APPENDIX A:
Draft Memoranda

Public Draft Memorandum #1: Vision, Goals, Objectives, and Project Prioritization Criteria

Cottage Grove Pedestrian and Bicycle Plan

Task 2.1

February 13, 2023

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1 Introduction

This memorandum describes the vision, goals, objectives and project prioritization criteria for the Cottage Grove Pedestrian and Bicycle Plan. The memo begins with a summary of existing active transportation-related goals, objectives and policies of the City's current Comprehensive Plan and Transportation System Plan (TSP), along with a brief summary of potential improvement opportunities to the existing policy framework in both documents. A vision and supporting goals and objectives to guide the development of the Pedestrian and Bicycle Plan follows, along with criteria that will be used to prioritize the list of projects identified during this process.

2 Existing Pedestrian/Bicycle-Related Goals, Objectives and Policies

Cottage Grove's existing transportation-related goals, objectives and policies reside in the City's Comprehensive Plan and TSP, The Comprehensive Plan establishes the City's overall community planning framework, while the TSP, an element of the Comprehensive Plan, establishes long-term planning guidance for the movement of people and goods.

The sections below present existing Comprehensive Plan and TSP goals, objectives and policies pertaining to walking and bicycling. The statements, presented verbatim, cover a range of topic areas such as land use, environment, safety, quality of life and economic vitality. It should be noted that, depending on the document under focus, some goals do not have supporting objectives or policies; conversely, some objectives and/or policies lack overarching goals. While this is not necessarily a deficiency, it is worth noting for review purposes.

While several of the goals, objectives and policies listed below do not directly pertain to walking and bicycling, they are included as they influence built environment aspect (e.g., land use, street connectivity) that affect the active transportation environment.

2.1 Comprehensive Plan Goals, Objectives and Policies

Existing Comprehensive Plan goals, objectives and policies, as they pertain to walking and bicycling, are as follows:

Relevant Goals:

Community Development Goals:

- To strive to develop and maintain a system of regional, community and neighborhood parks and recreation programs which serve the needs of the citizens of the area and visitors.

Parks, Recreation and Open Space Goals:

- To preserve some lands for open space, particularly on steep hillsides and along river greenways.

Economic Development Goals:

- Establish Cottage Grove as the seat and gateway for a South Lane County recreation and tourism destination.[1]

Relevant Objectives:

Housing Objectives:

- Encourage development of existing vacant and underutilized parcels where urban services are committed.
- Encourage a variety of residential development types and densities for all income and age groups.

Schools Objectives:

- Encourage new schools and replacement facilities to locate within the Urban Service Area.

Parks, Recreation and Open Space Objectives:

- Consider a system of river oriented and hill top parks and open space with interconnecting trails linked to residential areas of the community.

Urban Design Objectives:

- Encourage the use of the site master plan technique to create developments that contain a mixture of neighborhood and professional commercial services, social services, recreational activities, public and/or quasi-public uses, and residential uses.

Hillside Development Objectives:

- To provide a safe means of ingress and egress for vehicular and pedestrian traffic to and within hillside areas while at the same time minimizing the scarring effects of hillside street construction.

Relevant Policies:

Economic Development Policies:

- Maintain and enhance quality of life through good schools, cultural programs, recreational opportunities, adequate health care facilities, affordable housing, neighborhood protection, and environmental amenities.[2]

Commercial Policies:

- Encourage redevelopment of existing highway oriented development.

[1] This goal originated in Cottage Grove's 2037 Vision and Action Plan.

[2] This policy originated in Cottage Grove's 2009 Economic Opportunities Analysis.

2.1.1 Comprehensive Plan Goals/Objectives/Policies Improvement Opportunities

As the Comprehensive Plan establishes the overarching planning framework, the document's goals, objectives and policies are at an appropriately high level. Current strengths of the existing framework include a direct acknowledgment of the land use/transportation relationship and its implications to the community at large. The framework also acknowledges the strong connections between recreation opportunities, quality of life, and economic development, as evidenced through investments such as the Row River Trail and Covered Bridges Scenic Bikeway.

Opportunities also exist to strengthen and augment the Comprehensive Plan's goals, objectives and policies to more directly communicate the City's support for walking and bicycling. Broadly speaking, potential enhancements to guide and support expected outcomes of this planning effort should address the following areas:

- Establishing a comfortable and safe multimodal transportation network accessible and useable by people of all ages and abilities.
- Elevating equity to have a prominent role in all aspects of multimodal planning including community engagement, needs identification, improvements identification, and prioritization of investments.
- Explicitly mentioning the dual function and benefit of trails as both transportation and recreation assets.
- Highlighting the importance of connectivity, bicycle parking, transit stop infrastructure, wayfinding, and other supportive features to maximize the return on investment of traditional multimodal projects.
- Reinforce the importance of augmenting physical improvements with non-infrastructure approaches (e.g., education and encouragement programs) to create a comprehensive multimodal environment.

Suggested new and modified policy language will be developed in subsequent phases of this planning effort, specifically upon the identification of active transportation improvements (Memorandum #3) and funding options (Memorandum #4). Specific recommended policy language modifications will be directly informed by the recommendations emerging from the Pedestrian and Bicycle Plan planning process.

2.2 TSP Goals, Objectives and Policies

The TSP is the adopted transportation element of the Comprehensive Plan. Existing TSP goals, objectives and policies that pertain to walking and bicycling are as follows:

Relevant Goals:

Goal 1: Enhance the Cottage Grove area's quality of life and competitive economic advantage by providing a transportation system that is:

- Accessible,
- Efficient,

- Equitable,
- Interconnected,
- Safe,
- Balanced,
- Environmentally responsible,
- Financially stable,
- Sustainable.

Relevant Objectives:

Objective 1: Provide an interconnected regional transportation system, which ensures ease of transfer between modes of travel and appropriate access for all potential users to all areas of the city, region, state, and nation.

Objective 2: Provide a balanced transportation system that gives people realistic choices or options other than driving alone in an automobile.

Objective 4: Provide an environmentally responsible transportation system.

Objective 5: Provide a safe transportation system.

Objective 7: Make streets as “unobtrusive” to the community as possible.

Objective 8: Require developments to address on- and off-site transportation system impacts.

Objective 12: Make full use of existing roadways by reducing motor vehicle demand during peak use periods and increasing operational efficiency.

Relevant Policies:

“Overall” Policies:

- Policy 1: Develop a well-connected transportation system across all modes and locations in the city.
- Policy 3: Protect the function of existing and planned transportation systems as identified in the Street Plan, Bicycle Plan and Pedestrian Plan through application of appropriate land use regulations.
- Policy 4: Develop a street network that provides connections to and from activity centers such as schools, commercial areas, parks, and employment centers.

“Standards” Policies:

- Policy 11: Consider the following primary criteria in evaluating and prioritizing transportation improvement projects – safety, connectivity, access, average daily traffic, physical condition of street, street geometrics, and capacity/congestion (level of service).
- Policy 12: Utilize access management spacing standards on all new and/or improved arterial and collector streets to improve safety and promote efficient through street movement.

- Policy 15: Prohibit land development from encroaching on setbacks required for potential street expansion.
- Policy 18: Comply with Americans with Disabilities Act (ADA) standards when installing new (or reconstructing) transportation facilities, including sidewalks.

“Multimodal” Policies:

- Policy 19: Plan and develop a network of streets, accessways, and other facilities including bikeways, sidewalks, and safe street crossings, to promote safe and convenient bicycle and pedestrian circulation within the community.
- Policy 20: Maintain bikeways and pedestrian accessways (including sidewalks) at the same priority as motor vehicle facilities.
- Policy 21: Consider multi-modal contributions and linkages in evaluating and prioritizing street improvement projects.
- Policy 22: Connect bikeways and pedestrian accessways with local and regional travel routes.
- Policy 23: Foster the design and construction of bikeways and pedestrian accessways to minimize potential conflicts between transportation modes.
- Policy 25: Encourage demand management programs, such as carpooling and park-and-ride facilities, to reduce single-occupancy auto trips to and from Eugene-Springfield.

“Pedestrian” Policies:

- Policy 26: Design new streets and crossings to meet the needs of pedestrians and encourage walking as a transportation mode.
- Policy 27: Develop a pedestrian network by focusing on direct, convenient, and safe pedestrian travel within and between residential areas, schools, parks, and shopping and working areas within the urban area.
- Policy 28: Install sidewalks and/or pedestrian trails of suitable surfacing on all future local streets. Reconstructed and new collectors and arterials shall include sidewalks. Pedestrian facilities may be installed on or off-street to facilitate walking between significant activity areas.
- Policy 29: Develop a downtown streetscape enhancement program to install curb extensions, crosswalk pavers, benches, pedestrian-scaled lighting, and bicycle parking racks.
- Policy 30: Consider the potential to establish or maintain accessways, paths or trails prior to the vacation of any public easement or right-of-way.

“Bicycle” Policies:

- Policy 31: Ensure consistency with the policies in the most current Bikeway Master Plan.

- Policy 32: Require adequate bicycle parking in schools, parks, churches, existing shopping and working areas, and other destination areas to encourage increased use of bicycles.
- Policy 33: Include bicycle facilities such as bike lanes or dedicated bikeways in the planning, design, and construction of all new and/or reconstructed collectors and arterial roads. The Oregon Bicycle and Pedestrian Design Guide's Urban/Suburban Recommended Separation Matrix shall be used in making decisions regarding the need and design for appropriate bicycle facilities.
- Policy 34: Require provision of bicycle parking facilities with new commercial and industrial development and multi-family residential development.

"Transit" Policies:

- Policy 36: Support provision of basic mobility services for the elderly and people with special needs.
- Policy 37: Provide and support improvements such as sidewalk and bicycle connections, shelters, and benches to complement transit service and encourage higher levels of transit use.
- Policy 38: All new development shall be referred to transit service providers for review and comment to determine if new transit stops are appropriate and can reasonably be provided as part of the new development.

"Rail" Policies:

- Policy 41: Protect abandoned rail rights-of-way for alternative or future use.

2.2.1 TSP Goals/Objectives/Policies Improvement Opportunities

The TSP's goals, objectives and policies guide the City's comprehensive, long-range planning around the local transportation system. These policies are particularly valuable in prioritizing and supporting funding decisions and helping decision-makers evaluate potential land use changes and ensuring consistency with the planned transportation system. Notable strengths of the TSP's current framework, as they pertain to walking and bicycling, include:

- Recognition that a multimodal transportation network can derive many benefits including economic vitality and quality of life.
- Reinforcement of the benefits of providing travel options for Cottage Grove residents.
- Acknowledgement of key transportation planning and design principles such as system connectivity (locally and regionally), streamlined access to major destinations and ADA accessibility.
- Recognition of the critical role of ongoing maintenance for creating a safe and functional network.
- Acknowledgement of the importance of supporting programs such as Transportation Demand Management.

While a thorough multimodal policy framework resides within the TSP, opportunities exist to strengthen and augment existing goals, objectives and policies to more directly communicate the City's support for walking and bicycling. Broadly speaking, potential enhancements to guide and support expected outcomes of this planning effort should address the following areas:

- Directly emphasizing the importance of providing a multimodal transportation system that is convenient and safe for people of all ages and abilities.
- Explicitly mentioning the impacts on, and benefits, to vulnerable users, particularly youth, seniors, Black, Indigenous and People of Color (BIPOC), and persons with disabilities.
- Elevating the importance of improving access to opportunities for historically marginalized communities.
- Emphasizing the importance of creating low-stress walking and bicycling facilities to maximize return on investment.
- Acknowledging the expanding palette of active transportation tools, particularly low-stress infrastructure such as neighborhood greenways and protected bike lanes.
- Consideration of other "trip-end" facility requirements (e.g., showers and changing facilities) for new development and redevelopment projects.
- Explicitly mentioning encouragement and education programs as cost-effective means to augment the City's pedestrian/bicycle infrastructure investments.
- Developing implementable solutions through balancing aspirations with practical approaches.
- Stating the importance of ongoing evaluation to measure Plan implementation progress over time.

Suggested new and modified policy language will be developed in subsequent phases of this planning effort, specifically upon the identification of active transportation improvements (Memorandum #3) and funding options (Memorandum #4). Specific recommended policy language modifications will be directly informed by the recommendations emerging from the Pedestrian and Bicycle Plan planning process.

3 Cottage Grove Pedestrian and Bicycle Plan Vision, Goals, Objectives and Project Prioritization Criteria

This section presents the recommended Cottage Grove Pedestrian and Bicycle Plan's vision, goals, objectives and project prioritization criteria. While the vision, goals and objectives establish guidance for assessing current conditions and future needs, they also provide a framework for identifying and prioritizing active transportation improvements. As this Plan will serve an updated element of the TSP, the vision, goals

and objectives will ultimately be incorporated into the TSP (and by extension, the Comprehensive Plan) at the conclusion of this planning effort.

3.1 Vision, Goals and Objectives

The proposed Cottage Grove Pedestrian and Bicycle Plan's vision, goals and objectives are as follows:

Vision: Walking and bicycling are viable travel modes for people of all ages and abilities in Cottage Grove, offering seamless access to essential destinations and recreational opportunities while providing healthy travel options for all.

Goal 1 – Safety and Comfort: Provide a comfortable and safe walking and bicycling environment that is seamless, logical and intuitive.

- **Objective 1a:** Address multimodal safety concerns including documented collisions involving people walking or bicycling, pedestrian/bicycle risk factors, and problem locations identified by community members.
- **Objective 1b:** Develop lower-stress walking and bicycling facilities along and across Cottage Grove's roadway network, and minimize conflicts between motor vehicles and vulnerable roadway users.
- **Objective 1c:** Fill in system gaps, particularly along higher-volume/higher-speed roadways and areas where higher concentrations of walking and bicycling activity are anticipated.
- **Objective 1d:** Update pedestrian and bicycle design standards and guidelines for consistency with state and national best practices, including the expanding palette of facility types such as neighborhood greenways, protected bike lanes and ADA accessibility enhancements.

Goal 2 – Access: Provide an active transportation network accessible to people of all ages and abilities, while providing local and regional connectivity.

- **Objective 2a:** Improve accessibility for people with physical, visual, audible, cognitive and other disabilities through the provision of corridor, intersection and other system improvements.
- **Objective 2b:** Streamline access to schools, jobs, commercial areas, transit stops and school bus stops via complete walkway and bikeway connections.
- **Objective 2c:** Identify and leverage non-roadway public easement/right-of-way opportunities to establish off-street path connections.
- **Objective 2d:** Coordinate closely with agency partners, including Lane County, Oregon Department of Transportation, Lane Transit District and South Lane Wheels to establish seamless active transportation linkages at jurisdictional boundaries and on non-City owned facilities.

Goal 3 – Equity and Community Support: Meaningfully engage Cottage Grove residents when identifying and prioritizing active transportation improvements, with particular emphasis on historically underserved communities.

- **Objective 3a:** Deploy a multi-faceted approach for engaging Cottage Grove residents throughout the Plan development process, and for ongoing implementation efforts.
- **Objective 3b:** Prioritize Cottage Grove's historically transportation disadvantaged communities, particularly those with limited travel options.
- **Objective 3c:** Develop project and program recommendations reflecting the community's preferences and priorities.
- **Objective 3d:** Build a culture of support and respect for walking and bicycling by communicating its benefits through education, encouragement, outreach and other programmatic approaches.

Goal 4 – Implementation: Utilize aspirational yet practical approaches for implementing the Pedestrian and Bicycle Plan.

- **Objective 4a:** Establish a clearly defined implementation strategy with a prioritized list of active transportation improvements.
- **Objective 4b:** Prioritize lower-cost investments that can be implemented in shorter timeframes.
- **Objective 4c:** Position the City to pursue federal, regional, state and federal funding opportunities such as Safe Routes to School, Oregon Community Paths and other grants.
- **Objective 4d:** Update Cottage Grove's Land Development Code to leverage future development and redevelopment in a way that fosters a walk- and bike-friendly environment.

3.2 Project Prioritization Criteria

This section describes the proposed criteria that will be used to prioritize the pedestrian and bicycle projects ultimately proposed in this Plan. Tying directly from the vision, goals and objectives described immediately above, the prioritization criteria cover a range of topic areas including safety, equity, accessibility and cost. Upon finalizing the recommended active transportation network (to be undertaken in subsequent tasks), the Project Team will qualitatively rate each project against the criteria, resulting a prioritized list to guide the City's implementation efforts.

Table 3-1, on the following page, lists and describes the project prioritization criteria, along with relevant goals and objectives.

Table 3-1. Project Prioritization Criteria

Criterion	Description	Relevant Goal(s) and Objective(s)
Safety	Degree to which a project addresses a pedestrian/bicycle safety concern. Projects addressing documented ped/bike crashes, or locations of concern (e.g., "near-misses") flagged by community members, will derive higher qualitative ratings.	Goal 1, Objectives 1a, 1b, 1d Goal 2, Objectives 2a, 2d Goal 3, Objective 3c
Accessibility	Degree to which a project improves conditions for people with disabilities. Projects containing sidewalk enhancements and/or intersection crossing upgrades will derive higher qualitative ratings.	Goal 1, Objectives 1b, 1c, 1d Goal 2, Objectives 2a, 2b, 2c, 2d Goal 3, Objective 3b
User Level of Comfort	Degree to which a project establishes a lower-stress walking or bicycling environment. Projects deriving higher qualitative ratings include those providing greater separation between motor vehicles and vulnerable users along major roadways, lower-speed shared environments on minor streets, and off-street path corridors.	Goal 1, Objectives 1b, 1c, 1d Goal 2, Objectives 2a, 2b, 2c, 2d Goal 3, Objective 3b
Gap Closure	Degree to which a project closes a gap in the existing active transportation network. Projects filling shorter gaps, particularly on higher-speed/higher-volume streets, will derive higher qualitative ratings.	Goal 1, Objectives 1a, 1b, 1c Goal 2, Objectives 2a, 2b, 2d Goal 3, Objective 3b Goal 4, Objective 4c
Equity	Proximity of a project to historically transportation-disadvantaged populations including youth; seniors; Black, Indigenous and People of Color; lower-income residents; no-car households; and people with limited English proficiency. Projects in vicinity of multiple transportation-disadvantaged groups will derive higher qualitative ratings.	Goal 1, Objective 1b Goal 2, Objectives 2a, 2b Goal 3, Objective 3b
Community Support	Degree to which community members express support for improving a particular corridor, intersection or area. Projects in locations/areas voiced by the community (via various public outreach activities) will derive higher qualitative ratings.	Goal 1, Objective 1a Goal 3, Objectives 3a, 3b, 3c
Land Use and Transit Linkages	Proximity of a project to schools, commercial and employment nodes, and transit/school bus stops. Projects in vicinity of higher concentrations of these uses will derive higher qualitative ratings.	Goal 1, Objective 1c Goal 2, Objective 2b Goal 3, Objective 3b Goal 4, Objective 4c
Cost and Complexity	Planning-level project cost estimate. Projects with lower costs and less complexity will receive higher qualitative ratings.	Goal 1, Objective 1c Goal 4, Objectives 4a, 4b, 4d

Public Draft Memorandum #2: Existing and Future Conditions

Cottage Grove Pedestrian and Bicycle Plan

Task 2.3

March 27, 2023

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Acronyms and Abbreviations

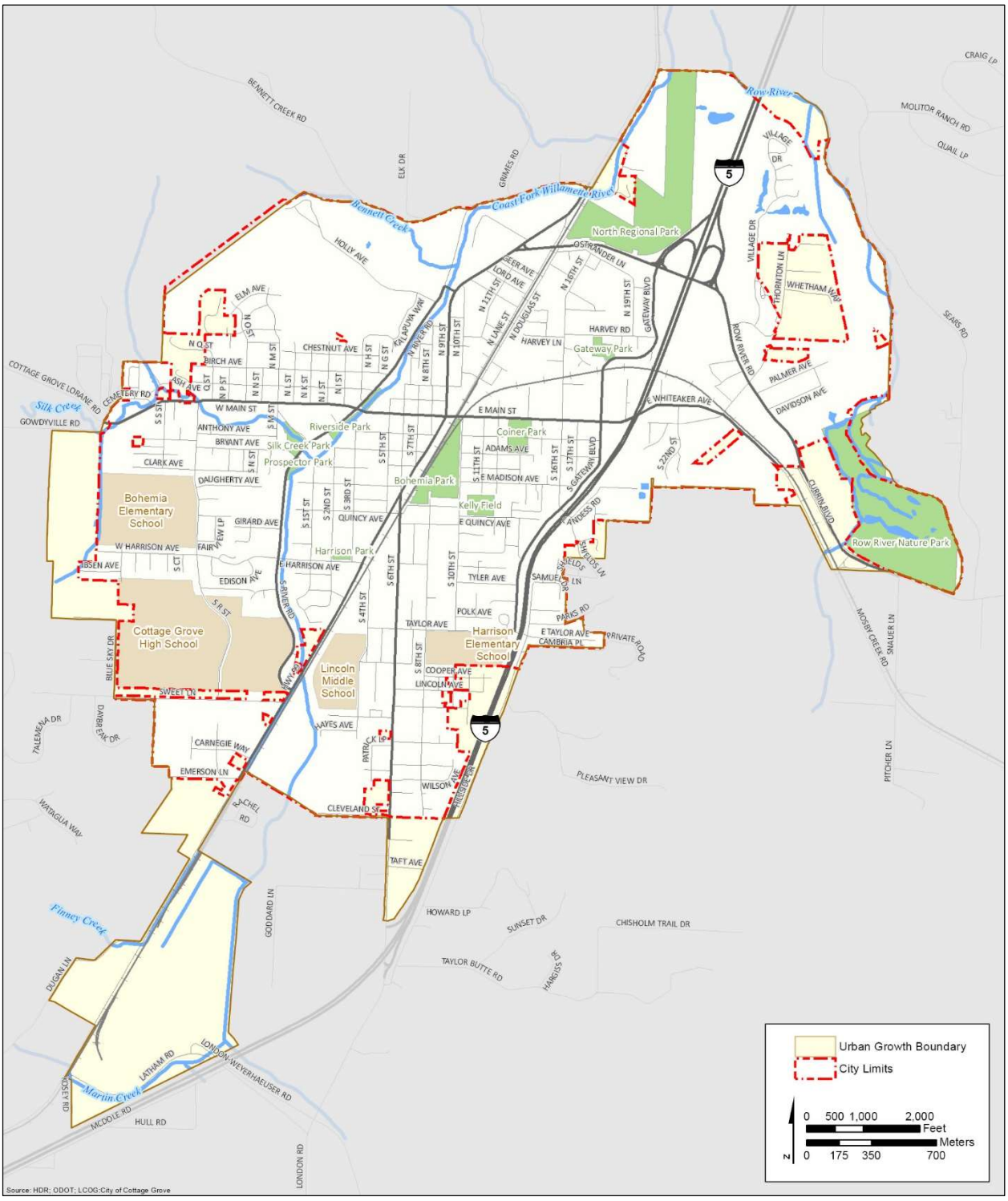
ADA	Americans with Disabilities Act
BLM	Bureau of Land Management
EFU	Exclusive Farm Use
I-5	Interstate 5
LTD	Lane Transit District
ODOT	Oregon Department of Transportation
PRC	Portland State University Population Research Center
RRFB	Rectangular Rapid Flashing Beacon
SLW	South Lane Wheels
UGB	Urban Growth Boundary

1 Introduction

This memorandum presents a high-level overview of Cottage Grove's current active transportation environment, which will ultimately inform the identification of future projects and other opportunities to improve conditions for people walking and bicycling. Specifically, this memorandum describes current conditions along the arterial and collector streets within Cottage Grove's Urban Growth Boundary (UGB), as well as other key facilities such as multi-use paths and transit linkages. The narrative also provides a high-level overview of key activity nodes, such as schools, job centers, and recreation areas that likely have higher proportions of walking and bicycling activity. A description of documented collisions involving vulnerable roadway users follow, as well as a summary current and future population and development trends.

Figure 1-1 depicts the Pedestrian and Bicycle Plan study area, consisting of the entirety of Cottage Grove's UGB.

Figure 1-1. Pedestrian and Bicycle Plan Study Area



2 Facility Ownership

Figure 2-1 illustrates publicly owned roadways in Cottage Grove that generally fall under the jurisdiction of one of the following three entities:

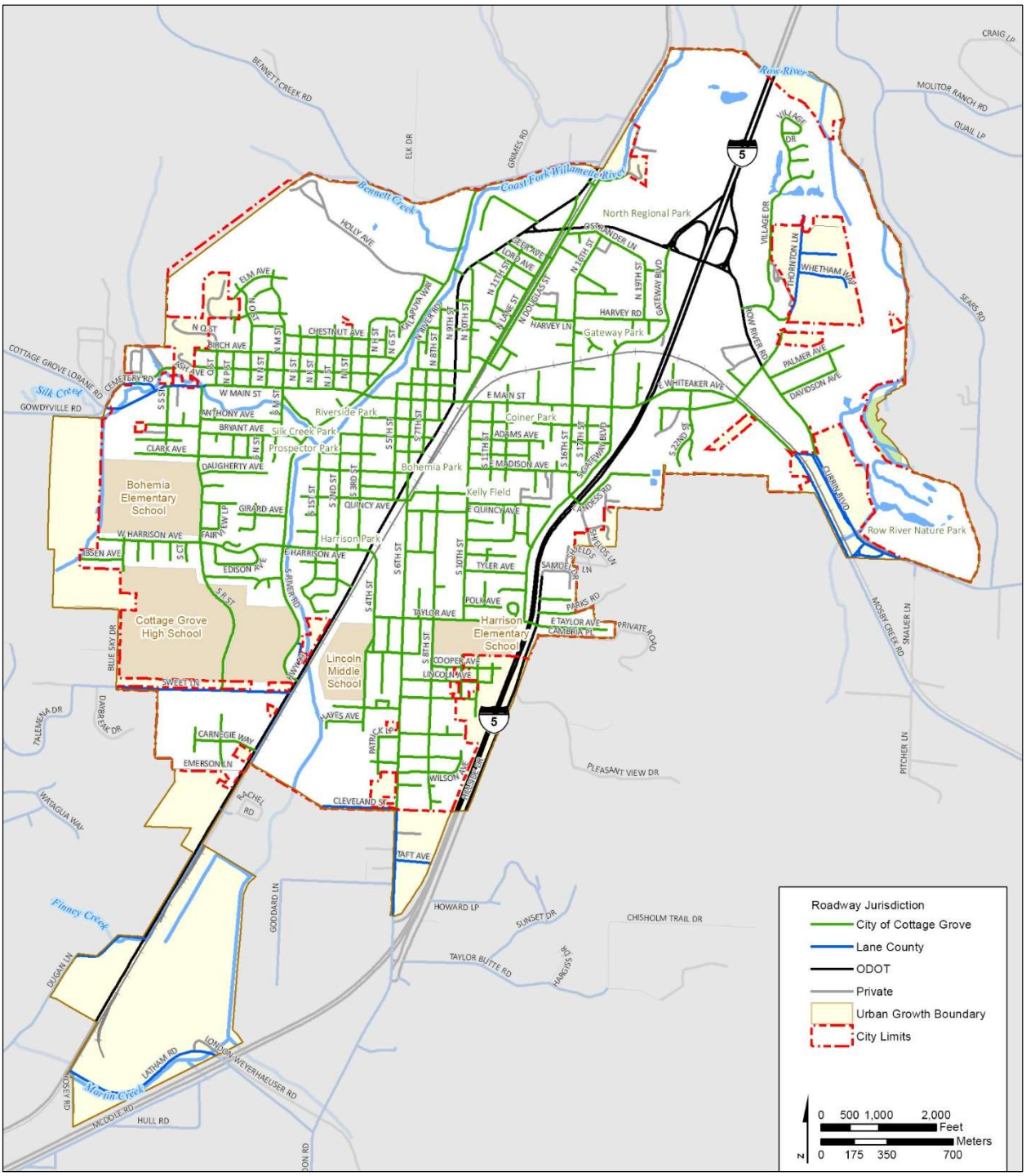
- The **Oregon Department of Transportation** (ODOT) has jurisdiction over State Highways in Cottage Grove: Interstate 5 (I-5) and Highway 99. In addition, ODOT has jurisdiction over the following roadways:
  - The Cottage Grove Connector under the I-5 interchange west to Highway 99
  - The northern portion of Row River Road between the I-5 interchange and Thornton Lane
  - Hillside Drive, and
  - The portion of Taylor Avenue under I-5 between Hillside Drive and Gateway Boulevard.
- **Lane County** has jurisdiction over several roadway segments in the outskirts of Cottage Grove that are within the UGB but outside the city limits, such as portions of W Main Street and Mosby Creek Road.
- The **City of Cottage Grove** (City) has jurisdiction over most other streets, ranging from arterial to collector roadways.

A small collection of private streets provides local access to properties both within and outside the city limits.

The varying ownership of roadway facilities reinforces the need for collaboration among partner agencies to improve conditions for people walking and bicycling while creating a and seamless and consistent network.

Multi-use paths within City parks generally fall under the City's jurisdiction. The Row River Trail, a 14-mile-long paved path along the abandoned Oregon Pacific & Eastern Railroad, is under the City's jurisdiction for approximately 3 miles from its origin in Cottage Grove, with the remaining portion under the U.S. Bureau of Land Management's (BLM) purview.

Figure 2-1. Existing Roadway Ownership



3 Existing Physical Conditions

Cottage Grove benefits from a robust and well-connected street network providing nonmotorized connectivity throughout the community. However, several major barriers present connectivity challenges, particularly for east-west travel. These barriers to connectivity include natural features, specifically the Coast Fork Willamette River and steep topography in the northwest and southwest quadrants of Cottage Grove. Manmade barriers vary in their degree of permeability and include I-5, Highway 99, and the Central Oregon & Pacific Railroad. In particular, the Coast Fork Willamette River, I-5, and the railroad provide limited and challenging crossing opportunities for people on foot or bike. As a result, all modes of travel rely on relatively few connections across these barriers. Highway 99, on the other hand, is integrated into the local street network and thereby provides a higher degree of permeability.

Cottage Grove also benefits from a renowned multi-use path network serving both transportation and recreational users. The path system extends beyond the City limits and provides regional recreational opportunities with direct connections to the heart of Cottage Grove and its array of locally owned businesses. This path network, portions of which include the Covered Bridges Scenic Bikeway and several historic covered bridges, are also tourist attractions drawing visitors from throughout the Willamette Valley and beyond.

The following sections describe Cottage Grove's existing walkways and bikeways in greater detail.

3.1 Existing Walkways

Cottage Grove's downtown consists of a dense grid of streets, a complete network of sidewalks, and frequent crossing opportunities (Figure 3-1). The neighborhood street networks immediately surrounding the downtown generally consist of a connected grid with a range of block sizes, though dead-end streets within larger blocks exist. Local streets in some neighborhoods have incomplete sidewalk coverage, with intermittent gaps or entire blocks without any sidewalk coverage (Figure 3-2). Recently developed areas, on the other hand, generally provide a continuous sidewalk network that meets current standards and include Americans with Disabilities Act (ADA)-compliant curb ramps at intersections.

Figure 3-1. Sidewalk on W Main Street in Downtown Cottage Grove

Figure 3-2. Intermittent Sidewalk Gap

The presence of sidewalks along Cottage Grove's collector and arterial street network varies by location (Figure 3-3). In some instances, gaps exist along shorter stretches within otherwise complete corridors. In other areas, gaps are continuous, notably along a 2-mile stretch of Highway 99 south of Harrison Avenue, and along the Cottage Grove Connector between the I-5 interchange and Highway 99. Figure 3-4 depicts a typical sidewalk along Highway 99, nominally providing space for people walking but lacking in width, separation from vehicular traffic, and accessible crossing opportunities. Figure 3-5 shows a typical sidewalk gap along 6th Street, necessitating pedestrians to either cross the street or walk within the roadway to maintain their path of travel.

In addition to sidewalk network gaps, other conditions along the roadway network may pose challenges for people walking, particularly people with disabilities. Deteriorating concrete results in uneven walking surfaces that could be a tripping hazard (Figure 3-6). Along some streets, excessive weed growth present on the sidewalk can create a slick surface while complicating travel for people using mobility assistance devices (Figure 3-7). Although missing curb ramps can make intersections challenging or impassable for some pedestrians (Figure 3-8), the City has achieved significant progress toward bringing intersections up to current accessibility standards, as evidenced in recent Safe Routes to School improvements (Figure 3-9).

Figure 3-3. Existing Pedestrian Network Gaps (Arterial and Collector Streets)

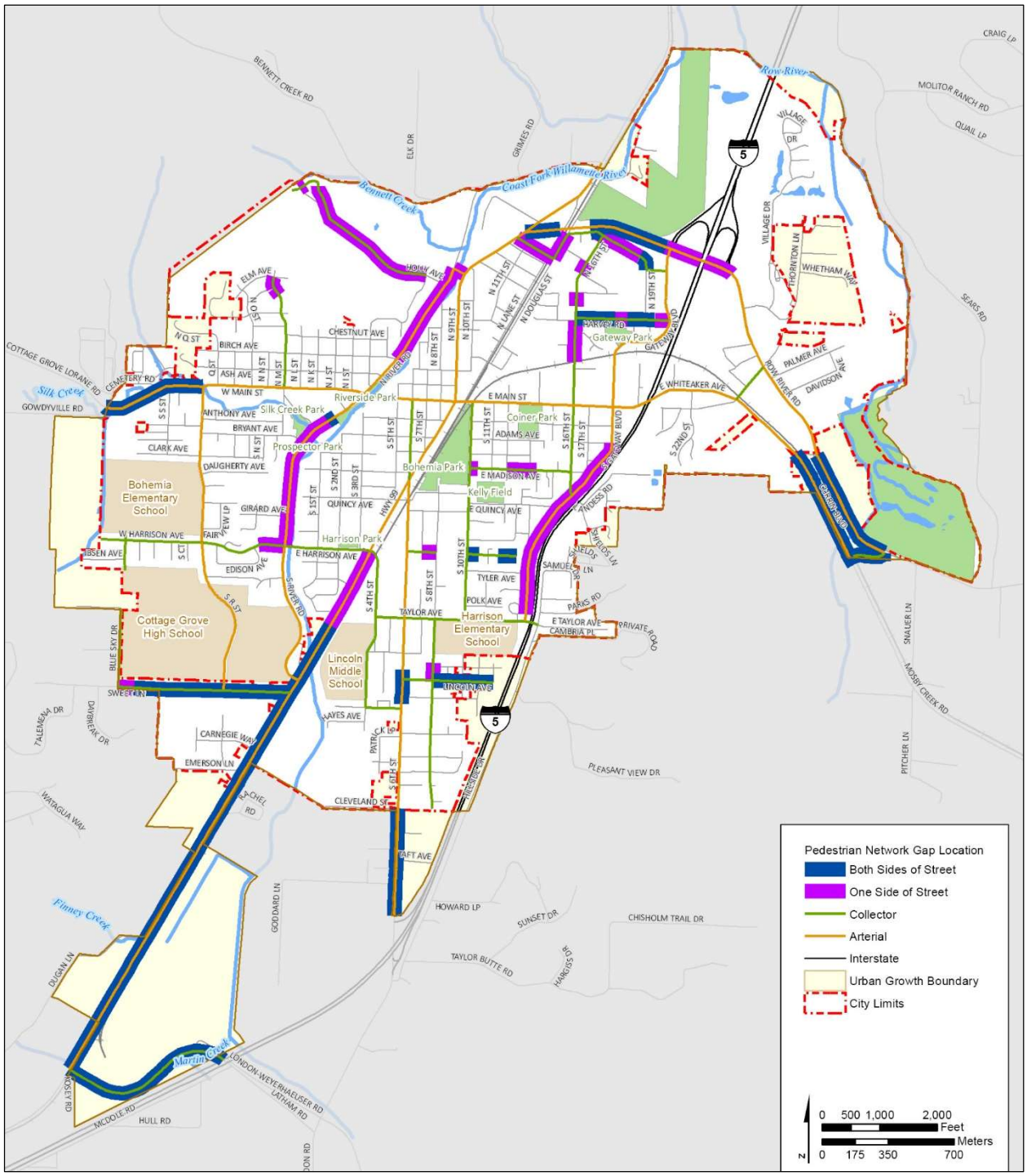


Figure 3-4. Typical Sidewalk on Highway 99

Figure 3-5. Sidewalk Gap on 6th Street

Figure 3-6. Example of Deteriorating Conditions on a Local Sidewalk

Figure 3-7. Example of Excessive Weed Growth on a Local Sidewalk

Figure 3-8. Missing Curb Ramps along Quincy Avenue

Figure 3-9. Recently Upgrade Curb Ramps near Lincoln Middle School

Cottage Grove's sidewalk network is complemented by several multi-use paths serving recreational and transportation purposes (Figure 3-10 and Figure 3-11). Some of these paths are contained within city parks, such as the paths in Bohemia Park. The trailhead of the Row River Trail is located at the north end of Bohemia Park just across Main Street and is a short walk from downtown businesses. The Row River Trail is also part of the Covered Bridges Scenic Bikeway. This corridor includes several bridges, including three within Cottage Grove (Figure 3-12). In northern Cottage Grove, a multi-use path provides access to North Regional Park and the adjacent Middlefield Golf Course. Cottage Grove also enjoys the enviable position of having regional recreational amenities reaching directly into the downtown core, allowing people to easily frequent downtown businesses and restaurants before or after a walk, run, or bike ride.

Figure 3-10. Shared Use Path in Bohemia Park

Figure 3-11. Row River Trail east of Downtown

Figure 3-12. Swinging Bridge at Madison Avenue

3.2 Existing Bikeways

Cottage Grove's existing bikeway network generally consists of conventional on-street bike lanes (Figure 3-13), shared roadways with markings or signage (Figure 3-14), rural roadway shoulders (Figure 3-15), and multi-use paths (Figure 3-16). The community network of lower-volume/lower-speed streets, though not formalized as bikeways, also serve as an informal bikeway network.

