Sunrise Corridor Community Visioning

Draft Scenario and Strategies Development Technical Memorandum

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Project: Sunrise Corridor Community Visioning

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Client: Clackamas County

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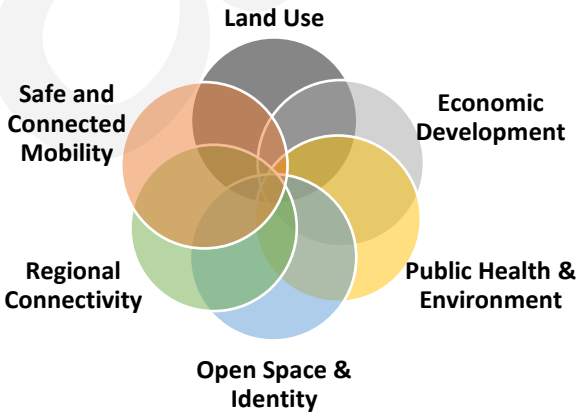
Introduction

The intent of this report is to present draft strategies that comprise the Sunrise Corridor Community Visioning Draft Scenario. The information about the strategies will be presented to project stakeholders and the public to solicit information about investment priorities and ways to advance the Sunrise Corridor Community goals and objectives.

The Scenario Development approach is based on several principles to ensure scenario strategies are sensitive to the Sunrise Corridor Community. These principles are described below.

Improve the existing community and development patterns through targeted improvements. Targeted, or "surgical", changes to underlying development regulations, policies and projects provide ways to implement changes over time without disrupting positive uses that people bring to their communities today.

Address a broad range of needs through comprehensive and multidisciplinary strategies. People and their families rely on communities that meet their needs across a spectrum of activities. The project goals provide the overarching direction for the Vision and strategies. Each of the goals – and the subsequent grouping of strategies into categories in this report –intersect and complement each other. This overlap reflects resilience in growth, as investments create a network of co-benefits.



Maintain underlying land use and zoning. The scenario respects the important role the study area serves as a designated Regionally Significant Industrial Area and Employment area in Metro's Growth Concept. The strategies aim to achieve community goals through changes in targeted areas to keep the focus on jobs and economic development and provide mixed uses or changes in density where it fits the regional context.

Build on the underlying transportation network. The Vision is one part of a robust planning environment for Clackamas County and the Region. The scenario strategies aim to improve the existing transportation network, and integrate with planned transportation projects and programs. One planned investment for this area is the Sunrise Expressway (OR-212) through the study area. The scenario strategies include the Gateway Concept, which offers a more context-sensitive design that still meets the purpose and need of the original project, while improving roadway safety, and reducing environmental and community impacts.

Sunrise Corridor Community Visioning

STRATEGIES	
LAND USE	**LOCAL MOBILITY**
Employ anti-displacement policies for residential uses and businesses	Safe and interconnected pedestrian network
Encourage contiguous land development patterns	Safe and interconnected bicycle network
Adopt compatibility regulations between uses	Freight access and parking
Enhance neighborhood character	Develop mobility hubs
Adopt smart growth parking policies	Increase transit service
REGIONAL CONNECTIVITY	Expand Clackamas County Connects Industrial Shuttle
Sunrise Phase 2 (Gateway Concept)	**OPEN SPACE AND COMMUNITY IDENTITY**
Safety improvements	Multi-Modal connections to natural spaces
Walking and biking connections	Enhance river access points
Transit enhancements	Multi-use and nature trails
TDM strategies	Enhance and develop parks

Sunrise Corridor Community Visioning

STRATEGIES	
PUBLIC HEALTH AND ENVIRONMENT	**ECONOMIC DEVELOPMENT**
Green and open spaces	**Explore code and zoning amendments to reach goals around mixed use, economic development, and access**
Reduce heat island effect	**Ensure that development and design standards are aligned with modern industrial facilities**
Environmental quality monitoring	**Attract, retain, and cultivate firms in key sectors**
Incentivize clean building and paving technologies	**Partnerships between industry and higher education to bolster the STEM workforce pipeline**
Transportation options	

Land Use

The Sunrise Corridor study area includes diverse land uses under Clackamas County and City of Happy Valley zoning boundaries. Land uses are primarily in industrial, commercial, and residential land use categories, as defined by data from Clackamas County, Metro, and City of Happy Valley. Industrial land uses make up over 40% of all land uses in the study area, while single family residential accounts for over 17%, with most being manufactured mobile homes. The residential land uses are generally surrounded by the industrial land uses. The main objectives shared across jurisdictions is to guide future growth and strive to ensure compatibility among existing and future land uses, with a goal of creating a more balanced community.

Future development in the Sunrise Corridor is guided by a diverse set of strategies that are intended to encourage and facilitate appropriate development. These strategies are specific to addressing identified issues and should be considered for geographically defined areas within the study area rather than be applied corridor wide.

The following section outlines key issues related to land use and zoning and describes the strategies and actions to help mitigate the issues and help guide growth that meets the goals of the area.

Key Issues

Intensity of light industrial uses. Existing land uses in the project area are mostly light industrial, comprising of over 40% of the total land, or 2,500 acres.

Underused land. There are opportunities for growth. Approximately 40% of the Rock Creek Employment Center's 465 acres are still undeveloped or underutilized to date. Other vacant properties within the study area or lots offer new areas for growth.

Displacement risk and lack of housing options. Housing, both single family and multi-family, comprise nearly 19% of the land uses within the study area (mostly manufactured housing). Risk of displacement for residential parcels due to surrounding industrial and commercial nature of the area.

Conflicting land uses and isolation. On one hand, residential (mobile home parks) are integrated within the industrial area and not buffered. On the other, retail, and commercial services area isolated to the west and not integrated within the Sunrise Corridor as amenities.

Lack of neighborhood character. Due to the prominent industrial land use, vehicle-centric transportation network, and disconnect from open spaces, there is minimal sense of identity and barriers to the connection with community.

Incompatibility of mutually supporting land uses. Private and public schools, parks, and the Clackamas River are all within or adjacent to the project area. There are few existing compatible community resources such as grocery stores, restaurants, retail stores, and lodging facilities in the study area.

Strategies

Land use strategies to create more balanced community development patterns comprise a variety of measures that include addressing anti-displacement for housing and businesses, stabilizing and growing residential neighborhoods, and stabilizing and growing industrial and commercial areas, in addition to revising development regulations to address compatibility, character and parking treatments. Prior to these strategies being deployed, geographic assessment for each strategy should be prepared to focus strategies and actions in defined locations that meet the project objectives and goals.

The following is a list of recommended land use strategies that are based on existing conditions, public feedback, and project goals.

The following strategies are described in this section.

STRATEGIES	
	LAND USE
	**Employ anti-displacement policies for residential uses and businesses**
	**Encourage contiguous land development patterns**
	**Maintain compatibility between uses**
	**Enhance Neighborhood Character**
	**Continue safe and accessible parking design**

Employ Anti-Displacement Policies

Residential Anti-Displacement Policies

The second largest land use is single family residential, which accounts for 17% of the land. It is mostly low density residential. Two pockets of medium density residential exist in the study area, specifically in the form of manufactured and mobile home developments. These are situated in the middle of industrial and commercial activity with no buffer zones. In addition, there is one high density residential development that includes a large apartment complex located on the western side of the study area.

Lower income households are experiencing the highest housing cost burden. In the study area, single unit houses and mobile homes are increasingly at risk given their proximity to commercial and industrial areas that continue to grow and with major community/regional infrastructure projects investments happening in the community.

Vision Objectives

- ✓ Use anti-displacement strategies to protect existing residents and the available workforce.
- ✓ Enable a diverse range of housing options, including those already present.

To preserve the affordable housing that already exists and protect the current residents from displacement where neighborhoods are changing rapidly, anti-displacement policies must be put in place.

Figure 1: Mobile home park in study area. Source: Jacobs

Actions:

- **Create an Affordable Housing Database** – create and maintain an in-depth database to track affordable rental properties and mobile home parks at risk of redevelopment as well as operating a network that focuses on the preservation of these properties.
- **Establish Community Land Trusts (CLTs)** - CLTs provide opportunities for current and future generations of low-income residents to own homes in a gentrifying neighborhood, while giving communities long-term control over the land.

- **Put in place Mobile Home Park Zoning or Other Protections** - Added protections for mobile homeowners - dispute resolution and enforcement program - powers of division of housing. May include certain ordinances for mobile home parks; extending the time between the notice of nonpayment of rent and the termination of any tenancy; and/or extending the time a mobile homeowner must vacate a mobile home park after a court enters an eviction.
- **Develop incentives to encourage affordable housing.** Incentives should benefit the workforce as part of large developments - Community Benefits Agreements executed between community-based organizations and one or more developers. These are intended to outline the developer's commitment to provide public benefits to the community (such as affordable housing units, participating in funding of education programs on health, etc.) to offset potential impacts associated with the proposed development.

Business Anti-Displacement Polices

The Sunrise Corridor is facing impacts to businesses due to circulation issues, workforce opportunities, and industry challenges. To preserve jobs and support the growing/changing businesses and community, the study area must put in place certain protections against gentrification and preventing business displacement.

Small businesses contribute to the fabric and economic vibrancy of the study area. However, as costs rise and it becomes more expensive to live in a community due to infrastructure investment and redevelopment, lower income and small businesses are often displaced. There are a variety of tools for resisting commercial gentrification and preventing small business displacement.

Vision Objectives

- ✓ Use anti-displacement strategies to protect small and existing businesses.
- ✓ Create a financially sustainable community where public investment has direct benefits to job opportunities.

Actions:

- **Neighborhood serving zones or neighborhood retail (NR) zones**– these aim to sustain small, local businesses by limiting the type of stores in certain districts/areas. These zones may be applied to small clusters of commercial activity in residential districts, such as commercial buildings. Neighborhood serving laws require new retail stores to demonstrate that a majority of their sales come from the surrounding neighborhood. These zones can work as anti-displacement tools by preserving existing community-oriented small businesses and helping keep capital circulating locally. Neighborhood-serving zones tend to promote pedestrian-friendly and neighborhood-scale commercial areas.
- **Formula business ordinance** - Formula business ordinances discourage chain stores or heavily restrict them. They help preserve neighborhood character, support the local economy, and recirculate wealth within communities by promoting and protecting smaller businesses. They can prevent environmental impacts typically associated with larger businesses, such as traffic congestion and air pollution. https://antidisplacement.org/tool/formula-business-ordinance/
- **Streamlined permitting** - Streamlined permitting and licensing processes can help facilitate new small business startups, keep costs down for businesses, and facilitate reinvestment that benefits existing businesses. A comprehensive review of all steps in a municipality's development approval process help create a clearer, simpler process to help small businesses. https://antidisplacement.org/tool/streamlined-permitting/

- **Affordable workspace policy -** Affordable workspace policies provide certain types of businesses space in new developments at below-market rents. Affordable workspace can be provided by developers through leasing and management by an affordable workspace provider approved by the local government.

Encourage Contiguous Land Use Development Patterns

Currently, the study area is faced with significant growth pressures. While population continues to grow and the area becomes more diversified with services uses, the supply of residential is becoming insufficient both in type and affordability. In addition, much of the workforce commutes over longer distances in the region. Some residential uses are located between commercial or industrial sites and do not offer a variety of choices. This condition creates a patchwork of land use patterns creating health, safety, compatibility, and livability challenges for these different types of uses.

Vision Objectives

- ✓ Enable a diverse range of housing options, including those already present
- ✓ Encourage a full spectrum of employment to help people live and work in the same area, reducing time spend commuting

Residential

Action:

- **Assess zoning map changes that expand the mix of residential land use types -** This action promotes a future where residential neighborhood patterns are contiguous and include more diverse housing choices that are available for sale and rental. This would include a broader range of housing types and sizes in a variety of locations. Achieving more contiguous residential neighborhoods may require changing some non-residential zones that currently limit contiguous neighborhood development patterns. More contiguous and mixed development patterns can create more community identity for people who live there and can create safer communities based on mobility choices and neighborhood design principles. These areas would also include residential support services, including open space, retail, education and access to food, and could improve outcomes for goals 3, 4, 5 and 6, representing identity, complete communities, health and partnerships.

Commercial/Industrial

Action:

- **Assess zoning map changes that expands the mix of industrial and commercial use types -** This action promotes a future where the diversity of types, sizes and classes of industrial and commercial land uses are expanded to promote new economic development, workforce and employment choices for people. Creating a more diverse range of options can promote more industries being co-located and support more synergies between manufacturing, administration and logistics, as well as promote live-work development types. This can be achieved through property redevelopment, parcel assemblage, expansion of existing non-residential land uses, and potentially conversion of existing residential land uses. Achieving more diverse commercial and industrial centers could more strongly align with goals 2 and 6, representing economic growth and partnerships.

Maintain Compatibility Between Uses

Land uses within the Sunrise Corridor such as industrial, residential, and commercial neighbor each other without any buffers or transition areas. The noise, pollution, and heavy truck use create a conflicting environment for the residents surrounded by industrial uses. However, with the growth that is occurring in the Sunrise Corridor, there is an opportunity to think more creatively about how to integrate homes and the industrial/commercial workspaces to support local growth in a sustainable way.

Vision Objectives

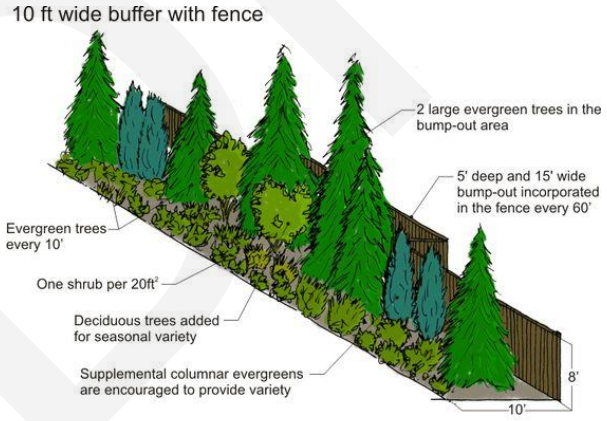
- ✓ Reduce exposure to air, water, noise, light, and other pollution.
- ✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space, and programming.

Implement Buffer Zones

Buffer zones are areas of land separating two or more properties or land uses, providing an area between them. For residential adjacent to industrial uses, providing buffer zones can help minimize disturbances such as potential noise and pollution issues for residents while maintaining the economic advantages of keeping the industrial uses in the area. Creating a neutral space between the two different uses, buffer zones can promote harmony and mitigate conflict between landowners. There are several types of buffer zones.

Actions:

- ***Natural buffer zones:*** These zones consist of trees, grass, and other vegetation that provide a physical and visual barrier between properties. They also help in reducing noise, air, and light pollution, promoting a healthier living environment.
- ***Landscaping buffer zones****:* Designated areas where ornamental plants, hedges, fences, or walls are used to create an attractive barrier between properties. These zones are often required by local zoning ordinances to maintain a pleasing aesthetic in a neighborhood.



Example of landscape buffer zone with plants and fence (Source: codepublishing.com)

- ***Open Space buffer zones**:* These are areas preserved for recreational, environmental, or agricultural purposes, providing a separation between conflicting land uses. Open space buffer zones may include parks, playgrounds, or greenways that encourage community interaction while also serving as a boundary.

Mix Residential with Light Industrial

Co-locating light industrial spaces with housing can be a good way to provide more homes, create and project jobs and retain industrial activity in the Sunrise Corridor. As more homes are needed in the Sunrise Corridor, providing homes and jobs where people can live and work alongside each other can be created through a mix of uses within a building, individual sites, and neighborhoods. An industrial mixed-use zone could provide flexible incubator space for a variety of small businesses and support residential development within certain areas characterized by industrial uses so that industrial displacement is avoided, new mixed use housing opportunities are created, and future land use conflicts are minimized.

With cleaner and greener technology, many industries can support the colocation of homes and industrial related workspaces. These industries include distribution warehousing and wholesaling. The Sunrise Corridor has diverse industrial concentration of manufacturing, wholesaling, and warehousing where this could be supported. In the study area, much of the workforce commutes from longer distances in the region due to lack of housing near jobs. In addition, one of the key themes that emerged out of the extensive community outreach is the need for improvement of multi-modal options and the increase of access to transit. Mixed use zoning can also provide a more compact type of development and therefore support more alternatives for people to get to destinations.

Actions:

Update regulations to allow developers to convert small light industrial buildings into homes. This could remove barriers to making better use of underused land and provide avenues to increasing housing opportunities.

Create an industrial mixed-use zone overlay to integrate residential with compatible light industrial. Mixed use zoning permits a complimentary mix of residential/commercial/ industrial uses in a single district categorized as one of three types including vertical mixed-use, horizontal mixed-use, and mixed-use walkable.

- Vertical mixed-use allows for a combination of different uses in the same building and most frequently the non-residential uses occupy the bottom portion of the building, with the residential on top.
- Horizontal mixed-use allows distinct uses on separate parcels to be combined in a particular area or district. This helps avoid the complexities of combining uses that may have different safety or regulatory requirements in a single building.

Enhance Neighborhood Character

Neighborhood character is defined as the overall collection of elements that give a neighborhood its distinct identity. These elements include land use, landscaping, open space, urban design, noise, transportation, architectural elements, and size and scale of development and infrastructure.

The study area is characterized by prominent industrial land use, large parcels, a vehicle-centric transportation network, vehicle-scale public infrastructure, minimal landscaping and street trees, and a lack of connection to open spaces, creating barriers to community connections. These issues inhibit a sense of community cohesion and use of public space.

