

# Urban Design Verification Study for Scio, Mill City, and Lyons

*Prepared for*  
Oregon Department of Transportation



December 2023



# **Urban Design Verification Study for Scio, Mill City, and Lyons**

*Prepared for*

**Oregon Department of Transportation**  
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# 1. Introduction

The Oregon Department of Transportation (ODOT) does not have an identified “planning to project” transition process. Currently, ODOT’s regional planning units focus on long-range planning activities that result in project lists that are often general in nature. These lists do not necessarily identify leverage opportunities for adding improvements to maintenance projects, and leverage opportunities can be effective strategies for cost-effective implementation. Additionally, long-range planning concepts do not always translate to on-the-ground design concepts due to many issues. This results in a planning-to-project disconnect because ODOT’s current funding focuses primarily on Fix-It program projects. This Urban Design Verification (UDV) Study for Scio, Lyons, and Mill City focuses on bridging that gap by finding specific solutions to attach to future Statewide Transportation Improvement Program (STIP) maintenance projects or other investment programs led by the state or local government.

The primary objective of this study was to identify design solutions that are supported by both the community and by ODOT before the scoping process begins for future projects. This UDV Study assessed design alternatives and recommends a preferred design solution for each city. The design solutions consider cost, community context, public feedback, transportation safety, and ODOT design guidance.

This study provides the following benefits:

- Identify active transportation leverage opportunities—with a preferred design solution—ahead of scheduled maintenance projects and final STIP project prioritization.
- Conduct corridor-specific public engagement to identify multimodal design solutions and options.
- Better inform communities about upcoming STIP Fix-It projects.

This project summary provides a set of vetted improvements and cost estimates that can be used for budgeting and programming purposes. This summary provides a basis for initial cost estimates to identify and assess various alternative courses of action and make a pre-design recommendation to restore, resurface, rehabilitate, or reconstruct roads within the study area with reasonable and cost-effective design.

This project focused on segments of OR 226 in Scio and Lyons and segments of OR 22 in Mill City as detailed in Table 1-1 and shown in Figure 1-1.

**Table 1-1. Project Areas**

City	Highway	Extents (Mile Points)	Length	Extents (Cross Streets/Landmarks)
Scio	OR 226	9.55–9.85	0.30 miles	6th Avenue to SE Ash Street
Lyons	OR 226	24.41–25.44	1.03 miles	6th Street and Main Street to North City Limits/Santiam River Bridge
Mill City	OR 22	30.31–30.51	0.20 miles	NE 3rd Avenue to NE 7th Avenue

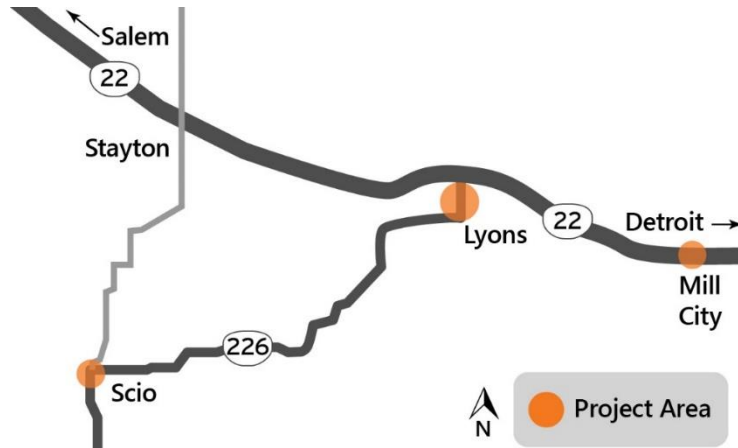


Figure 1-1. Map of the Three Project Areas

Needs and opportunities that were considered for the project areas include:

- Sidewalks
- Crosswalks (unmarked and marked)
- Bicycle facilities
- Safety Priority Index System reports
- Americans with Disabilities Act (ADA) pushbuttons and ramps
- Street and driveway accesses
- Pavement condition
- Reduction Review Routes
- Speed zones

These needs and opportunities were identified through analysis of existing conditions, current urban design guidance,<sup>1</sup> and needs documented in ODOT’s inventories (found in ODOT’s FACTS-STIP tool<sup>2</sup>). Resources included:

- Active Transportation Needs Inventory
- All Roads Transportation Safety Program (ARTS)
- Safety Priority Index System (SPIS)
- Safety Implementation Plans
- Fix-It Program Needs
- ADA Program Needs
- Freight needs as related to the Reduction Review Route designation
- Speed zone investigations and orders
- Parking restrictions
- Linn County Transportation System Plan (TSP; 2018)
- Marion County TSP (2005)
- OR 22 Access Management Plan in Mill City (2008)
- Highway Design Manual (2023)
- Traffic Manual (2023)

A key element of this study that guided improvement recommendations is the “urban context” as defined in the Highway Design Manual. The project team defined the urban context for each city; the urban context in turn guides the type of improvements that should be considered on the state highway in each location.

The following sections describe the needs and issues, public engagement process, and recommended concepts for each city.

<sup>1</sup> See TM #1 Corridor Background Memo.

<sup>2</sup> Features, Attributes and Conditions Survey - Statewide Transportation Improvement Program <https://gis.odot.state.or.us/FACSSTIP>

## 2. Scio

The study area for the Scio UDV Study is the segment of Albany-Lyons Highway No. 211 (OR 226/S Main Street), including its right-of-way, within the Scio urban growth boundary (UGB), mile point (MP) 9.55 to 9.85 (Figure 2-1). At the south end of the study area, OR 226 is also known locally as S Main Street from SW 6th Avenue to Thomas Creek (MP 9.80) before OR 226 makes a right turn and continues east. As OR 226 continues to the eastern edge of the study area, it is known locally as SE 1st Avenue. The intersection of S Main Street and SE 1st Avenue lacks safe and accessible facilities for all road users and is often congested.



Figure 2-1. Scio Study Area

### 2.1 Scio Prior Planning and Documentation

The projects listed in Table 2-1 directly affect the OR 226 corridor in Scio and helped inform the development of solution alternatives in this UDV Study.

Table 2-1. Summary of Relevant Planning Goals and Projects for Scio

Planning Document	Relevance to this UDV Study	Relevant Goals and Projects
<a href="#">Scio Comprehensive Plan (2019)</a>	<p>The Scio Comprehensive Plan provides a framework for growth and development in the city of Scio. Transportation goals and policies are consistent with the Linn County TSP. The transportation chapter includes street, pedestrian, and bicycle facility projects, which are needed to serve local residents.</p>	<p><b>Relevant Plan Goals</b></p> <ul style="list-style-type: none"> <li>▪ Promote the development of multimodal transportation systems to serve statewide, regional, and local transportation needs of Oregon.</li> <li>▪ Provide safe and accessible facilities for bicyclists and pedestrians.</li> <li>▪ Meet the mobility needs of the transportation disadvantaged.</li> </ul> <p><b>Relevant Bicycle and Pedestrian Projects</b></p> <ul style="list-style-type: none"> <li>▪ Crosswalk Safety Evaluation and Improvements at SW 4th Avenue and OR 226. (ODOT)</li> <li>▪ Sidewalk Repair and Infill on OR 226, N Main Street, and NW 4th Avenue. (Linn County)</li> </ul> <p><b>Relevant Corridor Improvement Projects</b></p> <ul style="list-style-type: none"> <li>▪ OR 226 Urban Street Improvements – Curb, sidewalks, pavement and Drainage. (ODOT)</li> </ul> <p><b>Relevant Road Modernization Projects</b></p> <ul style="list-style-type: none"> <li>▪ SW 6th Avenue Urban Improvements on County road portion. (City and Linn County)</li> <li>▪ OR 226 Urban Improvements (South city limits to East city limits – Bicycle and Pedestrian Improvements. (ODOT)</li> </ul> <p><b>Relevant Systemic Safety Improvement Projects</b></p> <ul style="list-style-type: none"> <li>▪ N Main/1st Avenue/OR 226 intersection – signage and safety improvements. (Linn County)</li> </ul> <p><b>Relevant Safe Routes to School Projects</b></p> <ul style="list-style-type: none"> <li>▪ Add pedestrian-activated flashing light and new crosswalks on OR 226 at either 2nd or 4th Avenue.</li> </ul>
<a href="#">Linn County Transportation System Plan (2018)</a>	<p>The Linn County TSP focuses on the needs of walking, bicycling, driving, transit, and freight with strategies and projects that are important for protecting and enhancing the quality of life in Linn County through the next 20 years.</p>	<p><b>Relevant Bicycle and Pedestrian Projects</b></p> <ul style="list-style-type: none"> <li>▪ City of Scio – Crosswalk Safety Evaluation and Improvements at SW 4th Avenue School Crossing: Evaluate crosswalk for safety improvements and implement. (County)</li> <li>▪ City of Scio – Crosswalk Safety Evaluation and Improvements at SE Ash Street and OR 226: Evaluate crosswalk for safety improvements and implement. (State)</li> <li>▪ OR 226 – Urban Upgrades: Addition of curbs, gutters, sidewalks, bike lanes and streetscape improvements on both sides of OR 226 (approximately 3,000 feet) where they do not currently exist within Scio city limits. (State)</li> </ul> <p><b>Relevant Bridge Projects</b></p> <ul style="list-style-type: none"> <li>▪ OR 226 – Storm Outlet to Thomas Creek: Add storm outlet on OR 226. (State)</li> </ul> <p><b>Relevant Corridor Improvement Projects</b></p> <ul style="list-style-type: none"> <li>▪ City of Scio – Pavement Striping Maintenance on County Roads: Paint and repair all fog lines, parking spaces, crosswalks, and other striping through Scio on N Main Street and NW/NE 4th Street. (County)</li> </ul> <p><b>Relevant Rural Modernization Projects</b></p> <ul style="list-style-type: none"> <li>▪ 6th Avenue – Road Improvement: Road improvements to 6th Avenue in Scio. (County)</li> </ul> <p><b>Relevant Systemic Safety Projects</b></p> <ul style="list-style-type: none"> <li>▪ OR 226/1st Avenue and Main Street – Systemic Intersection Safety Improvements: Provide systemic intersection safety improvements including basic set of sign and marking improvements. (State)</li> </ul>

## 2.2 Scio Urban Context

This segment of OR 226 begins at SW 6th Street and continues to SE Ash Street. This is S Main Street through the south side of Scio and one block of Albany-Lyons Highway to the east. Adjacent land use is currently mostly residential with a fire station at the south end and a few businesses throughout. Adjacent land use is zoned for commercial use through the full corridor, which suggests more businesses will locate here over time. See Table 2-2.

**Table 2-2. Scio Urban Context Overview**

Highway	Mile Points	Urban Context	Land Use Elements
OR 226	9.55–9.85	<i>Urban Mix</i>	<p>Segment includes land use elements consistent with the <i>Urban Mix</i> context.</p> <ul style="list-style-type: none"> <li>▪ Shallow building setbacks.</li> <li>▪ Some buildings that can be accessed from the sidewalks along a pedestrian path.</li> <li>▪ Commercial fronting with residential behind or above (this is expected to become more prevalent with future development)</li> <li>▪ Medium building coverage.</li> <li>▪ Small block sizes.</li> </ul> <p>Parking is a mix of on-street, in front, and on side, which is not a perfect match with <i>Urban Mix</i> (defined as “Mostly off- street/Single row in front/ In back/ On side”).</p>

Design guidance for Scio, based on the *Urban Mix* context, is listed and compared to existing conditions in Table 2-3. Currently, the bike facility and sidewalks fail to meet guidance. The corridor lacks a dedicated facility for people biking. The corridor also does not have a continuous, connected, ADA-compliant sidewalk. In places where the sidewalk exists, it is often narrower than the current minimum width (6 feet).

**Table 2-3. Urban Design Guidance for Scio (OR 226 MP 9.55 to 9.85)**

Element	Urban Design Guidance: Residential Corridor	Existing Conditions
Typical Speed Range	25 to 30 miles per hour (mph)	Posted Speed: 30 mph
Travel Lanes	Evaluate, start with preferred widths, wider by roadway characteristics. <ul style="list-style-type: none"> <li>▪ Minimum width: 11 ft. to 12 ft.*</li> </ul>	12 ft.
Turn Lanes	Minimize additional crossing width at intersections. Minimum widths: <ul style="list-style-type: none"> <li>▪ Two-way left turn lane: 11 ft. to 12 ft.</li> <li>▪ Left-turn lane: 11 ft. to 12 ft.*</li> <li>▪ Right-turn lane: 11 ft. to 12 ft.</li> </ul>	Not applicable – no turn lanes in project area
Shy Distance	Minimal. 0 ft. to 1 ft.	Not applicable – shoulder or parking lane adjacent to travel lanes in project area

Element	Urban Design Guidance: Residential Corridor	Existing Conditions
Median	Optional, use as pedestrian crossing refuge. Minimum widths (including shy distances): <ul style="list-style-type: none"> <li>▪ Raised median – no turn lane: 8 ft. to 11 ft.</li> <li>▪ Left-turn lane with raised curb median/separator (including 16-in. separator): 12 ft. to 14 ft.</li> </ul>	Not applicable – no medians in project area
Bicycle Facility	Start with separated bicycle facility, consider roadway characteristics. Tier 1: Separated bike lanes (preferred facility design) <ul style="list-style-type: none"> <li>▪ Separated bicycle lane minimum width (curb-constrained facility): 7 ft. to 8 ft.</li> <li>▪ Separation may be delineated with on-street parking, raised island, landscaping, delineator posts, traffic separator curb, planter boxes, or bioswale.</li> </ul> Tier 2: Buffered bike lanes and bike lanes <ul style="list-style-type: none"> <li>▪ Evaluate bicycle lane buffer</li> <li>▪ On-street bicycle lane (not including buffer): 5 ft. to 6 ft. minimum</li> <li>▪ Bicycle/street buffer: 2 ft. to 4 ft. minimum</li> </ul>	<b>No dedicated bicycle facility</b>
Sidewalk	Ample space for sidewalk activity (e.g., sidewalk cafes, transit shelters). <ul style="list-style-type: none"> <li>▪ Pedestrian zone: 5 ft. to 8 ft.</li> <li>▪ Minimum sidewalk width is 6 ft. including frontage zone and buffer zone</li> </ul>	<b>0 ft, 4 ft, 5 ft.,</b> and 6 ft.
Target Enhanced Crosswalk Spacing Range	250 ft. to 550 ft. (one to two blocks)	Approximately 250 ft. between unmarked crossings (every block). Two marked crossings are in the project area, and they are on separate roads: <ul style="list-style-type: none"> <li>▪ At SE 2nd Avenue (north leg of S Main Street)</li> <li>▪ At SE Ash Street (west leg of Albany-Lyons Highway)</li> </ul>
On-Street Parking	Consider on-street parking if space allows (8 ft. wide)	Most shoulders are approximately 12 ft. wide (including paved and unpaved width) and are used for parking

ODOT Highway Design Manual, 2023. Tables 200-6, 300-8, 900-5.