Figure 3-13. Typical Striped Bike Lane and Supplemental Signage

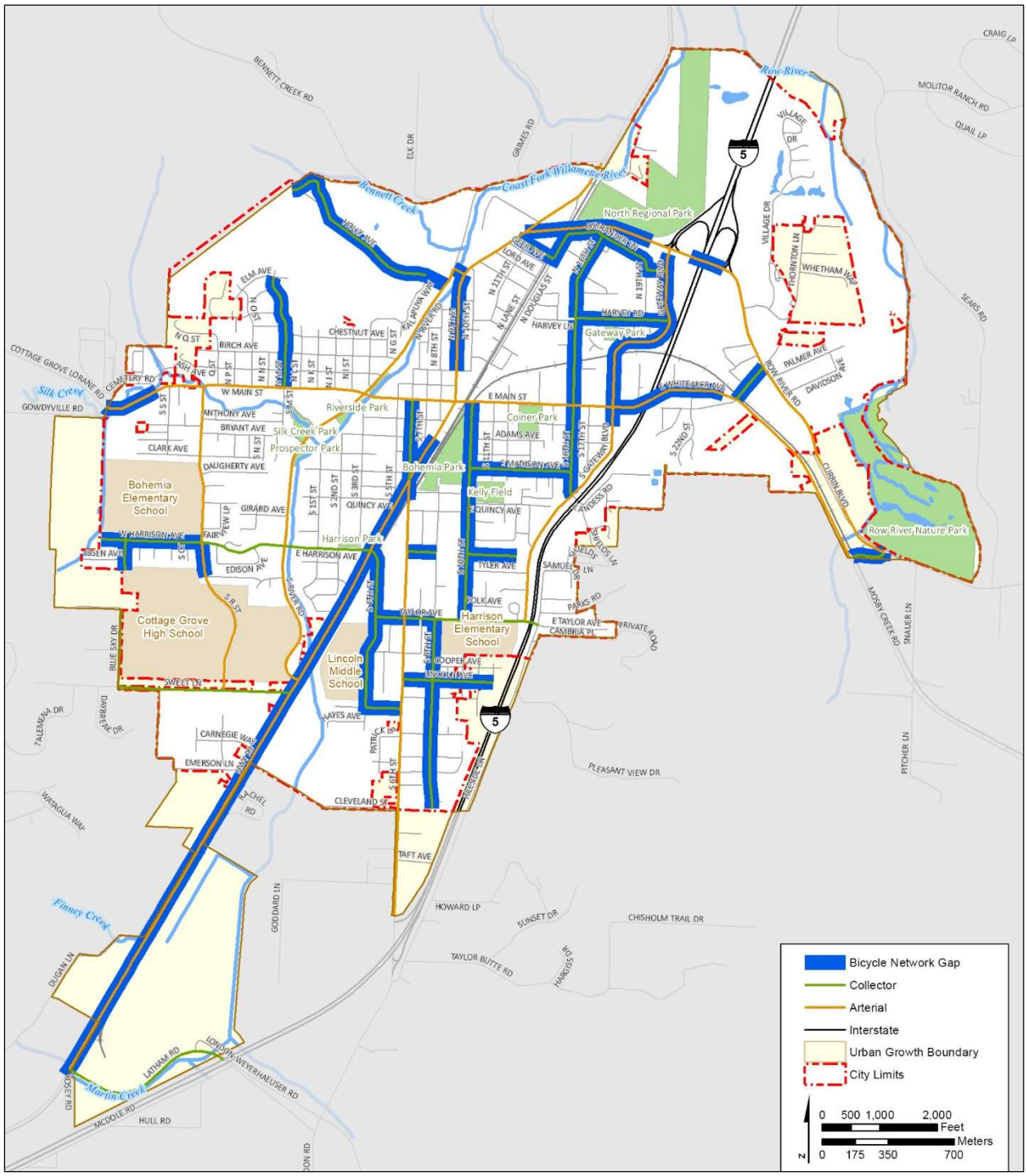
Figure 3-14. Typical Shared Roadway

Figure 3-17 highlights the gaps in the bikeway network along collector and arterial streets, which includes sizable gaps on major thoroughfares such as Highway 99 south of downtown. The Cottage Grove Connector/Row River Road also has only intermittent bike lane coverage. The gap analysis indicates that Cottage Grove's core is reasonably accessed by bicycle – either via shared facilities on lower-volume/lower-speed streets or conventional bike lanes on higher-order roads. The gap analysis also suggests that challenges exist for people accessing a sizable portion of the community to the north and south of the City's core and east of Highway 99, where only the most experienced and confident bicyclists may feel comfortable riding in traffic along major roadways without formalized bicycle facilities. Additionally, Lane County recently completed a Bicycle Master Plan that identified several routes in and out of Cottage Grove as primary routes, including Cottage Grove-Lorane Road, a westward continuation of Main Street, and London Road, a southward extension of 6th Street, reinforcing the significance of gaps along these streets.

Figure 3-15. Rural Shoulder Bikeway on Highway 99 in Southern Cottage Grove

Figure 3-16. Typical Multi-Use Path (Row River Trail)

Figure 3-17. Existing Bicycle Network Gaps (Arterial and Collector Streets)



In addition to network gaps, additional on-the-ground observations include the following:

- Narrow bike lanes with minimal separation from motor vehicle traffic may be uncomfortable for less confident or experienced riders (Figure 3-18)
- Obstructions of bike lanes by parked vehicles, trash receptacles, or other objects force people on bicycles to maneuver into adjacent travel lanes, which can create unpredictable movements for all roadway users (Figure 3-19)
- While shared roadways on lower-volume/lower-speed streets are typically comfortable for a range of bicycle user types, sharing the road with motor vehicles on major streets such as downtown's Main Street may be uncomfortable for less experienced riders (Figure 3-14). Due to the previously described barriers to connectivity, all but the shortest bike rides would require bicyclists to use a collector or arterial street at some point in their trip, either by crossing it or riding along it for a distance. This may deter less confident riders.

Figure 3-18. Existing Bike Lane on W Main Street.

Figure 3-19. Typical Bike Lane Conflict

3.3 Existing Traffic Control Devices

A variety of traffic control devices on Cottage Grove's street network facilitates connectivity and access for people on foot and bike. Traffic signals facilitate crossings at intersections of major thoroughfares (including several intersections along Highway 99 and Row River Road) and at several downtown intersections (Figure 3-20). Other intersections are stop-controlled on multiple or all legs, and either include transverse crosswalks (Figure 3-21) or higher-visibility continental crosswalks (Figure 3-22). The City has also installed midblock crossings at key locations, particularly along major walking routes where street intersections do not exist (Figure 3-23).

Figure 3-20. Typical Signalized Intersection with Marked Crossings on W Main Street

Figure 3-21. Typical Stop-Controlled Intersection with Marked Crossings on W Main Street

Figure 3-22. Typical Marked Crosswalk on 6th Street

Figure 3-23. Typical Midblock Crosswalk on Taylor Avenue

Several types of enhanced crossings also exist in Cottage Grove, such as:

- Marked crosswalks with high-visibility markings (Figure 3-24)
- Marked crosswalks with flashing LED signs alerting motorists to the crossing (Figure 3-25)
- Marked crosswalks with a median refuge islands and rectangular rapid flashing beacons (RRFB), (Figure 3-26).

Figure 3-24. Enhanced Crosswalk on E Main Street

Figure 3-25. Enhanced Crosswalk with Flashing LED Sign

Figure 3-26. Marked Crosswalk with RRFB and Median Refuge on Row River Road

4 Activity Nodes and Linkages

This section provides a high-level description of areas within Cottage Grove where higher concentrations of walking and bicycling activity can be expected. The narrative also provides an overview of existing public transit services in and their linkages to the walkway and bikeway network. Finally, this section concludes with a qualitative assessment of several key streets near schools that may be the focus of future Safe Routes to School investments.

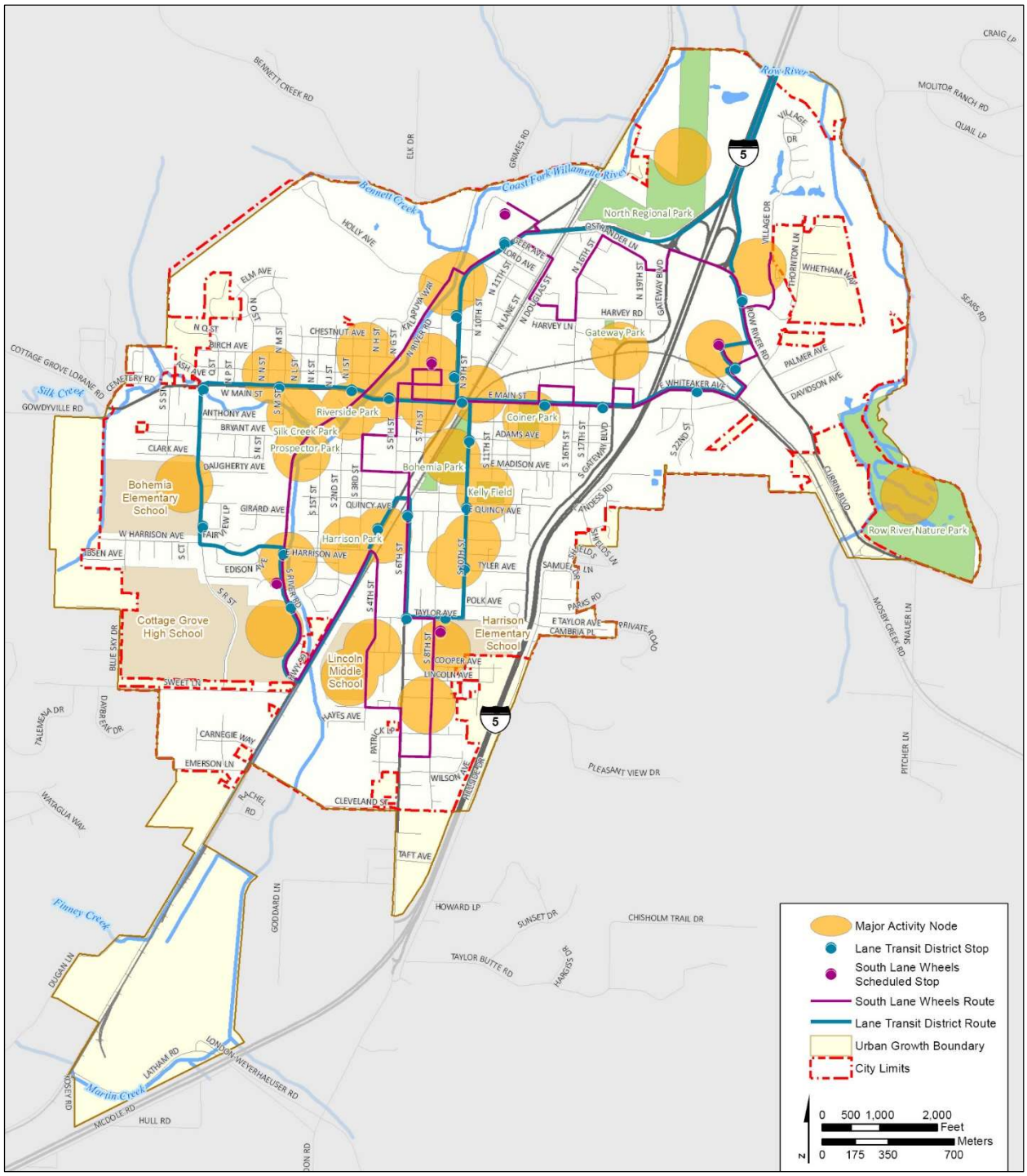
4.1 Activity Nodes

A variety of land use types attract higher concentrations of foot and bicycle traffic in Cottage Grove. As shown in Figure 4-1, many of these nodes are clustered near the downtown core, while other nodes are predominantly located in the western half of the community.

Schools and public parks are the most frequent uses generating foot and bike traffic. Others include civic uses (e.g., Cottage Grove Public Library, City Hall, post office), institutional uses (e.g., PeaceHealth Medical Center), and recreational attractions such as the covered bridges and Cottage Grove Museum.

Downtown Cottage Grove is a fairly dense cluster of commercial and civic land uses generating non-motorized traffic, likely the result of a compact and well-connected layout that is easily accessible on foot or bike. Even for people driving, this land use composition supports “park-once” behavior, where motorists park their vehicle once and walk to multiple destinations within the downtown area, such as combining a trip to the library and City Hall. Similarly, visitors may combine a museum visit with lunch on Main Street and a stroll across the Centennial Covered Bridge.

Figure 4-1. Existing Pedestrian/Bicycle Activity Nodes and Transit Stops



4.2 Transit Linkages

Two public transit providers offer service in Cottage Grove: Lane Transit District (LTD) and South Lane Wheels (SLW).

LTD operates Route 98, the only fixed-route bus service in Cottage Grove. Route 98 connects Cottage Grove with Eugene and makes a loop around Cottage Grove, with bus stops well dispersed throughout the city (Figure 4-1). SLW operates the LTD Connector shuttle service within Cottage Grove city limits, a mobile app-operated on-demand rideshare service that allows for scheduled pick-ups. LTD's ADA paratransit service, RideSource, also serves Cottage Grove, providing scheduled door-to-door transportation for qualifying customers.

SLW also offers a local door-to-door service, a scheduled rideshare service operating in Cottage Grove and the surrounding area. SLW's Metro Shuttle service complements the local door-to-door service by offering trips outside the local service area. SLW's Lane-Douglas Connector provides regional service from scheduled bus stops.

Many of the activity nodes described above are located within walking distance of a transit stop, suggesting that trip chaining may be possible. LTD's Route 98 connects many of the major activity nodes – schools, parks, and the downtown commercial area – increasing accessibility to these areas for people who live beyond a reasonable walking or biking distance. While LTD Route 98 provides broad geographic coverage throughout Cottage Grove, service frequency is limited with only five weekday trips and even less frequent service on weekends. Furthermore, Route 98 operates on a one-way loop in Cottage Grove, which, depending on a customer's trip origin and destination, may involve circuitous routing.

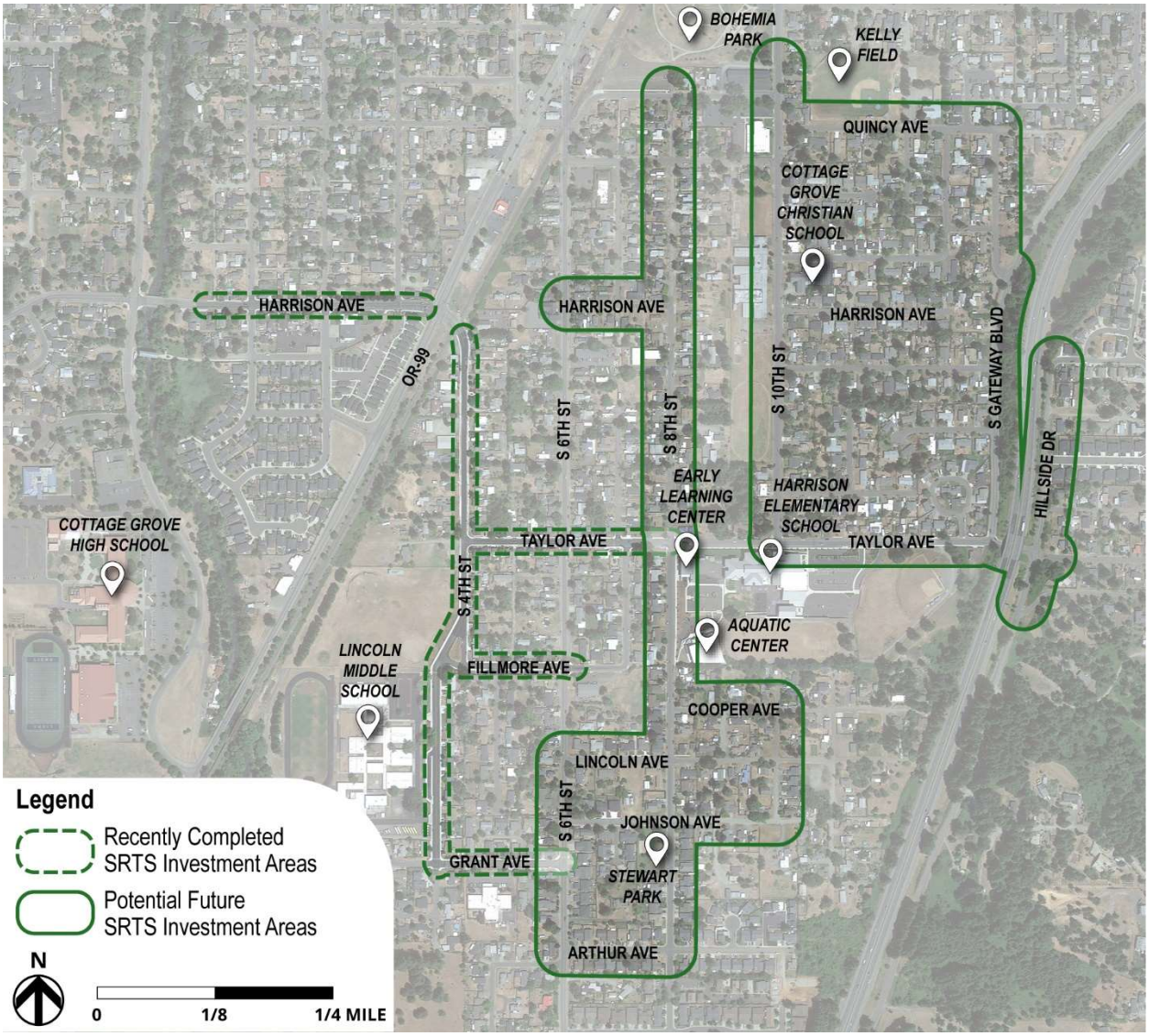
LTD and SLW vehicles are equipped with bike racks, enabling customers to combine a bike ride with a transit trip. While some transit stops in Cottage Grove include shelters providing weather protection, most transit stops consist of a route sign with attached seating (Figure 4-2).

Figure 4-2. Typical LTD Route 98 Bus Stop

4.3 School Linkages

This section broadly describes the pedestrian and bicycle environment near schools, with a particular focus on areas where the City has expressed a focused interest for its next round of infrastructure investments (Figure 4-3).

Figure 4-3. Recent and Future Safe Routes to School Investment Areas



Over the past decade, Cottage Grove has achieved significant progress toward improving active transportation linkages to schools, notably sidewalks and crossing enhancements along S 4th Street, Fillmore Avenue, Grant Avenue, and Harrison Avenue near Lincoln Middle School.

Building on the Taylor Avenue sidewalks improvements as part of the Harrison Elementary School construction project, the City has identified several areas north and south of the school that could also benefit from improved walking and cycling connections. Tying into the existing walkway and bikeway network, additional

enhancements in these areas would streamline connections to Harrison Elementary School, South Lane Early Learning Center, Warren H. Daugherty Aquatic Center, and Cottage Grove Christian School.

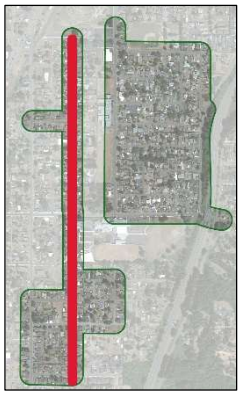
4.3.1 Qualitative Route Assessment

The sections below present a qualitative assessment of walking and bicycling conditions along the corridors within the potential future investment area boundaries. These include key north-south streets (S 8th Street and S 10th Street), and generally shorter stretches of east-west streets providing connections to these two key corridors.

4.3.1.1 S 8th Street

S 8th Street provides a direct active transportation link between Bohemia Park (including the park's multi-use path network) and Harrison Elementary School and the adjacent aquatic center. South of the aquatic center, the corridor provides access to the surrounding residential areas and ties into the previously improved pedestrian/bicycle connections to Lincoln Middle School (Figure 4-4).

Figure 4-4. S 8th Street Corridor



A continuous sidewalk exists along the west side of S 8th Street, with a short gap in vicinity of the Aquatic Center. Intermittent sidewalks exist on the east side, interrupted by gaps near Monroe Avenue, between Pierce Avenue and Harrison Avenue, and between Cooper Avenue and Lincoln Avenue. Sidewalks north of Taylor Avenue are generally separated from the roadway by planter strips of varying width – some with street trees. South of Taylor Avenue, sidewalks are curb-tight. North of Taylor Avenue the planter strips accommodate driveway aprons, thereby avoiding excessive cross slopes within the pedestrian's path of travel.

4.3.1.2 S 10th Street

S 10th Street's southern terminus is at Harrison Elementary School. The corridor provides a direct connection to Bohemia Park at the northern end, with the street continuing north along the park to E Main Street (Figure 4-5). Due to its connection to E Main Street and Downtown, S 10th Street carries more vehicular traffic relative to other nearby streets.

Figure 4-5. S 10th Street Corridor

Continuous sidewalks exist along both sides of the corridor and are generally separated from the roadway by planter strips. Sidewalks are generally unobstructed, and the planter strips typically accommodate driveway aprons, thereby avoiding excessive cross slopes within the pedestrian's path of travel. Marked crosswalks at multiple locations along the corridor enhance east-west connectivity and linkages to adjacent neighborhoods.

4.3.1.3 Quincy Avenue (east of S 10th Street)

Quincy Avenue connects several residential blocks with S 10th Street and provides access to Kelly Field (Figure 4-6). Sidewalks on Quincy Avenue and the intersecting cross streets are generally absent, with only short stretches of one-sided curb-tight sidewalk present east of S 12th Street.

Figure 4-6. Quincy Avenue Corridor

4.3.1.4 Taylor Avenue/Hillside Drive

Taylor Avenue is a critical east-west connection providing access to neighborhoods east of I-5 (Figure 4-7). The western segment (between S 4th Street and S 8th Street) includes sidewalks recently constructed as part of the Lincoln Middle School Safe Routes to School improvements. Mentioned earlier, the segment between S 8th Street and Gateway Boulevard also includes a sidewalk on the south side, completed as part of the Harrison Elementary School construction project. Intermittent sidewalks exist on the street's north side, separated from the roadway by a narrow planter strip with intermittent street trees. A curb-tight sidewalk along the north side (beneath I-5) provides the only walking connection between Harrison Elementary School and neighborhoods to the east of I-5.

Figure 4-7. Taylor Avenue/Hillside Drive Corridors

Several marked crossings exist along Taylor Avenue, including at the four-way stop-controlled intersection at S 8th Street, the three-way stop-controlled intersection at S 10th Street, and a marked midblock crossing near S 13th Street.

Hillside Drive parallels I-5 on the east side and provides north-south connections to several neighborhood streets between Samuel Drive and Cambria Place. Hillside Drive lacks sidewalks, though they exist on some of the cross streets. The northside sidewalk on Taylor Avenue between S Gateway Boulevard and Hillside Drive ends shy of the Hillside Drive intersection, leaving people on foot without designated space to continue walking. Marked crossings do not exist along Hillside Drive.

4.3.1.5 Johnson Avenue

Providing east-west connectivity within the neighborhoods south of Harrison Elementary School, Johnson Avenue ties directly into the recently improved sidewalk network near Lincoln Middle School (Figure 4-8). Curb-tight sidewalks on both sides accommodate walking along this corridor. Stewart Park, a small neighborhood park, is located at the southwest corner of the intersection with S 8th Street. While marked crosswalks exist on all legs of the intersection, only east-west traffic is stop-controlled. East of S 8th Street, the paved roadway transitions to an unimproved gravel road without pedestrian infrastructure. Particular issues along this corridor include steep driveway apron cross-slopes, periodic sidewalk obstructions, and non-ADA compliant curb ramps.

Figure 4-8. Johnson Avenue Corridor

4.3.1.6 Other Roadways

Other local streets within the City's targeted future investment area include Jackson Avenue, Van Buren Avenue, Harrison Avenue, Tyler Avenue, and Polk Avenue (east of S 10th Street), all of which are east-west streets generally without or with very limited pedestrian infrastructure. Cooper Avenue, Lincoln Avenue, and Arthur Avenue primarily provide local access and include segments of curb-tight sidewalks (Lincoln Avenue and Arthur Avenue) or no pedestrian infrastructure (Copper Avenue). S 6th Street between Lincoln Avenue and Arthur Avenue lacks any pedestrian infrastructure north of Johnson Avenue, with curb-tight sidewalks present between Johnson Avenue and Arthur Avenue.

5 Crash History

This section discusses reported collisions involving people walking and bicycling in Cottage Grove. The analysis focuses on the most recent five-year period (2016-2020) of available data from ODOT's Oregon Transportation Safety Data Explorer site[1].

5.1 Crash Summary

Within Cottage Grove's UGB, nine reported collisions involving people walking, and nine reported collisions involving people bicycling occurred during the five-year study period. The 18 total pedestrian and bicycle collisions represent approximately four percent of all total crashes in Cottage Grove reported by ODOT.

Figure 5-1 presents the locations of reported pedestrian and bicyclist crashes. All crashes occurred at or near an intersection. Along W Main Street from N River Road in the west to N 16th Street, five pedestrian and two bicyclist crashes occurred. Two serious injury pedestrian crashes occurred near the connection between the Row River

[1] Oregon Transportation Safety Data Explorer site: https://geo.maps.arcgis.com/apps/webappviewer/index.html?id=df0b3cdb2f1149d3bd43436bc1dd4eac

Trail and the intersection of S 10th Street and Main Street. A total of three pedestrian and bicyclist crashes occurred at the intersection of Gateway Boulevard and Coop Court.

5.2 Crash Frequency by Severity

Table 5-1 presents pedestrian and bicyclist crash frequency by severity within the Cottage Grove UGB for the 2016-2020 time period. Nearly all crashes resulted in some form of injury to the pedestrian or bicycle riders. One fatal pedestrian crash occurred in 2017 near the intersection of Highway 99 at Sweet Lane in dark conditions.

Table 5-1. Crash Frequency by Severity, 2016-2020

Crash Severity	Bicyclist	Pedestrian
Fatal (K)	0	1
Serious Injury (A)	1	2
Minor Injury (B)	5	2
Possible Injury (C)	3	4
Property Damage Only (O)	0	0
Total	**9**	**9**

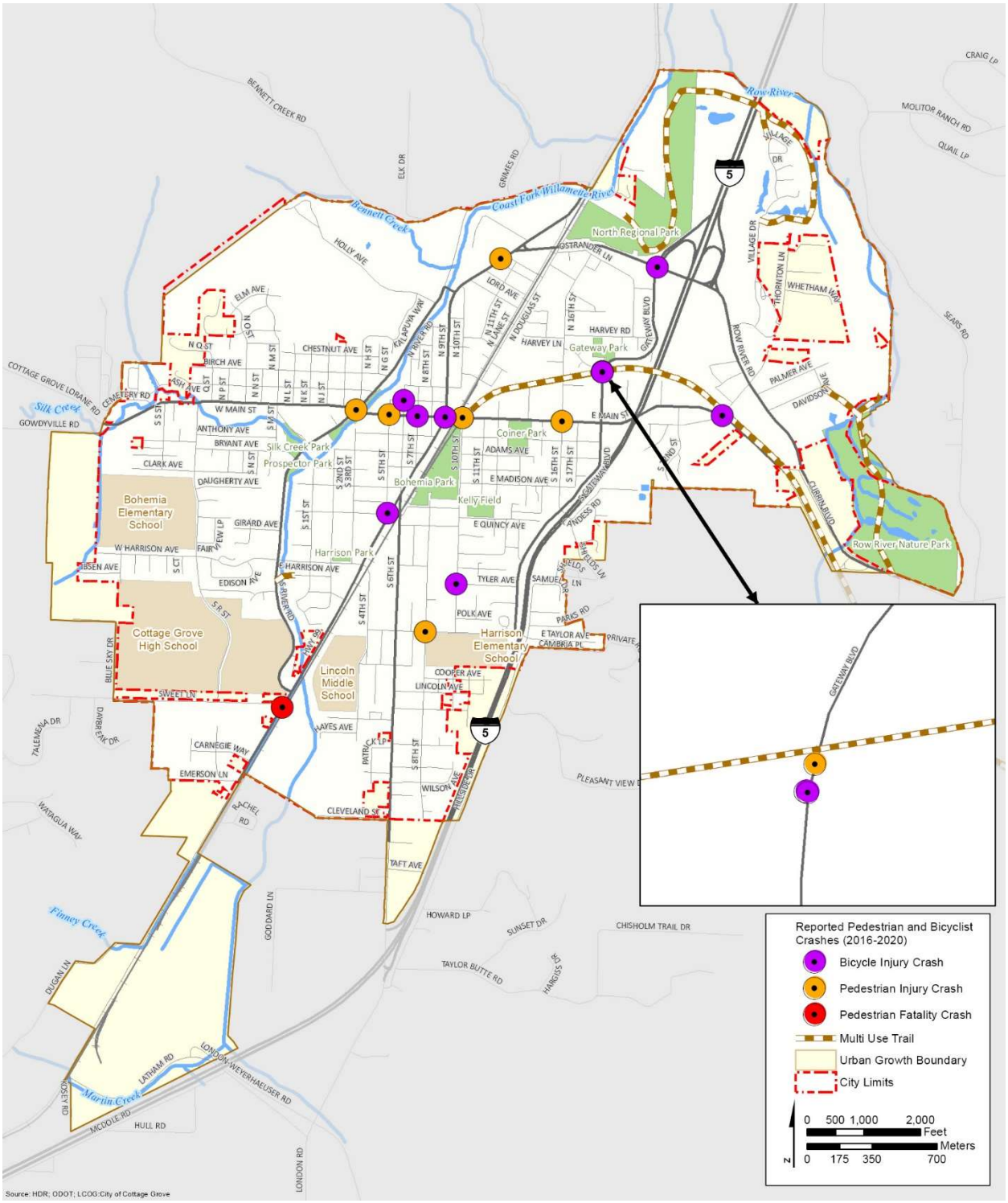
5.3 Contributing Factors

Table 5-2 presents the crash frequency by cause in the study area. Seven bicyclist crashes and four pedestrian crashes occurred due to failure to yield the right-of-way. The data does not specify if the motor vehicle operator or the person walking/bicycling failed to yield. The majority of crashes occurred in daylight under clear weather conditions.

Table 5-2. Crash Frequency by Contributing Factor, 2016-2020

Contributing Factor	Bicyclist	Pedestrian	Total
Did not yield the right-of-way	7	4	11
Disregarded other traffic control device	0	2	2
Inattention	1	1	2
Non-motorists illegally in the roadway	0	1	1
Passed stop sign or red flasher	1	0	1
View obscured	0	1	1
Total	**9**	**9**	**18**

Figure 5-1. Reported Collisions Involving People Walking or Bicycling, 2016-2020



6 Long-Range Planning and Regulatory Framework

This section discusses the existing long-range planning and regulatory framework as it applies to Cottage Grove's active transportation environment. The discussion begins with a summary of the City's existing Comprehensive Plan and zoning designations, followed by an overview of current and projected population and employment forecasts. A description of recent land development activity and a buildable lands inventory follow, which will inform where future concentrations of walking and bicycling activity may be anticipated. The section concludes with a description of the City's existing design standards for active transportation infrastructure such as sidewalks and bike lanes.

6.1 Land Use Designations and Zoning

Figure 6-1 displays Cottage Grove's existing Comprehensive Plan land use designations. The Comprehensive Plan includes low-, medium-, and high-density residential designations, which are located throughout the city. Commercially designated land is generally located along arterial and collector corridors in the central portion of the city, including along E Main Street, N River Road, and Highway 99. The Tourist Commercial designation is primarily concentrated near the I-5 interchange in northeast Cottage Grove. The city's employment land is in the Industrial designation, predominantly on the southern end and northeast portion of the UGB. Lands designated for Open Space and Recreation primarily consist of city parks such as North Regional Park, Row River Regional Park, and other smaller parks throughout the community.

Figure 6-2 depicts Cottage Grove's existing zoning designations. Most of the city's residential land is zoned Single-Family Residential, which implements the Low Density Comprehensive Plan Designation and allows duplexes and townhouses in addition to single-family detached housing. Single-Family Residential land is predominantly located west of I-5, but there are residential neighborhoods east of I-5 that create a need for east-west connections across I-5. A limited area zoned as Low Density/Restricted Residential lies near the northwest edge of the city. Multi Family and High Density zones exist throughout Cottage Grove, with a slightly higher concentration in the southeast portion of the community between I-5 and Highway 99.

Cottage Grove's commercially zoned lands are centrally located, with concentrations around E Main Street, N Lane Street, and portions of the I-5 interchange area in the north. The city's industrial areas and Airport zone are mainly concentrated in the northeast portion of the city, and in far southwest Cottage Grove. Table 6-1 lists the city's zoning designations with a brief description and purpose of each district.

Figure 6-1. Cottage Grove Comprehensive Plan Designations

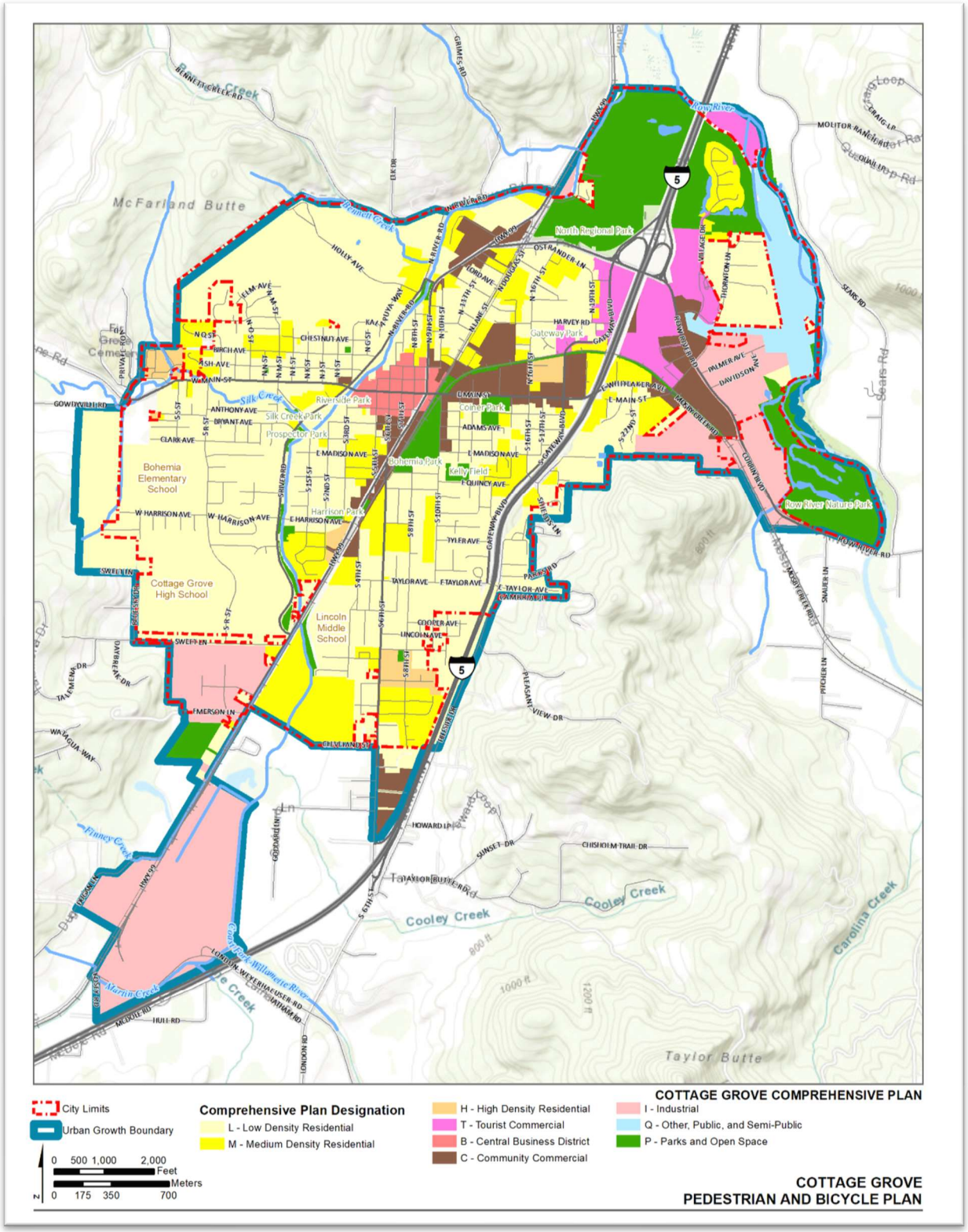


Figure 6-2. Cottage Grove Zoning Designations

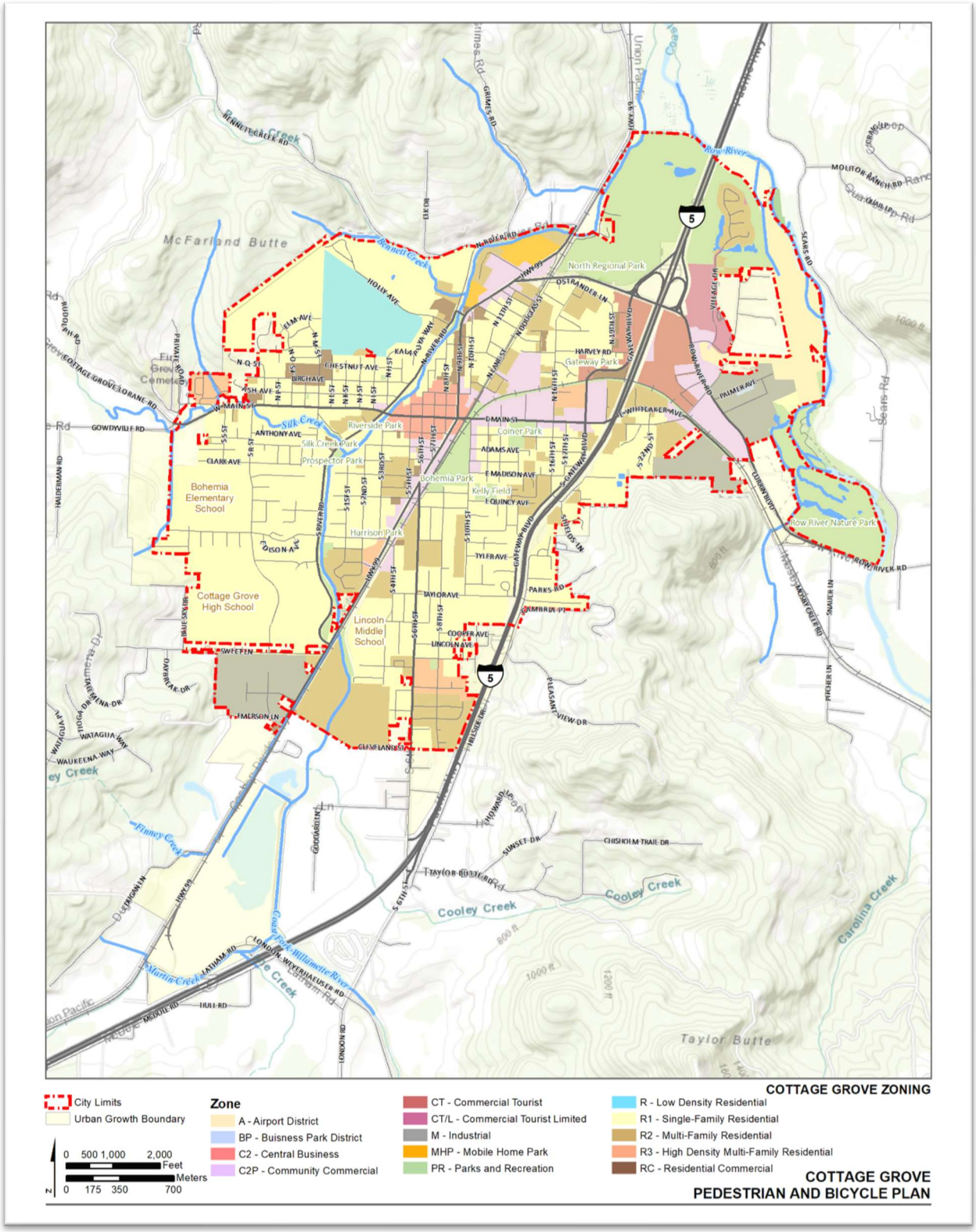


Table 6-1. Cottage Grove Zoning Designation Descriptions

Zone	Zone Purpose
Low Density/Restricted Residential (R)	Intended primarily for household living at lower densities in areas with features that restrict development such as steep slopes.
Single Family Residential (R-1)	Intended primarily for household living at low densities, with parks, schools, places of worship, and other supportive services that are at an appropriate neighborhood scale.
Medium-Density Multiple Family (R-2)	Intended to accommodate a wider variety of housing types and more intensive land use than the R-1 district.
Mobile Home Park (MHP)	Intended to accommodate existing mobile home parks.
High Density Multiple Family Residential (R-3)	Intended to accommodate higher density residential development near commercial areas, with a mix of multi-family housing types adjacent to highways, major arterials, and collector streets.
Residential Commercial (RC)	Intended to combine a variety of housing similar to the R-2 district with public and commercial services at an appropriate neighborhood scale to provide a transitional zone between residential and commercial zones.
Central Business (C2)	Focused on the historic commercial and civic core (e.g., the central business area) of the community.
Community Commercial (C2P)	Applies to commercial areas outside or adjacent to the central business area.
Commercial Tourist (CT)	Applies to commercial areas along Gateway Boulevard and Row River Road adjacent to the I-5 (Exit 174) Interchange.
Commercial Tourist Limited (CT/L)	Applies to the small area in the northeast portion of the community, between I-5, Row River Road, and the Row River, which was brought into the city through an exception process to provide room for a golf course and hospital.
Industrial (M)	Intended to provide suitable locations for heavy industrial uses (e.g., raw materials processing; and manufacturing, assembly, packaging or distribution of heavy or large goods) that would not otherwise be compatible in other districts.
Business Park (BP)	Intended to allow for mixed light industrial and service commercial uses, with limited supporting retail, in a master planned campus-like setting.
Parks and Recreation (PR)	Intended to implement the Parks, Recreation and Open Space element of the Cottage Grove Comprehensive Plan and the adopted Cottage Grove Master Parks Plan. This district includes private and public recreation uses.
Airport (A)	Intended to encourage and support the continued operation and vitality of Cottage Grove State Airport by allowing certain airport-related commercial and recreational uses in accordance with state law.