Vision Objectives

- ✓ Identifies and develops elements such as landscaping and public art that support local identity and community development
- ✓ Identifies and enhances environmental features and landmarks that promote community identity and create positive connections
- ✓ Protects and expands spaces for gathering, socializing, and sharing cultural and artistic expression

Actions:

Plant Street Trees: The study area is characterized by insufficient tree cover and excessive heat. Street tree programs work with businesses, jurisdictions, and residents to facilitate placement, planting, and maintenance of street trees in strategic locations.

Develop landscaping: Landscaping can help improve the buffer between land use types, within large scale parcels and parking lots, and create open space pockets. Landscaping programs can also dampen noise, reduce heat, and create a more pedestrian-scaled environment.

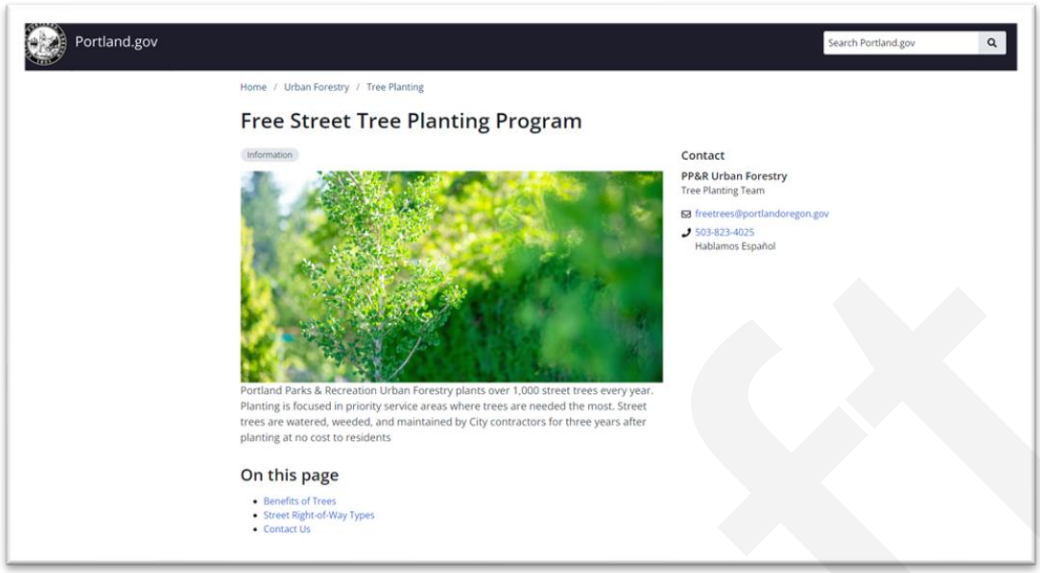


Figure 2: Example of Street Planting Program (source: City of Portland Street Tree Planting Program)

Include amenities: Amenities within the public realm can include local event and community banners, streetside flowerpots, public art, and neighborhood string lighting.

Establish pedestrian-scaled infrastructure: In an industrial and auto-centric corridor, small sidewalks, wide roadways, limited tree cover, and large lampposts can inhibit a sense of pedestrian safety and belonging. Incorporating pedestrian-scaled infrastructure creates spaces that facilitate pedestrian

Architectural controls within the private realm: Establishing design standards, façade treatments, and other architectural controls enables communities to harmoniously integrate diverse land uses, including industrial and neighborhood.

Figure 3: Example of street landscaping; City of Portland Green Streets (Source: City of Portland)

Continue safe and accessible parking design

As the Sunrise Corridor grows, the way it develops and redevelops has a major impact on the quality of the environment. Areas that develop with more compact neighborhoods that are walkable and are mixed use and can support a variety of transportation choices, and do not place priority on vehicular travel, protect the environment. Parking policies and requirements can impact a communities built and environment. Supporting more balanced parking needs, with the growth and goals of the area can improve the communities of the Sunrise Corridor.

Currently, automobile parking space requirements apply to all land use categories for both Clackamas County and the City of Happy Valley – Section 1015 of the County's Development Code and Title 16 of the City's Development Code. Both jurisdictions require minimum parking standards but allow for reductions in minimum based on certain criteria.

Minimum parking requirements means bigger parking lots and more buildings isolated from roads and sidewalks, separated by vast areas of asphalt. More parking spaces fill the land with empty, useless space that could otherwise be used for many other productive uses. Parking lots also create greater distances between businesses and homes, making it take longer to get to and from them. Moreover, they are neither attractive nor enjoyable places to spend time in.

Vision Objectives

- ✓ Design neighborhoods where it is easy for people to walk and use other forms of transportation to get places.
- ✓ Improve the environment such as water quality by reducing pollution caused by runoff from surface of parking lots.

Adopting a smarter parking management system and reducing parking can benefit and add value to the Sunrise Corridor area by making the community more walkable, improving the quality of the environment, reducing the heat island effect, improving local water quality, and reducing the costs associated with development projects among other benefits.

Actions:

- **Improve parking facility design and operation** - this refers to the physical layout and day-to-day management. Improved design and operation can better integrate parking facilities into the neighborhoods by offering more pedestrian amenities such as convenient pedestrian paths and crosswalks connected to the larger pedestrian network.
- **Apply smart growth parking policies** – provide optimal parking supply (not too little, not too much), priced parking, shared parking facilities, incorporating walking and cycling improvements to encourage transit use, and enable to substitute some automobile trips.
    - **Encourage shared parking** – a parking facility can serve multiple users or destinations. This is mostly successful if destinations have different peak periods or is they share patrons so motorists park at one parking facility and can walk to multiple destinations. Parking facilities can be shared in several ways.

Explore parking maximums – Parking maximums place an upper limit on parking supply either at individual site or in an area. Area-wide limits are called 'parking caps'. These can be in addition to or instead of minimum parking requirements. Establishing parking maximums can prevent developers from building excessively large lots and instead utilize land more efficiently and sustainably. For example: Portland enacted a parking maximum ordinance by creating multiple formulas for different land use categories. Each use category is set out in a table accompanied by a ratio used to determine the parking minimum as well as the parking maximum.

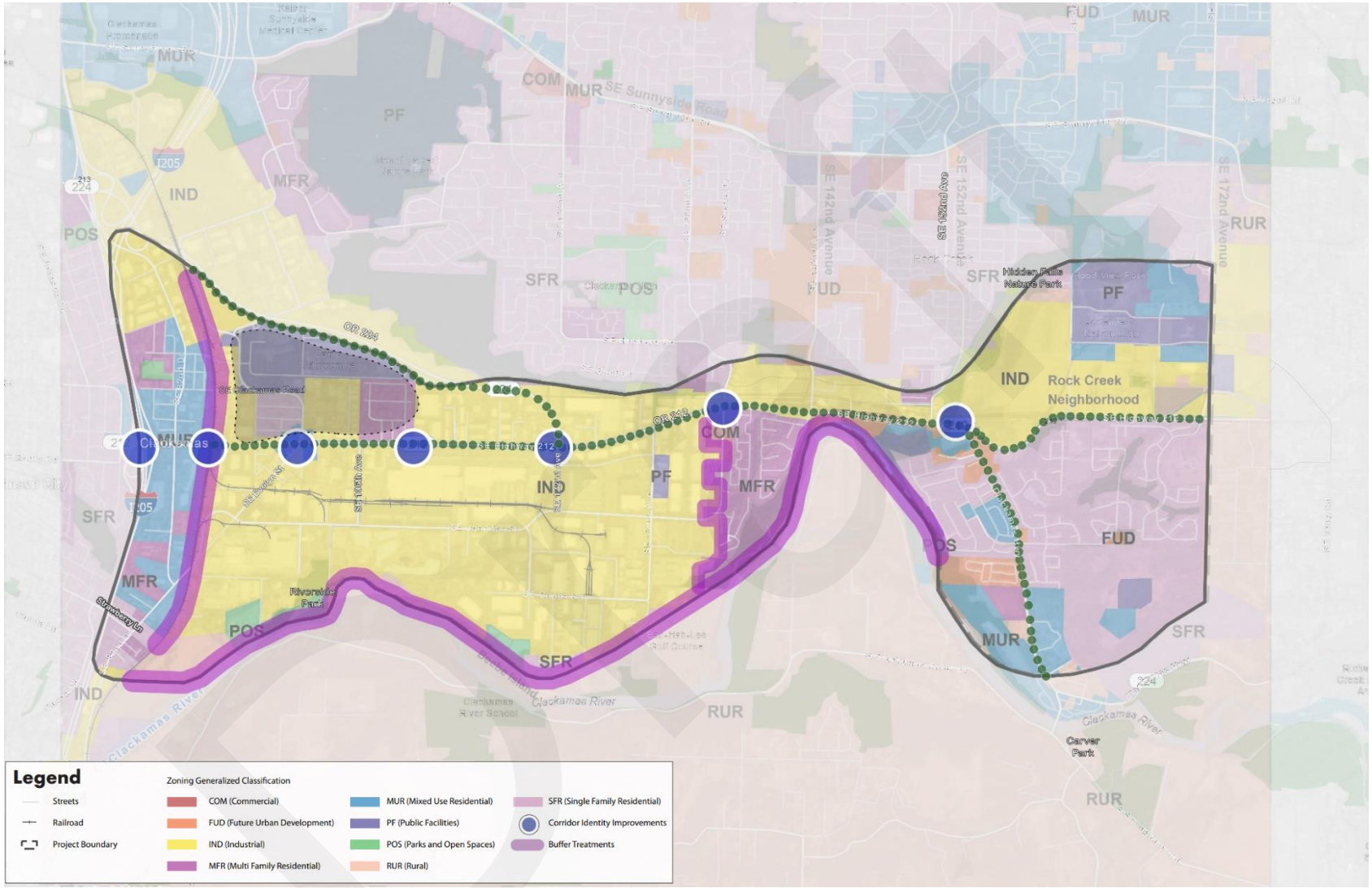


Figure 4: Land Use Strategies

Regional Connectivity

The Sunrise (Highway 212 and Highway 224) is a vital route between the Portland Metro area and Central to Eastern Oregon. The roadway is over capacity today and faces many safety and access issues for many of its users – people walking, biking, taking transit, and driving. Freight drivers, the Clackamas Industrial Area, the Rock Creek Employment Center, and people traveling to the beautiful Clackamas River and Mt. Hood National Forest all rely on a corridor unequipped to handle future growth.

Key issues

Network insufficient for regional mobility needs. Existing key signalized intersections are failing, and more are anticipated to fail as travel in the area grows. This issue is especially impactful to freight traveling into or through the Clackamas Industrial Area and seeking access to other regional facilities.

Safety issues are prevalent along the corridor. Several segments of Highway 212 and Highway 224 are on ODOT's Safety Priority Index System (SPIS) lists due to high amounts of crashes, in particular severe injury or fatal crashes. The 5-year review of crash data also indicated crashes involved people walking and biking in the study area.

Limited walking and biking travel options. The existing regional trail and on-street facility network has large gaps that make walking and biking a more difficult, inconvenient, and uncomfortable travel option.

Transit stops lack amenities and planned routes will need new facilities. Few existing stops have shelters, benches, trash cans, and other amenities beyond signage. Further, future planned services will result in a need for more waiting space and comfortable.

The existing and future condition needs identified above are summarize in Figure 6 below.

Figure 5: Clackamas Highway (source: Jacobs)

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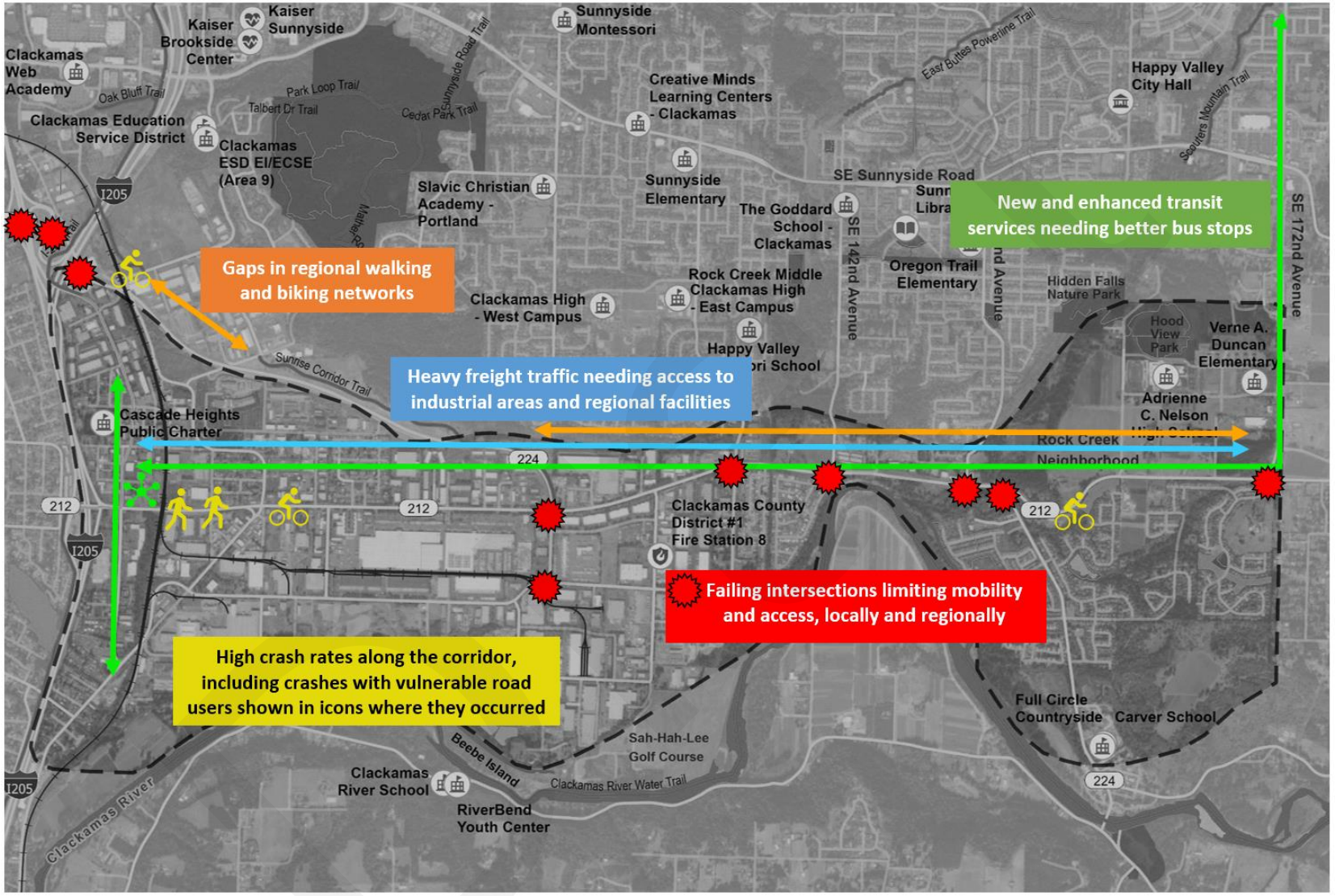


Figure 6: Sunrise Existing and Future Transportation Mobility and Safety Needs

Strategies

Strategies to improve regional connectivity include enhanced freight and commuter mobility and access facilities, walking and biking connections, safety improvements, and transit enhancements. These strategies provide connectivity for all modes that support a variety travel options for getting around, and directly support Project Goals 1, 2, and 5.

The following is a list of recommended strategies and actions that are based on past plans, existing and future conditions, public feedback, and project goals.

The following strategies are described in this section.

STRATEGIES

REGIONAL CONNECTIVITY

Sunrise Phase 2 (Gateway Concept)

- **Improves safety**
- **Connects by all modes**
- **Improves transit reliability**
- **Supports transportation options**

Sunrise Phase 2 (Gateway Concept)

The Sunrise Corridor experiences heavy congestion and limited mobility. A regional facility through this area, ultimately connecting US26 to I-205, would enhance transit, auto, and freight mobility on a critical link to the local, regional, and state network. The 2011 Sunrise FEIS preferred recommendation included an elevated six-lane facility between I-205 and SE 172nd Avenue, with auxiliary lanes between I-205 and a new Rock Creek Junction interchange. As part of Get Moving 2020, Clackamas County developed the Sunrise Gateway Concept, which provided fewer environmental and property impacts at a reduced cost while being projected to operate acceptably through the horizon year. The Sunrise Gateway Concept, shown in Figure 7, included:

Vision Objectives

- ✓ Enhances regional and statewide mobility by achieving the purpose and need in the Sunrise FEIS
- ✓ Facilitates movement of goods and services
- ✓ Supports regional-scale freight mobility needs

- A one-way couplet intersection at SE 122nd Avenue with the new Sunrise Gateway alignment (to the north of the existing SE 122nd Avenue/Highway 212/224 intersection).
- The new four-lane Sunrise Gateway alignment becomes the extension of Highway 212 east of SE 122nd Avenue and Highway 212/224 east of SE 122nd Avenue becomes Highway 224. SE 122nd Avenue replaces Rock Creek Junction as the interface between Highway 212 and 224.
- No other intersections or interchanges between SE 122nd Avenue and SE 172nd Avenue are planned along the at-grade Sunrise Gateway alignment, providing an access-controlled facility. The Rock Creek Junction interchange proposed in the 2011 FEIS was removed, given more-recent construction rendered this access infeasible without substantial property impacts.
- Connections in the area between SE 135th Avenue and SE 152nd Avenue and the existing Highway 212/224 alignment are maintained via a new grade-separated access at SE 142nd Avenue (servicing SE 135th Avenue, SE 142nd Avenue, and SE 152nd Avenue to the north) and Highway 212/224.
- The Sunrise Gateway alignment ties into the existing Highway 212 at SE 172nd Avenue.
- The portion of Highway 212 east of the Rock Creek Junction becomes SE 162nd Avenue and travels north to SE Rock Creek Boulevard.
- Both the FEIS and Sunrise Gateway concepts included safety improvements and enhanced walking and biking connections throughout the corridor.