**Bold** values differ from HDM guidelines.

\* 11-foot lane width preferred, at 40 mph and above, a 12-foot lane is preferred.

ft. = feet; in. = inches

## 2.3 Scio Corridor Opportunities and Needs

Figure 2-4 summarizes corridor opportunities and needs identified in the study area. These needs and opportunities reflect urban design guidance and include needs identified through discussion with City and ODOT staff. For a detailed summary of corridor opportunities and needs, see Appendix A, Opportunities and Needs Memo. Figure 2-2 and Figure 2-3 further illustrate several of the corridor issues and needs.



Figure 2-2. OR 226/S Main Street in Scio Looking North from SW 5th Avenue. No sidewalks, bicycle lanes, or marked crosswalks are present on this segment.





Figure 2-3. OR 226 at the Intersection of S Main Street and SE 1st Avenue Looking North. OR 226 takes a right turn through this unsignalized crossing with a stop sign on SE 1st Avenue.

Table 2-4. Needs and Opportunities in Scio (OR 226 MP 9.55 to 9.85) – Context: *Urban Mix*

Resource	Needs and Opportunities
Sidewalks	<p>Much of the project area lacks adequate sidewalks and needs new sidewalks constructed or existing sidewalks improved.</p> <ul style="list-style-type: none"> <li>▪ Sidewalks are missing and needed at: <ul style="list-style-type: none"> <li>→ West side of OR 226 from approximately 120 feet north of SW 4th Avenue to approximately 150 feet south of SW 4th Avenue.</li> <li>→ East side of OR 226 from approximately 120 feet north of SE 4th Avenue to the south edge of the project area.</li> <li>→ Both sides of OR 226 between S Main Street and Ash Street.</li> </ul> </li> <li>▪ Sidewalks are narrower than the 6-foot minimum specified by urban design guidance and they need improvements at: <ul style="list-style-type: none"> <li>→ West side of OR 226 from approximately 150 feet north of SW 3rd Avenue to approximately 130 feet south of SW 3rd Avenue.</li> <li>→ West side of OR 226 from approximately 130 feet north of SW 5th Avenue to the intersection with SW 5th Avenue.</li> <li>→ East side of OR 226 from approximately 180 feet north of SE 2nd Avenue to approximately 120 feet north of SE 4th Avenue.</li> </ul> </li> </ul>



Resource	Needs and Opportunities
Crosswalks	<ul style="list-style-type: none"> <li>▪ Traffic Manual recommends spacing-enhanced crosswalks in <i>Urban Mix</i> contexts every 250 to 550 feet.</li> <li>▪ Two existing marked crosswalks are in the project area: <ul style="list-style-type: none"> <li>→ On the west leg of OR 226 at SE Ash Street. This has not been approved by ODOT and does not meet Traffic Manual standards.</li> <li>→ On the north leg of OR 226 at S 2nd Avenue. This has been approved by ODOT but does not meet Traffic Manual standards.</li> </ul> </li> <li>▪ Additional enhanced crossing(s) are needed to meet Traffic Manual guidance. The south end of the project area (SW 6th Avenue) is over 1,000 feet from the nearest marked crosswalk (at S 2nd Avenue).</li> <li>▪ No crosswalks are closed.</li> </ul>
ADA	<ul style="list-style-type: none"> <li>▪ ADA-accessible ramps are needed throughout the project area. With the existing sidewalks, 24 locations (typically individual corners or crosswalk termini) lack an ADA-accessible ramp: <ul style="list-style-type: none"> <li>→ 12 locations have an existing ramp that does not meet ADA standards and needs to be improved.</li> <li>→ 12 locations need a ramp.</li> </ul> </li> <li>▪ New sidewalks would require additional ramps.</li> <li>▪ No pedestrian pushbuttons exist or are needed.</li> </ul>
Stormwater	<ul style="list-style-type: none"> <li>▪ Evidence of stormwater ponding is apparent along shoulders and sidewalks. Drainage needs to be improved at these locations, and stormwater management would need to be included with any new curb construction.</li> </ul>
Bicycle Facilities	<ul style="list-style-type: none"> <li>▪ Bicycle facilities are needed throughout the project area. Urban design guidance recommends a Tier 2 facility, which could be buffered bike lanes or standard bike lanes.</li> <li>▪ W Beech Street and the Pathway to Knowledge Bridge could serve as an alternative north-south bike route parallel to OR 226.</li> </ul>
Bicycle Connections Beyond Project Area	<ul style="list-style-type: none"> <li>▪ The Linn County TSP includes a project (BP-53) for improving shoulders and crossings for a walking and biking route connecting Stayton, Scio, Lacombe, and Waterloo. Bike facilities in the project area would need to connect with this route in two places: <ul style="list-style-type: none"> <li>→ At the north end of the project area on N Main Street.</li> <li>→ On the east end of the project area on OR 226.</li> </ul> </li> </ul>
Safety	<ul style="list-style-type: none"> <li>▪ Two crashes were reported during the 5 years from 2016 through 2020.<sup>3</sup> Both crashes were at the intersection of Main Street and Albany-Lyons Highway, and both were classified as “No Apparent Injury/Property Damage Only.”</li> <li>▪ No needs identified in the ARTS or SPIS systems.</li> </ul>
Accesses	<ul style="list-style-type: none"> <li>▪ Accesses, including driveways and side streets, through much of the project area are spaced closer than guidance recommends. Target spacing is 250 feet between accesses based on the classification, volumes, and posted speed.<sup>4</sup></li> <li>▪ Some driveway accesses are ambiguously defined with frontages that extend the full width of the property. New sidewalk construction could be an opportunity to clarify driveway accesses.</li> </ul>
Pavement Condition	<ul style="list-style-type: none"> <li>▪ Pavement condition is rated “good” in the 2022 Pavement Conditions report.</li> </ul>
Freight	<ul style="list-style-type: none"> <li>▪ Freight and logging trucks commonly use this segment of OR 226, and freight mobility will need to be considered. Trucks need to make the turn through the intersection of S Main Street and Albany-Lyons Highway.</li> <li>▪ This is not a designated freight route or Reduction Review Route.</li> </ul>

<sup>3</sup> As of the publication date of this report, more recent safety data is available. However, the 2016-2020 dataset was used to inform the recommendations in this report.

<sup>4</sup> Oregon Administrative Rule 734-051-4020 (8).

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Resource	Needs and Opportunities
Speed Zone	<ul style="list-style-type: none"><li>▪ The posted speed in the corridor is 30 mph. This begins at MP 9.55 (the south end of the project area) where it transitions from 45 mph. The 30 mile per hour speed zone continues to MP 10.03 (approximately 900 feet east of the project area), where it transitions to 55 mph.</li><li>▪ A speed limit of 20 mph exists between 200 feet south of SW 2nd Avenue and 200 feet east of SE Ash Street when children are present (<a href="#">2001 Speed Zone Order</a>).</li></ul>
Parking	<ul style="list-style-type: none"><li>▪ On-street parking provision appears to be sufficient, particularly south of S 2nd Avenue.</li><li>▪ Parking is available on both shoulders between S 5th Avenue and SE Ash Street. Parking is available on only the east shoulder between S 5th Avenue and S 6th Avenue.</li><li>▪ Parking provision potentially needs to be maintained for the automotive parts store on the corner of S Main Street and Albany-Lyons Highway.</li><li>▪ No parking restrictions identified.</li></ul>

Note: A parking study could be conducted for this project to better understand parking needs.

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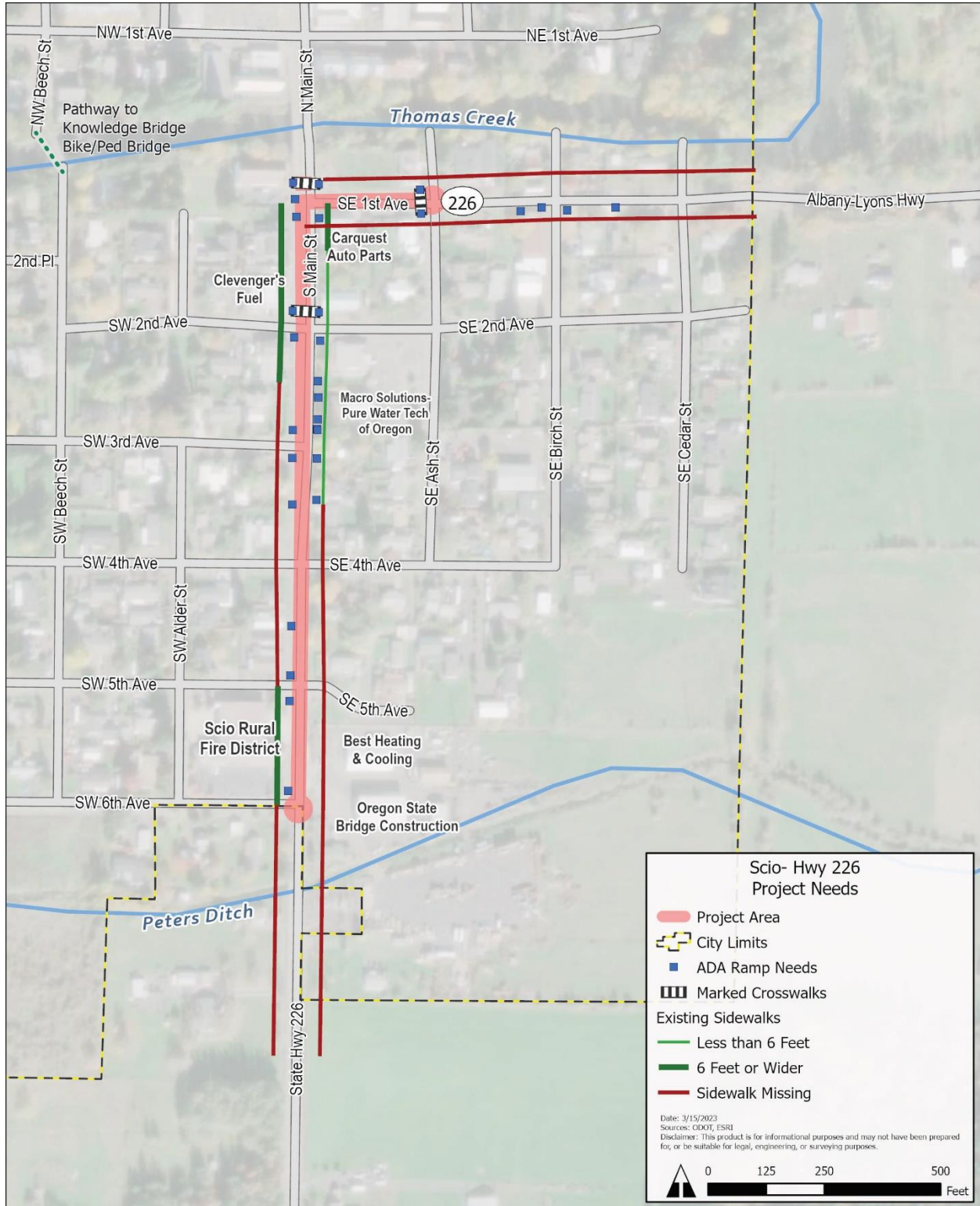


Figure 2-4. Scio Project Needs

## 2.4 Scio Community Engagement

The community engagement feedback throughout the UDV Study process informed the development of the corridor design concepts along OR 226. The plan for public engagement is included in Appendix B, Public Involvement Plan.

### 2.4.1 Scio Engagement Activities

Table 2-5 describes the two major public engagement milestones in Scio, as well as the strategies and communication tools for each.

**Table 2-5. Scio Engagement Activities Summary**

	Milestone 1	Milestone 2
<b>Purpose/Topic</b>	<ul style="list-style-type: none"> <li>Introduce the UDV Study project to the community.</li> <li>Gather feedback on needs and priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Share and gather feedback on draft conceptual improvement options.</li> <li>Gather feedback to help prioritize improvements.</li> </ul>
<b>Timing</b>	April 2023	Late June to early August 2023
<b>Engagement Tools</b>	<ul style="list-style-type: none"> <li>Online open house and survey.</li> <li>Printed fact sheets and surveys available at Scio City Hall.</li> </ul>	<ul style="list-style-type: none"> <li>In-person tabling event at Scio National Night Out on August 1, 2023.</li> <li>Online open house and survey.</li> <li>Meeting with the Mobility Advisory Committee (MAC) on September 14, 2023 to discuss improvements in all three communities.</li> </ul>
<b>Survey</b>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>
<b>Communication Tools</b>	<ul style="list-style-type: none"> <li>Website announcement.</li> <li>Project fact sheet.</li> <li>Utility mailer insert.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>	<ul style="list-style-type: none"> <li>Updated website announcement.</li> <li>Updated project fact sheet.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>
<b>Summary</b>	<ul style="list-style-type: none"> <li>The Milestone 1 feedback summary is included in Appendix C, Outreach Summary – Milestone 1.</li> </ul>	<ul style="list-style-type: none"> <li>The Milestone 2 feedback summary is included in Appendix D, Outreach Summary – Milestone 2</li> <li>No major concerns were expressed by the MAC.</li> </ul>

### 2.4.2 Scio Feedback Themes

The following list summarizes the themes heard in Outreach Milestones 1 and 2. For a full summary of engagement feedback, see Appendix C, Outreach Summary – Milestone 1 and Appendix D, Outreach Summary – Milestone 2.

#### 2.4.2.1 Milestone 1

##### Important Needs

- Better pedestrian connectivity; extend the sidewalks on OR 226 toward Lyons.