6.2 Demographics and Population Forecast

6.2.1 Current Demographic Profile

This demographic profile of Cottage Grove informs the development of strategies to ensure fair treatment and meaningful participation in preparation of the Pedestrian and Bicycle Plan. Table 6-2 displays U.S. Census population and demographic data for the City of Cottage Grove. Data is also shown for Lane County and the State of Oregon for comparison. Key demographic findings include the following:

- The largest racial minority group in Cottage Grove is “Hispanic or Latino,” followed by people identifying as “Two or More Races.”
- Compared with Lane County and Oregon (statewide), a larger proportion of Cottage Grove’s population has a disability.
- The data indicate that a higher proportion of Cottage Grove residents are economically disadvantaged compared with the County and State. Median Household Income and Per Capita Income are lower in Cottage Grove compared with Lane County and Oregon, and Cottage Grove has a higher share of Persons in Poverty and Persons without Health Insurance.

Table 6-2. Demographic Profile of Cottage Grove

Demographic Component	Cottage Grove	Lane County	Oregon
Population			
Population, Census, April 1, 2020	10,574	382,971	4,237,256
Population, Census, April 1, 2010	9,686	351,715	3,831,074
Population Growth, 2010-2020	888	31,256	406,182
Population Growth Rate, 2010-2020	9.2%	8.9%	10.6%
Population by Age			
Persons under 5 years	4.7%	4.3%	5.0%
Persons under 18 years	22.0%	17.9%	20.3%
Persons 65 years and over	15.6%	20.5%	18.6%
Population by Race			
White alone	85.8%	88.8%	86.2%
Black or African American alone	1.1%	1.3%	2.3%
American Indian and Alaska Native alone	1.5%	1.6%	1.9%
Asian alone	1.2%	3.1%	5.0%
Native Hawaiian and Other Pacific Islander alone	0.0%	0.3%	0.5%
Two or More Races	7.1%	4.8%	4.2%
Hispanic or Latino	11.6%	9.8%	14.0%
White alone, not Hispanic or Latino	79.3%	80.7%	74.1%

Demographic Component	Cottage Grove	Lane County	Oregon
Housing			
Owner-occupied housing unit rate, 2017-2021	56.4%	59.4%	63.2%
Median value of owner-occupied housing units, 2017-2021	$236,000	$303,800	$362,200
Median selected monthly owner costs - with a mortgage, 2017-2021	$1,507	$1,671	$1,840
Median selected monthly owner costs - without a mortgage, 2017-2021	$562	$563	$587
Median gross rent, 2017-2021	$924	$1,093	$1,250
Persons per household, 2017-2021	2.46	2.37	2.49
Living in same house 1 year ago	78.6%	80.2%	84.2%
Economic Conditions			
Median household income (in 2021 dollars), 2017-2021	$52,994	$59,016	$70,084
Per capita income in past 12 months (in 2021 dollars), 2017-2021	$23,958	$33,517	$37,816
Persons in poverty	21.30%	14.50%	12.20%
In civilian labor force, total of population age 16 years+, 2017-2021	60.90%	60.30%	62.50%
In civilian labor force, female of population age 16 years+, 2017-2021	56.90%	56.70%	58.40%
Education			
High school graduate or higher of persons age 25 years+, 2017-2021	90.40%	92.90%	91.50%
Bachelor's degree or higher of persons age 25 years+, 2017-2021	21.00%	32.50%	35.00%
Health			
With a disability, under age 65, 2017-2021	17.40%	12.80%	10.20%
Persons without health insurance, under age 65	13.20%	8.20%	7.30%

Source: US Census Bureau, 2020

6.2.2 Population Forecast

The Portland State University Population Research Center (PRC) develops long-term coordinated population forecasts for Oregon's communities on a routine basis. The PRC forecasted population figures for Cottage Grove and Lane County are provided in Table 6-3. The PRC population methodology addresses places within a UGB individually; forecasts for areas outside UGBs are consolidated into a single forecast. Cottage Grove is forecasted to grow at a slower rate than the rest of Lane County over the next 20

years. Also, the expected growth rate over the next 10 years (2020 – 2030) is expected to be less than the previous 10 years (2010 – 2020).

Table 6-3. Lane County and Cottage Grove Population Forecasts (% growth)

Area	2010	2020	2030	2040
Lane County	351,715	370,192 (5.2%)	412,045 (11.3%)	434,846 (5.5%)
Cottage Grove UGB	10,249	10,660 (4.0%)	10,921 (2.4%)	11,374 (4.1%)

6.3 Buildable Lands Inventory

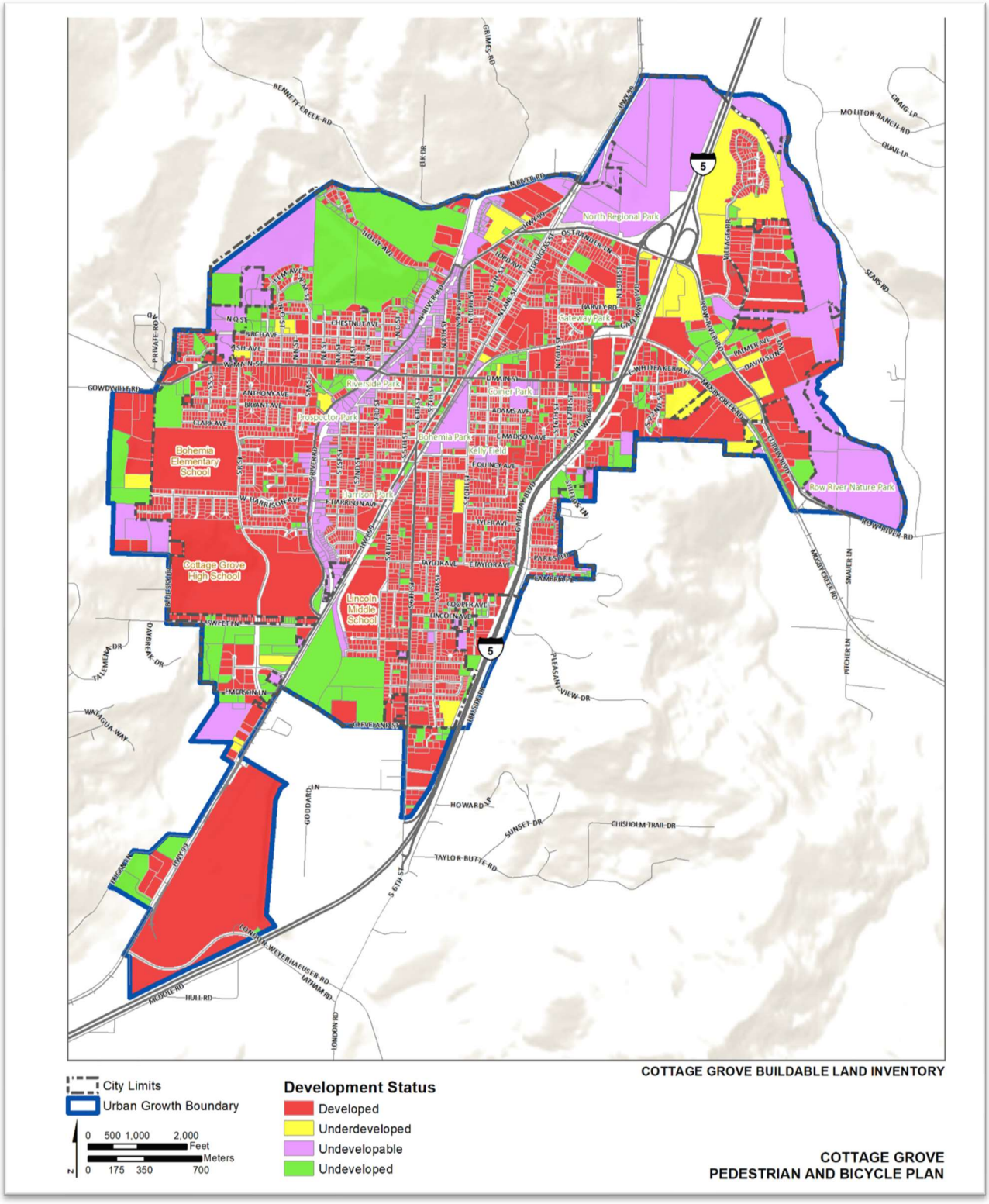
A buildable lands inventory was produced to identify the number of properties and acres that have development potential within the Cottage Grove UGB. This inventory will also inform and identify bicycle or pedestrian policy and/or infrastructure needs in growth areas.

County tax assessor data was used to identify and classify properties into the following categories:

- Undeveloped: Land with an improvement value less than or equal to $10,000 and at least 1,400 square feet in size.
- Underdeveloped: Land with a land value to improvement value ratio of 2:1 and greater than one-half acre in size.
- Undevelopable: Properties (or portions of properties) that are too small to develop or are within parks, farm/forest, open space, or natural resource zoning categories. This includes the following properties:
  - Properties within the Willamette River Greenway
  - Farm/Exclusive Farm Use zoning (EFU 30 and EFU 40)
  - Agricultural Grazing/Timber Raising zoning
  - Forestry/timber related zoning
  - Parks and Recreation zoning
  - Properties under 1,400 square feet (city's smallest minimum lot size)
- Developed: All other land that does not fall under one of the categories above.

As shown in Figure 6-3, most undeveloped properties are located farther from the city center and closer to the city limits and UGB. Most of the underdeveloped land is on larger properties in the northeast portion of the UGB. The undevelopable land mostly corresponds with the city's parks/open space areas and properties within the Willamette River Greenway.

Figure 6-3. Cottage Grove Buildable Land Inventory



As shown in Table 6-4 and Table 6-5, the city has a relatively modest amount of land and properties that may accommodate future development. An estimated 468 properties and roughly 528 acres are considered developable (this includes "undeveloped" and "underdeveloped" properties), which account for approximately 11 percent of properties and roughly 21 percent of the city's acreage. Most development potential resides within residential zones, representing about three-quarters of undeveloped properties and acreage in the UGB. Due to the comparatively high volume of vacant (e.g., undeveloped) properties that are in residential zones, it is assumed that most future development will be residential in character.

Table 6-4. Development Status of Properties in the Cottage Grove UGB – Number of Parcels by Land Use Type

Land Use Type	Undeveloped	Underdeveloped	Developed	Undevelopable	Total
Commercial	79	20	269	25	**393**
Industrial, Public Facilities	23	5	42	5	**75**
Parks, Farm-Forest, Other	--	--	--	111	**111**
Residential	329	12	3,235	240	**3,816**
Total	**431**	**37**	**3,546**	**381**	**4,395**

Table 6-5. Development Status in the Cottage Grove UGB – Number of Acres by Land Use Type

Land Use Type	Undeveloped	Underdeveloped	Developed	Undevelopable	Total
Commercial	28	51	132	16	**227**
Industrial, Public Facilities	55	13	263	5	**337**
Parks, Farm-Forest, Other	--	--	--	425	**425**
Residential	310	70	1,065	61	**1,506**
Total	**393**	**135**	**1,461**	**508**	**2,496**

6.4 Recent Land Use Activity

The following analysis of Cottage Grove's recent development activity summarizes the type of development that is occurring, and which areas of town are growing. Understanding development trends will help identify the type and location of needed walkway and bikeway improvements. This assessment is based on recent land use permitting records (for both residential and commercial development) provided by the City.

The City provided data for dwelling permits issued from 2019 through 2022. As shown in Table 6-6, most properties and acreage developed for residential use has been single-family detached housing. Conversely, most new units built in Cottage Grove have been part of multi-family developments. Although only four properties were developed for

multi-family housing between 2019 and 2022, these developments yielded more than 37 units. These developments are mapped on Figure 6-4, indicating that most of the single-family development has been in the northwestern portion of the community. All recent multi-family housing development has occurred east of Highway 99, closer to I-5. For example, Cottage Grove's recent tiny home development – SquareOne Villages – opened in 2020 and is located on E Madison Avenue. Another tiny home development – Legion Cottages – opened in 2020 and includes four cottages located on Ash Avenue at N I Street.

Table 6-6. Residential Development in Cottage Grove, 2019-2022

Development Type	New Developments (properties developed)	New Units	Acres Developed
Single-Family Dwelling	65	65	12.1
Two Family Dwelling (Duplex)	2	4	0.3
Townhouse	1	14	0.8
Multi-Family	4	> 37	4.9
Manufactured Dwelling	9	9	10.7
Tiny Home	1	13	1.2
Total	**82**	**> 142**	**30.0**

The City also provided data for commercial permits issued in 2018 and 2019. Overall, the City issued 248 permits with a total valuation of nearly $40 million. Of the permits issued, 12 of the approvals included new commercial or industrial construction, changes of use, or major additions (e.g., new structure built on-site). As shown in Figure 6-4, most non-residential development occurred near the core of the city, with many of the developed properties located close to Main Street[2].

[2] Note: The format in which the commercial development information was provided does not lend itself to tabular summaries of the development type.

6.5 City Standards for Walkway and Bikeway Facilities

Chapter 14.34 of the City's Municipal Code contains standards for development of transportation facilities. Table 6-7 presents the pedestrian and bicycle elements of the City's current street design standards.

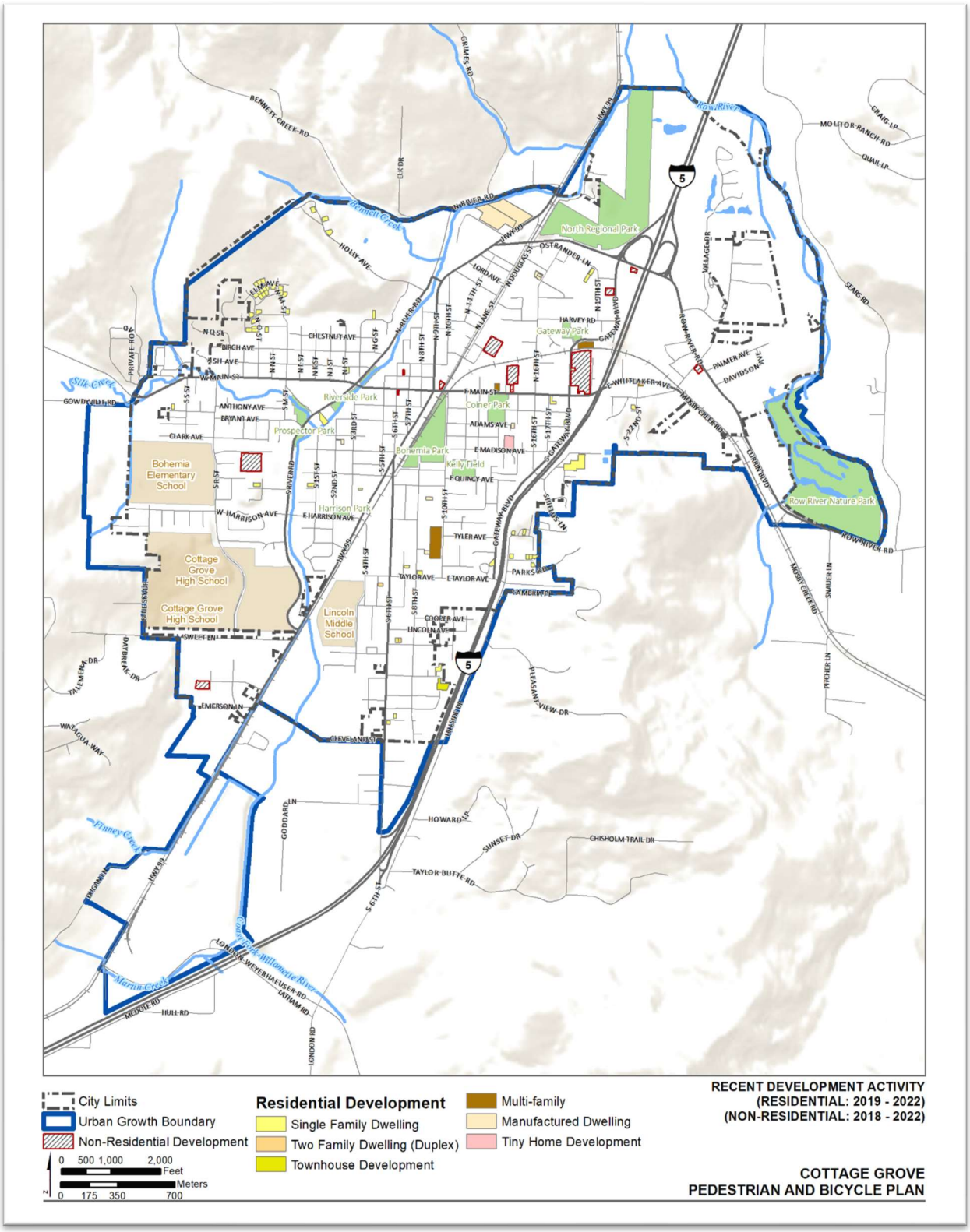
Table 6-7. Existing City Street Standards (Pedestrian and Bicycle Elements)

Street Type	Bike Lane Width	Planter Strip Width	Sidewalk Width
Arterial	5-6'	7'-12'	6'-12'
Residential Collector (no parking)	n/a	7'-8'	6'-12'
Residential Collector (parking one or both sides)	n/a	7'-8'	5'-12'
Commercial Collector	5'-6'	7'-8'	6'-12'
Local	n/a	4'-12'	5'-6'

High-level observations indicate that many streets in Cottage Grove do not currently meet these standards, likely because many of the existing streets pre-date the adoption of the current standards. For instance, planter strips are frequently absent from sidewalk corridors, and where they exist, their width is typically less than the required minimum. Similarly, bike lanes and sidewalks on some streets appear narrower than the required minimum. It should be noted however streets constructed or reconstructed in the recent past are generally consistent with the Municipal Code standards.

Chapter 14.31 of the City's Municipal Code also includes provisions for ADA compliance, requiring ADA-accessible ramps at all street intersections. As highlighted in previous sections, many intersections currently fail to meet this requirement, however the City has undertaken efforts to upgrade intersections, particularly near schools.

Figure 6-4. Development Activity in Cottage Grove, 2019-2022



7 Conclusion

Cottage Grove holds significant potential to become one of Oregon's premier walking and bicycling communities. The community's relatively compact development patterns, robust network of interconnected streets, and existing linkages to local and regional activity nodes are all favorable factors. As evidenced by the array of recent and ongoing active transportation improvements led by the City and its partner agencies, the commitment to improving walking and bicycling is evident throughout the community. While people walking and bicycling encounter a variety of challenges (with these challenges expected to become more significant in future years if left unaddressed), this Pedestrian and Bicycle Plan presents an opportunity to create a seamless, logical, and intuitive network for people of all ages and abilities.

Memorandum #3: Improvement Options

Cottage Grove Pedestrian and Bicycle Plan

Task 3.1

April 24, 2024

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Acronyms and Abbreviations

ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
ARTS	All Roads Transportation Safety
CMF	Crash Modification Factor
CRF	Crash Reduction Factor
FHWA	Federal Highway Administration
I-5	Interstate 5
LTD	Lane Transit District
mph	Miles per Hour
ODOT	Oregon Department of Transportation
PDO	Property Damage Only
PHB	Pedestrian Hybrid Beacon
ROW	Right-of-Way
RRFB	Rectangular Rapid Flashing Beacon
SLM	Shared Lane Markings
SLW	South Lane Wheels
SRTS	Safe Routes to School
TSP	Transportation System Plan
UGB	Urban Growth Boundary

1 Introduction

This memorandum presents recommended project and programmatic enhancements to transform Cottage Grove into a truly walkable and bikeable community. Building on the goals and objectives established earlier in the planning process, the recommendations address the wide range of improvement opportunities identified by community members, partner agencies, and the Project Team.

The memorandum begins with a toolbox of infrastructure and operational countermeasures that have a proven ability to address common safety and comfort issues for people walking and bicycling. A discussion of the recommended walkway and bikeway networks follows, including maps and project lists to guide the City's investments in the coming decades. A prioritization framework accompanies the discussion of recommended projects, providing a strategic approach for implementing projects as resources become available. Finally, the memorandum concludes with a comprehensive package of programmatic and regulatory strategies (to be applied at the citywide level) that will augment the proposed infrastructure improvements.

1.1 Coordination with Relevant Plans and Design Guidelines

Several sources informed the development of the recommended active transportation enhancements presented in this memorandum, including but not limited to:

- The City's 2015 Transportation System Plan (TSP), specifically the proposed pedestrian and bicycle projects (several of which are completed, under construction, or in planning, while others were carried forward (and modified as needed) into this memorandum)
- Oregon Department of Transportation's (ODOT) Highway Design Manual (which incorporates the agency's Blueprint for Urban Design)
- ODOT's Traffic Manual
- ODOT's 2016 Oregon Bicycle and Pedestrian Plan
- Cottage Grove's Main Street Revitalization Project
- The 2021 Cottage Grove Area Transit Development Plan
- Lane County's Bicycle Master Plan
- University of Oregon's Current and Future Mobility Needs Assessment for the Cities of Creswell and Cottage Grove
- Recent and ongoing Safe Routes to School (SRTS) planning efforts
- Input received from the Project Advisory Committee, City, and partner agency staff over the course of this planning effort
- Feedback received during this planning effort's public outreach activities in May 2023

2 Toolbox of Countermeasures

Typical challenges experienced by people walking, bicycling, and accessing transit in Cottage Grove include gaps in the active transportation network, difficult crossing conditions (particularly on major streets), connectivity barriers posed by railroads, waterbodies, and I-5, Americans with Disabilities Act (ADA) accessibility issues, and higher-stress bicycling environments along major roadways. These challenges are further described in Memorandum #2.

The sections below present a series of countermeasures intended to improve the safety, comfort, and convenience of active transportation throughout Cottage Grove. Countermeasures addressing pedestrian network needs are followed by a companion list addressing bicycle network needs. Each countermeasure is described and illustrated, while a summary table at the end of this section presents the countermeasure's effectiveness based on engineering research. It should be noted that the countermeasures presented below are not intended to represent an exhaustive list, and the City should also consider other potential measures[1] as needed based on site-specific conditions as projects progress toward implementation. Also worth noting is that several countermeasures (e.g., multi-use paths, enhanced crossings) benefit both walking and bicycling.

The countermeasures presented below are organized based on the categories of walkway and bikeway improvements discussed later in this memo.

2.1 Pedestrian Network Countermeasures

The following countermeasures are intended to improve the walking environment and include elements that enhance travel along a corridor, across a corridor, or transitioning between walking and other travel modes (e.g., transit).

2.1.1 Multi-Use Paths

Multi-use paths are typically designed for two-way travel by a variety of non-motorized users, including people on foot, bicycle, or using mobility devices. Multi-use paths are typically separated from the street or exist within an exclusive right-of-way (ROW). They may provide a lower-stress alternative to traveling along a street, provide a shortcut where the street network is interrupted, or provide recreational opportunities. Multi-use paths are typically paved to meet ADA requirements.

Figure 2-1 illustrates a local example of a multi-use path, the Row River Trail in Cottage Grove.

Figure 2-1. Typical Multi-Use Path

[1] ODOT's Traffic Manual, February 2024 Edition, identifies several additional treatment options.

2.1.2 Key Walkway Extensions/Infill

Gaps in the pedestrian network create a disincentive to walk, pose a challenge to people with disabilities, and may force people to walk in the street where they are exposed to moving vehicles. Sidewalk infill and walkway extensions along key routes can improve the robustness of the pedestrian network and provide access for a greater number of potential users. Sidewalk infill and walkway extensions are critical for mobility equity by providing alternatives to driving for people who cannot or choose not to drive. Where adding a sidewalk with curb and gutter is not feasible, a shoulder with appropriate striping and pavement markings may be an acceptable temporary solution, or a permanent retrofit solution on lower speed and volume roadways. Care should be taken when considering shoulders intended for walking, as this application may provide limited user comfort, particularly for children, seniors, or other users.

Figure 2-2 shows a local example of a key sidewalk infill as part of the City's recent Safe Routes to School (SRTS) efforts. Figure 2-3 shows an example of a shoulder, occasionally referred to as pedestrian lane, that provides space for walking and biking delineated with lane striping and identified with pavement markings and signage.

Figure 2-2. Typical Sidewalk Infill

Figure 2-3. Typical Shoulder

Source: FHWA Small Town and Rural Multimodal Networks Guide.

2.1.3 Enhanced Crossings

A variety of treatments can be deployed at a crossing to enhance safety and comfort for pedestrians. These enhancements may include improved visibility, lighting, signage and markings, traffic control devices, and curb extensions or refuge islands.

- High-Visibility Crosswalks: Use of patterns and materials that are more visible to approaching motorists from a longer distance. Examples include continental markings (or a combination of continental and transverse markings, as is currently applied on portions of E. Main Street).
- Improved Lighting: Illumination located directly at the crossing to increase driver awareness. Care should be taken during lighting placement to avoid creating a silhouetting effect or extensive shadowing that may diminish the visibility of the pedestrian.
- Enhanced Signage and Pavement Markings: Signage may be placed adjacent to, and/or above the marked crossing.

- Traffic Control Devices: May include traffic signals, pedestrian hybrid beacons (PHB), or rectangular rapid flashing beacons (RRFB).
- Curb Extensions or Median Refuge Islands: Both treatments shorten the crossing distance and increase visibility of the pedestrian, while medians also enable a pedestrian to cross one direction of traffic at a time.

Figure 2-4 shows a local example of an enhanced crossing on E. Main Street utilizing high-visibility crosswalk striping and enhanced signage. Figure 2-5 depicts an example of an enhanced crossing on an Oregon Department of Transportation (ODOT) roadway utilizing high-visibility crosswalk striping, enhanced signage, a median refuge island, and an RRFB.

Figure 2-4. Typical Enhanced Crossing on Main Street

Figure 2-5. Enhanced Crossing with Median

2.1.4 Transit Access and Stop Improvements

Most transit riders access transit by walking to a nearby bus stop. Providing safe and convenient access to transit stops, including barrier-free access in accordance with ADA, is a critical component of a multimodal network. The quality of transit stops further impacts the waiting experience of transit riders and influences acceptance of transit as a viable mode. Transit stop improvements provide the opportunity for enhancements immediately beyond the immediate stop footprint and may include sidewalk infill, ADA ramps, crossing improvements, or additional elements such as lighting or bike parking.

Figure 2-6 shows an example of enhanced transit access and stop improvements on an ODOT roadway, including ADA-compliant curb ramps, an adjacent enhanced crossing, and a transit shelter.

Figure 2-6. Enhanced Transit Access and Stop Improvements

2.1.5 Mobility Hubs

Mobility hubs are places where various transportation modes converge, such as transit, walking, bicycling and rideshare. Mobility hubs offer convenient ways for people to complete their trips using a range of modes and technologies while providing options

beyond private automobiles. These can include walking, bicycling, transit, and shared mobility such as bikeshare, carshare, and e-scooters. Mobility hubs may also include community amenities such as restrooms, water fountains, informational signage and space for mobile vendors.

The 2021 Cottage Grove Area Transit Development Plan recommends a feasibility study for a mobility hub in vicinity of at the Row River Trailhead, which would provide transportation options at a central location serving both a functional and a recreational purpose. Additional analysis is needed to determine the feasibility of a mobility hub and to identify its appropriate location and elements.

Figure 2-7 illustrates an example of a mobility hub that includes a bikeshare and e-scooter hub at a transit stop, allowing travelers to easily switch from one mode to another to reach their destination.

Figure 2-7. Typical Mobility Hub

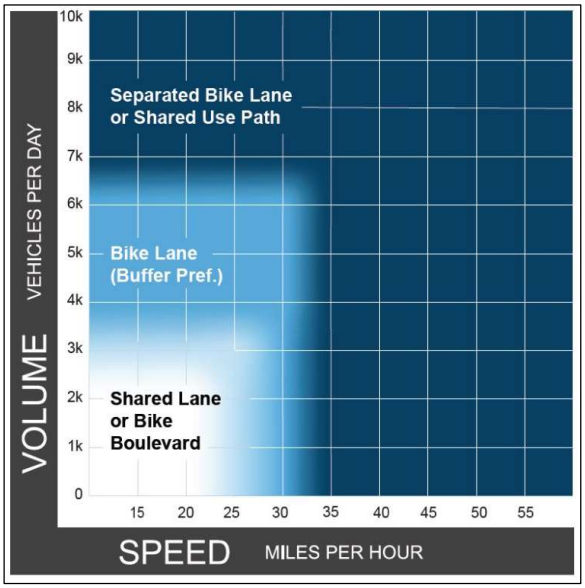
Source: smartcity.db.de

2.2 Bicycle Network Countermeasures

The countermeasures presented in this section improve the bicycle network by creating lower-stress riding environments. These include treatments to create more comfortable and safe conditions in shared vehicle/bicycle environments, as well as various forms of delineated or physical separation.

Figure 2-8 presents guidance for the selection of bicycle facilities as a function of roadway traffic volumes and speed. While shared roadways may be appropriate on local streets with lower volumes and speeds, creating low stress environments along major streets typically necessitates some form of separation between people driving and people bicycling. Selecting the appropriate bikeway type for a given context is critical to ensure that facilities feel safe (by providing adequate safety features), comfortable (to attract users of all ages and abilities), and equitable (to provide adequate facilities and access near historically disadvantaged communities).

Figure 2-8. Bicycle Facility Selection Guidance



Source: ite.org

The sections below present countermeasures specific to bicycling. Other measures that improve conditions for both pedestrians and cyclists (e.g., multi-use paths, enhanced crossings, mobility hubs) are discussed earlier in this memo.

2.2.1 Neighborhood Greenways

Neighborhood greenways are lower volume/lower speed streets (ideally less than 1,500 vehicles per day and maximum posted speeds of 20 mph) that provide local auto access yet prioritize people on foot, bike, or using mobility devices. Neighborhood greenways are intended to provide safe and comfortable routes for people of all ages and abilities and are often the backbone of a lower-stress network. While neighborhood greenways provide connectivity between neighborhoods, parks, schools, and business districts, they often also serve as an alternative to a parallel major street where riding conditions may be more stressful. Neighborhood greenways typically include speed management devices (e.g., speed humps, speed cushions, chicanes), volume management treatments (e.g., choker entrances), enhanced crossings at major streets, shared lane markings (SLMs), and wayfinding.

Figure 2-9 shows an example of a neighborhood greenway providing a lower-stress bicycling environment.

Figure 2-9. Typical Neighborhood Greenway

Source: portland.gov

2.2.2 Enhanced Shared Roadways

Functioning similar to neighborhood greenways, enhanced shared roadways serve people bicycling and driving in a shared environment. These facilities typically include SLMs and supplemental signage to clearly communicate the shared operating environment to all users. These corridors may also include traffic calming if necessary. As traffic volumes may be higher on these roadways, these corridors should be monitored closely to determine whether a separated in-roadway bikeway (discussed below) may be more appropriate in the future.

Figure 2-10 depicts an example of an enhanced shared roadway where SLMs alert motor vehicle operators to the presence of other users in the travel lane.

Figure 2-10. Typical Enhanced Shared Roadway

Source: nacto.org

2.2.3 Separated In-Roadway Bikeways

Separated In-Roadway bikeways provide a dedicated space for people on bicycles to operate that is not shared with other users. The degree of separation from adjacent motor vehicles typically depends on context, notably traffic volumes, speeds, and

available right-of-way. Organized by their degree of separation, these facilities typically include the following:

- **Conventional bike lanes:** Typically, a 6-foot-wide lane separated from the adjacent motor vehicle travel lane with striping. In rural contexts, these facilities are typically referred to as “shoulder bikeways” and also serve pedestrian traffic.
- **Buffered bike lanes:** Similar to a conventional bike lane, but with additional lateral clearance from the adjacent travel lane in the form of additional striping. Buffer widths typically measure at least 2 feet.
- **Protected bike lanes:** Also known as “separated bike lanes,” these facilities include a physical element between the bikeway and adjacent motor vehicle traffic. Depending on conditions, the separation may take the form of flexible delineator posts, curbs, raised medians, or on-street parking. Buffer widths typically depend on the feature providing the separation between the bikeway and vehicle travel lane. Protected bike lanes may operate as one-way or bi-directional facilities, however careful design consideration should be given to sight distances, transition areas (between one-way and two-way facilities, including necessary crossing improvements) and potential conflict points such as intersections and driveways.

Figure 2-12 depicts a local example of a conventional bike lane on Taylor Street, providing a dedicated space for people bicycling delineated with pavement striping and markings, while Figure 2-11 displays a local example of a recently installed buffered bike lane on Highway 99. Figure 2-13 depicts an example of a protected bike lane where a planted median provides physical separation between the bike lane and automobile traffic.

Figure 2-12. Typical Conventional Bike Lane

Figure 2-11. Buffered Bike Lane

Figure 2-13. Typical Protected Bike Lane

2.3 Countermeasures Effectiveness Assessment

ODOT's All Roads Transportation Safety (ARTS) program maintains a list of crash reduction factors (CRFs) for transportation countermeasures that have been deployed to

reduce crash frequency or severity on public roads. The CRFs indicate the relative impact of countermeasures on safety.

Table 2-1 and Table 2-2 show CRFs for countermeasures aligning with the improvement options identified in this memorandum. The tables organize the treatments by the general facility categories described in the sections above, which are then further broken down by type and specific countermeasure. For each countermeasure, the tables identify the CRF (if available), typical implementation components, and the types of collisions that may be reduced by the countermeasure's deployment. Where available, the CRF for each countermeasure was obtained from ODOT's ARTS CRF database[2]. Note that the ARTS dataset does not include a CRF for multi-use paths. While the Federal Highway Administration (FHWA) Crash Modification Factor (CMF) Clearinghouse does have a CMF for multi-use paths, it is a two-star CMF and therefore not utilized in the summary below[3].

