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Technical Memorandum

October 24, 2023 Project# 27852

To: Jamie Stasny, Regional Transportation and Land Use Policy Coordinator
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From: Marc Butorac, PE, PTOE, PMP; Krista Purser, PE; Russ Doubleday; and Poppy Yang, Ph.D.

CC: Ana Jovanovic, Jamey Dempster, and Maulsri Jha – Jacobs

RE: Sunrise Gateway Corridor Tech Memo #4.2: Plans Review

Transportation Plans

Previous and ongoing planning efforts have played a crucial role in guiding the goals, objectives, evaluation criteria, and projects that form the foundation of the Sunrise Gateway Corridor. These planning efforts have taken into account the diverse needs and perspectives of Oregon Department of Transportation (ODOT), Clackamas County, City of Happy Valley, and communities along the corridor and have sought to create a comprehensive and sustainable transportation strategy. Transportation plans reviewed in this document include:

Transportation Plan Summary

There were 16 local and regional plans and six state plans that were deemed relevant to the Sunrise Gateway Corridor. Table 1 below identifies each plan, provide the study area for the plan, provides a brief summary of how this plan is relevant to the Sunrise Corridor, and lists how the plan relates to the unadopted Sunrise Gateway Corridor Concept from 2021.

Table 1. Document Review Summary

	Plan	Study Area	Project Relevance	Status Related to Sunrise Gateway Corridor
Local	Sunrise Project Final Environmental Impact Statement (FEIS) (2010)	Sunrise Corridor Phase 2 Area	The Preferred Alternative for the Sunrise Project will be integrated into the state highway network, connecting I-205, the Milwaukie Expressway, and OR 212/224. The highway will consist of six through lanes and two auxiliary lanes. The Sunrise Project will be designated as OR 212/224, while the existing OR 212/224 will be reclassified as a county arterial. This plan marks the base point for the planning around Sunrise Corridor.	Refined by Sunrise Gateway Corridor Concept (unadopted)
	Sunrise Gateway Corridor Concept (2021, unadopted)	Sunrise Corridor Phase 2 Area	The Sunrise Gateway Corridor Concept serves as the foundational vision for the current project, providing a starting point for another round of planning efforts.	Active/Consistent with Sunrise Gateway Corridor Concept
	Clackamas to Columbia (C2C) Corridor (2020)	181st/182nd/190th/172nd Corridor, Clackamas and Multnomah Counties	The C2C Corridor enhances mobility by establishing a north-south connection spanning from 172nd to 190th. The Sunrise Corridor provides a vital transportation link in northeast Clackamas County, facilitating efficient west-east connectivity along the OR 212 and 224 routes. The integration of these two corridors effectively improves overall transportation accessibility and movement in north and northeast Clackamas County.	Active/Consistent with Sunrise Gateway Corridor Concept
	Clackamas County Transportation System Plan (TSP) (2013)	Clackamas County	Clackamas County TSP serves as a comprehensive roadmap for the county's transportation system, setting up the policies and guidelines for the maintenance and improvement of existing infrastructure. It also identifies the committed improvements and the priorities of these improvements in Clackamas County, covering the study area of this plan.	Refined by Sunrise Gateway Corridor Concept (unadopted)
	Happy Valley Transportation System Plan (2023)	Happy Valley	The Happy Valley TSP lays out the 20-year transportation plan for this rapidly growing city. While the TSP provides a framework for comprehensive transportation planning (roadway and multimodal planning) for the city, the TSP identifies multimodal and roadway improvement needs for the region, including the Sunrise Corridor, its parallel facility, and surrounding areas (e.g., Highway 212 corridor, Rock Creek Junction, and Sunnyside Road).	Active/Consistent with Sunrise Gateway Corridor Concept

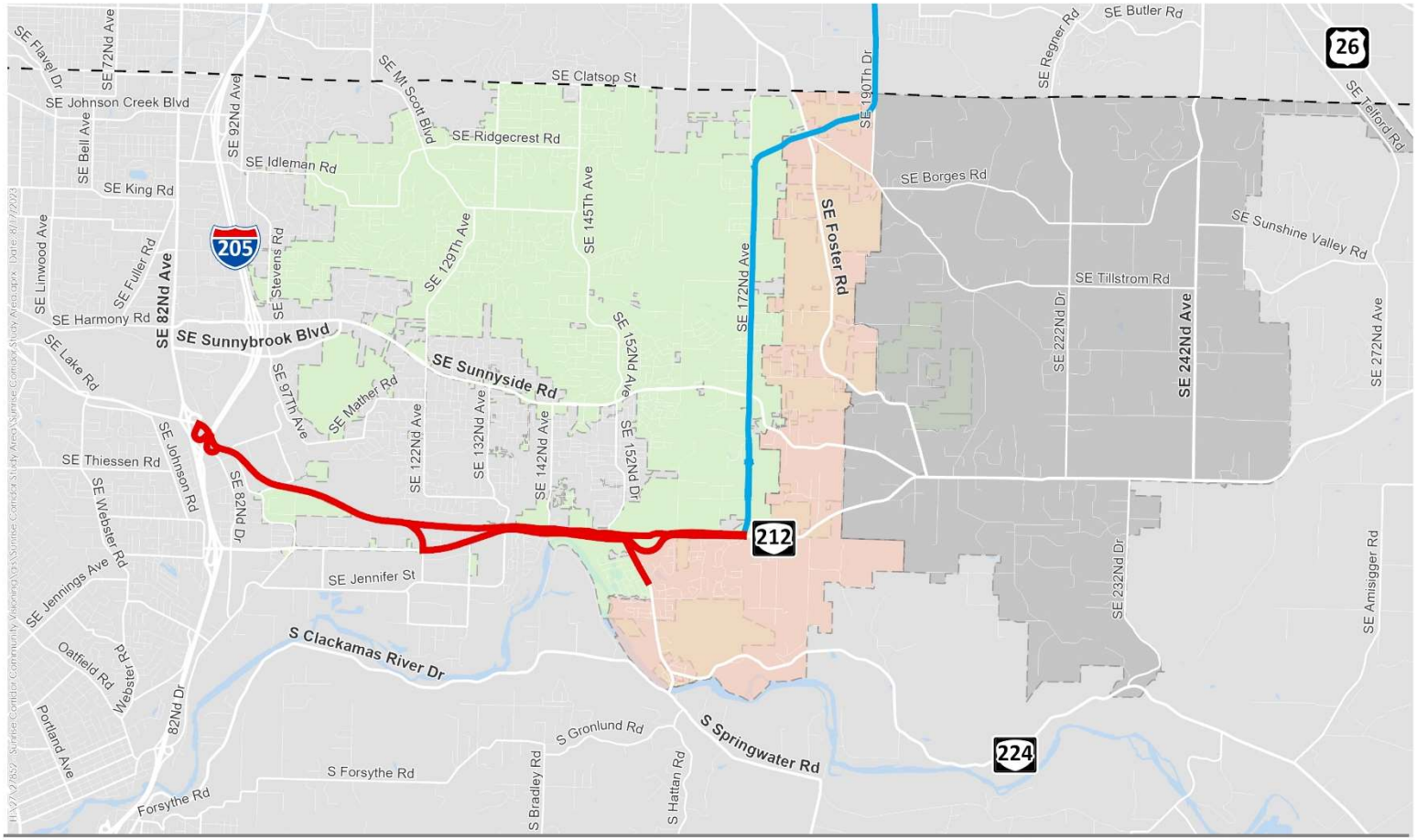
Plan	Study Area	Project Relevance	Status Related to Sunrise Gateway Corridor
Damascus Mobility Plan (2022)	Damascus (Sunrise Corridor Phase 3 Area)	This plan identifies transportation improvements for the entire Damascus area and Highway 212-focused improvements between 172nd and 242nd avenues. These improvements will connect to Sunrise Corridor or generate impacts on Sunrise Corridor.	Active/Consistent with Sunrise Gateway Corridor Concept
Metro's Regional Transportation Plan (RTP)	Metro (Portland's metropolitan planning organization)	The RTP lays out a region-wide project list for the next 20 years as federal and state transportation funding is allocated. There are numerous projects that impact the Sunrise Corridor, from planning/engineering work to construction of the corridor, a multi-use path network adjacent to the corridor, and roadway connections to the north and south of the planned corridor.	Active/Consistent with Sunrise Gateway Corridor Concept
Portland Region 2020 Traffic Performance Report	I-5, I-84, I-205, I-405, Highway 26, and Highway 217 within the Portland metro region	The report focuses solely on freeways within the Portland region, so Highway 212 and Highway 224 are not included. As traffic increases on I-205 (as well as I-84), it is likely that vehicles will turn to alternate routes, including the Sunrise Corridor to travel between US 26 and I-205.	Active/Consistent with Sunrise Gateway Corridor Concept
TriMet's Forward Together Plan (2023)	TriMet Service District	Previous planning work along the Sunrise corridor has shown that OR-212 is reaching capacity, specifically at the OR-224/OR-212 intersection (also known as Rock Creek Junction). Additional bus transit service will help move more people into, out of, and through the corridor, and added service on SE Jennifer Street and on SE 172nd Avenue (the future C2C corridor) will meet specific needs there, as well.	Active/Consistent with Sunrise Gateway Corridor Concept
TriMet's Existing Service Plan (Proposed 2024-25 Transit Service Changes)	TriMet Service District	As a major retail, employment, and transit hub, Clackamas Town Center serves as an anchor destination just to the north of the Sunrise Corridor. Enhancing transit service to Clackamas Town Center would better integrate this established hub with the Sunrise Corridor. Enhanced transit lays the groundwork for future connectivity to the growing communities east of the Sunrise Corridor. Strengthening transit connections at Clackamas Town Center provides multimodal access and mobility to support sustainable growth in Clackamas County.	Active/Consistent with Sunrise Gateway Corridor Concept
TriMet's Southeast Service Enhancement Plan (2016)	TriMet's southeast service district	The Southeast Service Enhancement Plan recommends several improvements to bus routes on the Sunrise Corridor: The new east-west route (Line X) proposed along SE Jennings Avenue, OR 212, and SE Sunnyside Road will increase connectivity through the corridor. Increasing service frequency on Line 156 will improve access to jobs in the Clackamas Industrial Area. Improving weekend services on Line 30 will enhance the access to destinations along OR 212 and connect Estacada and the Clackamas Transit Center. The new community/jobs connector provides flexible service to the industrial areas. Together, these enhancements will increase mobility and access to jobs in the Sunrise Corridor area through expanded bus service, community connectors, and improved bus facilities and access.	Active/Consistent with Sunrise Gateway Corridor Concept

	Plan	Study Area	Project Relevance	Status Related to Sunrise Gateway Corridor
	Clackamas County Transit Development Plan (TDP) (2021)	Clackamas County	The Clackamas County TDP identified the transit needs in 20 years and made service recommendations for all the Clackamas County, including the focus area of the Sunrise Project (e.g., OR 212, the Clackamas Industrial Area, and Damascus area) and its vicinity (e.g., Happy Valley) inside and outside the TriMet service area.	Active/Consistent with Sunrise Gateway Corridor Concept
	Clackamas County Connects – Industrial Area Shuttle (2023)	Sunrise Corridor study area (east of SE 122nd Avenue)	The Clackamas Industrial Area shuttle line serves the Sunrise Corridor area around OR 212 between SE 82nd Drive and SE 122nd Avenue. It also provides a north-south connection by linking the Clackamas Industrial Area to the Clackamas Town Center Transit Center. The shuttle line improves transit access to jobs and education in the Clackamas Industrial Area for residents across the region.	Active/Consistent with Sunrise Gateway Corridor Concept
	Metro's Regional Transit Strategy	Metro (Portland's metropolitan planning organization)	The C2C Corridor establishes a north-south connection from 172nd to 190th, while the Sunrise Corridor facilitates efficient west-east connectivity in northeast Clackamas County along OR 212 and OR 224. The integration of these two corridors will significantly enhances transportation accessibility and movement in north and northeast Clackamas County.	Active/Consistent with Sunrise Gateway Corridor Concept
	High-Capacity Transit Strategy (2023)	Metro (Portland's metropolitan planning organization)	While there are no high-capacity transit plans for the future Sunrise Corridor, Highway 212, or Highway 224, there is a long-range vision to bring additional transit capacity to the broader study area, in Happy Valley, along the C2C Corridor and toward Oregon City.	Active/Consistent with Sunrise Gateway Corridor Concept
	Clackamas County Active Transportation Plan (2013)	Clackamas County	The ATP identifies priorities for walking and biking facilities within the Sunrise Gateway Corridor study area that should be incorporated into conceptual designs. Further, the plan identifies cost estimates and potential funding sources for the improvements.	Active/Consistent with Sunrise Gateway Corridor Concept
State	Oregon Transportation Plan (2023)	State of Oregon	The 2023 OTP provides policy guidance relevant to planning and designing the Sunrise Gateway Corridor, including system management, enhancing the performance of the current transportation system, exploring sustainable funding options, and making strategic investments. Project development would need to align with OTP goals and strategies in equity, climate, safety, multimodal travel, stewardship, and coordination with land use planning.	Active/Consistent with Sunrise Gateway Corridor Concept
	Oregon Highway Plan (1999)	State of Oregon	OHP serves as a comprehensive set of guidelines governing the accessibility, mobility, and roles of state-owned highways in Oregon. In the context of the Sunrise Gateway Corridor plan, the OHP's policies will play a crucial role in shaping proposed enhancements, alterations, and local regulations that may impact any of the state facilities. In addition, close coordination with ODOT is essential to ensure	Active/Consistent with Sunrise Gateway Corridor Concept

	Plan	Study Area	Project Relevance	Status Related to Sunrise Gateway Corridor
			that all projects, policies, and regulations outlined in the Plan align with the safety, access, and mobility standards and objectives set forth in the OHP.	
	Oregon Freight Plan (2023)	State of Oregon	Given the nearby Clackamas Industrial Area, one of the objectives of the Sunrise Gateway Corridor plan will be to maintain and improve the efficiency of the truck freight system in the study area. To achieve this, the project advisory committee will consist of members who represent various freight interests; in particular, military freight interests should be highlighted.	Active/Consistent with Sunrise Gateway Corridor Concept
	Blueprint for Urban Design (2020)	State of Oregon	The BUD offers a context-sensitive approach to transportation planning and design, particularly relevant as the Sunrise Gateway Corridor traverses diverse urban contexts. Emphasizing flexibility in design criteria, the BUD caters to various users, including freight traffic, recreational travelers, commuters, bicyclists, and pedestrians - the primary users of the corridor. To aid decisions on prioritizing different modes and users, the BUD outlines a performance-based decision-making process, aligning with goal-driven, performance-based planning. The guidance assists in making decisions regarding trade-offs between modes or design elements in the Sunrise Corridor. Additionally, the BUD provides specific design guidance organized by urban context and unique criteria, helping with decisions on elements like lane widths, bicycle facilities, pedestrian crossings, and designation of roadway classification along the corridor.	Active/Consistent with Sunrise Gateway Corridor Concept
	Highway Design Manual (2023)	State of Oregon	The HDM and BUD outline design standards and guidance for state highway projects. Any proposed improvements on state highways, such as OR 212 and OR 224 within the Sunrise Corridor, will follow the guidance specified in the HDM.	Active/Consistent with Sunrise Gateway Corridor Concept
	Oregon Revised Statute 366.215	State of Oregon	OR 224 from I-205 to SE 122nd Avenue, and OR 212 from SE 122nd Avenue to US 26 are Reduction Review Routes. Therefore, any features included in the final plan that could reduce vehicle-carrying capacity must comply with the statute. Where necessary for safety or access considerations, the plan may identify a need to obtain approval for proposed future actions by following the ORS 366.215 Review Process.	Active/Consistent with Sunrise Gateway Corridor Concept

Figure 1 below shows the plan locations in relation to the Sunrise Gateway Corridor.

Figure 1. Sunrise Corridor Previous Plans Study Area



Local and Regional Plans

Sunrise Project Final Environmental Impact Statement (FEIS) (2010)

The proposed Sunrise Project aimed to address serious congestion and safety issues in the OR 212/224 corridor. The timeline of the project spanned several years, with tasks such as defining the scope of analysis, establishing the purpose and need, developing alternatives, and selecting alternatives for study. The publication of the Final Environmental Impact Statement (FEIS) in December 2010 marked a significant milestone.

Study Area

The proposed Sunrise Project would extend approximately five miles between I-205 and Rock Creek Junction. The project is often discussed by subarea. As shown in Figure 2, there are three subareas covering the following geographic areas:

- The I-205 Interchange area extends from west of I-205 to Camp Withycombe.
- The Midpoint area extends from Camp Withycombe to SE 152nd Avenue.
- The Rock Creek Junction area stretches from SE 152nd Avenue to SE 172nd Avenue.

Goals

1. Provide east-west transportation improvements from I-205 at the Milwaukie Expressway to the Rock Creek Junction to meet existing and future safety, connectivity, and capacity needs for statewide and regional travel within the OR 212/224 corridor.
2. Provide transportation improvements that support the viability of the Clackamas area for industrial uses.
3. Support community livability and protect the quality and integrity of residential uses within and adjacent to the corridor.
4. Provide a facility that minimizes and effectively mitigates adverse impacts to natural and cultural resources within the project corridor.

Planned Projects

FEIS summarizes the programmed projects in the project vicinity are summarized and shown in Figure 3 and Figure 4. These projects mainly include committed improvements outlined in the Statewide Transportation Improvement Program (STIP) and the Metropolitan Service District's (Metro) Financially Constrained Project.

FEIS evaluated two build alternatives and six design options to improve transportation in the area while considering potential impacts on the environment, land use, and communities. The *Preferred Alternative* is **Alternative 2** with the **Tolbert overcrossing** from Design Option A-2, and incorporates the **alignment** of Design Option C-2 and the **SPUI interchange** of Design Option D-3**.**

The proposed **Alternative 2** (Figure 5) includes a multi-lane, limited-access highway north of and parallel to the existing OR 212/224 between I-205 and Rock Creek Junction. A midpoint interchange will connect the highway to the existing OR 212/224, ensuring access to businesses along that corridor. From I-205 to Rock Creek Junction (where OR 212/224 splits into OR 212 to the east and OR 224 to the south), the highway will have six lanes plus auxiliary lanes. East of Rock Creek Junction, the highway will narrow to six lanes with no auxiliary lanes until SE 172nd Avenue, where it will narrow to five lanes.

Figure 2. Study Area of FEIS

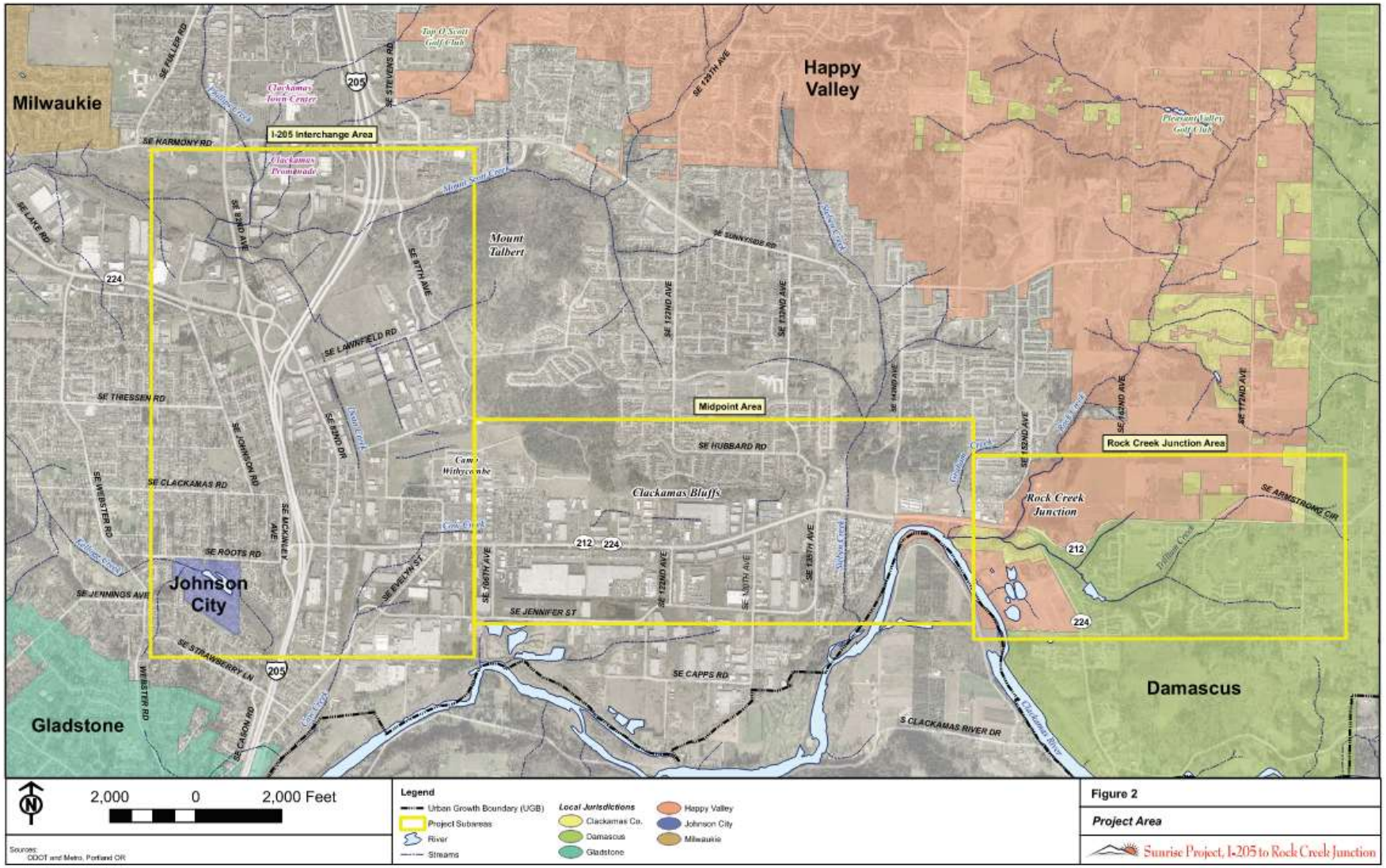


Figure 3. Programmed Projects

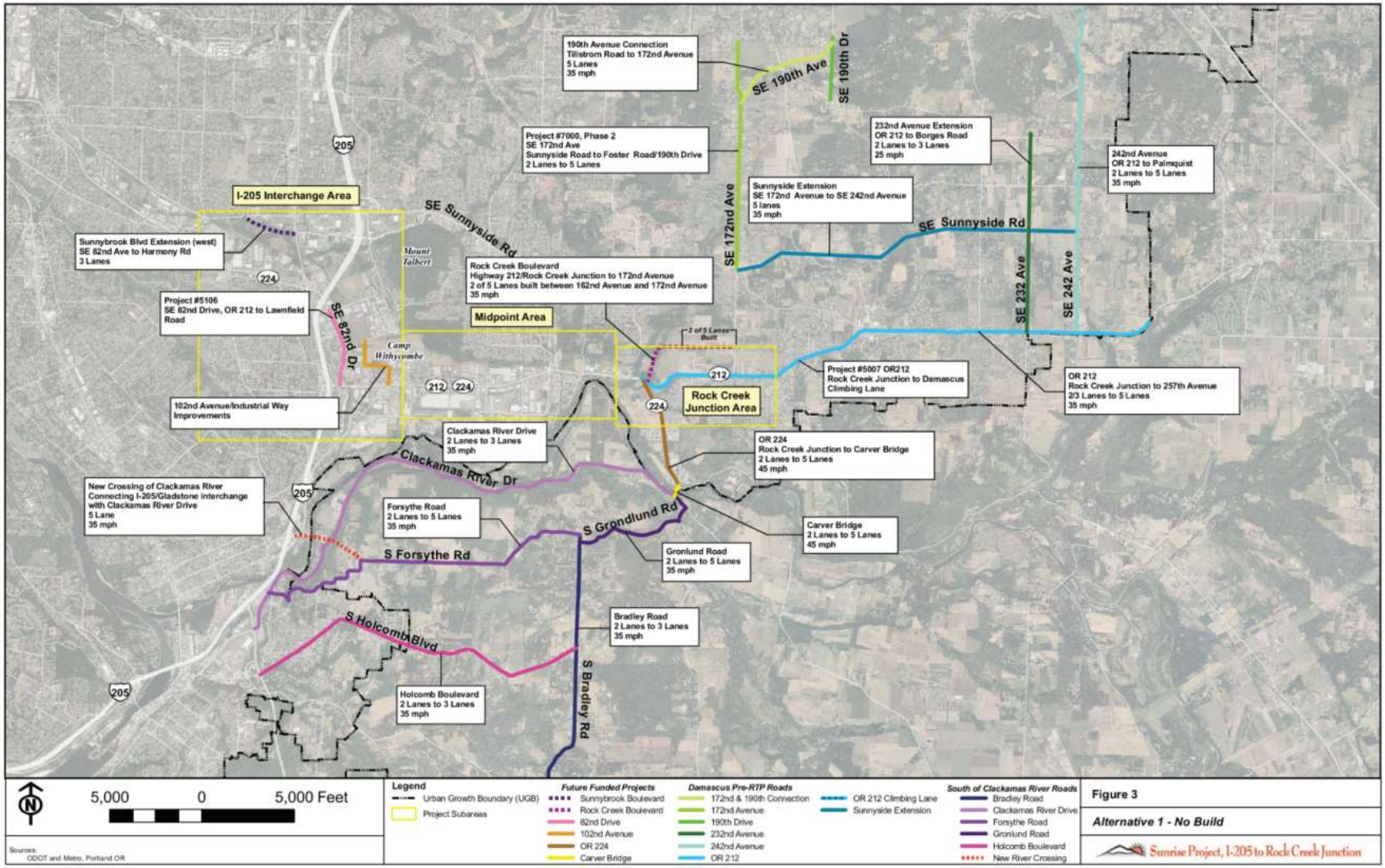
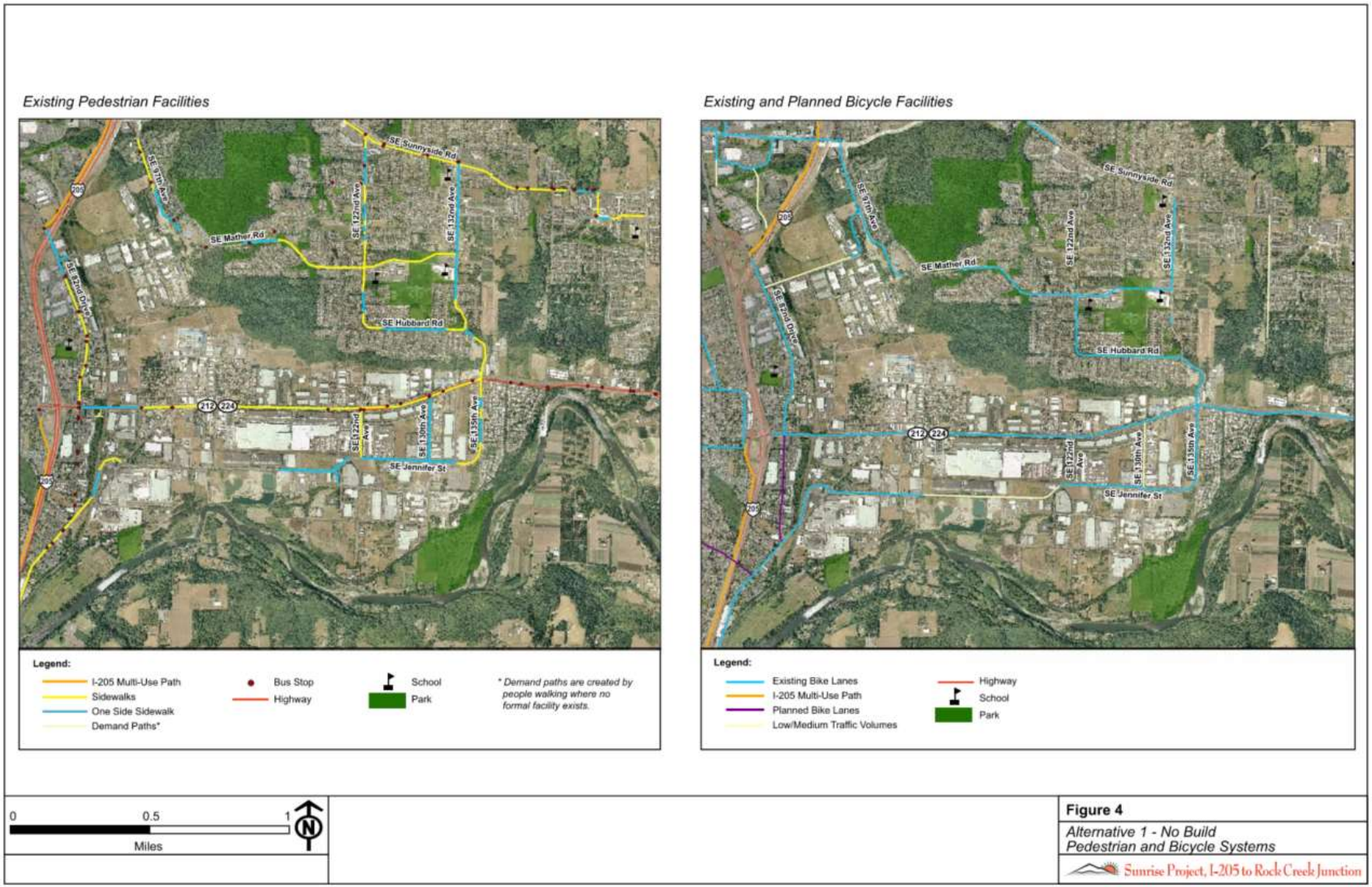