Outreach was constrained in the development of the Sunrise Gateway Concept given constraints on in-person gatherings in 2020 and other large projects drawing attention within the Get Moving 2020 bond measure package. As part of the Sunrise Corridor Community Visioning, public engagement will seek to communicate out and get further feedback on the Gateway Concept and potential refinements.

Ongoing NEPA Coordination Related to Regional Facility

Additionally, the Gateway Concept will be reviewed with ODOT, FHWA, and project partners to begin the process of confirming the 2010 FEIS Purpose and Need are met and determine any potential actions to take related to the NEPA process. Actions could include NEPA Re-evaluation, updating current Needs statements. More information about these outcomes will be provided as coordination progresses.

DRAFT Gateway Concept

122nd Tie-In

The 122nd Tie-in is designed to preserve the long-term diamond interchange footprint and allow phased construction of the ultimate mainline expressway and bridge over the crossroad.

135th/142nd/152nd Tie-In

This tie-in allows the consolidation of left-turn access to/from OR 212/224 through the development of a grade-separated overcrossing of the highway and new Sunrise Gateway Corridor and provides a gateway to the industrial site.

Rock Creek Junction

Rock Creek Junction will be converted into multi-lane roundabout to improve safety and provide adequate capacity following the development of the Sunrise Gateway Corridor.

Rock Creek Junction/ 162nd to 172nd Tie-In

This improvement minimizes right-of-way impacts and provides access to the Rock Creek Employment area via OR212, OR224, and the Sunrise (at 172nd Avenue) corridor.

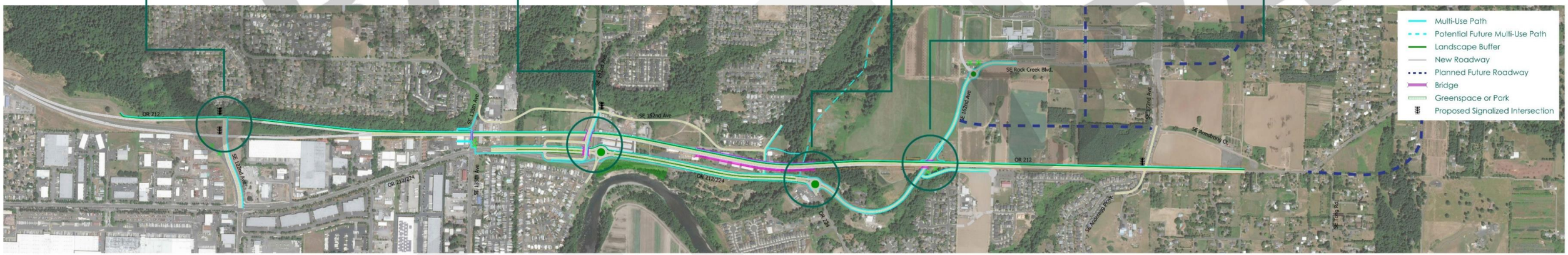


Figure 7: Draft Gateway Concept

Sunrise Gateway Concept Initial Operations Analysis Refinements

Initial analysis of the two-lane and four-lane Sunrise Gateway Concept Plan (based on 2019 traffic counts) showed several intersections not meeting their performance standards due to traffic pattern changes between then and now (2023 traffic counts). The following refinements were made under the two-lane and four-lane Sunrise Gateway Concept Plan scenarios to address the congestion:

- Added dual northbound right-turn lanes at the Highway 212-224/SE 135th Avenue
- Channelized the northbound right-turn at the reconfigured SE 142nd Avenue/Highway 212 eastbound terminal as a free movement with a receiving lane added on Highway 212.
- Added dual eastbound left-turns and a second westbound through lane at the SE 172nd Avenue/Highway 212 intersection.

Staged Sunrise Gateway Concept Implementation

As part of the Sunrise Gateway Concept Plan, phased improvements were identified to address near-term operational deficiencies and be compatible with proposed future improvements, shown in Figure 8. These stages are as follows:

1A. Reconstruct portions of Highway 212-224 roadway including sidewalks, bicycle facilities and crossings to improve access and safety. Construct the elevated grade-separated intersection at Highway 212-224/142nd and realign 135th to build local connections. Acquire right-of-way per revised Gateway Concept. Restrict left-out movement at Highway 212-224/ 152nd Avenue. Provide sidewalks and buffered bike lanes along Highway 212-224.

1B. Provide local roadway connection from 152nd Avenue to 142nd Avenue, convert Highway 212-224/152nd Avenue to a right-in, right-out intersection.

2. Construct 2-Lane Sunrise Gateway Corridor, including the couplet at 122nd Avenue and right-of-way acquisition for possible Bus Only/HOV lanes from 122nd Avenue to 172nd Avenue. Provide a separated multiuse path and build a new pedestrian and bicycle bridge at the former SE 135th Avenue connection.

3. Widen the 2-lane Sunrise Gateway Corridor to its ultimate 4-lane width.

4. Install roundabouts at Rock Creek Junction and Rock Creek Boulevard/162nd Avenue and provide new local connections to Rock Creek and Verne Duncan schools.

Sunrise East of 172nd

In addition to implementation of the Sunrise Gateway between SE 122nd Avenue and SE 172nd Avenue, this vision aims to support that regional-scale freight mobility needs are met on Highway 212 connecting I-205 and US 26. The long-term vision for the segment east of SE 172nd Avenue has not been set by ODOT. Clackamas County developed desired improvements along Highway 212 on this segment as part of the Damascus Mobility Plan[1], including improvements to Highway 212 at its intersections with SE Tong Road/SE 187th Avenue, Sunnyside Road/Foster Road, SE Wiese Road/SE Royer Road, SE 222nd Drive, and SE 242nd Drive.

[1] https://dochub.clackamas.us/documents/drupal/1e3b38d0-fa36-4bd0-8d90-5966144167a8

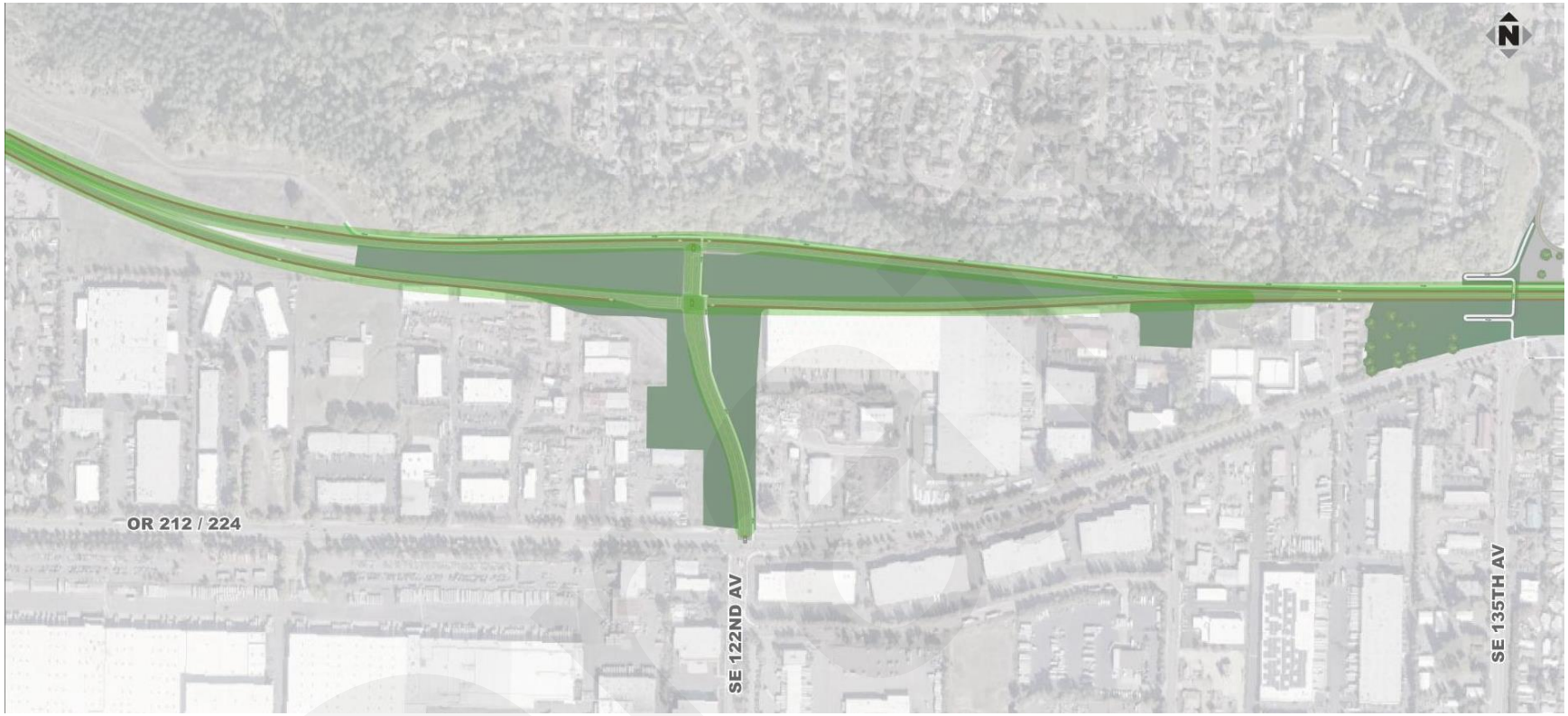


Figure 8: Phased Sunrise Gateway Improvements

Sunrise Corridor Community Visioning

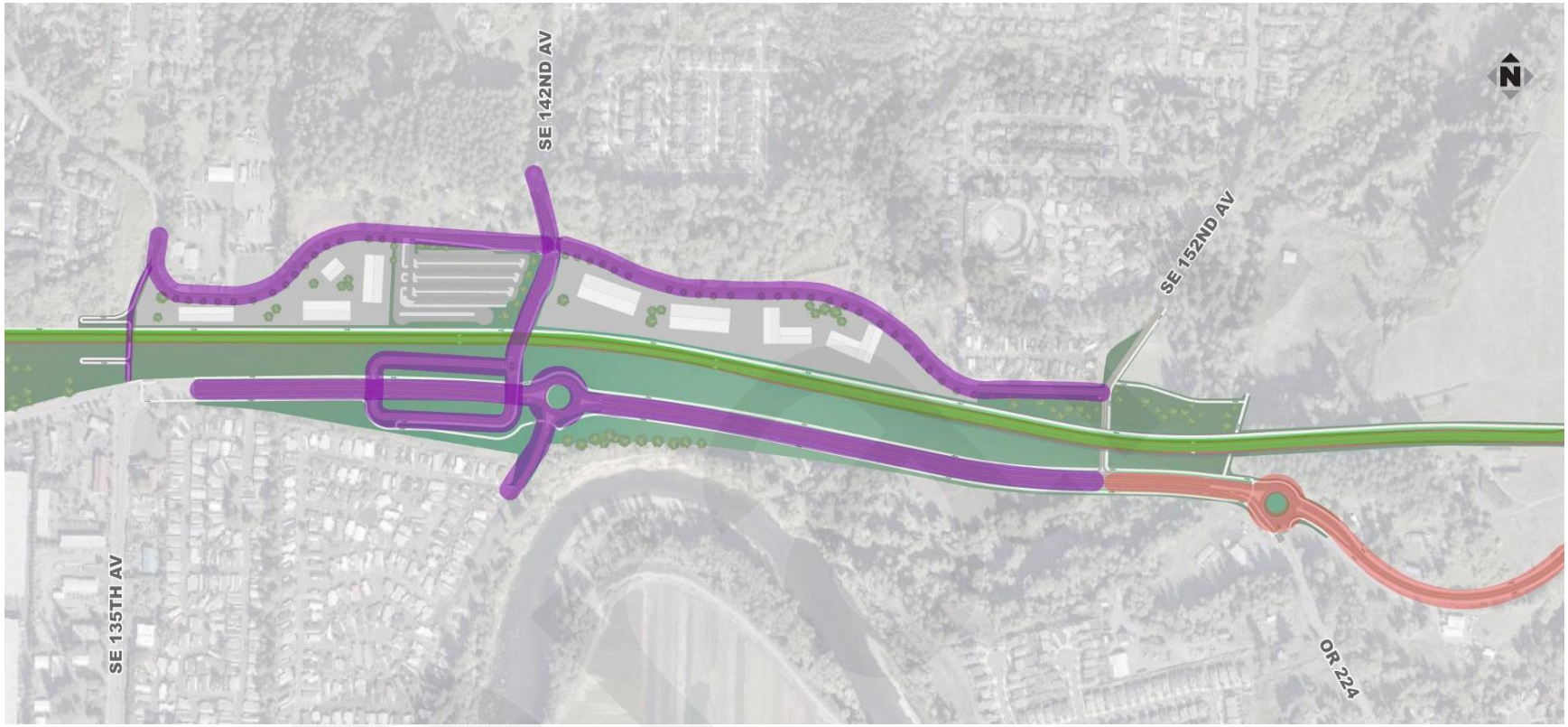


Figure 9: Phased Sunrise Gateway Improvements

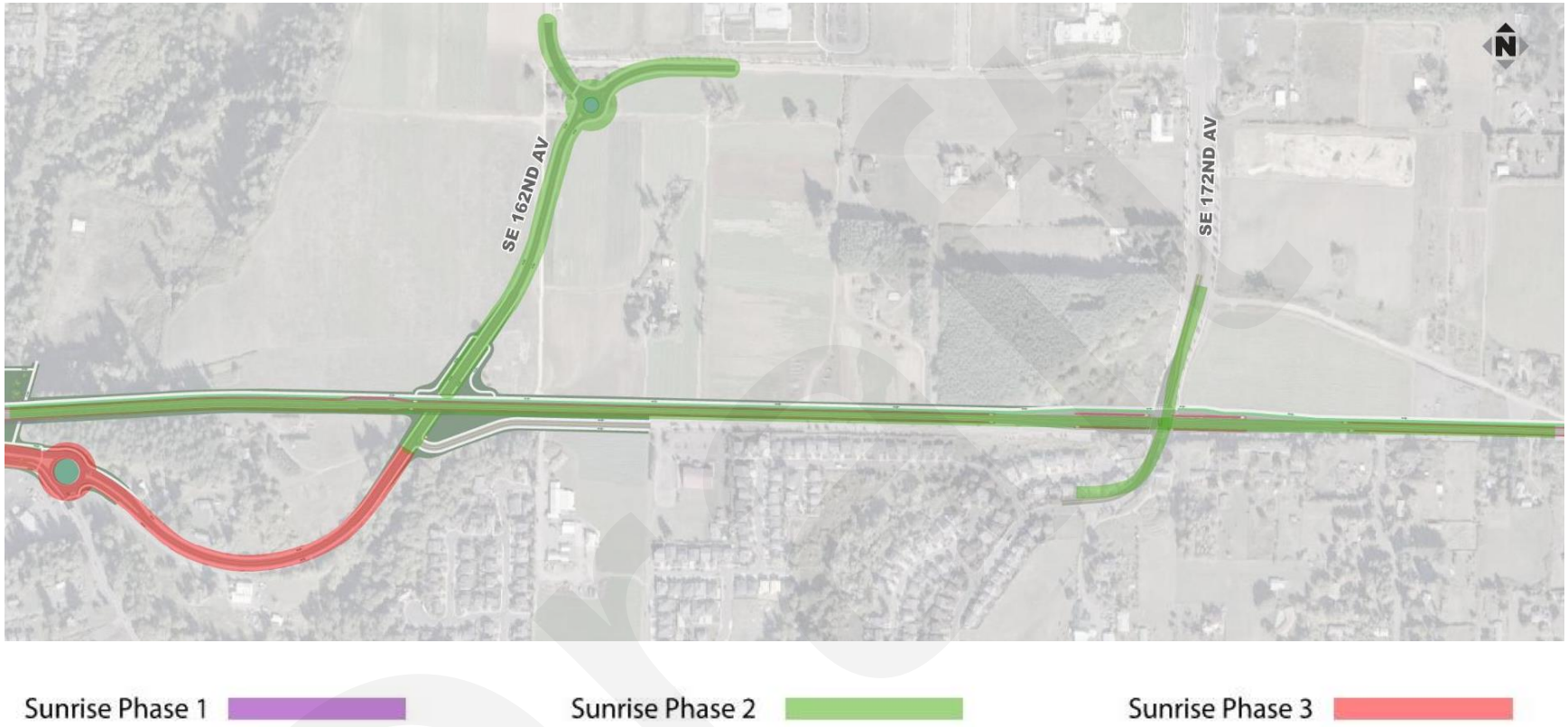


Figure 10: Phased Sunrise Gateway Improvements

Other Potential Interim Improvements

The City of Happy Valley is also exploring potential interim improvements at Rock Creek Junction and OR 212/SE 162nd Avenue as part of the Rock Creek Employment Center Infrastructure Plan and Funding Assessment[2], shown in Figure 11, including:

- A right-in, right-out access to the existing Highway 212 with improvements to SE 162nd Avenue.
- A near-term roundabout at Highway 212 and SE 162nd Avenue.
- An additional eastbound right-turn lane at the Rock Creek Junction signal.