Table 2-1. Pedestrian Countermeasures Effectiveness

Improvement Category			Application & Implementation Considerations	CRF	Crash Type (severity)	Source
Category	Type	Countermeasure				
Key walkway extensions/ infill	Typical sidewalk infill	Install sidewalk	May require additional ROW, plant removal, utility relocation, curb and gutter installation	20%	Pedestrian crashes (all)	ODOT ARTS ID # BP 29
Enhanced crossings	High-visibility crosswalks	Continental markings and advance warning signs at uncontrolled locations	Pavement markings	15%	Pedestrian crashes (all)	ODOT ARTS ID # BP 15
	Improved lighting	Intersection lighting	May require additional ROW, plant removal	42%	Pedestrian and bicyclist crashes (all injury, excludes PDOs)	ODOT ARTS ID # BP 2
	Enhanced signage and pavement markings	Advance pedestrian or bicycle warning signs	Signage and pavement markings	5%	Pedestrian and bicyclist crashes (all)	ODOT ARTS ID # BP 17
	Traffic control devices	Pedestrian Hybrid Beacon	May require additional ROW, plant removal	55%	Pedestrian and bicyclist crashes (all)	ODOT ARTS ID # BP 19
		RRFB, 3–lane roadway	May require additional ROW, plant removal	10%	Pedestrian crashes (all)	ODOT ARTS ID # BP 9*
	Curb extensions	Curb extensions	May require additional ROW, plant removal	30%	All crashes (all)	ODOT ARTS ID # I 33

[2] https://www.oregon.gov/odot/Engineering/ARTS/CRF-List.xlsx

[3] The FHWA CMF Clearinghouse is a database of countermeasures and associated CMFs. The CMFs are rated 1 to 5 stars, where a rating of 5 indicates the highest or most reliable rating. CMFs in the AASHTO Highway Safety Manual are all rated 3 stars or higher. As a general rule, CMFs with fewer than 3 stars are not used.

PDO = Property damage only.

ROW = Right-of-way.

Improvement Category			Application & Implementation Considerations	CRF	Crash Type (severity)	Source
Category	Type	Countermeasure				
	Median refuge islands	Median refuge islands	May require additional ROW, plant removal	31%	Pedestrian crashes (all)	ODOT ARTS ID # BP 8
Transit access and stop improvements	Enhanced transit access and stop improvements	ADA curb ramps and curb extensions with a marked crosswalk and pedestrian warning signs	May require additional ROW, plant removal	37%	Pedestrian crashes (all)	ODOT ARTS ID # BP 16

* 3-lane roadway with and without medians have different CRF severity values and are available in the ODOT ARTS CRF list.
PDO = Property damage only.
ROW = Right-of-way.

Table 2-2. Bicycle Countermeasures Effectiveness

Improvement Category			Application & Implementation Considerations	CRF	Crash Type (Severity)	Source
Category	Type	Countermeasure				
Neighborhood greenways	Speed management (traffic calming)	Speed humps/tables	Signage, pavement markings and pavement upgrades	15%	Pedestrian and bicyclist crashes (all)	ODOT ARTS ID # BP 30
Enhanced shared roadways	Pavement markings	Shared lane markings	Signage and pavement markings	63%	Pedestrian and bicyclist crashes (all)	ODOT ARTS ID # BP 27
Separated in-roadway bikeways	Conventional bike lane	Conventional bike lane	Signage and pavement markings	36%	Bicycle crashes (all)	ODOT ARTS ID # BP 22
	Buffered bike lane	Buffered bike lane	Signage, pavement markings and potential vertical separation (flexible posts)	47%	Bicycle crashes (all injury, excludes PDOs)	ODOT ARTS ID # BP 24
	Protected bike lane	Vertical separation element	May require additional ROW, plant removal, utility relocation, curb and gutter installation	59%	Bicycle crashes (all injury, excludes PDOs)	ODOT ARTS ID # BP 23
Green Bike Lanes at Conflict Points	Bike Lane	Green-colored pavement to enhance visibility of bike lane	Locations with a high frequency of bicycle-vehicle conflicts to enhance awareness of bicycle lane	39%	Bicycle crashes (all)	ODOT ARTS ID # BP6
Bike Boxes	Bike box	Green-colored delineated space for bicyclists at an intersection	Locations where there is high frequency of right-turning vehicles failing to yield to through-moving bicyclists at an intersection	35%	Bicycle crashes (all)	ODOT ARTS ID # BP7
Multi-use paths	Multi-use path	Multi-use path	May require additional ROW, plant removal, utility relocation, curb and gutter installation	N/A	N/A	None available; CMF ID # 9250, 2 stars

3 Recommended Walkway and Bikeway Network

This section presents the long-term vision for Cottage Grove's active transportation network. The vision consists of a robust walkway and bikeway network that will vastly improve connectivity and access to opportunities for Cottage Grove residents and visitors. The sections below present the recommended network via maps and tables and include key information such as planning-level cost estimates to support subsequent project development efforts. Acknowledging that implementation will likely occur gradually over the coming decades, a strategic phasing plan is included to inform where the City and its partners may elect to focus their initial efforts.

3.1 Network Development Overview

Discussed earlier, the recommended active transportation network was informed by a variety of key inputs including previous planning efforts, background data, field observations (on foot and bicycle), insights from the Project Advisory Committee, and most importantly, feedback from Cottage Grove residents and other partners.

Figure 3-1 illustrates the recommended walkway network, while Figure 3-2 depicts the recommended bikeway network. Both networks incorporate the pedestrian/bicycle safety and comfort countermeasures described earlier in this memorandum. Facilities that support both walking and bicycling (e.g., multi-use paths, enhanced crossings) are illustrated on both maps.

The improvement recommendations build on the community's existing walking and bicycling-supportive infrastructure, notably Cottage Grove's extensive multi-use path network, well-connected local street system, and the existing bike lane network. The recommendations are also rooted in this Plan's goals, objectives, and policies (described in Memorandum #1) while incorporating recommended enhancements identified in previous planning efforts. The recommended improvements would fill system gaps, address higher-stress walking/riding environments, create new connections to essential destinations, enhance crossing opportunities along key routes, and leverage potential future street extensions identified in the TSP.

In particular, projects included in the recommended walkway network would close network gaps. These projects include the following:

- Shorter segments of intermittent sidewalk infill along major roadways and on key local streets
- Longer segments of walkway extensions, generally along major roadways and approaching the edges of town
- Transit access and stop improvements

Figure 3-1. Recommended Walkway Network

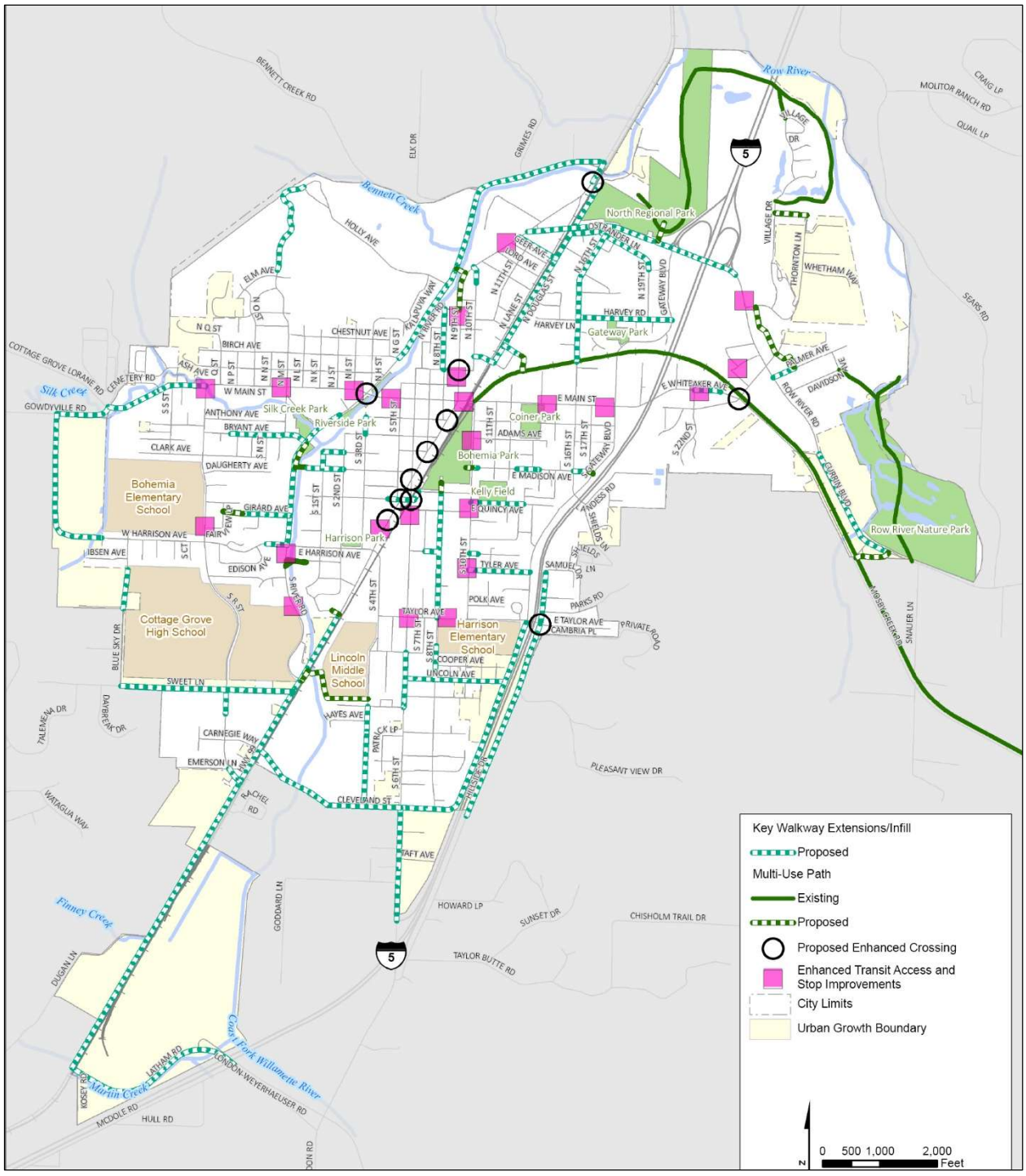
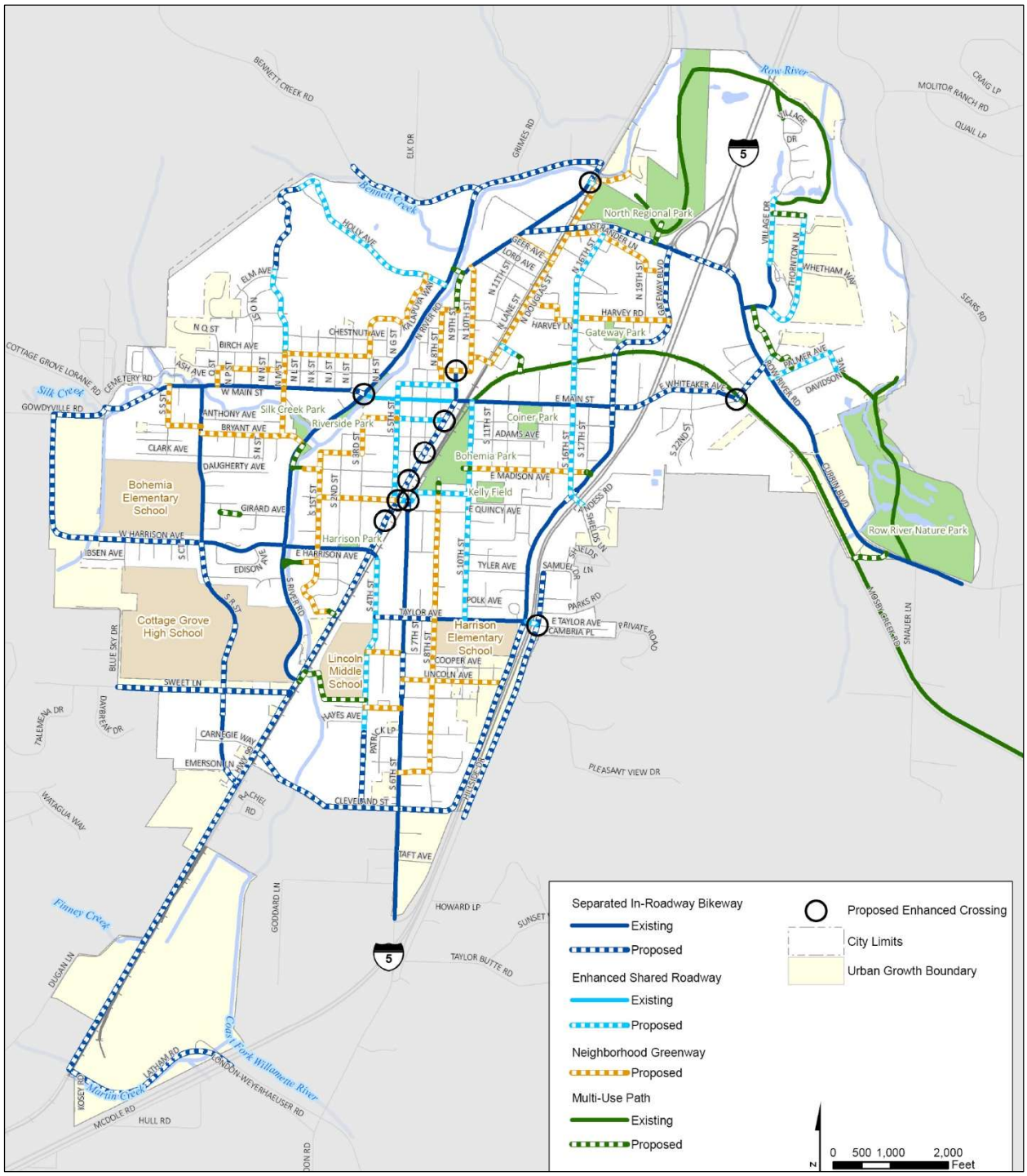


Figure 3-2. Recommended Bikeway Network



For the bicycle network, projects are intended to create an all-ages-and-abilities network. These projects include the following:

- New “separated In-roadway bikeways” on major streets. Discussed earlier, these facilities could consist of conventional, buffered or protected bike lanes, depending on site-specific physical, operational and other characteristics. While each facility type presents unique benefits and tradeoffs, the separation between people bicycling and people driving represents the goal to be achieved.
- A new network of neighborhood greenways to supplement bikeways on the major street network.

Additionally, a variety of projects would improve conditions for people walking and biking, such as:

- Crossing improvements at key intersections, particularly along major streets
- Multi-use paths intended to close network gaps and support uninterrupted travel on foot or bike

3.2 Walkway and Bikeway Network Projects

To support ongoing implementation efforts, this section organizes the recommended walkway and bikeway networks into individual projects. Each project is identified on the maps below, accompanied by additional information in a series of corresponding tables. The proposed projects are organized as follows:

- Pedestrian-focused projects: These projects are identified with a “P” and primarily consist of walkway extensions/infill (see Figure 3-3 and Table 3-1)
- Bicycle-focused projects: These projects are identified with a “B” and include separated in-roadway bikeways, enhanced shared roadways, and neighborhood greenways (see Figure 3-4 and Table 3-2)
- Projects that include both a pedestrian and bicycle element: These projects are identified with a “PB” and include a combination of the aforementioned improvements (e.g., walkway extension/infill plus separated in-roadway bikeway) (see Figure 3-3, Figure 3-4, and Table 3-3)
- Other multimodal connectivity projects: These projects are identified with an “M” and include enhanced crossings, new or extended multi-use paths, and enhanced transit access and stop improvements (see Figure 3-3, Figure 3-4, and Table 3-4)

Each table identifies the project location, a general description of the proposed improvement type (or range of types), lead implementing agency, and planning-level cost estimate (presented as a range, as actual costs will vary based on site-specific conditions and degree of complexity). Additionally, some projects contain notes referring to previous efforts that informed the recommendations (e.g., TSP projects) and ODOT input as part of this planning effort.

Figure 3-3. Recommended Walkway Network (with Project Identification Numbers)

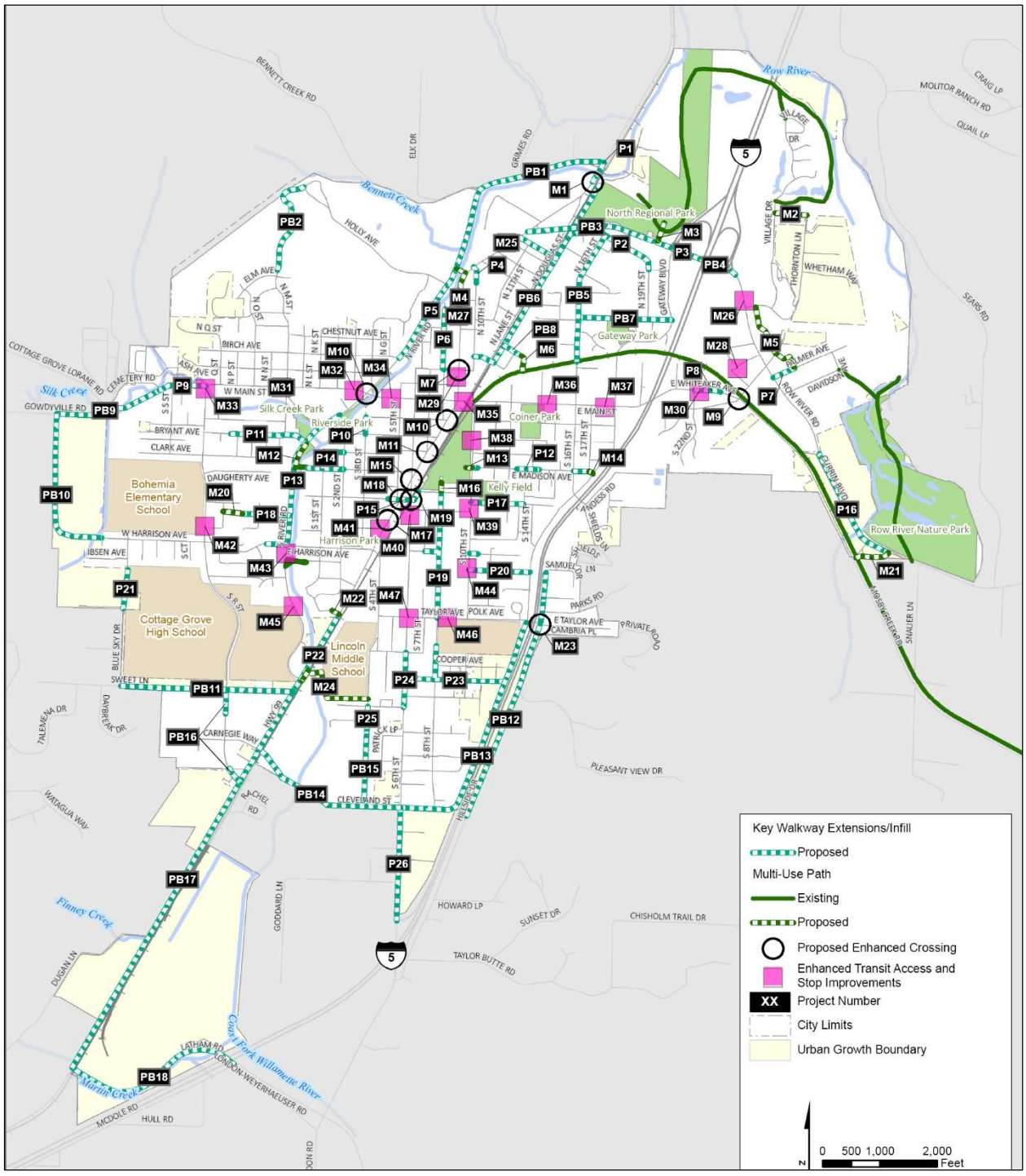


Figure 3-4. Recommended Bikeway Network (with Project Identification Numbers)

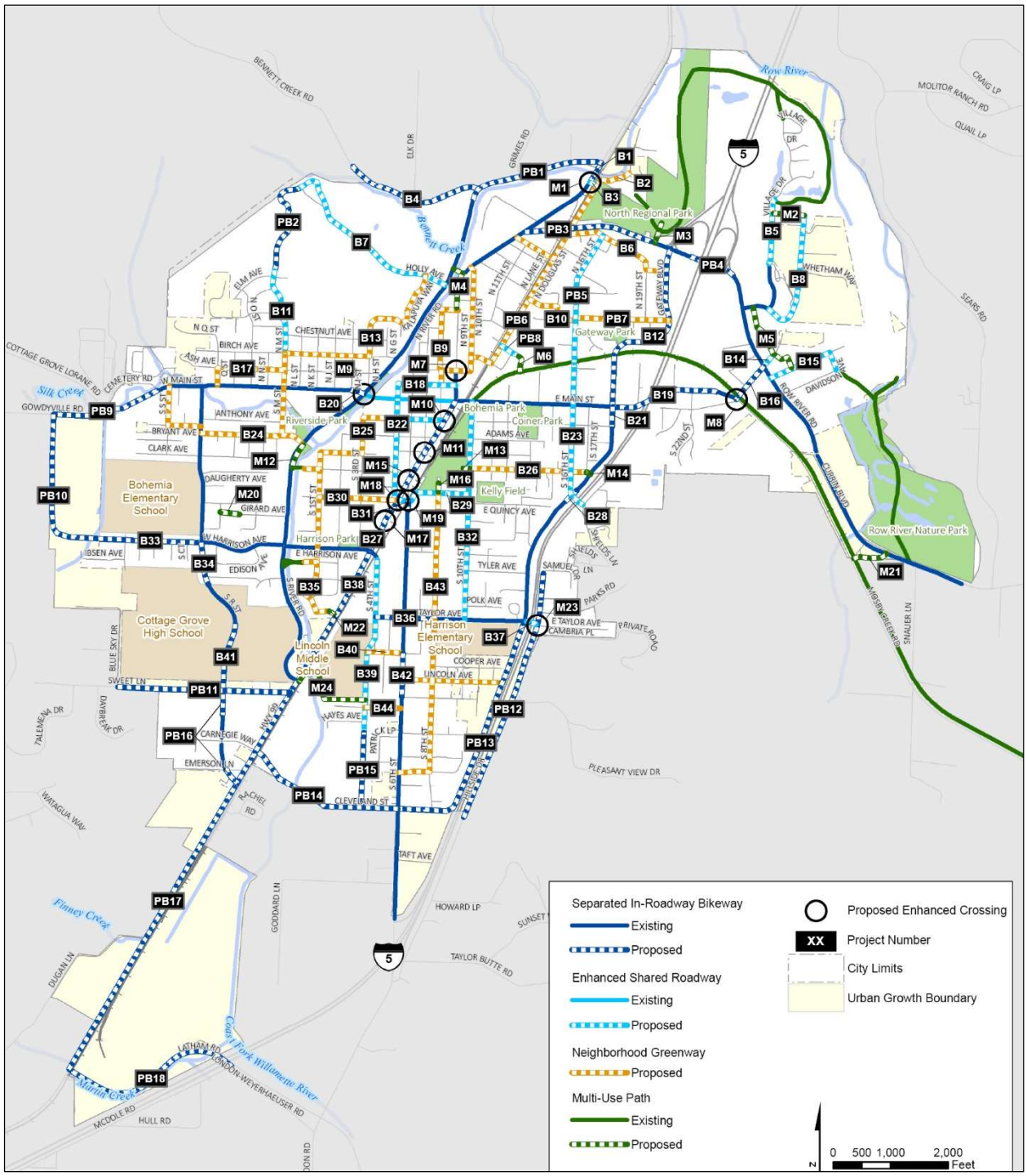


Table 3-1. Recommended Walkway Network Projects

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
P1	Highway 99 N of railroad undercrossing	Key Walkway Extensions/Infill	ODOT	$22,000-$122,000	Extend existing walkways north to Willamette River bridge. North of bridge, provide walkway on west side of Highway 99 to connect to walkway on River Rd
P2	Chamberlain Ave/Douglas Ave/Ostrander Ln	Key Walkway Extensions/Infill	City	$164,000-$899,000	Provide continuous walkway from Gateway Blvd to Highway 99
P3	Row River Rd at I-5 Interchange	Key Walkway Extensions/Infill	ODOT	$39,000-$212,000	Extend sidewalks along north side of Row River Rd through I-5 interchange area
P4	10th St	Key Walkway Extensions/Infill	City	$17,000-$96,000	
P5	River Rd	Key Walkway Extensions/Infill	City	$178,000-$976,000	
P6	8th St	Key Walkway Extensions/Infill	City	$61,000-$334,000	
P7	Palmer Ave	Key Walkway Extensions/Infill	City	$23,000-$127,000	
P8	Whiteaker Ave	Key Walkway Extensions/Infill	City	$26,000-$142,000	
P9	Main St	Key Walkway Extensions/Infill	City	$47,000-$257,000	
P10	3rd St	Key Walkway Extensions/Infill	City	$17,000-$94,000	
P11	Bryant Ave	Key Walkway Extensions/Infill	City	$77,000-$420,000	
P12	Madison Ave	Key Walkway Extensions/Infill	City	$43,000-$235,000	
P13	River Rd/Harrison Ave	Key Walkway Extensions/Infill	City	$170,000-$929,000	
P14	Jefferson Ave/1st St/Madison Ave	Key Walkway Extensions/Infill	City	$73,000-$401,000	
P15	Quincy Ave/Monroe Ave	Key Walkway Extensions/Infill	City	$32,000-$175,000	
P16	Row River Rd	Key Walkway Extensions/Infill	City	$123,000-$674,000	
P17	Quincy Ave	Key Walkway Extensions/Infill	City	$52,000-$285,000	
P18	Girard Ave	Key Walkway Extensions/Infill	City	$47,000-$257,000	
P19	8th St	Key Walkway Extensions/Infill	City	$139,000-$761,000	
P20	Harrison Ave/Tyler Ave	Key Walkway Extensions/Infill	City	$69,000-$380,000	
P21	Blue Sky Dr	Key Walkway Extensions/Infill	City	$39,000-$215,000	
P22	Highway 99 (Sweet Ln to Taylor Pl)	Key Walkway Extensions/Infill	ODOT	$84,000-$458,000	Add walkway on west side of Highway 99
P23	Lincoln Ave/8th St	Key Walkway Extensions/Infill	City	$133,000-$726,000	
P24	6th St	Key Walkway Extensions/Infill	City	$55,000-$299,000	
P25	4th St	Key Walkway Extensions/Infill	City	$25,000-$136,000	
P26	6th St	Key Walkway Extensions/Infill	City	$112,000-$613,000	

Table 3-2. Recommended Bikeway Network Projects

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
B1	Highway 99 (River Rd to existing bikeway)	Separated In-Roadway Bikeway	ODOT	$14,000-$180,000	Extend existing in-roadway bikeway north to Willamette River bridge
B2	Douglas St	Neighborhood Greenway	City	$34,000-$64,000	
B3	Railroad undercrossing	Enhanced Shared Roadway	City	$4,000-$10,000	Additional refinement needed. Potential to upgrade to multi-use path
B4	Bennett Creek Rd	Separated In-Roadway Bikeway	City	$84,000-$1,116,000	
B5	Village Dr	Enhanced Shared Roadway	City	$35,000-$88,000	
B6	Chamberlain Ave/Douglas St/Ostrander Ln/Oswald Ave	Neighborhood Greenway	City	$169,000-$321,000	
B7	Holly Ave	Enhanced Shared Roadway	City	$104,000-$262,000	
B8	Thornton Ln	Enhanced Shared Roadway	City	$69,000-$173,000	
B9	10th St/Gibbs Ave/8th St/Chadwick Ave	Neighborhood Greenway	City	$207,000-$392,000	
B10	Pennoyer Ave/14th St/Harvey Rd	Neighborhood Greenway	City	$57,000-$107,000	
B11	M St	Enhanced Shared Roadway	City	$46,000-$116,000	
B12	Gateway Blvd	Separated In-Roadway Bikeway	City	$119,000-$1,580,000	
B13	Birch Ave/H St/Kalapuya Way	Neighborhood Greenway	City	$189,000-$357,000	
B14	Thornton Ln	Enhanced Shared Roadway	City	$9,000-$22,000	
B15	Palmer Ave	Enhanced Shared Roadway	City	$45,000-$113,000	
B16	Thornton Ln	Separated In-Roadway Bikeway	City	$25,000-$339,000	
B17	Q St/Ash Ave/M St	Neighborhood Greenway	City	$109,000-$206,000	
B18	5th St/Whiteaker Ave	Enhanced Shared Roadway	City	$39,000-$98,000	
B19	Whiteaker Ave	Separated In-Roadway Bikeway	City	$65,000-$865,000	
B20	Main St	Separated In-Roadway Bikeway	City	$8,000-$105,000	
B21	Gateway Blvd	Separated In-Roadway Bikeway	City	$12,000-$156,000	
B22	5th St/Washington Ave	Enhanced Shared Roadway	City	$80,000-$202,000	
B23	16th St	Enhanced Shared Roadway	City	$79,000-$199,000	
B24	S St/Bryant Ave	Neighborhood Greenway	City	$204,000-$387,000	
B25	Washington Ave/3rd St/Jefferson Ave/1st St/Madison Ave	Neighborhood Greenway	City	$156,000-$296,000	
B26	Madison Ave	Neighborhood Greenway	City	$106,000-$202,000	
B27	Highway 99 (Main St to Harrison Ave)	Separated In-Roadway Bikeway	ODOT	$104,000-$1,388,000	See improvement options for this segment of roadway in Section 3.3.2 of this memorandum

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
B28	Gateway Blvd	Separated In-Roadway Bikeway	City	$9,000-$126,000	
B29	Quincy Ave/Monroe Ave	Enhanced Shared Roadway	City	$41,000-$102,000	
B30	Quincy Ave/1st St	Neighborhood Greenway	City	$128,000-$242,000	
B31	6th St	Separated In-Roadway Bikeway	City	$6,000-$82,000	
B32	10th St	Enhanced Shared Roadway	City	$117,000-$295,000	
B33	Harrison Ave	Separated In-Roadway Bikeway	City	$62,000-$823,000	
B34	R St	Separated In-Roadway Bikeway	City	$26,000-$341,000	
B35	Tyler Ave/1st St/Riverfront Way	Neighborhood Greenway	City	$78,000-$147,000	
B36	Taylor Ave	Separated In-Roadway Bikeway	City	$35,000-$473,000	
B37	Taylor Ave	Enhanced Shared Roadway	ODOT	$5,000-$13,000	Mark Taylor Ave from Gateway Blvd to Hillside Dr as Enhanced Shared Roadway
B38	Highway 99 S of Harrison Ave	Separated In-Roadway Bikeway	ODOT	$96,000-$1,274,000	
B39	4th St	Enhanced Shared Roadway	City	$94,000-$236,000	
B40	Fillmore Ave	Neighborhood Greenway	City	$33,000-$63,000	
B41	R St	Separated In-Roadway Bikeway	City	$41,000-$543,000	
B42	6th St	Separated In-Roadway Bikeway	City	$26,000-$349,000	
B43	Wilson Ave/8th St/Lincoln Ave	Neighborhood Greenway	City	$373,000-$708,000	
B44	Grant Ave	Neighborhood Greenway	City	$33,000-$62,000	

Table 3-3. Recommended Combined Walkway/Bikeway Network Projects

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
PB1	River Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$221,000-$1,862,000	
PB2	M St	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$169,000-$1,425,000	TSP: New roadway project #R23 (cost estimate for ped/bike improvements only). TSP Assumes funding by private development
PB3	Row River Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	ODOT	$204,000-$1,721,000	Add appropriate walkway and bikeway to Cottage Grove Connector between Highway 99 and Gateway Blvd. This project will require reconstruction of bridge over railroad which is not expected to occur within the planning period
PB4	Row River Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	ODOT	$73,000-$620,000	Merge bicycle lanes with sidewalk under I-5 with ramps for cyclists to transition and signage marking sidewalk as multi-use path. Sidewalk meets minimum width for a multi-use path per HDM Appendix L p. 164. See HDM Appendix L p. 70 for example of transition from bike lane to multi-use path

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
PB5	16th St	Key Walkway Extensions/Infill & Enhanced Shared Roadway	City	$205,000-$908,000	
PB6	Douglas St	Key Walkway Extensions/Infill & Neighborhood Greenway	City	$379,000-$1,425,000	
PB7	Harvey Rd	Key Walkway Extensions/Infill & Neighborhood Greenway	City	$178,000-$671,000	
PB8	Vincent Pl	Key Walkway Extensions/Infill & Enhanced Shared Roadway	City	$31,000-$136,000	
PB9	Main St/ Gowdyville Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$177,000-$1,492,000	
PB10	Harrison Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$976,000 (TSP estimate adjusted to 2023 $)	TSP: New roadway project #R8
PB11	Sweet Ln	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$274,000-$2,316,000	
PB12	Hillside Dr	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	ODOT	$405,000-$4,414,000	Provide shoulder for pedestrians and cyclists on east side of roadway
PB13	I-5 Frontage (Taylor Ave to 6th St)	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$4,472,000 (TSP estimate adjusted to 2023 $)	TSP: New roadway project #R4 & R5
PB14	Cleveland St (Highway 99 to 6th St)	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$5,170,000 (TSP estimate adjusted to 2023 $)	TSP: New roadway project #R6
PB15	4th St	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$119,000-$1,006,000	TSP: New roadway project #R24 (cost estimate for ped/bike improvements only). TSP Assumes funding by private development
PB16	R St (Highway 99 to Sweet Ln)	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$905,000 (TSP estimate adjusted to 2023 $)	TSP: New roadway project #R7
PB17	Highway 99 (Sweet Ln to Latham Rd)	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	ODOT	$694,000-$5,859,000	Extend walkway along west side of Highway 99 and provide in-roadway bikeway in both directions
PB18	Latham Rd	Key Walkway Extensions/Infill & Separated In-Roadway Bikeway	City	$296,000-$2,502,000	TSP: Project #R17

Table 3-4. Recommended Multimodal Projects (Pedestrian, Bicycle, Transit)

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
M1	Highway 99 at Railroad Undercrossing	Enhanced Crossing	ODOT	$250,000-$500,000	
M2	Village Dr/Thornton Ln Connector	Multi-Use Path	City	$131,000-$224,000	
M3	North Regional Park Southern Entrance Connector	Multi-Use Path	City	$85,000-$144,000	
M4	Highway 99 Multi-Use Path Connector	Multi-Use Path	City	$198,000-$336,000	
M5	Jim Wright Way/ Palmer Ave Connector	Multi-Use Path	City	$194,000 (TSP estimate adjusted to 2023 $)	TSP: Trail project #T3
M6	Row River Trail/ Vincent Place Connector	Multi-Use Path	City	$70,000- $119,000	
M7	Gibbs Ave at Highway 99	Enhanced Crossing	ODOT	$250,000-$500,000	Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area
M8	Main St at Whiteaker Ave	Enhanced Crossing	City	$250,000-$500,000	
M9	Main St at River Rd	Enhanced Crossing	City	$250,000-$500,000	
M10	Highway 99 at Washington Ave	Enhanced Crossing	ODOT	$250,000-$500,000	Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area
M11	Highway 99 at Jefferson Ave/7th St	Enhanced Crossing	ODOT	$250,000-$500,000	Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area
M12	River Rd Connector	Multi-Use Path	City	$107,000-$182,000	
M13	Madison Ave/Bohemia Park Connector	Multi-Use Path	City	$26,000-$43,000	
M14	Madison Ave/Gateway Blvd Connector	Multi-Use Path	City	$19,000-$33,000	
M15	Highway 99 at 6th St	Enhanced Crossing	ODOT	$250,000-$500,000	Reconfigure existing crossing to improve conditions. Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area
M16	8th St/Bohemia Park Connector	Multi-Use Path	City	$40,000-$69,000	
M17	Highway 99 between Quincy Ave and Harrison Ave	Enhanced Crossing	ODOT	$250,000-$500,000	Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area
M18	Highway 99 at Quincy Ave	Enhanced Crossing	ODOT	$250,000-$500,000	Specific crossing treatments may be identified as part of ODOT's Urban Design Verification process for Highway 99 in this area

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
M19	Quincy Ave at 6th St/ Monroe Ave	Enhanced Crossing	City	$250,000-$500,000	
M20	Girard Ave/Fairview Loop Connector	Multi-Use Path	City	$80,000-$137,000	
M21	Row River Rd/Mosby Creek Rd Connector	Multi-Use Path	City	$141,000-$240,000	
M22	Taylor Place Connector	Multi-Use Path	City	$34,000-$57,000	
M23	Taylor Ave at Hillside Dr	Enhanced Crossing	ODOT	$250,000-$500,000	Enhanced crossing on north side of Taylor Ave
M24	Lincoln Middle School/ River Rd Connector	Multi-Use Path	City	$722,000-$1,665,000	Connection may require a bridge over the Willamette River and a grade-separated crossing of the railroad. More refinement is needed to determine the alignment of this connection
M25	Highway 99 S of Geer Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M26	Row River N of Thornton Rd	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M27	Highway 99 S of Chadwick Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M28	WalMart Rd N of Thomas Ln	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M29	Highway 99 S of Gibbs Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M30	Whiteaker Ave E of 22nd St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M31	Main St W of M St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M32	Main St E of I St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M33	R St S of Main St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M34	Main St W of 5th Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M35	Main St E of Highway 99	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M36	Main St W of 15th Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M37	Main St W of Gateway Blvd	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	

ID #	Location	Description	Lead Agency	Planning-Level Cost Estimate (Range)	Notes (where applicable)
M38	10th St S of Adams Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M39	10th St N of Quincy Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M40	6th St S of Quincy Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M41	Highway 99 N of Harrison Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M42	R St N of Harrison Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M43	S River Rd S of Harrison Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M44	S 10th St S of Tyler Ave	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M45	S River Rd S of Lane Community College	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M46	Taylor Ave W of 10th St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	
M47	Taylor St E of 6th St	Enhanced Transit Access and Stop Improvements	City	$100,000-$250,000	

3.3 Improvement Options Focus Areas

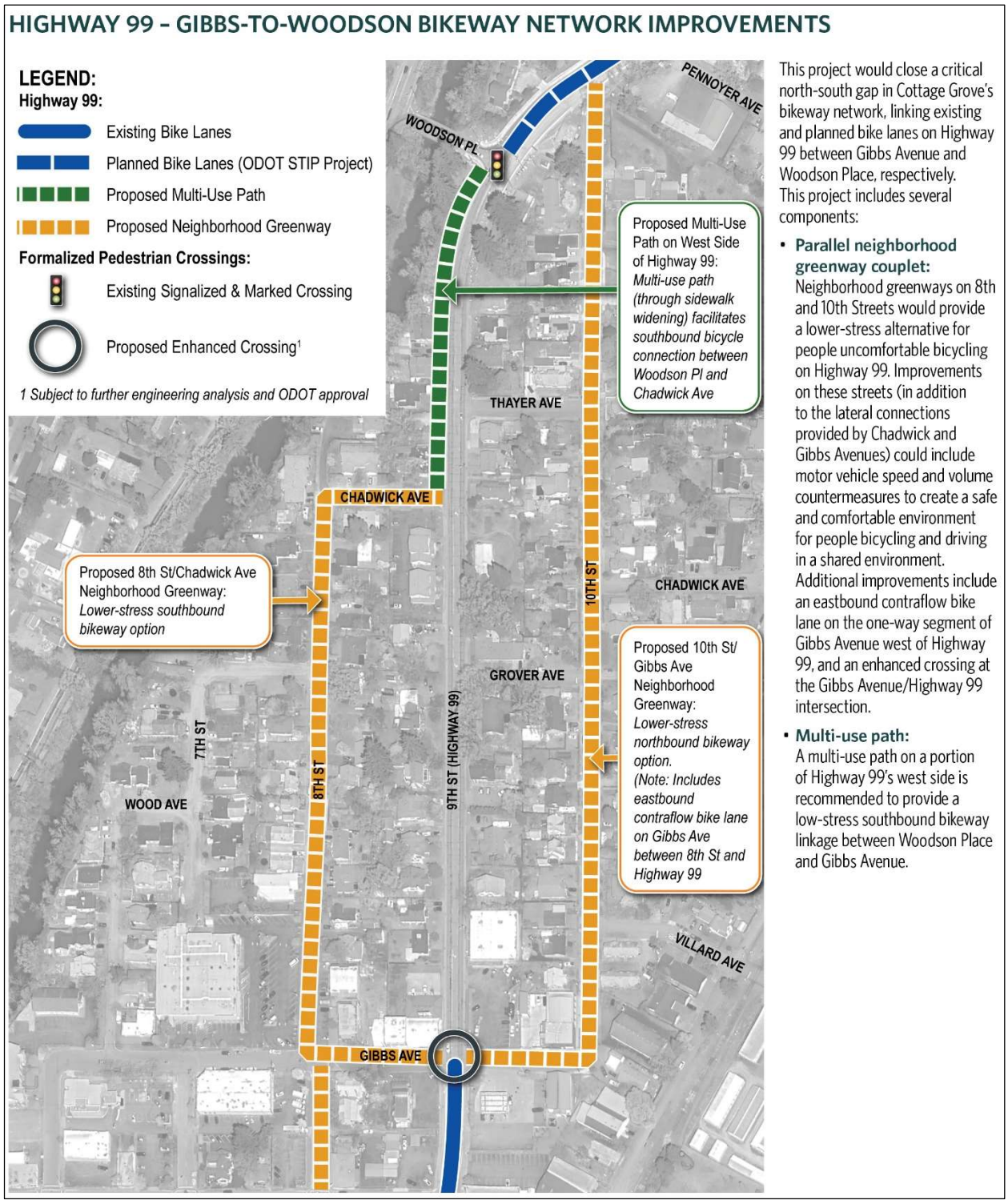
While a multitude of active transportation design options exist on nearly all corridors in Cottage Grove, discussions with community members and agency partners identified two key areas meriting additional attention in this planning effort. These “improvement options focus areas” represent locations where pedestrian/bicycle upgrades are needed to address user comfort and safety concerns, yet additional exploration is needed to determine the range of potential solutions. The sections below illustrate the focus areas in greater detail. Both areas encompass the Highway 99 corridor, which functions as a key walking and bicycling corridor yet also represents a barrier for vulnerable roadway users.