##### Important Issues

- Safety concerns at locations outside the project area, including the intersection of Mount Pleasant Drive, Kingston-Jordan Drive, and Valley View Drive; the intersection of Richardson Gap Road and OR 226; and Shimanek Bridge Drive between Richardson Gap Road and OR 226.

### 2.4.2.2 Milestone 2

#### Important Issues

- Intersection of Main Street and 1st Avenue: Safety issues for people walking and for people driving. OR 226 makes a tight turn at this intersection. A large number of trucks make this turn and must encroach into the oncoming lane to get through, making it challenging when the roads are busy. Trucks will also encroach on the inside corner, running over the curb and even occasionally hitting the building on the corner (Scio Auto Parts). Multiple participants emphasized the importance of truck movements through the intersection and suggested incorporating improvements that would ease their movement.
- Concerns about driving speeds, especially with large trucks. The safety issues faced by people walking, biking, and rolling.

#### Important Needs

- Better pedestrian crossings and sidewalks; add flashers at crosswalks. Extend pedestrian improvements east on NE 1st Avenue to S Cedar Street, and move the crosswalk on Main Street at NE 1st Avenue farther from the Thomas Creek Bridge to improve sight lines for visibility.
- Safer bike connections and well-marked bike lanes. Many students bike to school along OR 226. Educate drivers on bike rights for a safer experience for all users. Extend bike improvements south to Gilkey Road, as many people bike south to Gilkey Road to head west.
- Improved stormwater management.
- Improved street lighting in the project area.
- Safety improvements outside the project area, including at OR 226 and Richardson Gap Road, and Fish Hatchery Drive and Richardson Gap Road.

#### Concept Feedback

- Support for the proposed sidewalk and crosswalk improvements.
- Support for the proposed bike improvements.
- Support for the proposed reduction of parking on OR 226 to allow for bike lanes. However, some expressed concern for impacts to adjacent homes and businesses.

## 2.5 Scio Final Corridor Design Concepts

Based on the needs identified, urban context, and community engagement findings, the team developed the following recommended concepts for Scio. Recommendations include enhancements to bicycle accommodations and intersection and crossing improvements.

### 2.5.1 Bicycling Facilities

ODOT urban design guidance prioritizes encouraging and accommodating bicycling as a transportation mode in urban projects. Following this guidance, the recommended design concepts include new dedicated bike lanes for this segment. Given constraints, a Tier 2 on-street bike lane is

proposed. It would run along both sides of S Main Street from the south end of the project area to the north end and continue along SE 1st Avenue (Figure 2-5) as OR 226 turns east. The north side of SE 1st Avenue in the project area includes a new multiuse path (Figure 2-6) to help facilitate a comfortable cycling connection adjacent to this intersection; the intersection has substantial turning traffic including large trucks, making it uncomfortable for cyclists to navigate today.

## **2.5.2 Sidewalk, Intersection and Crossing Design Concepts**

Sidewalks are present in only a few areas of the project area: on the east side of S Main Street between 6th Avenue and 7th Avenue and within a block of the S Main Street/SE 1st Avenue intersection. New sidewalks would be built to fill in the gaps for the rest of the project area, and they would provide an unbroken walking connection from 6th Avenue to 1st Avenue (Figure 2-5). New sidewalks would meet ADA accessibility standards.

Existing marked crosswalks at uncontrolled intersections (S Main Street at 2nd Avenue, SE Main Street at 1st Avenue, and SE 1st Avenue at SE Ash Street) would be restriped, making them more visible to drivers. A new marked crosswalk would be striped on S Main Street at SE 4th Avenue. New and updated crosswalks would meet ADA accessibility standards.

At the intersection of S Main Street and SE 1st Avenue, improvements to increase safety and accessibility for people walking and biking are proposed. This includes new curb ramps that meet ADA accessibility standards and a bulb-out on the west side of SE Main Street (Figure 2-6). On-street parking adjacent to this intersection may need to be re-evaluated during design of improvements.



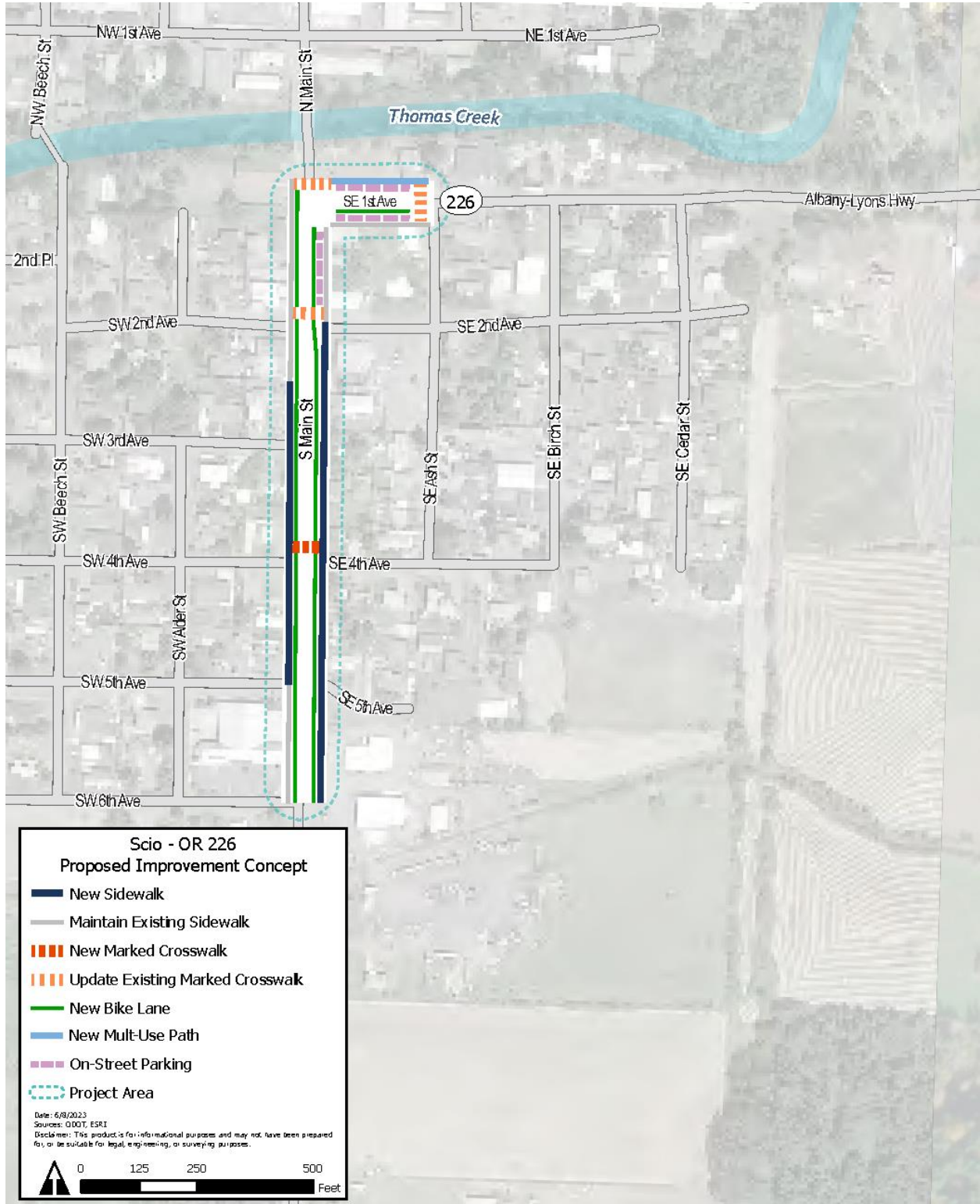


Figure 2-5. Scio Proposed Improvement Concept

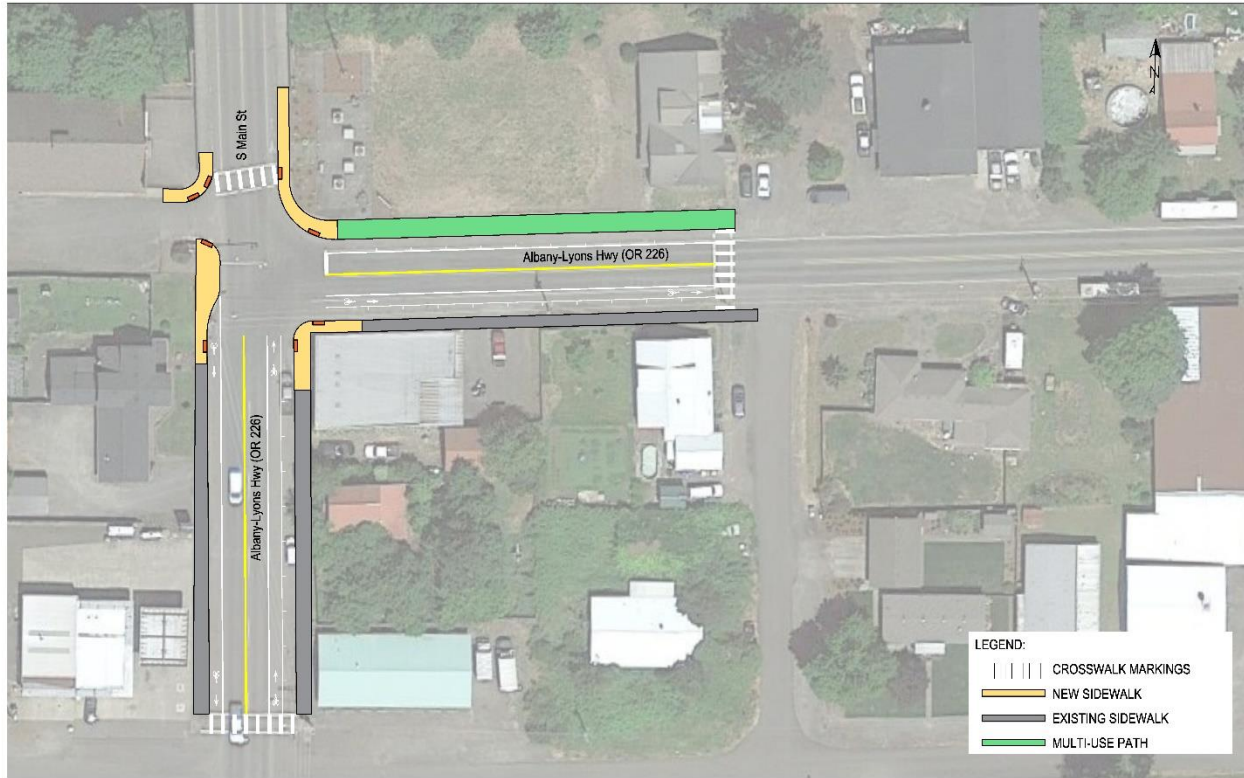


Figure 2-6. Scio Proposed Improvement Design Concept (Intersection Close-up)

Table 2-6 summarizes project costs for the Scio concept design. See Appendix E for cost estimate details.

Table 2-6. Scio - Planning/Concept-Level Construction Cost Estimate

Item	Cost
Construction Costs	\$ 797,430
Contingency Costs	\$ 514,400
Design and Construction Engineering	\$ 393,500
<b>TOTAL PROJECT COST</b>	<b>\$1,706,000</b>

### 2.5.3 Design Assumptions

Table 2-7. Scio Design Assumptions

Design Element	Assumption	Notes
Travel Lanes	One lane each direction, 12 ft. wide	No reduction in travel lane width as part of the proposed design.



Design Element	Assumption	Notes
Bicycle Facilities	One each direction, 5 ft. wide with 2 ft. buffer, on east and west side of S Main Street	Tier 2 Facility per ODOT Urban Design Guidance.
	Shared-use path, 10 ft. wide, on north side of OR 226	Tier 1 Facility per ODOT Urban Design Guidance.
Parking Facilities	North and south sides of OR 226, 7 ft. wide East side of S Main St., 7 ft. wide	To accommodate bicycle facilities, parking has been removed along the majority of S Main Street. An effort to maintain parking near the auto parts store was prioritized. See Figure 2-5 for on-street parking locations.
Design Vehicle	WB-67	

ft. = feet



### 3. Lyons

The study area for the Lyons UDV Study is the segment of Albany-Lyons Highway No. 211 (OR 226/S Main Street), including its right-of-way, within the Lyons UGB from MP 24.41 to 25.44. OR 226 is also known locally as 5th Street through the project area. Throughout the project area, OR 226 has substandard facilities for walking and biking. It also meets at a four-way, unsignalized intersection with Main Street and 6th Street at the south end of the study area where OR 226 takes a right turn and continues south. The north end of the study area concludes at the Santiam River Bridge. Key local destinations, such as the Mari-Linn School, are located along OR 226 in the project area.

As OR 226 continues to the eastern edge of the study area, it is known locally as SE 1st Avenue. The intersection of S Main Street and SE 1st Avenue lacks safe and accessible facilities for all road users and is often congested.



Figure 3-1. Lyons Project Area

### 3.1 Lyons Prior Planning and Documentation

There are relevant projects and policies from the Lyons Comprehensive Plan, the Lyons Safe Routes to School Plan, and the Linn County TSP (see Table 3-1). Projects include improved access to the Mari-Linn School and enhanced crosswalk and sidewalk improvements along OR 226, Birch Street, and Fir Street.