The potential interim improvements have separate ongoing analysis and conversations between ODOT and Happy Valley to determine the traffic operations, impacts, cost, and forward-compatibility of these potential interim improvements.

[2] https://www.happyvalleyor.gov/wp-ccontent/uploads/2022/05/RCEC-Infrastructure-Assessment-Funding-Plan-Final-Report.pdf

Figure 11: City of Happy Valley Potential Interim Improvement Concepts

Figure 12: Proposed Carver Junction Improvements with the Sunrise Parkway

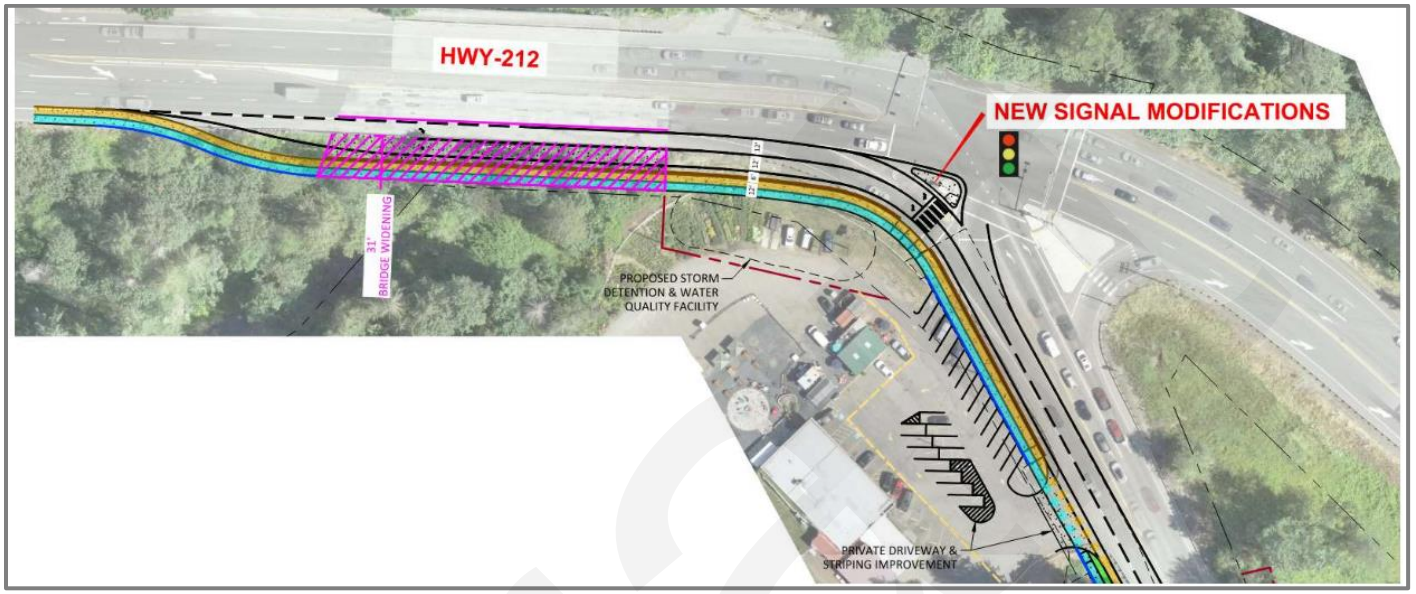


Figure 13: Potential Signal Modifications at Rock Creek Junction

OR- 212 Safety Improvements

The *Safe and Connected Streets* scenario describes overall strategies related to safety in the Sunrise Corridor. Specific safety improvements related to the regional facilities include:

Actions:

- Separate, protected facilities for people walking and biking. See *Walking and Biking Connections* for more details.
- Medians along the existing Highway 212-Highway 224, which visually narrow the corridor and slow speeds. The median installation also reduces left-turn movements, removing conflicts.
- Pedestrian refuges at intersections using the median space, creating a more comfortable crossing for people walking.
- Roundabouts at key intersections, which provide fewer conflict points, slower speeds, and less potential for collision types which typically result in more severe injury, such as head-on collisions. The roundabouts have an additional benefit of allowing u-turn movements given the left-turn movement restrictions (i.e., Highway 212-224/ SE 152nd Avenue).

Vision Objectives

- ✓ Creates an interconnected, safe network that gets people where they want to go by walking, biking, or taking transit.
- ✓ Enhances regional and statewide mobility for residents, employees and businesses by reviewing the Sunrise Corridor Final Environmental Impact Statement to identify investments needed to achieve the highway purpose and need.
- ✓ Promotes public health, safe movement, and active lifestyles through infrastructure, open space and programming.

Figure 14: Pedestrian Median Refuge Island in Portland (source: NACTO.org)

Gateway Walking and Biking Connections

The *Safe and Connected Streets* scenario describes the local connections that could be enhanced within the Sunrise Corridor to fill gaps in the walking and biking network. This section describes walking and biking connections along regional facilities and with connections to the broader regional system.

Specific to regional connections, the Sunrise Gateway Concept and FEIS both provided enhanced connections to the regional trail system – including connections to the Mt. Scott Loop Trail, SE 82nd Avenue, and Sunrise Multi-Use Path. Additionally, the Gateway Concept enhances walking and biking connections along existing facilities, and a pedestrian/bicyclist bridge at SE 135th Avenue to provide a grade-separated, low-stress crossing of a new Sunrise expressway facility.

Further, crossings of the existing Highway 212-224 in the Gateway Concept are primarily at roundabouts. This provides two key benefits:

Actions:

- Pedestrians should cross 1-2 lanes of traffic at a time, compared to the 4-5 lanes today, with the implementation of median refuge islands.
- Roundabouts provide slower speeds for vehicles, promoting a more friendly environment to pedestrians and bicyclists while decreasing the risk of serious crashes.

Lastly, the Gateway Concept provides a lower-speed, less-trafficked roadway to the Rock Creek area. Public feedback indicated that students at the existing schools often walk along the shoulder of the highway and cross Highway 212 near SE 162nd Avenue, which is unmarked and has low visibility given the horizontal curve to the west.

Vision Objectives

- ✓ Create an interconnected, safe network that gets people where they want to go by walking and biking.
- ✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming.

Transit Improvements

The *Public Transit* scenario describes transit enhancements related to stops, sidewalks, bus pullouts, crossings, hubs, and service. This section describes transit considerations for the regional system.

Transit in the Sunrise Corridor area provide connection to several major transit corridors, including potential high-capacity transit corridors[3]:

Actions:

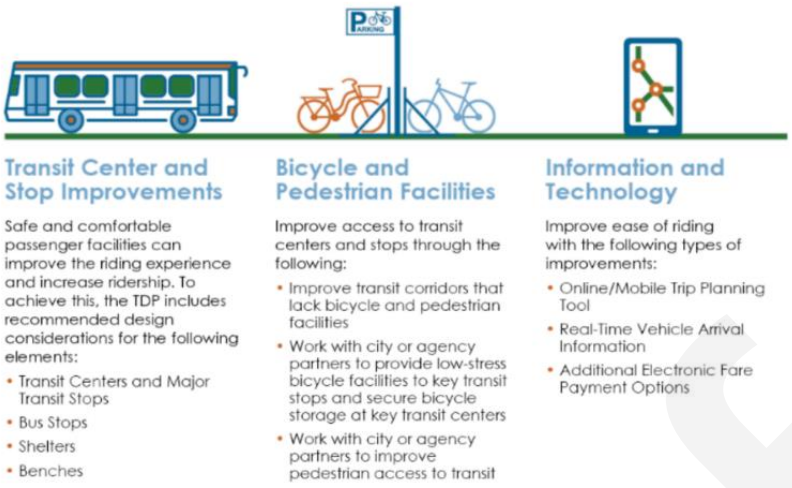
- The SE 82nd Avenue corridor, which includes a near-term FX route from Clackamas Town Center north, and a long-term extension of high-capacity transit from Clackamas Town Center to Oregon City.
- The Sunnyside corridor, which includes a mid-term connection from Beaverton to Clackamas Town Center and long-term connection from Clackamas Town Center to the C2C Corridor on 172nd Avenue. Route 150 would serve the high-capacity 172nd Avenue in the future, with a portion of the route traveling through the Clackamas Industrial Area.

Vision Objectives

- ✓ Supports an affordable, safe, and connected transit system that helps people get to jobs, services, and homes, and integrates with first- and last-mile solutions.
- ✓ Continues inter-agency coordination to support actions to improve infrastructure for all users.

The Clackamas County Transit Development Plan[4] identified desired transit service providing key regional and local connections. This enhancement to service calls for improved bus stops and mobility hubs, first/last-mile connections, and potential transit preferential treatments (ex. transit signal priority) to meet regional transit needs.

[3] https://www.oregonmetro.gov/sites/default/files/2023/01/09/High-Capacity-Transit-Corridor-Investment-Priorities-FactSheet-20221220.pdf
[4] https://storymaps.arcgis.com/stories/f2a1e44b3ca744d8b457c52d36238de5



Transit Center and Stop Improvements

Safe and comfortable passenger facilities can improve the riding experience and increase ridership. To achieve this, the TDP includes recommended design considerations for the following elements:

- Transit Centers and Major Transit Stops
- Bus Stops
- Shelters
- Benches

Bicycle and Pedestrian Facilities

Improve access to transit centers and stops through the following:

- Improve transit corridors that lack bicycle and pedestrian facilities
- Work with city or agency partners to provide low-stress bicycle facilities to key transit stops and secure bicycle storage at key transit centers
- Work with city or agency partners to improve pedestrian access to transit

Information and Technology

Improve ease of riding with the following types of improvements:

- Online/Mobile Trip Planning Tool
- Real-Time Vehicle Arrival Information
- Additional Electronic Fare Payment Options

Figure 15: Transit Recommendations (Source: Clackamas County Transit Development Plan Storymap)

Transportation Demand Management

Transportation Demand Management (TDM) or "transportation options" is defined as a set of strategies aimed at increasing individuals' transportation choices beyond single-occupant vehicles to improve overall system efficiency.

Clackamas County, TriMet, employers within the industrial district, and Clackamas Community College are already undertaking efforts to improve transportation choices and incentives in the Sunrise corridor.

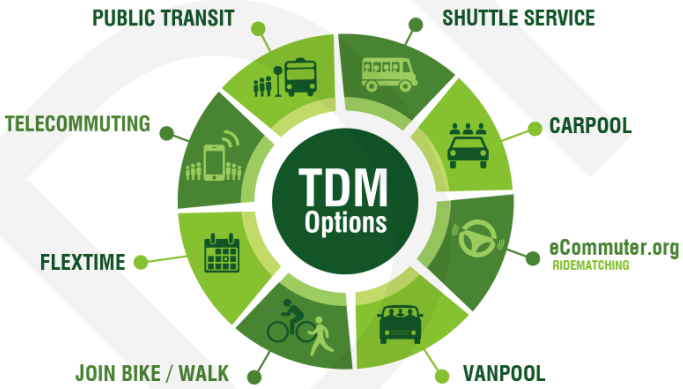


Figure 16: TDM Strategies (source: ecommuter.org)

Vision Objectives

- ✓ Support an affordable, safe, and connected transit system that helps people get to jobs, services, and homes, and integrates with first- and last-mile solutions
- ✓ Enhance regional and statewide mobility for residents, employees, and businesses

Transportation options

- ✓ Walking

Incentives to reduce driving

- ✓ Transit passes

Parking management

- ✓ Carpool priority parking

- ✓ Biking
- ✓ Transit improvements
- ✓ Ridesharing / carpool
- ✓ Shuttle services
- ✓ Balance work schedules
- ✓ Parking pricing or cash out
- ✓ Road space allocation (sidewalks, transit lanes)
- ✓ Mixed-use development
- ✓ Land use management
- ✓ Transit Supportive land use

Sunrise Corridor Community Visioning

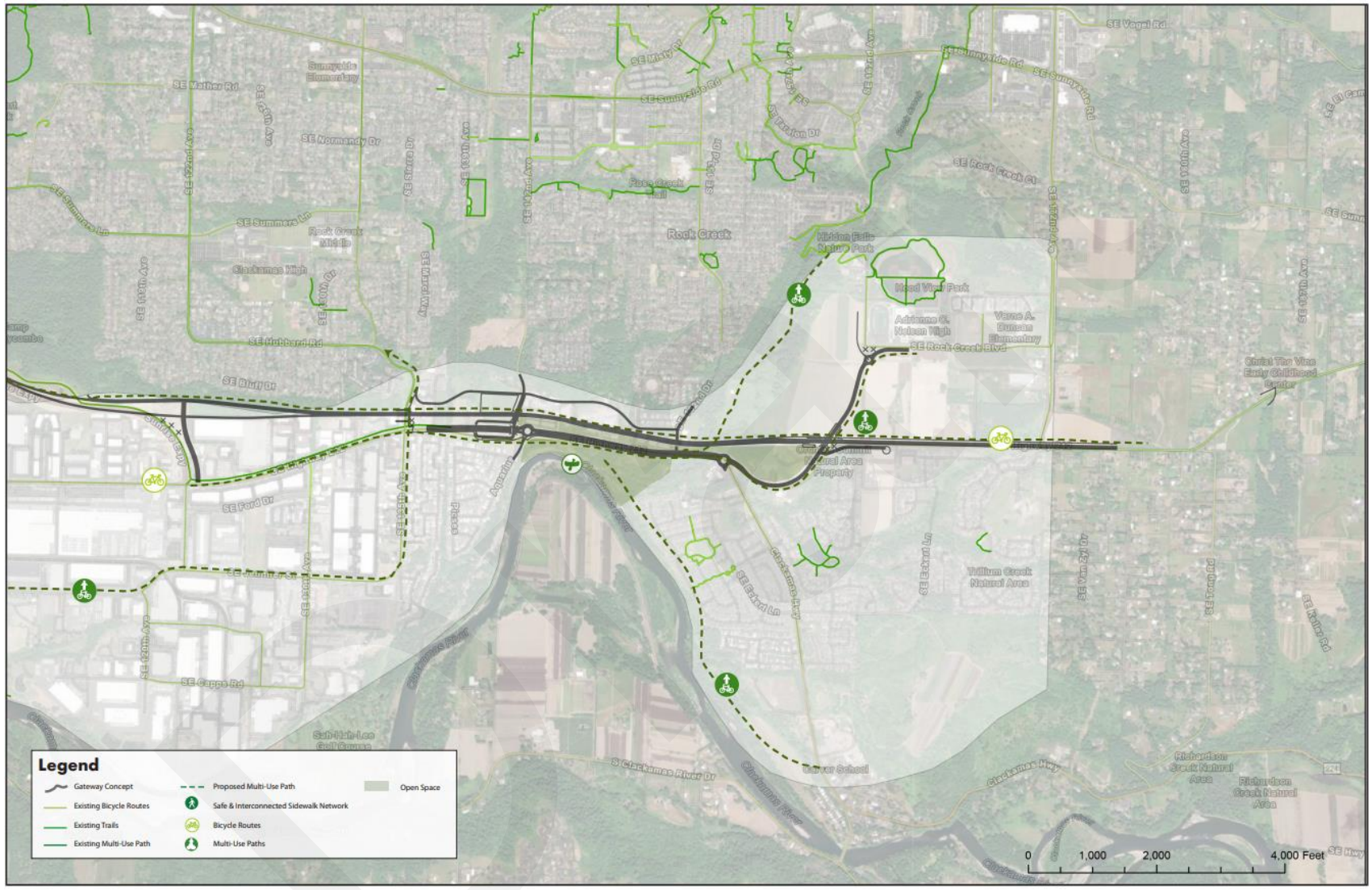


Figure 17: Regional Connectivity Strategies

Public Health and Environment

The vision for the Sunrise Community is a clean and resilient environment that supports healthy existing and future communities.

A community's quality of life is built upon the foundation of good health and social connections. People living and working in the Sunrise Community are interested in continuing to have and seek out this quality of life. This means having clear air, clean water, and a safe environment for their families and friends. The area has had a strong foundation for decades, providing places to live and thrive near to forest land, farms and near the Clackamas River. As the area continues to grow and change, it's important to embed the vision for public and environmental health vision in how new and redeveloped areas take shape.

Key issues

Healthy air. Air and noise pollution can exacerbate existing physical and mental health issues like asthma, bronchitis, heart attack, along with hospital and emergency room visits, lost work and school days, and other restricted activity. These impacts can worsen mental and physical health outcomes.

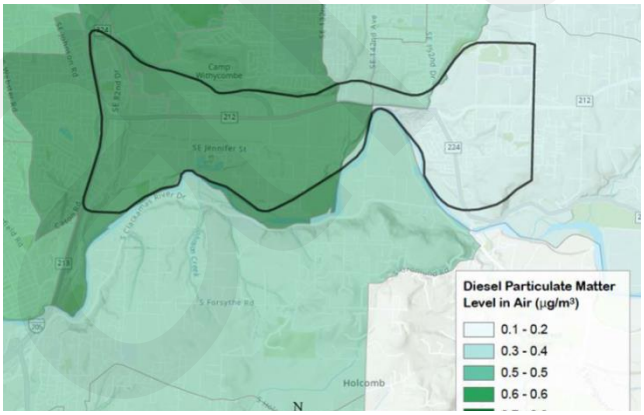


Figure 18: Diesel Particulate Matter Level in Air. Source: United States Environmental Protection Agency EJScreen, accessed January 2023.