Figure 4. Programmed Pedestrian and Bicycle Projects



Design Option A-2 provides access to/from SE 82nd Drive and the Lawnfield industrial area via an overcrossing of Union Pacific Railroad (UPRR) tracks to SE Tolbert Street. It does not extend SE Lawnfield Road to the north. It was intended to provide local access to/from the Lawnfield Road industrial area and I-205 without the adverse impacts that would result from extending SE Lawnfield Road to the north. Design Option C-2 locates the Sunrise Project alignment farther south than the Alternative 2 alignment. Design Option D-3 provides a different type of interchange design at the Rock Creek Junction than under Alternative 2 and Design Option D-2, reducing the interchange footprint further and moving it slightly south.

Project Impacts

The distinct impacts, listed below, highlight the trade-offs associated with the Preferred Alternative. These impacts are summarized based on the data and information in Table 2 of the FEIS document.

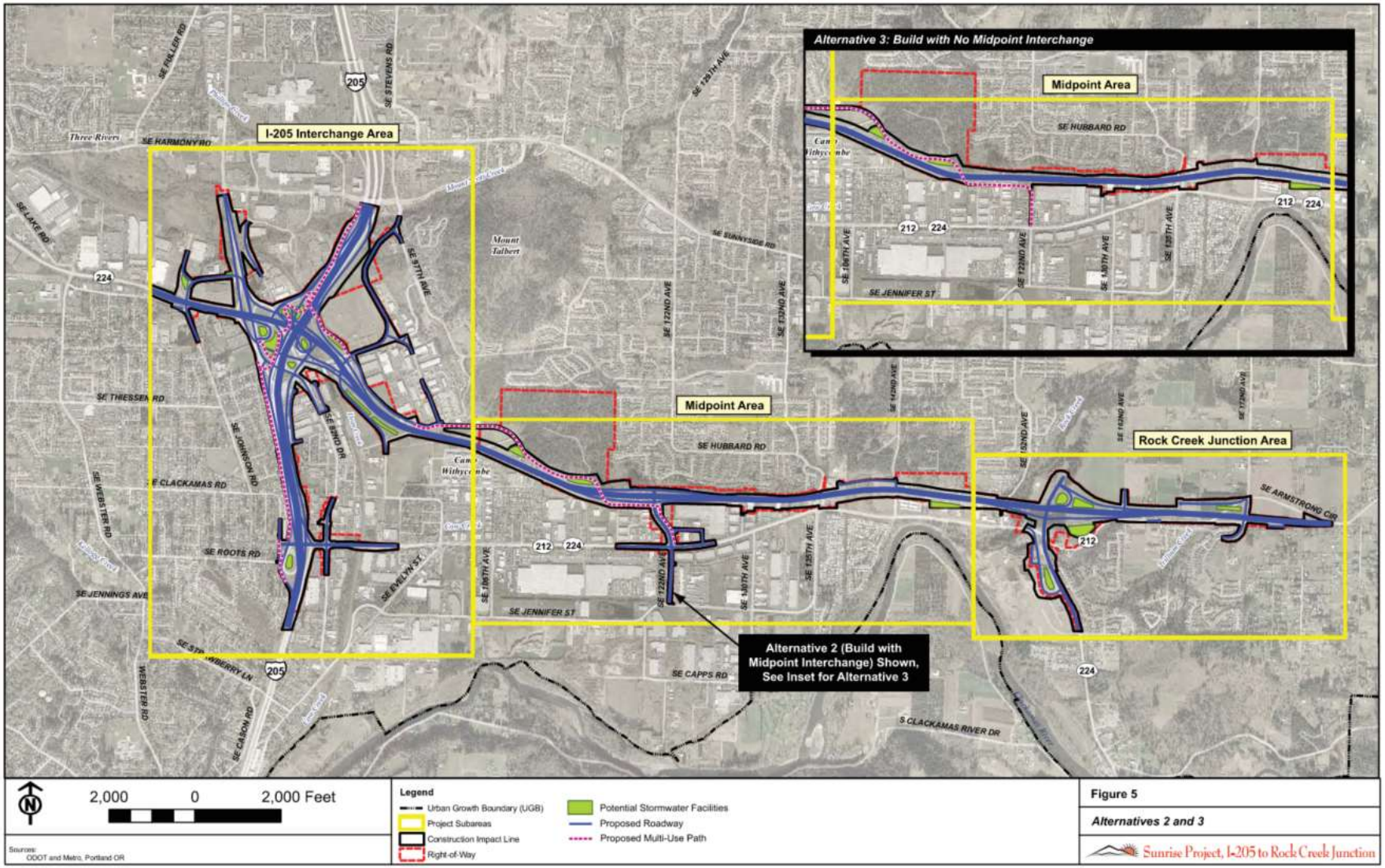
- **Transportation:** The preferred alternative has the same capacity as Alternative 2, accommodating 12,400 vehicles during the PM peak hour. The addition of a midpoint interchange provides faster travel times to the midpoint area, providing faster and more efficient transportation. This aligns with the state, regional, and local transportation plans, particularly for improving freight movement. In addition, Alternative 2 provides improved bike-pedestrian infrastructure for the connectivity and accessibility of non-motorized transportation.
- **Land Use:** The preferred alternative would require the conversion of 496 acres of various uses/zoning designations to highway use. This includes residential, employment, and other land uses. As a result, 53 dwelling units would be displaced and approximately 188 driveways would be impacted by the preferred alternative's land use changes. Acquiring the required right-of-way comes at a significant cost estimated at $216 million.
- **Businesses and Communities:** The Old Clackamas neighborhood would be significantly affected by the preferred alternative, resulting in the loss of several multi-family units and convenience commercial spaces. A manufactured home park would lose three units, isolating the remaining three units. Yet, no significant change in community character or cohesion is anticipated. Moreover, while the alternative contributes to overall development, it would result in the displacement of approximately 80 businesses and 1,037 jobs, as well as a decrease in potential new job opportunities, with an estimated loss of 3,563 jobs. It is also worth noting that converting land to non-taxable use may result in a loss of property tax revenue.
- **Visual Character and Resources:** The removal of vegetation, changes to utilities, and introduction of new infrastructure associated with the preferred alternative would lead to a decline in the visual quality of the Sunrise Corridor from an average score of 4 to 2-3 (low to moderately low).
- **Air Quality and Energy:** The increased vehicle miles traveled under the preferred alternative may lead to higher emissions. In terms of energy consumption, the preferred alternative estimates an annual fuel use of 14.56 million gallons for operations. Additionally, for construction, it estimates a fuel use of 54.7 million gallons.

The project involved extensive public involvement activities, including meetings, open houses, design workshops, newsletters, and public hearings. Stakeholders from various backgrounds, such as neighborhoods, businesses, cities, environmental groups, and service providers, were actively engaged in the process. The Project Advisory Committee and the Policy Review Committee played essential roles in reviewing technical analysis, considering public input, and making recommendations on the Preferred Alternative.

Project Relevance

When this project was completed, the Preferred Alternative for the Sunrise Project was integrated into the state highway network, connecting I-205, the Milwaukie Expressway, and OR 212/224. The FEIS called for the highway to consist of six through lanes and two auxiliary lanes. This plan marked the base point for the planning around Sunrise Corridor.

Figure 5. Build Alternative 2



Sunrise Gateway Corridor Concept (2021, unadopted)

The objective of this Concept was to evaluate, analyze, and enhance the plans for the Sunrise Phase 2 (122nd to 172nd) segment as defined in the 2010 Sunrise Environmental Impact Statement (EIS). During the development of the Sunrise Gateway Corridor Concept, various agencies and organizations in the Portland Metropolitan Area recognized the need for increased regional transportation investment.

In July 2020, the Metro Council presented the Get Moving 2020 transportation measure to voters for the November 2020 Regional Investment Ballot. The Sunrise Gateway Corridor Concept served as the basis for the project included in the measure. Although Get Moving 2020 did not receive voter approval, the Sunrise Gateway Corridor remains a priority for Clackamas County and the region.

This plan provides an overview of the process and refinements made to the concept, highlighting the factors that will facilitate the implementation of a fair, safe, and multimodal roadway network within the Sunrise Corridor. Clackamas County and its partners are committed to ensuring that future design and implementation work for the corridor is guided by equitable development and meaningful partnerships with the local residents and workforce, particularly focusing on people of color and other vulnerable groups.

Study Area

Sunrise Corridor.

Goals

The Concept was developed with the goal of aligning with the adopted project vision from 2010 FEIS and the objectives set by the Metro Council for the Get Moving 2020 corridors. The updated goals include:

1. Provide east-west transportation improvements from I-205 at the Milwaukie Expressway to the Rock Creek Junction to meet existing and future **safety**, **connectivity**, **continuity**, **access**, and **capacity** needs for statewide, regional, and multimodal travel within the OR 212/224 corridor.
2. Provide transportation improvements that support the viability of the Clackamas area for **industrial uses**.
3. Support **community livability** and protect the quality and integrity of **residential uses** within and adjacent to the corridor.
4. Provide a facility that minimizes and effectively mitigates adverse impacts to **natural and cultural resources** within the project corridor.

The updated objectives include:

1. Identify overall cost and construction efficiencies from the original 2010 EIS project
2. Provide features compatible with Get Moving 2020 criteria
3. Ensure improvements are forward compatible (limit throw away elements) as future stages of improvement are implemented
4. Preserve the Sunrise Corridor right of way
5. Maximize return on investment
6. Develop a phasing strategy to achieve a four-lane corridor by 2040

Key Elements

Intersections

Nine intersections were selected for evaluation (Figure 6). The operational analysis (Table 2 below) shows that five intersections are over capacity under 2040 no-build conditions (4, 5, 6, 8, and 9). Three differ in meeting or not meeting their threshold across scenarios (5, 6, and 9). Six remain below capacity across all 2040 scenarios (A, B, C, D, E, and 7).

Figure 6. Study Intersections

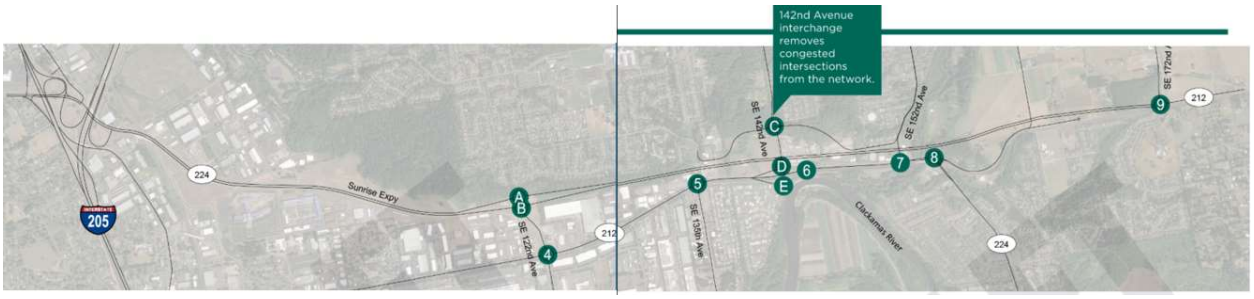


Table 2. Study Intersections Exceeding Volume-to-Capacity Thresholds

		EXISTING INTERSECTIONS						FUTURE INTERSECTIONS				
Intersection Scenario	**Time**	**4**	**5**	**6**	**7**	**8**	**9**	**A**	**B**	**C**	**D**	**E**
2015 No-Build	AM	0.85	NA	NA	NA	0.79	>1	NA	NA	NA	NA	NA
	PM	0.72	>1	0.96	0.5	0.92	0.84	NA	NA	NA	NA	NA
2040 No-Build	AM	>1	NA	NA	NA	0.84	>1	NA	NA	NA	NA	NA
	PM	0.86	>1	>1	0.96	>1	0.96	NA	NA	NA	NA	NA
2040 Two-Lane	AM	>1	NA	NA	<0.85	0.58	0.84	0.69	0.51	<0.85	<0.85	<0.85
	PM	>1	0.89	NA	<0.85	>1	0.64	0.5	0.62	0.87	0.65	0.83
2040 Four-Lane	AM	>1	NA	NA	<0.85	0.58	0.98	0.75	0.65	NA	NA	NA
	PM	>1	0.55	NA	<0.85	1.01	0.71	0.43	0.76	0.85	0.65	0.77

Note: Operations at intersection 4 worsen in the 2040 Two-Lane and Four-Lane PM peak hour compared to 2040 No-Build. Traffic that currently makes an eastbound through movement to continue on OR 212 instead makes an eastbound left-turn movement to get onto the Sunrise Gateway Corridor, causing higher congestion from the left-turn movements. A design study will need to be prepared to determine if dual eastbound left-turn lanes are necessary at 122nd/OR212-224 to facilitate the transition of OR212 traffic onto the Sunrise Gateway Corridor.

Corridor Design Alternatives

The initial corridor concept is illustrated in Figure 7 and includes the following modifications to the EIS preferred alternative:

- Remove the interchange at OR212/OR224 (Rock Creek Junction).
- Realign the eastern end of OR 212 past Rock Creek Junction to pass underneath the proposed Sunrise Corridor and connect with SE 162nd Avenue to the north.
- Establish full access control along the proposed Sunrise Corridor from 122nd to 172nd.
- Establish an initial two-lane cross-section for the Sunrise Gateway Corridor that can later become four lanes without substantial reconstruction or 'throw away' work.
- Include a multi-use path along the entire length of the corridor from the east end of Sunrise Phase 1 to the SE 172nd Avenue intersection.

Figure 7. Initial Corridor Concept

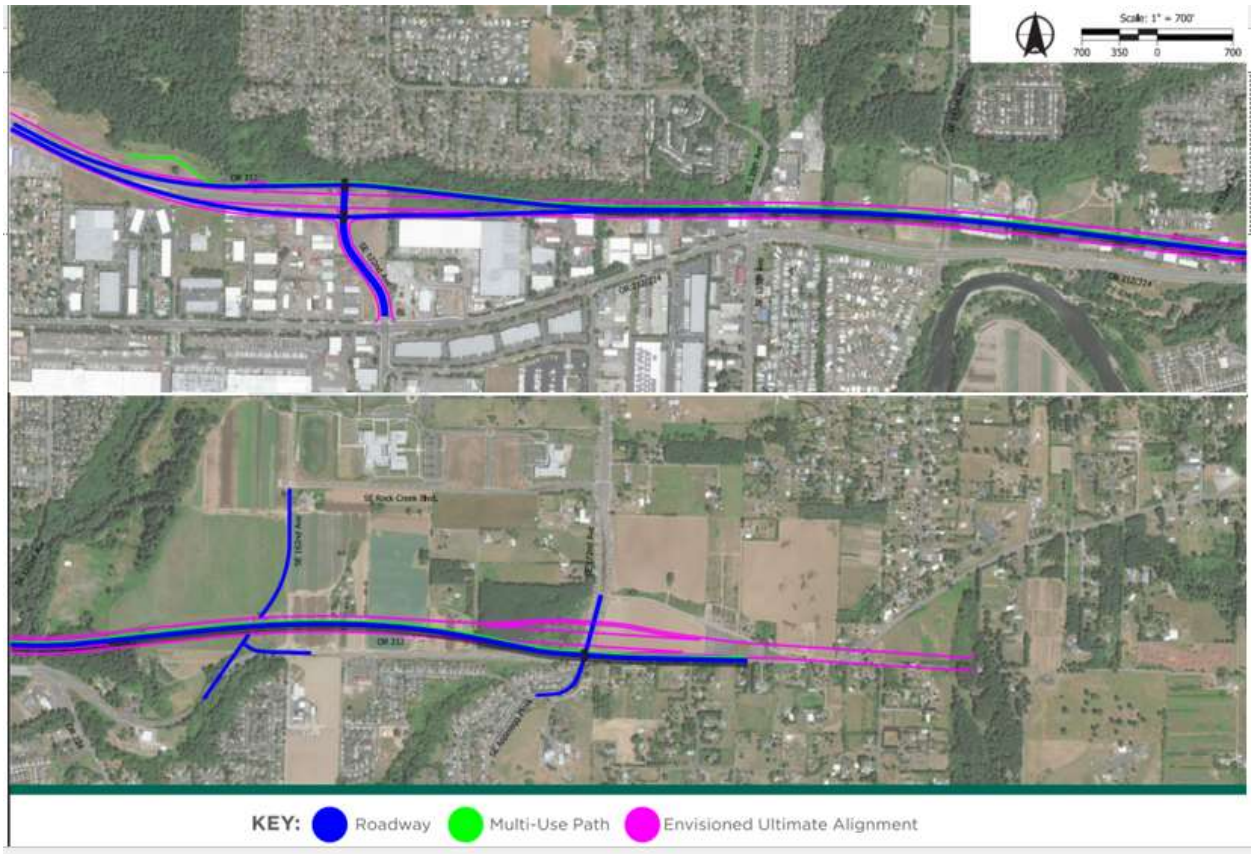


Table 3. Initial Concept Planning Level Cost Estimates

At-Grade Alternative	Construction Cost (including Engineering)	Right-of-Way Cost	Total Cost
Two-Lane	$274.6M	$89.3M	**$363.9M**
Four-Lane	$373.7M	$89.3M	**$463.0M**

Figure 8. Enhanced Corridor Concept

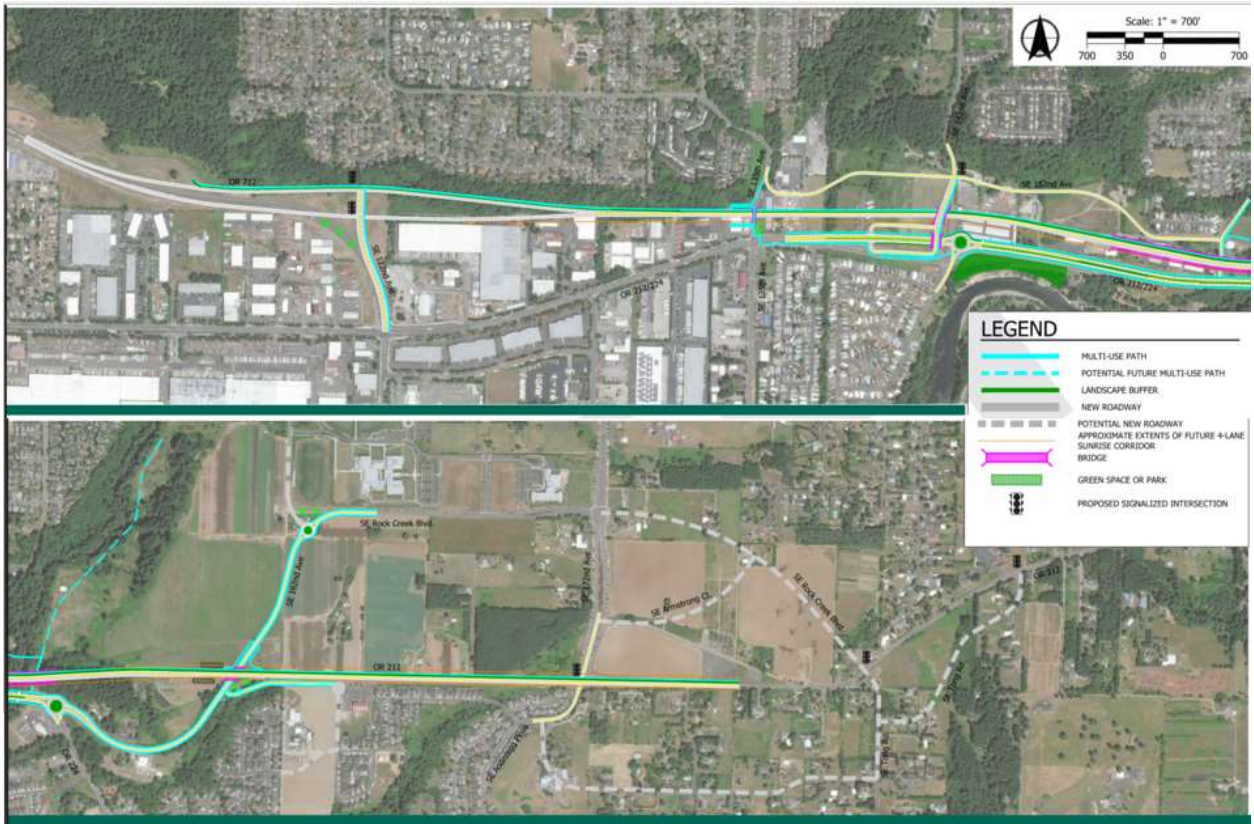


Table 4. Enhanced At-Grade Alternative Scenario Cost Estimates

At-Grade Alternative	Construction Cost (including Engineering)	Right-of-Way	Total Cost
Two-Lane	$220M	$150M	**$370M**
Four-Lane	$283M	$150M	**$433M**

The refined concept scenarios were expanded to include an at-grade Sunrise Gateway Corridor with an OR 212-224/SE 142nd Avenue consolidated interchange with frontage road between SE 135th Avenue and SE 152nd Avenue (Figure 8). Cost estimates were updated to reflect this further enhanced concept scenario (Table 4).

Corridor Refinement

Cross sections

- Considerations:
  - Adhere to ODOT and Clackamas County design standards.
  - Incorporate recent changes from the ODOT Blueprint for Urban Design.
  - Incorporate stakeholder and Get Moving 2020 feedback.
- Recommendations:
  - Implement narrower travel lanes to manage speeds and reduce costs.

- Use visual narrowing techniques and pavement markings for slower speeds and emergency access.
- Include a vegetated buffer for comfort, separation, and slower speeds for bicycles and pedestrians.

Based on the policy change associated with the ODOT Blueprint for Urban Design and guidance by Metro for all Get Moving 2020 projects, the proposed cross section would provide:

- 11-foot lane widths
- 18-foot median in the four-lane cross section
- 13-foot bus lane/shoulder
- Guard rails, where fill slope warrants them
- 12-foot landscape buffer
- 12-foot multi-use path

122nd Tie-in and Segment Alternatives

- Challenges:
  - Constrained project area due to existing development and future diamond interchange compatibility.
  - Presence of buildings in the southwest and southeast quadrants limiting flexibility.
- Considerations:
  - Build interim cross section on future on- and off-ramp locations to maintain compatibility.
  - Shift eastbound alignment north to avoid impacts to buildings in the southwest quadrant.
- Recommendations:
  - Recommend Refined Alternative 1A, featuring a one-way couplet with two-phase signal operation.
  - Include a multi-use path connecting to OR212 on the east side of SE 122nd Avenue.
  - Conduct a design study to assess potential modifications at the 122nd/OR212-OR224 intersection for eastbound traffic transitioning to the Sunrise Gateway Corridor.

