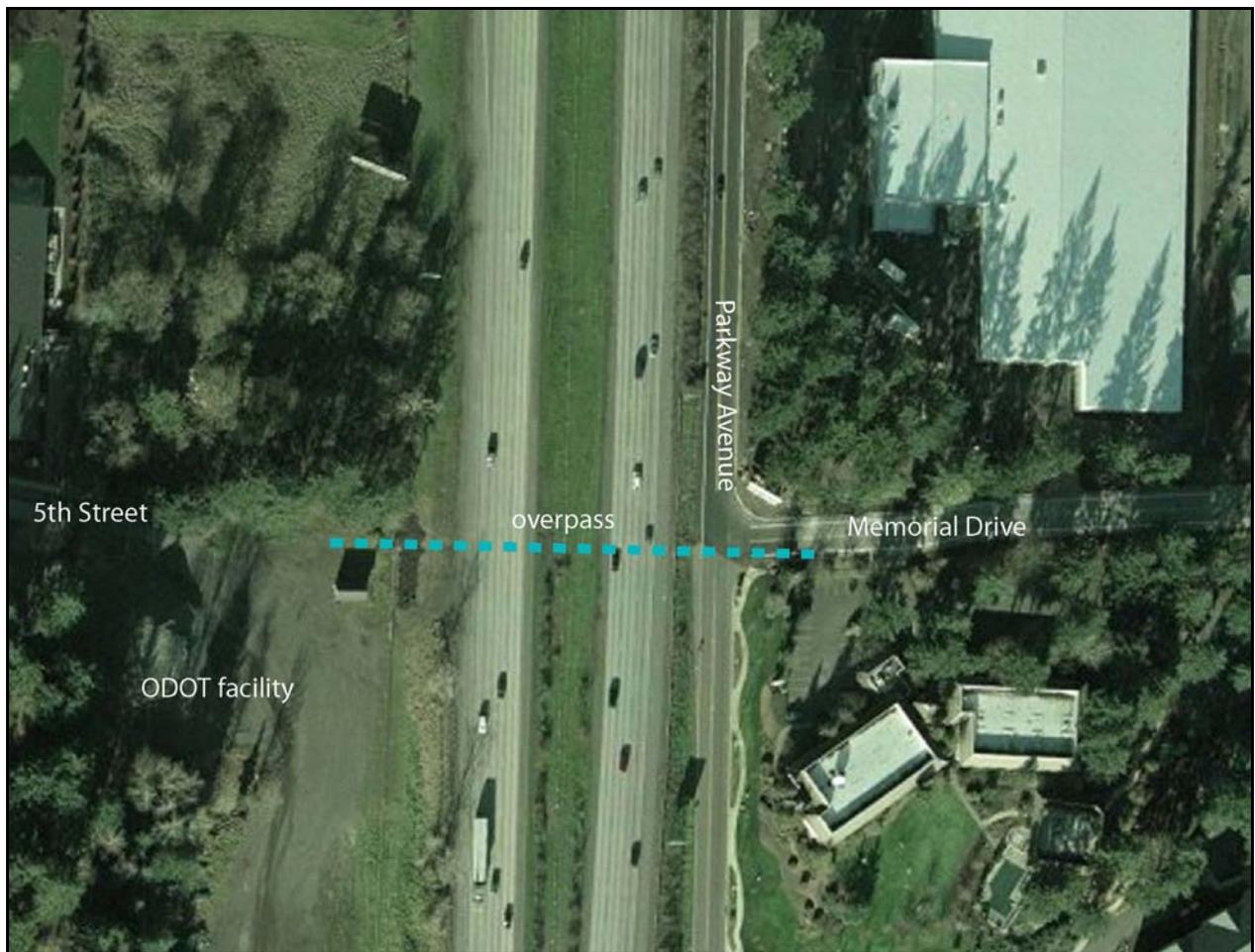


Figure 7. Memorial Drive - 5th Street Crossing

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Alternatives Evaluation

Table 10 illustrates the results of the evaluation criteria as applied to the three existing I-5 crossings and the three proposed non-motorized crossings.

Most of the projects scored very similarly on many of the criteria. However, improving the conditions of the Memorial Park/Boones Ferry Trail, improving the Boeckman Road crossing, and establishing a bicycle and pedestrian-only bridge to Town Center stand out as preferred projects.

Table 10. I-5 Crossing Evaluation Matrix

Project	Connectivity	User Generator	Land Uses	Regional Benefits	Ease of Implementation	Totals
Elligsen Road	25	20	15	5	10	75
Boeckman Road	25	25	15	10	5	80
Wilsonville Road	25	20	15	5	10	75
Memorial Park/ Boones Ferry Trail	25	25	15	10	10	85
Weidemann Trail Bridge	25	20	10	10	0	65
Town Center Bridge	25	25	15	15	2	82
Memorial Drive/5th Street	25	20	10	10	0	65

Crossing the Willamette River

Wilsonville's location along the banks of the Willamette River provides plentiful recreation opportunities for visitors and residents alike. While a wonderful natural resource, the river also serves as a significant barrier for bicyclists and pedestrians desiring to cross. The lack of any crossing option other than the Boone Bridge (I-5) greatly reduces the opportunities for people to walk or bicycle to Charbonneau, Champoeg Park, or other destinations south of the river. The alternatives examined for improving the bicycle and pedestrian crossing of the Willamette River are:

- Building a new stand-alone bicyclist/pedestrian bridge
- Adding a bridge to the railroad crossing
- Cantilevering a bridge from the Boone I-5 Bridge
- Adding a shared-use path running underneath the I-5 bridge
- Establishing a pedestrian and bicycle ferry
- Do nothing, continue with existing conditions



Railroad bridge spanning the Willamette River

Engineers examined several options for a bicycle and pedestrian shared-use bridge to be built either on the existing railroad bridge, or added to the existing I-5 bridge.

Creating a New Bicyclist/Pedestrian Bridge

A new bicyclist and pedestrian bridge could be built to span the Willamette River that would be a landmark entry point, drawing on the heritage of Wilsonville as an important location along the river. A separated bicycle and pedestrian bridge would provide safe and convenient passage across the Willamette River and would also serve as a gateway to Wilsonville, the Northern Willamette Valley, and the Mt. Hood region, creating strong regional ties. There are a number of potential locations for siting a new bridge, all with their own benefits and constraints. The major constraint of any separated bicycle pedestrian bridge is ensuring safe and accessible connections on both sides of the river for all users. From west to east, potential locations include:

1. *Tonquin Trail to NE Butteville Road.* Creates a strong link to Champoeg Park and the Willamette Scenic Bikeway while providing direct access to a significant regional north-south multi-use trail, as well as the regional Waterfront Trail. This location is at the far western end of the city limits, so the ties to the City are weaker than other options.
2. *Boones Ferry Park to NE Butteville Road at the marina.* Creates a direct link to Old Town and the historic heart of Wilsonville Road, providing economic development opportunities all along Boones Ferry Road and into the center of Wilsonville. Would also tie into regional trail network through the Waterfront Trail, providing connection for bicyclists and pedestrians to the Water Treatment Plant, Memorial Park, and Town Center Loop.
3. *Boones Ferry Park/Memorial Park path to Charbonneau.* Adjacent to Boone Bridge (I-5), a bridge in this location provides access to Boones Ferry Road and Old Town, as well as Charbonneau. The least desirable location for a bridge from a user standpoint, given the presence of the Boone Bridge and the noise pollution from the cars.
4. *Memorial Park to Charbonneau.* Creates the strongest tie between the two sections of Wilsonville, while providing Charbonneau residents direct access to Memorial Park and just a little further north, the senior center, library and Town Center. Would be the most difficult given the level of development along the river in Charbonneau.