According to regional air quality data, the study area is exposed to a relatively average amount of emissions including ozone and particulate matter. These exposures fall within the EPA standards. However, given local car and truck traffic and industrial facilities, local effects are likely above average and impact people's quality of health and day-to-day experience. People shared these concerns during the project, noting the concerns about air quality and noise in their neighborhoods, especially when walking or biking in some parts of the area.

Sunrise Corridor Community Visioning

Local Heat and tree cover. Decades ago, this area was covered in forests and farms. Development over the past 40 years created robust job and economic opportunity but has reduced the acres covered in trees, vegetation, and natural habitats. As anyone who has crossed an open parking lot knows, direct sun exposure creates uncomfortable levels of ambient heat. Paving or roofing material retains heat well past sundown, and constant exposure to heat can result in illness or injury.

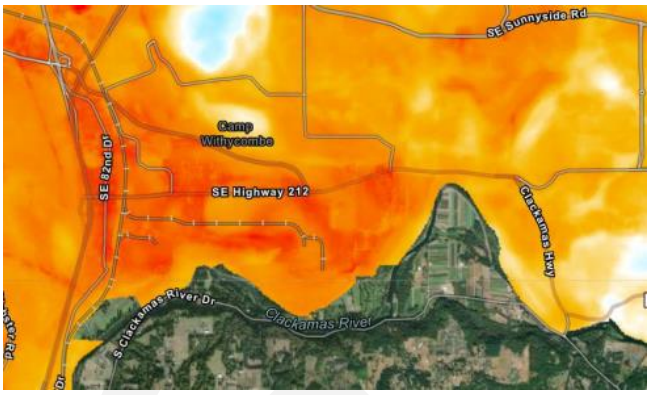


Figure 19: Modeled Average Surface Temperature. Source: Portland Metro Health Watch Report, accessed January 2023.

Access to natural areas like the Clackamas River. Some people living and working in this area have noted limited opportunities to access natural areas and the Clackamas River. Many of the factors that have a positive influence on a person's physical health, like areas to walk or bike, can also positively affect a person's mental health. Well-designed landscapes and developments can encourage social interactions and physical activity, promoting positive mental health outcomes. Hidden Falls Nature Park and Riverside Park are excellent parks in the study area. Outside of the study area, regional parks like Scouters Mountain, Mt. Talbert, and Carver Park are idyllic places to visit, but people noted that despite their proximity to the Clackamas River, there are few points of access from the study area.

Figure 20: Clackamas River

Community connections. People shared through this plan about the important connections to their communities in the Sunrise area, whether through living, working, or visiting the area. Studies show that people's relationships and interactions with family, friends, co-workers, and community members can influence their health and well-being. In some cases, the existing land uses, transportation network, available open spaces and minimal sense of identity were barriers to maintaining these connections. People shared opportunities they see to support public health further by creating places that help broaden and deepen the connections.

Figure 21: Community Outreach Efforts (source: Clackamas County)

Strategies

Strategies to improve public and environmental health include things like acoustic zoning, expanded tree canopy cover, improved multi-modal connectivity to encourage active transportation.

Strategies are described below with a summary of each, type of recommended strategy, and action suggested to develop strategy.

The following strategies are described in this section.

STRATEGIES	
	PUBLIC HEALTH AND ENVIRONMENT
	**Create access to open spaces and natural areas**
	**Reduce heat island effect**
	**Environmental quality monitoring**

Create access to open spaces and natural areas

The Sunrise Corridor is a state highway, freight corridor, and an industrial area. And while these characteristics are not typically conducive to open spaces and natural areas, the study area is rich with many. Hidden Falls Nature Park and Riverside Park are in the study area, Scouters Mountain, Mt. Talbert, and Carver Park are just outside of it, and the Clackamas River borders the southern edge. Together these places provide many opportunities to experience the outdoors close to home, but residents say they need better access to truly benefit.

Vision Objectives

- ✓ Promote healthy and resilient open spaces linking natural environments
- ✓ Reduce exposure to air, water, and noise pollution
- ✓ Promote public health through infrastructure

Better access to open spaces provides more recreational opportunities that can improve well-being. According to US Census data, the west side of the study area ranks poorly in terms of mental and physical health outcomes, with a higher percentage of the population reporting asthma diagnoses. Improving access to the natural areas in and around the study area provides opportunities to be outside and away from operations that could worsen asthma and impact hearing due to noise that can be common to industrial areas.

Actions:

- Identify current gaps for accessing existing natural resources and greenspaces in the area, especially around access points to the Clackamas River.
- Pair access improvements to these places with connections and improvements in the pedestrian and bicycle network.
- Prioritize the preservation of existing greenspaces within the project area.
- Develop programs or public events in greenspaces to encourage the community to spend time outside.

Figure 22: Clackamas River

Reduce Heat Island Effect

A 2023 Metro heat study found that the Clackamas Industrial Area was the hottest location within the study area due to a high proportion of industrial developments. Generally, multi-family residential, mixed-use residential, commercial, and industrial land uses contribute to high temperatures resulting in heat island effects – a phenomenon that occurs when the ground surface is paved or covered with buildings, creating less shade and moisture that are needed to keep areas cool.

Expanding the area's tree canopy can reduce the impacts of the heat island effect by adding shade, cooling the area and supporting cleaner air quality.

Vision Objective

- ✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming

Additionally, many building and paving materials currently absorb and retain heat, leading to excess heat and associated health implication for those living within proximity. Sustainable building materials also protect again harmful toxins to human health and wildlife that can often be used in construction. Oregon Department of Environmental Quality (DEQ) provides a framework for local governments to use and adapt to increase sustainable building methods, by providing development credits or allowing departures from existing code and design regulation in exchange for meeting various benchmarks and/or third-party building certificates (i.e., LEED, Living Building Challenge, etc.). Incorporating more sustainable or green construction methods, and cool pavement technologies can mitigate the head island effect.

Actions:

- Increase the area's tree canopy by adding trees based on the County's existing street tree standards and the approved street tree list for width of planter strip.
- Prioritize street trees based on expected public health benefits:
  - Proximity to residential areas
  - Existing tree or vegetation coverage
  - Vehicle and truck average daily trips
  - Walk and bike corridors.
- Seek partnerships with businesses or non-profits that support tree planting and maintenance if available.
- Utilize DEQ's Sustainable Buildings for All (SB4A) program as a template to incentivize more sustainable building projects within the study area.
- Look to incentive programs in other places like Shoreline Deep Green Incentive Program and the Seattle Living Building Pilot Program.

Figure 23: Street Trees example

Environmental Quality Monitoring

Environmental quality monitoring includes air quality, water quality, and noise pollution. The local community, especially residents, are concerned about these elements as they pertain to public health and livability. Residents understand that part of the study area facilitates high traffic, manufacturing, and manufacturing, but they want to know that their air is clear, water is clean, and that noise is managed.

Vision Objective

✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming

Actions:

- Work with Oregon DEQ to install a low-cost air quality sensor and/or their Air Quality Monitoring Community Outreach Program to identify a site in the study area for real-time air quality health information monitoring.
- Noise measurements are currently not available, but due to the industrial nature of the area, monitoring noise to identify mitigation options is necessary.
- Partner with the Clackamas Water Environment Services to deploy an Environmental Monitoring program, which includes evaluations of stream health in surface water areas and geomorphic monitoring to evaluate the impacts of urban runoff on stream habitat.

Figure 24: Air Quality Monitor

Figure 25: Environmental Monitoring example

Sunrise Corridor Community Visioning

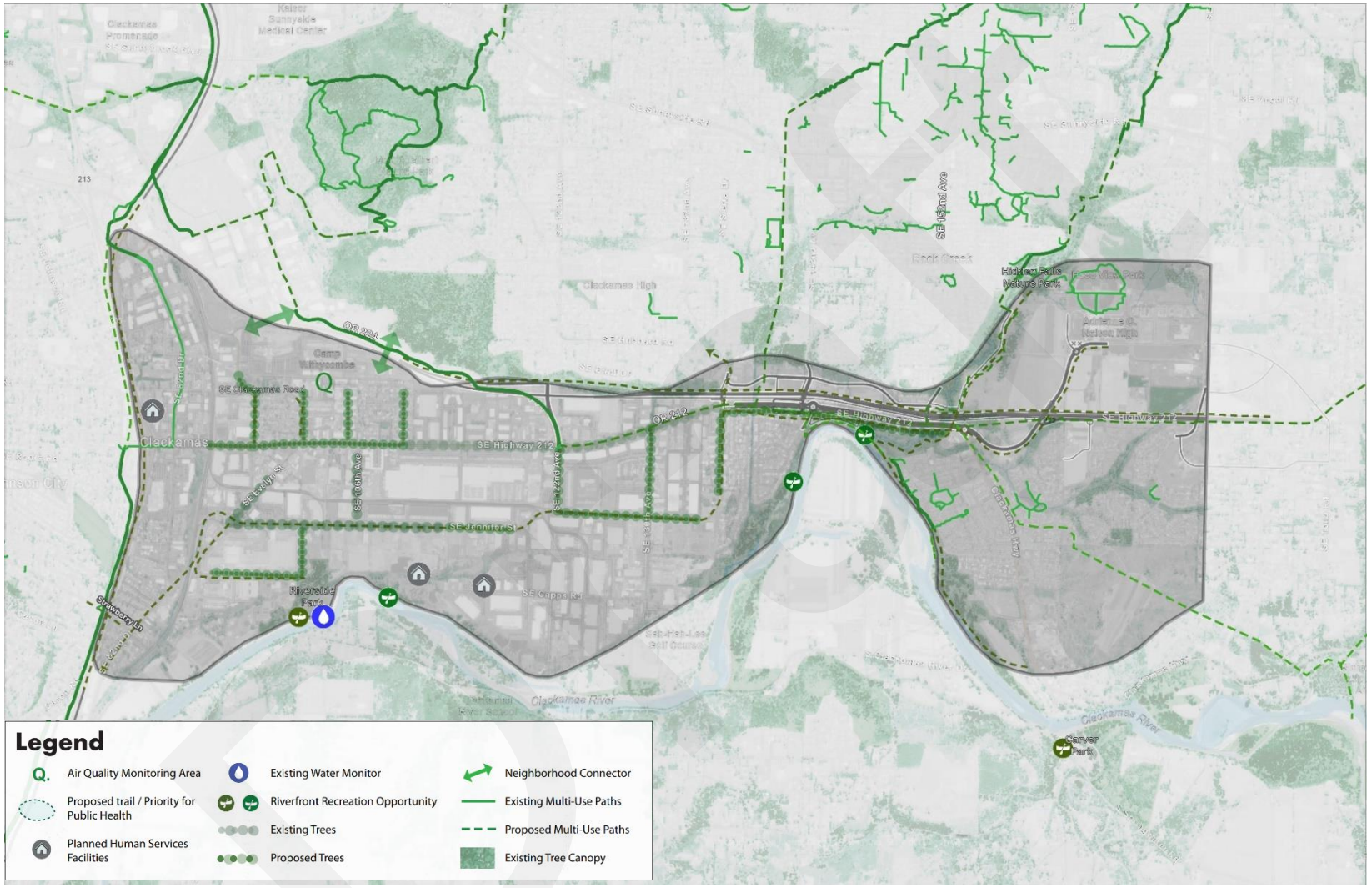


Figure 26: Public Health and Environment Strategies

Local Mobility

A safe and well-connected transportation network is a major concern among all community members living or working in the project area.

The project corridor is defined by OR 224 and OR 212, which are classified as an expressway and principal arterial, respectively. Major arterials such as SE 172nd Ave and SE Sunnyside Rd provide routes around the study area, while minor arterials, collectors, and local roads such as SE Jennifer Street, SE 106th Ave, and SE Carpenter Dr support trips within the study area.

These roadways currently facilitate thousands of trips each day, but residents, businesses, and commuters alike want the transportation network to better include things like safe non-motorized travel options, roadways that better accommodate freight truck traffic, and improved connectivity within the study area.

Key Issues

Limited multimodal travel options. People want more options for getting around in the study area. Community members feel there are limited options to walk or bike and updating these facilities to make them safer should be a top priority. According to US Census data, nearly 10% of households west of SE 142nd Ave do not own a vehicle, 9% of workers commute by walking, and 8% of workers commute by public transit. Lastly, 17.5% of people in the area have a physical, mental, or emotional disability.

Network insufficient for truck and freight needs. Existing roadways do not accommodate the size and number of freight trucks in the area, creating safety issues for both trucks and other road users. Trucks need more space, designated queuing areas, and improved parking.

Crossing OR 212 is challenging. OR 224 and OR 212 contribute to the local economy but act as a physical and perceived barrier to the community, and specifically for residents. Crossings are needed to help employees complete their transit trips, to help children safely arrive at school, to help families access recreation, and to support independence and self-sufficiency among seniors. Identifying locations and designing safe and accessible crossings for non-motorized travel is needed.

Large land use parcels create connectivity challenges. Industrial land use patterns often consist of large parcels with limited cut through access, resulting in a low number of streets and travel route options. Considering options to increase access and connectivity for residents and workers is an important consideration as the area continues to grow.

Strategies

Strategies to improve safe and connected streets include things like defined truck access, safe crossings for pedestrians, improved connectivity for all modes that support a variety travel options for getting around, and directly support Project Goals 1, 2, and 5.

Strategies are described below with a summary, with the type of recommended strategy, and with the action suggested to develop each strategy.

The following strategies are described in this section.

STRATEGIES	
	LOCAL MOBILITY
	**Safe and Interconnected Pedestrian Network (sidewalks and crossings)**
	**Safe and Interconnected Bicycle Network**
	**Freight Access and Parking**
	**Develop transit centers**
	**Improve Fixed Route Transit Service**
	**Expand Clackamas County Connects Industrial Shuttle**

Safe and Interconnected Pedestrian Network

A safe and connected pedestrian network is important to increasing walking as a mode of transportation. This includes a safe and connected sidewalk, and safe crossing locations. Filling in sidewalk gaps, enhancing interconnectivity, ensuring that sidewalks are accessible, and providing high-visibility, lit, and pedestrian-scale crossings is critical to achieving a safe and connected street network for the area's most vulnerable road users, such as children, elderly, and those with disabilities.

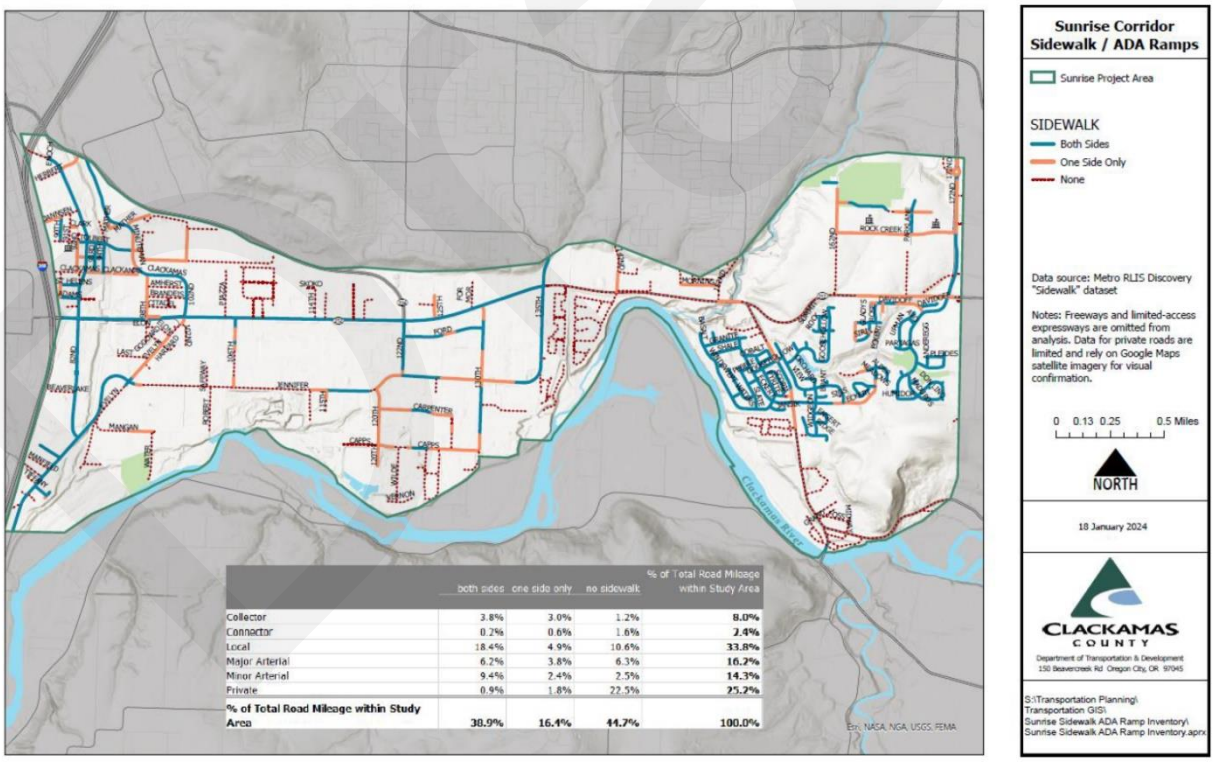
Vision Objectives

- ✓ Create an interconnected pedestrian network that includes safe crossings, continuous sidewalks, Safe Routes to School, access for people with disabilities, and lighting
- ✓ Support transit through an integrated first- and last-mile solutions
- ✓ Promote active lifestyles through infrastructure

Sidewalks

The sidewalk network within the study area is approximately half complete according to Clackamas County's sidewalk network map (Exhibit 1), and people in the study area have indicated that they would like to see improved sidewalk connectivity to better facilitate multimodal travel options.

