

MEMORANDUM #3: DAMASCUS MOBILITY PLAN TRANSPORTATION PLANNING FRAMEWORK

Date: September 10, 2021

To: Steve Williams, Ellen Rogalin, and Scott Hoelscher; Clackamas County

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Project: Damascus Mobility Plan

Subject: Transportation Planning Framework (Task 4)

Table of Contents

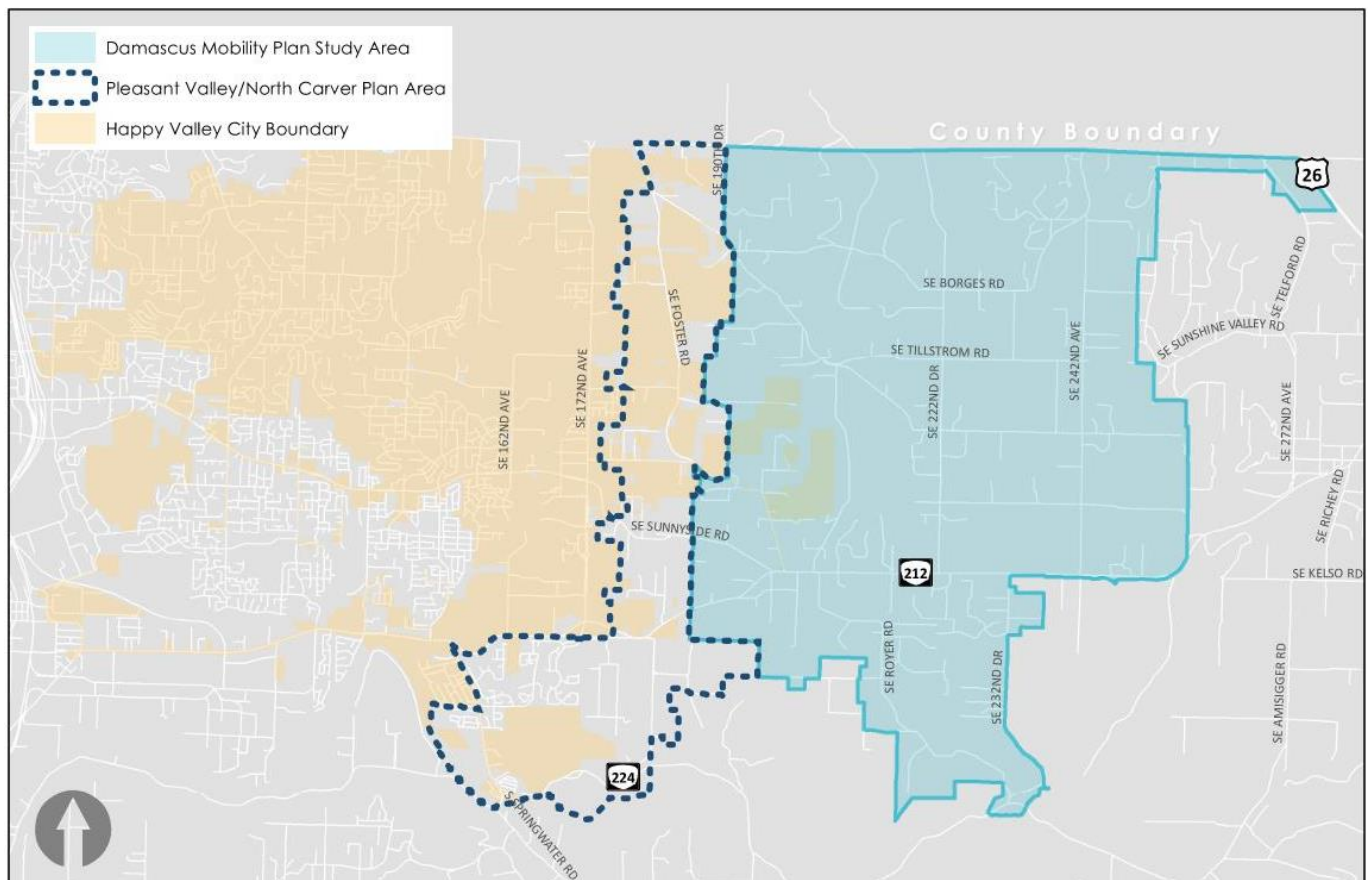
Project Background	2
Memo Overview	3
Project List.....	4
Project Evaluation Framework	8
Next Steps.....	8
Appendices	8
Appendix A. Plan Summaries	9
Clackamas County Transportation System Plan (TSP)	10
Clackamas County Comprehensive Plan (2005).....	12
Clackamas County Active Transportation Plan (ATP)	16
Clackamas County Transit Development Plan (TDP)	18
SE 172 nd Avenue/190 th Drive Corridor Management Plan	22
Sunrise Project Final Environmental Impact Statement	24
City of Damascus Transportation System Plan (Unadopted).....	24
Metro: 2018 Regional Transportation Plan	28
East Metro Connections Project	30
Pleasant Valley/North Carver (PV/NC) Comprehensive Plan	32
Clackamas to Columbia (C2C) Corridor Plan	35
Sunrise Corridor Concept Plan.....	37