Bicycle/pedestrian suspension bridge in Frankfurt, Germany



Photo rendering of Wilsonville bicycle/pedestrian suspension bridge



Bicycle/pedestrian suspension bridge in Frankfurt, Germany

Adding a Bridge to the Railroad Crossing

Bicyclists and pedestrians could possibly use the existing private railroad bridge that spans the Willamette River just west of the marina through the addition of a shared-use path to the span. This option would depend on negotiations with the railroad—a potentially long, expensive and time-consuming task.

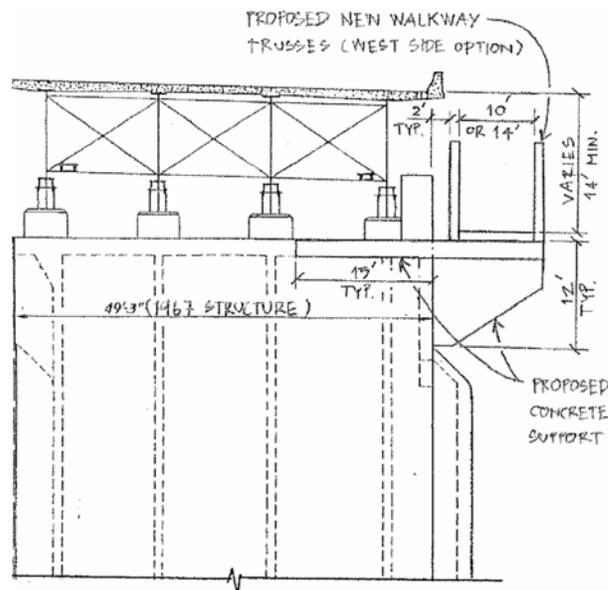


Railroad bridge from Marina

In addition to the installation of the bridge, the success of the bicycle/pedestrian shared use path hinges on creating sufficient connections on either side of the river so that bridge users of all ages and abilities would be able to access the bridge safely and comfortably. Attaching a bridge to the railroad trusses could cost approximately \$4-8 million.

Cantilevering a Bridge from Boone Bridge

Ideally, a bicycle and pedestrian bridge would span the walkway structure between supports that cantilever from the existing bridge piers. This would allow for a continuous uninterrupted structure that feels more open and independent from the existing bridge. The cantilevered bicycle and pedestrian bridge would be located significantly lower than the Boone Bridge decking, creating vertical separation between the path users and the vehicles streaming by on I-5. Safety issues, such as protection from falling debris, will need to be addressed in the design phase of any cantilevered bridge.



Example of a cantilevered bridge

Preliminary analysis indicates that a cantilevered walkway on the west side of the existing I-5 bridge would increase the loading on the bridge by approximately 5%, a relatively small increase in loading. If the bicycle and pedestrian bridge were maintained by ODOT, the bridge would have to be wide and strong enough to accommodate a street sweeper, since that is the general vehicle used by ODOT for maintenance of all their facilities. However, if Wilsonville secured funding for construction, maintenance, and operation, the bridge may not be required to meet such stringent demands. Bridges engineered to accommodate a full load of bicyclists and pedestrians exceed square foot/load design standards for vehicles.

Similar to the railroad bridge, the connections to an I-5 bicycle and pedestrian bridge on both the north and south sides of the Willamette would have to be improved to guarantee access for all non-



West side of I-5 bridge

motorized users. Ramps to access the bridge could be built utilizing the existing grade on both the north and south side of the river. On the north side, the ramp would be accessible both from the Boones Ferry Park /

Memorial Park path running underneath I-5 and from the neighborhoods directly to the west along Boones Ferry Road. On the south side, the ramp could continue as a trail along the existing access road and connect to Miley Road just to the east of the I-5 off-ramp. This would provide the City with an opportunity to increase access to the river and create new parks and open spaces for Wilsonville residents and visitors while improving the safety and cleanliness under both ends of Boone Bridge. A preliminary cost analysis by KPFF Engineering puts the total cost of the bridge at just over \$6 million.

Establishing a Pedestrian/Bicycle Ferry

Successful bike ferries in operation in Vermont and on Martha's Vineyard offer a small, quick moving ferry designed for pedestrian and bike travel. For Wilsonville, such a ferry could be an excellent and relatively low-cost operation. It would likely become an attractor in and of itself and an exciting component of the trail network. Boones Ferry Park and the Marina across the river to the south are possible docking locations. See the Parks and Recreation Master Plan for details about improved river access through Boones Ferry Park.



Potential ferry crossing location

In Vermont, the Winooski River Ferry provided a connection across the Winooski River for users of the Burlington Bike Path and the Colchester Causeway. The ferry operated from 2000-2003. It was replaced by the opening of the Burlington-Colchester Bridge in 2003. Setup costs for the Winooski River Ferry were \$100,000, mostly paid by state-funded grants. Yearly operating costs were \$70,000, with labor as the largest cost.



Winooski River Ferry, Burlington Path

Do Nothing, Continue with Existing Conditions

In this alternative, no changes are made to the existing conditions, and bicyclists and pedestrians continue to legally use the shoulder of the I-5 Boone Bridge to cross the Willamette River.

Alternatives Evaluation

Table 11 illustrates the results of the evaluation criteria as applied to the six alternatives to improve the bicyclist and pedestrian crossing of the Willamette River.

Most of the alternatives scored very similar on many of the criteria; however, building a stand-alone bridge was the preferred alternative.

Table 11. Willamette River Crossing Evaluation Matrix

Alternatives	Connectivity	User Generator	Land Uses	Regional Benefits	Ease of Implementation	Total
Adding a bridge to the railroad crossing	25	20	10	10	2	67
Cantilevering a bridge from I-5	25	25	10	15	5	80
Bridge underneath I-5	25	15	15	10	5	70
New bicycle/pedestrian bridge	25	25	15	15	5	86
Bicycle/pedestrian ferry	20	20	15	15	10	80
Do nothing	10	0	10	0	10	30

Recommendations

After examining the results of the evaluation criteria, the long-term recommendation is for the design and construction of a standalone bicycle and pedestrian bridge. This bridge will fill in a major gap in the Wilsonville system while appealing to all types of users, from bicycle tourists, to more serious recreational riders, to parents with kids out for a leisurely ride. The bicycle/pedestrian bridge would enhance Boones Ferry Park while providing a stronger connection to Old Town Wilsonville, and would also create additional access and a stronger connection to the river.

In the meantime, Wilsonville could explore the possibilities of establishing a bicycle and pedestrian ferry to serve those users who prefer not to cross the Willamette River on the Boone Bridge under its existing conditions. As noted, the most likely locations of the docks would be at Boones Ferry Park on the north side and the marina on the south side, although other locations could be added depending upon demand and funding.