39% of the streets within the study area have sidewalks on each side of a street or roadway, 16% of streets have sidewalks on just one side, and nearly 45% do not have sidewalks at all. A lack of sidewalk availability is an increasing concern among residents, workers, and visitors to the area and 45% of all streets in the area need sidewalks.



	both sides	one side only	no sidewalk	% of Total Road Mileage within Study Area
Collector	3.8%	3.0%	1.2%	8.0%
Connector	0.2%	0.6%	1.6%	2.4%
Local	18.4%	4.9%	10.6%	33.8%
Major Arterial	6.2%	3.8%	6.3%	16.2%
Minor Arterial	9.4%	2.4%	2.5%	14.3%
Private	0.9%	1.8%	22.5%	25.2%
% of Total Road Mileage within Study Area	38.9%	16.4%	44.7%	100.0%

Figure 27: Clackamas County Sidewalk Network

Actions:

- Identify existing gaps in the sidewalk next work using Clackamas County's existing sidewalk map (Exhibit 1)
- Verify need based on feedback gathered from engagement to create a complete and interconnected sidewalk network for people walking or using mobility devices
- The following is a list of key sidewalk gaps to prioritize. Sidewalk width requirements are listed in Table 1.
  - Residential area north of OR 212 and east of SE 98th Ave
  - Residential area north of OR 212 and east of SE Piazza Ave
  - OR 212, between SE 135th Ave and SE 152nd Ave, including 152nd Ave
  - OR212 between OR224 split and SE 162nd Ave
  - SE Jennifer, between SE Everly St and 115th Ave
  - 162nd Ave and street surrounding schools
  - Residential and Carver School in southeast quadrant

Table 1. Minimum Sidewalk Width Requirements by Street Type

Street Type	Clackamas County	Happy Valley
Arterial	5'-7'	7' (Major) 5' (Minor)
Collector	5-7'	5'
Local	5' 7' (Urban)	5'
Neighborhood	N/A	5'

Sidewalks by the numbers:

- Full sidewalks on both sides of street: 16.4 miles
- Partial sidewalks: 10.8 miles
- Missing sidewalks: 19.5 miles
- Approx. $6.1 million to add missing sidewalk (minimum 5-foot width)

Figure 28: Example of Missing Sidewalks in Study Area

Safe Crossings

Crossing a street or roadway is required for nearly every single transportation trip, and feedback received has indicated that employees, children, families, and seniors in

the study area want to be able to cross both main roadways and local streets to reach key destinations.

Leaving a street corner or curb to cross an intersection or roadway should be accessible, calm, and safe. Destinations like schools in the study area need more safe crossings. Where crossings do exist, the community wants better visibility and space to complete their trip across a street or intersection. And in some locations, sightlines are reduced due to large trucks parking in the middle, or along the side, of a street.

Actions:

- Improve existing crosswalks to include high visibility striping, better lighting, signal timing adjustments, and needed ADA treatments.
- Prioritize crossings around residential, schools, transit stops, and employment locations to facilitate safe access.
- Address spacing issues within the existing network.

Figure 30: Mid-block Crossing Example

Figure 29: Mid-block Crossing Example

Intersection and mid-block crossings can serve as key connections in the active transportation network. Mid-block crossings often connect multi-use path segments or commonly used paths to key destinations like schools, libraries, and bus stops.

Careful consideration for addressing potential motorist/pedestrian/bicyclist conflict areas at intersections, crossings, and transitions between facility types must be considered. Conflict areas pose significant deterrents for many users.

Recommended marked crosswalk spacing range from **500 to 1000 feet in Commercial Corridors**, according to ODOT's Blueprint for Urban Design. The following table identifies the existing distances between marked crossings on OR-212 and nearby roadways.

Roadway Segment	Distance between crossings
On OR-212	
SE 82nd Drive to SE 102nd Avenue (incomplete mid-block crossing at SE 98th Avenue)	2,550 ft
SE 102nd Ave to Extra Space Storage	3,350 ft
Extra Space Storage to SE 122nd Avenue	1,875 ft
SE 122nd Ave to SE 130th Avenue	1,900 ft
SE 130th Ave to SE 135th Avenue	1,450 ft
SE 135th Ave to SE 142nd Avenue	1,750 ft
SE 142nd Ave to OR 224/OR 212 spur	3,250 ft
OR 224 spur to SE 172nd Avenue	5,100 ft
On nearby streets	
SE Jennifer Street: SE Evelyn Street to OR 212	2.33 miles
SE 82nd Drive: Animal Hospital to SE Jennifer Street	1,500 ft
SE 82nd Drive: OR 212 to SE Tolbert Street	1,800 ft

Source: Open Street Map

Pedestrian Network Connectivity

An interconnected pedestrian network relies heavily on physical connections, such as pathways or crosswalks across roadways and streets, clear entrances to parks or trails, and interconnectivity across or through large land use parcels. Community members in the area would like to see better physical connections, creating a more connected and livable community to live and work in.

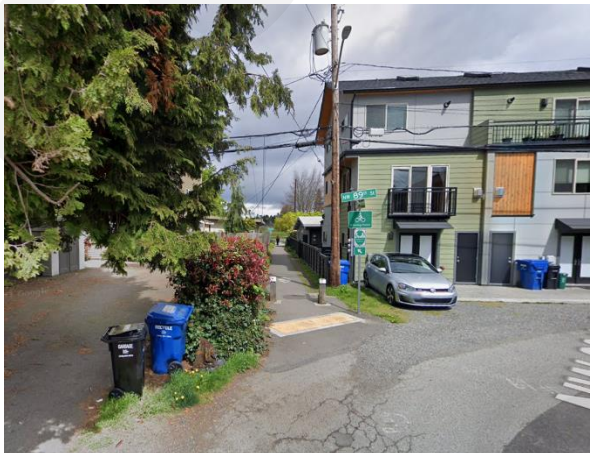


Figure 31: Pedestrian Neighborhood Cut Through Example

Actions:

- Identify local connectivity gaps on local streets, to-from regional and recreational facilities, as well as higher volume roadways.
- Work with community partners and local agencies to increase access at recreation sites such as parks, multi-use trails, the Clackamas River using pavement markings, signs, signals, and infrastructure needed to facilitate improved access.
- Work with local businesses on large parcels to promote safe and co-beneficial connections on properties.

Safe and Interconnected Bicycle Network

Bicycle facilities within the study area consist of unprotected bike lanes, often adjacent to vehicle travel lanes with high volumes and speeds, which equate to a high level of traffic stress. These existing facilities are likely adequate and only comfortable for confident bicyclists, leaving most adults and all children unwilling and unable to utilize them.

Based on feedback received, people generally feel safe to ride bikes in their immediate neighborhood but are not likely to leave the area. People who ride to school or commercial establishments may choose to ride on sidewalks to feel safer and to be able to cross roadways like OR 212.

Vision Objectives

- ✓ Create an interconnected bicycle network
- ✓ Support transit through an integrated first- and last-mile solutions
- ✓ Promote active lifestyles through infrastructure

Actions:

- Identify and fill gaps in the bicycle network based on bicycle standards (Exhibit 2). Prioritize the following locations first:
  - SE Jennifer St
  - OR 212 east of 152nd Ave to western project boundary
  - SE 162 Ave north of OR 212
  - Around school to facilitate transportation alternatives
  - Residential and Carver School in southeast quadrant
- Identify and confirm key destinations through community feedback community feedback.
- Ensure bicycle facilities are safe and comfortable for all abilities, where possible. Consider shy zones when creating comfortable bicycling facilities. Shy zone distance is the distance from which bicyclists feel comfortable riding next to physical elements (Exhibit 2).
- Work to connect the on-street bicycle network to existing the trail network.

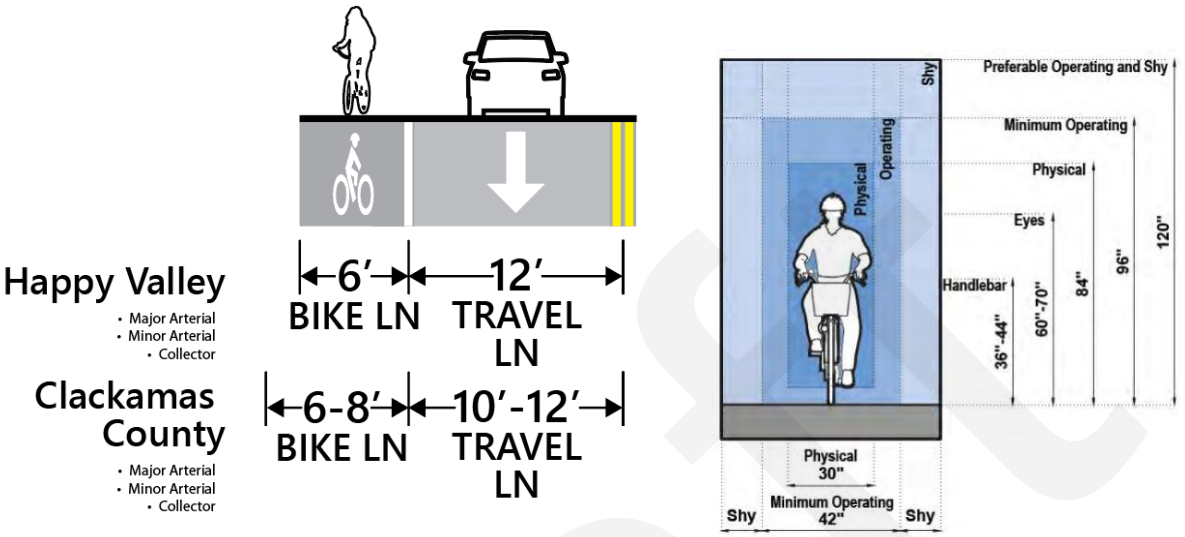


Figure 32: On Street Bicycle Facility Width

Bicycle Network Connectivity

An interconnected pedestrian and bicycle network relies heavily on physical connections, such as pathways or crosswalks across roadways and streets, clear entrances to parks or trails, and interconnectivity across or through large land use parcels. Community members in the area would like to see better physical connections, creating a more connected and livable community to live and work in.

Actions:

- Identify local connectivity gaps on local streets, to-from regional and recreational facilities, as well as higher volume roadways.
- Work with community partners and local agencies to increase access at recreation sites such as parks, multi-use trails, the Clackamas River using pavement markings, signs, signals, and infrastructure needed to facilitate improved access.
- Work with local businesses on large parcels to promote safe and co-beneficial connections on properties.

Bicycle and Pedestrian Ramps	Bicycle Signal

Figure 33: Bicycle and Pedestrian Ramp Examples

Bicycle and pedestrian ramps can be used to transition users from off-street facilities (e.g., sidewalk-level protected bike lanes and multi-use paths) to on-street bicycle facilities (e.g., shared lanes, bicycle lanes, and shoulders).

Figure 34: Bicycle Signal Example

Bicycle signals provide a dedicated signal phase for bicyclists to move across an intersection when cars are not – right-turning vehicle traffic - or to facilitate a diagonal crossing of an intersection for a multi-use path.

Freight Access

Safe freight access means being able to deliver and receive goods at a destination effectively and predictably. To facilitate this, OR 212 and 224 serve as key corridors for freight activity locally and regionally in and through the study area. Oregon Metro's Regional Freight Strategy identifies these roadways as "Main Roadway Routes" that create the Regional Freight Network.

Vision Objectives

- ✓ Facilitates movement of goods and services
- ✓ Support regional-scale freight mobility needs

Truck drivers in the study area need safe and reliable space to maneuver, transfer and deliver goods, and access warehouses, loading docks, or other facilities without concern of conflicts with other roadway users. And because large trucks are frequent during daytime hours in the study area, streets should be designed to accommodate them, minimizing day-to-day travel time variations.

Actions:

- Use Metro's Regional Freight Network as a starting point to ensure that established freight network is safe and functional.
- Integrate local streets within/near the network to better accommodate freight access and mobility needs – SE 98th Avenue and SE 102nd Avenue that abut single family residential zones.
- Implement near term local safety improvements on connecter and local roads such as corner truck aprons, curbs, and safer pedestrian spaces.

Figure 35: Truck Apron at Intersection Example

Figure 36: Trucks Parking in Street on Curb in Study Area

Truck Parking

Community members understand that freight is critical to the local economy and that OR 212 is a freight route. However, a lack of lack of safe, designated truck parking is a growing concern among residents. Trucks currently stop to park, rest, or queue on the curb, in center turn lanes, and in bike lanes, causing safety and sightline challenges for other roadway users.

While available land is limited, residents and businesses would benefit from a mini freight hub that would provide a defined truck parking and queuing location for freight and commercial delivery drivers. This area would provide a safe and accessible space for freight and commercial delivery vehicles to park, rest, and queue as they wait for their deliveries. Additionally, the mini hub could facilitate the transfer of goods from large to small vehicles if a smaller vehicle is needed to make a final delivery to nearby businesses.

Actions:

- Develop a truck parking and queuing mini freight hub.
- Consider adding amenities such as tree cover, landscaping, restrooms, and a commercial corner store.
- Possible location – around SE Jennifer St between SE 106th Ave and SE 114th Ave.

Portland's "Electric Island" is a small parking and charging hub for medium and heavy-duty trucks to charge (Exhibit 3). While this is geared toward EV vehicles, the concept of small-scale truck parking could be translated to a small-scale truck parking hub within the project study area.

Figure 37: Example Truck and Bus Charging Station (Portland)

Mobility Hubs and Bus Stops

Increased transit service is needed for fixed routes in the project area. Fixed route service must compete with general purpose traffic, freight, and large industrial parcels with limited pedestrian facilities. Transit preferential treatments including bus priority signals, bus pull outs, bicycle racks, pedestrian crossings, and transit-only lanes.

> *A mobility hub is a place that connects different travel options – typically walking, biking, transit, and shared mobility – in a single place to support first-mile, last-mile connectivity and to create activity centers for a community. - TriMet*

Actions:

- Explore alternatives for a transit station and mobility hubs in the study area. The Clackamas County Transit Plan identified a potential Transit Hub location at the OR-212 and SE 82nd Drive intersection, where existing lines 30 and 79, and future lines 145 and 150 intersect.
- Provide transportation mode connections at key stop locations to improve speed and reliability. Strategies to consider include things like bus priority signals to improve bus travel through congested intersections, and transit-only lanes help buses move more quickly and reliably during high at peak hours.
- Improve bus stops through design and amenities. Bus stops provide safety and comfort to passengers as they wait for the bus. Therefore, some strategies to consider include locating bus stops at convenient intervals and making them highly visible and easily accessible on foot. Furthermore, amenities like trash cans recycling bins, bike racks, bike-sharing stations, and parking spaces provide added convenience and comfort to passengers. Installing clear and informative signage and providing an easy-to-read bus map are additional strategies to make bus travel more convenient. Safety is another key aspect to be considered, and therefore, providing adequate lighting, and ensuring safe access and convenient crossings can ensure safe and comfortable bus transportation for passengers.

Vision Objectives

- ✓ Support an affordable, safe, and connected transit system that helps people get to jobs, services, and homes, and integrates with first- and last-mile solutions
- ✓ Enhance regional and statewide mobility for residents, employees, and businesses
- ✓ Assess and monitor existing facilities and buildings to determine how best to support changing businesses and community needs and remove development barriers

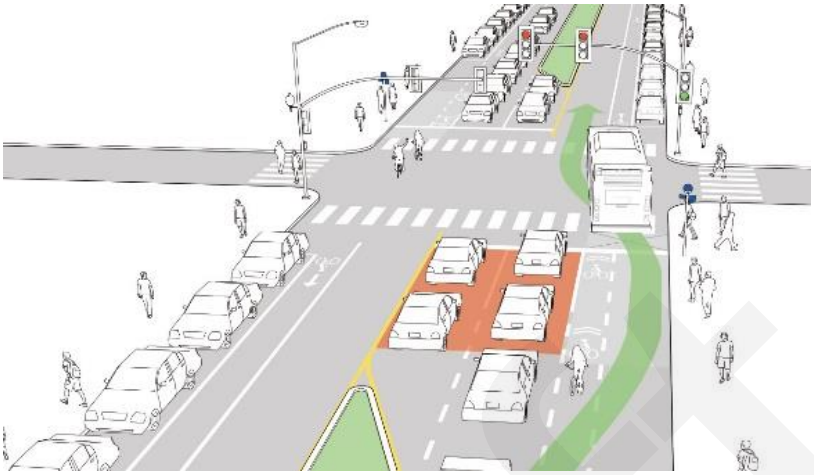


Figure 38: Example of a Bus Priority Signal at an Intersection

Improve Fixed Route Transit Service

TriMet's 2023 Forward Together plan recommended new routes and service balancing that apply to the Sunrise Community. Recommended service improvements in the area include:

- *Line 79* | increase frequency to every 30 minutes on SE 82nd Drive, adding frequent service (15 minutes) if funding is available.
- *Line 150* | a new route from Milwaukie serving the study area on OR212 and Jennifer Avenue and on to Gresham via SE 172nd Avenue.
- *Line 145* | a new route between Gladstone and Clackamas Town Center through the study area, connecting to the study area on SE Strawberry Lane and serving SE Jennifer Street, SE Evelyn Street, and SE Minuteman Way.