**Table 3-1. Summary of Relevant Planning Goals and Projects for Lyons**

Planning Document	Relevance to the UDV Study	Goals and Relevant Projects
<u>Lyons Comprehensive Plan (2003)</u>	The Lyons Comprehensive Plan includes a transportation goal with relevant policies.	<p><b>Relevant Plan Goals</b></p> <p>Transportation Goal: To provide a safe, convenient, and economic transportation system for the residents of the City of Lyons and for those traveling through the community.</p> <p><b>Relevant Plan Policies</b></p> <ul style="list-style-type: none"> <li>▪ The City of Lyons shall identify and provide for the development of bicycle and pedestrian routes connecting John Neal Park, Freres Park, downtown Lyons, Mari-Linn School, the Post Office, the North Santiam Bridge area, and other significant areas within the Urban Growth Boundary</li> <li>▪ The City of Lyons shall partner with ODOT in the implementation of the STIP.</li> </ul>
<u>Lyons Safe Routes to School Plan (2022)</u>	The Lyons Safe Routes to School Plan would improve access to Mari-Linn Elementary School on OR 226.	<p>Includes multiple projects to improve facilities for walking and biking to Mari-Linn Elementary School. Projects are focused on OR 226 between Main Street and Fir Street, and they also include improvements on Main Street east of OR 226, 7th Street, Birch Street, and Fir Street.</p> <p><b>Notable Projects</b></p> <ul style="list-style-type: none"> <li>▪ 03 (high priority): Install a high-visibility crosswalk with curb extensions at the north leg of the OR 226 intersection with Fir Street. Consider narrowing travel lanes and installing a pedestrian refuge island. Expand the school zone and revise school zone signs. Install buffered bike lanes on both sides of OR 226</li> <li>▪ 04: Install a sidewalk along the south side of Fir Street.</li> <li>▪ 05 (high priority): Move the existing crossing north approximately 90 feet to align with a pedestrian path. Install a high-visibility crosswalk with curb ramps. Consider a rectangular rapid flashing beacon. Consider narrowing travel lanes and installing a pedestrian refuge island. Add sidewalk on west side of OR 226 between Dogwood Road and the pedestrian path on the school campus. Revise school zone signs.</li> <li>▪ 06 (high priority): Mark the crosswalk at Dogwood Street and include ADA ramps.</li> <li>▪ 07 (high priority): Install sidewalk on the west side of OR 226 between Mari-Linn School and Main Street. Include ADA ramps. Install a high-visibility marked crosswalk on the north leg of the intersection with Birch Street.</li> <li>▪ 08 (high priority): Install buffered bike lanes between Main Street and Fir Street. Install vertical elements (flexible posts or concrete curbs) in the long term.</li> <li>▪ 09: Install ADA ramps at the Elm Street crossing along the east side of OR 226.</li> <li>▪ 10: Install sidewalk along the north side of Birch Street east of OR 226.</li> </ul>

Planning Document	Relevance to the UDV Study	Goals and Relevant Projects
<a href="#">Linn County Transportation System Plan (2018)</a>	The Linn County TSP focuses on the needs of walking, bicycling, driving, transit and freight with strategies and projects that are important for protecting and enhancing the quality of life in Linn County through the next 20 years.	<ul style="list-style-type: none"> <li>▪ 11: Install sidewalk along the south side of OR 226 between Main Street and the intersection of OR 226, Main Street, and 6th Street. Study intersection of OR 226, Main Street, and 6th Street for a potential all-way stop. Install a high-visibility crosswalk on the south leg of the intersection. Install high-visibility crosswalk on the east leg of the intersection to replace existing markings.</li> <li>▪ 13: Develop a neighborhood greenway route along 7th Street and Elm Street between Main Street and Mari-Linn School.</li> </ul>
		<p><b>Relevant Rural Modernization Projects</b></p> <ul style="list-style-type: none"> <li>• OR 226 near Lyons – Sight Distance Improvements: Between Kingston-Lyons Drive and Lyons, improve sight distance by providing additional shoulders and clear zone. Evaluate centerline striping for passing-zone compliance. (State)</li> </ul>

## 3.2 Lyons Urban Context

This segment begins at the intersection of OR 226, 6th Street, and Main Street, then travels north through the heart of Lyons to the north edge of the city at the Santiam River. Adjacent land use is primarily residential, and it also includes the Mari-Linn Elementary School, Lyons City Hall, a church, and businesses (primarily at the south end of the project area).

Table 3-2. Lyons Context Overview

Highway	Mile Points	Urban Context	Land Use Elements
OR 226	24.41-25.44	<i>Residential Corridor</i>	<p>Segment includes land use elements consistent with the <i>Residential Corridor</i> context:</p> <ul style="list-style-type: none"> <li>▪ Some buildings that can be accessed from the sidewalks along a pedestrian path.</li> <li>▪ Primarily residential (with some businesses, civic land uses, and a church).</li> <li>▪ Medium building coverage.</li> <li>▪ Parking varies.</li> <li>▪ Small to medium block sizes.</li> </ul> <p>Buildings are generally set back a medium distance from the property line, which is not a perfect match for <i>Residential Corridor</i> (defined as Shallow).</p>

Design guidance for Lyons, based on the *Residential Corridor* context, is listed and compared to existing conditions in Table 3-3. Currently, the bike facility, sidewalks, pedestrian crossing spacing, and on-street parking conditions fail to meet guidance. The corridor lacks a dedicated facility for biking. The corridor also does not have a continuous, connected, ADA-compliant sidewalk along the west side. The east side does have an existing sidewalk through the corridor. However, in places where the sidewalk exists, it is often narrower than the current minimum width (6 feet) and may not meet ADA standards at the curb ramps. The target pedestrian crossing spacing is longer than recommended in some places, and there are only two marked crosswalks. The shoulders are used for parking, though guidance does not recommend on-street parking.

**Table 3-3. Urban Design Guidance for Lyons (OR 226 MP 24.41 to 25.44)**

Element	Urban Design Guidance: Residential Corridor	Existing Conditions
Target Speed	30 to 35 mph	Posted speed: 35 mph
Travel Lanes	Evaluate, start with preferred widths, wider by roadway characteristics <ul style="list-style-type: none"> <li>Minimum width: 11 ft. to 12 ft.*</li> </ul>	12 ft.
Turn Lanes	Balance crossing width and operations depending on desired use. Minimum widths: <ul style="list-style-type: none"> <li>Two-way left turn lane: 12 ft. to 14 ft.</li> <li>Left turn lane: 12 ft. to 14 ft.</li> <li>Right turn lane: 12 ft. to 13 ft.</li> </ul>	Not applicable – no turn lanes in project area
Shy Distance	Consider roadway characteristics, desired speeds. 0 ft. to 1 ft.	Not applicable – shoulder adjacent to travel lanes in project area
Median	Optional, use as a pedestrian crossing refuge Minimum widths (including shy distances): <ul style="list-style-type: none"> <li>Raised median – no turn lane: 8 ft. to 11 ft.</li> <li>Left-turn lane with raised curb median/separator (including 16-inch separator): 14 ft. to 15 ft.</li> </ul>	Not applicable – no medians in project area
Bicycle Facility	Start with separated bicycle facility, consider roadway characteristics. Tier 1: Separated bike lanes (preferred facility design) <ul style="list-style-type: none"> <li>Separated bicycle lane minimum width (curb constrained facility): 7 ft. to 8 ft.</li> <li>Separation may be delineated with raised island, landscaping, delineator posts, concrete barrier or guardrail, irrigation ditch, or bio-swale.</li> </ul> Tier 2: Buffered bike lanes and bike lanes <ul style="list-style-type: none"> <li>Evaluate bicycle lane buffer</li> <li>On-street bicycle lane (not including buffer): 5 ft. to 6 ft. minimum</li> <li>Bicycle/street buffer: 2 ft. to 5 ft. minimum</li> </ul>	<b>No dedicated bicycle facility</b>
Sidewalk	Continuous and buffered sidewalks <ul style="list-style-type: none"> <li>Pedestrian zone: 5 ft. to 8 ft.</li> <li>Minimum sidewalk width is 6 ft. including frontage zone and buffer zone</li> </ul>	<b>0 ft., 4 ft. 5 ft.,</b> 6 ft., and 11 ft Most sidewalks are <b>5 ft.</b> or 6 ft.
Target Enhanced Crosswalk Spacing Range	500 ft. to 1,000 ft.	<b>150 to 1,300 ft.</b> between unmarked crossings, with most crossings approximately 250 to 300 ft. apart. Two marked crossings are in the project area and are 1,600 ft apart.
On-Street Parking	Generally not applicable, consider roadway character	Shoulders are used for parking and range between 7 ft. and 10 ft. wide.

ODOT Highway Design Manual, 2023. Tables 200-6, 300-10, 900-5.

**Bold** values differ from HDM guidelines.

\* 11-foot lane width preferred, at 40 mph and above, a 12-foot lane is preferred.

ft. = feet; in. = inches

### 3.3 Lyons Corridor Opportunities and Needs

Table 3-4 summarizes corridor opportunities and needs identified in the study area. These needs and opportunities reflect urban design guidance and include needs identified through discussion with City and ODOT staff. For a detailed summary of corridor opportunities and needs, see Appendix A, Opportunities and Needs Memo. Figure 3-2 and Figure 3-3 further illustrate several of the corridor issues and needs.



Figure 3-2. OR 226/5th Street at the Mari-Linn School Facing North. No bike lanes or enhanced crossings exist, and there is only a narrow sidewalk on one side.





Figure 3-3. OR 226 Facing South. Wide shoulder and sidewalks are present, but there are no bicycle facilities

Table 3-4. Needs and Opportunities in Lyons (OR 226 MP 24.41 to 25.44) – Context: *Residential Corridor*

Resource	Needs and Opportunities
Sidewalks	<ul style="list-style-type: none"> <li>▪ Sidewalks are missing and needed at:                             <ul style="list-style-type: none"> <li>→ The west side of OR 226 from Elm Street to Cedar Street.</li> <li>→ The west side of OR 226 from approximately 270 feet south of Cedar Street to the south edge of the project area.</li> </ul> </li> <li>▪ Sidewalks are narrower than the 6-foot minimum specified by urban design guidance and need improvements at:                             <ul style="list-style-type: none"> <li>→ The full east side of OR 226, including the north side of the segment on Main Street. The existing sidewalk is 5 feet wide.</li> <li>→ The west side of OR 226 from Cedar Street south approximately 270 feet. The existing sidewalk is 4 feet wide.</li> </ul> </li> </ul>

Resource	Needs and Opportunities
Crosswalks	<ul style="list-style-type: none"> <li>▪ Traffic Manual recommends spacing enhanced crosswalks in <i>Residential Corridor</i> contexts every 500 to 1,000 feet.</li> <li>▪ One marked crosswalk on OR 226 is in the project area:               <ul style="list-style-type: none"> <li>→ On the north leg of OR 226 at Dogwood Street near the Mari-Linn Elementary School. This has not been approved by ODOT, lacks ADA-accessible ramps, and does not meet current standards.</li> </ul> </li> <li>▪ Additional enhanced crossings are needed to meet Traffic Manual guidance. The north end of the project area is more than 3,300 feet from the nearest marked crosswalk (at Dogwood Street). South of Dogwood Street, the next nearest marked crosswalk is more than 1,600 feet away on the east leg of Main Street (which is not OR 226) at 6th Street.</li> <li>▪ Pedestrian facilities are needed to connect to the Lyons Corner Market at 6th Street and Main Street. This is a popular destination and lacks pedestrian accessibility.</li> <li>▪ No crosswalks are closed.</li> </ul>
ADA	<ul style="list-style-type: none"> <li>▪ The project area needs ADA-accessible ramps throughout. With the existing sidewalks, 39 locations (typically individual corners or crosswalk termini) lack an ADA-accessible ramp:               <ul style="list-style-type: none"> <li>→ 18 locations are missing ADA-accessible ramps.</li> <li>→ 21 existing ramps in project area do not meet ADA standards.</li> <li>→ New sidewalks would require additional ramps.</li> </ul> </li> <li>▪ No pedestrian pushbuttons exist or are needed.</li> </ul>
Stormwater	<ul style="list-style-type: none"> <li>▪ Stormwater management would need to be included with new curb construction.</li> </ul>
Bicycle Facilities	<ul style="list-style-type: none"> <li>▪ Bicycle facilities need improvement to meet current design guidance. The existing shared shoulder is considered a bike facility in ODOT's inventory; however, urban design guidance recommends dedicated, separated bike lanes. Bike facilities could vary through the corridor based on context and other design considerations.</li> <li>▪ Low-stress bicycle facilities are needed to give students a comfortable route to bike to the Mari-Linn Elementary School.</li> </ul>
Bicycle Connections Beyond Project Area	<ul style="list-style-type: none"> <li>▪ Two biking connections beyond the project area are needed:               <ul style="list-style-type: none"> <li>→ To the bike lanes on the Santiam River bridge at the north end of the project area where OR 226 connects to Mehama.</li> <li>→ To the bike lanes on Main Street at the south end of the project area where Main Street continues east and OR 226 turns south.</li> </ul> </li> </ul>
Safety	<ul style="list-style-type: none"> <li>▪ Eight crashes were reported during the 5 years from 2016 through 2020. Four were classified as "No Apparent Injury/Property Damage Only," and the other four were "Possible Injury" (1), "Suspected Minor Injury" (2), and "Suspected Serious Injury" (1). None involved people walking or biking.               <ul style="list-style-type: none"> <li>→ Three were at or near Ironwood Street.</li> <li>→ Two were near Elm Street/Mari-Linn Elementary School.</li> <li>→ Three were on Main Street between 5th Street and 6th Street.</li> </ul> </li> <li>▪ No needs identified in the ARTS or SPIS systems.</li> </ul>
Accesses	<ul style="list-style-type: none"> <li>▪ Accesses, including driveways and side streets, through much of the project area are spaced closer than guidance recommends. Some driveway accesses are ambiguously defined, with frontages that extend the full width of the property.</li> <li>▪ Target access spacing is 250 feet between accesses based on the classification, volumes, and posted speed.<sup>5</sup></li> </ul>
Pavement Condition	<ul style="list-style-type: none"> <li>▪ Pavement condition is rated "poor" in the 2022 Pavement Conditions Report and needs improvement.</li> </ul>

<sup>5</sup> Oregon Administrative Rule 734-051-4020 (8), Table 3.