Additionally, the State recently placed an increased emphasis on bicycle tourism, highlighted by the dedication of the Willamette Valley Scenic Bikeway that stretches from Armitage County Park just north of Eugene to Champoeg State Park, part of the longer Oregon Scenic Bikeway. In addition, Oregon Cycling is the first chapter in the Book of Oregon Oregon on www.traveloregon.com, the state's tourism website. Wilsonville is well positioned to capitalize on its proximity to the Scenic Bikeway and Wilsonville's connections to other regional destinations. The establishment of a bicycle and pedestrian route across the Willamette River would only serve to highlight the City's accessibility and bicycle-friendly environment.

Accessing the Willamette River

Current east-west travel routes in Wilsonville provide little opportunities for people to know that they are traveling along a river corridor. Businesses and residential developments are situated in such a way that blocks visual and physical access to the river. Creating stronger links to and along the Willamette River provides a great opportunity for enhancing a wonderful natural resource while reconnecting Wilsonville residents with the Willamette. Existing access locations include Memorial Park and Boones Ferry Park, while additional access points might be feasible at Meridian Landing, the Water Treatment Plant, and Metro property. Additional river access opportunities might come out of a river crossing discussed previously.



River access from Memorial Park

Water Trail System Vision

Current east-west travel routes in Wilsonville provide few opportunities for people to know they are traveling along a river corridor. Businesses and residential developments are situated in such a way that blocks visual and physical access to the river. Creating stronger links to and along the Willamette River provides a great opportunity for enhancing a wonderful natural resource while reconnecting Wilsonville residents with the Willamette. Wilsonville can create a water trail system by enhancing existing river access locations while embracing opportunities to create new river access points. The sites identified as the best opportunities for improving access to the river and creating a water trail system are noted below and in Figure 8:

- Metro Open Space south of Wilsonville Road/ Graham Oaks Natural Area (additional land would need to be acquired to make a physical river connection)
- Water Treatment Plant
- Boones Ferry Park and Landing
- Memorial Park
- Meridian Landing State Park

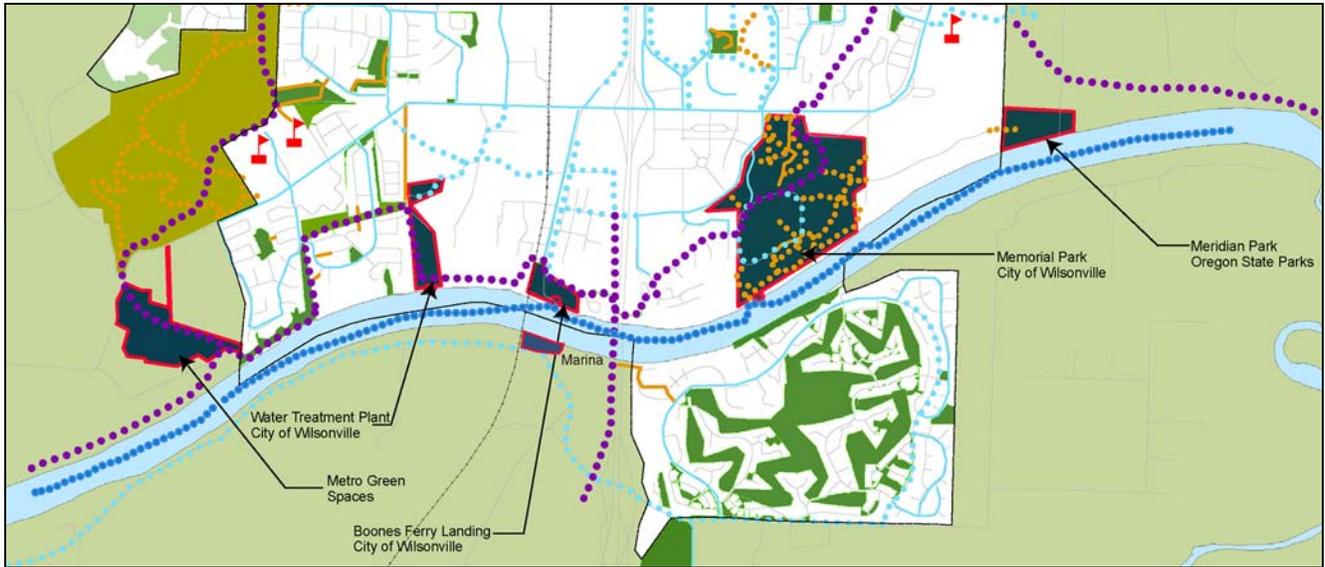


Figure 8. Potential Water Trail Site Locations

A Water Trail Plan

A water trail is a stretch of river, a shoreline, or an ocean that has been mapped out with the intent to create an educational, scenic, and challenging experience for recreational canoeing and kayaking.

Throughout history, water trails have been an important way to move people and goods along waterways. Today a revival of water trails is being driven by increasing demand for water based recreational and educational opportunities.

Planning a water trail requires maintaining a careful balance between protecting the resource and responding to the needs of landowners and water trail users. Most importantly, water trail planning requires a coordinated vision between the community, affected jurisdictions, and agency representatives.

A water trail plan connects water and land based trail systems, ultimately forming a network of transportation, recreation, interpretive/education and resource conservation/restoration opportunities. By providing these connections, the water trail becomes a value-added recreation and natural resource experience that will be rooted in the community for years to come.

Water Trail Planning in Wilsonville

According to the Oregon State Parks Water Trails Report, user groups stated that there is a need to

improve existing infrastructure and add new infrastructure to support a growing demand for paddle sports. Interest and demand for better access to the river also came out during the public process for the Bicycle and Pedestrian/Parks/Transit master planning process. Recreational resources, facilities and services needed to support the development of water trails include: water access sites and support facilities, overnight camping facilities, restrooms, directional signage, maps, brochures and other resources to support the marketing and education of water trail systems across the state.

Governors Initiative Willamette River Water Trail

The Wilsonville Water Trail is part of the Willamette River Water Trail that was created in response to community interests for increased water recreation opportunities and improved access to the river. The Wilsonville section of the Willamette River Water Trail is identified as part of the northern section of the trail. The water trail system is outlined in the "Governor's Willamette River Legacy Program." The Governor's initiative focuses on three driving themes, "Repair, Restore, and Recreate" (http://governor.oregon.gov/Gov/p2005/press_060405.shtml).

Under the opus of the Willamette River Legacy Program, the Governor has allocated resources to support the water trail effort. This includes assistance from Oregon Parks and Recreation Department, Oregon Marine Board, and the Oregon Tourism

6. Key Challenges and Opportunities

Commission. The Bureau of Land Management's American Heritage River Initiative and the National Park Service's Rivers, Trails and Conservation Assistance program have provided planning assistance while private funding and support has been provided by GI Joe's, Columbia Sportswear Company and Tom's of Maine.

Regional Context

Wilsonville is well positioned to take advantage of its regional location as the "Gateway" to the Metro Area (see Figure 9) to serve as a major water trail

destination and stop over point. Situated between two major state parks - Champoeg and Molalla - Wilsonville is a logical refueling point for one - and multi-day float trips down the Willamette River. Currently, both Champoeg and Molalla provide entry and exit opportunities for water trail users. Day use facilities are available at both locations, and Champoeg also has yurts, cabins, and three group tent areas for rent to provide overnight accommodations for water trail users.