Figure 9.122nd Tie-in and Segment Alternatives

135th/142nd/152nd Tie-in and Segment Alternatives

- Challenges:
  - Maintain connectivity between OR 212-224 and neighborhoods while crossing SE 135th Avenue, SE 142nd Avenue, and SE 152nd Avenue.

- Balance construction cost, future redevelopment, and community preferences.

- Primary scenarios considered:
  - Elevated Corridor: The 2010 concept plan proposed constructing the Sunrise Gateway Corridor above the existing grade, spanning over the three roadways. This option would maintain the current connection points to OR 212-224, but construction cost would be much higher and the prospect of an elevated roadway dividing the area might not be favorable for future redevelopment.
  - At-Grade Corridor: The Sunrise Gateway Corridor could be constructed on the existing grade between SE 122nd Avenue and SE 152nd Avenue. This scenario involves adding an interchange on OR 212-224 at SE 142nd Avenue, which would bridge over the Sunrise Gateway Corridor. Vehicle connections to OR 212-224 would be rerouted from SE 135th Avenue to SE 142nd Avenue. Bike and pedestrian connections would be maintained at SE 135th Avenue, SE 142nd Avenue, and SE 152nd Avenue through various bridge and trail connections. This option reduces costs and provides more flexibility for bike and pedestrian connections. The SE 152nd Avenue/OR 212-224 intersection would be converted to right-in/right-out, with all remaining movements rerouted to the interchange at SE 142nd Avenue and OR 212-224. The simplification of the remaining three-leg SE 135th Avenue (south)/OR 212-224 intersection and removal of the existing signalized SE 142nd Avenue and at-grade full movement (potential future signal) SE 152nd Avenue intersections along the corridor reduces congestion and improves safety.

- Recommendations:
  - Maintain Sunrise at grade from SE 122nd Avenue through SE 152nd Avenue

Figure 10. 135th/142nd/152nd Tie-in and Segment Alternatives

Rock Creek Junction Alternatives

- Challenges:
  - Existing development and topography constraints in the Rock Creek Junction area.
  - Inability to shift the existing OR212/OR224 (Rock Creek Junction) intersection due to recently approved housing developments.

- Considerations:
  - Various partial interchange alternatives considered, but deemed geometrically infeasible or cost-prohibitive.
  - Constraints limit the possibility of a future interchange at the Rock Creek Junction location.

- Recommendations:
  - No direct connection between the Sunrise Gateway Corridor and OR 224 at Rock Creek Junction.
  - Vehicles on OR 224 would access the Sunrise Gateway Corridor via SE 122nd Avenue or SE 172nd Avenue.
  - A multi-lane roundabout at the intersection of OR 212 and OR 224.
    - Note that the roundabout cannot be constructed until the two-lane Sunrise Gateway Corridor between 122nd and 172nd is completed.

Figure 11. Rock Creek Junction Alternatives

Rock Creek Junction/162nd to 172nd Tie-in and Segment Alternatives

- Challenges:
  - Infeasibility of a single-point interchange at Rock Creek due to changing conditions.
  - Operational and geometric constraints related to capacity and vertical grade issues at SE 162nd Avenue.
- Considerations:
  - Various alternatives considered, including realigning collector roads and exploring interchange, traffic signal, and roundabout options.
  - Feasibility analysis revealed realigning collector roads as the most viable alternative.
  - Emphasis on facilitating vehicle, bike, and pedestrian movement from Damascus area and Rock Creek Employment Center.
- Recommendations:
  - Realign SE 162nd Avenue and Rock Creek Boulevard as a continuous roadway.
  - Include a future interchange at SE 172nd Avenue for access between Sunrise Gateway Corridor and SE 162nd Avenue.
  - Construct a four-lane bridge across Rock Creek between SE 152nd Avenue and SE 162nd Avenue.
  - Shift Sunrise Gateway Corridor alignment south between SE 162nd Avenue and SE 172nd Avenue to utilize existing OR 212 alignment.

For safety and access east of SE 172nd Avenue:

- Extend SE Tong Road to intersect OR 212 near SE 187th Avenue.
- Extend Rock Creek Boulevard from SE 172nd Avenue to intersect OR 212 at a signalized intersection near SE Tong Road.
- Implement access control on OR 212 east of SE 172nd Avenue.
- Add a new road south of existing development from Anderegg Parkway to Tong Road for improved access to existing properties.

Sunrise Gateway Corridor Concept

These refinements were divided into three packages, including Safety & Local Connection Project, Regional Connection Project, and Rock Creek Employment Area Connections, to accommodate traffic needs as growth occurs (Figure 12). All the projects combined are anticipated to handle traffic well through 2040. Cost estimates for the phased improvements were developed to reflect the change in quantities and right-of-way impacts (Table 5).

Figure 12. Sunrise Corridor Concept and Improvement Packages

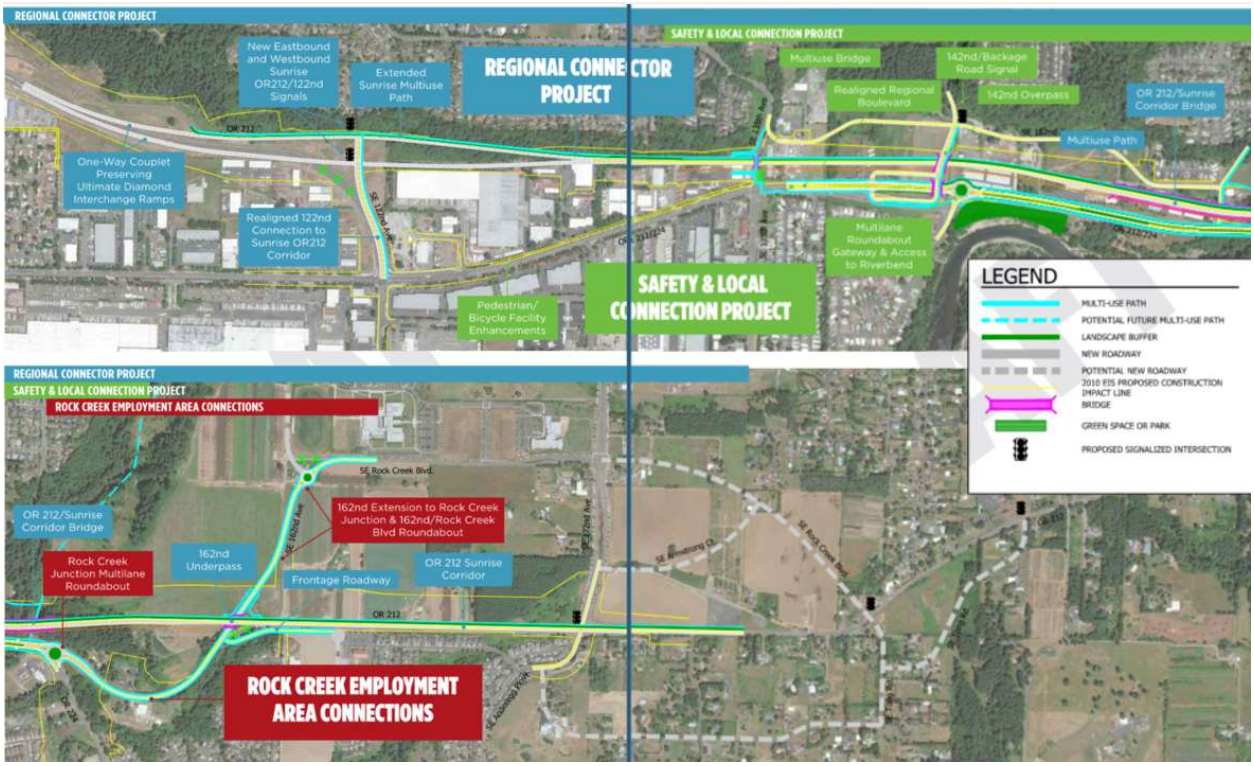


Table 5. Sunrise Gateway Corridor (122nd to 172nd) Design, Construction, and Right-of-Way Cost Estimate Options (4-Lane)

Phase	Safety & Local Connection Projects	Regional Connection Projects	Rock Creek Area Connections	Total[5]
Design & Construction	$44.7 M	$225.6 M	$12.3 M	**$282.6 M**
Right-of-way	$72.7 M	$70.0 M	$7.7 M	**$150.4 M**
Total Phase Cost	$117.4 M	$295.6 M	$20.0 M	**$433.0 M**

Project Relevance

Sunrise Gateway Corridor Concept serves as the foundational vision for the current project, providing a starting point for another round of planning efforts.

Clackamas to Columbia (C2C) Corridor (2020)

The primary purpose of C2C Corridor is to address the need for an improved north-south travel route east of I-205 and create a consistent, coordinated, multijurisdictional transportation plan that focuses on needed improvements for all modes along the 181st/182nd/190th/172nd corridor, which connects I-84 in Multnomah County and Highway 212 in Clackamas County. The corridor is heavily used but lacks continuity. Enhancing this route will benefit all modes of travel and support the growing communities in the Metro area. The project aligns with Metro Mobility Corridor 24 and the 2018 Regional Transportation Plan. The C2C Corridor Plan, published in September 2020, developed a preferred investment package to aid in funding and implementation of the plan.

Study Area

The C2C Corridor Plan serves residential areas in Gresham, Portland, Happy Valley, and unincorporated Clackamas County, commercial districts and industrial job centers in Clackamas County, and the Columbia Corridor in Gresham, Portland, and Multnomah County.

Goals

1. Identify transportation improvements to enhance mobility and access.
2. Prioritize the implementation of improvements.
3. Develop consistent policies and street designs for each partner agency.
4. Document the needs and justifications for investment in identified projects within Metro's 2018 Regional Transportation Plan.

Planned Projects

The prioritization measures were framed as questions that help assess to what extent a project supports the plan's goals. The projects were scored on each prioritization measure and were included in eight investment packages. Projects of relevance to the Sunrise Corridor are listed below and are ordered by project sequence based on the priority score. Projects and packages with low relevance to the Sunrise Corridor, such as packages 2 and 5, have been omitted from the list.

Package 1: Metro Regional Investment Measure Projects

- 20 – Sunrise Phase 2a: Provides complete street improvements on Highway 212 and provides local street connections.
- 21 – Sunrise Phase 2b Planning and Design: Completes planning and design for future Sunrise facility.

Package 3: High Score Capital Projects (This package contains projects that were likely to be capital projects that scored higher than others. – 10 to 15 years)

- 21 – Sunrise Phase 2b: Constructs Sunrise Gateway access-controlled facility from 122nd Avenue to 172nd Avenue and parallel trail.
- 22 – Sunrise Phase 2c: Constructs roundabout at Rock Creek Junction (OR 212/OR 224)

Package 4: C2C Mainline Development Projects (This package contains projects located along the C2C mainline that are likely to be constructed through development, e.g., half street improvements and improvements in undeveloped areas. – 10 to 20 years)

- 15 – 172nd Avenue Improvements: Provide five-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks on 172nd Avenue from Connector to Sunnyside Road. Provide roundabouts at Hemrich Road and Scouter Mountain Road, and signalize Troge Road and Vogel Road.

Package 6: Low Score Capital Projects (This package contains projects that were likely to be capital projects and had lower scores compared to other capital projects. – 15+ years)

- 18 – SE Sunnyside Rd East Extension: Construct new five-lane road with continuous left turn lane, sidewalks, bike lanes, and traffic signals.
- 23 – Sunrise Phase 3: Provides improvements east of 172nd Avenue.

Package 7: High Score Development Projects (This package contains projects that were likely to be development-driven and had higher scores compared to other development-driven projects. – 15+ years)

- 19 – Rock Creek Boulevard Improvements: Construct new five-lane vehicle cross section from Sunrise Corridor to 162nd Avenue; Widen existing alignment of Rock Creek Boulevard to five lanes from 162nd to 177th Avenue. Facility improvements include continuous left-turn lane, sidewalks, bicycle lanes, and traffic signals. In addition, this will improve safety on a High Injury Corridor.

Package 8: Low Score Development Projects (This package contains projects that were likely to be development driven and had lower scores compared to other development-driven projects. – 15+ years)

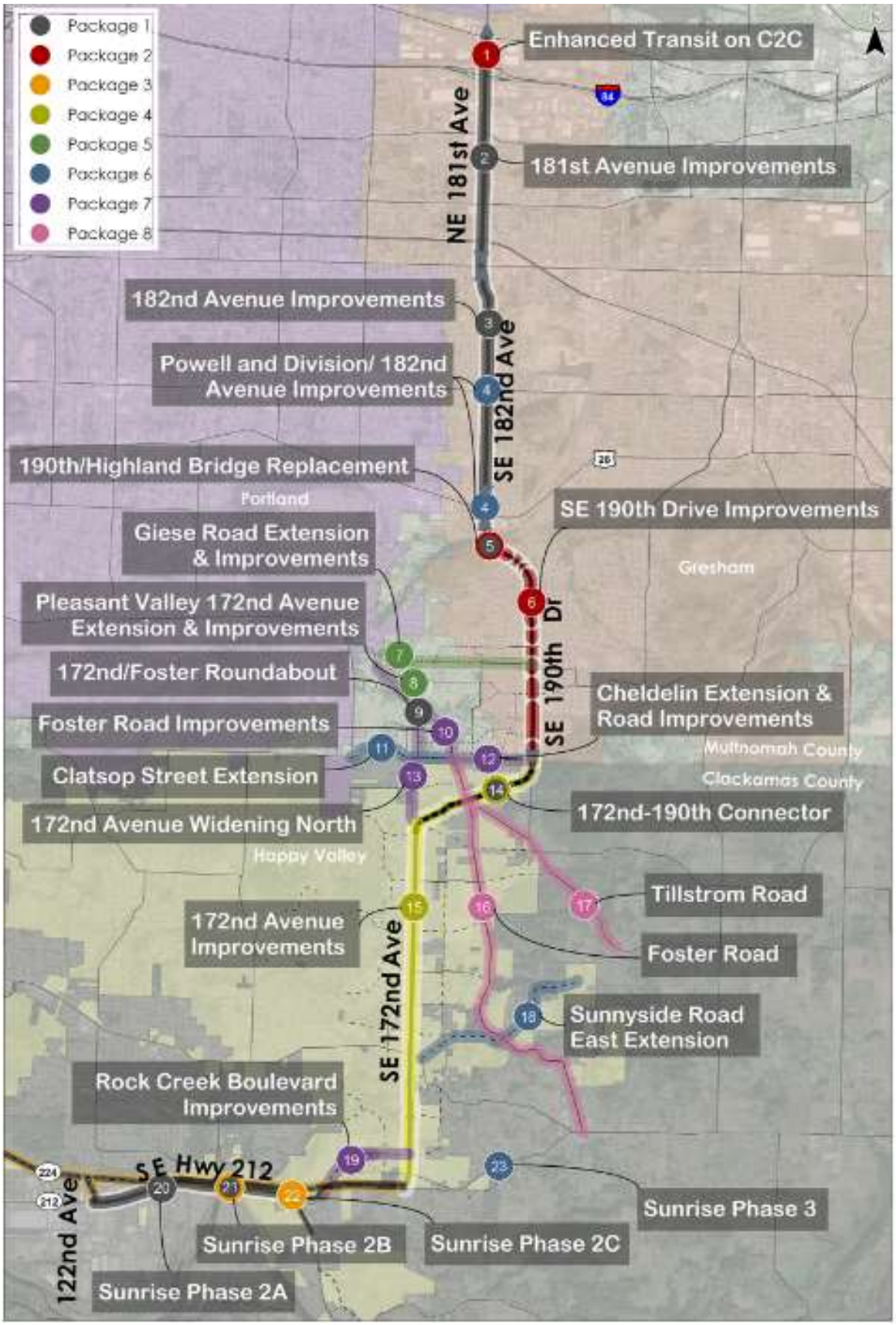
- 16 – Foster Road: Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks from Cheldelin Road to OR 212.

Project Relevance

The eastern portion of the C2C Corridor links up with the Sunrise Corridor. While Sunrise Corridor, along with parallel projects do not provide north-south connectivity, they received high scores due to their positive impacts on safety, equitable transportation, multimodal mobility, livability, accessibility, economic development, and fiscal stewardship.

The C2C Corridor enhances mobility by establishing a north-south connection spanning from 172nd to 190th. The Sunrise Corridor provides a vital transportation link in northeast Clackamas County, facilitating efficient west-east connectivity along the OR 212 and 224 routes. The integration of these two corridors effectively improves overall transportation accessibility and movement in north and northeast Clackamas County.

Figure 13. C2C Corridor Plan Study Area and Identified Investment Packages



Clackamas County Transportation System Plan (TSP) (2013)

Clackamas County TSP, included as Chapter 5 of Clackamas County Comprehensive Plan, outlines the vision, goals, and strategies for managing and improving the transportation system within Clackamas County, Oregon, based on a 20-year planning horizon. The TSP addresses various aspects of transportation, including roadways, public transit, bicycles, pedestrians, and freight movement.

Study Area

Clackamas County.

Goals

Key goals of the TSP include:

1. Optimized benefits: Provide a transportation system that optimizes benefits to the environment, the economy and the community
2. Economy: Plan the transportation system to create a prosperous and adaptable economy and further the economic well-being of businesses and residents of the County.
3. Community diversity: Tailor transportation solutions to suit the diversity of local communities.
4. Safety: Promote a transportation system that maintains or improves our safety, health, and security.
5. Equity: Provide an equitable transportation system.
6. Cost-effective: Promote a fiscally responsible approach to protect and improve the existing transportation system and implement a cost-effective system to meet future needs.

Planning Policies and Standards

As for multimodal transportation, the TSP included 2040 non-drive-alone modal targets for design areas, such as corridors, industrial areas, neighborhoods, and employment centers (Figure 14). In addition, the TSP emphasizes the improvement of traffic flow and safety through the maintenance of existing rights-of-way and the development of routine maintenance standards and practice (Figure 15). Related to this, the TSP identified the need to work with Metro and ODOT over five years to develop Alternate Road Capacity Performance Standards to address OR 212/SE 172nd Avenue intersection and four others, which were forecast not to meet the capacity performance standards adopted in the 2013 TSP. Such policies and standards offer a framework for the evaluation and selection of projects along the Sunrise Corridor.

Figure 14. Year 2040 Non-Drive-Alone Modal Targets

Design Type	Non-Drive-Alone Modal Target
Regional Centers Station Communities Corridors	45-55% of all vehicle trips
Industrial Areas Employment Areas Neighborhoods Regionally Significant Industrial Areas	40-45% of all vehicle trips

Figure 15. Motor Vehicle Capacity Evaluation Standards for the Urban Area Weekday Mid-day and Weekday PM Peak Periods

	Maximum Volume to Capacity (V/C) Ratio		
ODOT Roadways and Intersections	**Mid-day One-Hour Peak**	**1st Hour, PM Peak**	**2nd Hour, PM Peak**
OR 99E from OR 224 interchange north to county line OR 213 within the Clackamas Regional Center and the Fuller Road Station Community	0.99	1.1	0.99
I-205 I-5 OR 212 OR 224 OR 213	0.90	0.99	0.99
County Roadways and Intersections by Metro Urban Design Type *See Map 4–8*			
Regional Centers Town Centers Main Streets Station Communities	0.99	1.1	0.99
Corridors Neighborhoods Employment Areas Industrial Areas Regionally Significant Industrial Areas All Other Areas Outside of City Limits	0.90	0.99	0.99

Planned Projects

TSP is supported by Capital Improvement Plan (CIP), which identifies prioritized transportation projects based on available funding in a 20-year timeframe (Figure 16). CIP identified projects to address transportation challenges in Sunrise Corridor and vicinity areas of Clackamas County:

Table 6. Clackamas County TSP

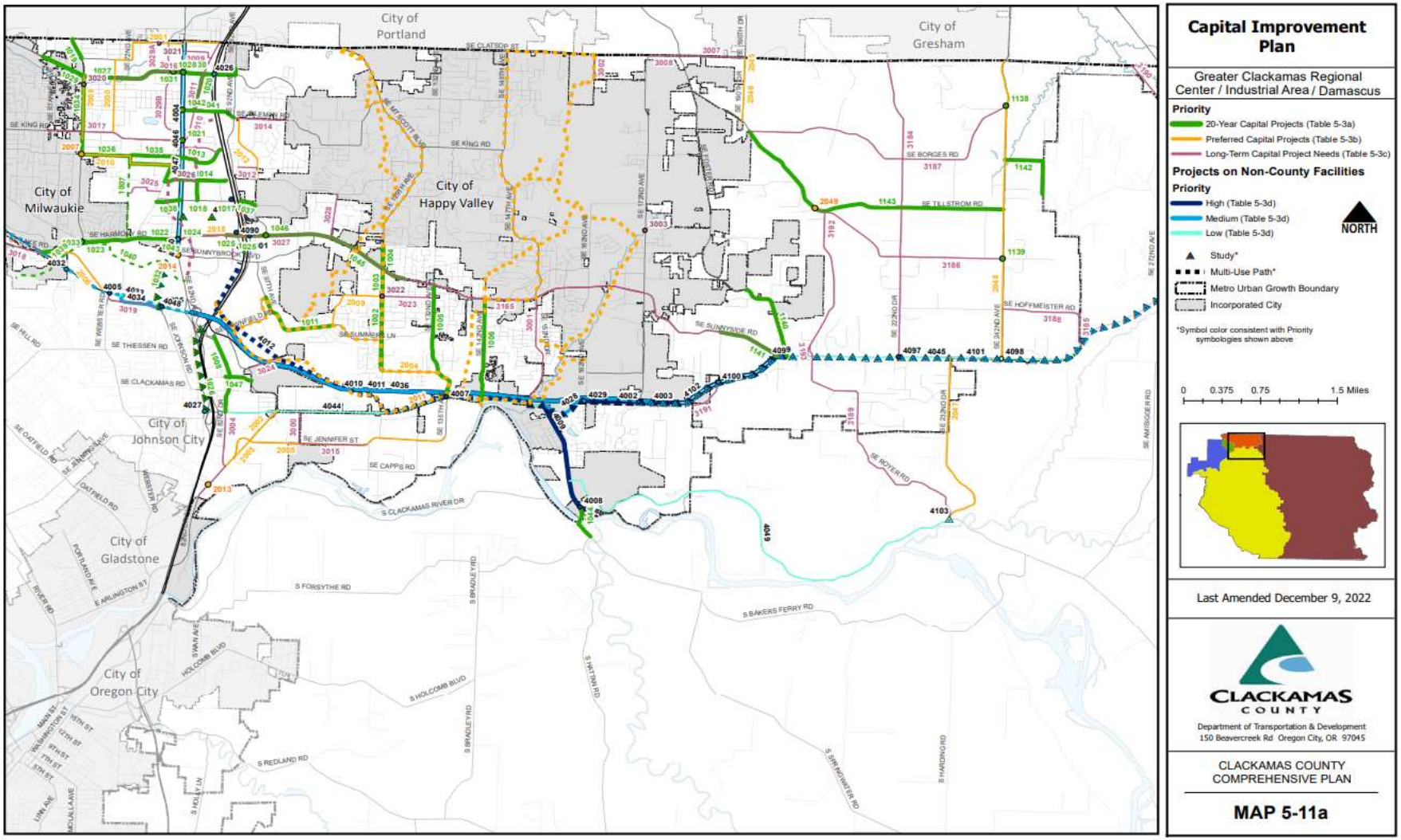
Priority/List	Project ID	Project Name /Street Name	Segment/ Locations	Project Description
		County Facilities		
20-Year Capital Projects	1008	82nd Dr	OR 212 to Lawnfield Rd	Fill in bikeways and pedestrian facilities gaps
20-Year Capital Projects	1044	Springwater Rd	OR 224 to Hattan Rd	Widen to 3 lanes with shoulders (in accordance with the Active Transportation Plan between Clackamas River Dr and Gronlund Rd) and pedestrian facilities; bridge remains two lanes
20-Year Capital Projects	1047	Tolbert St Overcrossing	82nd Dr to Industrial Way	Construct new 2 lane overcrossing with bikeways and pedestrian facilities
Preferred Capital Projects	2011	Scouters Mountain / Mt Scott Loop Trail	Loop trail through Happy Valley, Damascus, Clackamas County and Portland	Construct multi-use path in accordance with the Active Transportation Plan
Long-Term Capital Projects	3024	Mather Rd	Industrial Way to 98th Ave	Maintain as pedestrian facilities and bikeway. Construct undercrossing at Sunrise Expressway.

Priority/List	Project ID	Project Name /Street Name	Segment/ Locations	Project Description
Non-County Facilities				
High priority	4007	OR 224	OR 224 / Hubbard Rd / 135th Ave intersection	Add intersection improvements, including right-turn lanes
High priority	4008	OR 224	Springwater Rd / OR 224 intersection	Add signal and turn lanes on all approaches
High priority	4009	OR 224	Rock Creek Junction to Midway St	Widen to four lanes; add bikeways.
High priority	4010	Sunrise Project - Preliminary Engineering	Webster Rd/ OR 224 to 172nd Ave / OR 212	Preliminary engineering from Webster Rd to 172nd Ave
High priority	4011	Sunrise Project - Right-of-Way	Webster Rd/ OR 224 to 172nd Ave / OR 212	Acquire right-of-way to accommodate 6 lane expressway plus auxiliary lanes
High priority	4012	Sunrise Project - Multi- use Path	122nd to Rock Creek Junction	Construct multi-use path from 122nd to Rock Creek Junction parallel to the Sunrise project consistent with FEIS.
Medium priority	4027	I-205 / OR 212/224 Interchange	In vicinity of Roots Rd and McKinley Ave	Connect bikeways in accordance with the Active Transportation Plan
Medium priority	4028	OR 212	Rock Creek Junction to 172nd	Construct climbing lane
Medium priority	4029	OR 212	OR 212 / SE 162nd Ave intersection	Add left-turn pockets and traffic signal
Medium priority	4036	Sunrise Project	I-205 to 172nd Ave	Construct improvements to 172nd
Low priority	4044	OR 212	I-205 to OR 224	Perform road safety audit or transportation safety review to identify appropriate safety improvements

Project Relevance

Clackamas County TSP serves as a comprehensive roadmap for the county's transportation system, setting up the policies and guidelines for the maintenance and improvement of existing infrastructure. It also identifies the committed improvements and the priorities of these improvements in Clackamas County, covering the study area of this plan.