In addition to these service improvements, TriMet's 2023 Regional Transit Oriented Development Plan includes goals that encourage areas to offer multi-modal, user-friendly, accessible areas with mixed land use. The Metro 2018 Regional Transit Strategy summarizes how effective transit service is built on land use density, connected and safe pedestrian networks, mixed land uses, and building entrances close to stops. Utilizing these documents to further support transit service across the study area will improve travel options for both employees and residents.

Vision Objectives

- ✓ Support an affordable, safe, and connected transit system that helps people get to jobs, services, and homes, and integrates with first- and last-mile solutions
- ✓ Enhance regional and statewide mobility for residents, employees, and businesses
- ✓ Assess and monitor existing facilities and buildings to determine how best to support changing businesses and community needs and remove development barriers

Actions:

- Zone for transit-supportive land uses near potential transit centers that allow for increased density, mixed uses, and affordable housing. Refer to the Land Use strategies within this document for more detail.
- Enhance first and last mile connections to and from fixed route bus lines. Examples include siting transit or mobility hubs, sidewalks, and bike lanes, micromobility stations, and local shuttles like the Clackamas County Connects.
- Support expanding TriMet's service area boundary. The eastern service area boundary ends in the Sunrise Community area at about SE 162nd Avenue. To deploy bus service on SE 172nd Avenue, TriMet will need to expand the service area. Clackamas County and partners can support this process to see future service expansion.

Improve Clackamas County Connects Shuttle

Figure 39: Clackamas County Industrial Area Shuttle

Vision Objectives

- ✓ Support an affordable, safe, and connected transit system that helps people get to jobs, services, and homes, and integrates with first- and last-mile solutions
- ✓ Enhance regional and statewide mobility for residents, employees, and businesses

The Clackamas County Shuttle provides connections to help fill gaps in the TriMet service network, relieve congestion, and support local employment. The Study Area route links Clackamas Town Center Transit Center with Clackamas Industrial Area, getting people to key locations. The County offers the service daily, leaving Clackamas Town Center every 60 minutes, from 4:50 a.m. to 8:30 p.m. weekdays, and to 11:30 a.m. on weekends. The route serves timepoints like stops, with deviations to nearby locations upon one day prior.

People shared that the service is underutilized and could attract more riders and expand the areas of opportunity. Some ideas to improve service include improving first/last mile connections, increasing ease of use of service, and reducing congestion.

Actions:

- Increase service frequency. Increased transit service of all types offers riders convenience and flexibility that allow people to integrate transit service into their day-to-day choices. The current runtimes may allow for 45-minute frequency without adding drivers or vehicles, though the hourly service is easy to remember. Because of the costs involved in other service changes, the County can develop alternative service plans and engage riders, employees and residents in the study area to identify transit specific needs.
- Enhance with transportation demand management strategies. The shuttle can be enhanced through supporting services like marketing and public information, incentives through employer transportation benefits, and "training" people on the service at local events or employer venues.

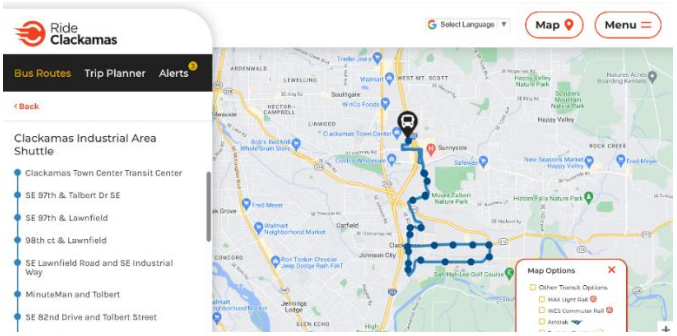


Figure 40: Clackamas County Trip Planner

Sunrise Corridor Community Visioning

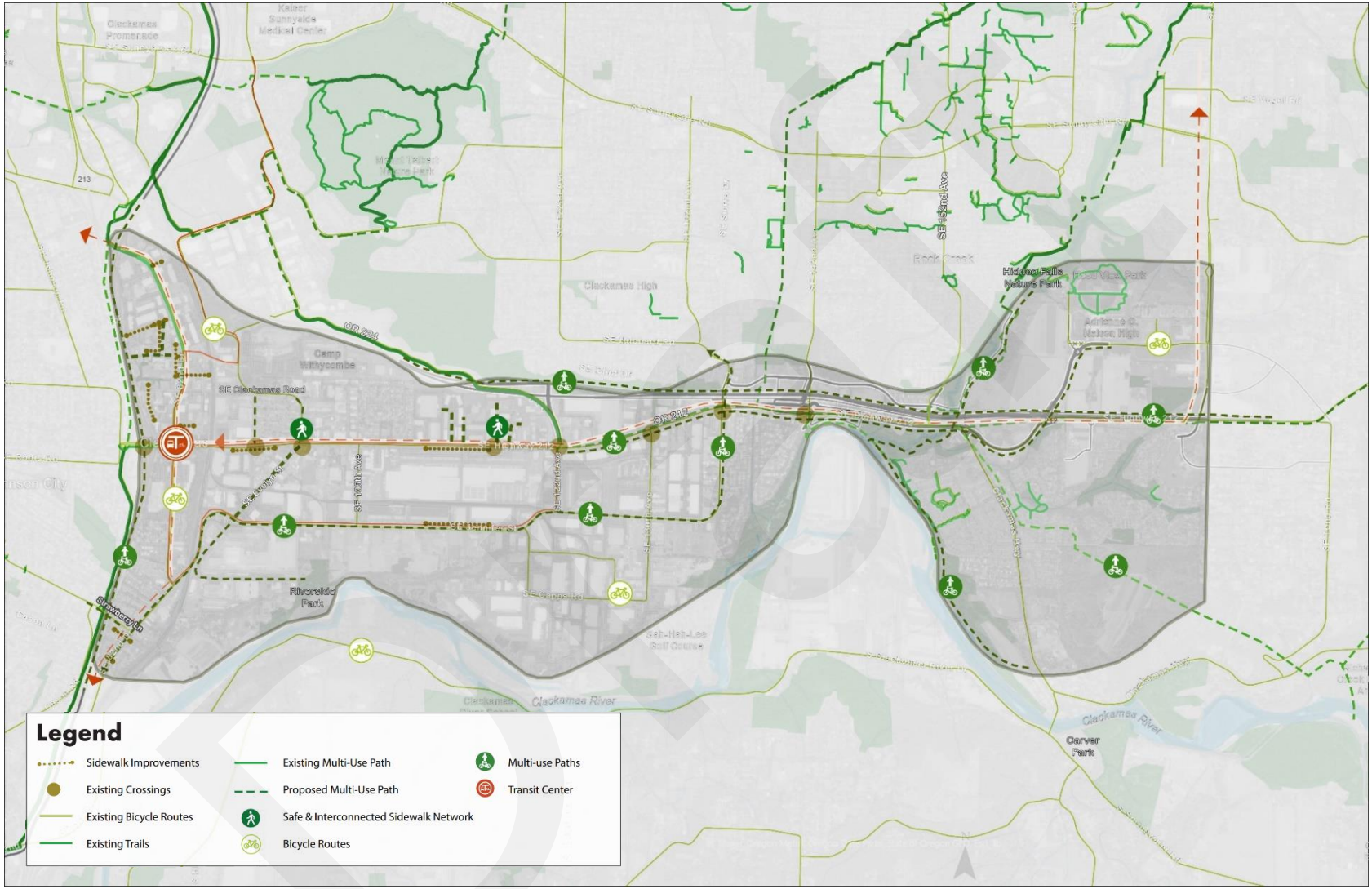


Figure 41: Safe and Connected Mobility Strategies

Open Space and Community Identity

The Clackamas Industrial Area, created in 1984, is located within the project area, designating it as a regional distribution, warehousing, and wholesale trade center. While most often characterized by industrial and commercial uses, the project area includes residential areas. These residential communities range from seniors to families to children and include both old and new residents. Newer residential developments have increased in the eastern side of the study area, along with two schools, a sports facility, and a park, further reshaping the local makeup of uses.

Community members and key stakeholders both indicated a need for a more livable, healthy, and sustainable place to live and work. Forested hiking trail parks, such as Mt. Talbert Nature Park and Hidden View Park, Riverside and Carver Parks, the Clackamas River, and the Sunrise Shared-Use Trail are all places that residents and employees feel they cannot safely access and utilize.

Key Issues

Neighborhood level open space and parks. Development in the form of large industrial sites and warehouses limits the amount of open space available to residents and workers. Families are looking for places to play and interact with their community. Residents are also concerned about the traffic in the area and development impact on local wildlife that may be moving through the area on the way to the natural spaces south and north of the study area.

Access and connection to the Clackamas River. Peopled noted there was limited connectivity to the Clackamas River and other natural areas despite how close it is. There are limited parks or public spaces like parks or trails to see or be near the river. However there appear to be privately owned parks or trails by the river, which would require public-private coordination and collaboration.

Multi-modal trails and walking paths. There are opportunities to enhance and expand the existing trails in and around the project area and connect residents to open spaces for recreation and personal health purposes. Planned trails create an opportunity to improve public health through increased exercise, access to nature and connections between people.

Activating community spaces to create sense of place. People living in the area noted that open spaces are important to creating community identity. Creating and maintaining activities or park "programming" helps create social interaction and foster a sense of belonging. The activities reflect community values and culture, building a community story people see themselves in.

Strategies

Strategies to improve open space and connectivity include things like providing multi-use trails to connect residents to natural areas, building parks, designing green streets, and adding landscape buffers to reduce noise pollution and enhance views. These strategies directly support Project Goals 4 and 5.

The following is a list of recommended open space/connectivity-related strategies that are based on existing conditions, public feedback, and project goals.

The following strategies are described in this section.

STRATEGIES	
	OPEN SPACE AND COMMUNITY IDENTITY
	**Multi-Modal Connections to Natural Spaces**
	**Enhance river access points**
	**Multi-Use and Nature Trails**
	**Enhance and Develop Parks**

Multi-Modal Connections to Natural Spaces

There are many natural spaces within and near the project area, but accessing them by active modes like walking, biking, or rolling is difficult. A key challenge to accessing these spaces revolve around the limited number of multi-modal connections available. Developing a diverse network of pathways connecting residents to nearby natural areas is critical to enabling beneficial time in nature.

Increasing multi-modal connections involves creating physical linkages in the transportation network, as well as design that makes multi-modal travel comfortable and pleasant. Designing pathways with "green street" principles in mind can enhance the experience of a trail or pathway by providing shade, planting native plants, and integrating stormwater management devices.

Vision Objectives

- ✓ Provide healthy and resilient open spaces linking natural environments for people and wildlife.
- Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming.

Green treatments to enhance a pathway can be incorporated on several different paths and trail types, including pedestrian paths, bike paths, and multi-use paths.

Actions:

- Identify efficient paths to connect residents to local parks and river access.
- Enhance pedestrian experience by providing tree shading and pollinator gardens along pedestrian pathways.
- Design larger pedestrian islands to improve pedestrian safety.
- Improve lighting along pedestrian pathways to improve pedestrian safety.
- Promote the design of wider and safer bicycle paths to improve the bicyclist experience.

Enhance River Access Points

Natural areas and outdoor recreation facilities are somewhat disconnected within the study area to adjoining natural areas. Participants in a community survey emphasized their enjoyment of the Clackamas River and the local parks located along it but emphasized that public access points to the river is limited to only a few locations. A key priority should be to better connect residents to the river by enhancing the river's access points, better improve pathways to and from the river, and provide amenities along the river.

Vision Objectives

- ✓ Provide healthy and resilient open spaces linking natural environments for people and wildlife.
- Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming.

Actions:

- Identify new Clackamas River access points on both public and private lands.
    - Evaluate provisions in the zoning code that might allow the County to develop easements or open space sharing agreements with private property owners for benefit of public access.
- Coordinate access points with planned and funded local and regional pathways and trails and create necessary signage.
- Identify new park amenities at Riverside Park on the Clackamas River, such as upgraded restrooms, walking paths, garbage collection and parking design.
- Engage the community through strategic outreach to identify which amenities would be most desirable to the community.
    - Potential amenities at river access points could include boat ramps, swimming areas, fishing areas, and/or parks along the river.

Park elements to consider, depending on park type, may include:

- Picnic tables
- Trees
- Grassy areas
- Beaches or water access
- Safety fencing
- Playgrounds
- Restrooms
- Trash cans
- Maintenance roles
- Boardwalk or nature trail
- Bike parking, multi-use trails

Figure 42: Central Oregon Historic Canal Trail (Source: Oregon Adaptive Sports)

Multi-Use and Nature Trails

There is a lack of multi-use/nature trails within the residential and commercial areas of the project site and a disconnect between existing trail networks. Trails in the study area include the Hidden Falls to Rose Creek Loop Hike, the Carver Park and the Clackamette Park floating route, and the Sunrise Expressway Multi-Use Path.

The Sunrise Gateway Corridor package developed by Clackamas County, ODOT, and the City of Happy Valley supports the development of a protected multi-use path from the Clackamas County Town Center to 172nd Avenue. It also supports the regional Mt. Scott/Scouters Mt. Trail Loop Master Plan that would connect the Springwater Corridor to the Clackamas River and Industrial Area.

Vision Objectives

- ✓ Protect and enhance access to natural resources that people rely on
- ✓ Preserve and enhance local identity
- Enhance health, well-being, and sustainability

In 2022, the Metro Council awarded $20 million in grants for trail project across greater Portland. The City of Happy Valley received over $600,000 in grant money to improve the Clackamas River Trail, a 1,450-foot-long multi-use path in Carver. This trail can connect residents to the Clackamas River, public transportation, residential areas, parks, and other natural features in the area.

Actions:

- Identify current trail-related concerns related to existing trails through community engagement surveys.
    - Work with community to identify safety issues, maintenance needs, opportunities and constraints, trail access points, and/or recreation opportunities along existing trails.
- Improve signage and wayfinding for existing trails to improve guidance along trails and support safer travel.
- Add amenities along existing trails, such as benches, lighting, bike racks, and/or native landscaping.
- Improve landscape buffers between trails and major roadways.
- Fill in gaps in existing trail network and extend trails to key destinations. The location of new trails should integrate smoothly with the existing traffic and trail network.

The Oregon Metro Regional Parks Plan identifies three trail types to consider:

- **Multi-use path:** Shared use path, typically used for recreational/pedestrian/bike use, typically linear and contiguous pathway type.
- **Urban Trails:** Located in urban areas, typically used for both commuting and recreation, may be a part of existing pedestrian and bike networks.
- **Nature trails:** Located in and around natural areas, typically use for recreation, may include informative signage about the area and natural features.

Enhance and Develop New Parks

A survey conducted as part of the 2015 North Clackamas Parks & Recreation District Draft Master Plan identified that trails, parks, and playgrounds are among the most important community amenities considered when selecting a home. Community members have also identified a need for more children-oriented play areas. They would like to see open spaces that reflect the vibrancy of the residents rather than liminal spaces that are often unused within the industrial area.

Parks can support valuable community services and recreation opportunities, helping to maintain what residents love about the area. The following park types provide ideas for future parks in the area. Refer to table 2 for more detail on park typologies.

Vision Objectives

- ✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming
- Enhance health, well-being, and sustainability

- **Playgrounds/Neighborhood Parks:** Parks located in and near residential areas should focus being play spaces for children, being community gathering spots, and could include play structures, benches, and other community amenities like grills and shade structures.
- **Pocket Parks:** These public spaces are intended to offer traditional park amenities such as benches, playground equipment, and trees and plants. Additionally, underutilized strips of land that are abandoned, obsolete, vacant, or unused, could include plaza-like re-designs that integrate hardscapes and landscapes.
- **Parks on the River:** Parks located along the river offer unique water-related recreation opportunities and amenities such as boat ramps, swimming areas, fishing areas, and more.

Actions:

- Identify ways to enhance existing parks based on community feedback.
  - Enhancements can be in the form of physical amenities, like benches and shelters, or programmatic, such as community events and activities.
  - For example, the 2015 NCPRD Master Plan includes additional elements to Hood View Park, such as a skatepark and off-leash dog park.
- Identify opportunities to create new parks across the study area – whether on private or public property.
- Utilize Metro's Connect with Nature report – a resource and recommendations guide on planning parks and nature areas with communities of color.