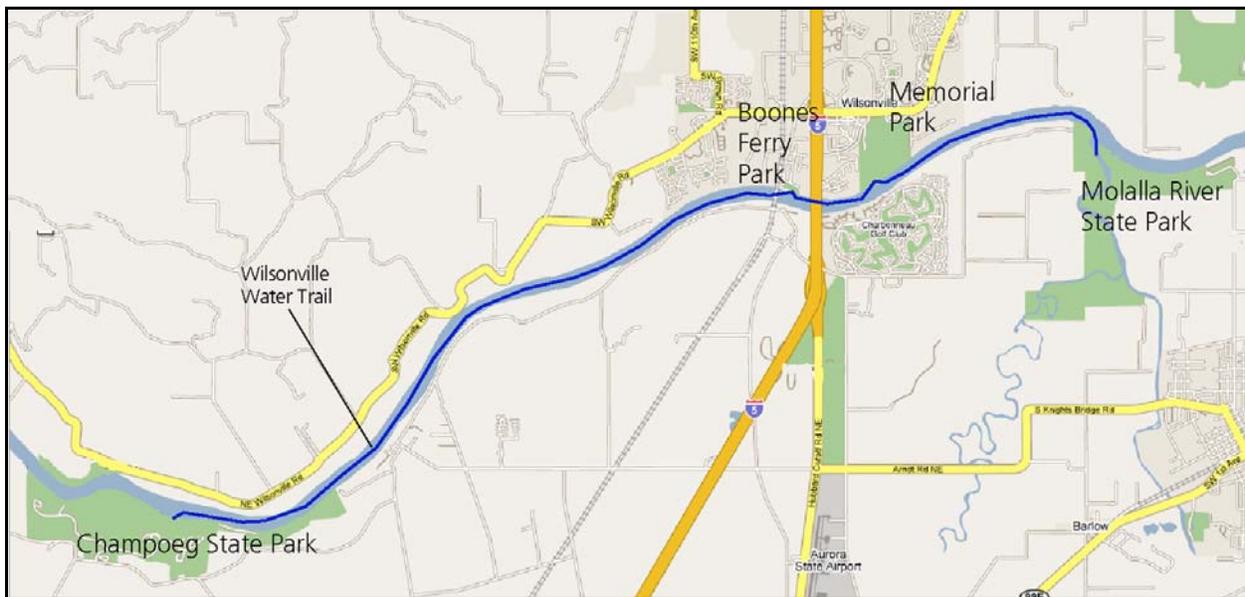


Figure 9. Water Trail Regional Context

Landscape Description

Primary Ecosystems of the Willamette River Basin

The varied landscape conditions within the Willamette River Basin create a mosaic of diverse ecosystems, where specific climate and geologic characteristics determine the area's collection of native species. Wilsonville is part of the three primary ecosystems: the gallery forest, prairie terrace and aquatic ecosystems.

1. The Willamette River Gallery Forest occupies the Willamette River floodplain. This system contains deep, fertile silt clay soils and supports riparian forest of cottonwood, alder, Oregon ash, big leaf maple and Douglas fir. A gallery forest is a narrow band of forest along a river in an area of otherwise open country.
2. The Prairie Terrace ecosystem covers the remainder of the wide valley floor and lies on relatively flat fluvial terraces (deposits moved there

by flowing water). It supports Oregon white oak, Oregon ash and Douglas fir. Historically, wet and dry prairie vegetation, as well as savanna grasslands with scattered trees.

3. Aquatic ecosystem: Over 60 species of fish live in the Willamette River basin of which 31 are native and 29 are introduced. Of the native fish, five are listed by either federal or state government as threatened, endangered, or sensitive. These species include, River Chinook salmon from the upper Willamette, Columbia River Chum Salmon, upper Willamette River steelhead trout, the Lower Columbia River/ Southwest Washington Coho and the Willamette cutthroat trout.

Wilsonville Water Trail Sites

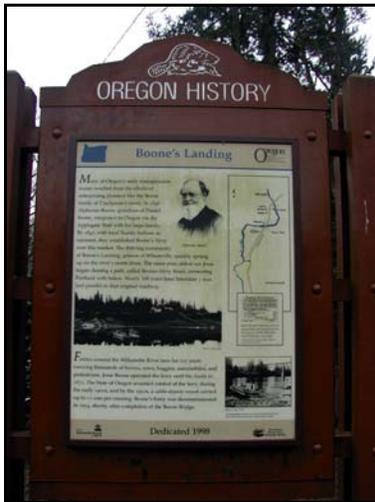
Boones Ferry Landing

In 1846, Alphonso Boone immigrated to Oregon via the Applegate Trail with his large family. By 1847, using local Tuality Indians as oarsmen, the family had established Boone's Ferry. The thriving community of Boone's Landing, genesis of Wilsonville, quickly sprang up on the Willamette River's north shore.



River view from Boones Ferry Landing

For 107 years, ferries crossed the Willamette River carrying thousands of horses, cows, buggies, automobiles, and pedestrians. Jesse Boone operated the ferry until his death in 1872. The State of Oregon assumed control of the ferry during the early 1900's, and by the 1950's, a cable-drawn vessel carried up to 12 cars per crossing. Boone's Ferry was decommissioned in 1954, shortly after completion of the Boone Bridge.



Interpretive sign at Boones Ferry Park

A steep paved access road leads to the rivers edge where the concrete foundation of the historic ferry landing can be viewed. The site is tied to a formal park while the current path leading to the river is unpaved and does not meet ADA access standards. Opportunities exist to develop facilities that foster safe entry to the river for non-motorized watercraft. While formalizing the entry experience and connection to the river, there is an opportunity to develop a park and river access facility that celebrates the historic uses of the river. In addition, there is excellent opportunity for economic development related to non-motorized

recreation near the park and in old town along Boones Ferry Road.

Memorial Park

Memorial Park currently serves as a primary recreation and natural area resource for Wilsonville residents and visitors alike by connecting the river, park, schools and neighborhoods from Wilsonville to the Willamette River.



River shelter and picnic facility near path to boat dock.

Memorial Park has ball fields, picnic facilities, restrooms, a skate park, and natural areas. The site offers interpretive riparian restoration opportunities along with connections to existing dock facilities. This site offers safe access and entry to the Willamette.

The site currently has a dock appropriate for motorized watercraft, with docking on a first come first served basis and overnight stops allowed. The existing dock does not serve non-motorized boats very well; however, it could be retrofitted to serve kayaks and canoes.

This site is a primary water trail access and take out location. Parking is a benefit to users that are participating in multi-day river excursions, and there is adequate space to stage equipment. Handcarts could be provided to assist with hauling the boats and equipment to the river.

Improving Bicycle/ Pedestrian Conditions in Town Center

Wilsonville Town Center is home to numerous destinations, including the Regal Cinemas, Fry's Electronics, Thriftway, the Community Center, City Hall, and many restaurants and specialty shops. This vibrant commercial center is also closely connected to the SMART transit system. A 15-foot-wide multi-use path connecting several of the buildings provides good internal circulation for a portion of Town Center. However, the path does not continue through all of Town Center. Additionally, the lack of sidewalks and connections from Town Center Loop decreases pedestrian connectivity. A more bicycle- and pedestrian-friendly environment would benefit all visitors to Town Center.