Figure 16. Capital Improvement Plan for Greater Clackamas Regional Center/Industrial Area/Damascus



Happy Valley Transportation System Plan (2023)

The Transportation System Plan (TSP) for Happy Valley guides the city's transportation network until 2040, balancing the needs of pedestrians, cyclists, drivers, transit, and freight. It incorporates inventory, forecasts, projects, and standards to create an efficient and diverse system. This update fulfills requirements for comprehensive planning, presents investment priorities, and identifies financially constrained plans. It serves the Happy Valley planning area, while neighboring jurisdictions have their own TSPs. The TSP has undergone major updates, with the latest in 2021 focusing on recent changes and incorporating the Pleasant Valley North Carver Comprehensive Plan.

Study Area

City of Happy Valley. The Happy Valley TSP includes OR Hwy 212 as a Major Arterial east to Foster Road, passing through 172nd Avenue. It covers the majority of the Sunrise Corridor study area. In addition, the roadway is further planned to the east of 190th Drive, as outlined in the 172nd Avenue/190th Drive Corridor Management Plan.

Goals

1. **Livability** - Transportation facilities shall be planned, designed and constructed in a manner which enhances the livability of Happy Valley.
2. **Mobility** - Transportation facilities shall accommodate commercial, industrial and residential growth and provides access though and around Happy Valley.
3. **Multi-Modal Travel** - Happy Valley shall strive to achieve a balanced transportation system that reduces the number of trips by single occupant vehicles by meeting the needs of auto, bicycle, pedestrian, and transit and increasing the connectivity for alternate travel modes.
4. **Safety** - Happy Valley shall strive to achieve a safe transportation system by developing street standards, access management policies when constructing streets and by making street maintenance a priority.
5. **Evaluation** - Transportation performance measures shall be maintained in the City.
6. **Accessibility** - Develop transportation facilities which are accessible to all members of the community.
7. **Cooperation** - Implement the Transportation System Plan (TSP) in a coordinated manner.
8. **Goods Movement** - Provide for efficient movement of goods and services.
9. **Interchange Management Areas** - Protect the public's investment in the interchange management areas.
10. **172nd Avenue/190th Drive Corridor Management Plan** – Implement the 172nd/190th Corridor Management Plan.

Planned Projects

Pedestrian, Bicycle, and Transit Plans

Figure 18 to 23 show the pedestrian, bicycle, and transit plans for the area. The non-SOV modeshare target is set higher for the Sunrise Corridor between 132nd Avenue and 152nd Drive than the east or west ends of the corridor.

Figure 17. Happy Valley TSP Study Area and Functional Classification

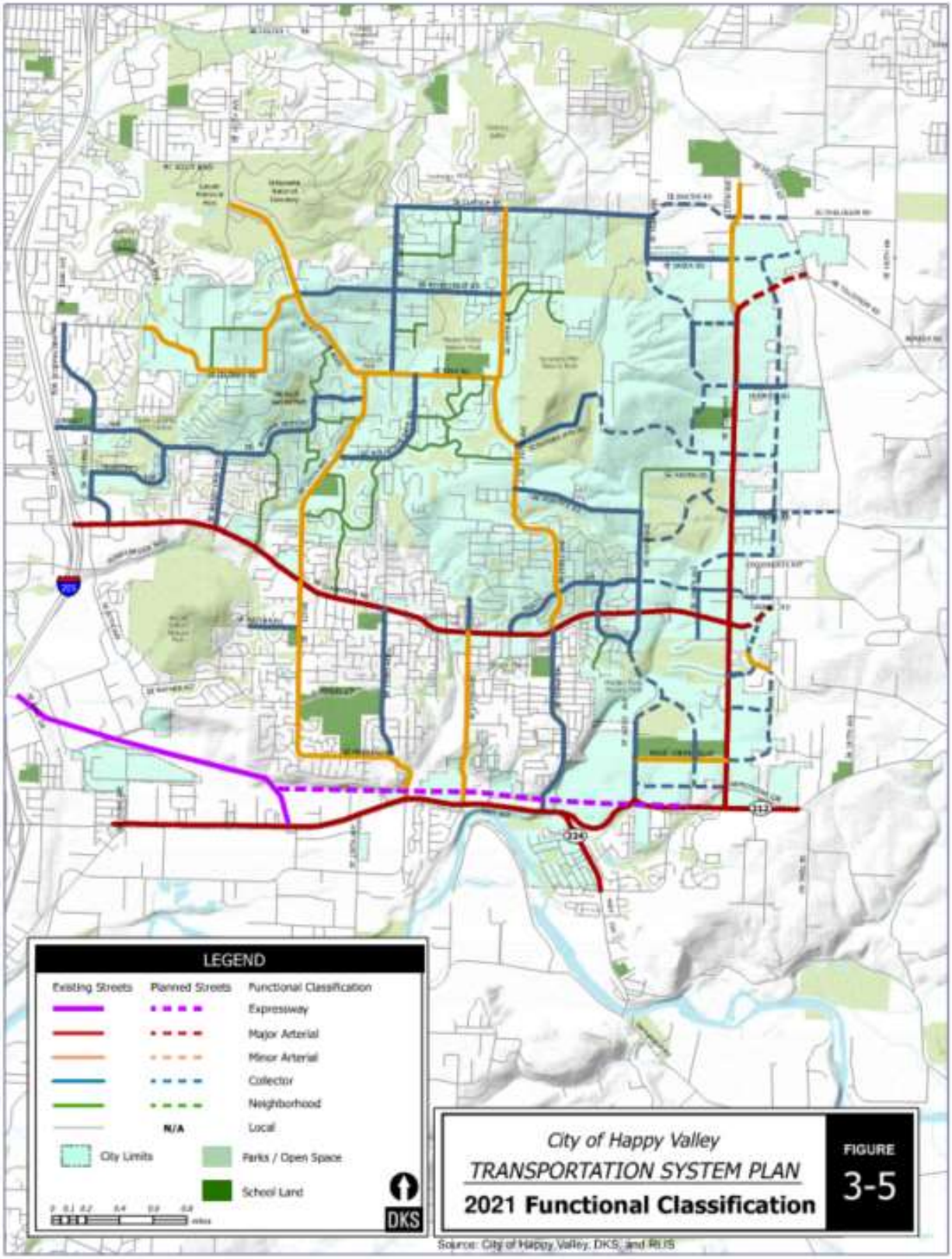


Figure 18. Happy Valley TSP Pedestrian Master Plan (1)

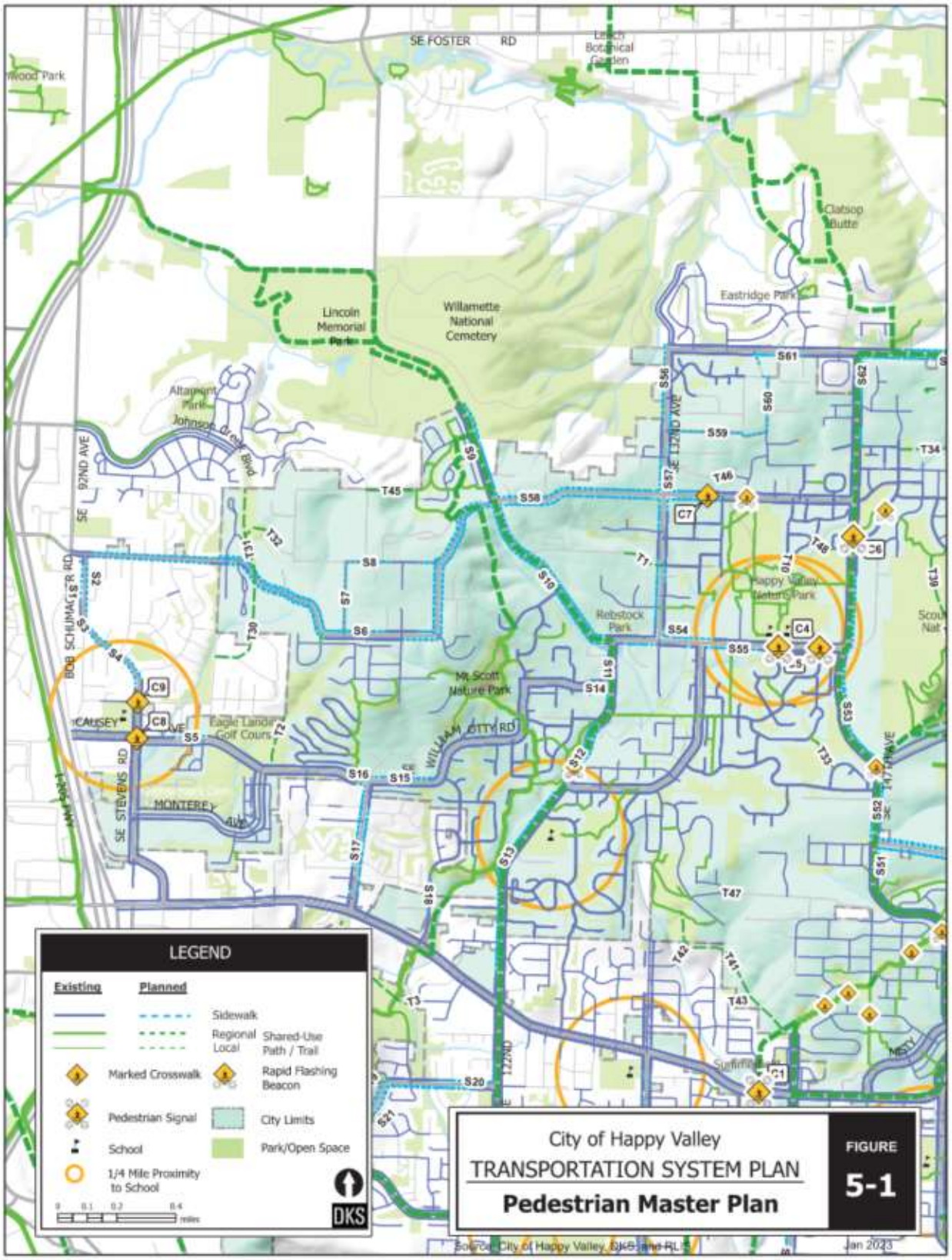


Figure 19. Happy Valley TSP Pedestrian Master Plan (2)

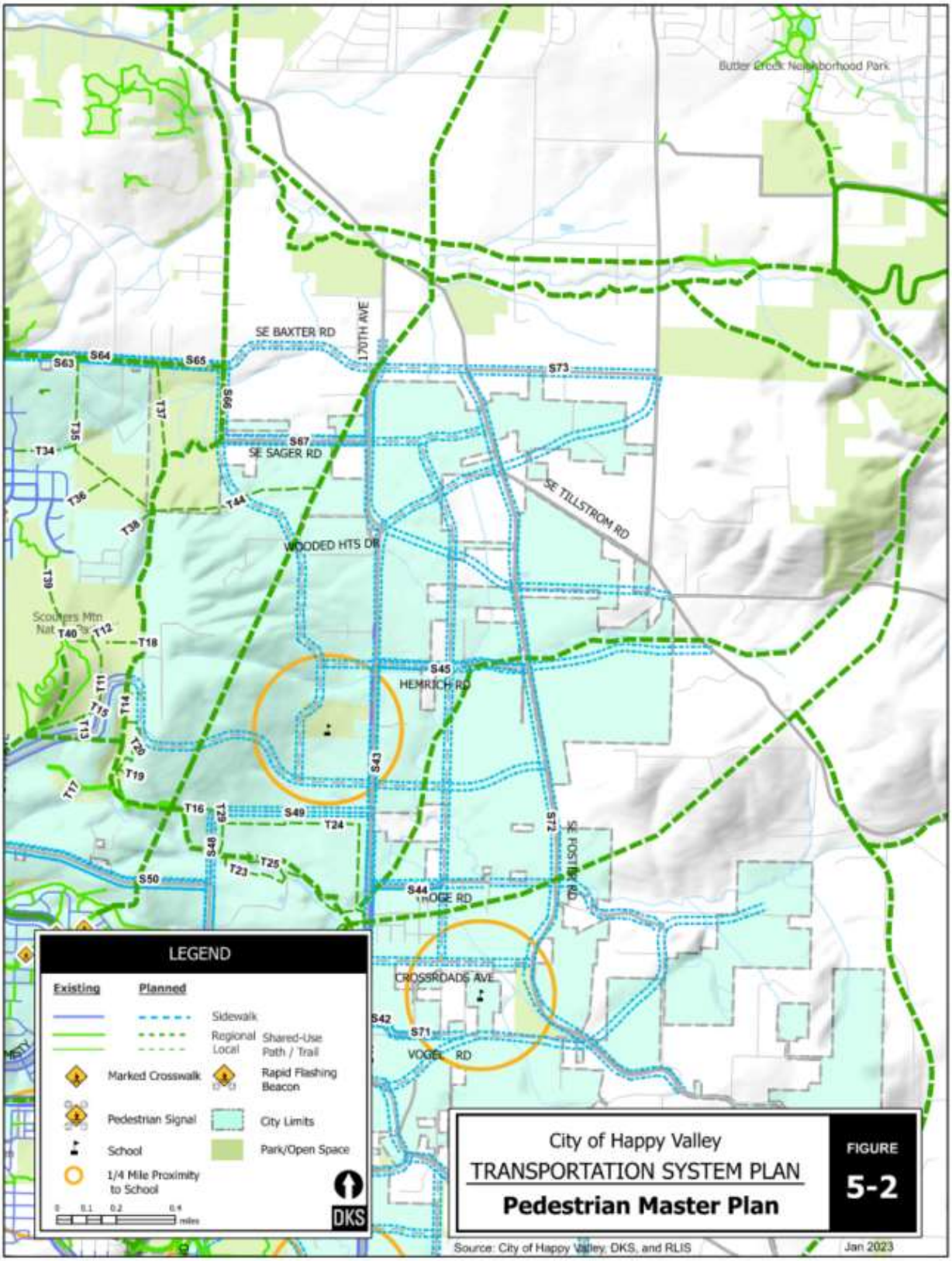


Figure 20. Happy Valley TSP Pedestrian Master Plan (3)

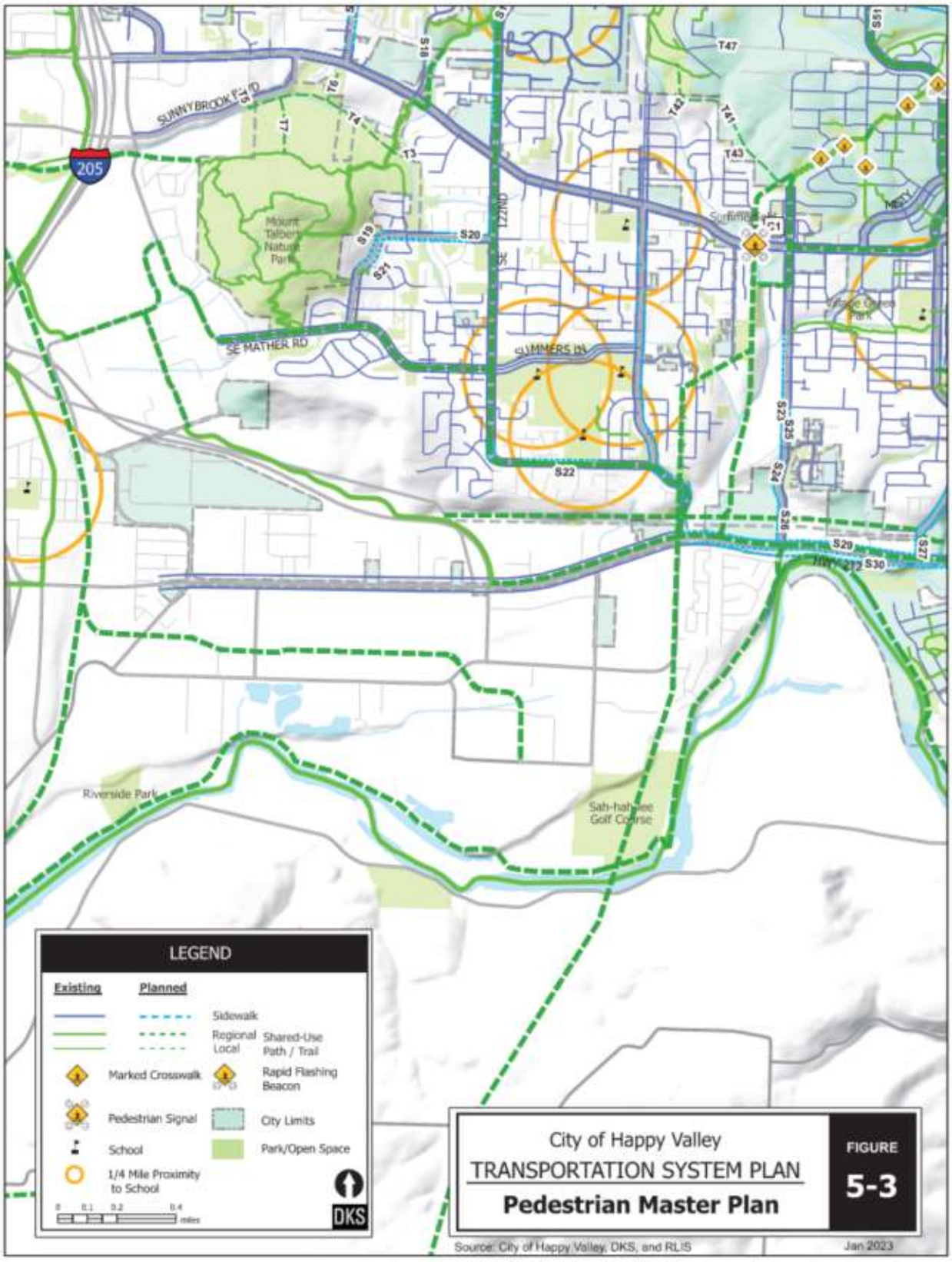


Figure 21. Happy Valley TSP Pedestrian Master Plan (4)