Resource	Needs and Opportunities
Freight	<ul style="list-style-type: none"> <li>▪ Freight and logging trucks commonly use this segment of OR 226, and freight mobility will need to be considered. Trucks need to make the turn through the intersection of Main Street and 6th Street.</li> <li>▪ This is not a designated freight route or Reduction Review Route.</li> </ul>
Speed Zone	<ul style="list-style-type: none"> <li>▪ The posted speed in the corridor is 35 mph. This begins at MP 24.41 (the south end of the project area) where it transitions from 25 mph. The 35 mile per hour speed zone continues to MP 25.71 (approximately 1/4 mile north of the project area, where OR 226 terminates at OR 22).</li> <li>▪ A speed limit of 20 mph exists between Cedar Street and 300 feet north of Elm Street when children are present (2000 Speed Zone Order).</li> <li>▪ A 2017 Speed Zone Investigation was performed for OR 226 between 6th Street and 0.14 miles north of Kapok Street at the request of the City of Lyons to lower the speed limit from 35 to 25 mph. The investigation recommended retaining the existing speed limit because of the 85% speed, pace limits, and crash rate.</li> </ul>
Parking	<ul style="list-style-type: none"> <li>▪ On-street parking provisions appear to be more than sufficient.</li> <li>▪ Shoulders are sometimes used for parking or loading near the Mari-Linn Elementary School.</li> <li>▪ No parking restrictions identified.</li> </ul>

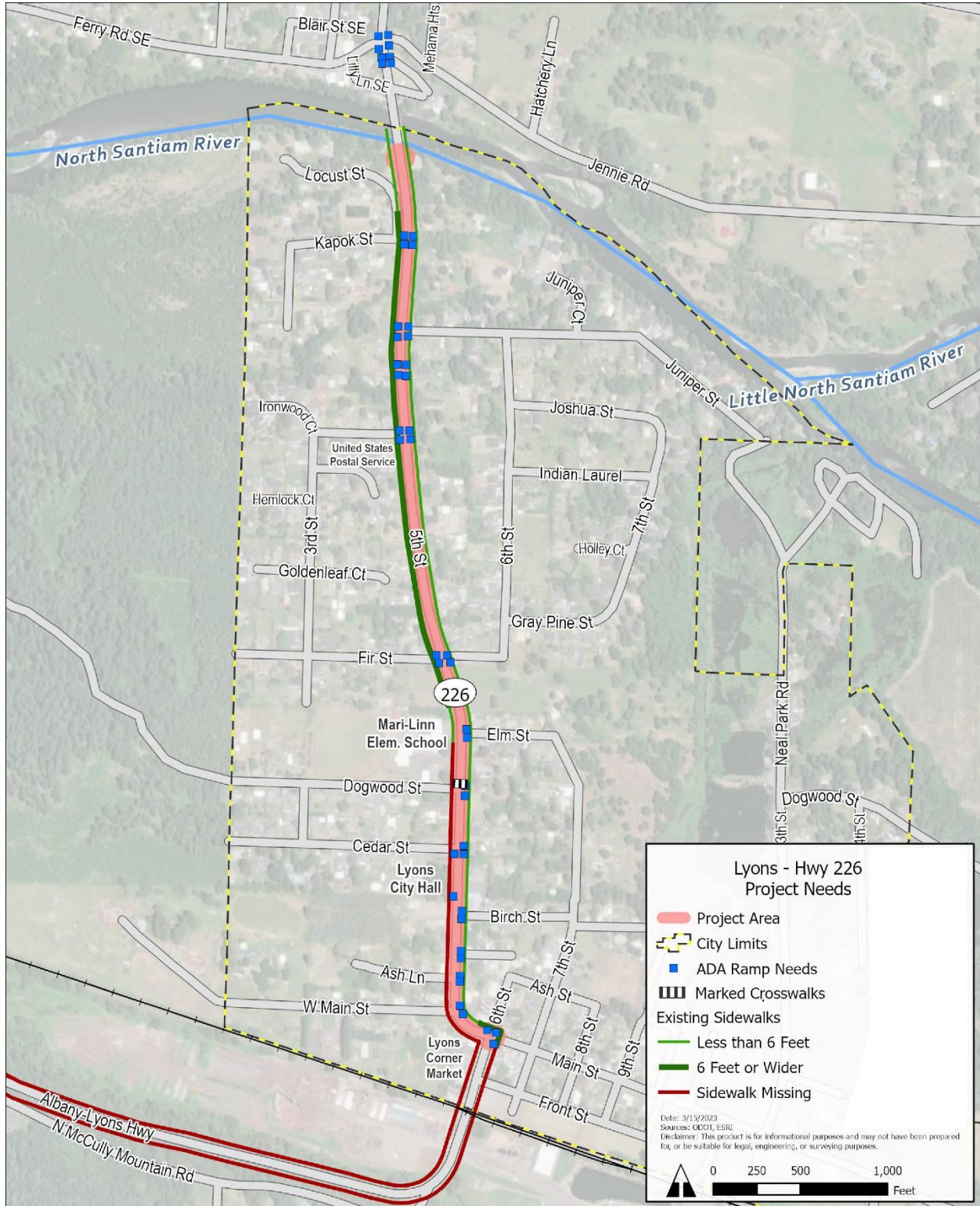


Figure 3-4. Lyons OR 226 Project Needs



## 3.4 Lyons Community Engagement

The community engagement feedback throughout the UDV Study process informed the development of the corridor design concepts along OR 226 in Lyons. The plan for public engagement is included in Appendix B, Public Involvement Plan.

### 3.4.1 Lyons Engagement Activities

Table 3-5 describes the two major public engagement milestones in Lyons, as well as the strategies and communication tools for each.

**Table 3-5. Lyons Engagement Activities Summary**

	Milestone 1	Milestone 2
<b>Purpose/Topic</b>	<ul style="list-style-type: none"> <li>Introduce the UDV Study project to the community.</li> <li>Gather feedback on needs and priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Share and gather feedback on draft conceptual improvement options.</li> <li>Gather feedback to help prioritize improvements.</li> </ul>
<b>Timing</b>	April 2023	Late June to early August 2023
<b>Engagement Tools</b>	<ul style="list-style-type: none"> <li>Online open house and survey.</li> <li>Printed fact sheets and surveys available at Lyons City Hall.</li> </ul>	<ul style="list-style-type: none"> <li>In-person tabling event at Lyons Flea Market on July 15, 2023.</li> <li>Online open house and survey.</li> <li>Meeting with the Mobility Advisory Committee (MAC) on September 14, 2023 to discuss improvements in all three communities.</li> </ul>
<b>Survey</b>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>
<b>Communication Tools</b>	<ul style="list-style-type: none"> <li>Website announcement.</li> <li>Project fact sheet.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>	<ul style="list-style-type: none"> <li>Updated website announcement.</li> <li>Updated project fact sheet.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>
<b>Summary</b>	<ul style="list-style-type: none"> <li>The Milestone 1 feedback summary is included in Appendix C, Outreach Summary – Milestone 1.</li> </ul>	<ul style="list-style-type: none"> <li>The Milestone 2 feedback summary is included in Appendix D, Outreach Summary – Milestone 2.</li> <li>MAC feedback heard included appreciation for retaining 12' travel lanes and separate bike facilities.</li> </ul>

### 3.4.2 Lyons Feedback Themes

The following list summarizes the themes heard in Outreach Milestones 1 and 2. For a full summary of engagement feedback, see Appendix C, Outreach Summary – Milestone 1 and Appendix D, Outreach Summary – Milestone 2.

#### 3.4.2.1 Milestone 1

##### Important Issues

- Safety concerns for walking or using a mobility device in the project area. There is concern for safety at the intersection of OR 226, Main Street, and 6th Street.
- Driving behavior that makes it feel unsafe and uncomfortable; there are concerns about the number and speed of large trucks.
- Safety concerns at locations outside the project area, including the intersection of OR 22 and OR 226 and Jennie Road.

#### Important Needs

- Better pedestrian crosswalks and sidewalks; infill missing sidewalks and add more enhanced crosswalks.

### 3.4.2.2 Milestone 2

#### Important Issues

- Concern about freight trucks and pedestrian safety. Trucks have knocked down stop signs.
- Concern about kids not using the bike lane as designed. Kids currently bike on the road at night.

#### Important Needs

- Better pedestrian crossings and sidewalks; add flashing beacons to all crosswalk locations. Respondents suggested additional locations for crosswalk improvements including the intersection of 6th Street and Main Street (at the Lyons Corner Market) and the intersection of 8th Street and Main Street (outside the study area).
- Vegetation along the sidewalk needs to be maintained to keep the pedestrian path clear and improve visibility.
- Add street lighting in the project area, especially in the school zone.
- Add speed bumps to calm traffic speeds.
- Safety improvements outside the project area, such as the intersection of OR 22 and OR 226. One recommendation is to add additional street lighting at the stop sign for northbound travelers turning from OR 226 to OR 22.

#### Concept Feedback

- Support for the proposed sidewalk and crosswalk improvements.
  - Many people would like to prioritize the proposed sidewalk (or shared-use path) infill to establish a connected route for walking and using a mobility device. People are especially interested in making it safer and more comfortable for students to reach the Mari-Linn School.
  - People expressed support for the proposed flasher by Mari-Linn School. The flashing beacon would be helpful when the crossing guard is not there or would be an additional reminder to drivers when the guard is there.
- Support for the proposed bike improvements.
  - There are two options proposed for the north side of the study area: (1) keep shoulders with on-street parking or (2) add bike lanes. Many people preferred bike lanes to support a well-connected bike network for commuting and recreational biking.

- A mix of support and concern for regarding the importance of parking and the proposal to reduce parking in the corridor. Parking spaces are not used daily. However, parking spaces are used to capacity during events such as flea markets, church events, the haunted house, and other holiday events. Many people voiced support for retaining parking through the study area.
  - There are two design options offered between W Main Street and Cedar Street.
    - ▶ Some people preferred Option A, which would add a new two-way path and keep parking on both sides of the street. Option A maintains more parking, which gets used during church and school events.
    - ▶ Some people preferred Option B, which would keep parking on one side and have a sidewalk and bike lane on the other. Respondents who favored Option B mentioned that they think it would feel safer.

## 3.5 Lyons Final Corridor Design Concepts

Enhancements are proposed for the span of OR 226 between W Main Street and Fir Street. While the span north of Fir Street to the Santiam River Bridge does not currently meet ODOT guidance for accommodating cycling, no specific design solutions are recommended as a result of discussion with the community. There was significant concern about removal of on-street parking in this section. There is a wide shoulder on both sides of the road that functions occasionally as on-street parking but is typically available for cycling. Additionally, there are low-volume residential streets parallel to OR 226 in this area that can provide a lower-stress route for cyclists.

The project team considered multiple alternatives to addressing bicycling and pedestrian needs in this corridor. Parking removal was a central concern expressed by the City and school district. The team worked to develop concepts that minimized parking removal while still meeting ODOT design guidance.

### 3.5.1 Lane Configurations

The existing lane configuration for vehicles through this segment would remain unchanged. However, the segment would be restriped to accommodate a northbound on-street buffered bike lane. Parking lanes, which exist informally on both sides of OR 226, would be formally striped as well.

### 3.5.2 Bicycling Facilities

No marked bicycle facilities currently exist in the project area. Many students bike to Mari-Linn School and often ride on the sidewalks or, where sidewalks are missing, on the shoulder. A buffered on-street bike lane would be constructed on the east side (northbound) OR 226 from Main Street at 6<sup>th</sup> Street to Fir Street, while a protected two-way multiuse path would be constructed on the west side (Figure 3-5). On-street parking would protect the shared-use path from vehicle traffic.

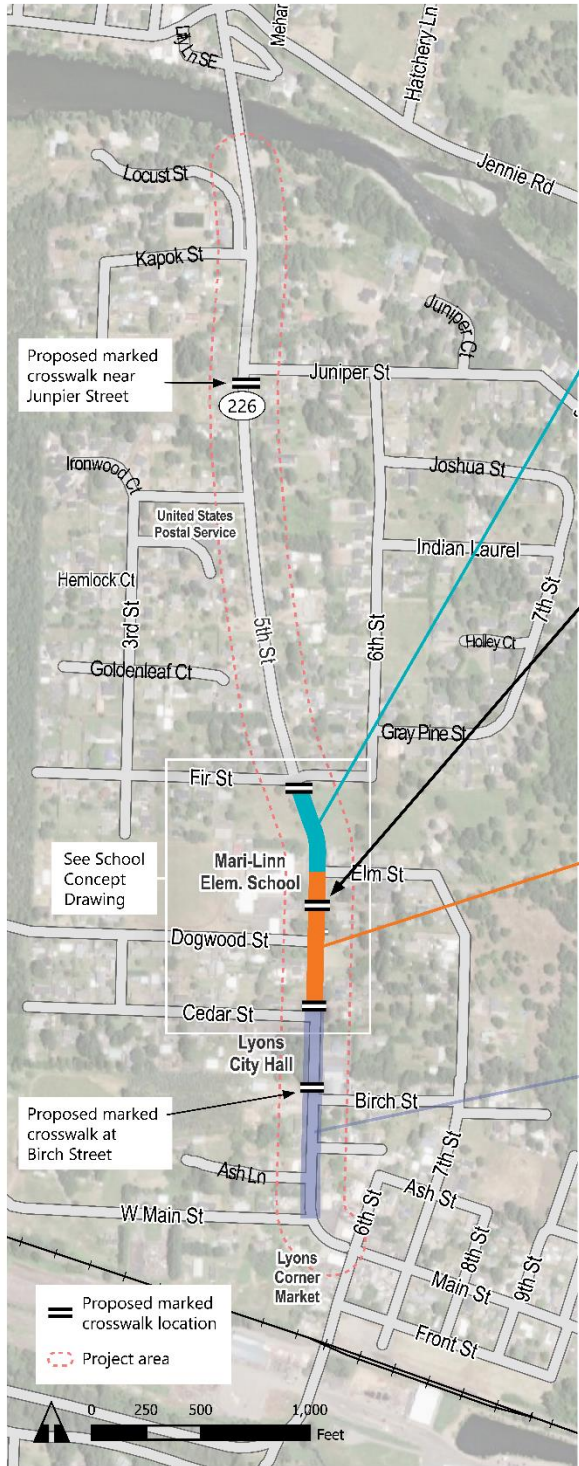
### 3.5.3 Sidewalk, Intersection, and Crossing Design Concepts

There are several proposed enhancements for sidewalks and pedestrian facilities. While the existing sidewalk on the east side of OR 226 would remain unchanged, bulb-outs and new crosswalk markings would be constructed at Birch Street, Cedar Street, in front of the Mari-Linn School south of Elm Street, and Fir Street. The existing crosswalk at Dogwood Street would be removed. The new crosswalks would meet ADA accessibility standards. Bulb-outs would also be constructed at each

corner of OR 226 and Dogwood Street and on one side of Elm Street. A flashing beacon would be installed at the crossing in front of the Mari-Linn School (Figure 3-6).

A shared-use path would be constructed on the west side of OR 226 from W Main Street to Fir Street. This path could accommodate both bicyclists and pedestrians traveling in either direction. The existing sidewalk on the east side would be enhanced with new crossings and bulb-outs at the locations described above and in Figure 3-6.