Lack of pedestrian connections

Existing Conditions

The multi-use path along the outer loop western edge accommodates bicyclists, but is difficult to access, and leads to a sidewalk that is too narrow to handle both bicyclists and pedestrians. Town Center Loop Road does not currently have any bicycle facilities. In addition, bicyclists sometimes ride the wrong way in the bike lane along Wilsonville Road due to inadequate signage at the junction of Wilsonville Road and the shared-use path, and a lack of understanding about the inherent dangers of their behavior.

Pedestrians have decent access around the perimeter of Town Center Loop. The internal connectivity of Town Center Loop allows pedestrians to reach some of their desired destinations; however, certain sections need improvement to provide safer and more direct access.

Opportunities

There are a number of opportunities to improve the bicycling and pedestrian environment in and around Town Center Loop. Opportunities include:

- Providing additional access from Wilsonville Road where feasible
- Widening the sidewalks where feasible
- Increasing internal pedestrian connections
- Investigating the addition of bike lanes to Town Center Loop
- Creating an internal multi-modal path around the Loop
- Adding a shared lane marking to Town Center Loop
- Grinding curb cuts to allow bicycles to enter driveways safely

Map 10 on page 107 identifies the existing conditions described, as well as opportunities for improving the bicycling and pedestrian environment as described above. It is important to note that some of the projects highlighted below will require the cooperation of private parties in order to fully implement them.

The following section outlines the specific projects highlighted on the map. Some of these projects will be completed during the design and construction of the new City Hall to be located just north of the Rite-Aid.

Town Center Loop Projects



A. Create a pedestrian connection from Wilsonville Road to the Town Center Loop path on the west side of Rebekah Street.



B. Complete the sidewalk on the west side of Town Center Loop West near the shared-use path.



C. Improve the intersection at Parkway Court and Town Center parking lot to increase bicyclist and pedestrian safety.



D. Complete the sidewalk on the west side of Town Center Loop East.



E. Improve accessibility and connectivity to City Hall, the Library, Civic Park, Memorial Park, and Town Center for seniors and visitors from Wilsonville Road.



F. Increase accessibility of Town Center Loop sidewalks by retrofitting all sidewalks with curb ramps that are currently lacking them.



G. Create a shared-use path from the northern loop to Town Center Park.



H. Create an off-street multi-use path to connect the civic uses - Town Center Park, future City Hall, the Post Office, and Clackamas Community College - within Town Center Loop.



I. Accent the sidewalk at driveways through the addition of colored, textured pavement to highlight the presence of pedestrians in and around the Loop.

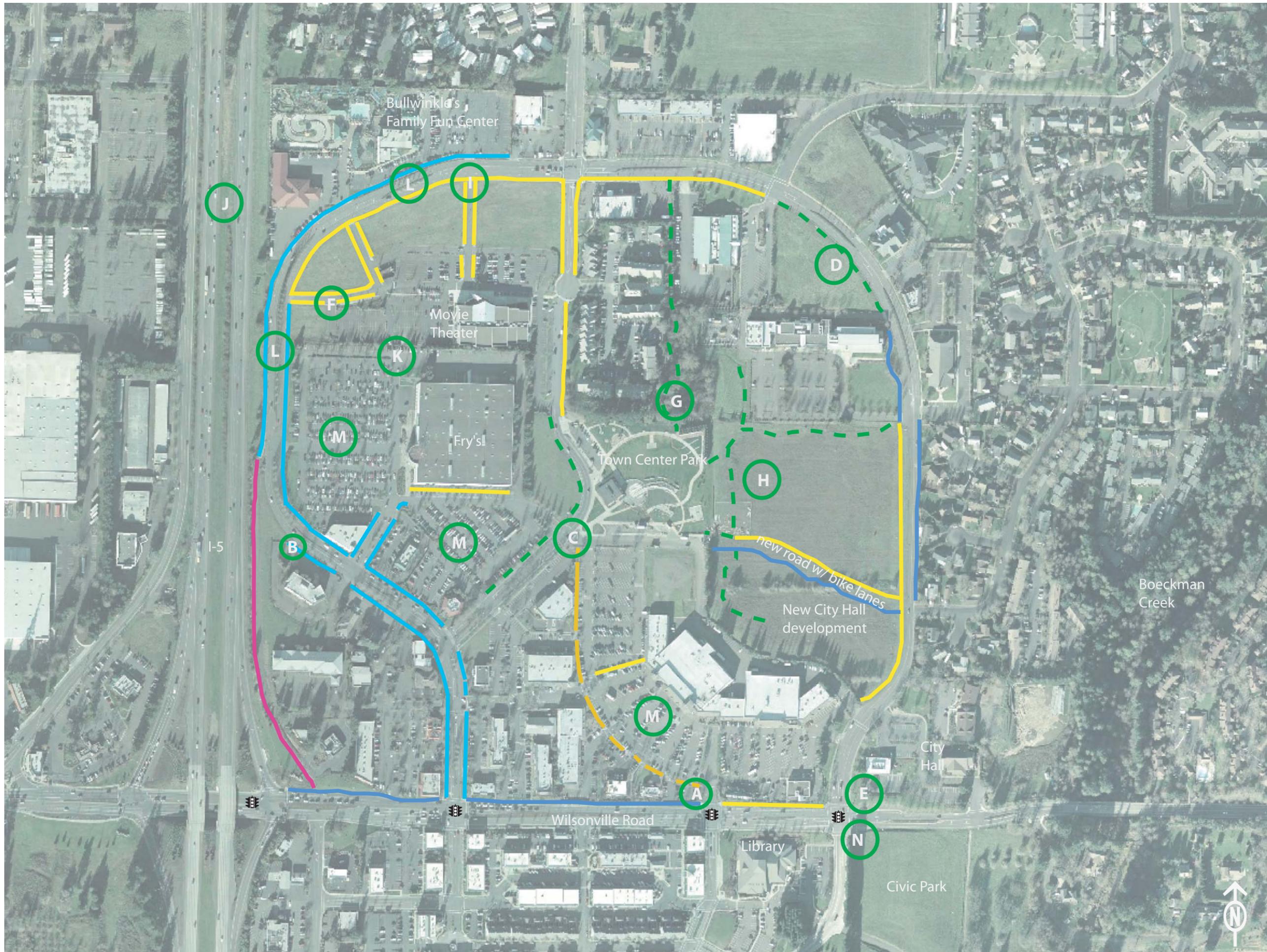


J. Increase connectivity to Town Center Loop by providing a bicycle and pedestrian only bridge spanning I-5.

K. A pedestrian connection between the movie theater and Fry's electronics.

L. Provide additional crossing opportunities where feasible, particularly in locations where bicyclists and pedestrians may be expected. Potential locations include near the shared-use path and connecting such attractors as Bullwinkle's and the movie theater.

M. Investigate the opportunity to narrow the travel lane through the parking areas. This would provide sufficient space to incorporate pedestrian walkways between facing parked cars, similar to the existing walkway leading to Lamb's.



Existing

- 7 ft wide sidewalk
- 8 ft wide sidewalk
- 10 ft wide sidewalk
- 15 ft path
- Multi-use path
- Traffic Signal

Opportunities

- 15 ft wide path
- 10 ft wide path
- C Projects



6. Key Challenges and Opportunities

Projects Evaluation

Table 12 illustrates the results of the evaluation criteria as applied to the opportunities to improve the bicyclist and pedestrian environment in Town Center Loop.