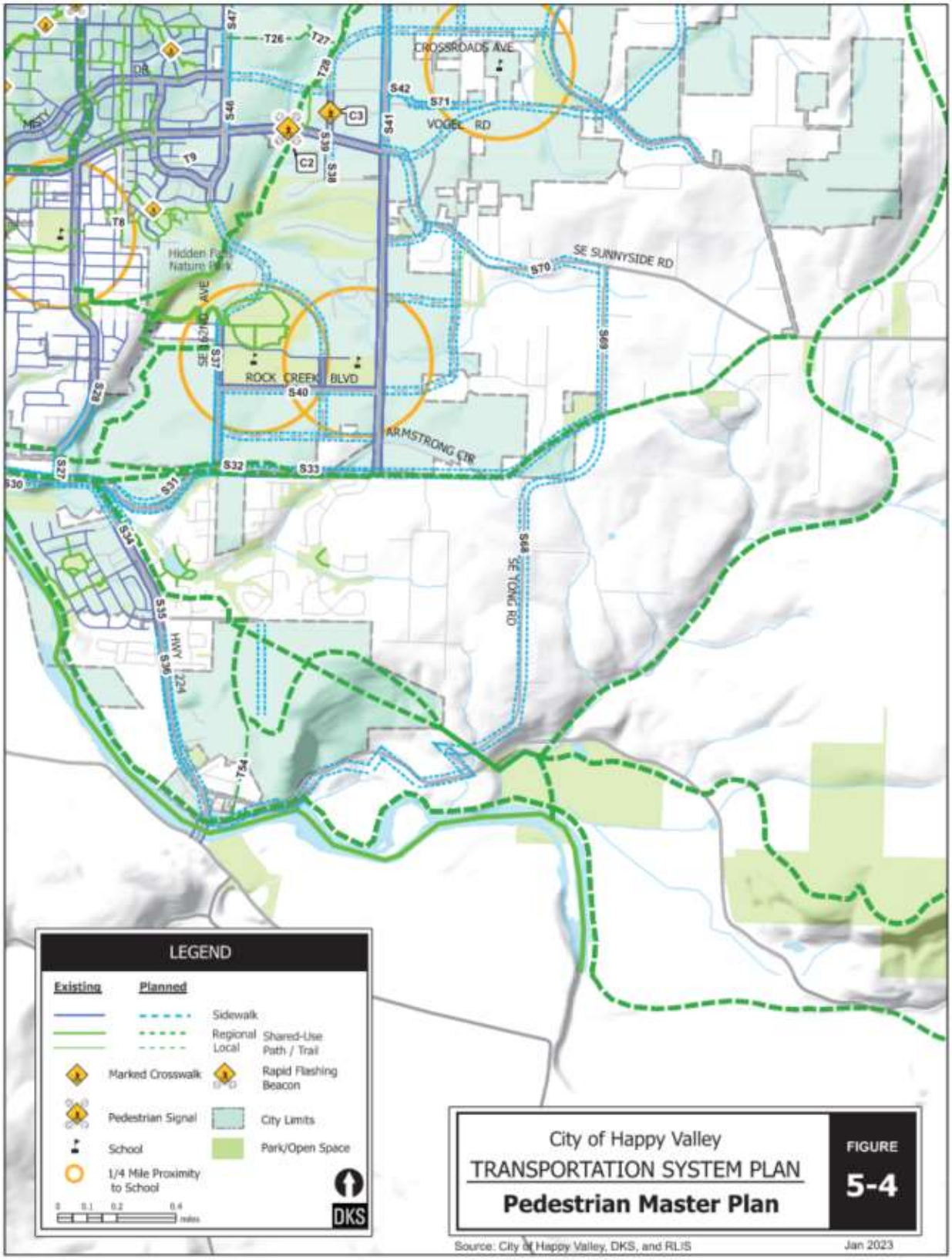


Figure 22. Happy Valley TSP Bicycle Master Plan

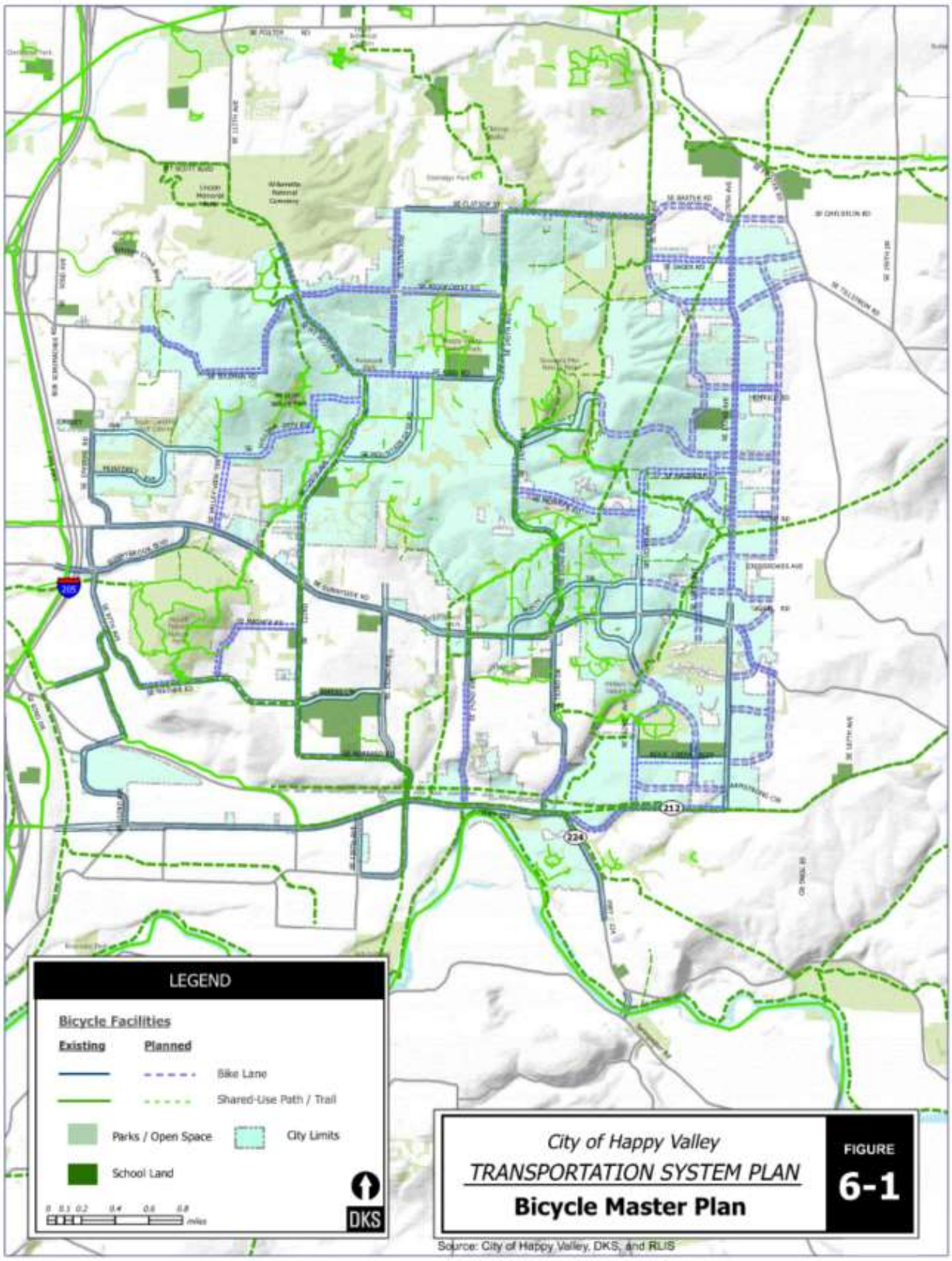


Figure 23. Happy Valley TSP Transit Master Plan

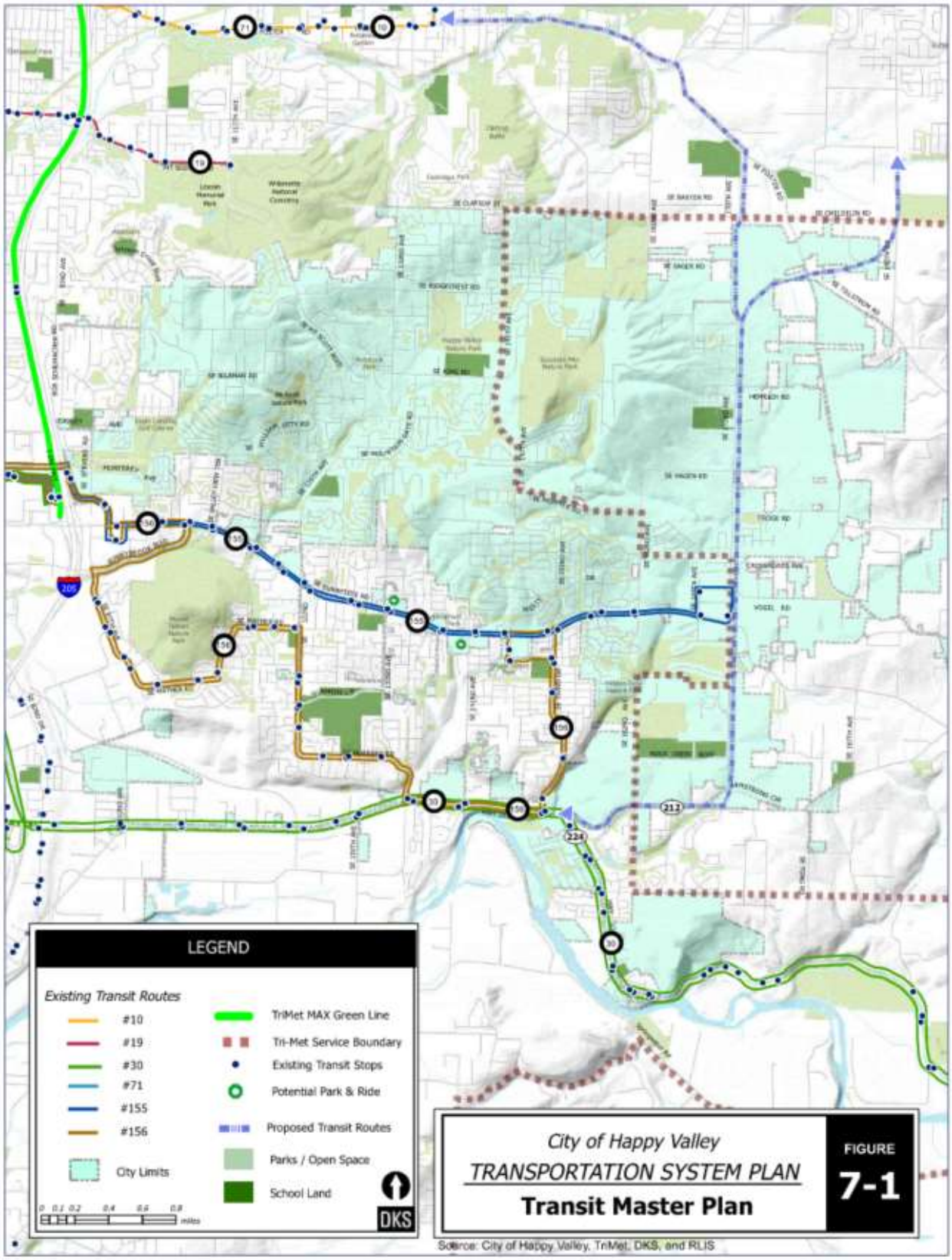
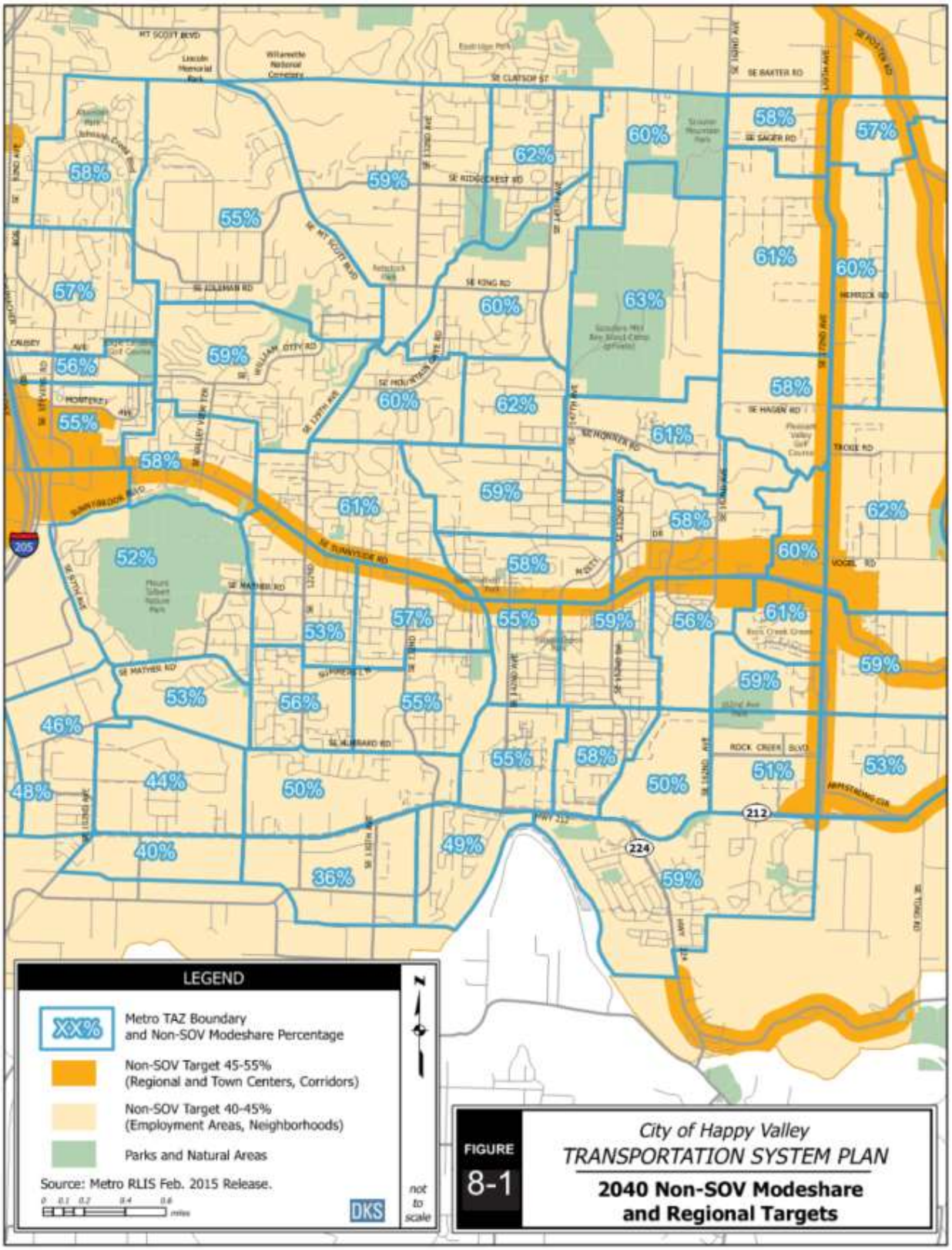


Figure 24. Happy Valley TSP 2040 Non-SOV Modeshare and Regional Targets



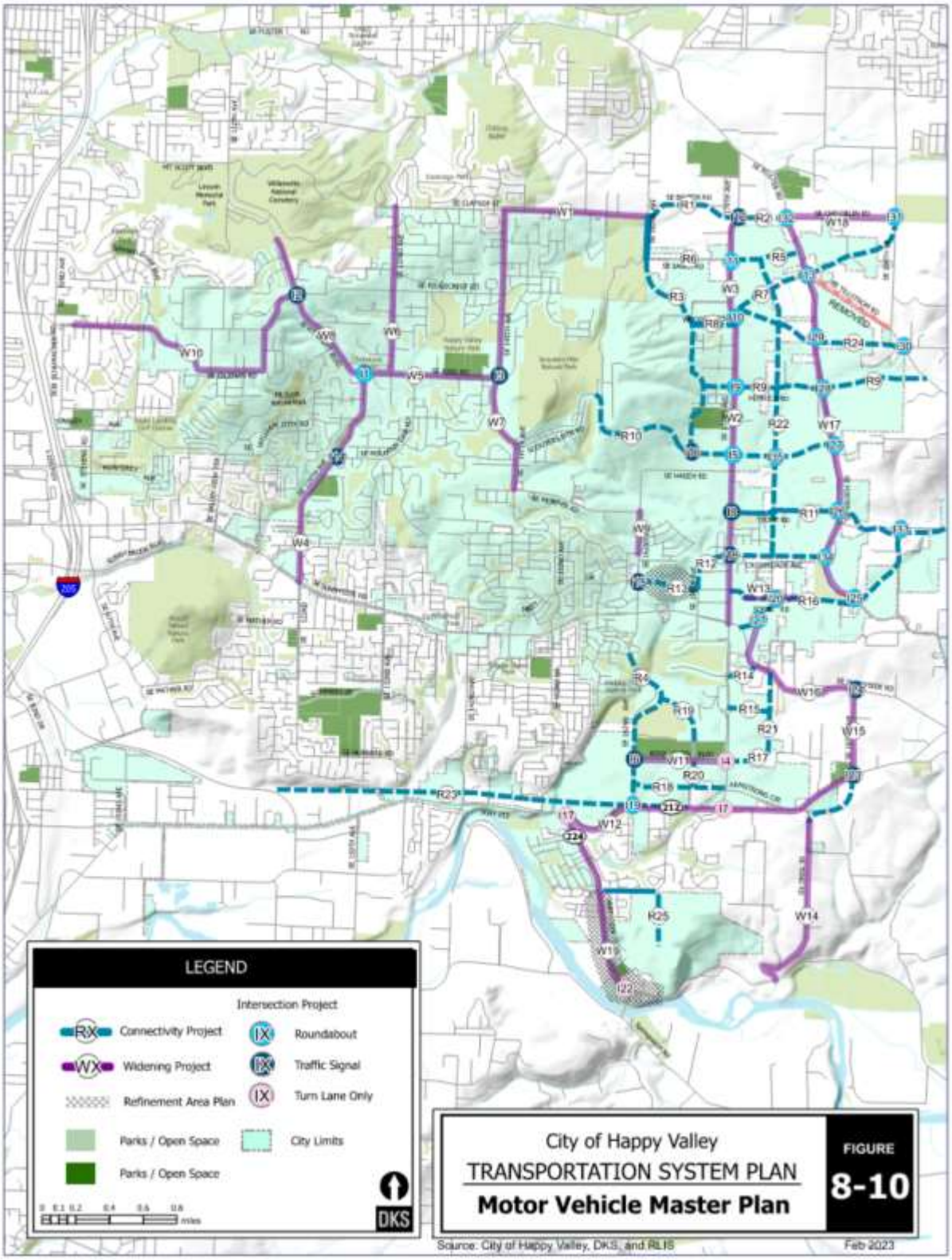
Motor Vehicle Master Plan

The Motor Vehicle Master Plan combines both improvement projects identified in current plans (Happy Valley TSP, Clackamas County TSP, Rock Creek Comprehensive Plan, East Happy Valley Comprehensive Plan, Metro RTP, 172nd Avenue -190th Drive CMP, Happy Valley Town Center Plan, Rock Creek Employment Infrastructure Plan, Pleasant Valley/North Carver Plan etc.) and those determined as the outcome of the Happy Valley TSP update. Projects that are most relevant to the Sunrise Project are included in Table 7.

Table 7. Motor Vehicle Master Plan Projects

ID	Project	Improvement	Cost Estimate ($1,000s)
		Intersection Improvement	
I6	162nd Avenue/Rock Creek Boulevard	Install a traffic signal	$1,000
I7	172nd Avenue/OR 212	Add second eastbound left turn lane	$500
I17	OR 212/OR 224	Add a second eastbound right turn lane, widen OR 224 to provide a southbound receiving lane	$7,000
I19	OR 212/162nd Avenue	Install a one-lane roundabout	$1,500
		Roadway Widening	
W2	172nd Avenue Widening South	Widen to 5-lane facility between Sunnyside Road and 172nd-190th Connector Road	$14,200
W12	OR 212	Widen to 5-lane facility from OR 224 to 187th Avenue	$28,500
W19	OR 224	Widen to 5-lane facility from OR 212 to Carver Junction	$22,200
		New Roadway	
R18	Rock Creek East-West Roadway	Construct a new 3-lane facility south of Rock Creek Boulevard between 162nd and 172nd Ave	$8,300
R23	Sunrise Parkway Phase 2	Construct new 4-lane expressway from 122nd Avenue to 172nd Avenue	$477,000

Figure 25. Happy Valley TSP Motor Vehicle Master Plan



Other Plans and Studies

Transportation Management Areas

Interchange Area Management Plans are prepared for the Sunrise Project to protect the function of the interchange over time, to ensure safe and efficient operations between connecting roadways, and to minimize the need for future major interchange improvements, in conjunction with a Final Environmental Impact Statement (FEIS) for the Sunrise Project. The IAMPs include:

a. Interchange Area Management policies
b. ODOT mobility standards
c. ODOT minimum access spacing standards
d. Future traffic operation projections
e. Access Management Plan with existing and future access points

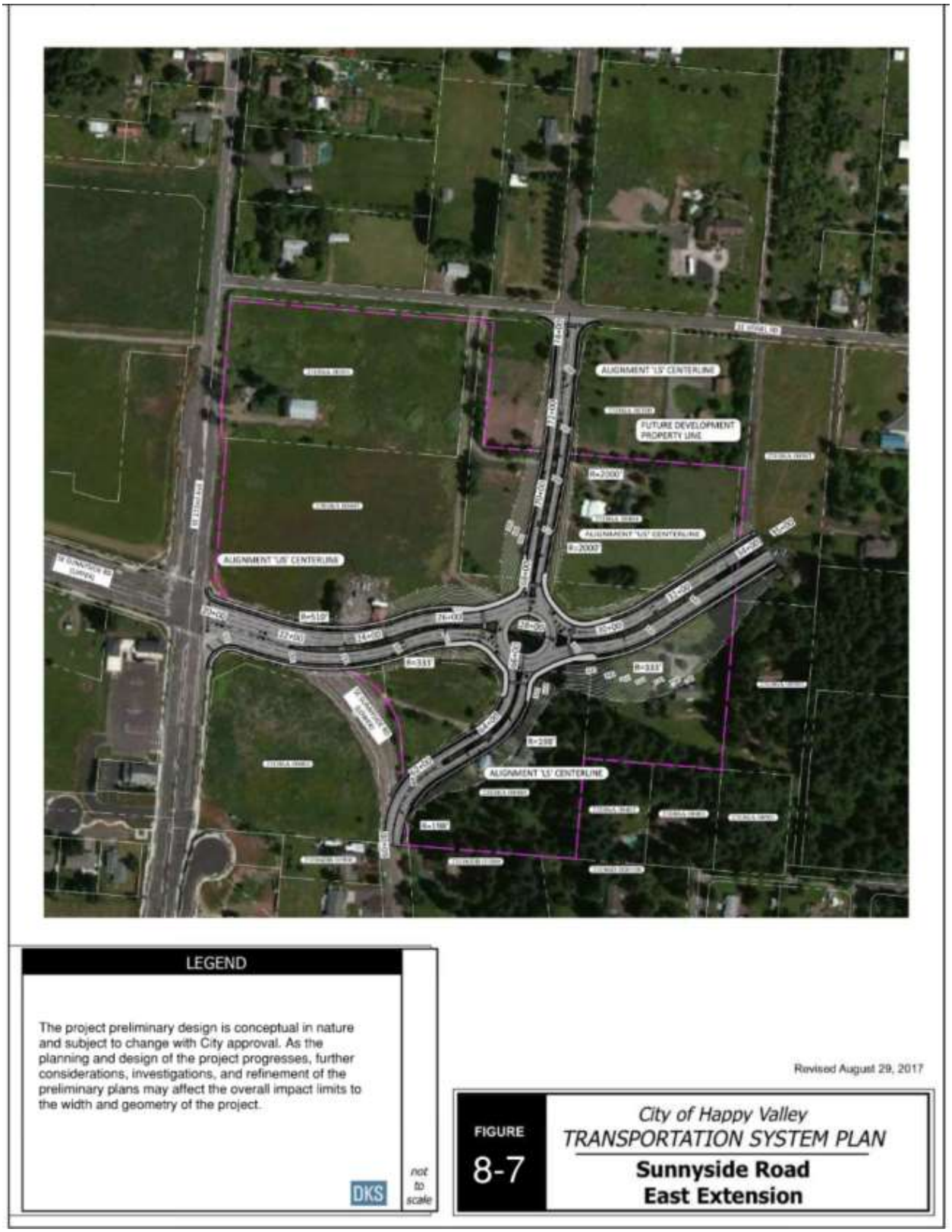
Sunnyside Road East Extension Design Report

The City of Happy Valley recently conducted a design study for the extension of a new arterial east of 172nd Avenue to further define the project description. The preliminary design shows a new arterial roadway extending northeast from Sunnyside Road towards Vogel Road (Figure 26).

Project Relevance

The Happy Valley TSP lays out the 20-year transportation plan for this rapidly growing city. While the TSP provides a framework for comprehensive transportation planning (roadway and multimodal planning) for the city, the TSP identifies multimodal and roadway improvement needs for the region, including the Sunrise Corridor, its parallel facility, and surrounding areas (e.g., Highway 212 corridor, Rock Creek Junction, and Sunnyside Road).

Figure 26. Sunnyside Road East Extension



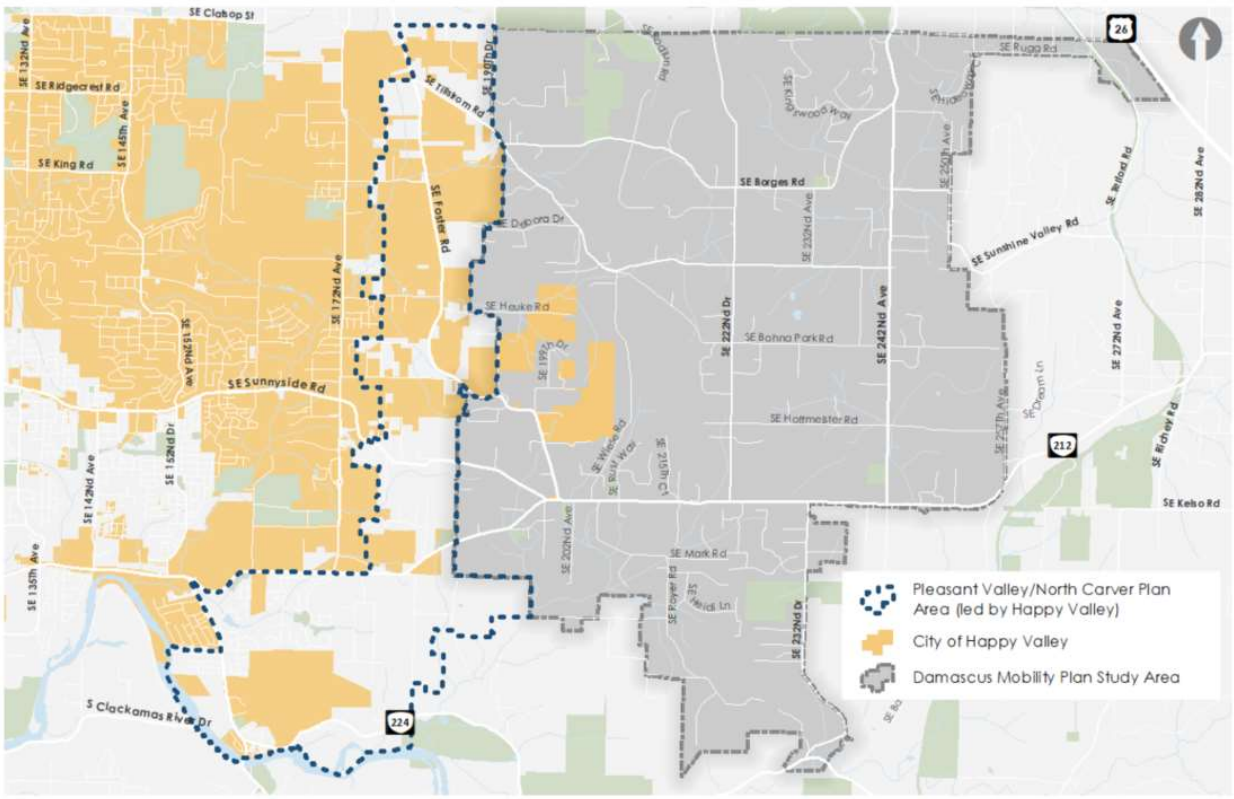
Damascus Mobility Plan (2022)

The Damascus Mobility Plan was developed in 2022, collaboratively with Clackamas County, ODOT, the City of Happy Valley, and public input. It addresses the transportation needs for passenger cars and freight up to the year 2040. It identifies necessary street and intersection changes to address congestion, safety, and future growth in the area. Meanwhile, the plan focuses on resolving issues along the OR 212 corridor and coordinates with other county planning efforts for pedestrians, cyclists, and public transit users, including the Transit Development Plan and Walk Bike Clackamas Plan.

Study Area

This Plan follows Clackamas County TSP goals and process for evaluating and prioritizing projects. The planning area includes most of the former City of Damascus planning area within the Portland Metropolitan UGB; however, properties and roadways generally west of SE 190th Drive are now being planned and guided by the City of Happy Valley through the Pleasant Valley/North Carver (PV/NC) Comprehensive Plan. This plan fills the gaps left by the absence of a transportation plan when the City of Damascus disbanded in 2016 and reverts planning responsibility to the county. Additional changes to the OR 212 corridor are included in the plan that go beyond those documented in the PV/NC Plan.

Figure 27. Damascus Mobility Plan Study Area



Goals

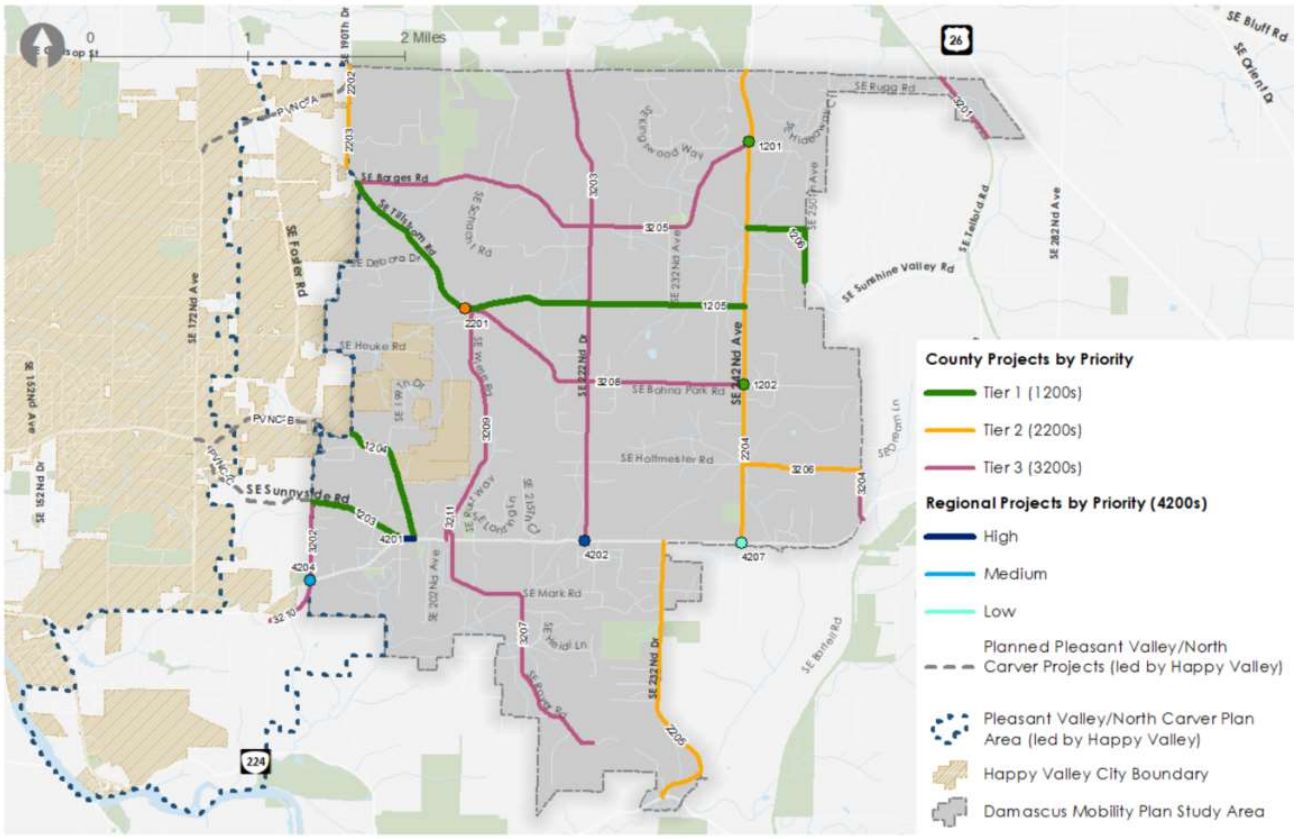
1. **Sustainability** – Provide a transportation system that optimizes benefits to the environment, the economy and the community.
2. **Local Businesses and Jobs** – Plan the transportation system to create a prosperous and adaptable economy and further the economic well-being of businesses and residents of the County.
3. **Livable and Local** – Tailor transportation solutions to suit the diversity of local communities.

4. **Safety and Health** – Promote a transportation system that maintains or improves our safety, health, and security.
5. **Equity** – Provide an equitable transportation system.
6. **Fiscally Responsible** – Promote a fiscally responsible approach to protect and improve the existing transportation system and implement a cost-effective system to meet future needs

Planned Projects

Following a similar approach to Clackamas County TSP, the mobility plan develops and separates projects into four groups: Tier 1, Tier 2 and Tier 3 county projects, and regional capital projects that are the responsibility of other agencies or organizations, such as ODOT or the City of Happy Valley. Table 8 includes Damascus mobility plan projects that are relevant to Sunrise corridor, its parallel facility, or its vincinty.

Figure 28. Damascus Mobility Plan Projects



Note: Projects 4204, 4205, and 4206 are studies for Regional facilities, and are not shown on the project map.