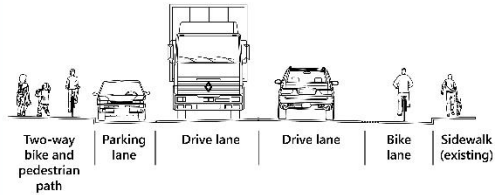




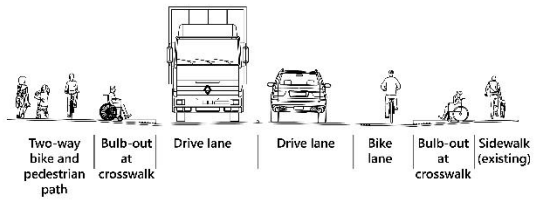
## Urban Design Verification: Lyons OR 226 - Lyons Draft Concepts

Sections looking north

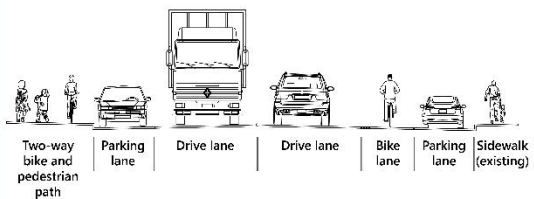
### Between Elm St and Fir St



### At crosswalk with bulb-outs



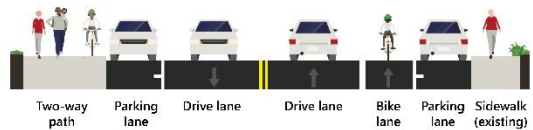
### Between Cedar St and Elm St



### Between W Main St and Cedar St

#### Path on west side

New two-way path on west side would be at sidewalk level and shared for walking, biking and rolling.



#### Considerations

- Preserves more on-street parking.
- Higher cost.
- Safety issues: multiple driveways would cross the path, and drivers would need to look both ways for people approaching on bikes when entering or exiting. Also, parked vehicles could block the view of the path from the road.



Figure 3-5. Lyons Proposed Improvement Concept

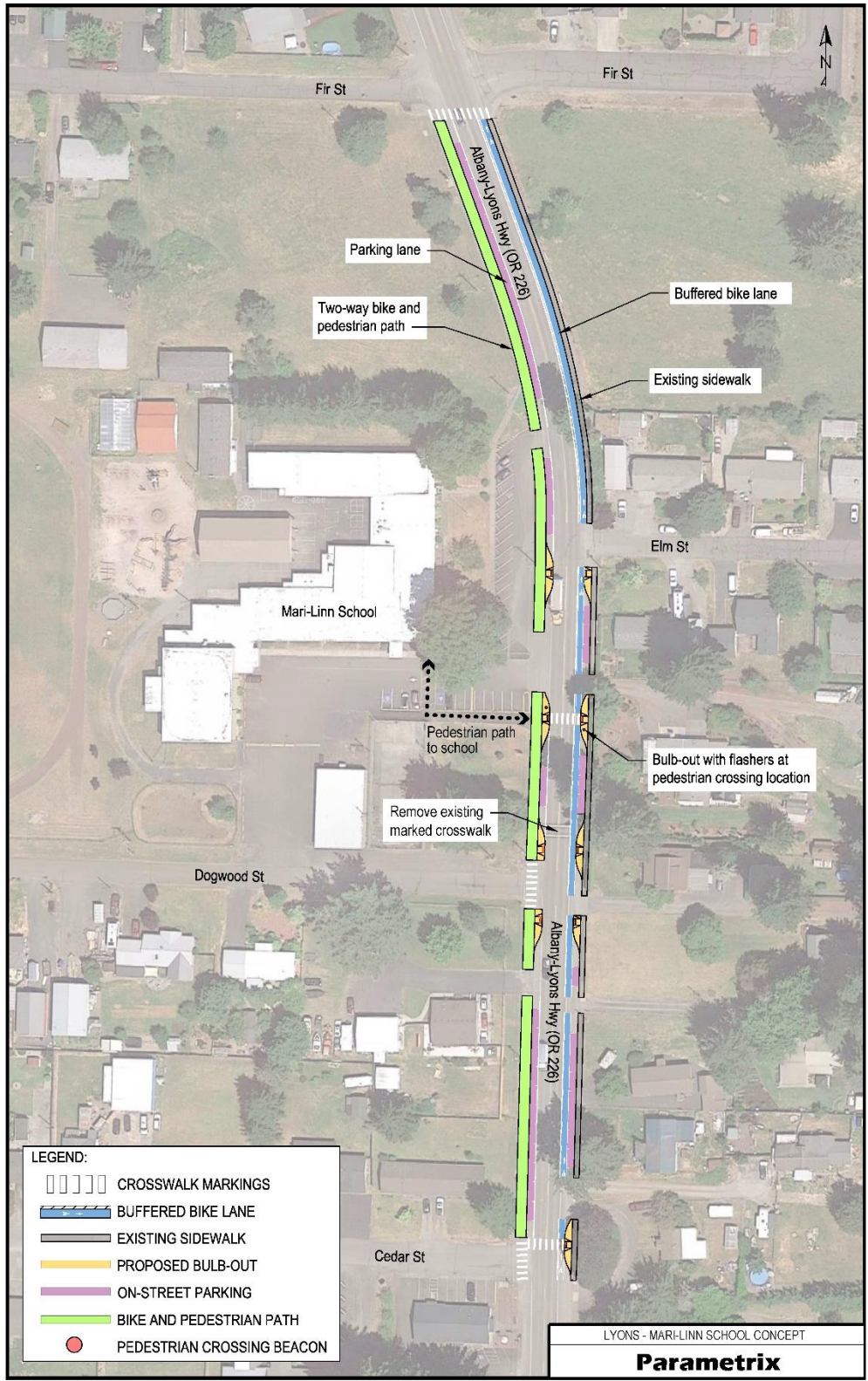


Figure 3-6. Lyons Proposed Improvement Concept (Mari-Linn School Closeup)

Below is a summary of the project costs for the Lyons concept designs divided into two categories (Table 3-6). The project team provided a separate Safe Routes to School (SRTS) estimate to inform the City’s SRTS grant received in 2021. The City will use the UDV study results to begin designing their project:

- Safe Routes to School (see Figure 3-6)
  - Includes project costs from Mari-Linn School to Cedar Street
- North (see Figure 3-5)
  - Includes project costs from to Fir Street to Mari-Linn School
- South (see Figure 3-5)
  - Includes project costs from to Cedar Street to Main Street

See Appendix E for cost estimate details.

**Table 3-6. Lyons – Planning/Concept-Level Construction Cost Estimate**

Item	Cost <sup>6</sup>
<b>Safe Routes to School (Mari-Linn School to Cedar Street)</b>	
Construction Costs	\$733,530
Contingency Costs	\$473,200
Design and Construction Engineering	\$410,300
<i>SRTS Subtotal</i>	<i>\$1,620,000</i>
<b>North (Fir Street to Mari-Linn School)</b>	
Construction Costs	\$112,530
Contingency Costs	\$72,700
Design and Construction Engineering	\$63,000
<i>North Subtotal</i>	<i>\$249,000</i>
<b>South (Cedar Street to Main Street)</b>	
Construction Costs	\$496,370
Contingency Costs	\$320,000
Design and Construction Engineering	\$244,900
<i>South Subtotal</i>	<i>\$1,070,000</i>
<b>TOTAL PROJECT COST</b>	<b>\$2,939,000</b>

<sup>6</sup> Note: subtotals vary due to rounding. See Appendix E for cost estimate details.

### 3.5.4 Design Assumptions

Table 3-7. Lyons Design Assumptions

Design Element	Assumption	Notes
Travel Lanes	One lane each direction, 12 ft. wide	No reduction in travel lane width as part of the proposed design.
Bicycle Facilities	Northbound, 5 ft. to 7 ft. wide with buffer, from Main St. to Fir St.	Tier 2 Facility per ODOT Urban Design Guidance.
	Southbound, shared-use path, 10 ft. wide, from Fir St. to W. Main St.	Tier 1 Facility per ODOT Urban Design Guidance.
Parking Facilities	East and West sides of OR 226, 7 ft. wide	Based on feedback from the community, school board, and City Council, an effort to maintain parking along the entire corridor was prioritized. See Figure 3-5 and Figure 3-6 for on-street parking locations.
Design Vehicle	WB-67	

ft. = feet; St. = Street



## 4. Mill City

The study area for the Mill City UDV Study is the segment of North Santiam Highway No. 162 (OR 22), including its right-of-way, within the Mill City UGB. It is the approximately 0.2 miles from NE 3rd Avenue to NE 7th Avenue (MP 30.31 to 30.51; see Figure 4-1). It is also known locally as NE Santiam Boulevard. OR 22 is a highly traveled route from Salem to the Santiam Pass, where it terminates at U.S. 20/OR 126. Issues related to bike and pedestrian access and safety are present, and vehicles often exceed 40 mph through this segment.



Figure 4-1. Mill City Project Area

### 4.1 Mill City Prior Planning and Documentation

Mill City is in two counties and is divided by the North Santiam River; north of the river is Marion County and south of the river is Linn County. There are relevant projects and policies from the Mill City Comprehensive Plan, the Mill City Access Management Plan, the Marion County Rural TSP, and the Linn County TSP (see Table 4-1). A few projects include a proposed trail along OR 22 from Detroit to Mill City and beyond, pedestrian and bike improvements along OR 22 and the 1st/2nd Avenue connection to Mill City, and connectivity improvements in the project area.

**Table 4-1. Summary of Relevant Planning Goals and Projects for Mill City**

Planning Document	Relevance to the UDV Study	Goals and Relevant Projects
<u>Mill City Comprehensive Plan (1980 with 2015 updates)</u>	The Mill City Comprehensive Plan was originally adopted in 1980. The goals and policies provide a framework to achieve the City's vision of how to grow and develop over 20 years. The transportation chapter supports pedestrian and bike improvements near the project area.	<p><b>Relevant Alternatives and Recommendations for Roadways</b></p> <ul style="list-style-type: none"> <li>▪ As businesses are developed along OR 22, off-street parking spaces should be required. The City might also consider requiring curbs and possible sidewalks as properties are developed along the highway. Curbs and driveways would better define access points.</li> </ul> <p><b>Relevant Policies</b></p> <ul style="list-style-type: none"> <li>▪ The City shall develop pedestrian and bicycle routes through the City which use street right-of-way and pedestrian and bicycle route easements.</li> <li>▪ The City shall explore funding sources for pedestrian and bicycle routes.</li> <li>▪ The City shall view NE 5th Street as the best possible accessway to land along the north side of the North Santiam River and designate NE 5th Street as a collector from OR 22 south.</li> </ul>
<u>Marion County Rural Transportation System Plan (RTSP) (2005)</u>	The County RTSP provides the framework for developing an efficient, well-balanced, and cost-effective transportation system for the next 20 years. The RTSP recommends roadway improvements, including bicycle and pedestrian improvements and state highway improvements.	Possible Desirable Future Trail: There is an effort in the North Santiam Canyon area to develop a trail from Mehama/Lyons, through Mill City and Gates, to Detroit, extending as far as Idanha.
<u>Mill City Access Management Plan (2008)</u>	The goal of this Access Management Plan is to identify short-, medium-, and long-range strategies for access management along OR 22 (North Santiam Highway within the city limits of Mill City) that promote safe and efficient roadway operation. A need has been identified to plan for pedestrian and bicycle circulation along OR 22 and to provide connectivity between OR 22 and Mill City's downtown and residential areas.	<p><b>Short-Range Implementation Plan (0 to 5 Years)</b></p> <ul style="list-style-type: none"> <li>▪ Construct local cross-street improvements if funding is available.</li> <li>▪ Identify state and local funding sources to construct needed pedestrian safety and bicycle improvements on OR 22 and the 1st/2nd Avenue connection to Mill City.</li> </ul> <p><b>Medium-Range Implementation Plan (5 to 10 Years)</b></p> <ul style="list-style-type: none"> <li>▪ Includes the relocation and combination of approaches on OR 22 cross-streets and connectivity improvements on City roadways and the phasing order (that correlates to the project area) is: <ul style="list-style-type: none"> <li>→ Phase 2: NE 3rd Avenue, NE 5th Avenue, and NE 7th Avenue</li> </ul> </li> <li>▪ The phasing order may be reorganized as opportunities arise, but it should be kept in mind that the improvements (that correlates to the project area) at NE Alder Street/NE 7th Avenue is most critical to supporting the long-range implementation plan.</li> <li>▪ Identify state and local funding sources to construct needed pedestrian safety and bicycle improvements on OR 22 and the 1st/2nd Avenue connection to Mill City.</li> </ul> <p><b>Long-Range Implementation Plan (10 to 20 Years)</b></p> <ul style="list-style-type: none"> <li>▪ Replace the center two-way left-turn lane on OR 22 between the west city limits and NE 3rd Avenue with a non-traversable median. Include breaks in the median accompanied by left-turn lanes at the following location: <ul style="list-style-type: none"> <li>→ NE Alder Street (west): westbound lefts only.</li> </ul> </li> <li>▪ Maintain the center two-way left-turn lane on OR 22 from NE 3rd Avenue to east of NE 7th Avenue due to short spacing between public approaches.</li> </ul>