As Table 12 demonstrates, most of the projects scored similarly on many of the criteria. However, there are several projects, notably a non-motorized bridge over I-5 and several of the multi-use paths, that stand out as preferred projects.

Recommendations

Some of the identified projects, such as completing the sidewalk on the west side of Town Center Loop East, will be partially completed during the construction of

the new City Hall. At the same time, a multi-use path (Project G) could be constructed, improving connectivity and connecting the civic uses found within Town Center Loop. Project H, followed by Project E, ranked as the most desirable projects in Table 12. Project J ranked third, although it will certainly be the most expensive. The City has money dedicated to Town Center Loop improvements, and a number of the other high-ranking projects: extending the sidewalk on Rebekah Street (Project A), providing a path from the Community Center to Wilsonville Road (Project E), and completing the sidewalk on the west side of Town Center Loop. These could be funded based on preliminary planning-level cost estimates.

Table 12. Town Center Loop Project Evaluation Matrix

ID	Project	Connectivity	User Generator	Land Uses	Regional Benefits	Ease of Implementation	Totals
A	Pedestrian connection from Wilsonville Rd to Town Center Loop path	25	20	15	0	10	70
B	Complete sidewalk on W. side of Town Center Loop W.	25	20	10	0	10	65
C	Improve intersections at Parkway Court & Town Center parking lot	20	15	15	0	6	56
D	Complete sidewalk on W. side of Town Center Loop E.	25	20	15	0	10	70
E	Improve accessibility & connectivity to civic uses	25	25	15	5	8	78
F	Increase accessibility of Town Center Loop sidewalks	25	15	10	0	8	58
G	Create shared-use path from northern loop to Town Center Park	25	20	15	5	5	70
H	Create off-street shared-use path to connect civic uses	25	25	15	5	10	80
I	Accent sidewalk at driveways	10	15	15	0	10	50
J	Provide bicycle/pedestrian only bridge spanning I-5	25	20	15	5	0	70
K	Pedestrian connection	25	20	10	0	5	60
L	Provide additional crossing opportunities	25	20	15	0	5	65
M	Narrow the travel lane	20	10	10	0	5	45
N	Narrow the crosswalk	20	15	15	0	8	58

Bicyclist/Pedestrian Access to Transit

Wilsonville's high-quality South Metro Area Rapid Transit (SMART) system and the planned Washington County Commuter Rail provide great opportunities for increasing pedestrian/bicyclist



Transit stop with no pedestrian connections

transit partnerships in Wilsonville and throughout SMART's service area. Improvements to the pedestrian environment around transit stops increase pedestrian safety, comfort, and may lead to increased transit ridership, since most transit riders start and end transit trips as pedestrians. Integrating bicycles with transit allows the bicyclist to overcome barriers such as hills or weather, encouraging people to undertake longer trips by bike.

In Europe, Japan, and China, the bicycle-transit link serves millions of individuals. In the US, bike access to transit is usually not practical because of lack of bikeways to stations, lack of secure bike parking, and the prohibition of bikes onboard buses or trains.

Opportunity

Integrating bicycles with transit allows the bicyclist to overcome barriers such as:

- Hills
- Distance
- Fears
- Night riding
- Inclement weather
- Breakdowns

Safe and convenient pedestrian connections to transit are of paramount importance to both the walking environment and transit usage. To improve the pedestrian/bicycle transit link, Wilsonville needs to:

- provide good sidewalks and bikeways to transit stops/stations;
- provide benches, shelters, and other amenities at transit stops;
- provide secure bike parking at stations; and
- ensure that bikes are always allowed on transit.

Fortunately, all these barriers can be and are being overcome.

Provide Good Sidewalks and Bikeways to Transit Stops/Stations

Improvements to the pedestrian environment around transit stops increase pedestrian safety, comfort, and may lead to increased transit ridership since most transit trips include a pedestrian trip at one or both ends. In Wilsonville, the majority of the SMART stops have excellent pedestrian access, as shown on Map 8 on page 85, with continuous sidewalks on both sides of the street. However, there are several stops that lack an adjacent sidewalk, decreasing accessibility for all users, especially during the winter months when inclement weather is expected.

The bikeway network in Wilsonville should also provide good access to transit for bicyclists. Many of the current stops are already located near the bikeway network, as shown on Map 8, as is the identified location of the future Washington County Commuter Rail station.



Bicycles on transit allow bicyclists to cover great distances quickly.



Bicycle lockers in Germany

6. Key Challenges and Opportunities

Provide Secure Bike Parking

- Lockers - monthly and/or day use lockers to ensure bicycle safety.
- Other types of well located, high security racks.
- Attended racks, such as a bike depot or station (discussed further below).

BikeStation™

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

Additionally, BikeStations may provide other amenities, such as:

- Bicycle accessory retail sales
- Bicycle rentals
- Restroom/changing room
- Electric bicycles
- Safety/education information

A more unique feature that a BikeStation may provide is access to Public Use Bicycles (PUBs). PUBs have been around since 1968, when the first "free bike" program was established in The Netherlands. Since that time, PUB providers have worked to improve the bicycling experience while reducing the rate of theft. Now in their third generation, many PUBs utilize "smartcard" technology to check out bicycles and ensure they are returned. Potential locations for a BikeStation include Town Center Loop, future City Hall, or the planned commuter rail station. Imagine PUB hubs located around Wilsonville, so that a bike



European Bike Depot



San Jose, CA BikeStation

could be checked out at the commuter rail station and dropped at Town Center.

Allow Bikes on Transit

Dozens of American cities currently allow bikes on trains and buses in some form. In Wilsonville, 100% of the SMART fleet is equipped with bike racks on the front. Furthermore, bicycles are allowed in the vehicle based on available space. This allows bicyclists to travel as far north as Portland or as far south as Salem on SMART with their bikes, providing a safe and comfortable journey. Ensuring that this policy is maintained and continued with the Washington County commuter rail is vital to maintaining and strengthening the bicycle/transit link.



Bike holding area on a commuter train

Recommendations

- Complete the sidewalk network on both sides of the roadway for all transit routes 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.
- Increase the number of SMART stops with benches, shelters, schedules, and other amenities to encourage transit use.
- Advertise that bicycles are allowed on SMART.

Regional Connectivity

Due to Wilsonville's location just north of the fertile Willamette Valley and just south of Portland, large employers including Xerox, Mentor Graphics, Nike, and Hollywood Entertainment all have more employees commuting from other parts of



Strengthen regional connections

the region. Wilsonville is perfectly located to capitalize on a number of potential regional bicycle connections. As part of the process for this plan, consultant staff met with a group of Xerox employees who bicycle to work. They and other residents expressed that regional connections to Newberg, Tualatin, Sherwood, the Willamette Scenic River Bikeway, Dundee, Lake Oswego, Canby, and Portland would serve residents, bike tourists, and employers/employees alike. However, regional bicycle access to Wilsonville is constrained by a number of factors, including natural barriers such as the Willamette River (see "Crossing the Willamette River" on page 97), narrow, high-volume roads leading into Wilsonville, and the topography of the surrounding land.

Much of the discussion regarding improvements to regional access will require multi-jurisdictional cooperation between Wilsonville and the neighboring cities and counties working together towards a successful regional bicycle network. The following discussion highlights the opportunities and challenges for increasing regional connectivity.