3.3.1 Highway 99 – Gibbs-to-Woodson Bikeway Network Improvements

Immediately north of Downtown Cottage Grove, a critical north-south bikeway gap exists along Highway 99 between Gibbs Avenue and Woodson Place. This gap will become more apparent as other corridor gaps are filled upon the completion of ODOT’s ongoing active transportation improvements immediately north of this area. Figure 3-5 illustrates and describes intervention options, both along and parallel to Highway 99, for closing this gap.

The use of 8th Street and 10th Street as a neighborhood greenway couplet would provide a bikeway parallel to Highway 99 between Gibbs Avenue and Woodson Place. Establishing a parallel route would meet State of Oregon requirements for the provision of bikeways on Highway 99. Provision of bicycle lanes on Highway 99 itself would require removal of the center turn lane. Public input received in development of this Plan supported retaining the center turn lane, and leveraging 8th and 10th Streets as a parallel lower-stress routes for filling this gap. A multi-use path along a portion of Highway 99’s west side would facilitate southbound bicycle connections between Woodson Place and the Chadwick Avenue/8th Street neighborhood greenway.

Figure 3-5. Highway 99 – Gibbs-to-Woodson Bikeway Network Improvements

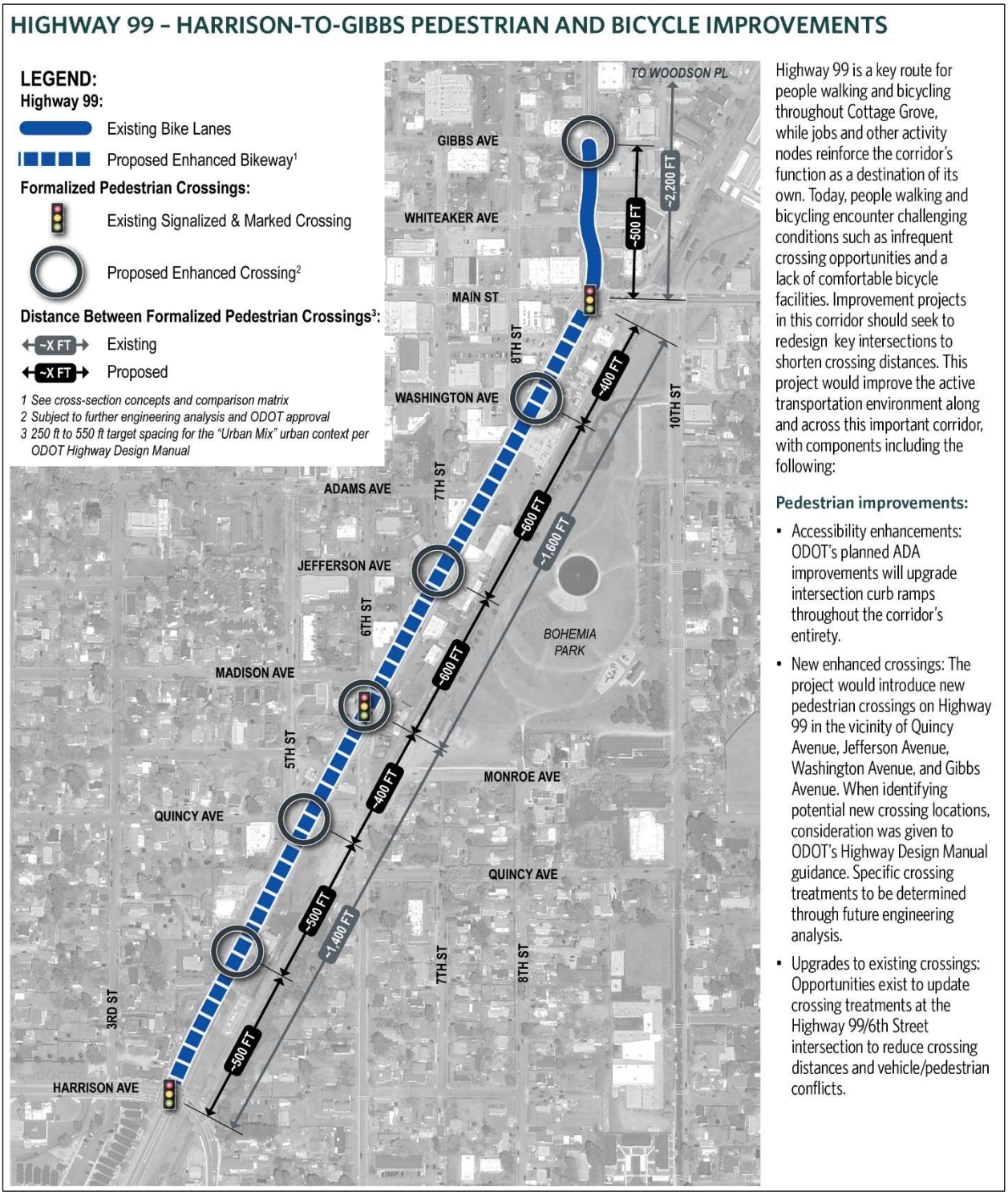


3.3.2 Highway 99 – Harrison-to-Gibbs Pedestrian and Bicycle Improvements

This section describes proposed enhancements on Highway 99 between Harrison Avenue and Gibbs Avenue (Figure 3-6). The project would add bicycle facilities along

Highway 99 in addition to enhanced crossings. Figure 3-7 and Figure 3-8 depict a range of cross-section concepts that include various forms of an enhanced bikeway, while the accompanying matrix qualitatively assesses the benefits and tradeoffs of each concept. These cross-section concepts and potential crossing improvements are currently being analyzed through ODOT's Urban Design Verification process.

Figure 3-6. Highway 99 – Harrison-to-Gibbs Pedestrian and Bicycle Improvements (1 of 3)



Highway 99 is a key route for people walking and bicycling throughout Cottage Grove, while jobs and other activity nodes reinforce the corridor's function as a destination of its own. Today, people walking and bicycling encounter challenging conditions such as infrequent crossing opportunities and a lack of comfortable bicycle facilities. Improvement projects in this corridor should seek to redesign key intersections to shorten crossing distances. This project would improve the active transportation environment along and across this important corridor, with components including the following:

Pedestrian improvements:

- Accessibility enhancements: ODOT's planned ADA improvements will upgrade intersection curb ramps throughout the corridor's entirety.
- New enhanced crossings: The project would introduce new pedestrian crossings on Highway 99 in the vicinity of Quincy Avenue, Jefferson Avenue, Washington Avenue, and Gibbs Avenue. When identifying potential new crossing locations, consideration was given to ODOT's Highway Design Manual guidance. Specific crossing treatments to be determined through future engineering analysis.
- Upgrades to existing crossings: Opportunities exist to update crossing treatments at the Highway 99/6th Street intersection to reduce crossing distances and vehicle/pedestrian conflicts.

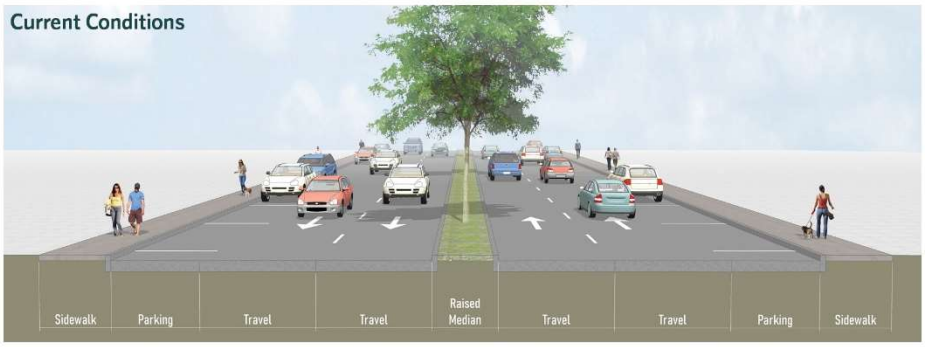
Figure 3-7. Highway 99 – Harrison-to-Gibbs Pedestrian and Bicycle Improvements (2 of 3)

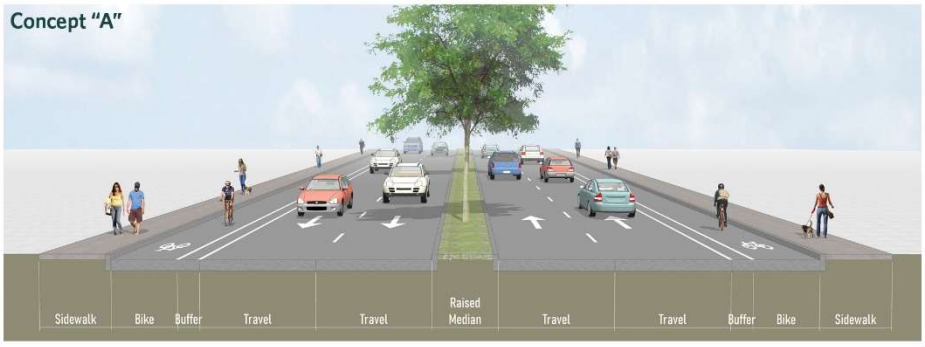
HIGHWAY 99 – HARRISON-TO-GIBBS PEDESTRIAN AND BICYCLE IMPROVEMENTS

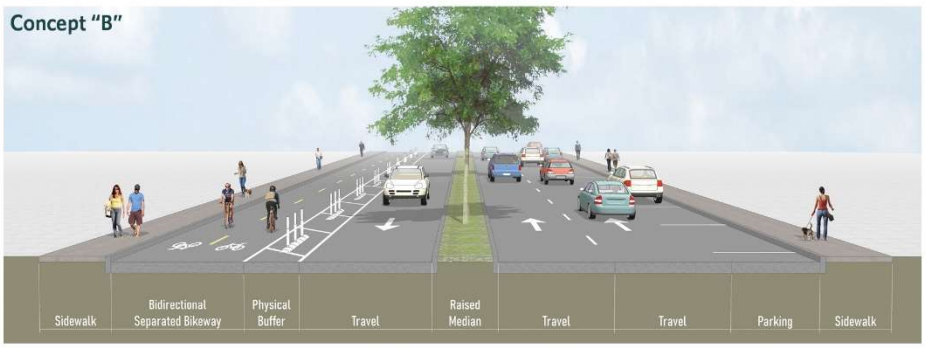
Bicycle improvements:

Serving under 9,000 vehicles per day with an abundance of parking on adjacent land parcels (and on neighboring side streets), opportunities exist to optimize Highway 99 to better serve vulnerable roadway users. Illustrated below, ODOT and the City could retrofit bicycle facilities within the existing curb-to-curb width through a variety of approaches. Five potential "concepts" for achieving this transformation include the following:

- **Concept "A":** Buffered bike lanes (achieved by repurposing existing on-street parking on both sides)
- **Concept "B":** Bi-directional separated bikeway on Highway 99's west side (achieved by repurposing one southbound travel lane and on-street parking on the west side)
- **Concept "C":** Bi-directional separated bikeway on Highway 99's east side (achieved by repurposing one northbound travel lane and on-street parking on the east side)
- **Concept "D":** Buffered bike lanes, and enhanced/widened median to accommodate motor vehicle left turn pockets and to provide a pedestrian refuge (achieved by repurposing one travel lane in each direction)
- **Concept "E":** Separated bike lanes, and enhanced/widened median (achieved by repurposing one travel lane in each direction and on-street parking on both sides)







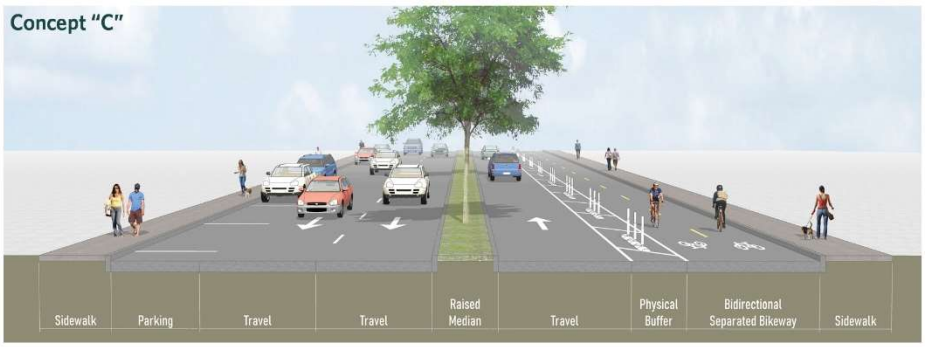


Figure 3-8. Highway 99 – Harrison-to-Gibbs Pedestrian and Bicycle Improvements (3 of 3)

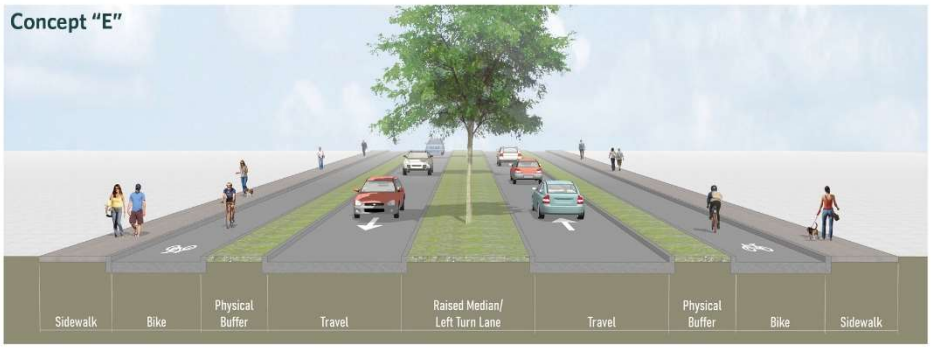
HIGHWAY 99 – HARRISON-TO-GIBBS PEDESTRIAN AND BICYCLE IMPROVEMENTS

OR 99 Bikeway Improvement Concepts Comparison Matrix

The matrix below qualitatively rates the five concepts against a range of considerations including user level of comfort, traffic operations, parking, cost, maintenance and multimodal conflicts. While no single concept performs optimally against all considerations, the comparison highlights the benefits and trade-offs of each individual concept. It is recommended that ODOT and the City further develop and refine potential bikeway improvement concepts through ODOT's Urban Design Verification process or as part of a broader Highway 99 corridor study. Potential outcomes could include a hybrid concept and/or a phased implementation approach starting with a concept that could be achieved in the shorter-term.

Concept "D"

Concept "E"



Considerations	Concept Options				
	Concept "A" (Buffered Bike Lanes)	**Concept "B"** (Bi-Directional Separated Bikeway, West Side)	**Concept "C"** (Bi-Directional Separated Bikeway, East Side)	**Concept "D"** (Buffered Bike Lanes & Enhanced/ Widened Median)	**Concept "E"** (Separated Bike Lanes & Enhanced/ Widened Median)
Level of comfort for people bicycling	●	●	●	●	●
On-street parking impacts	●	●	●	●	●
Traffic operations impacts	●	●	●	●	●
Potential implementation cost	●	●	●	●	●
Ongoing maintenance complexity	●	●	●	●	●
Frequency of potential bicycle/ motor vehicle conflict points (driveways, intersections)	●	●	●	●	●

Qualitative Ratings: ● More optimal ● Moderately optimal ● Less optimal

3.4 Project Prioritization

As the Pedestrian and Bicycle Plan's recommendations would likely be implemented over the long-term, a phased approach is necessary for determining where and how the City and its partners should strategically focus their investments first. As such, the recommended walkway and bikeway network projects were evaluated using the project prioritization criteria introduced in Memorandum #1. Table 3-5 provides an overview of the criteria.

Table 3-5. Project Prioritization Criteria

Criterion	Description
Safety	Degree to which a project addresses a pedestrian/bicycle safety concern. Projects addressing documented ped/bike crashes, or locations of concern (e.g., "near-misses") flagged by community members, will derive higher qualitative ratings.
Accessibility	Degree to which a project improves conditions for people with disabilities. Projects containing sidewalk enhancements and/or intersection crossing upgrades will derive higher qualitative ratings.
User Level of Comfort	Degree to which a project establishes a lower-stress walking or bicycling environment. Projects deriving higher qualitative ratings include those providing greater separation between motor vehicles and vulnerable users along major roadways, lower-speed shared environments on minor streets, and off-street path corridors.
Gap Closure	Degree to which a project closes a gap in the existing active transportation network. Projects filling shorter gaps, particularly on higher-speed/higher-volume streets, will derive higher qualitative ratings.
Equity	Proximity of a project to historically transportation-disadvantaged populations including youth; seniors; Black, Indigenous and People of Color; lower-income residents; no-car households; and people with limited English proficiency. Projects in vicinity of multiple transportation-disadvantaged groups will derive higher qualitative ratings.
Community Support	Degree to which community members express support for improving a particular corridor, intersection or area. Projects in locations/areas voiced by the community (via various public outreach activities) will derive higher qualitative ratings.
Land Use and Transit Linkages	Proximity of a project to schools, commercial and employment nodes, and transit/school bus stops. Projects in vicinity of higher concentrations of these uses will derive higher qualitative ratings.
Cost and Complexity	Planning-level project cost estimate. Projects with lower costs and less complexity will receive higher qualitative ratings.

The intent of the prioritization exercise is to rank the projects to understand their relative importance, resulting in three "tiers" roughly aligning with shorter, medium, and longer-term priorities.

The cumulative scoring of each project informed its relative ranking in the prioritized list of improvements. Figure 3-9 presents the prioritized walkway network projects, while Figure 3-10 illustrates the prioritized bikeway network projects. Appendix A presents the individual evaluative ratings for each project proposed in this Plan.

It is important to note that the short-, medium-, and longer-term priorities may evolve according to available funding, new roadway projects that coincide, new development and redevelopment opportunities, or other factors. Medium- and longer-term projects are also important and may be implemented at any point in time as part of a development or

public works project. The ranked lists should be considered a “living document” and should be frequently reviewed to ensure they reflect current priorities.

Figure 3-9. Recommended Walkway Network Project Prioritization

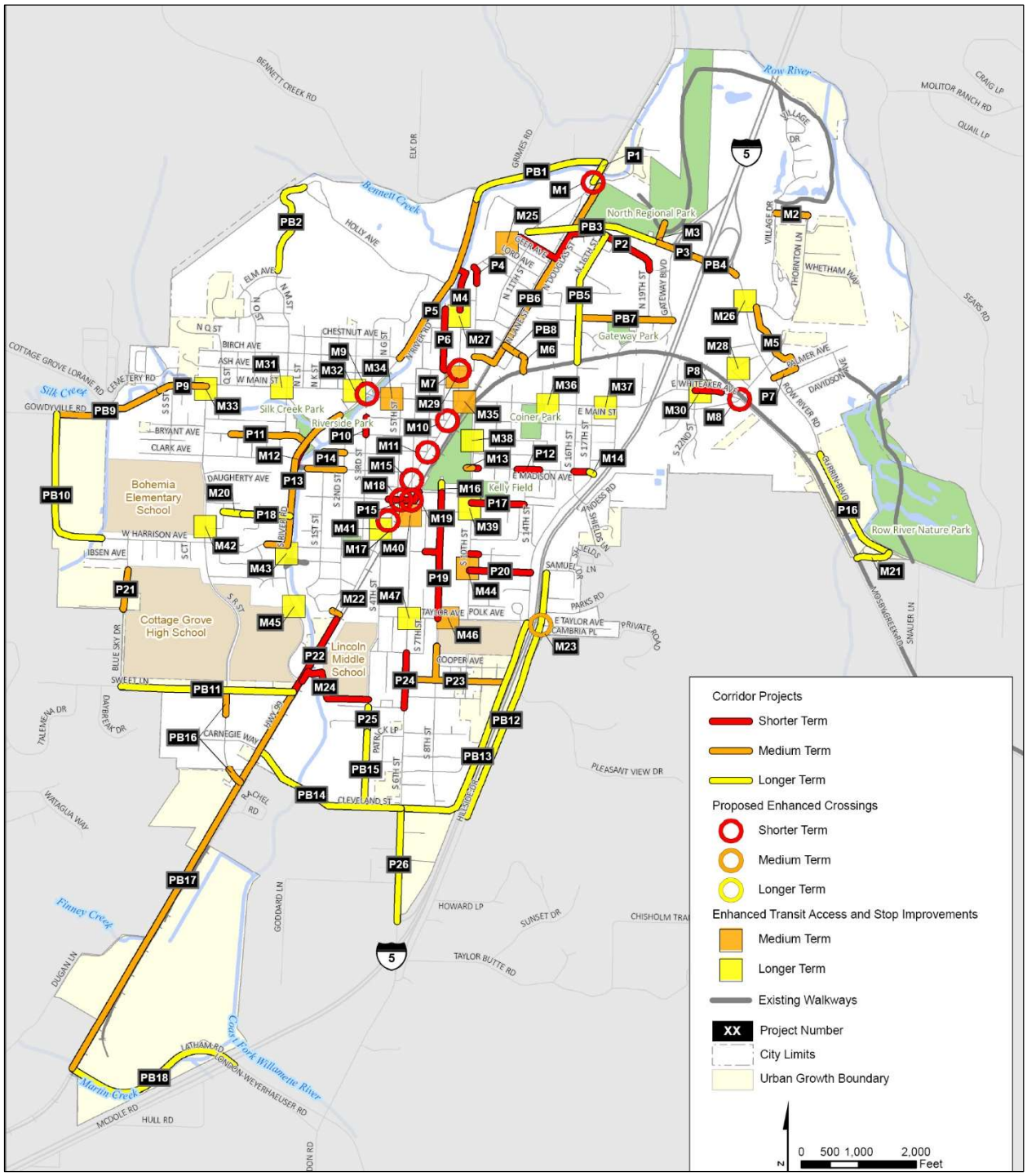
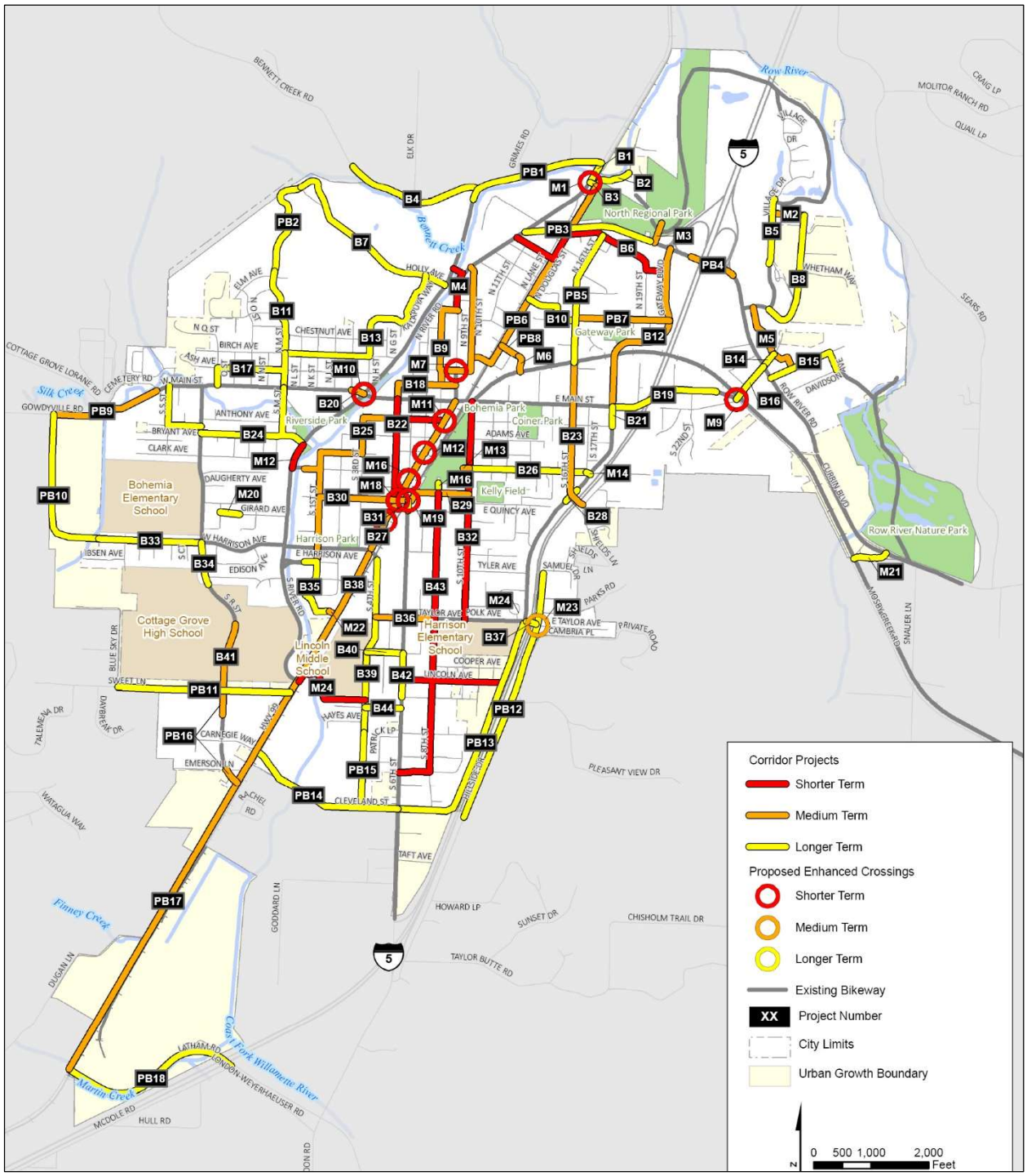


Figure 3-10. Recommended Bikeway Network Project Prioritization



4 Recommended Citywide Initiatives and Programs

Augmenting the location-specific recommendations discussed earlier in this memorandum, the sections below present recommendations applicable at the broader citywide scale. These strategies include infrastructure and programmatic tools, as well as recommended updates to City street design standards, which will further advance Cottage Grove as a truly walkable and bikeable community.

4.1 Sidewalk Infill Program

While Cottage Grove benefits from a relatively complete sidewalk network, gaps throughout the system remain, particularly in areas where roadway construction and/or property development pre-dated sidewalk requirements. While some sidewalk gaps may be addressed as part of a street reconstruction project, in tandem with adjacent property development or redevelopment, or as one of the standalone projects proposed elsewhere in this Plan, the City should develop an ongoing Sidewalk Infill Program to address gap closure needs in areas where these activities are not anticipated to occur in the foreseeable future. While some communities follow a complaint-driven approach for prioritizing resources, it is recommended that the City utilize the project prioritization criteria in this Plan as a means to objectively prioritize sidewalk infill investments.

In areas where sidewalk development may be challenging due to physical or other constraints, the City could consider alternative or interim measures such as “pedestrian lanes” (described earlier), soft-surface pathways, or other similar applications. It should be noted that the development of alternative or interim measures should consider ADA accessibility, motor vehicle volumes and speeds, and other roadway characteristics that affect user safety, comfort, and navigability. Connections to existing sidewalk segments should also be logical, intuitive, and accessible for pedestrians of all ages and abilities.

4.2 ADA Transition Plan

Cottage Grove and its partners have made significant progress toward improving multimodal accessibility, particularly though the City’s recent SRTS sidewalk improvements, ODOT’s ongoing Highway 99 enhancements, and the pending Main Street redevelopment project in Downtown Cottage Grove. Recognizing the importance of providing safe, functional and comfortable walking and rolling environments for people of all ages and abilities, the City has expressed interest in developing an ADA Transition Plan. Going beyond the broader scope of this Pedestrian and Bicycle Plan, an ADA Transition Plan provides a greater level of specificity and direction for bringing the City’s built environment in line with ADA requirements. Some of this work is already accomplished through existing City policy and Development Code requirements (e.g., requirements for property owners to upgrade adjacent sidewalks that fall into disrepair), and recent efforts to pursue grant funding to upgrade surface conditions on Cottage Grove’s signature multi-use path network. As initial step toward developing an ADA Transition Plan, the City could build upon ODOT’s curb ramp inventory for the State Highway system, as well as City’s recently completed Sidewalk Conditions Survey.

4.3 Safe Routes to School

The term SRTS encompasses a variety of measures aimed at making walking and bicycling dependable and enjoyable means for traveling to and from school. Encouraging active transportation at younger ages builds healthy habits early on while providing children opportunities to socialize and develop a sense of independence along the way. Cottage Grove, the South Lane School District, and other partners benefit from a history of successful project and programmatic efforts including bike safety curriculum in schools and significant recent infrastructure investments along streets surrounding Lincoln and Bohemia Schools.

Building on these accomplishments, the City has identified neighborhoods in vicinity of Harrison Elementary School as an opportunity for its next round of infrastructure investments, with most improvements likely consisting of sidewalk infill and crossing enhancements. [4] Other potential SRTS-related projects identified in this Plan include a formalized pedestrian/bicycle connection between Lincoln Middle School and Cottage Grove High School (identified as Project #M25), development of a low-stress "Neighborhood Greenway" bicycle network, improvements to the crossing environment on major roadways such as Highway 99, and targeted extensions of the multi-use path network.

Augmenting these infrastructure improvements, Cottage Grove and South Lane School District should continue offering and expanding walking and bicycling education and encouragement efforts. Opportunities exist to leverage the energy of local Parent Teacher Associations, the Coalition for Bicycling Safety, and other volunteers to put initiatives into action.

4.4 Bicycle Parking

Like automobile parking, bicycle parking is most effective when it is located within close proximity of trip destinations, easy to find, easily accessible, and highly visible and secure. Where quality bicycle parking is absent, users typically seek informal options such as signposts, street furniture or trees, or they may elect to avoid making a trip by bike altogether.

Section 14.33.400 of Cottage Grove's Municipal Code prescribes short- and long-term bicycle parking requirements, addressing both quantity and design. With the exception of the Central Business District (addressed as a composite mixed-use area), the Code organizes parking capacity requirements by land use typology. The Code also specifies other important design and operational requirements such as dimensions, lighting, and weather protection. These standards are generally consistent with state and national best practices.

The availability and quality of bike parking in Cottage Grove varies by location, with newer developments typically offering facilities more consistent with requirements in the Municipal Code. It is recommended that the City continue leveraging high quality bicycle parking in tandem with new development and redevelopment projects. This Plan also recommends that the City strategically upgrade and expand offerings in public areas to

[4] See Memorandum #2 for a discussion on current conditions in this area.

meet growing demand. For example, the City could establish a bike rack request program where local businesses could apply for a rack to be installed in the public ROW (in lieu of a potentially costly on-site retrofit). Cottage Grove could also consider developing on-street bicycle corrals in higher-demand locations and/or in areas where sidewalk space is limited. Finally, City partnerships with Lane Transit District (LTD), South Lane Wheels (SLW), South Lane School District, and other transit providers to provide bike parking and bikeshare services could streamline connections between modes while providing important first/last-mile connections and end-of-trip facilities.

4.5 Ongoing Maintenance

Throughout this Plan's public engagement efforts, Cottage Grove residents cited ongoing maintenance as a particular need for all transportation users regardless of mode. Facilities in good working condition are especially important for people walking and bicycling, as they directly impact user safety and accessibility. Specific maintenance activities that will significantly improve Cottage Grove's active transportation environment include:

- Pavement preservation including pothole repair, overlays, and resurfacing. The City should consider prioritizing corridors along the bikeway network, as these improvements can eliminate obstacles and other safety barriers for people bicycling. The City is also actively pursuing funding to resurface portions of the multi-use path system. It is also recommended that Cottage Grove continue its "Pothole Spotter" program that provides residents opportunities to flag other key issue areas.
- Sidewalk and curb ramp maintenance including addressing cracking, heaving, spalling, and other surface condition issues. Addressing these issues can vastly improve the walking environment, particularly for visually-impaired pedestrians and people using mobility assistance devices.
- Routine inspections (and upgrades as needed) of pedestrian and bicycle detection devices such as push buttons, walk signals, and bicycle loop detectors.
- Ongoing maintenance of pavement markings (e.g., crosswalks, bike lane striping, shared lane markings) and signage (regulatory, warning and wayfinding).
- Routine sweeping and snow removal along shoulders and bike lanes. Some communities also invest in smaller sweeping/plowing devices to maintain sidewalks, multi-use paths, and protected bike lanes.

4.6 Targeted Enforcement

Enforcement has recently emerged as a sensitive issue as communities nationwide come to terms with historical inequities related to the Justice System. Consequently, agencies are challenged with providing a degree of enforcement while avoiding disproportionate impacts on historically marginalized community members. As Cottage Grove considers the role of enforcement in providing a safe transportation environment for all users, the City should consider tools such photo radar, speed feedback signs, and other similar devices that minimize or remove the human component from the enforcement activity. Priority areas for these applications should include high-crash

corridors and intersections, other locations with similar physical and operational characteristics, and areas with higher concentrations of vulnerable roadway users such as schools, senior centers, and transit stops.

4.7 Transit Integration

As walking, bicycling and transit are natural extensions of one another, seamless connections between these modes are crucial. While the “enhanced transit access and stop improvements” (presented earlier in this memo) illustrate locations where opportunities exist to strengthen active transportation linkages with LTD and SLW, opportunities exist throughout Cottage Grove to support other multimodal connections such as school bus stops and high-demand rideshare pick-up/drop-off areas. Cottage Grove’s Transit Development Plan and other resources highlight key ingredients for improving pedestrian/bicycle/transit integration, such as:

- Ensuring that the design of transit stops includes sufficient curb space for transit vehicles to safely board and alight passengers, including wheelchair ramp deployment.
- Providing transit stop infrastructure such as enclosed (yet transparent) shelters, seating, illumination, secure bicycle parking and passenger information.
- Internet hotspots to facilitate real-time arrival information, particularly for individuals that have access to a mobile device but may not have access to data plans.
- Seamless connections between the transit stop and the adjacent pedestrian and bicycle network in the form of high-visibility crossings, a complete sidewalk network and accessibility provisions to serve people of all ages and abilities.

4.8 Mobility On-Demand Pilot (LTD Connector)

South Lane Wheels operated a mobility-on-demand pilot, the LTD Connector, in 2019 and 2020 (the pilot was cut short by the COVID-19 pandemic). Functioning similar to a ride-hail service, the pilot provided connections to LTD’s Line 98 transit stops as well as other essential destinations in Cottage Grove not served by fixed-route transit. Over 20,000 passenger trips were made over the pilot’s 13-month duration.