Planning Document	Relevance to the UDV Study	Goals and Relevant Projects
<p><u>Salem to Bend Corridor Plan: OR 22 and OR 126 (1998)</u></p>	<p>The plan addresses the operation, preservation, and improvement of transportation facilities in the OR 22/U.S. 20 corridor. The plan emphasize the need to address congestion through measures that reduce the demand for single-occupancy vehicle travel, including expanding commute options such as carpooling, transit, bicycling, and walking.</p>	<p><b>Relevant Actions and Objectives</b></p> <p><b>Intercity Bus</b></p> <ul style="list-style-type: none"> <li>▪ Identify ways to establish commuter transit service between the corridor cities and the urban centers at the ends of the corridor.</li> <li>▪ Increase the frequency of intercity bus service to and through the corridor communities.</li> </ul> <p><b>Transportation Services for the Elderly and Disabled</b></p> <ul style="list-style-type: none"> <li>▪ Improve the mobility, if needed, of the elderly and disabled (and youth and non-drivers) population living in the corridor. Document and characterize the need and identify the most cost-effective way to meet it. Use all cost-effective and locally supported methods to improve mobility.</li> </ul> <p><b>Pedestrian</b></p> <ul style="list-style-type: none"> <li>▪ Provide sidewalks, where determined appropriate on both sides of the highway in urban areas, as well as convenient and safe pedestrian crossing opportunities.</li> <li>▪ Replace or upgrade pedestrian facilities where highway improvements are made to increase the mobility or safety of other transportation modes, such as during bridge renovation or replacement.</li> <li>▪ In areas where complete access control is developed, provide pedestrian (and bicycle facilities) on overcrossing structures or in association with interchanges so that barriers are not created.</li> </ul> <p><b>Bicycle</b></p> <ul style="list-style-type: none"> <li>▪ Provide continuous bicycle facilities (a shoulder bikeway or a multiuse path) along the OR 22/US 20 corridor where feasible.</li> <li>▪ Incorporate bikeways into future highway and modernization bridge projects, including bypasses.</li> <li>▪ Provide connections to local bicycle facilities where feasible.</li> </ul> <p><b>Congestion</b></p> <ul style="list-style-type: none"> <li>▪ Investigate the feasibility of widening OR 22 in Mill City at MP 30 (at the rock wall) to accommodate a center turn lane. One possible alternative may involve helping the City with its plans to connect Wall Street to Alder Street.</li> <li>▪ Evaluate the need for a traffic signal in Mill City at the intersection of OR 22 and 1st Avenue.</li> </ul>
<p><u>Linn County Transportation System Plan (2018)</u></p>	<p>The Linn County TSP focuses on the needs of walking, bicycling, driving, transit and freight with strategies and projects that are important for protecting and enhancing the quality of life in Linn County through the next 20 years.</p>	<p><b>Relevant Bicycle and Pedestrian Projects</b></p> <p>OR 22 – Recreational Bike Trail from Detroit to Mill City and Beyond: Coordinate with Marion County to create a recreational bike trail on OR 22 along the Santiam River (on the Marion County side) connecting multiple cities and coordinated with the Oregon Scenic Byway. (Marion County)</p>

## 4.2 Mill City Urban Context

This segment of OR 22 begins at NE 3rd Avenue and continues to NE 7th Avenue along N Santiam Highway on the northern edge of Mill City. This area is currently a mix of residences, convenience

stores, and fast food restaurants. Planned projects and likely development are expected to bring more mixed-use buildings and more residents to the project area.

**Table 4-2. Mill City Context Overview**

Highway	Mile Points	Urban Context	Land Use Elements
OR 22	30.31-30.51	<i>Urban Mix</i>	<p>Segment includes land use elements consistent with the <i>Urban Mix</i> context:</p> <ul style="list-style-type: none"> <li>▪ Some buildings that can be accessed from the sidewalks along a pedestrian path.</li> <li>▪ Commercial fronting with residential behind or above (this is expected to become more prevalent with future development)</li> <li>▪ Medium building coverage.</li> <li>▪ Parking mostly off-street/Single row in front/In back/On side.</li> <li>▪ Small to medium block sizes.</li> </ul> <p>Building setbacks vary, which is not a perfect match with <i>Urban Mix</i> (defined as “Shallow”).</p>

Design guidance for Mill City, based on the *Urban Mix* context, is listed and compared to existing conditions in Table 4-3. Currently, the posted speed limit, bike facility, and sidewalks fail to meet guidance. The posted speed limit is 40 mph, higher than recommended by the guidance. The corridor lacks a dedicated facility for people biking. The corridor also does not have sidewalks (except for one block on the north side). The corridor also has no marked crosswalks.

**Table 4-3. Urban Design Guidance for Mill City (OR 22 MP 30.31 to 30.51)**

Element	Urban Design Guidance: Urban Mix	Existing Conditions
Typical Speed Range	25 to 30 mph	Posted Speed: 40 mph
Travel Lanes	Evaluate, start with preferred widths, wider by roadway characteristics. Minimum width: 11 ft. to 12 ft.*	12 ft.
Turn Lanes	Minimize additional crossing width at intersections. Minimum widths: <ul style="list-style-type: none"> <li>▪ Two-way left turn lane: 11 ft. to 12 ft.</li> <li>▪ Left turn lane: 11 ft. to 12 ft.*</li> <li>▪ Right turn lane: 11 ft. to 12 ft.</li> </ul>	12 ft. two-way left-turn lane
Shy Distance	Minimal. 0 ft. to 1 ft.	Not applicable – shoulder or parking lane adjacent to travel lanes in project area
Median	Optional, use as pedestrian crossing refuge. Minimum widths (including shy distances): <ul style="list-style-type: none"> <li>▪ Raised median – no turn lane: 8 ft. to 11 ft.</li> <li>▪ Left-turn lane with raised curb median/separator (including 16-in. separator): 12 ft. to 14 ft.</li> </ul>	Not applicable – no medians in project area



Element	Urban Design Guidance: Urban Mix	Existing Conditions
Bicycle Facility	<p>Start with separated bicycle facility, consider roadway characteristics.</p> <p>Tier 1: Separated bike lanes (preferred facility design)</p> <ul style="list-style-type: none"> <li>▪ Separated bicycle lane minimum width (curb-constrained facility): 7 ft. to 8 ft.</li> <li>▪ Separation may be delineated with on-street parking, raised island, landscaping, delineator posts, traffic separator curb, planter boxes, or bioswale.</li> </ul> <p>Tier 2: Buffered bike lanes and bike lanes</p> <ul style="list-style-type: none"> <li>▪ Evaluate bicycle lane buffer</li> <li>▪ On-street bicycle lane (not including buffer): 5 ft. to 6 ft. minimum</li> <li>▪ Bicycle/street buffer: 2 ft. to 4 ft. minimum</li> </ul>	<b>No dedicated bicycle facility</b>
Sidewalk	<p>Ample space for sidewalk activity (e.g., sidewalk cafes, transit shelters).</p> <ul style="list-style-type: none"> <li>▪ Pedestrian zone: 5 ft. to 8 ft.</li> <li>▪ Minimum sidewalk width is 6 ft. including frontage zone and buffer zone</li> </ul>	6 ft. (between 5th Avenue and where 6th Avenue would be) and <b>0 ft. (everywhere else)</b>
Target Enhanced Crosswalk Spacing Range	250 ft. to 550 ft. (one to two blocks)	<p>Approximately 250 ft between unmarked crossings (every block)</p> <p>No marked crossings in project area</p>
On-Street Parking	Consider on-street parking if space allows (8 ft. wide)	Shoulders between NE 5th Avenue and NE 7th Avenue are greater than 11 ft. wide (including paved and gravel) and are used for parking

ODOT Highway Design Manual, 2023. Tables 200-6, 300-8, 900-5.

**Bold** values differ from HDM guidelines.

\* 11-foot lane width preferred, at 40 mph and above, a 12-foot lane is preferred.

ft. = feet; in. = inches

### 4.3 Mill City Corridor Opportunities and Needs

Table 4 summarizes corridor opportunities and needs identified in the study area. These needs and opportunities reflect urban design guidance and include needs identified through discussion with City and ODOT staff. For a detailed summary of corridor opportunities and needs, see Appendix A, Opportunities and Needs Memo. Figure 4-2 and Figure 4-3 further illustrate several of the corridor issues and needs.



Figure 4-2. OR 22/NE Santiam Boulevard at NE 3rd Avenue facing east. There are no sidewalks, and narrow shoulders are present.



Figure 4-3. OR 22/NE Santiam Boulevard at NE 7th Avenue Facing West. There are no sidewalks, and residential and commercial uses are adjacent to the right-of-way.

Table 4-4. Needs and Opportunities in Mill City (OR 22 MP 30.31 to 30.51) – Context: *Urban Mix*

Resource	Needs and Opportunities
Sidewalks	<ul style="list-style-type: none"> <li>▪ Sidewalks or other dedicated pedestrian facilities are needed on both sides of OR 22, except for a small segment on the north side between NE 5th Avenue and NE 6th Avenue.</li> </ul>
Crosswalks	<ul style="list-style-type: none"> <li>▪ Traffic Manual recommends spacing enhanced crosswalks in <i>Urban Mix</i> contexts every 250 to 550 feet.</li> <li>▪ Additional enhanced crossing(s) are needed to meet Traffic Manual guidance. No marked crosswalks exist in the project area or nearby. Expected development on the north side of OR 22 and planned recreational improvements south of OR 22 will likely lead to more demand for walking and biking crossings.</li> <li>▪ New crosswalks in the project area would likely need to be enhanced because of traffic volumes and speeds, as well as the limited sight lines from the curves just outside the project area as drivers approach from the east and west.</li> <li>▪ No crosswalks are closed.</li> </ul>
Stormwater	<ul style="list-style-type: none"> <li>▪ Stormwater management would need to be included with new curb construction.</li> </ul>
ADA	<ul style="list-style-type: none"> <li>▪ Current ramp needs are limited to the short segment of existing sidewalk on the north side between NE 5th Avenue and NE 6th Avenue. An existing ramp at the northeast corner of OR 22 and NE 5th Avenue does not meet gutter slope standards.</li> <li>▪ New sidewalks would require additional ramps.</li> <li>▪ No pedestrian pushbuttons exist, but they would be needed if a signalized pedestrian crossing were implemented.</li> </ul>
Bicycle Facilities	<ul style="list-style-type: none"> <li>▪ Dedicated bicycle facilities are needed throughout the project area.</li> </ul>

Resource	Needs and Opportunities
Bicycle Connections Beyond Project Area	<ul style="list-style-type: none"> <li>A multiuse path parallel to OR 22 is supported by both the 2005 Marion County TSP (page 9-1) and the 2018 Linn County TSP project (BP-06). This would extend the existing path in Mill City farther east and west and include a river crossing near 7th Avenue to Kimmel Park. This path is south of the project area and could present an opportunity for an east-west alternate biking route parallel to OR 22.</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Two crashes were reported during the 5 years from 2016 through 2020. Both were classified as “Suspected Minor Injury.” None involved people walking or biking.               <ul style="list-style-type: none"> <li>→ One was at the intersection with NE 4th Avenue.</li> <li>→ One was between NE 6th Avenue and NE 7th Avenue.</li> </ul> </li> <li>No needs identified in the ARTS or SPIS systems.</li> </ul>
Accesses	<ul style="list-style-type: none"> <li>Accesses, including driveways and streets, through much of the project area are spaced closer than guidance recommends. Some driveway accesses are ambiguously defined, with frontages that extend the full width of the property.</li> <li>Target access spacing is 1,100 feet between accesses based on the classification, volumes, and posted speed.<sup>7</sup></li> </ul>
Pavement Condition	<ul style="list-style-type: none"> <li>Pavement condition is rated “good” in the 2022 Pavement Conditions Report.</li> </ul>
Freight	<ul style="list-style-type: none"> <li>Freight and logging trucks commonly use this segment of OR 22, and freight mobility will need to be maintained.</li> <li>OR 22 is classified as an Oregon Highway Plan Freight Route and a Reduction Review Route. A review of a potential reduction in vehicle-carrying capacity is required for all proposed actions on Reduction Review Routes. An “early communications” presentation was presented to the Mobility Advisory Committee (MAC) in Sept., 2023.</li> </ul>
Speed Zone	<ul style="list-style-type: none"> <li>The posted speed in the corridor is 40 mph beginning at MP 29.45 (nearly 0.9 miles west of the project area) and continues to MP 30.63 (approximately 650 feet east of the project area). Outside of this zone, the posted speed transitions to 55 mph.</li> <li>Outside of the project area, a speed limit of 20 mph exists between 150 feet west of NW 2nd Avenue and 150 feet east of NW 2nd Avenue (between MP 30.00 and MP 30.06) during the hours of school crossings (1972 Resolution).</li> </ul>
Parking	<ul style="list-style-type: none"> <li>On-street parking appears to be more than sufficient.</li> <li>Parking is prohibited on the south side of OR 22 for 25 feet west of NE 7th Avenue (1991 Parking Investigation).</li> </ul>

<sup>7</sup> Oregon Administrative Rule 734-051-4020 (8), Table 4.



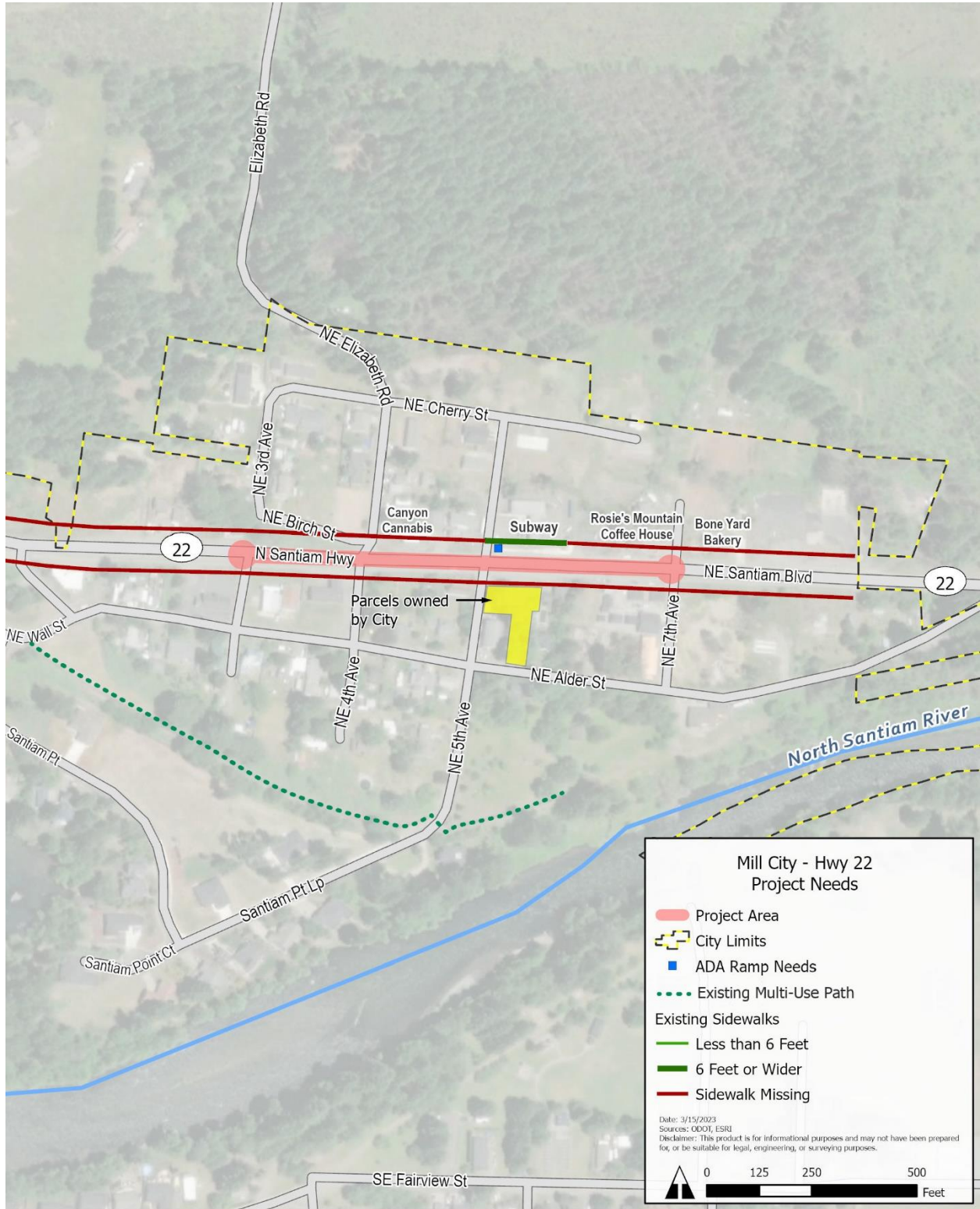


Figure 4-4. Mill City OR 22 Project Needs

## 4.4 Mill City Community Engagement

The community engagement feedback throughout the UDV Study process informed the development of the corridor design concepts along OR 22 in Mill City. The plan for public engagement is included in Appendix B, Public Involvement Plan.