Opportunities and Challenges

Northern Access

Members of the ACMP, residents, and employees of local businesses expressed a strong desire for safe and accessible bicycle routes connecting Wilsonville with nearby destinations to the north. These destinations include Tualatin, Sherwood, Lake Oswego, and Portland. Routes that were highlighted as being in need of improvement include:

- Gage Road
- Boones Ferry Road
- Grahams Ferry Road
- 65th Avenue
- Stafford Road
- Clutter Road
- Tonquin Road

All of these routes have one or more of the following conditions that make it difficult for safe riding: no bike lanes or striped shoulder, higher traffic volumes (especially gravel trucks), higher traffic speeds, poor visibility, and difficult terrain.

The challenge with several of these routes is that there is very little right-of-way available for constructing a shoulder, bike lane, or separated path alongside the

existing roadway. Additionally, a number of these segments cross through several jurisdictions, requiring cooperation between Wilsonville and those jurisdictions.

Southern Access

Southern regional access—to Salem, Charbonneau, Champoeg Park, and other regional destinations—is constrained by the lack of a safe and pleasant river crossing that is designed for all users. Currently, bicyclists use the shoulder on the Boone Bridge, exiting at Charbonneau. However, many cyclists indicated that whenever they wish to ride south around the Willamette Valley, they drive across the river to start their bicycle trip rather than ride across on the shoulder of the freeway. The alternatives for improving the bicycle and pedestrian crossing of the Willamette River were presented earlier.

Western Access

To the west of Wilsonville lie Newberg and Dundee in the heart of beautiful Yamhill County wine country. Wilsonville Road heads west along the river and connects with Highway 219, leading directly into downtown Newberg. Within the city limits, Wilsonville Road is a two- to five-lane road with striped bike lanes and sidewalks. However, once west of Willamette Way West, the road quickly narrows to a two-lane road with no bike lanes and very little shoulder. At the same time, the speed limit transitions from a 20 mph school zone to 35 mph and then to 45 mph leaving the city limits. The most desirable roadway treatment would be to widen the shoulders in both directions to provide a safer and more comfortable riding area for bicyclists. This would require cooperation between the City of Wilsonville, Clackamas County, Yamhill County, and Newberg.

Eastern Access

To reach Canby and the Canby Ferry, bicyclists head east out of Wilsonville on Advance Road, which quickly becomes a narrow, two-lane, hilly, rural road with little or no shoulder to accommodate bicyclists. At the same time, as Advance Road leaves the city limits, the posted speed limit increases to 40 mph.

Recommendations

The most desirable solution is to provide safe and comfortable bicycle facilities along the major roadways connecting Wilsonville with the surrounding regional destinations. The roads include: Boones Ferry,

6. Key Challenges and Opportunities

Grahams Ferry, 65th, Stafford, Wilsonville, Advance, and Gage. In some cases, this may be the establishment of a separated regional multi-use path, such as the Tonquin Trail connecting Villebois and west Wilsonville with Tualatin and Sherwood, or the Stafford Spur Trail, connecting east Wilsonville with the proposed Stafford Trail in Lake Oswego.

In other situations, such as the connections to the east and west, Wilsonville will need to work with the surrounding jurisdictions to ensure that the needs of bicyclists and pedestrians are adequately considered and addressed during road maintenance and reconstruction projects.

Increased signage and designation of certain roads as official bike routes, such as Wilsonville Road to Newberg and Advance Road towards Canby, would highlight the roadway as an important route for bicyclists as well as increase motorist awareness of cyclists on the roadway.

Crossing Wilsonville Road

Wilsonville Road is the primary east-west route for residents and visitors, connecting neighborhoods, schools, parks, the library, City Hall, and Town Center Loop, resulting in high traffic



Railroad tracks crossing Wilsonville Road

volumes at most times throughout the day. As a primary route for residents and visitors alike, ensuring a sufficient number of safe and accessible bicycle and pedestrian crossings, particularly near desirable destinations, is vital to maintaining and enhancing the bicycle and pedestrian network in Wilsonville.

Existing Conditions

The segment of Wilsonville Road located within the city limits is approximately 3.6 miles long. There are 12 fully signalized intersections on Wilsonville Road, at the following locations:

- Meadows Parkway (Boeckman Creek Elementary)
- Meadows Loop (Wilsonville High)

- Town Center Loop East
- Rebekah Street
- Town Center Loop West
- I-5 interchange - east side of freeway
- I-5 interchange - west side of freeway
- Boones Ferry Road
- Kinsman Road
- Montebello Drive
- Brown Road
- Willamette Way East (CREST, Boones Ferry Primary)

In addition, there are three pedestrian activated signals at the intersections of Wilsonville Road and the entrance to Inza Wood Middle School, Wilsonville Road and Landover Drive, and from the Senior Center to Murase Plaza. All of the signalized intersections have marked crosswalks. There is one unsignalized, marked crosswalk on Wilsonville Road, located at Meadows Loop (only on the southern-most leg).

Through most of the city, Wilsonville Road is a two-lane road with 12-foot-wide lanes, 14-foot-wide left turn pockets, and a posted speed limit of 35 mph. There are also six-foot-wide bike lanes the entire length of Wilsonville Road within the city limits. From the intersection of Wilsonville Road and Town Center Loop Road East to the intersection of Wilsonville Road and Kinsman Road, the road widens to two lanes in either direction plus a turn lane, and the speed limit drops to 25 mph.

With the current number of signalized intersections and marked crosswalks, there is a protected crossing of Wilsonville Road every 0.3 miles (~1500 feet) on average. The density of crossings increases in relationship to the development and potential destinations surrounding Wilsonville Road. Near Inza Wood Primary School and Boones Ferry Primary School, three of the four crossings of Wilsonville Road within ~ 0.40 miles have protected pedestrian crossings. Near Town Center Loop, there are four signalized crossings of Wilsonville Road within a similar 0.40-mile stretch.

However, with the crossings of Wilsonville Road consolidated around the existing attractors and generators, there are several potential locations that might benefit from a marked pedestrian crossing in the future. Two locations, Rose Lane and the railroad tracks, are highlighted in the next section.

Rose Lane

Existing Conditions

Rose Lane is an important connection between the residential areas to the north of Wilsonville Road and to Memorial Park to the south of Wilsonville Road.



Vehicle traveling east on Wilsonville Road with ample lane space

Additionally, SMART stops are located on either side of Wilsonville Road just to the west of the Rose Lane/Wilsonville Road intersection. Sidewalks and bike lanes are present on both sides of Wilsonville Road. The nearest traffic signals are 1,900 ft to the west at Town Center Loop West and 2,000+ ft to the east at Meadows Loop, creating almost a mile stretch of Wilsonville Road with no protected pedestrian crossing.

At the intersection, Wilsonville Road consists of a 20-foot-wide travel lane in the east direction, a 14-foot-wide turning lane, a 14-foot-wide travel lane in the west



SMART bus on Wilsonville Road

direction, and six-foot-wide striped bike lanes in both directions, as noted earlier. The crossing of Wilsonville Road is currently unmarked.

Challenges

High traffic volumes, higher than posted (35 mph) vehicle speeds along Wilsonville Road, and poor sight distances due to the curve in the road 100+ feet to the east of the intersection are all challenges for bicyclists and pedestrians at this location.