As the LTD Connector experienced steady ridership growth, opportunities exist to re-institute the pilot on a temporary or permanent basis in the future. It is recommended that the City and SLW continue their strong partnership and determine the appropriate timing for service restoration. The University of Oregon’s Mobility Needs Assessment for Cottage Grove identifies opportunities to further improve the LTD Connector upon its resumption, including:

- Further integrating the Connector with LTD Line 98
- Establish a varied pricing model for frequent versus single-use riders
- Improving the availability of service information to potential riders
- Increasing ADA accessibility, such as prioritizing people with disabilities when space within the vehicle is limited and procuring wheelchair accessible vans.

4.9 Bikeshare Pilot

The University of Oregon's Mobility Needs Assessment for Cottage Grove identifies bikeshare as a potential tool that could be added to the community's transportation portfolio. Bikeshare systems have gained significant popularly across the US and in Oregon over the past decade and exist in communities of all sizes. Key ingredients of a successful bikeshare system include:

- An interconnected low-stress bikeway network providing safe and convenient connections to essential and popular destinations; the recommended bikeway projects in this Plan would create such a network.
- A land use composition that supports shorter trips, as bikeshare systems are typically geared toward trips that may too long for walking but too short for transit to be practicable.
- Bicycle storage areas (either formalized docking stations or informal parking areas) within close proximity of user destinations.
- Minimizing conflicts with pedestrians by managing where bikeshare bikes are allowed (and not allowed) to operate and park.
- Ongoing fleet management program to rebalance bicycles throughout the community as needed, while providing routine and as-needed maintenance.
- Lower-income program to expand system access to all users.
- Multiple payment method options, including options for riders lacking smartphones.

It is recommended that the City investigate the feasibility of bikeshare in Cottage Grove, and consider conducting a pilot to test its viability in the community. It is worth noting that if a bikeshare pilot is successful, the Mobility Needs Assessment recommends exploring other micromobility options such as scooters.

4.10 Marketing, Promotion and Encouragement

Building awareness of the active transportation network holds equal importance to building the network itself and has significant potential to increase the City's return on investment. Cottage Grove and its partners have had great success in promoting walking and bicycling through an array of initiatives such as the South Lane Fire & Rescue District's "Bike Right Bike Light Program" (distributing lights to school-aged children), bike helmet giveaways through the Rotary Club and Lincoln Middle School, and bike safety roundups hosted by the City's Coalition for Bicycling Safety. It is recommended that the City continue and build on these efforts to make walking and riding safe and enjoyable transportation options.

Opportunities also exist to launch new programmatic efforts to further promote active transportation to Cottage Grove residents and visitors. Examples include the following:

- Partner with Travel Oregon, Oregon Parks & Recreation Department, and other stakeholders to continue promoting regional assets such as the Row River Trail and Covered Bridges Scenic Bikeway. In 2014, the Covered Bridges Scenic Bikeway

generated over $1.4 million in bicycle-related expenditures, over $27,000 in tax receipts and generated nearly 20 jobs in the communities through which it passes.

- Coordinate with the Cottage Grove Economic and Business Improvement District, Cottage Grove Community Development Corporation, and Downtown Cottage Grove to promote the community's walkability and bikeability to residents, visitors, and potential new businesses.
- Develop a Wayfinding Signage Plan to increase visibility of the bikeway and walkway network. Signs typically identify key destinations such as schools, employment areas, commercial centers and downtown; and display both the distance and riding time to each destination. Wayfinding is a cost effective and proven tool for overcoming navigational barriers and encouraging people to give walking and bicycling a try.
- Develop walking and bicycling maps, both in hard copy and digital forms. Like wayfinding signage, network maps support system legibility by enabling users to plan their trip in advance.
- Organize an Open Streets event, similar to Eugene's "Sunday Streets," that enables community members to congregate in the public ROW without conflicts with motor vehicles. These events provide opportunities for residents to experience the transportation environment in a new way while temporarily placing walking and bicycling at the top of the transportation hierarchy.

4.11 Ongoing Engagement

As Cottage Grove shifts from planning to implementation, ongoing monitoring is essential for gauging progress over time. As each project and program in this Plan progresses toward implementation, it is recommended that the City conduct follow-up engagement with residents, agency partners and stakeholders to ensure that the outcomes are consistent with community values. For instance, as a particular project enters the concept design phase, targeted engagement will be essential for developing design options and assessing their benefits and tradeoffs with community members. The City should also continue harnessing the energy and insights of the Youth Advisory Council, Coalition for Bicycling Safety and other advocacy groups to deliver successful project and program outcomes.

4.12 Recommended Street Design Standards Modifications

Cottage Grove's Municipal Code contains standards for development of transportation facilities (Chapter 14.34). Some modifications and clarifications to the street standards are recommended to improve the safety and comfort for people walking and bicycling on Cottage Grove's roadways. These recommendations include a context-sensitive approach to the design of pedestrian and bicycle facilities, similar to the urban contexts defined in ODOT's Highway Design Manual. Table 4-1 lists the City's current street design standards for pedestrian and bicycle facilities, as well as recommended updates/modifications to those standards where applicable. Opportunities to apply the updated standards will arise as new streets are developed and as existing corridors are

redeveloped. Most cities have policies that allow deviations from adopted standards to provide flexibility in response to constrained conditions.

Table 4-1. Existing Street Design Standards (Pedestrian and Bicycle Elements) and Recommended Modifications

Existing Street Classification	Current Standards			Recommended Modifications
	Bike Lane Width	Planter Strip Width	Sidewalk Width	
Arterial	5'-6'	7'-12'	6'-12'	• Bicycle facility: Adjust bike lane width to 6'. Require a minimum 2' buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph • Planter strip width: Adjust minimum width to 9' • Pedestrian facility: Adjust minimum sidewalk width to 10'

Residential Collector (no parking)	n/a	7'-8'	6'-12'	• Bicycle facility:
				  ○ Add bike lanes as a required element of the Residential Collector cross-section
				  ○ Require a minimum 2' buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph
				• Planter strip width: Adjust minimum width to 9'
				• Pedestrian facility: Adjust minimum sidewalk width to 8'

Residential Collector (parking one or both sides)	n/a	7'-8'	5'-12'	
Commercial Collector	5'-6'	7'-8'	6'-12'	• Bicycle facility: Adjust bike lane width to 6'. Require a minimum 2' buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph • Planter strip width: Adjust minimum width to 9' • Pedestrian facility: Adjust minimum sidewalk width to 10'
Local	n/a	4'-12'	5'-6'	• Pedestrian facility: Adjust minimum width to 6' • Planter strip width: Adjust minimum width to 9'
Multi-Use Paths	6'-10' paved with 2'-4' unpaved shoulders in 10'-18' right-of-way			• Adjust minimum width of the paved portion of multi-use paths to 12' • Adjust right-of-way width to 20'
Alley (new cross-section)	N/A			• Set width of paved portion at 18' • Set width of right-of-way at 20'

Note: A Master Plan or Variance is required for deviations from the cross-section standards.

Appendix A. Project Prioritization Scores

Table A-1. Shorter-Term Priority Projects

Project ID#	Location	Prioritization Criteria								Overall Score
		Safety	Accessibility	User Level of Comfort	Gap Closure	Equity	Community Support	Land Use and Transit Linkages	Cost and Complexity	
M7	Gibbs Ave at Highway 99	2	3	3	3	3	3	3	3	23
M17	Highway 99 between Quincy Ave and Harrison Ave	3	3	3	3	3	2	3	3	23
M18	Highway 99 at Quincy Ave	3	3	3	3	3	2	3	3	23
P15	Quincy Ave/Monroe Ave	3	3	3	3	3	2	3	3	23
M4	Highway 99 Multi-Use Path Connector	1	3	3	3	3	3	3	3	22
M9	Main St at River Rd	3	3	3	3	1	3	3	3	22
M10	Highway 99 at Washington Ave	2	3	3	3	3	2	3	3	22
M15	Highway 99 at 6th St	2	3	3	3	3	2	3	3	22
P19	8th St	3	3	3	3	3	2	3	2	22
P20	Harrison Ave/Tyler Ave	3	3	3	2	3	2	3	3	22
M8	Main St at Whiteaker Ave	3	3	3	3	2	2	2	3	21
M11	Highway 99 at Jefferson Ave/7th St	1	3	3	3	3	2	3	3	21
M19	Quincy Ave at 6th St/Monroe Ave	3	3	3	2	2	2	3	3	21
P2	Chamberlain Ave/Douglas Ave/Ostrander Ln	3	3	3	3	2	2	3	2	21
P4	10th St	1	3	3	3	3	2	3	3	21
P6	8th St	1	3	3	3	3	2	3	3	21
P8	Whiteaker Ave	2	3	3	3	3	2	2	3	21
P10	3rd St	2	3	3	2	3	2	3	3	21
P22	Highway 99 (Sweet Ln to Taylor Pl)	3	3	3	3	3	2	1	3	21
B6	Chamberlain Ave/Douglas St/Ostrander Ln/Oswald Ave	3	1	2.5	3	2	3	3	3	20.5
B43	Wilson Ave/8th St/Lincoln Ave	3	1	2.5	3	2	3	3	3	20.5
B22	5th St/Washington Ave	3	1	2	3	3	2	3	3	20
B32	10th St	3	1	2	3	3	2	3	3	20
M1	Highway 99 at Railroad Undercrossing	1	3	3	3	3	3	1	3	20
M12	River Rd Connector	1	3	3	2	3	2	3	3	20
M24	Lincoln Middle School/River Rd Connector	2	3	3	3	2	2	3	2	20
P12	Madison Ave	1	3	3	2	3	2	3	3	20
P17	Quincy Ave	1	3	3	2	3	2	3	3	20
P24	6th St	1	3	3	3	2	2	3	3	20

Table A-2. Medium-Term Priority Projects

Project ID#	Location	Prioritization Criteria								Overall Score
		Safety	Accessibility	User Level of Comfort	Gap Closure	Equity	Community Support	Land Use and Transit Linkages	Cost and Complexity	
B9	10th St/Gibbs Ave/8th St/Chadwick Ave	2	1	2.5	3	3	2	3	3	19.5
B36	Taylor Ave	3	1	2.5	3	2	2	3	3	19.5
PB17	Highway 99 (Sweet Ln to Latham Rd)	3	3	2.5	3	3	2	1	2	19.5
B18	5th St/Whiteaker Ave	3	1	2	2	3	2	3	3	19
B23	16th St	3	1	2	3	3	2	2	3	19
B27	Highway 99 (Main St to Harrison Ave)	3	1	2	3	3	2	3	2	19
B29	Quincy Ave/Monroe Ave	3	1	2	2	3	2	3	3	19
B38	Highway 99 S of Harrison Ave	3	1	2	3	3	2	3	2	19
M5	Jim Wright Way/Palmer Ave Connector	1	3	3	2	2	3	2	3	19
M6	Row River Trail/Vincent Place Connector	1	3	3	2	2	3	2	3	19
M13	Madison Ave/Bohemia Park Connector	1	3	3	1	3	2	3	3	19
M25	Highway 99 S of Geer Ave	3	3	1	1	3	2	3	3	19
M29	Highway 99 S of Gibbs Ave	3	3	1	1	3	2	2	3	19
M34	Main St W of 5th Ave	3	3	1	1	3	2	3	3	19
M35	Main St E of Highway 99	3	3	1	1	3	2	3	3	19
P3	Row River Rd at I-5 Interchange	3	3	3	2	2	2	1	3	19
P5	River Rd	1	3	3	3	3	2	2	2	19
P13	River Rd/Harrison Ave	1	3	3	3	3	2	2	2	19
P14	Jefferson Ave/1st St/Madison Ave	1	3	3	2	3	2	2	3	19
P23	Lincoln Ave/8th St	2	3	3	3	2	2	2	2	19
PB4	Row River Rd	2	3	2	2	2	2	3	3	19
PB6	Douglas St	1	3	3	2	2	3	3	2	19
PB7	Harvey Rd	1	3	3	2	2	2	3	3	19
PB9	Main St/Gowdyville Rd	1	3	3	3	3	3	1	2	19
B25	Washington Ave/3rd St/Jefferson Ave/1st St/Madison Ave	2	1	2.5	2	3	2	3	3	18.5
B30	Quincy Ave/1st St	3	1	2.5	2	3	2	2	3	18.5
PB16	R St (Highway 99 to Sweet Ln)	1	3	2.5	3	3	2	1	3	18.5
B12	Gateway Blvd	3	1	2	2	2	3	3	2	18
B20	Main St	3	1	2	2	1	3	3	3	18
B41	R St	1	1	2	3	3	2	3	3	18
M2	Village Dr/Thornton Ln Connector	1	3	3	1	2	3	2	3	18
M3	North Regional Park Southern Entrance Connector	2	3	3	1	3	2	1	3	18
M22	Taylor Place Connector	1	3	3	2	3	2	1	3	18
M23	Taylor Ave at Hillside Dr	1	3	3	2	3	2	1	3	18
M40	6th St S of Quincy Ave	2	3	1	1	3	2	3	3	18
M44	S 10th St S of Tyler Ave	3	3	1	1	2	2	3	3	18
M46	Taylor Ave W of 10th St	3	3	1	1	2	2	3	3	18
P7	Palmer Ave	1	3	3	2	2	2	2	3	18

Project ID#	Location	Prioritization Criteria								Overall Score
		Safety	Accessibility	User Level of Comfort	Gap Closure	Equity	Community Support	Land Use and Transit Linkages	Cost and Complexity	
P9	Main St	1	3	3		3	1		3	1
P11	Bryant Ave	1	3	3	2	1	2	3	3	18
P21	Blue Sky Dr	1	3	3	2	3	2	1	3	18
PB8	Vincent Pl	1	3	2	2	2	3	2	3	18

Table A-3. Longer-Term Priority Projects

Project ID#	Location	Prioritization Criteria								Overall Score
		Safety	Accessibility	User Level of Comfort	Gap Closure	Equity	Community Support	Land Use and Transit Linkages	Cost and Complexity	
B26	Madison Ave	1	1	2.5	2	3	2	3	3	17.5
B31	6th St	2	1	2.5	2	2	2	3	3	17.5
B35	Tyler Ave/1st St/Riverfront Way	1	1	2.5	2	3	2	3	3	17.5
PB11	Sweet Ln	3	3	2.5	2	3	2	1	1	17.5
B16	Thornton Ln	3	1	2	2	2	2	2	3	17
B21	Gateway Blvd	1	1	2	2	3	2	3	3	17
M14	Madison Ave/Gateway Blvd Connector	1	3	3	1	3	2	1	3	17
M16	8th St/Bohemia Park Connector	1	3	3	1	3	2	1	3	17
M21	Row River Rd/Mosby Creek Rd Connector	1	3	3	2	2	2	1	3	17
M27	Highway 99 S of Chadwick Ave	1	3	1	1	3	2	3	3	17
M28	WalMart Rd N of Thomas Ln	2	3	1	1	2	2	3	3	17
M32	Main St E of I St	3	3	1	1	1	2	3	3	17
M36	Main St W of 15th Ave	2	3	1	1	2	2	3	3	17
M37	Main St W of Gateway Blvd	2	3	1	1	2	2	3	3	17
M38	10th St S of Adams Ave	1	3	1	1	3	2	3	3	17
M39	10th St N of Quincy Ave	1	3	1	1	3	2	3	3	17
M41	Highway 99 N of Harrison Ave	1	3	1	1	3	2	3	3	17
M43	S River Rd S of Harrison Ave	1	3	1	1	3	2	3	3	17
M45	S River Rd S of Lane Community College	1	3	1	1	3	2	3	3	17
M47	Taylor St E of 6th St	2	3	1	1	2	2	3	3	17
P16	Row River Rd	1	3	3	2	2	2	1	3	17
P25	4th St	1	3	3	2	2	2	1	3	17
P26	6th St	1	3	3	2	2	2	1	3	17
PB3	Row River Rd	2	3	2	2	3	2	1	2	17
PB10	Proposed Harrison Rd	1	3	3	2	3	2	1	2	17
PB12	Hillside Dr	1	3	2	2	3	3	1	2	17
B2	Douglas St	1	1	2.5	2	3	3	1	3	16.5

Project ID#	Location	Prioritization Criteria								Overall Score
		Safety	Accessibility	User Level of Comfort	Gap Closure	Equity	Community Support	Land Use and Transit Linkages	Cost and Complexity	
B3	Railroad undercrossing	1	2	2.5	2	3	2	1	3	16.5
B17	Q St/Ash Ave/M St	1	1	2.5	3	1	2	3	3	16.5
B40	Fillmore Ave	1	1	2.5	2	2	2	3	3	16.5
B42	6th St	1	1	2.5	2	2	2	3	3	16.5
B44	Grant Ave	1	1	2.5	2	2	2	3	3	16.5
PB1	River Rd	1	3	2.5	2	3	2	1	2	16.5
B5	Village Dr	1	1	2	1	2	3	3	3	16
B8	Thornton Ln	1	1	2	2	2	3	2	3	16
B15	Palmer Ave	1	1	2	2	2	3	2	3	16
B19	Whiteaker Ave	2	1	2	2	3	2	2	2	16
B34	R St	1	1	2	3	1	2	3	3	16
B37	Hillside Dr/Taylor Ave	1	1	2	3	3	2	1	3	16
B39	4th St	1	1	2	2	2	2	3	3	16
M20	Girard Ave/Fairview Loop Connector	1	3	3	2	1	2	1	3	16
M26	Row River N of Thornton Rd	1	3	1	1	2	2	3	3	16
P1	Highway 99 N of railroad undercrossing	1	3	3	1	2	3	1	2	16
P18	Girard Ave	1	3	3	2	1	2	1	3	16
PB2	M St	1	3	3	2	1	3	1	2	16
PB5	16th St	1	3	2	3	2	2	1	2	16
PB15	4th St	1	3	3	2	2	2	1	2	16
B13	Birch Ave/H St/Kalapuya Way	1	1	2.5	2	1	2	3	3	15.5
B24	S St/Bryant Ave	1	1	2.5	2	1	2	3	3	15.5
B7	Holly Ave	1	1	2	2	1	2	3	3	15
B11	M St	1	1	2	2	1	2	3	3	15
B14	Thornton Ln	1	1	2	1	2	3	2	3	15
B28	Gateway Blvd	1	1	2	2	3	2	1	3	15
M30	Whiteaker Ave E of 22nd St	1	3	1	1	2	2	2	3	15
M31	Main St W of M St	1	3	1	1	1	2	3	3	15
M42	R St N of Harrison Ave	1	3	1	1	1	2	3	3	15
B10	Pennoyer Ave/14th St/Harvey Rd	1	1	2.5	2	2	2	1	3	14.5
B33	Harrison Ave	1	1	2.5	2	3	2	1	2	14.5
PB13	I5 Frontage (Taylor Ave to 6th St)	1	3	2.5	2	2	2	1	1	14.5
PB14	Cleveland St (Highway 99 to 6th St)	1	3	2.5	2	2	2	1	1	14.5
PB18	Latham Rd	1	3	2.5	2	2	2	1	1	14.5
B1	Highway 99 (River Rd to existing bikeway)	1	1	2	2	2	2	1	3	14
M33	R St S of Main St	1	3	1	1	1	2	2	3	14
B4	Bennett Creek Rd	1	1	2	1	1	2	1	2	11

Public Draft Memorandum #4: Funding Options

Cottage Grove Pedestrian and Bicycle Plan

Task 3.2

August 31, 2023

Contents

1 Introduction

This memorandum discusses funding opportunities that the City of Cottage Grove and its partners could potentially leverage for implementing the Pedestrian and Bicycle Plan's project and program recommendations. The memo begins with a brief description of local funding opportunities, several of which the City is actively deploying or pursuing, followed by a discussion of opportunities at the state and federal levels.

Multimodal transportation funding options include a variety of local taxes, assessments and charges or fees, as well as state and federal appropriations, grants and loans to cover an array of infrastructure needs. The availability and applicability of these resources may be influenced by a variety of factors such as the willingness of residents and businesses to shoulder additional tax burdens, availability of local funds to be diverted from other City programs, and availability of competitive state and federal funds. Regardless of any potential limitations to implementation, the City would benefit from considering all possible options for providing, or enhancing, funding for the recommendations identified in this Plan.

2 Potential Local Funding Sources

2.1 System Development Charges

System development charges (SDCs) are one-time charges on new developments that help pay for existing and planned infrastructure that will serve that development. The framework for SDCs was established by Oregon law and is available for use by cities, counties, and special districts for capital improvements related to a variety of uses, including transportation. Funds can be utilized to construct or improve portions of infrastructure impacted by the development. SDCs can be utilized to support construction of new transportation infrastructure but cannot be used for maintenance expenses. The City of Cottage Grove utilizes SDCs for various infrastructure improvements, including water and streets, and may consider their use in support of the projects proposed in this Plan.

2.2 Transportation Utility Fee

A transportation utility fee is a recurring monthly charge paid by all residents and businesses within a community. The fee can be based on either the number of motor vehicle trips generated by a particular land use or as a flat fee per unit, and can be collected through the City's regular billing process. The only restrictions on the use of these funds are those that apply to the use of government funds. Transportation utility fees exist in approximately 20 cities in Oregon. Some of these communities utilize revenues for any transportation-related project and may place self-imposed restrictions or parameters on their use.

2.3 General Fund Revenues

General fund revenues include property taxes, use taxes, and other miscellaneous taxes and fees that are imposed by the City. Through the annual budgeting process, the City can allocate general fund revenues to pay for transportation projects at the City Council's discretion. These funds can be utilized for capital, operations, maintenance and administrative needs. As these revenues are utilized for all City projects and needs, they are often limited due to competing needs and priorities across multiple departments. Additional revenues beyond programmed items are typically only available if there is a fee increase or if City Council diverts funding from other programs.

2.4 Local Fuel Tax

Cottage Grove, along with other cities and counties in Oregon, has implemented a local fuel tax. This tax is paid to the City by fuel distributors on a monthly basis. As motor vehicles become more fuel efficient, revenues associated with these fuel taxes have gradually declined over time. Cottage Grove could consider implementing a seasonal fuel tax, which would shift some of the burden onto visitors during higher-demand periods.

2.5 Local Hotel/Lodging Tax

Many jurisdictions in Oregon impose a local hotel or lodging tax, consisting of an additional fee on transient rooms. These taxes place more of the cost burden for transportation improvements on non-residents. Some portion of this tax may be dedicated to transportation projects.

2.6 Local Improvement District

Local improvement districts (LIDs) can be formed to fund capital transportation projects. LIDs can be utilized to fund specific improvements that benefit a particular group of property owners. They require owner/voter approval (typically at least 67 percent of the impacted population) and require a specific project definition. LIDs can be matched against other funds when a project has system-wide benefits beyond the adjacent properties. LIDs are frequently utilized for sidewalk infill and other similar projects that provide local benefits to residents along a particular street.

2.7 Debt Financing

Though not a direct source of funding, debt financing can be used to offset the financial and budgetary impacts of large capital improvement projects and spread the costs over time. While debt financing incurs interest costs, it can serve as a practical means of funding major improvements. Debt financing is viewed as an equitable funding strategy, spreading the burden of repayment over existing and future users who would benefit from a project. Debt financing should be used with caution as there is a need to meet annual repayment obligations.

3 Potential State Funding Sources

3.1 Safe Routes to School Program

The Oregon Department of Transportation's (ODOT) Safe Routes to School Program is a competitive program that funds efforts to improve infrastructure, education or encouragement programs to help children safely walk or bike to school. Grants are available for infrastructure projects, non-infrastructure programs, and project planning.

3.2 Sidewalk Improvement Program and Quick Fix Program

The Sidewalk Improvement Program and Quick Fix Program are part of ODOT's broader Pedestrian and Bicycle Program, which seeks to reduce crashes involving people walking and bicycling, while promoting active transportation to improve health and safety. These funds are available for projects implemented on state highways. Funds may be requested from ODOT's Region 2 Active Transportation Liaison on a rolling basis.

3.3 Oregon Community Paths Program

The Oregon Community Paths Program combines funds from several sources to support the construction of off-street pedestrian and bicycle facilities. Contributing funds are sourced from the Multimodal Active Transportation Fund (formerly Connect Oregon), the Oregon Bicycle Excise Tax, and federal Transportation Alternative Program. This is a competitive grant program that is funded on an annual basis. Funds can be used to support project development, construction, reconstruction, major resurfacing or other improvements to multi-use paths.

3.4 All Roads Transportation Safety Program

The All Roads Transportation Safety (ARTS) Program seeks to address multimodal safety needs on Oregon's public roads through collaboration with local road jurisdictions. The program funds projects that will provide the greatest safety benefit (greatest crash reduction potential). Approximately $30 million per year in ARTS funding is available from Fiscal Years 2025 through 2027. Funds are allocated to ODOT regions, and local jurisdictions apply for funding based on the anticipated safety improvements associated with a proposed project.

3.5 ODOT Immediate Opportunity Fund

ODOT's Immediate Opportunity Fund exists to support economic development through the construction and improvement of roadway infrastructure. These funds are primarily relevant if the infrastructure improvements support the creation of new jobs or affirm job retention or creation opportunities.

4 Potential Federal Funding Sources

The passing of the federal Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law, provides significant potential funding opportunities for various forms of multimodal infrastructure, with funding opportunities available through 2026. The United States Department of Transportation's (USDOT) current priorities include improving safety on the nation's roads and improving multimodal infrastructure to reduce reliance on single-occupant vehicles. These priorities directly align with active transportation infrastructure and provide further potential funding opportunities as discussed below.

4.1 Safe Streets and Roads for All

The Safe Streets and Roads for All Program supports the National Roadway Safety Strategy and USDOT's goal of zero deaths and serious injuries on the nation's roadways. To be eligible for implementation funding, an applicant must have a qualifying Safety Action Plan. Grants are also available for the creation of these action plans. Key criteria for the program include safety, equity, engagement and collaboration, effective practices and strategies, climate change and sustainability, and economic competitiveness. Implementation awards of up to $30 million are available and may be utilized for up to 80 percent of future eligible project costs.

4.2 Great Streets Program

The Great Streets Program is intended to address multimodal safety issues while increasing the viability of walking, bicycling and transit on "main street" corridors in communities throughout the nation. In Oregon, ODOT is administering approximately $50 million in flexible federal transportation funds for this program. Initial investments will be limited to highway corridors owned or managed by ODOT, with initial funding serving as a proof-of-concept that will inform future versions of the program. ODOT staff select and prioritize corridors/projects based a variety of factors including consistency with program goals, presence of the project in an adopted plan, as well as criteria such as safety, equity, community support and project readiness. Typical improvements that may be funded through this program include sidewalks, bicycle facilities, transit stop enhancements, crossing upgrades, street tress, traffic calming and other related elements.

4.3 Reconnecting Communities Program

The Reconnecting Communities Program provides planning and construction grants to support the reconnection of communities that were previously cut off from economic opportunities by transportation infrastructure. This program focuses on equity, environmental justice, community engagement, mobility and community connectivity, and equitable development and shared prosperity. The primary aim is to remove, retrofit, mitigate or replace existing facilities in a way that promotes community access.

4.4 Rebuilding American Infrastructure with Sustainability and Equity Discretionary Grants

Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grants are competitive discretionary grants available for planning and capital projects with the aim of helping communities build transportation projects with significant local or regional impact while improving safety and equity. For capital projects, awards can be for up to $25 million.

4.5 Rural Surface Transportation Grants

As part of the federal Multimodal Project Discretionary Grant Program, opportunities exist to support planning or construction of multimodal transportation projects in rural areas. The primary goal of this program is to improve and expand surface transportation infrastructure in rural areas to increase connectivity, improve the safety and reliability of the movement of people and goods, and generate regional economic growth and quality of life. Funds are available on a competitive basis, with an application demonstrating alignment with the program criteria required for consideration. Program funds may be used to support up to 80 percent of future eligible project costs, and other federal funds may be leveraged to complete the funding.

4.6 Bridge Investment Program

The Bridge Investment Program focuses on improving existing bridges to reduce the overall number of bridges in poor condition, as well as structures in fair condition that at risk of falling into poor condition. One of the requirements is that each bridge must contain, or not preclude, infrastructure for multimodal transportation (e.g., sidewalks, bike lanes, multi-use paths). This is a competitive discretionary program requiring an application that meets program-specific criteria, and only applies to bridges that are listed on the National Bridge Inventory.

4.7 Railroad Crossing Elimination Program

The Railroad Crossing Elimination Program is a competitive program providing funding for highway/rail or pathway/rail crossing safety improvements. The program focuses on improving safety and mobility of people and reducing conflicts. Funding is available on a competitive basis, with a minimum grant of $1 million which can support up to 80 percent of future eligible costs.

4.8 Promoting Resilient Operations for Transformative, Efficient and Cost-Saving Transportation Program

The Promoting Resilient Operations for Transformative, Efficient and Cost-Saving Transportation (PROTECT) Program supports planning and implementation activities focused on community resilience and evacuation routes to enhance the sustainability and resiliency of the nation’s transportation network. The program consists of both formula funding and discretionary grant awards available for planning and

implementation efforts. The primary goal is to enable communities to address vulnerabilities while increasing the resilience of transportation infrastructure from the impacts of sea level rise, flooding, wildfires, extreme weather events or natural disasters. Eligible projects should support continued operation or rapid recovery of crucial local, regional, or national transportation facilities and should utilize collaborative approaches to risk reduction.

4.9 Active Transportation Infrastructure Program

The Active Transportation Infrastructure Program is a new program in the IIJA that has not yet been released. Program specifics are not yet available; however, funding will be awarded on a competitive basis and will support up to 80 percent of eligible project costs.

memo

to	Cottage Grove Pedestrian and Bicycle Plan Project Management Team
from	Brandon Crawford, Shayna Rehberg, and Darci Rudzinski, MIG | APG
re	Cottage Grove Pedestrian and Bicycle Plan
	Task 4.1 Final Draft Memorandum #5: Plan and Code Amendments
date	March 11, 2024

Introduction

The purpose of this memo is to provide Comprehensive Plan policies and Land Development Code (LDC) amendments needed to implement the improvements recommended in the Cottage Grove Pedestrian and Bicycle Plan, as well as to ensure regulatory compliance. Comprehensive Plan policy updates are based on project goals, objectives, and recommendations identified in previous memos. LDC updates address consistency with the Oregon Transportation Planning Rule (TPR) and Oregon Revised Statute (ORS) 197.307 requirements related to clear and objective standards regulating residential development. The proposed LDC amendments also implement recommendations identified in previous memos.

The policy and LDC updates recommendations in this memo are provided as a Final Draft. Input that the Project Advisory Committee (PAC) and the Project Management Team (PMT) provided regarding the Public Draft of the plan and code amendments informed this Final Draft.

Policy Updates

Policy Approach

The Cottage Grove Transportation System Plan (TSP) contains the City's transportation policies, which are included by reference in the Comprehensive Plan (as an appendix). The TSP includes five pedestrian policies, four bicycle policies, and seven multimodal policies.

The recommended policy updates from this project will live in the City's Pedestrian and Bicycle Plan. The project's pedestrian and bicycle policies will be included by reference in the TSP. For consistency with this project's pedestrian and bicycle policies, TSP Policy 31 will need to be amended for consistency with this latest Pedestrian and Bicycle Plan. For example:

> *Policy 31: Ensure consistency with the policies in the most current Cottage Grove Pedestrian and Bicycle Plan ~~Bikeway Master Plan~~.*

The same policy statement would be added to the TSP pedestrian policies and TSP multimodal policies.

Policy Statements

The following proposed policy statements are adapted from the "Comprehensive Plan and TSP Goals/Objectives/Policies Improvement Opportunities" and the Vision, Goals, and Objectives outlined in Memo #1 for the Pedestrian and Bicycle Plan. In addition, findings and recommendations from Memo #3 (Improvement Options) and Memo #4 (Funding Options) were considered for these policy statements.

Goal 1 – Safety and Comfort

- Improve multimodal safety by reducing bicycle and pedestrian collision risks throughout the city, particularly in identified hazard or problem locations.
- Develop and maintain low-stress walking and bicycling facilities along and across Cottage Grove's roadway network, and minimize conflicts between motor vehicles and vulnerable roadway users.
- Develop a complete and extensive pedestrian and bicycle network by filling in system gaps, particularly along higher-volume, higher-speed roadways and areas where there is demand for pedestrian and bicycle facilities.
- Ensure the city's pedestrian and bicycle network is safe and accessible for people with physical, visual, auditory, cognitive, and other disabilities.
- Establish a comfortable and safe multimodal transportation network that is accessible and usable for people of all ages and abilities.

Goal 2 – Access

- Promote access to schools, jobs, commercial areas, transit stops, and school bus stops via complete walkway and bikeway connections.
- Support non-roadway public easement and right-of-way opportunities to establish off-street path connections.
- Coordinate with agency partners – including Lane County, Oregon Department of Transportation, Lane Transit District, and South Lane Wheels – to establish seamless active transportation linkages at jurisdictional boundaries and on non-City-owned facilities.
- Promote the dual functions and benefits of trails as both transportation and recreation assets.
- Support street connectivity, bicycle parking, transit stop infrastructure, wayfinding, and other supportive, low-stress features to maximize the return on investment of pedestrian and bicycle facilities.

Goal 3 – Equity and Community Support

- Prioritize pedestrian and bicycle facility improvements, projects, and programs for Cottage Grove's historically transportation-disadvantaged communities, particularly those currently with limited travel options.
- Ensure that implementation of pedestrian and bicycle facility improvements, projects, and programs reflect the community's preferences and priorities.
- Promote a culture of support and respect for walking and bicycling by communicating its benefits through education, encouragement, outreach, and other programmatic approaches.
- Support citywide initiatives and programs that promote Cottage Grove as a walkable and bikeable community.

Goal 4 – Implementation

- Prioritize lower-cost pedestrian and bicycle investments that can be implemented in shorter timeframes.

- Identify and secure funding for projects from various grant programs, including but not limited to: Safe Routes to School, Oregon Community Paths, and other local, state, and federal programs.
- Update and implement development standards and requirements in the Cottage Grove Land Development Code to support pedestrian and bicycle facility improvements.

Land Development Code Updates

Overview and Format

MIG reviewed the Cottage Grove LDC primarily for compliance with relevant elements of the TPR (Oregon Administrative Rules (OAR) 660-012). The following updates to the LDC are recommended for compliance with pedestrian- and bicycle-specific implementation requirements in the TPR, as well as consistency with the Pedestrian and Bicycle Plan's recommendations presented in Memo #3 and statutory requirements regarding clear and objective standards related to residential development. Note: An evaluation of code consistency with the TPR is included in this memo as Attachment A.

The proposed amendments are formatted as underline/~~strikethrough~~ to indicate where adding (underline) or removing (strikethrough) text is recommended – i.e., the proposed amendments are formatted as adoption-ready. Relevant LDC sections and provisions have been abbreviated to focus on the proposed changes, and ellipses *[…]* indicate omissions of LDC text that is not relevant to the proposed amendments.

Definitions

Recommendation

The Pedestrian and Bicycle Plan introduces several types of facilities that would be new to the City's transportation system, such as "neighborhood greenways" and "enhanced shared roadways." The LDC should include definitions for any type of pedestrian and bicycle facility that are part of any implementing development standards or requirements. The LDC already defines facilities including access way, bicycle facility/bikeway, multi-use pathway, sidewalk, and walkway. The following recommended new definitions are discussed in greater detail in Memo #3 (Improvement Options).

Proposed Amendment

14.13.300 Definitions

[…]

Enhanced Crossing. Enhanced crossings consist of crosswalks that may include additional features that improve the visibility of people traversing the street on foot or on bike. Enhanced crossings may include the following:

- High-visibility markings: Use of patterns and/or materials that are more visible to approaching motorists from a longer distance.
- Improved lighting: Illumination located directly at the crossing to increase driver awareness.
- Enhanced signage and pavement markings
- Traffic control devices: May include traffic signals, pedestrian hybrid beacons (PHB), or rectangular rapid flashing beacons (RRFB)
- Curb extensions or median refuges.

Enhanced Shared Roadway. Enhanced shared roadways accommodate people bicycling and driving in a shared environment. These facilities typically include shared lane markings and supplemental signage to clearly communicate the shared operating environment to all users. These corridors may also include traffic calming if necessary.

[…]

Neighborhood Greenway. Neighborhood greenways are lower volume and lower speed streets (typically less than 1,500 vehicles per day and a maximum speed of 20 miles per hour) that prioritize pedestrian, bicycle, or other personal mobility devices. Neighborhood greenways also provide local vehicle access. Neighborhood greenways typically include speed management devices (e.g., speed humps, speed cushions, chicanes), volume management treatments (e.g., traffic diverters), enhanced crossings at major streets, shared lane markings (SLMs), and wayfinding.

[…]

Trail. Designated routes that provide public access for walking, running, bicycling, or other forms of non-motorized mobility. Trails may be intended for recreation or transportation purposes.

Pedestrian Connectivity to Transit

Recommendation

Amend LDC 14.31.300 (Pedestrian Access and Circulation) to include pedestrian and bicycle access/connectivity requirements for transit facilities, consistent with OAR 660-012-0045(4)(b). Provide two sets of standards: one set that provides clear and objective standards for residential development in accordance with ORS 197.307; and another set that provides discretionary standards for non-residential development or residential development that opts to follow the discretionary path.

Proposed Amendment

14.31.300 Pedestrian Access and Circulation

A. Site Layout and Design. To ensure safe, direct, and convenient pedestrian circulation, all developments, except single-family and two-family detached housing (i.e., on individual lots), shall provide a continuous pedestrian system. The pedestrian system shall be based on the standards in subsections 1-~~3~~2, below:

B. In non-residential development:

C. A pedestrian walkway system shall extend throughout the development site and connect to any existing or planned adjacent sidewalks, parking areas, or transit facilities, and to all future phases of the development, as applicable.

b. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent parking areas, recreational areas, playgrounds, and public rights-of-way pursuant to the following standards:

D. The walkway is reasonably direct. A walkway is reasonably direct when it follows a route that is straight-line or limits deviation from a straight line.

(2) The walkway is designed primarily for pedestrian safety and convenience, meaning it is reasonably free from hazards and provides a reasonably smooth and consistent surface and direct route of travel between destinations. The approving authority may require landscape buffering between walkways and adjacent parking lots or driveways to mitigate safety concerns.