### 4.4.1 Mill City Engagement Activities

Table 4-5 describes the two major public engagement milestones in Mill City, as well as the strategies and communication tools for each.

**Table 4-5. Mill City Engagement Activities Summary**

	Milestone 1	Milestone 2
<b>Purpose/Topic</b>	<ul style="list-style-type: none"> <li>Introduce the UDV Study project to the community.</li> <li>Gather feedback on needs and priorities.</li> </ul>	<ul style="list-style-type: none"> <li>Share and gather feedback on draft conceptual improvement options.</li> <li>Gather feedback to help prioritize improvements.</li> </ul>
<b>Timing</b>	April 2023	Late June to early August 2023
<b>Engagement Tools</b>	<ul style="list-style-type: none"> <li>Online open house and survey.</li> <li>Printed fact sheets and surveys available at Mill City City Hall.</li> </ul>	<ul style="list-style-type: none"> <li>In-person tabling event at Mill City 4th of July Celebration on July 4, 2023.</li> <li>Online open house and survey.</li> <li>Meeting with the Mobility Advisory Committee (MAC) on September 14, 2023 to discuss improvements in all three communities.</li> </ul>
<b>Survey</b>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>	<ul style="list-style-type: none"> <li>A project survey and a demographic survey were distributed in print and online.</li> </ul>
<b>Communication Tools</b>	<ul style="list-style-type: none"> <li>Website announcement.</li> <li>Project fact sheet.</li> <li>Mill City’s newsletter.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>	<ul style="list-style-type: none"> <li>Updated website announcement.</li> <li>Updated project fact sheet.</li> <li>Email announcement.</li> <li>Social media posts.</li> </ul>
<b>Summary</b>	<ul style="list-style-type: none"> <li>The Milestone 1 feedback summary is included in Appendix C, Outreach Summary – Milestone 1.</li> </ul>	<ul style="list-style-type: none"> <li>The Milestone 2 feedback summary is included in Appendix D, Outreach Summary – Milestone 2</li> <li>No major concerns were expressed by the MAC.</li> </ul>

### 4.4.2 Mill City Feedback Themes

The following list summarizes the themes heard in Outreach Milestones 1 and 2. For a full summary of engagement feedback, see Appendix C, Outreach Summary – Milestone 1 and Appendix D, Outreach Summary – Milestone 2.

#### 4.4.2.1 Milestone 1

##### Important Issues

- Safety concerns on OR 22 that make crossing, biking along, and driving on OR 22 feel unsafe. Suggestion for speed cameras on OR 22 to encourage safer driving.

## Important Needs

- Better pedestrian connectivity; add sidewalks.

### 4.4.2.2 Milestone 2

## Important Needs

- Better pedestrian crossings and sidewalks; add pedestrian-activated flashing signals at crosswalks.
- Bike network away from OR 22. Participants recommended redirecting bike through-traffic to the planned Santiam River trail when it is extended east to Gates.
- Safety improvements outside the project area; include extending pedestrian improvements from 7-Eleven to the east edge of Mill City.
- Need for potential funding and grant opportunities in the near future.

## Concept Feedback

- Support for the proposed sidewalk and crosswalk improvements including pedestrian refuge islands.
- Support for the proposed bike improvements.
- Concern about removing on-street parking and how it could impact the businesses on OR 22. Truckers and travelers often park on the side of the road, which is especially convenient for large trucks, to visit Rosie's and Subway. Removing this parking could make it less convenient and negatively impact their businesses.
- Initial MAC feedback was their preference to maintain a 12' travel lanes and consider pinch points when looking at pedestrian island widths.

## 4.5 Mill City Final Corridor Design Concepts

The project team developed both near-term and long-term concepts. The near-term concepts focus on sidewalk and crossing improvements, while the long-term concept focuses on the desired future typical section that represents redevelopment of the highway to ODOT design standards. The long-term concept is the intended future build for the corridor and may be implemented through developer frontage improvements and/or state and local projects. The long-term concept can help ODOT and the City ensure that adequate ROW and other improvements are dedicated/exacted as part of the development review process.

The Mill City design concept includes planned near-term sidewalk and crossing improvements to OR 22/N Santiam Hwy, as well as a desired future concept.

### 4.5.1 Near-Term Proposed Improvement Concept

Proposed improvements for the Mill City project area in the near term include new sidewalks and enhanced crosswalks for OR 22/N Santiam Hwy. New sidewalks are proposed for four blocks of the project area: NE 3rd Avenue to NE 4th Avenue on the south side, NE 4th Avenue to NE 5th Avenue on both sides, NE 6th Avenue to NE 7th Avenue on the north side, and NE 7th Avenue to the east end of the project area on the north side. Crosswalks with refuge islands would also be constructed on the south side at OR 22 and NE 5th Avenue and NE 7th (Figure 4-5). All sidewalks would be built to ADA accessibility standards. Enhanced crossings at NE 5th Avenue and NE 7th Avenue would include flashing beacons.



The project team recognizes that the near-term concept does not fully meet ODOT design standards; the long-term concept would further improve the corridor. Near-term improvements should be constructed with the long-term design concept in mind to avoid reconstructing sidewalks or crossings at a later date.

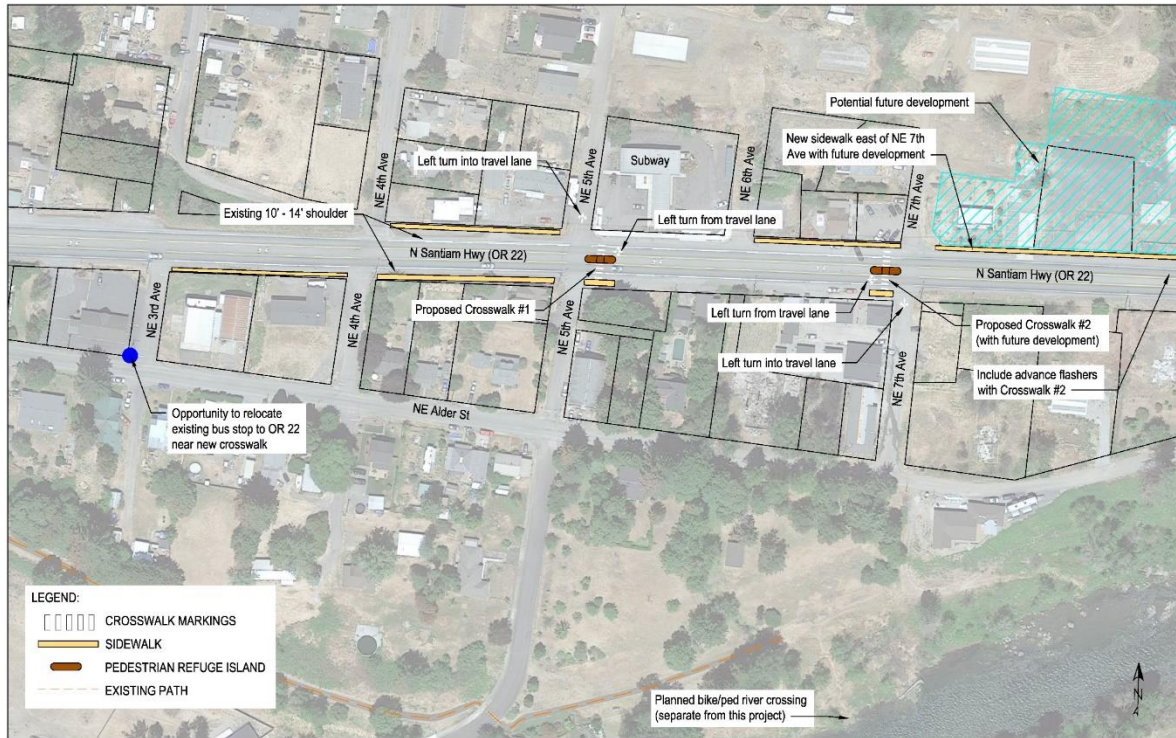


Figure 4-5. Near-Term Proposed Improvement Concept of OR 22 Through the Mill City Project Area

Error! Reference source not found. summarizes the project costs for the Mill City near-term concept design. See Appendix E for cost estimate details.

Table 4-6. Mill City – Planning/Concept-Level Construction Cost Estimate

Item	Cost
Construction Costs	\$546,700
Contingency Costs	\$352,700
Design and Construction Engineering	\$269,800
<b>TOTAL PROJECT COST</b>	<b>\$1,170,000</b>



### 4.5.2 Desired Future Concept

While there are a number of near-term proposed improvements for the project area, the long-term concept would develop the corridor to ODOT design standards and include buffered bicycle facilities. In discussions with the City, maintaining the existing shoulder is important. All near-term improvements should consider the desired future cross section (Figure 4-6). Developer frontage improvements in the project area can help implement the desired future concept.

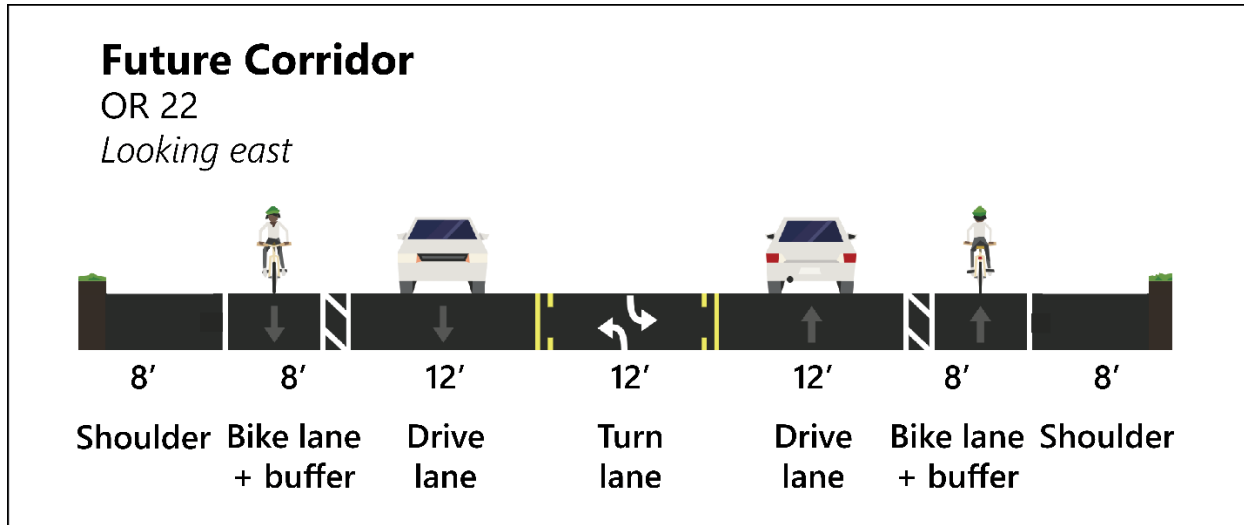


Figure 4-6. Future Desired Corridor Concept for OR 22 in the Mill City Project Area

### 4.5.3 Design Assumptions

Table 4-7. Mill City Design Assumptions

Design Element	Assumption (Short-Term)	Assumption (Long-Term)	Notes
Travel Lanes	One lane each direction, 12 ft. wide  Center two-way left-turn lane, 12 ft. wide	Same as short-term	No reduction in travel lane or turn lane width as part of the proposed design.
Bicycle Facilities	Use existing 10-ft. to 14-ft. shoulder	One each direction, 6 ft. wide with 2-ft. buffer	Tier 2 Facility per ODOT Urban Design Guidance.
Parking Facilities	North side of OR 22, use existing 10-ft. to 14-ft. shoulder  South side of OR 22, 8 ft. wide	One each side of OR 22, 8 ft. wide	Existing shoulders maintained for parking on the North side for access to businesses. Formalized bike and parking facilities to be developed with future development. See Figure 4-5 and Figure 4-6 for on-street parking locations.
Crossing Locations	5th Avenue (east leg)	Same as short-term	Two-stage left turning movements restricted from 5th onto OR 22.

Design Element	Assumption (Short-Term)	Assumption (Long-Term)	Notes
	7th Avenue (west leg)		Two-stage left turning movements restricted from 7th onto OR 22.
Design Vehicle	WB-67		

ft. = feet

# **Appendix A**

## Opportunities and Needs Memo

# **Appendix B**

## Public Involvement Plan

# **Appendix C**

## Outreach Summary – Milestone 1

# **Appendix D**

## Outreach Summary – Milestone 2

# **Appendix E**

## Cost Estimate Details