Project Relevance

This plan identifies transportation improvements for Damascus off of Highway 212, and Highway 212-focused improvements between 172nd and 242nd avenues. These improvements will connect to Sunrise Corridor or generate impacts on Sunrise Corridor.

Table 8. Damascus Mobility Plan Project List

List	ID	Project or Street Name	Segment/ Location	Description	Source	Category	Cost Estimate	Priority
20-Year Capital Projects	1203	SE Sunnyside Rd	SE 187th Ave to OR 212	Widen shoulder based on operational and safety analysis during project development.	Alternatives Analysis	Active Transportation	$860,000	Tier 1
20-Year Capital Projects	1204	SE Foster Rd	Happy Valley	Widen shoulder based on operational and safety analysis during project development.	Alternatives Analysis	Active Transportation	$1,230,000	Tier 1
Long-Term Capital Project Needs	3202	SE 187th Ave	SE Sunnyside Rd to OR 212	Improve SE 187th Avenue to two- to three-lane roadway with sidewalks and bike lanes; construct roundabout at SW Sunnyside Road/SE 187th Avenue	OR 212 Study	Vehicle Capacity & Active Transportation	###	Tier 3
Long-Term Capital Project Needs	3210	SE Tong Rd	South of OR 212/ SE Tong Rd intersection	Realign SE Tong Road at OR 212 to align with SE 187th Avenue to address skew	OR 212 Study	Safety	$7,732,000	Tier 3
Regional Projects	4203	OR 212 Alternative Mobility and Fee in Lieu Strategy	Rock Creek Junction to SE Foster Rd	Planning effort to establish alternative mobility standard, acceptable traffic operations levels, improvements, and cost estimates for over-capacity intersections	OR 212 Study	Study	$100,000	High
Regional Projects	4204	OR 212	OR 212/ SE Tong Rd/SE 187th Ave intersection	Signalize intersection	OR 212 study	Vehicle Capacity	$488,000	Medium

List	ID	Project or Street Name	Segment/ Location	Description	Source	Category	Cost Estimate	Priority
Regional Projects	4205	OR 212 Corridor Plan	SE 172nd Ave to US 26	Planning effort to establish the long-term vision, conceptual alignment, cross-section, and access locations for OR 212 between SE 172nd Avenue and US 26	OR 212 study	Study	$200,000	Medium
PVNC	PVNC-B	Happy Valley Blvd (SE Sunnyside Rd Extension)	Construct a new 5-lane east-west facility from 172nd Avenue to Winston Road, realign existing Sunnyside Road to south					
PVNC	PVNC-C	SE Sunnyside Rd	Widen to 3-lane facility between Happy Valley Boulevard and 187th Avenue					

Regional Transportation Plan (2023)

Metro's 2023 Regional Transportation Plan (RTP) identifies urgent and long-term transportation needs, investments to meet those needs and the funds the region expects to have available through 2045. The policies in the plan provide guidance for transportation providers that design and manage roadways, transit and trails. These agencies include cities, counties, the Oregon Department of Transportation, transit agencies and the Port of Portland.

Study Area

Portland's metropolitan planning organization boundaries

Goals

The vision and goals reflect the values and desired outcomes for the future of the region's transportation system expressed by the public, decision-makers and community and business leaders. In 2022, JPACT and Metro Council approved a transportation vision and five supporting goals to guide the development of the RTP.

1. **Mobility Options**: People and businesses can reach the jobs, goods, services and opportunities they need by well-connected, low-carbon travel options that are safe, affordable, convenient, reliable, efficient, accessible, and welcoming.
2. **Safe System**: Traffic deaths and serious crashes are eliminated and all people are safe and secure when traveling in the region.
3. **Equitable Transportation**: Transportation system disparities experienced by Black, Indigenous and people of color and people with low incomes, are eliminated. The disproportionate barriers people of color, people with low incomes, people with disabilities, older adults, youth and other marginalized communities face in meeting their travel needs are removed.
4. **Thriving Economy**: Centers, ports, industrial areas, employment areas, and other regional destinations are accessible through a variety of multimodal connections that help people, communities, and businesses thrive and prosper.
5. **Climate Action and Resilience**: People, communities and ecosystems are protected, healthier and more resilient and carbon emissions and other pollution are substantially reduced as more people travel by transit, walking and bicycling and people travel shorter distances to get where they need to go.

Planned Projects

The draft RTP includes a number of transportation projects on and immediately adjacent to the Highway 212, Highway 224, and the future Sunrise Corridor, shown in Table 10 below.

Table 9. RTP Projects Around the Sunrise Corridor

RTP ID	Name	Description	Extents	Time Period	Cost	Financially Constrained ?
10022	82nd Drive Bike and Pedestrian Improvements	Improve safety for bicyclists and pedestrians by implementing proven safety counter measures and filling gaps in bikeways and pedestrian facilities.	Jennifer St to Herbert Ct	2031-2045	$6,102,000	Yes
10041	162nd Ave Extension South: Phase 1	Extend 162nd Ave from Rock Creek Blvd to Hwy-212; construct new, 3 lane roadway with continuous left	Rock Creek Blvd to Hwy 212	2031-2045	$12,100,000	Yes

RTP ID	Name	Description	Extents	Time Period	Cost	Financially Constrained ?
		turn lane, sidewalks, bike lanes, intersection improvements at Hwy. 212/162nd on all four approaches. Project terminates at industrial employment sector. In addition, will improve safety on a High Injury Corridor.				
10076	Sunnyside Rd East Extension	Construct new 5 lane road with continuous left turn lane, sidewalks, bike lanes, and roundabouts. Project component of Happy Valley Boulevard.	172nd Ave to Foster Rd	2031-2045	$64,800,000	Yes
10890	OR 212/224 Sunrise Hwy Phase 2: SE 122nd to SE 172nd (PE, ROW)	Conduct preliminary engineering (PE) and acquire right-of-way (ROW) on phase 2 of the OR 212/224 Sunrise Corridor from SE 122nd Ave to SE 172nd Ave consistent with the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD).	122nd Ave to 172nd Ave	2023-2030	$85,000,000	Yes
11301	OR 212/224 Sunrise Hwy Phase 2: SE 122nd to SE 172nd (CON)	Construct Phase 2 of the OR 212/224 Sunrise corridor, consisting of a 4-lane roadway from SE 122nd Ave to SE 172nd Ave, consistent with the FEIS/ROD.	122nd Ave to 172nd Ave	2031-2045	$331,000,000	Yes
11668	Sunrise Multi-use path Phase II	Improve safety for bicyclist and pedestrians by constructing a new multi use path from 122nd Ave to 172nd paralleling the Sunrise Phase 2 project.	122nd Ave to Rock Creek Junction	2031-2045	$14,528,000	Yes
11670	OR 212 Intersection Improvements	Improve safety and reduce delay by making improvements as recommended in the Damascus Mobility Plan to the intersections of Sunnyside Rd/OR 212, Foster Rd/OR 212, 222nd Ave/OR 212 and 242nd Ave/OR 212.	172nd Ave to 242nd Ave	2031-2045	$39,862,000	Yes
11767	I-205 Multiuse Path from OR 224 to OR 212	Improve safety for bicyclists and pedestrians by filling a gap of approximately 1 mile in the I-205 Multi-use path and implementing proven safety counter measures, as well as creating connections to other regional multi-use paths and	OR 224 - Sunrise Multi-use Path to OR 212 - I-205 Multi-use Path	2031-2045	$10,251,000	Yes

RTP ID	Name	Description	Extents	Time Period	Cost	Financially Constrained ?
		implementing ADA accessibility improvements as necessary.				
11772	Clackamas Industrial Area Bike/Ped Improvements (TSAP)	Improve intersection of 106th and OR 212, and Jennifer Drive and 122nd Ave to facilitate bike and pedestrian safety per county adopted TSAP, and provide ADA accessibility improvements as needed. Also improve intersection geometry to facilitate truck access to industrial park.	Intersection of 106th Ave and OR 212 to Intersection of Jennifer Rd and 122nd Ave	2031-2045	$4,556,000	Yes
12020	OR 212/224 Sunrise Project Phase 3	Construct remaining improvements in the Sunrise Corridor consistent with the FEIS/ROD. Construction may take place in multiple future phases. Evaluate and implement improvements to address bicycle and pedestrian needs, which will be identified.	I-205 to 172nd Ave	2031-2045	$939,000,000	No
12195	Clackamas River Trail: North Carver	Constructs outstanding segments of multi-use regional trail to follow north side of Clackamas River between Hwy. 212/224 interchange and Springwater Bridge.	Hwy. 212/224 Interchange to Springwater Bridge	2023-2030	$3,500,000	Yes
12204	I-205 Multiuse Path from OR 224 to OR 212 Design and Environmental	Conduct public engagement and prepare project preliminary design	OR 224 to OR 212	2023-2030	$1,707,000	Yes

Project Relevance

The RTP lays out a region-wide project list for the next 20 years as federal and state transportation funding is allocated. There are numerous projects that impact the Sunrise Corridor, from planning/engineering work to construction of the corridor, a multi-use path network adjacent to the corridor, and roadway connections to the north and south of the planned corridor.

Portland Region 2020 Traffic Performance Report

The 2020 Traffic Performance Report provides information on the health of the region's freeway system. It continues a baseline for long-term monitoring that will enable ODOT to better understand the urban traffic mobility conditions of the freeway system. Congestion in the Portland metro area steadily increased in the last decade, with regional growth trends showing that these increases are likely to be sustained and expanded for the foreseeable future. Traffic in the Portland region has reached a point of severe congestion and highly unreliable travel conditions during the peak periods.

Study Area
The six freeways within the Portland metropolitan region: I-5, I-84, I-205, I-405, Highway 26, and Highway 217.

Findings
The Traffic Performance Report provides information and findings on each of the six freeways. The I-205 section provided the following information:

- For northbound traffic, the weekday daily average for hours of congestion was 10.8 hours. For southbound traffic, the weekday daily average for hours of congestion was 7.5 hours.
- The most severe recurring bottleneck on I-205 NB was between Division and Sunnyside, lasting over 10 hours over the AM and PM peak periods. In the PM peak, the bottleneck starts further north at the Glenn Jackson Bridge, resulting in a queue that is over 11 miles long.
- For the PM peak, reliable travel time in the northbound direction is nearly 87 minutes, or more than triple free-flow travel time. In the southbound direction, reliable travel time in the PM peak is nearly 57 minutes, or slightly more than double free-flow travel time.
- The NB I-205 bottlenecks are at Glenn Jackson Bridge, Division/Powell and Abernethy Bridge. The SB bottlenecks occur at Powell, 82nd Ave, and 10th St.
- Average speed during the weekday AM peak period is stable and above 55 MPH in both directions at Highway 212. Average speed during the weekday PM peak period is stable for northbound traffic at Highway 212 around 55 MPH but is considerably slower for southbound traffic, around 30 MPH at Highway 212.

Project Relevance
The report focuses solely on freeways within the Portland region, so Highway 212 and Highway 224 are not included. As traffic increases on I-205 (as well as I-84), it is likely that vehicles will turn to alternate routes, including the Sunrise Corridor to travel between US 26 and I-205.

TriMet's Forward Together Plan (2023)

There has been significant changes to TriMet service since the onset of the pandemic. Ridership remains below pre-pandemic levels – not all routes are seeing equal ridership reductions – and a driver shortage has cut down on existing service. As TriMet emerges from the pandemic, the agency sees an opportunity to rethink its routes and service distribution to better meet the Portland metropolitan area's needs.

Study Area
TriMet service district.

Goals
- Ridership
- Equity

Planned Services
TriMet's *Forward Together* plan focuses service in areas with high ridership that serve lower-income people and their needs more equitably. By mapping ridership changes between 2019 and 2021, job locations and access to transit, and a composite equity index, TriMet was able to create a new regional service concept.

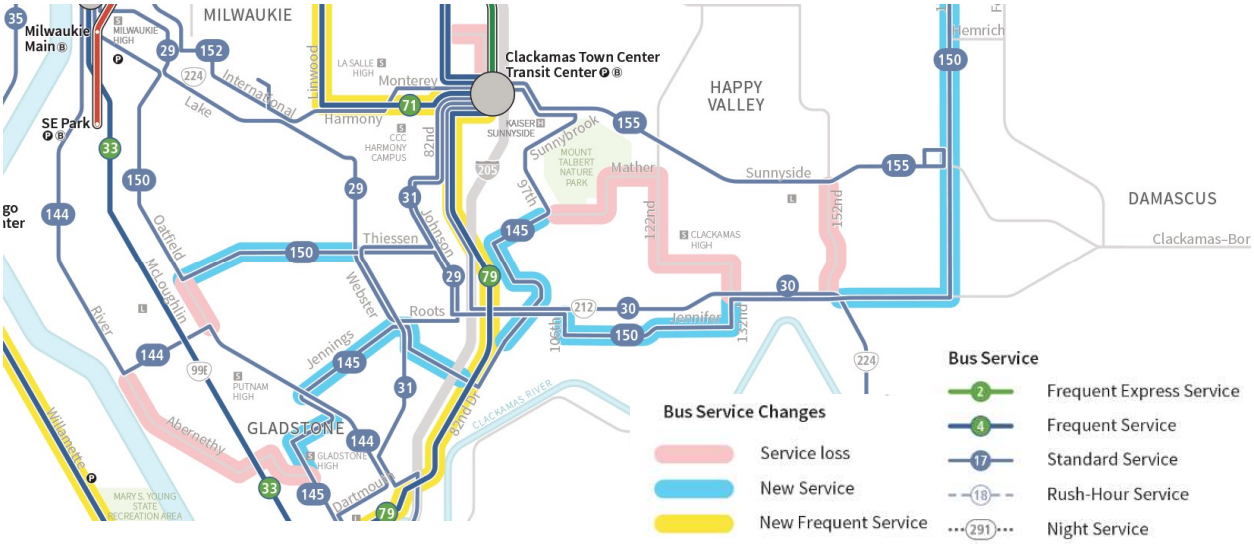
Within the Sunrise Corridor and the Clackamas Industrial Area, the *Forward Together* plan results in a net service increase. The existing Route 79, running along 82nd Drive across OR 224, would be elevated to a frequent service route in the long-term, an improvement over its 40-minute headways currently. Two new routes would serve different areas within the Sunrise Corridor: Route 145 would run between Clackamas Town Center and Oregon City, with service on SE 102nd Avenue and SE Evelyn Street at OR224; Route 150 would run between Milwaukie and Powell Boulevard in Gresham, with services along SE Jennifer Street and on OR 212 before turning north onto SE 172nd Avenue and the C2C corridor. The *Forward Together* plan

proposes removing Route 156, which runs between Clackamas Town Center and Sunnyside Road, with service on OR 212 between SE 135th Avenue and SE 152nd Avenue.

Project Relevance

Previous planning work along the Sunrise Corridor has shown that OR 212 is reaching capacity, specifically at the OR 224/OR 212 intersection (also known as Rock Creek Junction). Additional bus transit service will help move more people into, out of, and through the corridor, and added service on SE Jennifer Street and on SE 172nd Avenue (the future C2C corridor) will meet specific needs there, as well.

Figure 29. *Forward Together* Plan for Sunrise Corridor Area



TriMet Existing Service Plan (Proposed 2024 – 25 Transit Service Changes)

The upcoming 2024-2025 service changes aim to further the implementation of TriMet's *Forward Together* service concept, focused on growing ridership and improving connections for populations with low and limited incomes. While full implementation will take an estimated three to six years, dependent on recovery from ongoing operator shortages, TriMet is proposing impactful service improvements beginning in 2024-2025.

Study Area

TriMet service district.

Goals

- Ridership
- Equity

Planned Services

These enhancements include the addition of two new all-day frequent service lines (15-minute headways), improved frequencies on nine existing lines to provide more frequent service for more hours each day, and other changes.

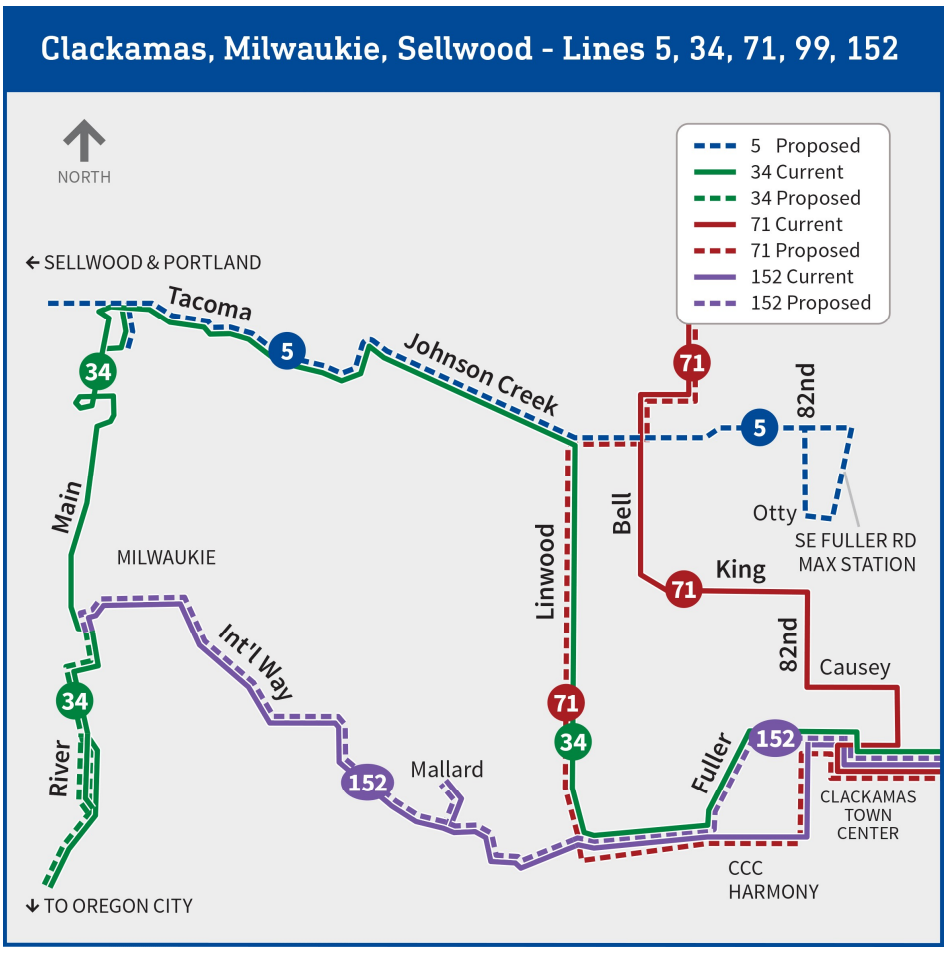
The 2024-2025 service plan calls for increased frequency, route changes, and a new line in the Clackamas, Milwaukie, and Sellwood areas, including:

- Upgrading Line 71 to 15-minute all-day frequent service to replace parts of Lines 34 and 152 and better connect to Clackamas Community College-Harmony campus.
- Adding new Line 5 to connect key destinations from Swan Island to the Fuller Rd MAX station; discontinuing Line 99 and replacing it with new Line 5 and changes to Line 33.
- Other realigned routes aimed at growing ridership, improving equity and connectivity for populations with low incomes in Southeast Portland and adjacent suburbs as part of the *Forward Together* plan.

Project Relevance

As a major retail, employment, and transit hub, Clackamas Town Center serves as an anchor destination just to the north of the Sunrise Corridor. Enhancing transit service to Clackamas Town Center would better integrate this established hub with the Sunrise Corridor. Enhanced transit lays the groundwork for future connectivity to the growing communities east of the Sunrise Corridor. Strengthening transit connections at Clackamas Town Center provides multimodal access and mobility to support sustainable growth in Clackamas County.

Figure 30. Proposed 2024-25 Changes for Services in Clackamas/Milwaukie/Sellwood



TriMet's Southeast Service Enhancement Plan (2016)

TriMet's Southeast Service Enhancement Plan outlines a vision to expand transit service in the southeast portion of the agency's service district and was developed through extensive outreach and research. Key elements include adding east-west routes, improving frequency and spans on existing routes, modifying routes to increase access, and implementing community/job connector services. The vision has been implemented incrementally since 2016. The report provides guidance for annual service planning to make

enhancements working toward the long-term goal of improving mobility and connections in the Southeast portion of TriMet's service district through better transit service.

Study Area

TriMet's southeast service district, which includes Southeast Portland, Estacada, Gladstone, Happy Valley, Milwaukie, Oregon City, and unincorporated Clackamas County.

Goals

Improving quality of life and mobility in TriMet's southeast service district through expanded transit service.

Planned Services

The key recommended service improvements in the Southeast Service Enhancement Plan that are specific to Sunrise Corridor include the following projects, shown in Figure 31 below:

- Adding new east-west bus routes between Happy Valley and Oregon City Transit Center (SE Jennings/Hwy 212, Line X).
- Increasing frequency and extending hours on bus lines serving Clackamas Community College, Milwaukie, Oregon City (Line 32), lines between Happy Valley and Clackamas Transit Center (Line 156), lines providing weekend service between Estacada and the Clackamas Transit Center (Line 30).
- Implementing new community/job connector services in the Clackamas Industrial Area (between OR 212 and Sunnyside Rd) and South Oregon City.
- Making ongoing improvements to bus stops, sidewalks, bike access, and transit priority signals.
- Phasing in service expansions over 10 years as dedicated funding allows, focusing on equity, demand, productivity, connections, and growth.

Project Relevance

The Southeast Service Enhancement Plan recommends several improvements to bus routes on the Sunrise Corridor: The new east-west route (Line X) proposed along SE Jennings Avenue, OR 212, and SE Sunnyside Road will increase connectivity through the corridor. Increasing service frequency on Line 156 will improve access to jobs in the Clackamas Industrial Area. Improving weekend services on Line 30 will enhance the access to destinations along OR 212 and connect Estacada and the Clackamas Transit Center. The new community/jobs connector provides flexible service to the industrial areas. Together, these enhancements will increase mobility and access to jobs in the Sunrise Corridor area through expanded bus service, community connectors, and improved bus facilities and access.

Figure 31. *Southeast Service Enhancement* Plan for Sunrise Corridor Area

Clackamas County Transit Development Plan (TDP) (2021)

The Clackamas County Transit Development Plan (TDP) is a 20-year transit plan designed to guide future transit investments and create a coordinated vision for transit service and access throughout Clackamas County. The plan was established in response to the passage of Keep Oregon Moving (HB 2017), which created new funds for transit projects both inside and outside existing transit districts or service areas.

Study Area

The TDP focuses on two main areas:

1. **TriMet Service Area**: the plan provides detailed analysis and transit level-of-service information for the TriMet Service Area, which has lower service levels compared to other counties. TriMet, with input from the TDP, will decide on and implement service changes. The portion of TriMet's service district in Clackamas County includes the cities of Oregon City, Milwaukie, Lake Oswego, West Linn, Gladstone and Estacada. The majority of Happy Valley is in the service district, but areas east of SE 145th Avenue and SE King Road (including the unincorporated communities of Damascus and Boring) are largely outside the TriMet boundary, TriMet's district boundary outside Oregon City ends at S Henrici Road, runs west to the Willamette River, and then runs along the north side of the Willamette River to Wilsonville.
2. **Unincorporated Areas**: the plan recommends how transit service providers can cover these areas and improve connectivity throughout the county. The rural transit providers in the County that provide service in unincorporated areas include South Clackamas Transportation District (SCTD),

CCC Xpress Shuttle, Sandy Area Metro (SAM), Canby Area Transit (CAT), South Metro Area Regional Transit (SMART), and the Mt. Hood Express administered by Clackamas County.

Clackamas County serves as a coordinator of transit services between the six public transit providers in the county and facilitates the implementation of small-scale transit and transportation services. Its responsibilities have expanded with the availability of new funds. Figure 32 shows an overview of existing transit services in Clackamas County.

Goals

1. Enhance Connectivity
2. Prioritize Equity, Health & Safety
3. Promote Sustainability
4. Improve Customer Experience and Mobility

Among these goals, the CCTDP prioritizes equity by aiming to improve access to transit for transit-dependent residents, including historically marginalized and underrepresented communities. Collaboration with community organizations helps understand the needs of these populations.

Planned Services

According to the identified demands, the TDP provides short-term, medium-term, and long-term recommendations for new and additional transit services in Clackamas County (Figure 33 through 32). The recommended scheduling for the Clackamas Industrial Area is to start with 9 to 16 runs per day and gradually increase to 17 to 32 runs per day in the medium and long term. In addition, recommendations, relevant to the Sunrise Corridor and its vicinity, are shown in Table 9.