(3) A pathway system shall extend throughout the development site and connect building entrances to adjacent streets, sidewalks, existing and planned transit stops, adjacent properties, and to future phases of the development, as applicable.

2. In residential development except single-family and two-family detached housing on individual lots:

E. Internal connections. On sites larger than 10,000 square feet, an internal pedestrian walkway system shall be provided. The system shall connect all main entrances to the following:

(1) On-site shared facilities (if proposed), including parking areas, bicycle parking, recreational areas, and outdoor areas; and

(2). Adjacent off-site improvements, including existing and planned transit stops, schools, and parks.

b. Walkways shall be direct. A walkway is direct when it follows a route for which the length is not more than 20 feet longer or 120 percent of the straight-line distance, whichever is less.

~~1. Continuous Walkway System. The pedestrian walkway system shall extend throughout the development site and connect to all future phases of development, and to existing or planned off-site adjacent transit stops or facilities, trails, public parks, and open space areas to the greatest extent practicable. *[…]*~~

~~2. Safe, Direct, and Convenient. Walkways within developments shall provide safe, reasonably direct, and convenient connections between primary building entrances and all adjacent streets, and existing or planned transit stops or facilities, based on the following definitions:~~

[…]

Specify Pedestrian and Bicycle Facilities as Potential Conditions of Approval

Recommendation

Amend LDC 14.44.400 (Conditions of Approval) to include multi-use pathways, bike lanes, transit access/stop improvements, enhanced crossings, neighborhood greenways, enhanced shared roadways, and other pedestrian and bicycle facilities identified in the Pedestrian and Bicycle Plan as conditions of approval. Bicycle and pedestrian facilities are identified as improvement options in Memo #3 and will ultimately be identified in the Final Pedestrian and Bicycle Plan. In addition, OAR

660-012-0045(2)(e) requires jurisdictions to allow bicycle and pedestrian facilities as conditions of approval.

Proposed Amendment

14.44.400 Conditional Use Permits – Criteria, Standards and Conditions of Approval

The City shall approve, approve with conditions, or deny an application for a conditional use or to enlarge or alter a conditional use based on findings of fact with respect to each of the standards and criteria in A-C.

F. *[…*C. Conditions of Approval. The City may impose conditions that are found necessary to ensure that the use is compatible with other uses in the vicinity, and that the negative impact of the proposed use on the surrounding uses and public facilities is minimized. These conditions include, but are not limited to, the following:

[…]

6. Requiring street right-of-way to be dedicated and street(s), sidewalks, curbs, planting strips, pathways, ~~or~~ trails, multi-use pathways, bike lanes, transit stop improvements, enhanced crossings, neighborhood greenways, enhanced shared roadways, or any pedestrian and bicycle facilities identified in the Cottage Grove Transportation System Plan or the Pedestrian and Bicycle Plan to be improved;

   […]

13. Requiring the dedication of sufficient land to the public, and/or construction of pedestrian/bicycle pathways, access ways, trails, or multi-use paths in accordance with the adopted plans, or requiring the recording of a local improvement district non-remonstrance agreement for the same. Dedication of land and construction shall conform to the provisions of Chapter 14.31, and Section 14.31.300 in particular.

    […]

Cross-Section Updates

Recommendation

The LDC contains street cross-section standards that include sidewalk and bike lane requirements. The existing cross-section standards in the LDC will need to be consistent with cross-section standards and requirements that are in the TSP, including elements of the TSP such as the Pedestrian and Bicycle Plan, per OAR 660-012-0045(3)(b). To ensure compliance with ORS 197.307, the cross-section updates do not express requirements in ranges, but rather as single standard for minimum width. They include a footnote to clarify that a Master Plan or Variance is required for deviations from the cross-section standards in the table and graphics.

The Bicycle and Pedestrian Plan recommends updated street cross-section and other design standards to accommodate pedestrian and bicycle facilities, as shown in

Table 1. Proposed standards are shown in red under the current standards, along with a brief description in the “Recommended Modifications” column. In addition, each cross-section should

include a note to acknowledge that widths may be modified due to topographic, geographic, and other physical conditions and/or due to widths that are approved in a master plan development.

Table 1. Existing Street Design Standards (Pedestrian and Bicycle Elements) and Recommended Modifications

Existing Street Classification	Current Standards			Recommended Modifications
	Bike Lane Width	Planter Strip Width	Sidewalk Width	
Arterial	5-6’ 6’	7’-12’ 9’	6’-12’ 10’	• Bicycle facility: Adjust bike lane width to 6’. Require a minimum 2’ buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph • Planter strip width: Adjust minimum width to 9’ • Pedestrian facility: Adjust minimum sidewalk width to 10’

Residential Collector (no parking)	n/a
	6’
		7’-8’
		9’
			6’-12’
			8’
				• Bicycle facility:
				  • Add bike lanes as a required element of the Residential Collector cross-section
				  • Require a minimum 2’ buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph
				• Planter strip width: Adjust minimum width to 9’
				• Pedestrian facility: Adjust minimum sidewalk width to 8’

Residential Collector (parking one or both sides)	n/a 6’	7’-8’ 9’	5’-12’ 8’	
Commercial Collector	5’-6’ 6’	7’-8’ 9’	6’-12’ 10’	• Bicycle facility: Adjust bike lane width to 6’. Require a minimum 2’ buffer (delineated or physical element) between the bike lane and adjacent travel lane; require physical separation on roadways with posted speeds above 25 mph • Planter strip width: Adjust minimum width to 9’ • Pedestrian facility: Adjust minimum sidewalk width to 10’
Local	n/a	4’-12’ 9’	5’-6’ 6’	• Pedestrian facility: Adjust sidewalk width to 6’ • Planter strip width: Adjust minimum width to 9’
Multi-Use Paths	6’-10’ paved with 2’-4’ unpaved shoulders in 10’-18’ right-of-way 12’ paved; minimum 2’ unpaved shoulders; 20’ ROW			• Adjust minimum width of the paved portion of multi-use paths to 12’ (like two 6’ bike lanes side-by-side) • Adjust right-of-way width to 20’

Existing Street Classification	Current Standards			Recommended Modifications
	Bike Lane Width	Planter Strip Width	Sidewalk Width	
Alley [NEW CROSS-SECTION]	18' paved; 20' right-of-way			• Set width of paved portion to 18' • Set width of right-of-way to 20'

Remove the list of factors that allow cross-sections to be wider since that is a discretionary process that cannot be required for residential development. Instead, leave Variances and Master Plans as ways to modify cross-section standards.

Proposed Amendment

14.34.100 Transportation Standards

[…]

F. Minimum Rights-of-Way and Street Sections. Street rights-of-way and improvements shall conform to ~~be~~ the minimum widths in Table 14.34.100. A variance or Master Plan approval shall be required to vary the standards in Table 14.34.100. ~~Where a range of width is indicated, the width shall be the narrower in the range unless unique and specific conditions exists as determined by the decision-making authority based upon the following factors:~~

~~1. Street classification in the Transportation System Plan;~~
~~2. Anticipated traffic generation;~~
~~3. On-street parking needs;~~
~~4. Sidewalk and bikeway requirements based on anticipated level of use;~~
~~5. Requirements for placement of utilities;~~
~~6. Street lighting;~~
~~7. Minimize drainage, slope, and sensitive lands impacts, as identified by Chapter 14.37;~~
~~8. Street tree location, as provided for in Chapter 14.32;~~
~~9. Protection of significant vegetation, as provided for in Chapter 14.32;~~
~~10. Safety and comfort for motorists, bicyclists, and pedestrians;~~
~~11. Street furnishings (e.g., benches, lighting, bus shelters, etc.), when provided;~~
~~12. Access needs for emergency vehicles; and~~
~~13. Transition between different street widths (i.e., existing streets and new streets).~~;
~~14. Pedestrian and bicycle improvements or projects – including sidewalks, pathways, trails, multi-use pathways, bike lanes, enhanced crossings, neighborhood greenways, enhanced shared roadways – identified in the Transportation System Plan or elements of the Transportation System Plan such as the Pedestrian and Bicycle Plan; and~~
~~15. Transit improvements identified in an adopted transportation or transit plan.~~

Table 14.34.100.F Street Standards *

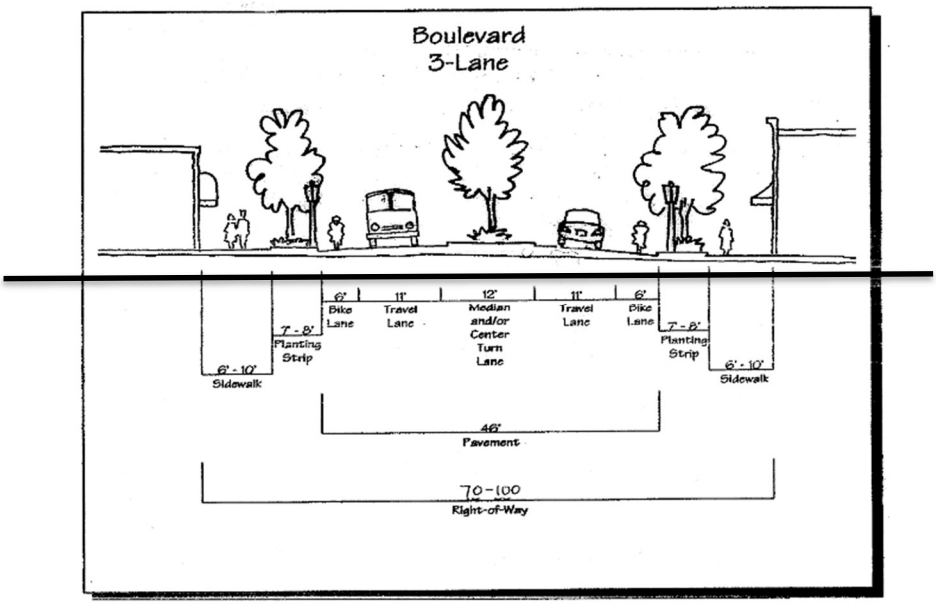
Street Type	~~Avg. Daily Trips (ADT)~~	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area					Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/ Center Turn Lanes	Bike Lanes	Buffers	On-Street Parking		
Arterials										
Boulevards:										
2-Lane Boulevard		~~60'~~ ~~100'~~94'	~~32'~~ ~~50'~~ 54'	11'	None	2 at ~~5~~ 6'	2'	8' bays	~~7'~~ ~~12'~~ 9'	~~6'~~ ~~12'~~ 10'
3-Lane Boulevard		~~70'~~ ~~100'~~ 106'	~~44'~~ ~~62'~~ 66'	11'	12'	2 at ~~5~~ 6'	2'	8' bays	~~7'~~ ~~12'~~ 9'	~~6'~~ ~~12'~~ 10'
5-Lane Boulevard		~~95'~~ ~~121'~~ 128'	~~66'~~ ~~84'~~88'	11'	12'	2 at ~~5~~ 6'	2'	8' bays	~~7'~~ ~~12'~~ 9'	~~6'~~ ~~12'~~10'
Avenues:										
2-Lane Avenue		~~60'~~ ~~90'~~ 92'	~~30'~~ ~~49'~~ 52'	10' ~~10.5'~~	none	2 at ~~5~~ 6'	2'	8' bays	~~7'~~ ~~12'~~ 9'	~~6'~~ ~~12'~~ 10'
3-Lane Avenue		~~70.5'~~ ~~97.5'~~ 103.5'	~~41.5'~~ ~~60.5'~~63.5'	10' ~~10.5'~~	11.5'	2 at ~~5~~ 6'	2'	8' bays	~~7'~~ ~~12'~~ 9'	~~6'~~ ~~12'~~ 10'
Collectors										
Residential:					As per traffic calming					
No Parking		~~50'~~ ~~60'~~ 74'	~~22'~~38'	11'		6'	2'	None	~~7'~~ ~~8'~~ 9'	~~6'~~ 8' ~~12'~~

Street Type	~~Avg. Daily Trips (ADT)~~	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area					Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/ Center Turn Lanes	Bike Lanes	Buffers	On-Street Parking		
Parking One Side		~~50'-80'~~ 79'	~~25'-27'~~43'	~~9'-~~10'		6'	2'	7' lane	~~7'-8'~~ 9'	~~5'-12'~~ ~~6'-~~8'
Parking Both Sides		~~57'-80'~~ 86'	~~32'-34'~~50'	~~9'-~~10'		6'	2'	7' lanes	~~7'-8'~~ 9'	~~5'-12'~~ ~~6'-~~8'
Commercial ~~(Collectors and Local Streets)~~:					As per traffic calming					
Parallel One Side		~~55'-80'~~84'	~~28'-40'~~ 44'	10'		~~5'-~~6'	2'	8' lane	~~7'-8'~~ 9'	~~6'-12'~~ 10'
Parallel Both Sides		~~63'-80'~~92'	~~36'-48'~~ 52'	10'		~~5'-~~6'	2'	8' lanes	~~7'-8'~~ 9'	~~6'-12'~~ 10'
~~Angled Parking One Side~~	-	~~65'-80'~~	~~37'-56'~~	~~10'~~	-	~~5'-6'~~		~~Varies~~	~~7'-8'~~	~~6'-12'~~
~~Angled Parking Both Sides~~	-	~~81'-100'~~	~~54'~~	~~10'~~	-	~~5'-6'~~		~~Varies~~	~~7'-8~~	~~6'-12'~~
Local Streets					As per traffic calming					
Parking One Side		~~50'-~~60'	28'	20'				~~7'~~ 8' lane	~~4'-12'~~ 9'	~~5'-~~6'

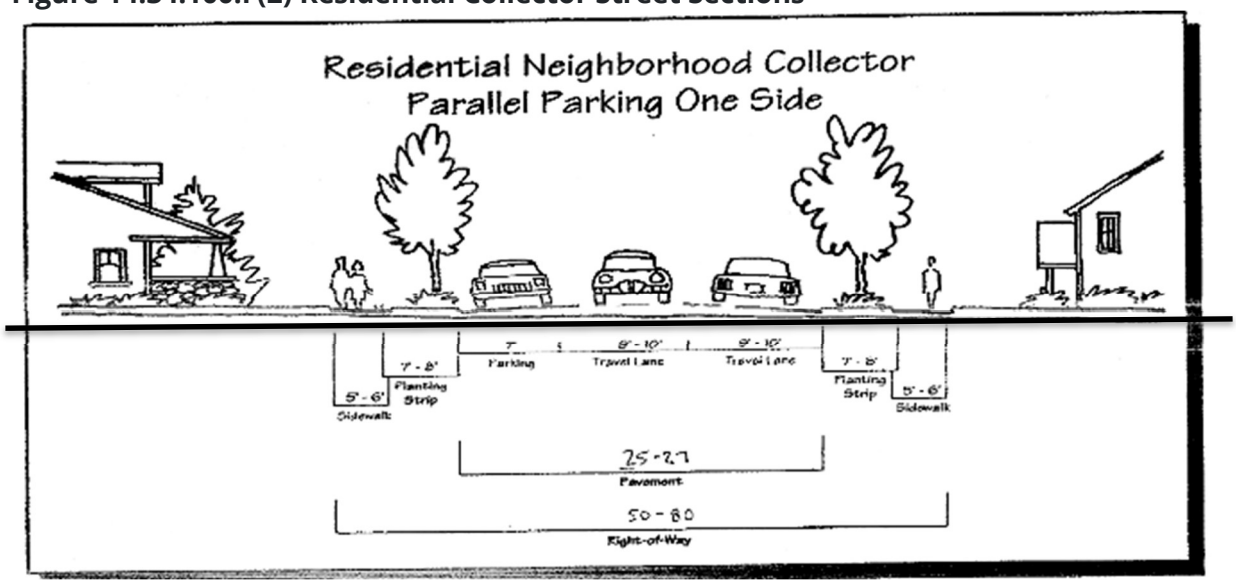
Street Type	~~Avg. Daily Trips (ADT)~~	Right-of-Way Width	Curb-to-Curb Paved Width	Within Curb-to-Curb Area					Planting Strips or Tree Wells	Side-walks
				Motor Vehicle Travel Lanes	Median/ Center Turn Lanes	Bike Lanes	Buffers	On-Street Parking		
Parking Both Sides		~~56'-60'~~ 65'	~~32'~~ 33'	18'				7.5' lanes	~~4'-12'~~ 9'	~~5'-~~6'
No Parking		~~36'-56'~~ 52'	20'	20'				None	~~4'-12'~~ 9'	~~5'-~~6'
Alleys		20'		18'						
Multi-Use Paths		20'	12'				2' unpaved shoulders			

*~~Dimensions may be modified due to topographic, geographic, and other physical conditions and/or due to dimensions that are approved in a master plan development.~~ A Variance or Master Plan approval shall be required to vary the standards in Table 14.34.100.

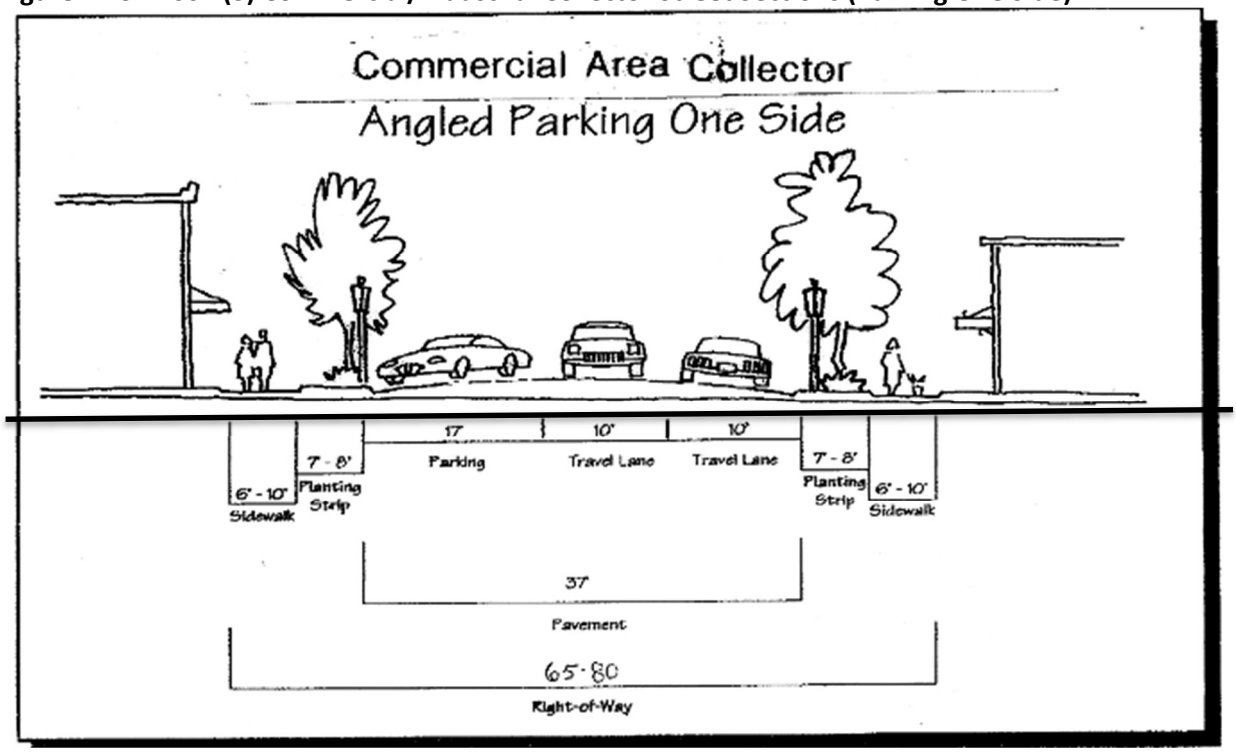
~~Figure 14.34.100.F(1) Three-Lane Arterial-Boulevard Street Section~~

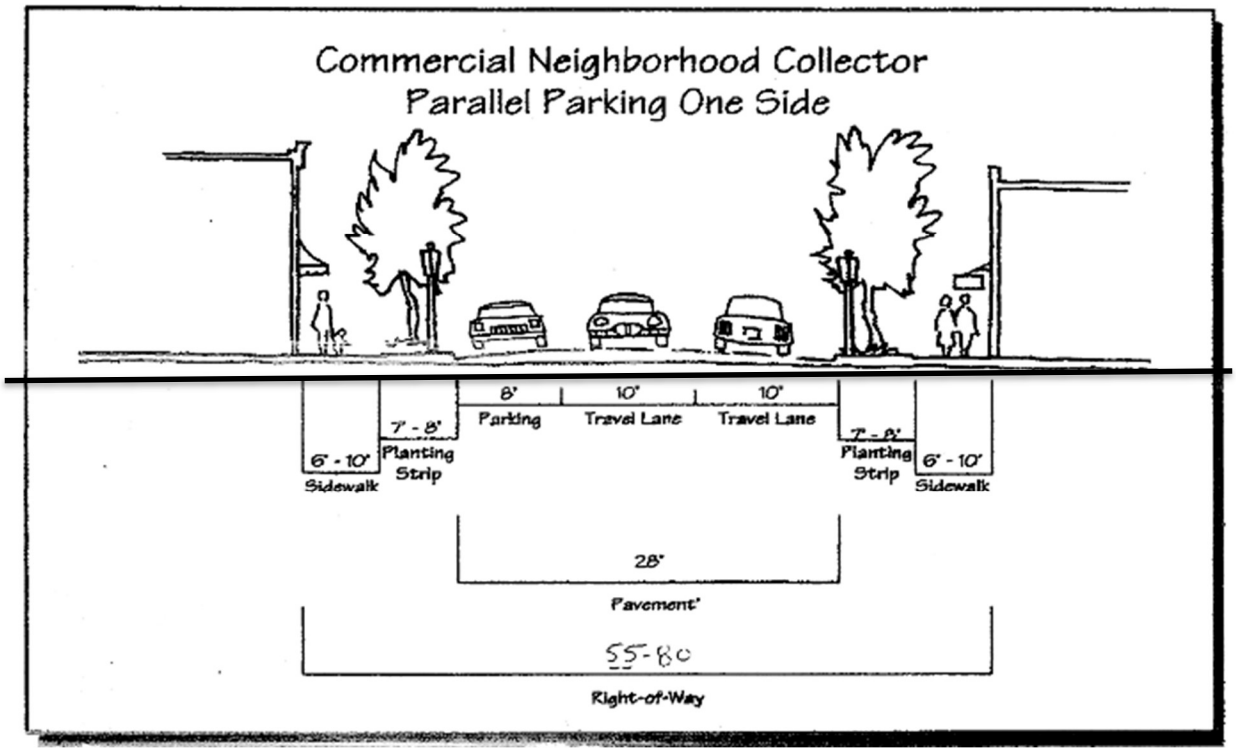


~~Figure 14.34.100.F(2) Residential Collector Street Sections~~

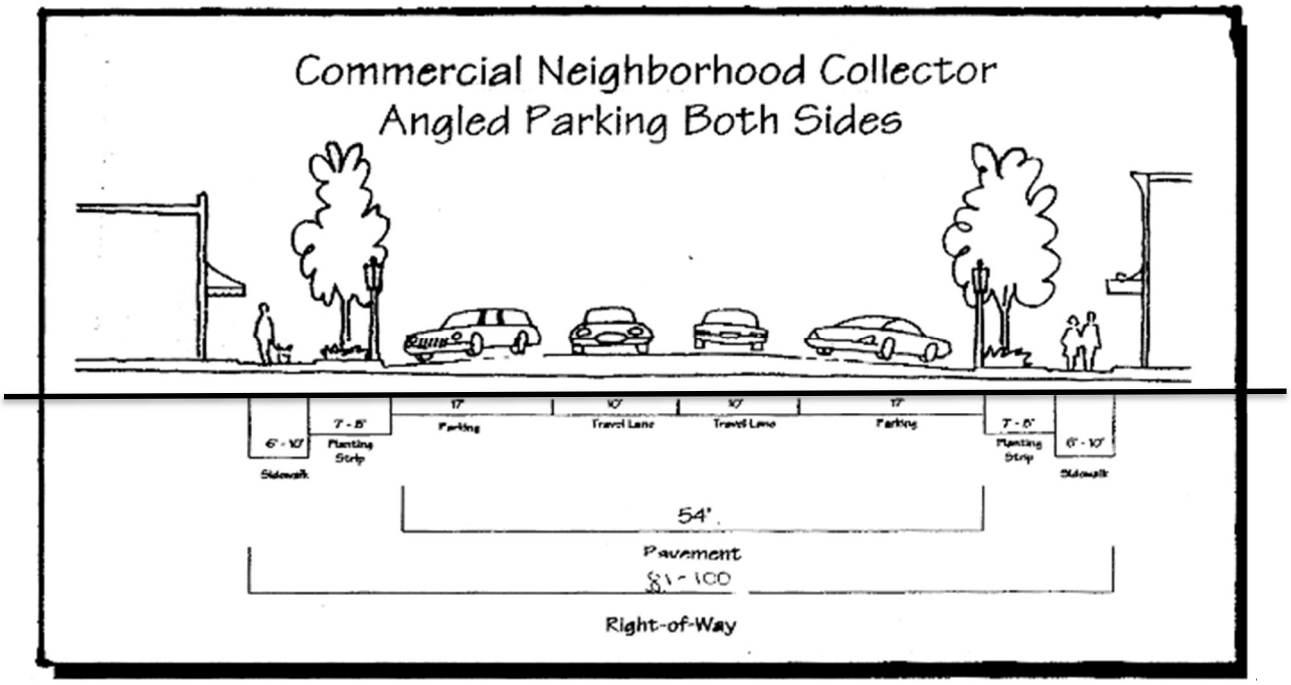


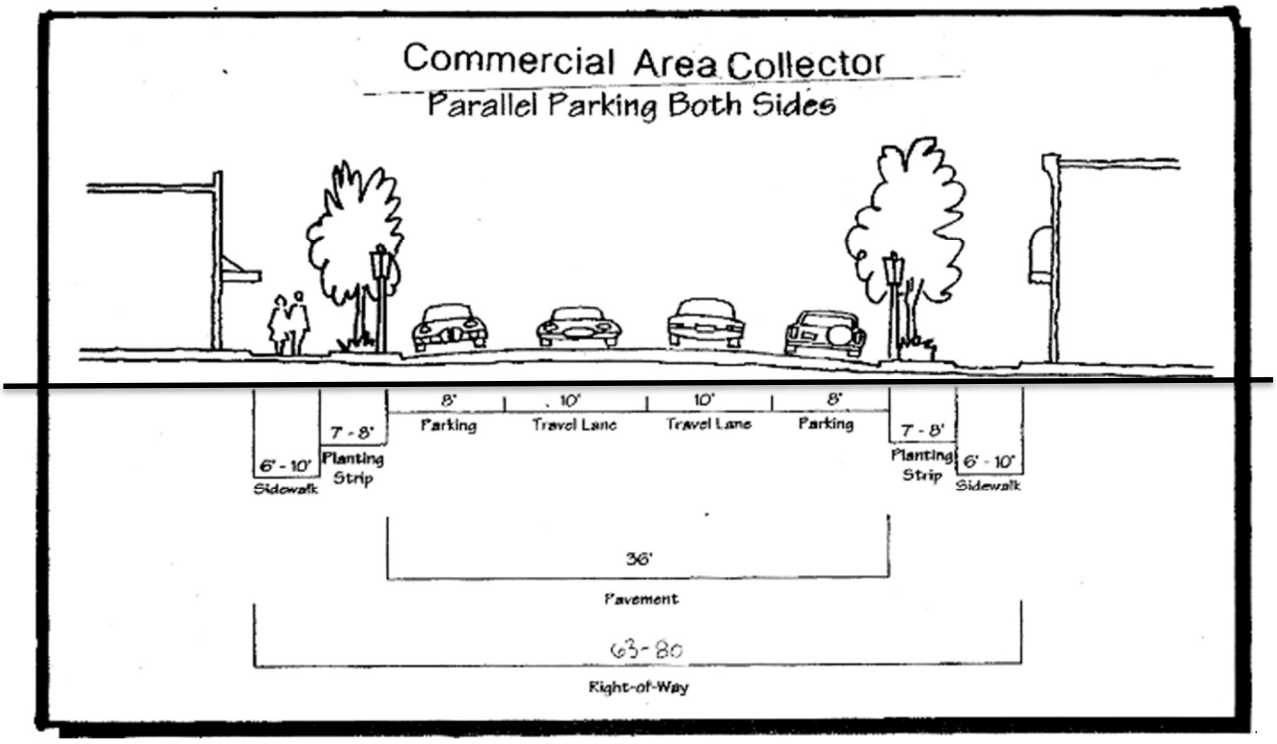
~~Figure 14.34.100.F(3) Commercial/Industrial Collector Street Sections (Parking One Side)~~



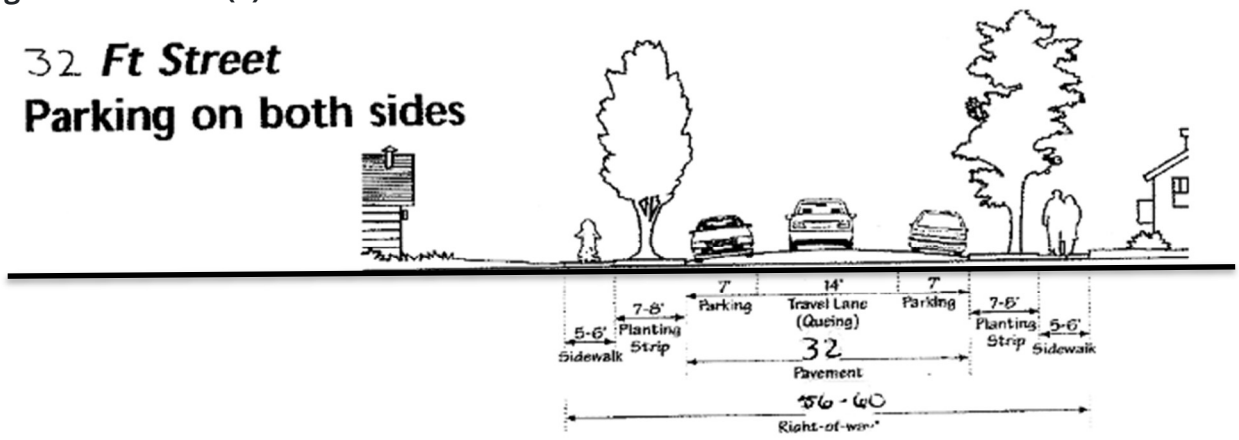


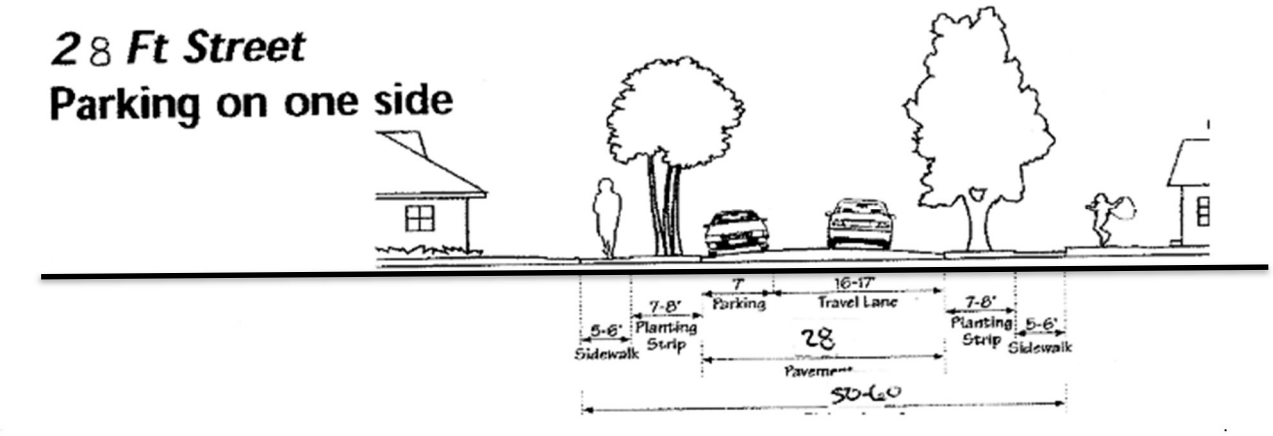
~~Figure 14.34.100.F(4) Commercial/Industrial Collector Street Sections (Parking Two Sides)~~



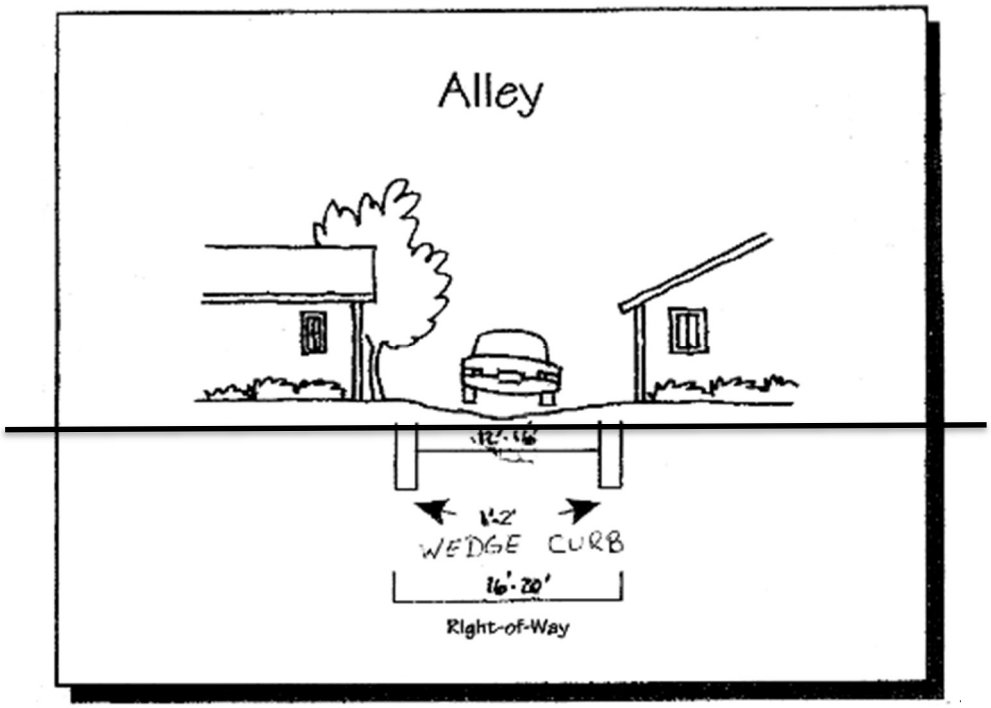


~~Figure 14.34.100.F(5) Local Residential Street Sections~~





~~Figure 14.34.100.F(6) Alley and Pathway Sections~~



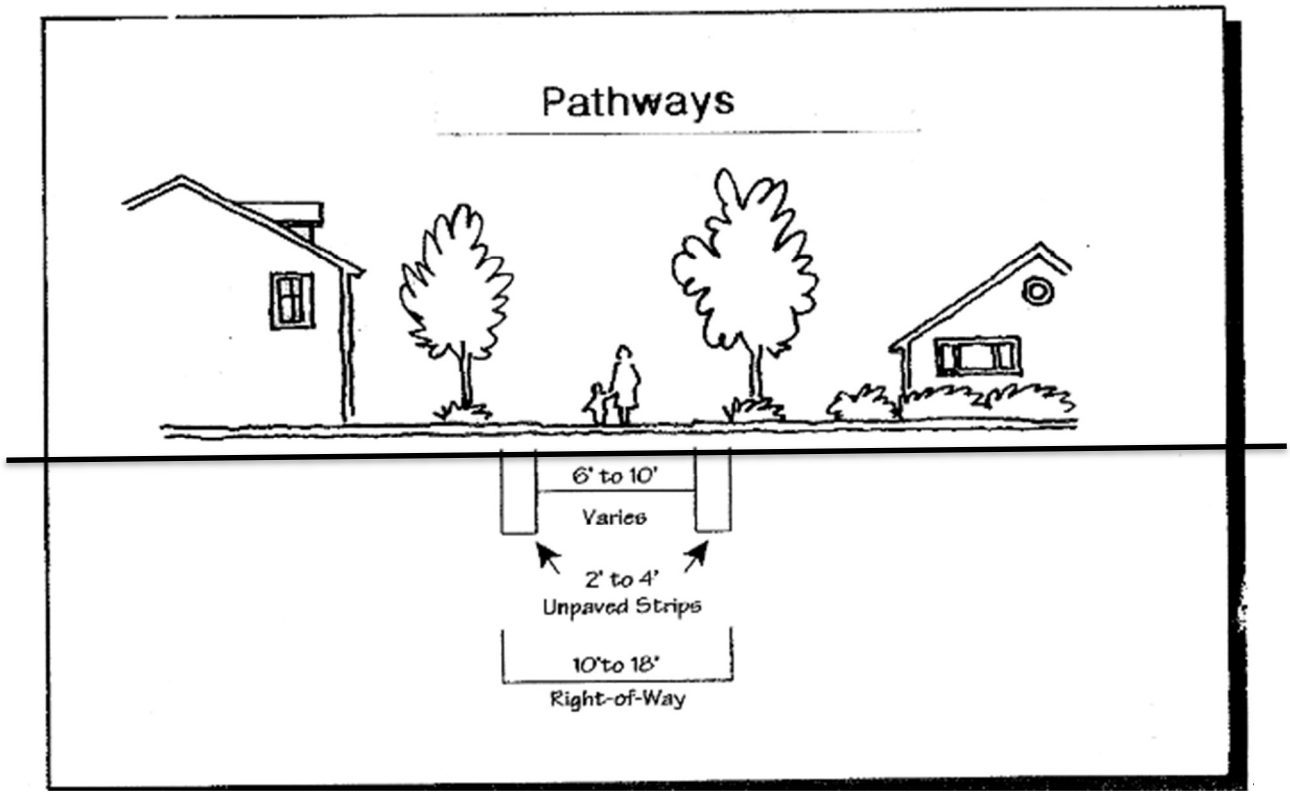
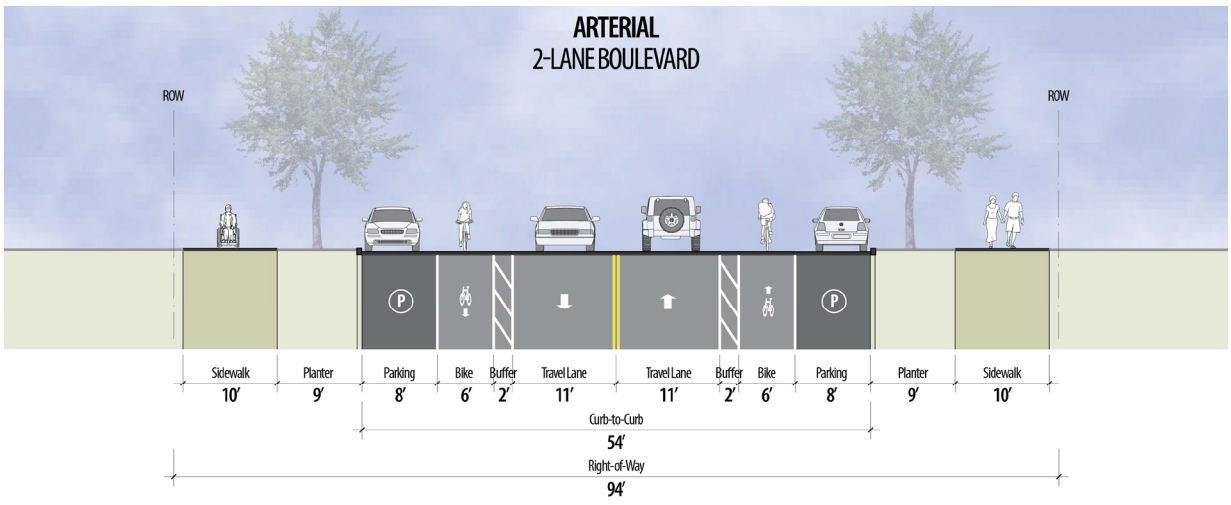
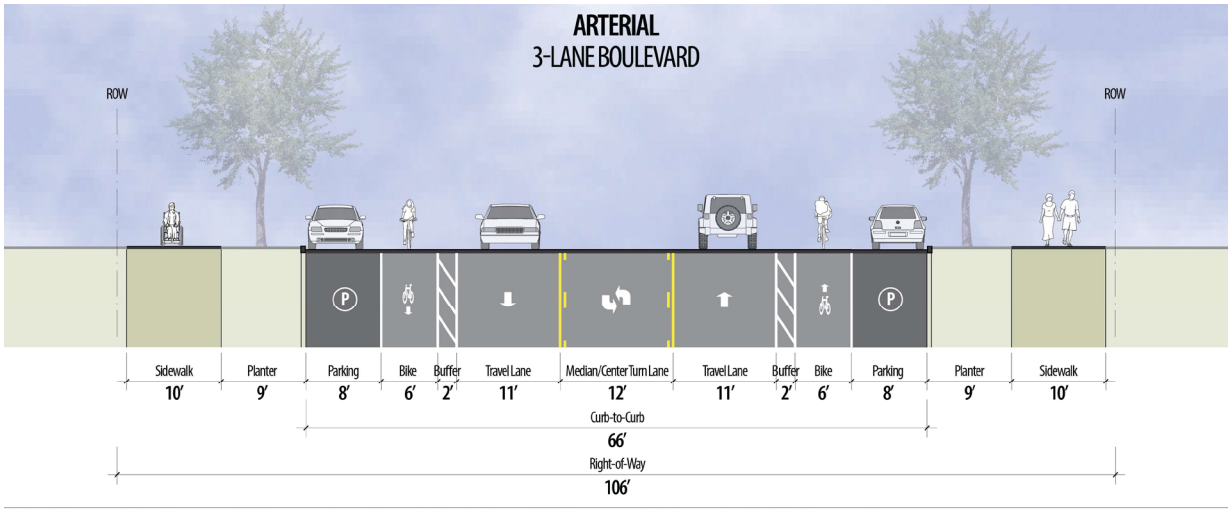