Vehicle turning from Rose Lane onto Wilsonville Road

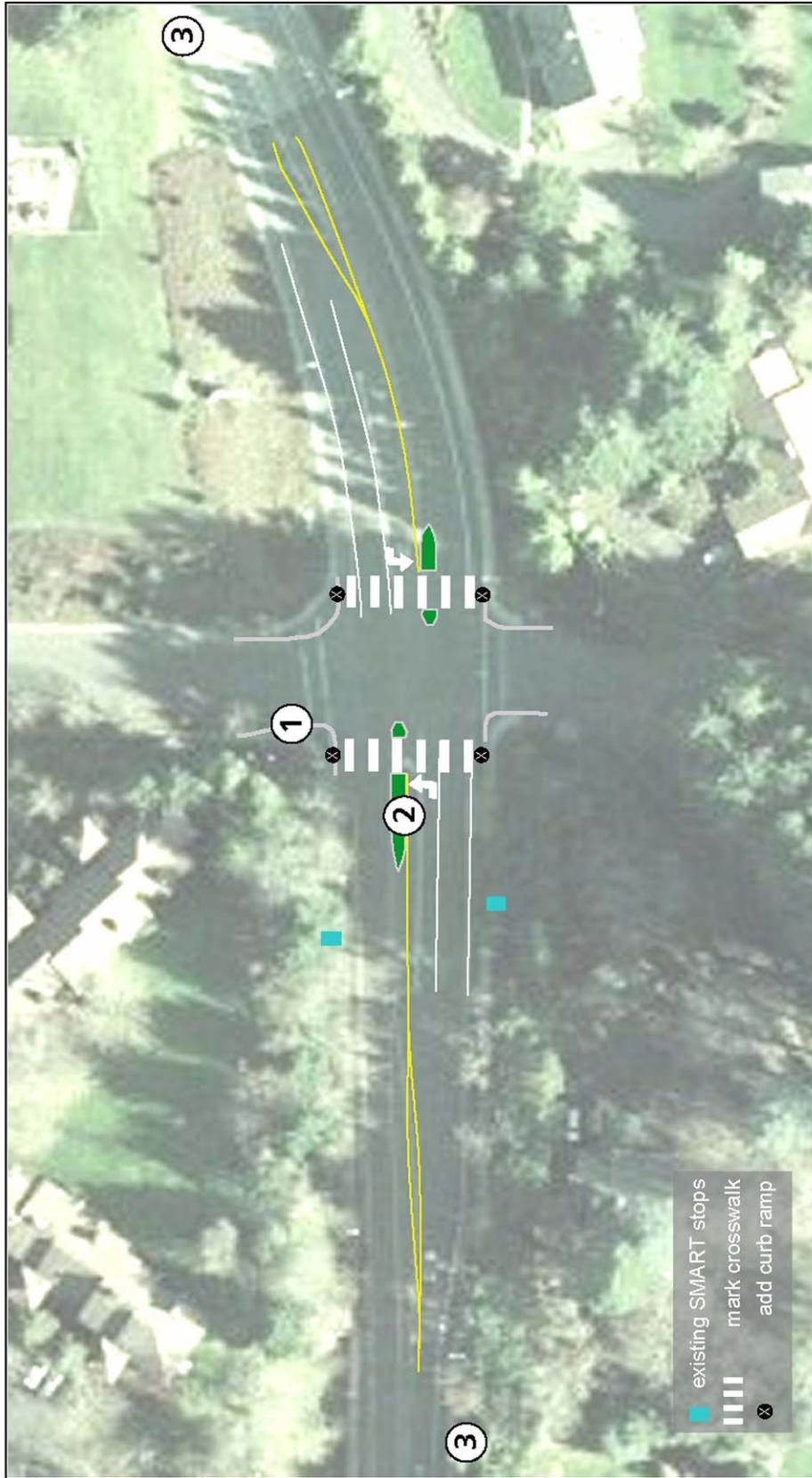
Recommendations

Warning signs and other devices should be installed to maximize bicyclist and pedestrian safety. Innovative treatments, such as textured crosswalks, warning lights that are passively activated by crosswalk users, and high-visibility markings could be considered as well.

General Recommendations:

- Shorten the crossing distances where possible.
- Create pedestrian refuge island to allow a two-stage crossing.
- Mark high-visibility crosswalks, add warning signs.

Rose Lane Crossing Improvements- Alternative II



- ① Tighten the radius on the turns into Rose Lane to decrease the crossing distance.
- ② Narrow the eastbound travel lane to accommodate a pedestrian refuge island, allowing pedestrians to complete the crossing in two stages. Stripe the pedestrian crossing.
- ③ Post warning signs to indicate to motorists to expect pedestrians crossing ahead.

Railroad Tracks

Existing Conditions

The railroad tracks are centrally located in one of the longest stretches of Wilsonville Road that does not contain a protected pedestrian crossing. Roughly a quarter-mile separates the



Railroad tracks crossing Wilsonville Road

signal at Kinsman Road and the signal at Boones Ferry Road. Wilsonville Road has sidewalks on both sides of the roadway, along with six-foot-wide bicycle lanes. The posted speed limit is 25 mph, and there are two 12-foot-wide travel lanes in each direction with a 14-foot-wide, raised center median at this particular location. There is no identified crossing at this location now. Anecdotal evidence collected from members of the community suggests that people already use this location as a crossing of Wilsonville Road. It is recommended that the City conduct a pedestrian study to identify potential crossing locations of the railroad tracks.

Challenges

High traffic volumes increase the safety risks and decrease the comfort level for pedestrians and bicyclists. Additionally, identifying the rail line as a potential crossing would need to be discussed with

officials from the rail line who might be uncomfortable with encouraging people to travel parallel to the rail line, even if only for a short crossing distance. In addition, as discussions to widen Wilsonville Road continue, the eventual lane configuration will have an impact on how feasible a mid-block crossing is in this location.

Recommendations

The suggested location for the site, with specific recommendations, is illustrated on the following page. Marking a crossing at this location provides bicyclists and pedestrians additional, safe options when choosing travel routes across Wilsonville Road. Warning signs and other devices could be installed to maximize bicyclist and pedestrian safety. Innovative treatments, such as textured crosswalks, warning lights that are passively activated by crosswalk users, and high-visibility markings should be considered as well. The City will need to do a study to determine if this is the best location for the crossing.

General Recommendations:

- Shorten the crossing distances where possible.
- Create a pedestrian refuge island to allow a two-stage crossing.
- Mark high-visibility crosswalks, add warning signs.

Alternatives Evaluation

Table 13 demonstrates the results of the evaluation criteria as applied to the two crossings examined. As the table demonstrates, a crossing at the railroad tracks is more desirable at this point in time than a mid-block crossing of Wilsonville Road at Rose Lane.

Table 13. Wilsonville Crossing Evaluation Matrix

Project	Connectivity	User Generator	Land Uses	Regional Benefits	Ease of Implementation	Totals
Rose Lane	15	10	10	0	10	45
Railroad Tracks	15	15	15	0	5	50

Wilsonville Road and Railroad Tracks Crossing Improvements



-  existing SMART stops
-  mark crosswalk
-  add curb ramp
-  add advance stop bar
-  pedestrian refuge



- 1** Formalize a pedestrian refuge within the existing median on Wilsonville Road.
- 2** Stripe a pedestrian crossing with continental crosswalks.
- 3** Stripe advance stop bars on Wilsonville Road.