Figure 32. Transit Overview - Clackamas County TDP

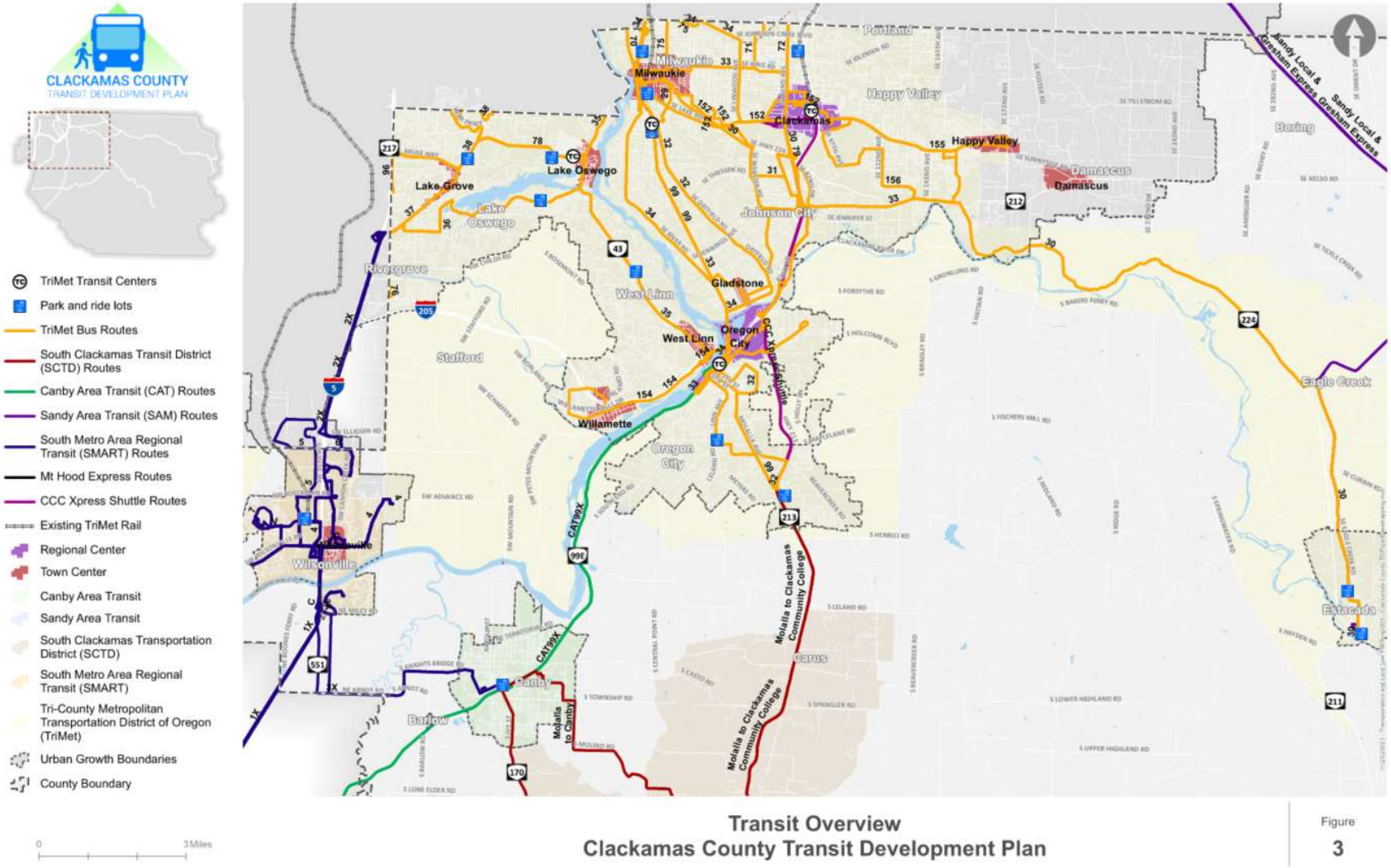


Figure 33. CCTDP Short-Term Recommendations

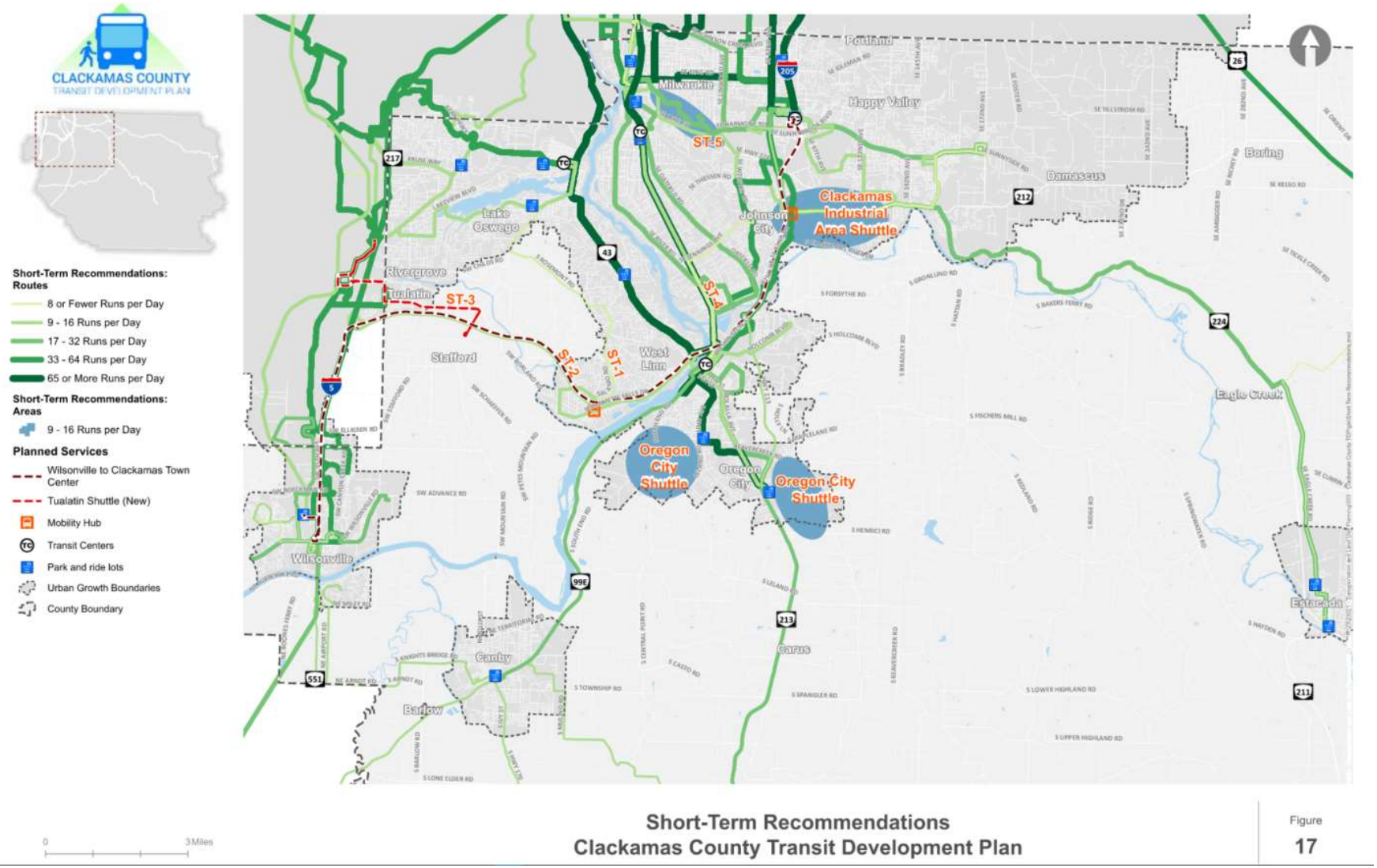
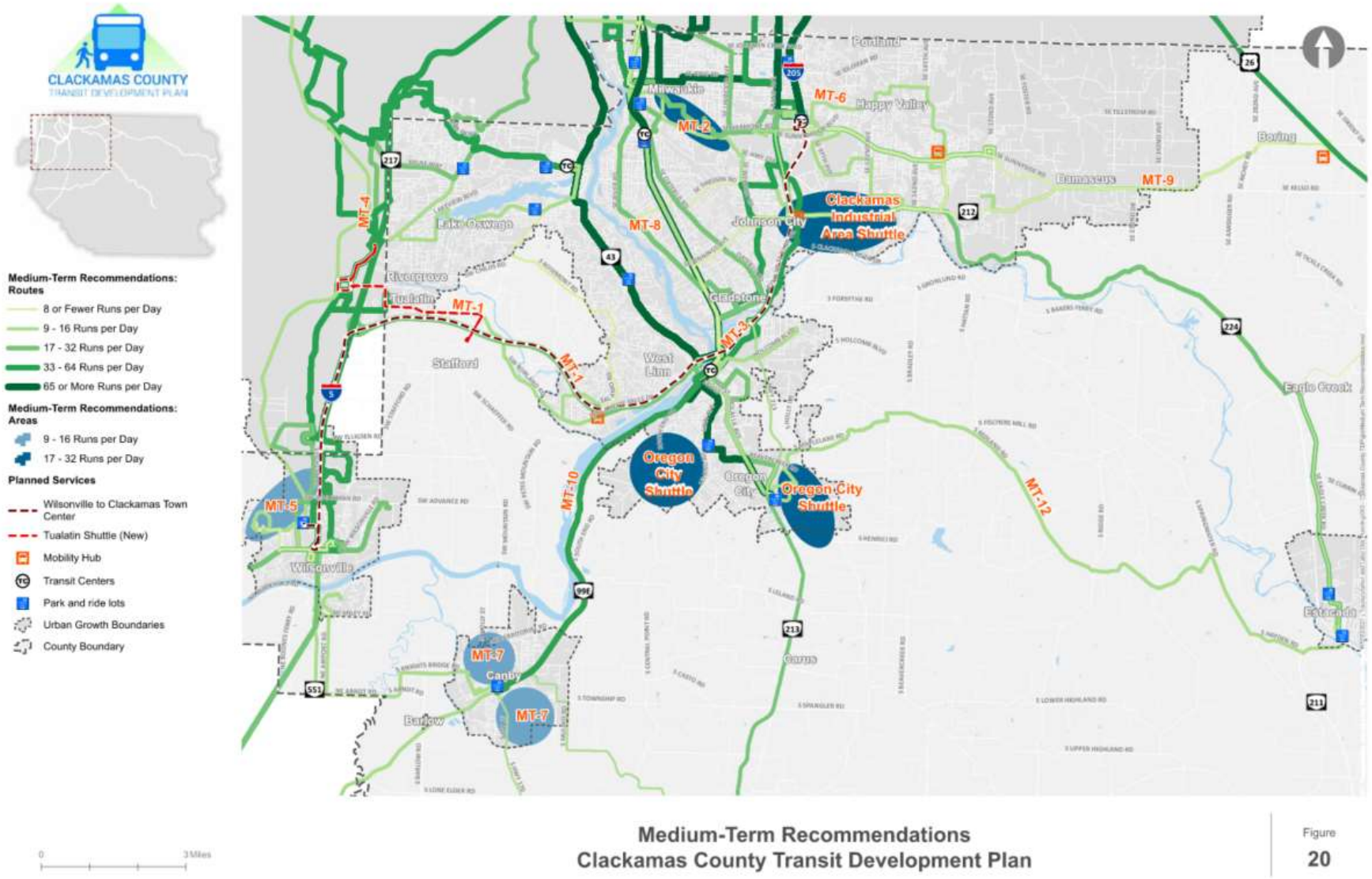


Figure 34. CCTDP Medium-Term Recommendations



Medium-Term Recommendations
Clackamas County Transit Development Plan

Figure
20

Figure 35. CCTDP Long-Term Recommendations

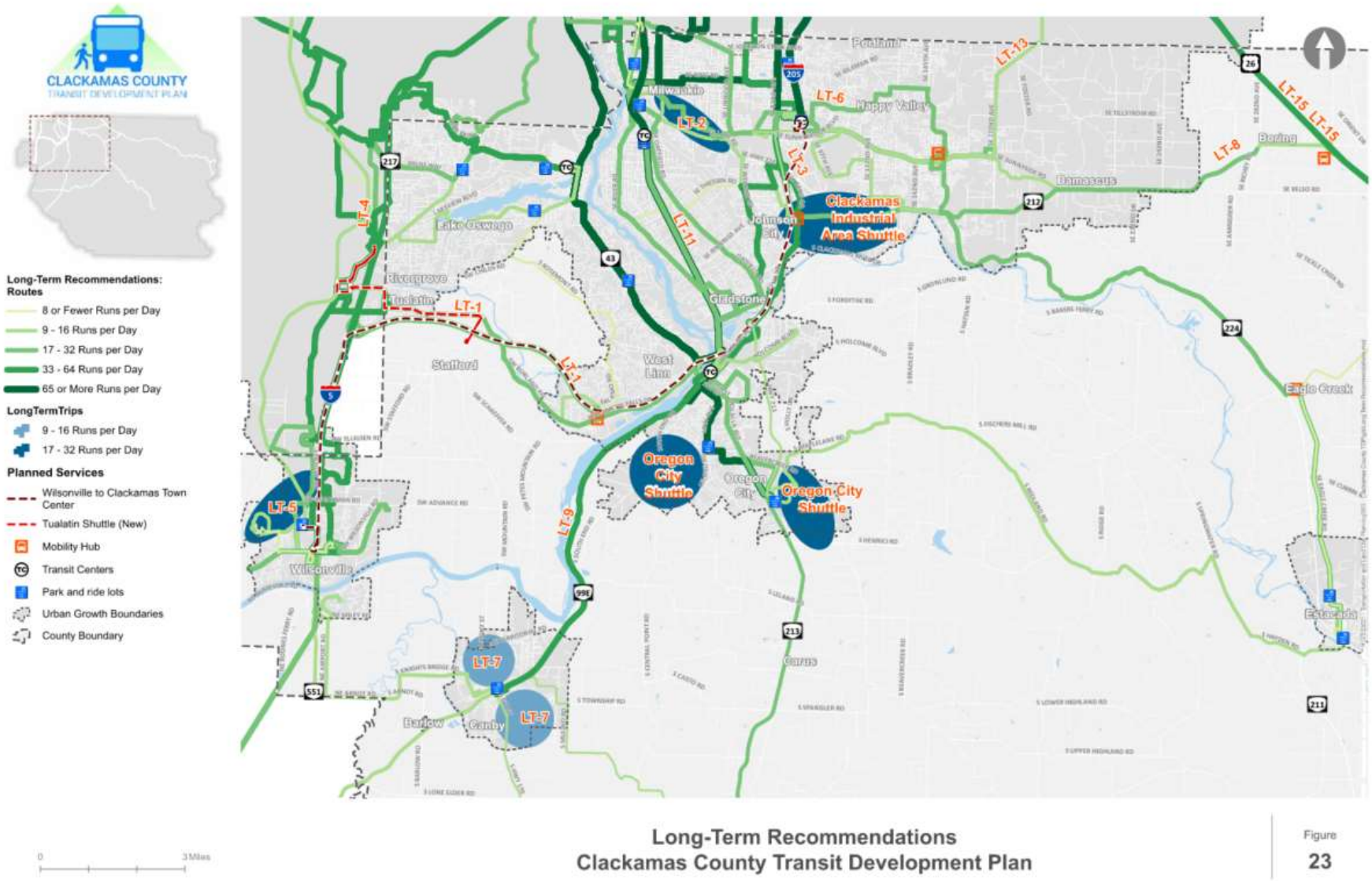


Table 10. CCTDP Recommendations

ID	Corridor or Area	Existing Runs per Day	Additional Transit Run Demand	Recommendation	District/ Provider	Vehicle Size	Status
MT-6	Happy Valley	16	19	Establish hourly service (about 10 runs per day)	TriMet	Larger	Established Need
MT-9	Damascus	0	19	Establish hourly service (about 10 runs per day)	TBD	Smaller	Established Need
MT-11	Highway 212: I-205 to US26	0	14	Establish hourly service (about 8 runs per day); triggers Mobility Hub in Boring	SAM	Larger	In Provider Plan
LT-6	Happy Valley	26	9	Evaluate service; consider increased service span and frequency to add about 10 runs per day	TriMet	Larger	Established Need
LT-8	Damascus	10	9	Evaluate service; consider increased service span and frequency to add about 10 runs per day	TBD	Smaller	Established Need
LT-10	Highway 212: I-205 to US26	8	6	Evaluate service; consider increased service span and frequency to add about 10 runs per day	SAM	Larger	In Provider Plan
N/A	Highway 224: Highway 212 to Estacada	Monitor potential increases to transit demand			N/A	N/A	N/A

*MT - medium term; LT – long term.

Project Relevance

CCTDP identified the transit needs in 20 years and made service recommendations for all the Clackamas County, including the focus area of the Sunrise Project (e.g. OR 212, the Clackamas Industrial Area, and Damascus area) and its vicinity (e.g. Happy Valley) inside and outside the TriMet service area.

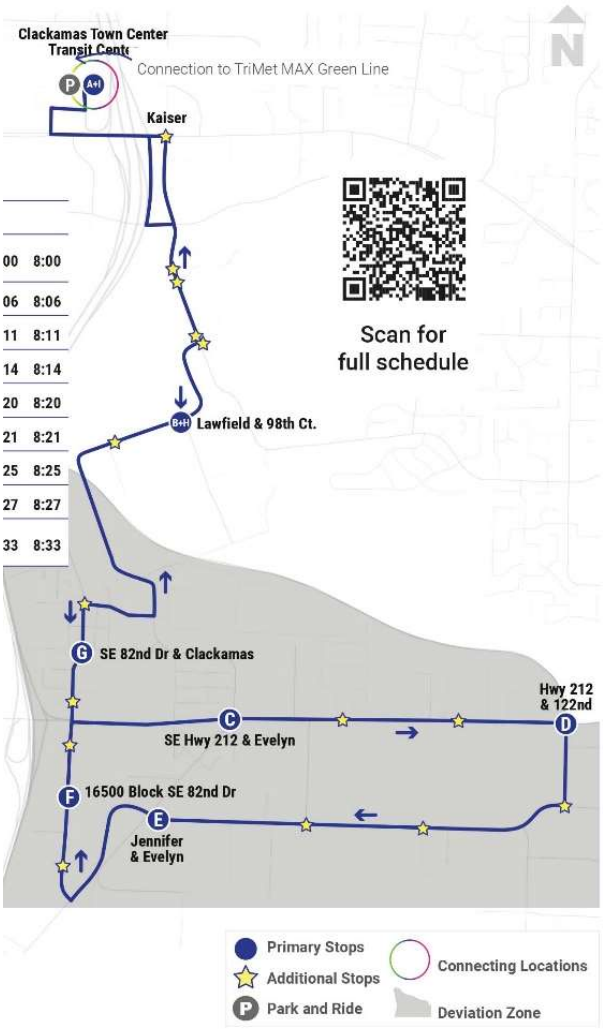
Clackamas County Connects – Industrial Area Shuttle (2023)

The Clackamas Industrial Area shuttle provides enhanced transit access to the industrial area east of I-205 along OR 212, linking the Clackamas Town Center Transit Center to major employers in the area (see Figure 36 below). The shuttle operates daily, with weekday service running from 4:50am to 11:23am and 1:00pm to 8:33pm. Weekend service operates in the morning only, from 4:50am to 11:23am.

Project Relevance

The Clackamas Industrial Area shuttle line serves the Sunrise Corridor area around OR 212 between SE 82nd Drive and SE 122nd Avenue. It also provides a north-south connection by linking the Clackamas Industrial Area to the Clackamas Town Center Transit Center. The shuttle line improves transit access to jobs and education in the Clackamas Industrial Area for residents across the region.

Figure 36. Clackamas Industrial Area Shuttle Line



Metro Regional Transit Strategy (RTS) (2018)

The 2018 Regional Transit Strategy (RTS) provides a comprehensive plan to develop an integrated regional transit system in the Portland metropolitan area. Developed by Metro, the RTS sets transit policy and priorities through 2040 to support the region's growth management goals.

The 2018 RTS is a component of Metro's 2018 Regional Transportation Plan update. It provides the transit modal plan to complement and implement the overall regional transportation vision. The RTS establishes a policy framework to guide transit planning and investments to build an integrated regional transit system. It was developed through a comprehensive planning process and engagement with the public, stakeholders, and partner agencies. The RTS provides the transit priorities and strategies to work toward the regional vision for transit set forth in the 2040 Growth Concept.

Study Area

RTS study area focuses on the area served by transit providers with the Metro boundary – TriMet, Portland Streetcar, South Metro Area Regional Transit, Ride Connection, the Portland Community College Shuttle, and the Clackamas Community College Xpress Shuttle. While outside of Metro's boundary, C-TRAN in Clark County does provide service between Clark County and Portland.

Goals

- Developing an integrated, interconnected regional transit system that provides frequent, reliable, accessible and easy to navigate service.
- Expanding access to transit, particularly for marginalized communities.
- Aligning transit investments with growth patterns and land use policies.

Planned Services

RTS applies the mobility corridor framework to organize information and to coordinate transportation and land use planning. Corridor refinement plans are recommended for corridors needing further evaluation of multimodal transportation solutions and investment strategies.

Specific to Sunrise Corridor, RTS recommends Clackamas to Fairview/Wood Village/Troutdale, which includes OR 212 and Sunrise Corridor, as Mobility Corridor #24 (Clackamas to Columbia) for future corridor refinement planning. The Clackamas to Columbia effort would create a coordinated, multi-jurisdictional transportation plan focused on improving all modes along the 181st/182nd/190th/172nd corridor connecting I-84 in Multnomah County and OR 212 in Clackamas County. This planning effort builds on local plans and evaluate multimodal improvement packages to increase mobility and access along the corridor for existing and planned land uses. It identifies preferred phased investments for auto, freight, bike, pedestrian and transit modes. The effort provides urban street design recommendations and suggests amendments to local TSPs and the RTP to implement the improvements. The goal is to develop an integrated mobility strategy for the corridor through engagement with stakeholders and the public. More information on this effort can be found Clackamas to Columbia (C2C) Corridor plan (2020).

Project Relevance

The C2C Corridor establishes a north-south connection from 172nd to 190th, while the Sunrise Corridor facilitates efficient west-east connectivity in northeast Clackamas County along OR 212 and OR 224. The integration of these two corridors will significantly enhances transportation accessibility and movement in north and northeast Clackamas County.

High-Capacity Transit Strategy (2023)

Ever since Metro adopted the 2040 Growth Strategy, high-capacity transit has been a crucial element as the region continues to grow. This plan (currently a draft with adoption anticipated with the RTP Update)

refreshes the most recently version of the Strategy from 2009 and provides a shared vision and action plan for developing new high-capacity transit corridors.

Study Area

Portland's metropolitan planning organization boundaries

Goals

1. Equity
    a. Improve access to high-quality transit and faster travel for people with low incomes and other underserved communities
    b. Improve local air quality
    c. Minimize displacement of people or businesses and maintain housing affordability
2. Climate
    a. Shift more driving trips to transit to reduce GHG emissions
    b. Help address congestion by investing tolling revenues into HCT in congested corridors
    c. Use electric transit vehicles or other clean fuels to reduce emissions
3. Mobility
    a. Provide an affordable alternative to driving
    b. Connect regional and town centers as part of the 2040 Growth Concept
    c. Ensure a safe, welcoming system that is attractive to riders
    d. Make sure people can safely and comfortably get to HCT stations
    e. Invest in the existing HCT system to fix chokepoints, like the Steel Bridge
4. Economy
    a. Support healthy communities and bolster local economies
    b. Make sure HCT connects people, jobs, and essential services
    c. Minimize time spent waiting while transferring to make multiple trips easier
    d. Develop housing near HCT that welcomes people of all incomes and backgrounds and avoids displacement
    e. Help the region grow in a way that preserves farm and forestlands
5. Safety
    a. Make transit rider safety the highest priority
    b. Consider the pros and cons of different safety programs, such as education and communication versus enforcement
    c. Design streets to be safe for all people

Planned Services

The High-Capacity Transit Strategy identifies four tiers:

- Tier 1: Near-Term Corridors
- Tier 2: Next Phase Corridors
- Tier 3: Developing Corridors
- Tier 4: Vision Corridors

Tiers 1 and 2 are ready to move forward, while Tiers 3 and 4 need more work before they're ready for investment.

Within the greater Sunrise Corridor area, there are three Tier 4 projects identifies Tier 4 projects:

- **C12 – Clackamas Town Center to Happy Valley**: The 2009 Plan first designated Sunnyside Road north of the Sunrise Corridor as a vision corridor for future high-capacity transit investment. Since much of the existing land use designations for this corridor are lower density residential (with some medium

density notes and terminating in a mixed-use town center), future corridor planning work could look at opportunities for mixed uses in future station areas and nodes for transit-oriented development

- **C15 – Happy Valley to Columbia Corridor via Pleasant Valley**: As part of expanding the high-capacity vision to include rapid bus, the 2023 High Capacity Transit Strategy Update identified the full corridor as a future candidate for high capacity investments. The Clackamas to Columbia (C2C) project developed a plan for improving north-south travel in the Portland Metro area east of I-205 that identified transportation improvements (including enhanced transit) to improve mobility and access, prioritizes which improvements to fund and build soonest and developed a consistent set of policies and street designs for each partner agency.
- **C26 – Clackamas Town Center to Oregon City**: The 2018 Regional Transportation Strategy designated I-205 as a high-capacity transit vision corridor beyond the 2040 strategic investment strategy, recognizing the need for more comprehensive corridor planning. This corridor already has an existing adjacent inter-city Amtrak Cascades rail line identified as one of 11 national future high speed rail corridors and Oregon City to Eugene was noted as one of the largest travel markets in the 2020 Oregon State Rail Plan (outside Portland to Salem or Eugene). Since much of the existing land use designations for this corridor are commercial and lower density residential (with mixed use town center nodes), future corridor planning work could look at opportunities for mixed uses in station areas and town centers and nodes for transit-oriented development.

Project Relevance

While there are no high-capacity transit plans for the future Sunrise Corridor, Highway 212, or Highway 224, there is a long-range vision to bring additional transit capacity to the broader study area, in Happy Valley, along the C2C Corridor and toward Oregon City.

Clackamas County Active Transportation Plan (2013)

The 2013 Active Transportation Plan (ATP) provides the walking and biking components of the County's TSP. Clackamas County has an ongoing update via the Walk Bike Clackamas County Plan, seeking adoption through Summer 2024. The plan will provide policies, programs, and investment priorities for walking and biking facilities.

Study Area

Clackamas County.