Figure 14.34.100.F(1) Two-Lane Arterial-Boulevard Street Section



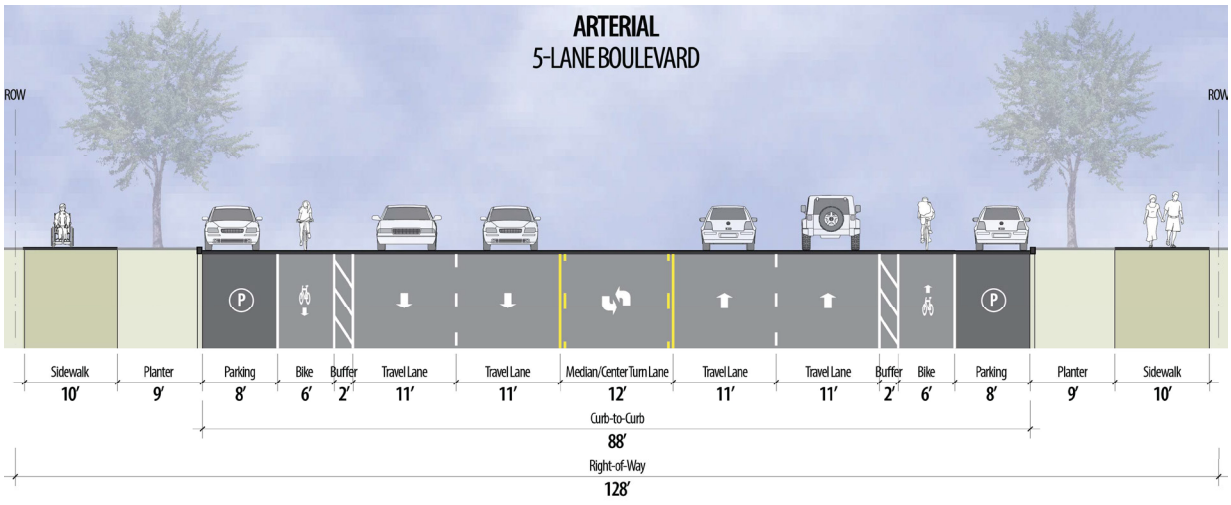
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(2) Three-Lane Arterial-Boulevard Street Section



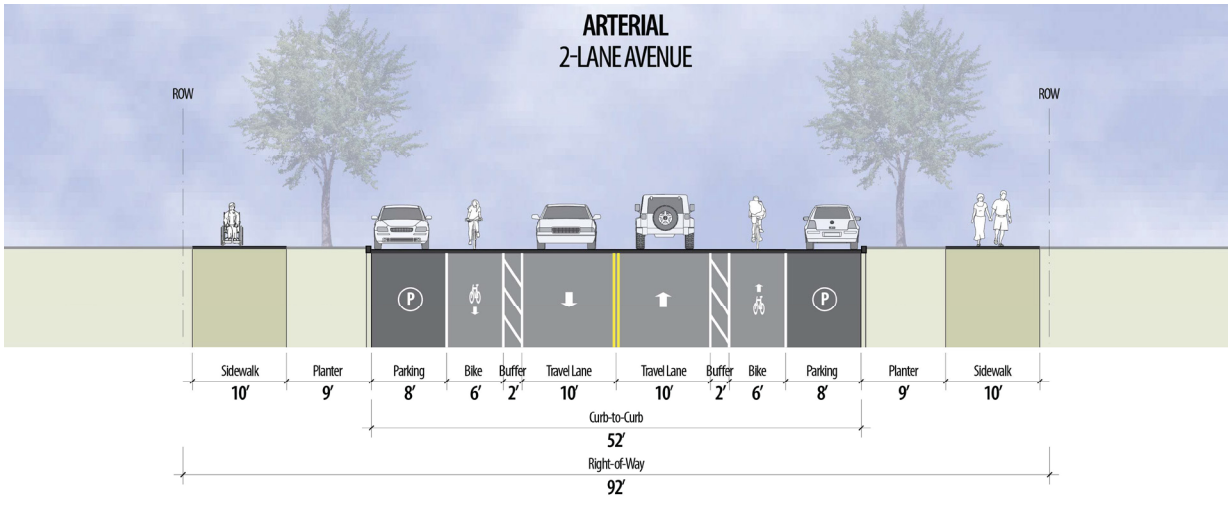
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(3) Five-Lane Arterial-Boulevard Street Section



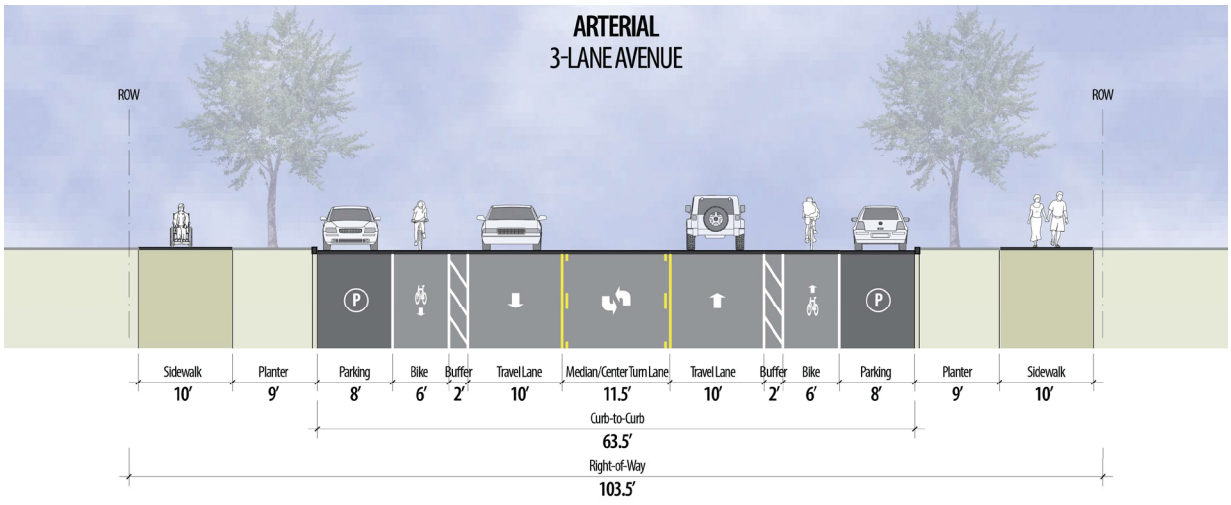
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(4) Two-Lane Arterial-Avenue Street Section



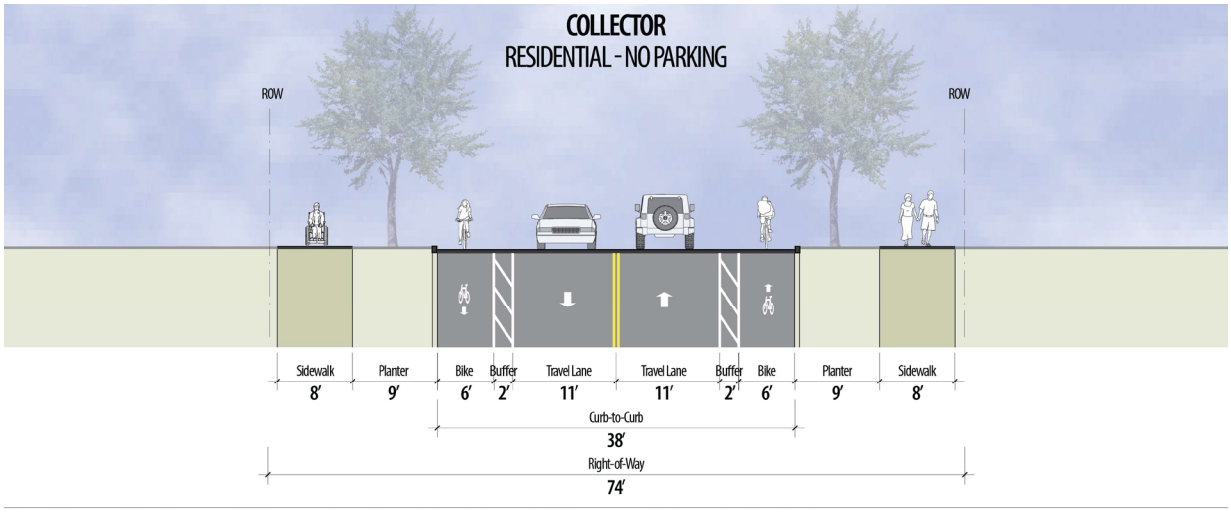
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(5) Three-Lane Arterial-Avenue Street Section



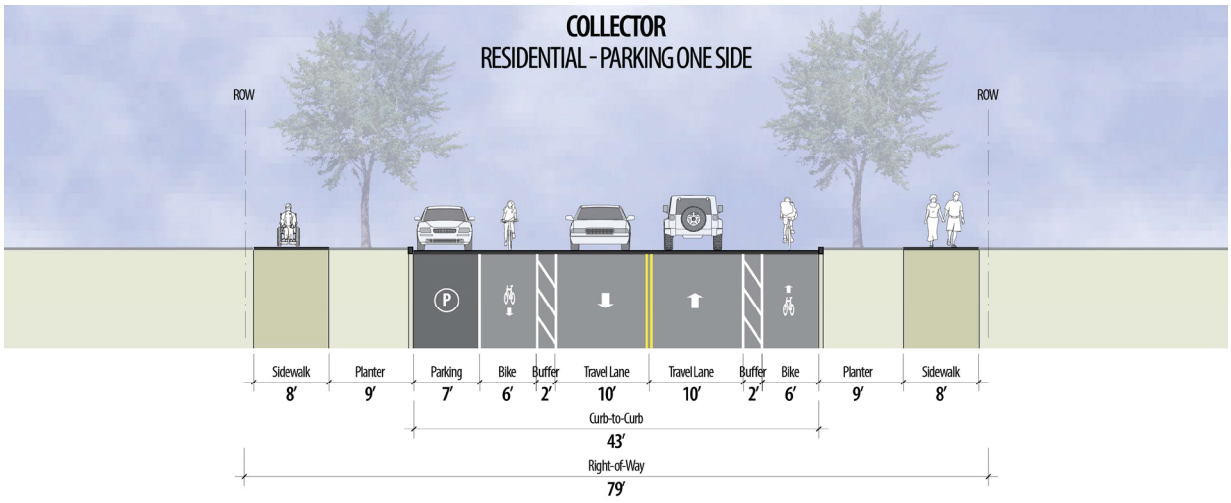
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(6) Residential Collector No Parking Street Section



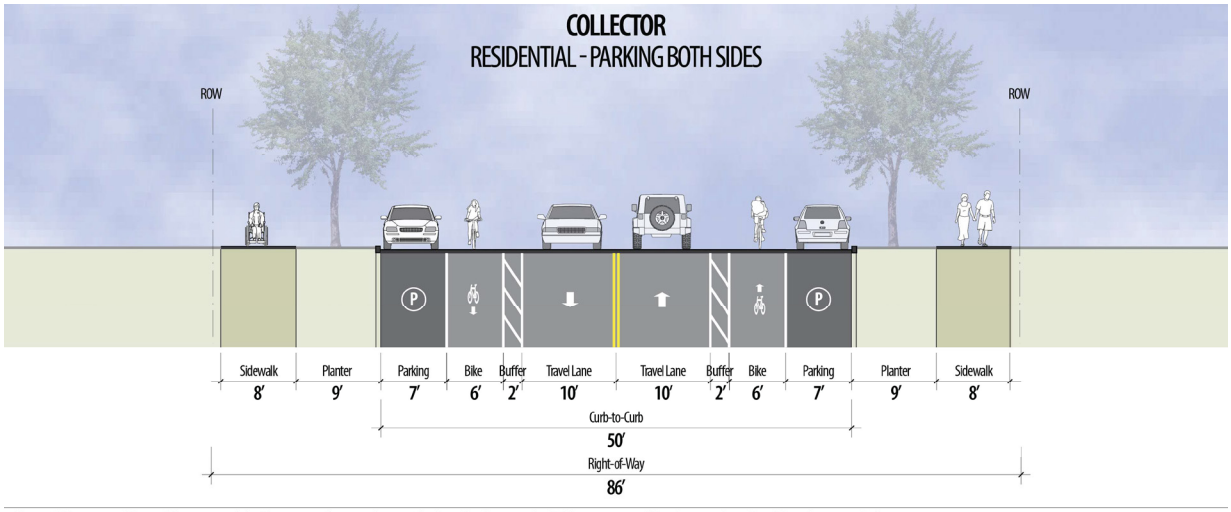
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(7) Residential Collector Parking One Side Street Section



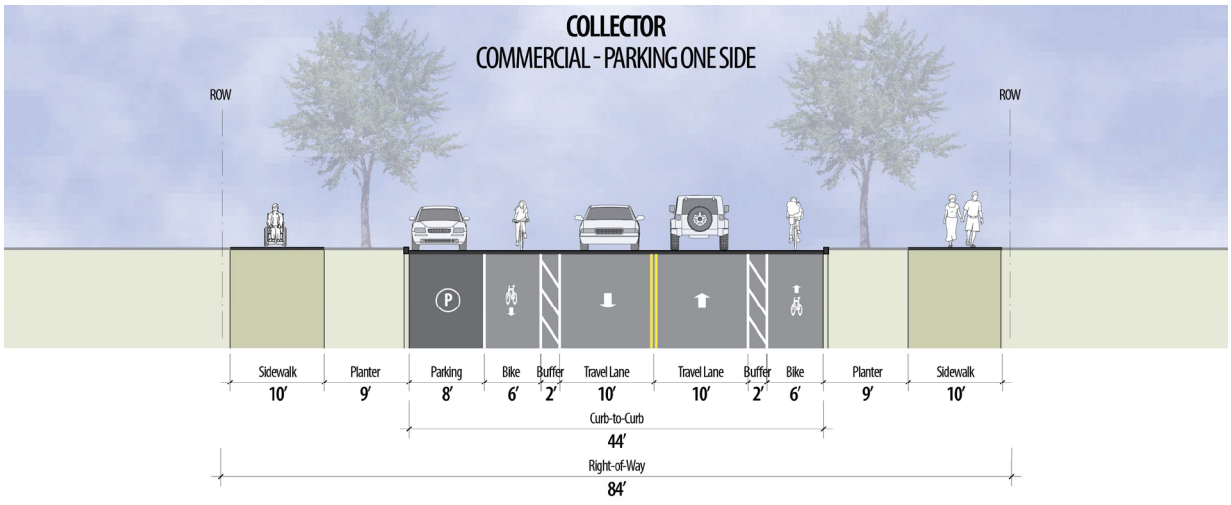
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(8) Residential Collector Parking Both Sides Street Section



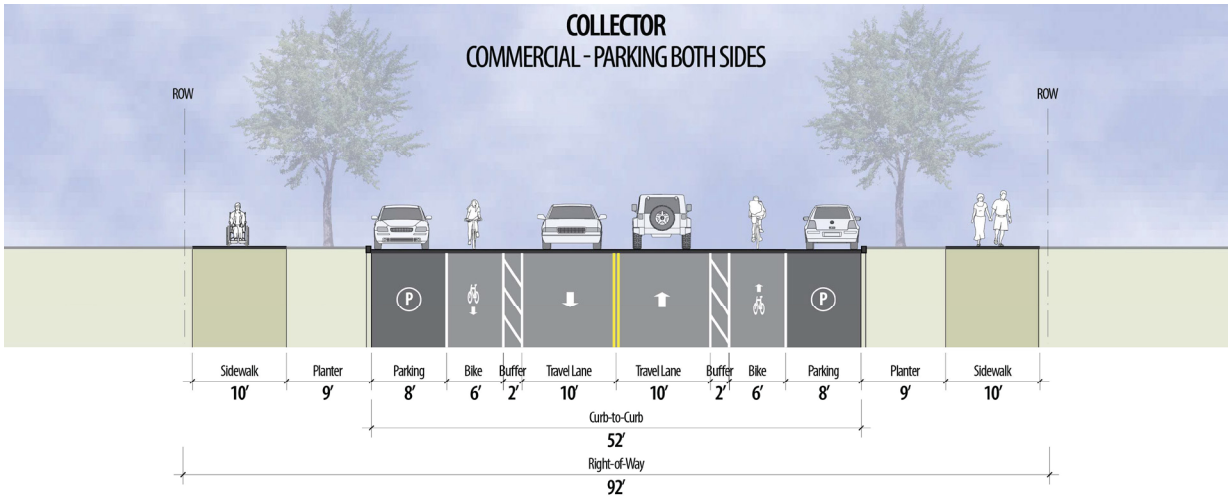
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(9) Commercial Collector Parking One Side Street Section



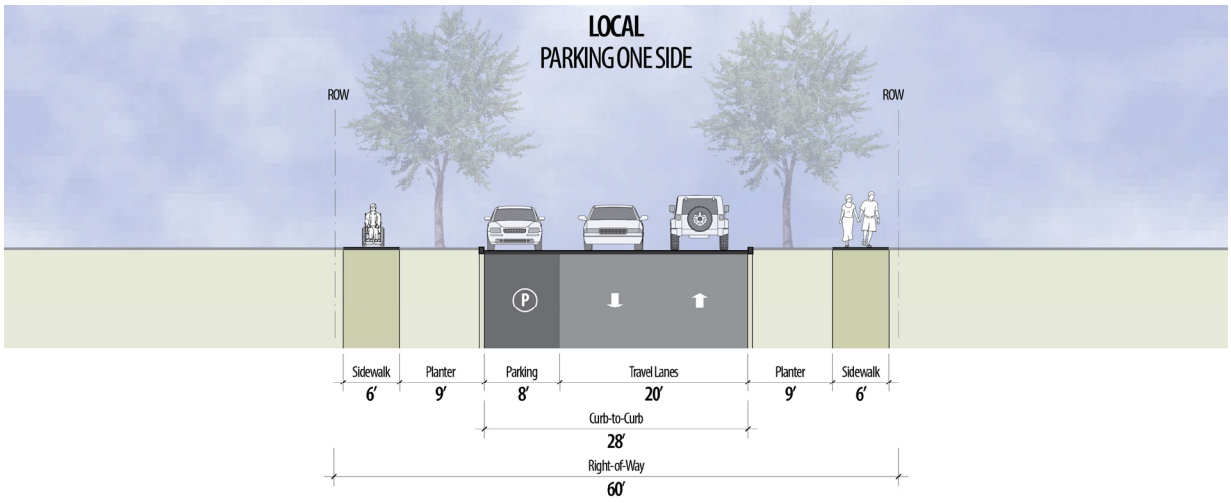
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(10) Commercial Collector Parking Both Sides Street Section



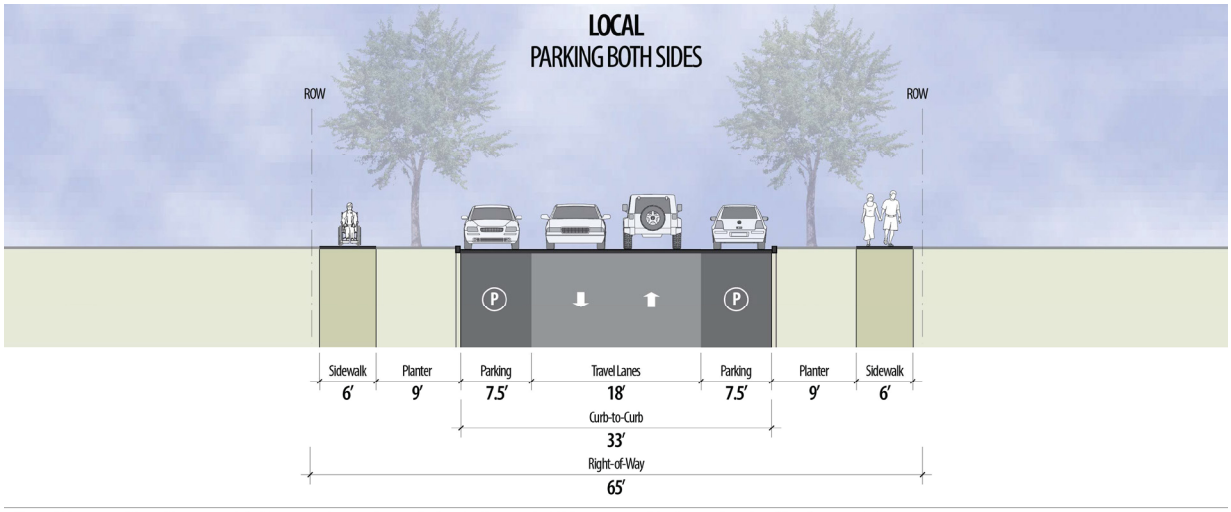
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(11) Local Street Parking One Side Street Section



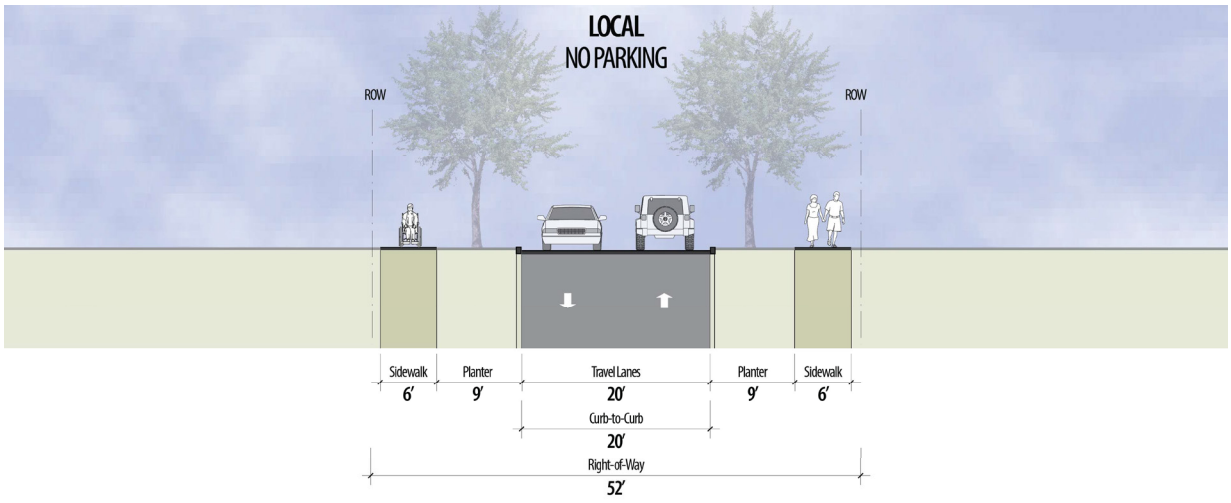
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(12) Local Street Parking Both Sides Street Section



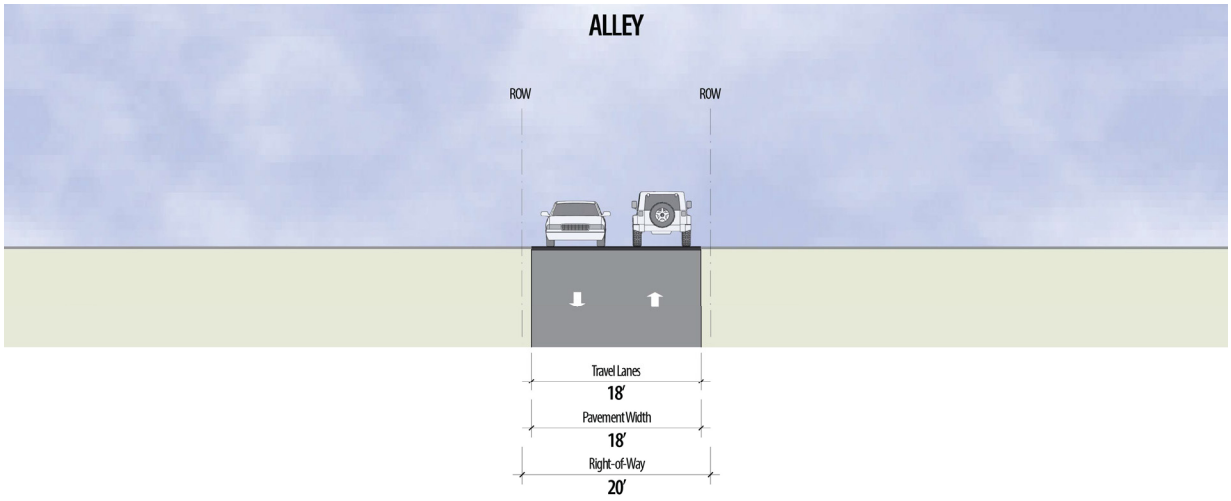
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(13) Local Street No Parking Street Section



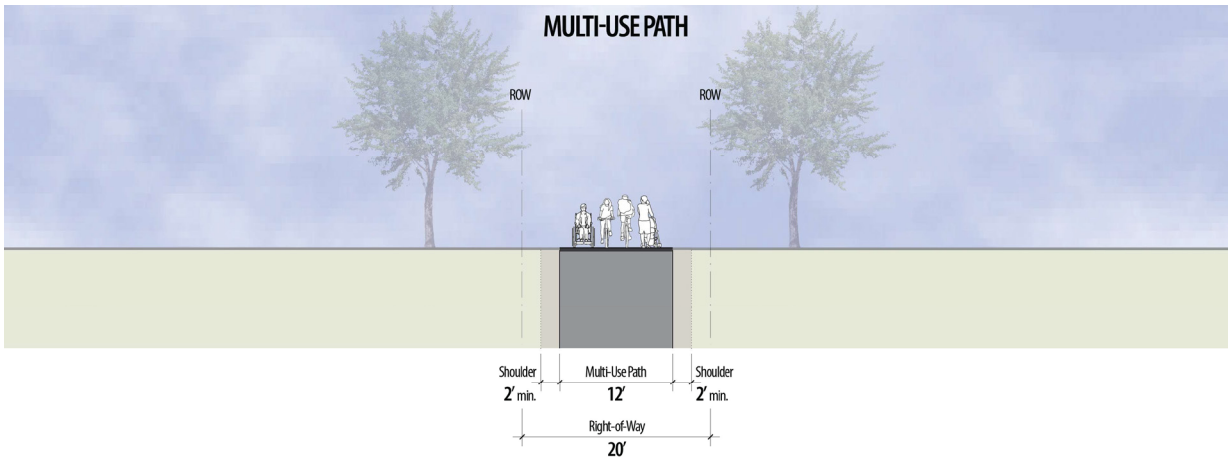
Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(14) Alley Street Section



Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Figure 14.34.100.F(15) Multi-Use Path Section



Note: A Variance or Master Plan approval shall be required to vary the standards in this figure and in Table 14.34.100 of the Cottage Grove Land Development Code.

Attachment A – OAR 660-012 Transportation Planning Rule (TPR) Evaluation

TPR REQUIREMENT	ASSESSMENT AND RECOMMENDATION
OAR 660-012-0045	
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:	
	Summary: This TPR requirement is intended to ensure jurisdictions have the authority to apply transportation-related conditions of approval for land use decisions. The purpose of transportation-related conditions of approval is to provide discretion to decision makers to protect transportation facilities from potential impacts of certain land uses.
(e) A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;	**Existing Conditions/Discussion.** LDC 14.44.400.C.6 allows conditions of approval for street right-of-way dedication and street, sidewalk, curb, pathway, and trail improvements. **Recommendation:** Existing code provisions meet the TPR requirement. However, consider specifying that multi modal-related improvements are potential conditions of approval, including improvements for transit facilities and other types of pedestrian and bicycle facilities.
(3) Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. The purposes of this section are to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely if connections are provided, and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.	
(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;	**Summary:** New development is required to provide bicycle parking for the use categories listed in this subsection. **Existing Conditions/Discussion:** LDC 14.33.400 includes bicycle parking requirements for residential, commercial, industrial, transit station, park and ride, and institutional development, as well as special standards for the Central Business District. **Recommendation:** Existing code provisions meet the TPR requirement.
(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to	**Summary:** This TPR requirement helps ensure new development includes bicycle and pedestrian access. The TPR also requires sidewalks and bikeways to be included with most types of street functional classifications.

TPR REQUIREMENT	ASSESSMENT AND RECOMMENDATION
adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways. *(A) "Neighborhood activity centers" includes, but is not limited to, existing or planned schools, parks, shopping areas, transit stops or employment centers;* *(B) Bikeways shall be required along arterials and major collectors. Sidewalks shall be required along arterials, collectors and most local streets in urban areas, except that sidewalks are not required along controlled access roadways, such as freeways;* *(C) Cul-de-sacs and other dead-end streets may be used as part of a development plan, consistent with the purposes set forth in this section;* *(D) Local governments shall establish their own standards or criteria for providing streets and accessways consistent with the purposes of this section. Such measures may include but are not limited to: standards for spacing of streets or accessways; and standards for excessive out-of-direction travel;* *(E) Streets and accessways need not be required where one or more of the following conditions exist:* *(i) Physical or topographic conditions make a street or accessway connection impracticable. Such conditions include but are not limited to freeways, railroads, steep slopes, wetlands or other bodies of water where a connection could not reasonably be provided;* *(ii) Buildings or other existing development on adjacent lands physically preclude a connection now or in the future considering the potential for redevelopment; or* *(iii) Where streets or accessways would violate provisions of leases, easements, covenants, restrictions or other agreements existing as of May 1, 1995, which preclude a required street or accessway connection.*	**Existing Conditions/Discussion:** LDC 14.31.300 includes pedestrian access and circulation requirements for all development except for single-family and two-family detached housing. LDC 14.34.100.G includes pedestrian accessway and circulation requirements for subdivisions. LDC Table 14.34.100.F includes street cross section standards that include sidewalk and bike lane requirements. This section of the LDC also includes standards for pathway widths. LDC 14.34.100.N includes provisions to allow cul-de-sacs in limited circumstances and requires bicycle and pedestrian access, where possible. **Recommendation:** To the extent that the Pedestrian and Bicycle Plan recommends updated street cross section standards, this section of the code should be updated.
(c) Where off-site road improvements are otherwise required as a condition of development approval,	See response to Section -0045(2)(e).

TPR REQUIREMENT	ASSESSMENT AND RECOMMENDATION
they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors; *[Note: Subsection (d) defines safe and convenient]*	
(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.	**Summary:** This subsection clarifies that pedestrian circulation should be provided via accessways, walkways, or other pedestrian facilities, and that site design should support pedestrian access/circulation. **Existing Conditions/Discussion:** LDC 14.31.300 includes pedestrian access and circulation requirements for all development except for single-family and two-family detached housing. **Recommendation:** Existing code provisions meet the TPR requirement.
(4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where a determination has been made that a public transit system is feasible, local governments shall adopt land use and subdivision regulations as provided in subsections (a)–(g) below:	
(b) New retail, office, and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in paragraphs (A) and (B) below. *(A) Accessible walkways shall be provided connecting building entrances and streets adjoining the site;* *(B) Accessible pedestrian facilities connecting to adjoining properties shall be provided except where such a connection is impracticable as provided for in paragraph (3)(b)(E). Pedestrian facilities shall connect the on-site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;* *(C) In addition to paragraphs (A) and (B) above, on sites at major transit stops provide the following:* *(i) Either locate buildings within 20 feet of the transit stop, a transit street or an intersecting street or provide a pedestrian plaza at the transit stop or a street intersection;* *(ii) An accessible and reasonably direct pedestrian facility between the transit stop and building entrances on the site;*	**Summary:** This subsection requires pedestrian connectivity to major transit stops. OAR 660-012-0005 defines "major transit stop" as "(e)xisting or planned transit stations" that "Have or are planned for an above average frequency of schedule, fixed-route service when compared to region wide service." The rules define "at or near major transit" as follows: *"At or near a major transit stop": "At" means a parcel or ownership that is adjacent to or includes a major transit stop generally including portions of such parcels or ownerships that are within 200 feet of a transit stop. "Near" generally means a parcel or ownership that is within 300 feet of a major transit stop. The term "generally" is intended to allow local governments through their plans and ordinances to adopt more specific definitions of these terms considering local needs and circumstances consistent with the overall objective and requirement to provide convenient pedestrian access to transit.* **Existing Conditions/Discussion:** The LDC does not have any specific bicycle or pedestrian access and connectivity requirements for transit facilities. **Recommendation:** Amend LDC 14.31.300 – Pedestrian Access and Circulation – to include pedestrian and bicycle access/connectivity requirements for transit facilities, consistent with this OAR.

TPR REQUIREMENT	ASSESSMENT AND RECOMMENDATION
(iii) A transit passenger landing pad accessible to people with disabilities; *(iv) An easement or dedication for a passenger shelter if requested by the transit provider; and* *(v) Lighting at the transit stop.*	
(c) Local governments may implement paragraphs (b)(A) and (B) through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of paragraph (b)(C);	**Summary:** This subsection allows jurisdictions to implement pedestrian connectivity and safety requirements to transit stops by establishing pedestrian districts. **Existing Conditions/Discussion:** See response to -0045(4)(b) above. **Recommendation:** No recommendation.
(f) Road systems for new development shall be provided that can be adequately served by transit, including provision of pedestrian access to existing and identified future transit routes. This shall include, where appropriate, separate accessways to minimize travel distances;	**Summary:** This subsection requires jurisdictions to set street design standards that are capable of accommodating transit vehicles and facilities, while also providing opportunities for pedestrian connectivity and access to existing and planned transit services and facilities. **Existing Conditions/Discussion:** The LDC does not have any specific street/ROW standards intended for transit design/access. **Recommendation:** To the extent that the Pedestrian and Bicycle Plan includes updated street cross section standards that account for transit service, the LDC right-of-way and street section standards should be amended for consistency with the Plan and include provisions to ensure pedestrian access to existing and identified transit routes.
(5) In developing a bicycle and pedestrian circulation plan as required by OAR 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.	**Summary:** This TPR requirement is intended to help cities meet bicycle and pedestrian travel needs by requiring appropriate facility improvements. **Existing Conditions/Discussion:** LDC 14.34.100.F authorizes the City to allow wider street/ROW widths to accommodate sidewalk and bikeway requirements based on anticipated level of use. **Recommendation:** No recommendation.