Figure 43: Scouters Mountain (Source: Oregon Metro)

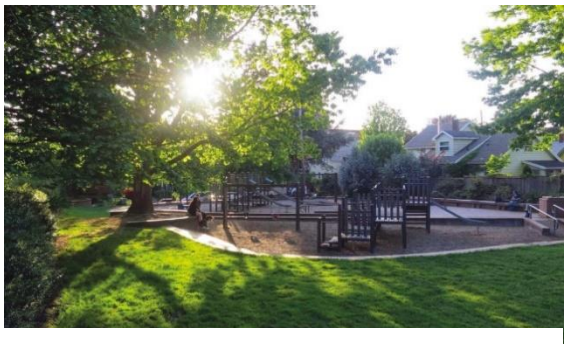


Figure 44: Piccolo Park provides an example of a pocket park in Portland, Oregon (Source: PDX Monthly)

Table 2: Park Typologies

TYPE OF PARK	DESCRIPTION	POTENTIAL AMENITIES	EXAMPLE
NEIGHBORHOOD PARKS	Recreational and social space in a neighborhood, like playgrounds or play area. Typical service area: 1/2 to 1 mile radius		
COMMUNITY PARKS	Intended to serve a broader purpose than neighborhood parks; intended to conserve open spaces and meet community recreation needs. Community parks provide opportunities for active, passive, and structured recreation		
NATURAL AREAS	Minimally developed; intended to conserve land for environmental benefit, wildlife, and protecting natural resources.		
GREENWAYS	Greenways are intended to provide connection throughout the community, and may provide connections to recreation or other resources. Greenways often include trails for pedestrian and bicycle corridors.		
SPECIAL USE AREAS	Can include indoor areas (i.e. community centers, senior centers, aquatic facilities) and outdoor areas (boat ramps, fishing docks, sports fields, gardens)		

Source: 2015 NCPRD Master Plan

Sunrise Corridor Community Visioning

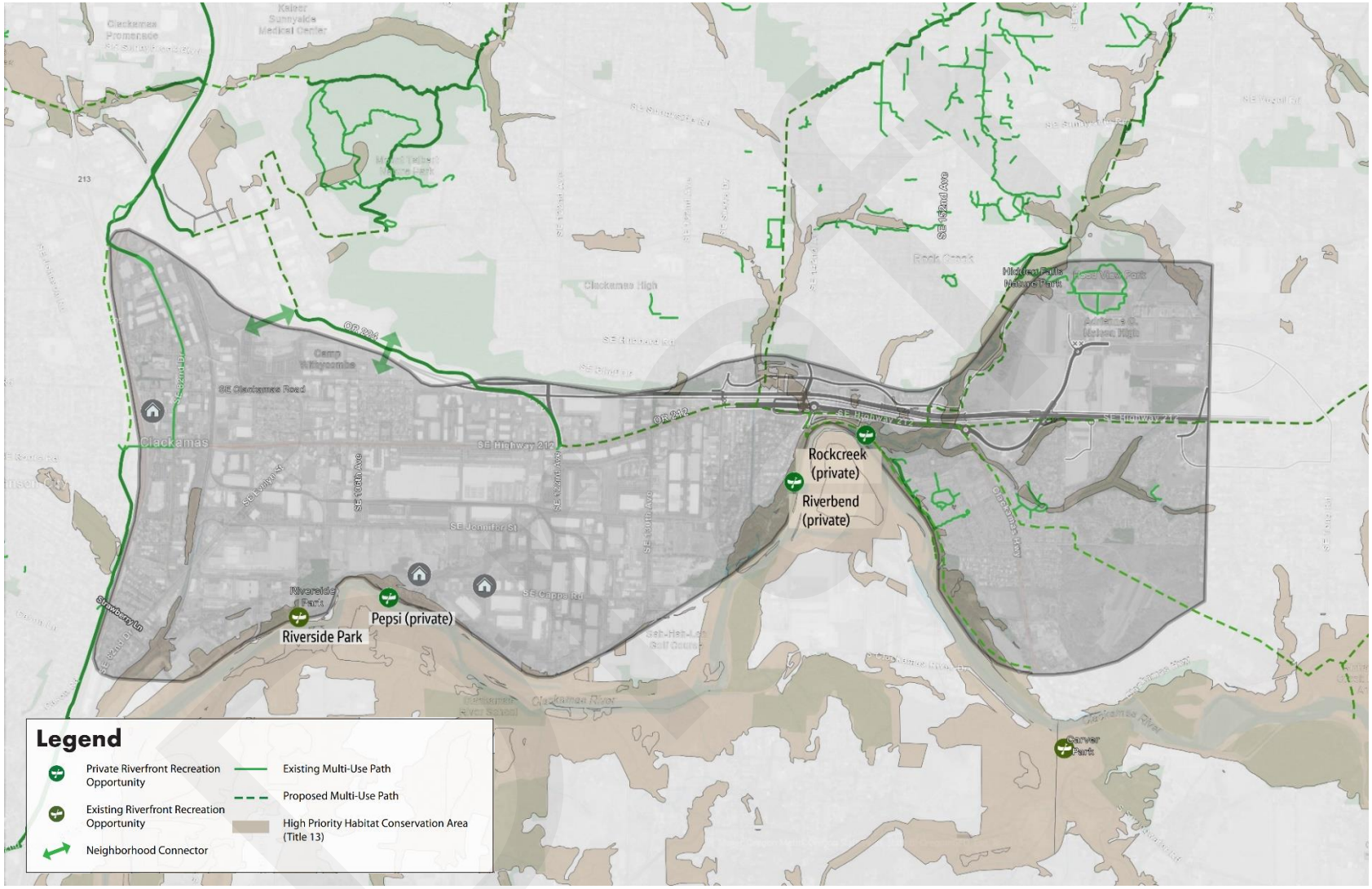


Figure 45: Open Space and Community Identity Strategies

Economic Development

These strategies will be explored further and refined as ongoing research brings more clarity to the economic assets, challenges, and available tools as part of the economic competitiveness assessment. In this research we will look at locational factors and market trends that drive demand for various industries and land uses in the Sunrise Corridor area and will identify economic development strategies to advance the goals and vision for the Sunrise Corridor Community. The key issues and strategies are based on past plans, existing conditions analysis, and community engagement findings.

Key Issues

Industry Concentrations and Diversifying Economic Base. The area has diverse industrial concentration of manufacturing, wholesaling, warehousing, and transportation uses. The economy is diversifying with services uses growing the fastest over the last five years.

Conflicting Land Uses and Isolation. On one hand residential uses including mobile home parks are integrated within the industrial area and not buffered. On the other, retail and commercial services are isolated to the west and not integrated within the Sunrise Corridor Community as amenities. Conflicting land uses can be a barrier to industrial recruitment where non-complementary uses without appropriate buffering deter from amenity premiums or limit more intensive scale and/or economic uses.

Vacant Opportunity Areas. The area has large vacant and underrealized sites, including the Rock Creek Industrial Area.

Limited Development Activity. Despite strong market conditions, the area has seen limited new commercial or industrial development in recent years.

Aging Properties. Over 45 percent of commercial and industrial properties are over 25 years old. Roughly 25 percent are over 40 years old.

Infrastructure and Land Readiness. While the area has vacant and underutilized assets, land characteristics and readiness may be misaligned with the needs of performing industry sectors.

Major Employers. The Sunrise Corridor Community is anchored by 20 larger employers (150 employees or more) that employ over 5,100 workers (36 percent of all workers).

Strategies

Strategies to improve economic development include things like aligning development standards with modern industrial facilities, scaling parcels to accommodate site sizes to meet market demand, focusing on retention of firms in key sectors, and forming partnerships between industry and higher education.

The following is a list of recommended land use and economic development recommendations that are based on existing conditions, public feedback, and project goals.

The following strategies are described in this section.

STRATEGIES	
	ECONOMIC DEVELOPMENT
	**Explore code and zoning amendments to reach goals around mixed use, economic development, and access**
	**Ensure that development and design standards are aligned with modern industrial facilities**
	**Attract, retain, and cultivate firms in key sectors**
	**Partnerships between industry and higher education to bolster the STEM workforce pipeline**

Explore code and zoning amendments to reach goals around mixed use, economic development, and access.

Best in class businesses need to deploy unique and compelling features in the design of their facilities. The tight labor market in the region is changing how employers will interface with their employees and vice versa. What employers need in a workplace has been significantly impacted by the need to attract and retain today's knowledge workers. "Industrial Amenities" has emerged as a unique driver in the industrial sector, which is at times directly connected to design of the workplace and the site. Some of the commonly accepted amenities in the industrial sector include:

- Access to public transportation
- Food options on-site or within walking distance
- Natural amenities, walking trails and outdoor seating
- Windows and natural lighting
- Childcare
- Building/facility features such as fitness centers, improved breakrooms, temperature control, and games

Vision Objectives

- ✓ Promote public health, safe movement, and active lifestyles through infrastructure, open space and programming
- ✓ Enhance health, well-being, and sustainability

In the near term, market demand is greatest for medium (5-15 acres) and large (15-25 acres) parcels. Developing a diverse inventory of flexible sites will provide opportunities for recruitment as well as places for firms to scale in-place and move into successively larger sites with less business disruption. To create more opportunities for advanced manufacturing jobs and to foster a rich and vibrant community, the County can explore ways to support this new market driver for industrial amenities. The County can explore code updates to remove barriers to development and encourage the development of areas that integrate residential, commercial, and recreational spaces.

Actions:

- Promote a separation of land use to avoid conflicting uses and negative impacts of heavy industrial uses on higher value commercial and light industrial uses and adjacent residential uses.
- Promote integration of placemaking and amenities in employment areas to improve value and marketability.
- Scale development parcels to accommodate a diverse range of site sizes to meet market demand.

Ensure that development and design standards are aligned with modern industrial facilities.

A growing demand for industrial amenities translates into developer and lender requirements for high quality industrial assets. Institutional investors and capital partners are now dictating enhanced design and facility features to their buildings to assure long term value and to create an asset class that can trade multiple times. The County can review and potentially amend standards related to site and building design to ensure that standards are calibrated to the needs of modern facilities and users.

Actions:

- **Building Coverage:** Review and potentially increase allowable coverage to increase density and opportunity. Landscape buffers and associated requirement are maintained to protect adjacencies and key pathways.
- **FAR (Floor Area Ratio):** For non-industrial employment uses, ensure that allowed FAR's are consistent with trends in suburban-scale office and business park development forms.
- **Building Height:** Review and potentially increase allowable height. Over the last decade industrial building heights have increased due to construction changes and users demands. Clear heights inside warehouses have gone from 24 ft to 30 ft to 36 ft to 40 ft. in many cases.
- **Diversity of Uses:** One of the keys to creating vibrant business areas is a diversity of uses. In the past, uses were separated rather than integrated. This was most visible in the industrial sector and for some clear and obvious reasons. Some uses are loud, noxious, 24/7 and incompatible with residential. These uses still need to be shielded from some areas but allowing for a rich diversity of uses in the manufacturing and logistics areas will foster the development of employment centers that cater to the full needs of employees and employers. Review and ensure a diversity of appropriate uses are allowed outright in the Sunrise Corridor.
- **Support space for small scale users:** Smaller scale industrial has emerged as a "missing" segment that struggles to attract institutional capital. However, this is a vital segment of the industrial and business community. These uses often directly foster or are connecting to other large-scale employers in communities, and play an important role in the incubation of businesses that create a sustainable pipeline of growth. This is strongly apparent in other communities across the country where specific districts are targeted as "maker space zones" or "incubator/accelerator space. in an effort to directly support innovation in their communities. Increasing the ease of development or redevelopment of sites for these uses could support the economic goals for the Sunrise Corridor.

Vision Objectives

- ✓ Assess and monitor existing facilities and buildings to determine how to best support changing business and community needs and remove development barriers
- ✓ Create a financially sustainable community where public investment has direct benefits to job opportunities
- ✓ Attract medium-sized businesses that offer livable wages

Attract, Retain, and Cultivate Firms in Key Sectors

The economic existing conditions analysis identified several fast-growing and/or high average wage industries, which align with the key industry clusters prevalent in Clackamas County, which include:

- Professional business services,
- Wholesale trade, transportation, and distribution,
- Healthcare,
- Food and Beverage Manufacturing,
- Advanced manufacturing.

The County, in coordination with partners and other stakeholders, should develop focused actions to attract, retain, and cultivate firms in these sectors. The County should be deliberate about considering the economic and community development benefits of different uses that create jobs and promote economic mobility for historically marginalized populations. The County should develop and implement a strategic plan to attract firms in these sectors and remove barriers.

Vision Objectives

- ✓ Create a financially sustainable community where public investment has direct benefits to job opportunities
- ✓ Attract medium-sized businesses that offer livable wages

Actions:

- Building staff knowledge and expertise in these sectors to better understand site selection criteria unique business needs.
- Developing a local and national database of firms in these sectors and their expansion/growth outlook.
- Making targeted investments in infrastructure that aligns with site needs and improves site readiness.
- Seeking state and federal funding for infrastructure improvements and site readiness. Identify opportunities to promote designation of shovel-ready or Regionally Significant Industrial Sites.
- Promoting site assembly and site aggregation
- Targeted marketing strategies
- Leveraging existing business networks including industry associations, major employers and business leaders to advocate for the plan area.
- Design a package of financial and nonfinancial incentives for targeted businesses.
- Develop collateral on available sites and establish a site selection assistance program.

Partnerships between industry and higher education to bolster the STEM workforce pipeline

The County should create a strategic plan to identify and bring together partner organizations and private firms to improve the workforce pipeline in targeted sectors and facilitate the formation or participation in an industrial collaborative. For example, the Columbia-Willamette Workforce Collaborative currently serves industries that align with targeted sectors.

The industrial and employment areas would be served by industry-led and community-supported partnerships to build initiatives to remain competitive and attract a range of quality jobs. Examples of collaborative objectives include developing and finding talent, providing feedback on policies and regulations, and advancing infrastructure investments.

Actions

- Create a strategic plan to identify and bring together partner organizations and private firms
- Enhance coordination and partnerships between industry and higher education to bolster the STEM workforce pipeline and explore opportunities to develop an Industrial Collaborative.

Vision Objectives

- ✓ Support workforce training opportunities in industries that provide livable wages to improve self-sufficiency of individuals, students, and families.
- ✓ Create public-private partnerships to develop and advance coordinated strategies to improve the community.

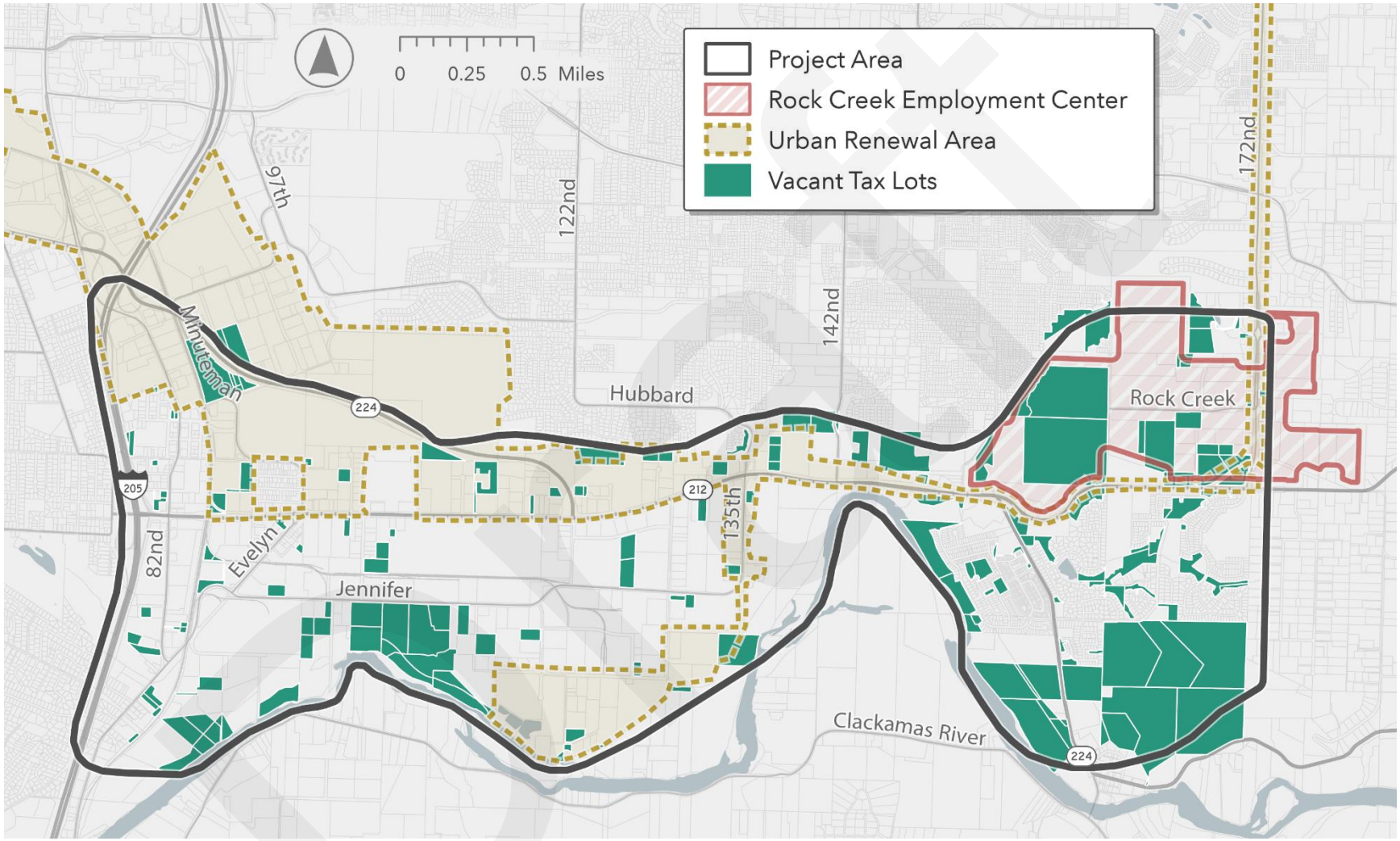


Figure 46: Economic Development Strategies