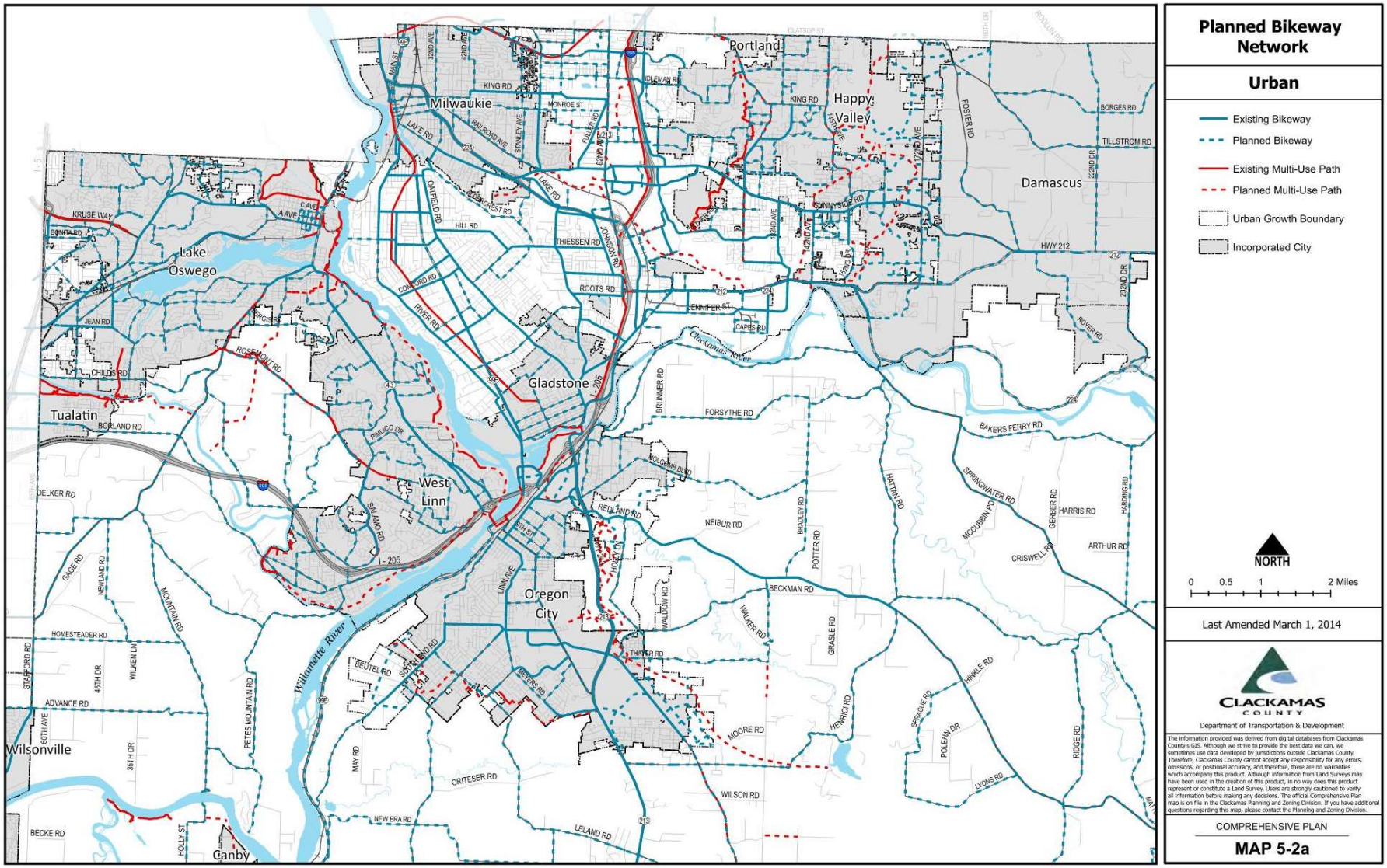
Goals

Consistent with TSP Goals.

Planned Improvements

Planned improvements from the ATP include a multi-use path along the Sunrise Phase 1 alignment, which has been constructed since, and a path connecting the existing I-205. Additional pathways are planned near 142nd Avenue and along 152nd Avenue, as well as bikeways along the remainder of OR 212, OR 224, and SE 172nd Avenue. Figure 37 shows the planned improvements.

Figure 37. ATP Planned Network



Project Relevance

The ATP identifies priorities for walking and biking facilities within the Sunrise Gateway Corridor study area that should be incorporated into conceptual designs. Further, the plan identifies cost estimates and potential funding sources for the improvements.

State Plans

Oregon Transportation Plan (2023)

The 2023 Oregon Transportation Plan (OTP) provides strategic direction and policy guidance for Oregon's multimodal transportation system through 2050. Developed by ODOT, the OTP establishes the vision, goals, objectives, policies and implementation strategies to address pressing issues facing the state's multimodal transportation network. The OTP emphasizes maintaining and maximizing existing infrastructure while also investing in targeted enhancements to improve safety, equity and sustainability. Key policy themes of the plan include transitioning to cleaner vehicles and fuels, expanding low-carbon transportation options, implementing road pricing strategies, linking transportation and land use planning, and securing stable transportation funding.

While the OTP does not identify specific projects, it sets statewide policy direction to guide modal plans, regional plans, and local transportation system plans. The 2023 OTP has six main goals:

1. **Economic and Community Vitality** – Improve prosperity, opportunity, and livability for all people who live, work, and recreate in Oregon.
2. **Social Equity** – Improve access to safe and affordable transportation for all, recognizing the unmet mobility needs of people who have been systemically excluded and underserved. Create an equitable and transparent engagement and communications decision-making structure that builds public trust.
3. **Mobility** – Create a resilient multimodal transportation system that enables the diverse range of community members and businesses with different needs to get where they need to go safely, reliably, and affordably, and with minimal environmental impact.
4. **Stewardship of Public Resources** – Guided by open, data-driven decision-making processes, secure sufficient and reliable revenue for transportation funding and invest public resources to achieve a resilient and sustainable multimodal transportation system.
5. **Safety** – Enable safe travel for all people, regardless of their age, ability, race, income, or mode of transportation.
6. **Sustainability and Climate Action** – Minimize transportation's negative role in climate change by reducing GHG emissions for all sectors of transportation, while also reducing air toxics, noise and light pollution, water toxics, and habitat loss.

The OTP's goals, objectives and policies aim to optimize system performance, integrate transportation planning across jurisdictions and modes, and focus investments on strategic priorities.

The OTP considers future trends, funding constraints, and tradeoffs to chart a strategic course for transportation investments. Implementation will require coordination across state, regional and local agencies as well as engagement with stakeholders. The OTP provides a framework for transportation decision-makers to evaluate tradeoffs and make choices that balance multiple objectives.

Project Relevance

The 2023 OTP provides policy guidance relevant to planning and designing the Sunrise Gateway Corridor, including system management, enhancing the performance of the current transportation system, exploring sustainable funding options, and making strategic investments. Project development would need to align

with OTP goals and strategies in equity, climate, safety, multimodal travel, stewardship, and coordination with land use planning.

Oregon Highway Plan (1999)

The Oregon Highway Plan (OHP) was originally adopted in 1999 to provide policy direction for planning, operations, maintenance and improvements to state highways for ODOT's Highway Division. Key policies in the 1999 OHP focus on efficiently managing the highway system to improve safety and increase capacity, establishing partnerships with other agencies and local governments, and utilizing new techniques to enhance road safety and capacity. The plan also connects land use and transportation, sets highway performance and access management standards, and emphasizes the relationship between state highways and local roads, bicycle/pedestrian facilities, transit, rail, and air systems.

The OHP is currently being updated, and the information below is subject to change based on the final document. The content below reflects the 1999 OHP and includes the policies that are relevant to the planning and design process of Sunrise Gateway Corridor.

Policy 1A: State Highway Classification System

The OHP establishes a highway classification system to guide planning, management, and investment priorities. Highways are categorized as Interstate, Statewide, Regional, District, and Local Interest based on function. The system aims to direct resources towards high mobility routes like Interstates and Statewide highways and guides ODOT's needs analysis, access management, and other aspects of operations. The goal is to optimize highway investments and management using these functional classifications.

The Clackamas Highway (OR 212) and Sunrise Expressway Highway (OR 224) are both classified as Statewide highways in the state highway classification system. The purpose and management objectives for statewide highway classification are outlined in Policy 1A and summarized as follows:

> *Statewide Highways typically provide inter-urban and inter-regional mobility and provide connections to larger urban areas, ports, and major recreation areas that are not directly served by Interstate Highways. A secondary function is to provide connections for intra-urban and intra-regional trips. The management objective is to provide safe and efficient, high-speed, continuous-flow operation. In constrained and urban areas, interruptions to flow should be minimal. Inside Special Transportation Areas (STAs), local access may also be a priority.*

Policy 1C: State Highway Freight System

Policy 1C aims to balance efficient freight movement on key highways with other transportation needs. It establishes a State Highway Freight System, including Interstates and certain Statewide, Regional, and District Highways. This policy encourages managing freight routes for mobility, connectivity, and clearance for permitted loads. It calls for studying bottlenecks and investing in improvements. The Sunrise Gateway Corridor serves as a crucial route for freight drivers, connecting the Clackamas Industrial Area and the Rock Creek Employment Center to the broader Portland region and points beyond. Both OR 224 and OR 212 in the Sunrise Gateway Corridor study area are designated as freight routes, and they adhere to higher highway mobility standards compared to other Statewide highways.

Policy 1F: Highway Mobility Standards Access Management Policy

Policy 1F establishes mobility targets for state highways, utilizing volume-to-capacity (v/c) ratios as a measure. These targets vary depending on the highway classification and location. The overall objective is to strike a balance between mobility and accessibility, taking into account a highway's function and surrounding land use context. In cases where meeting the v/c targets is impractical, ODOT and local governments can collaborate to develop alternative mobility standards that suit local conditions. The mobility targets serve as guidance for transportation system planning and reviewing comprehensive plan amendments affecting state highways. Additionally, amendments to Policy 1F were adopted in 2011, which allow for flexibility to reconcile state mobility goals with local access and economic development priorities. Policy 1F now offers a more transparent policy framework when assessing mobility performance, considering measures beyond v/c ratios.

OR 224 and OR 212 fall under the classification of Statewide highways and designated freight routes, situated within the Portland Metropolitan Region urban growth boundary. Mobility targets for the state facilities in the project area are suggested in Table 11. To ensure safe operations, non-state highway approaches are expected to achieve the v/c ratios intended for district/local interest roads.

Table 11. V/C Ratio Targets within Portland Metropolitan Region (*Table 7 in the OHP*)

VOLUME TO CAPACITY RATIO TARGETS INSIDE METRO[A, B]		
Locations	**Target**	
	1st hour	**2nd hour**
Central City Regional Centers Town Centers Main Streets Station Communities	1.1	.99
Corridors Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	.99	.99
I-84 *(from I-5 to I-205)*	1.1	.99
I-5 North *(from Marquam Bridge to Interstate Bridge)*	1.1	.99
OR 99E *(from Lincoln Street to OR 224 Interchange)*	1.1	.99
US 26 *(from I-405 to Sylvan Interchange)*	1.1	.99
I-405[C] *(from I-5 South to I-5 North)*	1.1	.99
Other Principal Arterial Routes I-205 [C] I-84 *(east of I-205)* I-5 *(Marquam Bridge to Wilsonville)*[C] OR 217 US 26 *(west of Sylvan)* US 30 OR 8 *(Murray Blvd to Brookwood Avenue)* [C] OR 224 OR 47 OR 213 242nd/US 26 in Gresham OR 99W	.99	.99

[A] Unless the Oregon Transportation Commission has adopted an alternative mobility target for the impacted facility, the mobility targets in Tables 7 are considered standards for purposes of determining compliance with OAR 660-012, the Transportation Planning Rule.

[B] The volume-to-capacity ratios in Table 7 are for the highest two consecutive hours of weekday traffic volumes. The second hour is defined as the single 60-minute period either before or after the peak 60-minute period, whichever is highest. See Action 1.F.1 for additional technical details.

[C] A corridor refinement plan, which will likely include a tailored mobility policy, is required by the Metro 2035 Regional Transportation Plan for this corridor.

Policy 1G: Major Improvements

Policy 1G aims to enhance efficiency and safety in the highway system by prioritizing strategic measures over capacity expansion. It focuses on specific priorities for addressing highway needs:

- Protecting the existing system through access management and operational improvements.
- Enhancing the efficiency of existing facilities by adding features like shoulders and auxiliary lanes.
- Expanding capacity on existing highways through general-purpose lanes.
- Considering new highways or bypasses as the lowest priority.

For major modernization projects, adherence to state and local plans is crucial. These projects must have clear scopes, analyze alternatives, and include a well-defined funding plan. Cost-sharing is recommended for projects benefiting the local system.

For the planning of the Sunrise Gateway Corridor, ODOT will collaborate with Clackamas County, the City of Happy Valley, and other stakeholders to identify suitable strategies and tools that align with Policy 1G. These strategies and tools will be designed for local implementation to ensure consistency with the overall objectives.

Policy 2B: Off-System Improvements

Policy 2B allows ODOT to finance enhancements to local roads and streets when these improvements positively affect the operation of state highways. However, for off-system improvements to be considered, they must be more cost-effective than comparable on-system improvements while delivering equivalent benefits.

To ensure the preservation of benefits to the state system, local governments are required to adopt specific policies. These policies must address crucial aspects like access management and providing advance notification of potential impacts. Criteria will be established to effectively identify and prioritize potential off-system improvements, streamlining the decision-making process. ODOT will remain actively involved in local planning efforts, collaborating with local governments to identify future impacts and opportunities for mitigation.

To assess off-system improvements comprehensively, ODOT will work alongside Clackamas County, the City of Happy Valley, and other stakeholders in evaluating these enhancements through Sunrise Gateway Corridor plans and other relevant planning processes. By following this approach, the policy aims to foster efficient collaboration between state and local authorities, maximizing the overall effectiveness and impact of transportation improvements.

Policy 2D: Public Involvement

Policy 2D is geared towards fostering public engagement in ODOT's decisions pertaining to the state highway system. To achieve this, ODOT commits to conducting robust public involvement efforts for proposed policies, plans, programs, and highway projects. Enhancing public awareness is a key focus, and ODOT will increase public information and education related to highway construction, operations, and maintenance.

The public involvement initiatives will specifically target citizens, neighborhoods, communities, and local governments directly affected by the decisions and projects. The agency recognizes the importance of continuous improvement and will regularly evaluate its public involvement programs to guarantee inclusivity and meaningful participation of the public in shaping the state's highway system.

According to the Sunrise Gateway Corridor Concept, 32 percent of the corridor is in an equity focus area. To ensure effective collaboration within these equity areas, ODOT will work closely with local jurisdictions to engage and involve relevant stakeholders from the public.

Policy 2F: Traffic Safety

The primary objective of Policy 2F is to consistently enhance safety for all users of the highway system. To achieve this, ODOT will adopt a multi-faceted approach, utilizing engineering, education, enforcement, and emergency services to address high-priority safety issues.

There were 48 serious injuries and fatalities from crashes within the Sunrise Corridor that occurred between 2007 and 2017. ODOT will foster close collaboration with local agencies and engaging citizens in a joint effort to tackle safety concerns related to the Sunrise Gateway Corridor. The focus will be on implementing cost-effective countermeasures at locations where crashes occur with high frequency. An essential part of this safety initiative involves strengthening partnerships with ODOT and local agencies. By doing so, it is aimed to enhance traffic law enforcement, promoting compliance, and ensuring strict adherence to safety regulations.

Policy 3A: Classification and Spacing Standards

Policy 3A aims to effectively manage the placement, intervals, and types of road intersections on state highways, ensuring their safe and efficient operation in line with their respective classifications. Action 3A.2 proposes the establishment of spacing standards for state highways, which take into account factors such as highway classification, function, area type, and posted speed. These standards are detailed in tables found in OHP Appendix C, considering urban and rural highway classification, traffic volumes, speed, safety, and operational needs. Stricter standards are generally applied to highways with higher mobility functions (such as Interstates and Statewide routes) compared to those serving local access functions (like District and Regional routes). These standards encompass minimum spacing requirements for approaches, intersections, traffic signals, and interchanges, aiming to strike a balance between mobility and accessibility for each highway type and location. The implementation of access management spacing standards is carried out through Oregon Administrative Rule 734, Division 51. The standards provided in Policy 3A serve as guidelines for various decision-making processes, including planning, project development, permitting, and operational decisions related to state highway access.

Policy 3C: Interchange Access Management Areas

Policy 3C focuses on effectively managing interchange areas to ensure the safe and efficient operation of connecting roadways. To achieve this, the implementation of interchange management plans will be a

priority, aiming to preserve interchange function and minimize the need for costly upgrades. Maintaining controlled access for a minimum distance from ramp intersections will be crucial to sustain smooth operations.

For any new or modified interchanges, it will be essential to have well-established supporting roadway networks, well-thought-out land use plans, and effective access control measures in place. The primary goal is to ensure that interchanges primarily connect to other state highways or arterials, whenever feasible, along Statewide Highways.

In urban areas, interchange planning must consider various transportation needs, including transit options, park and ride facilities, and non-automobile modes. This approach is crucial in catering to the diverse transportation preferences of the community. Specific standards will further be set for the minimum spacing of intersections near interchanges to enhance overall safety and efficiency.

OR 212 and OR 224 are Statewide highways in the urban area. Thus, the above considerations will be critical in planning for Rock Creek Junction and its connection to ensure a well-integrated and efficient transportation network.

Policy 4A: Efficiency of Freight Movement

Policy 4A is centered around achieving a balanced approach that considers both freight mobility and other uses of the highway system. It sets forth performance standards specifically tailored to ensure efficient freight movement on designated freight routes. In this pursuit, ODOT will conduct studies to identify freight bottlenecks and obstacles present on the state highway system. As noted earlier, OR 212 and OR 224 are designated freight routes.

Project Relevance

The OHP serves as a comprehensive set of guidelines governing the accessibility, mobility, and roles of state-owned highways in Oregon. In the context of the Sunrise Gateway Corridor plan, the OHP's policies will play a crucial role in shaping proposed enhancements, alterations, and local regulations that may impact any of the state facilities. In addition, close coordination with ODOT is essential to ensure that all projects, policies, and regulations outlined in the Plan align with the safety, access, and mobility standards and objectives set forth in the OHP.

Oregon Freight Plan (2023)

The Oregon Freight Plan (OFP), which was adopted in 2011 and revised in 2017 and 2023, serves as the guiding framework for the transportation of goods on the state highway system. Its main goal is to enhance connections to various markets, from local to global, thereby boosting trade-related jobs and income for both workers and businesses. The plan focuses on prioritizing investments in freight facilities like rail, marine, air, and pipeline infrastructure, while also implementing strategies to maintain and enhance the freight transportation system.

OR 224 is identified as key access and egress routes to military facilities statewide. As mandated by the Infrastructure Investment and Jobs Act (IIJA), it is essential to take into account the significance of OR 224 when planning movements associated with military freight.

Project Relevance

Given the nearby Clackamas Industrial Area, one of the objectives of the Sunrise Gateway Corridor plan will be to maintain and improve the efficiency of the truck freight system in the study area. To achieve this,

the project advisory committee will consist of members who represent various freight interests; in particular, military freight interests should be highlighted.

ODOT Blueprint for Urban Design (2020)

The ODOT's Blueprint for Urban Design (BUD), published in January 2020, serves as a bridging guideline for planning and designing transportation projects on the state highway system in urban areas. This document aims to offer flexibility in design criteria to effectively address the unique needs of individual communities by considering the specific urban context. The BUD establishes a performance-based and context-sensitive approach, enabling adaptable and appropriate designs to accommodate various transportation modes and urban roadway users. Within the built environment, trade-offs between design elements are inevitable, and the BUD provides information and criteria to help project teams make well-informed choices in developing final project designs, aligning them with established project goals and desired outcomes. By introducing six urban contexts, each with its own design criteria, the BUD empowers project teams to align ODOT's transportation objectives with the aspirations of local communities. Notably, the BUD has recently been integrated into the ODOT Highway Design Manual (HDM).

The Sunrise Corridor has two distinct context classifications:

- **Commercial Corridor**: Mostly commercial and industrial uses with large building footprints and large parking lots set within large blocks and a disconnected or sparse roadway network.
    - Applies to OR 224 from I-205 to SE 135th Avenue and to OR 212 from OR 213 interchange to SE 135th Avenue.
- **Suburban Fringe**: Sparsely developed lands, typically at the edge of an urban growth boundary. May be large lot residential, small-scale farms, or intermittent commercial or industrial uses.
    - Applies to OR 212 from SE 135th Avenue to SE 172nd Avenue.

Project Relevance

The BUD offers a context-sensitive approach to transportation planning and design, particularly relevant as the Sunrise Gateway Corridor traverses diverse urban contexts. Emphasizing flexibility in design criteria, the BUD caters to various users, including freight traffic, recreational travelers, commuters, bicyclists, and pedestrians - the primary users of the corridor. To aid decisions on prioritizing different modes and users, the BUD outlines a performance-based decision-making process, aligning with goal-driven, performance-based planning. The guidance assists in making decisions regarding trade-offs between modes or design elements in the Sunrise Corridor. Additionally, the BUD provides specific design guidance organized by urban context and unique criteria, helping with decisions on elements like lane widths, bicycle facilities, pedestrian crossings, and designation of roadway classification along the corridor.

ODOT Highway Design Manual (2023)

The ODOT Highway Design Manual (HDM) is the primary reference for designing state highway projects in Oregon. The HDM provides standards and guidelines tailored for Oregon's terrain and road types. It covers aspects like geometry, intersections, safety features, and traffic control. While incorporating national standards, the manual allows flexibility through performance-based and context-sensitive design. This aims to balance mobility, safety, cost, and consistency across the state highway system. The manual is intended for use by those planning and designing state highway projects. It guides design where ODOT jurisdiction highways cross local agency boundaries, even if local standards differ. The type of project work determines which design standards apply, regardless of funding source.

Regular updates reflect evolving design practices, policies, and federal/state standards. The 2023 update further enables engineered flexibility in applying criteria and supporting the use of Performance-based Practical Design concepts and Context Sensitive Design practices.

When selecting the appropriate design standard for a project, the work can be divided into the categories shown Table 12. While funding may come from various programs, it is the type of work being done that determines which design standard should be used.

The HDM includes mobility standards that apply to all modernization projects and are generally recommended for other project categories, except for development review (Table 13). It differs from the v/c ratios in the Oregon Highway Plan (OHP), where those ratios are used to identify potential system deficiencies during planning. The OHP allows flexibility for land use and transportation system plans by having at-capacity v/c ratios in urban areas. In contrast, the v/c ratio values in the HDM are different as they address identified deficiencies and aim to create a 20-year design life solution for the best state investment. The HDM's mobility standards are v/c oriented, and the values are based on AASHTO's "A Policy on Geometric Design of Highways and Streets."

Table 12. Potential Applicable Design Standards (*HDM Table 100-2; 1R – Resurfacing, 3R – Resurfacing, Restoration, and Rehabilitation, 4R – Resurfacing, Restoration, Rehabilitation, and Reconstruction*)

Work Type	1R	3R	4R	AASHTO
Modernization			✓	
Preservation: Resurfacing	✓	✓		
Preservation: Interstate Maintenance	✓	✓		
Safety Improvements		✓	✓	
Operations		✓	✓	
Maintenance	✓	✓	✓	
Misc./Special Programs: Grant Project			✓	✓
Misc./Special Programs: Property Development Permit Projects		✓	✓	
Misc./Special Programs: Emergency/Natural Disaster		✓*		
Local Programs			✓**	✓

✓* - Emergency/Natural Disaster projects may not be required to comply with all 3R design standards, as the main goal of these projects is to reopen compromised sections of highway, and projects are often designed to, at a minimum, meet design standards of the pre-emergency condition. However, it is important that permanent repairs should incorporate current design standards that do not materially change the function or character of the facility.

✓** - On or along the state highway

Table 13. 20 Year Design-Mobility Standards V/C Ratio (*HDM Table 1200-1*)

Highway Category	Land Use Type/Speed Limits					
	Inside Urban Growth Boundary				Outside Urban Growth Boundary	
	STAs	MPO	Non-MPO outside of STAs where non-freeway speed limit <45 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways and Statewide (NHS) Expressways	N/A	0.75	0.70	0.65	0.60	0.60
Statewide (NHS) Freight Routes	0.85	0.75	0.70	0.70	0.60	0.60
Statewide (NHS) Non-Freight Routes and Regional or District Expressways	0.90	0.80	0.75	0.70	0.60	0.60
Regional Highways	0.95	0.85	0.75	0.75	0.70	0.65
District/Local Interest Roads	0.95	0.85	0.80	0.75	0.75	0.70

Notes:

- Interstates and Expressways shall not be identified as Special Transportation Areas (STAs).
- The peak hour is the 30th highest annual hour. This approximates weekday peak hour traffic in larger urban areas.
- MPO category includes areas within the planning boundaries of the Bend, Corvallis, Eugene/Springfield, Medford, Portland (METRO) and Salem/Keizer Metropolitan Planning Organizations, and any other MPO areas that are designated after the completion of this manual.

The BUD, originally developed in 2020, is now integrated into the HDM, which includes six urban contexts for design flexibility. The BUD introduces key concepts, such as considering urban context alongside highway classification, emphasizing flexibility, incorporating performance-based practical design, prioritizing pedestrian and cyclist safety, and streamlining the design documentation process.

Urban contexts, as defined in the HDM, are based on factors like land use, development patterns, roadway classification, connectivity, and community goals. The HDM outlines ODOT's Urban Design Initiative, providing principles and guidance for planners and engineers to meet the diverse modal needs of urban communities.

Project Relevance

The HDM and BUD outline design standards and guidance for state highway projects. Any proposed improvements on state highways, such as OR 212 and OR 224 within the Sunrise Corridor, will follow the guidance specified in the HDM.

Oregon Revised Statute 366.215

Oregon Revised Statute (ORS) 366.215 identifies the Oregon Transportation Commission's (OTC's) authority to build and modify state highways. The statute states that the Commission may not permanently reduce the "vehicle-carrying capacity" of an identified freight route (a.k.a. Reduction Review Route) unless safety or access considerations require the reduction, or a local government requests an exemption, and the Commission determines it is in the best interest of the state and freight movement is not unreasonably impeded.

In the context of this statute, "vehicle-carrying capacity" refers to the vertical and horizontal clearance of a highway section that can physically carry motor vehicles. A reduction of vehicle-carrying capacity means a permanent reduction in the horizontal or vertical clearance of a highway section, by a permanent physical obstruction to motor vehicles located on useable right-of-way subject to OTC jurisdiction, unless such changes are supported by the Stakeholder Forum.

Examples of permanent structures that can result in a reduction in vehicle-carrying capacity could include bridge structures, traffic signals, signposts, stationary bollards, curbs, bulb-outs, trees, raised or depressed medians, pedestrian refuge islands, traffic separators, roundabouts, streetlights, and overhead wiring. Street markings such as bike lane striping or on-street parking are not considered reductions of vehicle-carrying capacity.

Project Relevance

OR 224 from I-205 to SE 122nd Avenue, and OR 212 from SE 122nd Avenue to US 26 are Reduction Review Routes. Therefore, any features included in the final plan that could reduce vehicle-carrying capacity must comply with the statute. Where necessary for safety or access considerations, the plan may identify a need to obtain approval for proposed future actions by following the ORS 366.215 Review Process.