Project Background

The Clackamas County Transportation System Plan (TSP) was updated in 2013, with a focus on unincorporated parts of the County. The TSP deferred to each City's plans for County facilities within the boundaries of incorporated lands. At the time the County TSP was updated, Damascus was a City and in the process of preparing its own TSP. Therefore, the Clackamas County TSP largely does not include transportation facilities within Damascus, except for state facilities. However, the Damascus TSP was never adopted, and Damascus was unincorporated in 2016. The Damascus Mobility Plan will fill this gap in the County TSP and findings from this Plan will be incorporated as part of the next Clackamas County Transportation System Plan Update, anticipated in 2022/23.

The study area for the Damascus Mobility Plan is illustrated in Figure 1. This area includes most of the former City of Damascus planning area within the Portland Metropolitan Urban Growth Boundary; however, properties and roadways generally west of 190th Drive are now being planned and guided by the City of Happy Valley through the Pleasant Valley/North Carver (PV/NC) Comprehensive Plan. Projects for the OR 212 corridor are being assessed through a separate process to develop conceptual-level schematics.

Figure 1. Project Study Area



Memo Overview

This memorandum provides background on previous and on-going land use and transportation plans for Damascus and the surrounding areas. It provides a high-level summary of the plans listed in Table 1, with a specific focus on projects within Damascus or that directly impact Damascus. In addition, a discussion of evaluation metrics is included at the end of the memorandum to inform the project selection process for the Damascus Mobility Plan. *Full document summaries are included in Appendix A.*

Table 1. Reviewed Documents and Key Applications

Document	Key Applications for the Damascus Area
Clackamas County Transportation System Plan (TSP)	Largely does not include roadways within Damascus, but provides a framework for identifying and evaluating projects. The TSP serves as Chapter 5 of the County's Comprehensive Plan.
Clackamas County Comprehensive Plan (2005)	The previous update to the Clackamas County Comprehensive Plan in 2005 includes Damascus, and therefore is the most recent adopted plan governing the area.
Clackamas County Active Transportation Plan (ATP)	Identifies key active transportation routes to connect destinations and communities in Clackamas County and includes a project recommendation to provide access between Happy Valley, the Clackamas Regional Center, and the Damascus Area.
Clackamas County Transit Development Plan (TDP)	Includes near-term recommendation for service on Highway 224 and medium- and long-term recommendations for service within Damascus on Sunnyside Road and Highway 212.
SE 172nd Avenue/190th Drive Corridor Management Plan	Provides a vision for the SE 172 nd Avenue/190 th Drive Corridor just west of the project study area.
Sunrise Project Final Environmental Impact Statement	Identifies a preferred alternative for the Sunrise Corridor between I-205 and the Rock Creek Junction. This effort informed an assessment of options for the Sunrise Corridor that was conducted as a discrete part of the Damascus Mobility Plan.
City of Damascus Transportation System Plan (unadopted)	A TSP was developed for the City of Damascus in 2013 before it was unincorporated. Although never adopted, this plan provided a thorough analysis of roadways within the study area and a large set of projects to build from.
Metro: 2018 Regional Transportation Plan (RTP)	Includes projects to support the development of the 172 nd /190 th Corridor as well as a project to widen the OR 212 corridor.
East Metro Connections Project	Recommends investments in Happy Valley and on the 182 nd /190 th corridor north of the study area.
Pleasant Valley/North Carver (PV/NC) Comprehensive Plan	The PV/NC area is immediately west of the study area and will be annexed into Happy Valley in the future. The Damascus Mobility Plan will build from the street network developed in PV/NC.

Document	Key Applications for the Damascus Area
Clackamas to Columbia (C2C) Corridor Plan	Includes projects on the 181 st /182 nd /190 th /172 nd corridor through Gresham and Happy Valley, as well as projects to support broader connectivity in the area. Several of these projects are located partially within the Damascus Mobility plan study area.
Sunrise Concept Corridor Plan	The County is currently working to develop a Corridor Plan for Sunrise Phase 2, specifically focused on potential refinements to the section of the corridor between 122 nd and 172 nd .
Bike Walk Clackamas County	The County will be starting a walk and bike plan, updating the active transportation elements throughout Clackamas County. These recommendations will inform the Damascus area pedestrian and bicycle network.

Project List

Table 2 provides a list of recommended projects from the above adopted plans affecting the Damascus area. The projects on the list are also illustrated in Figure 2. These projects will be used as input to the project selection process in later stages of the Damascus Mobility Plan.

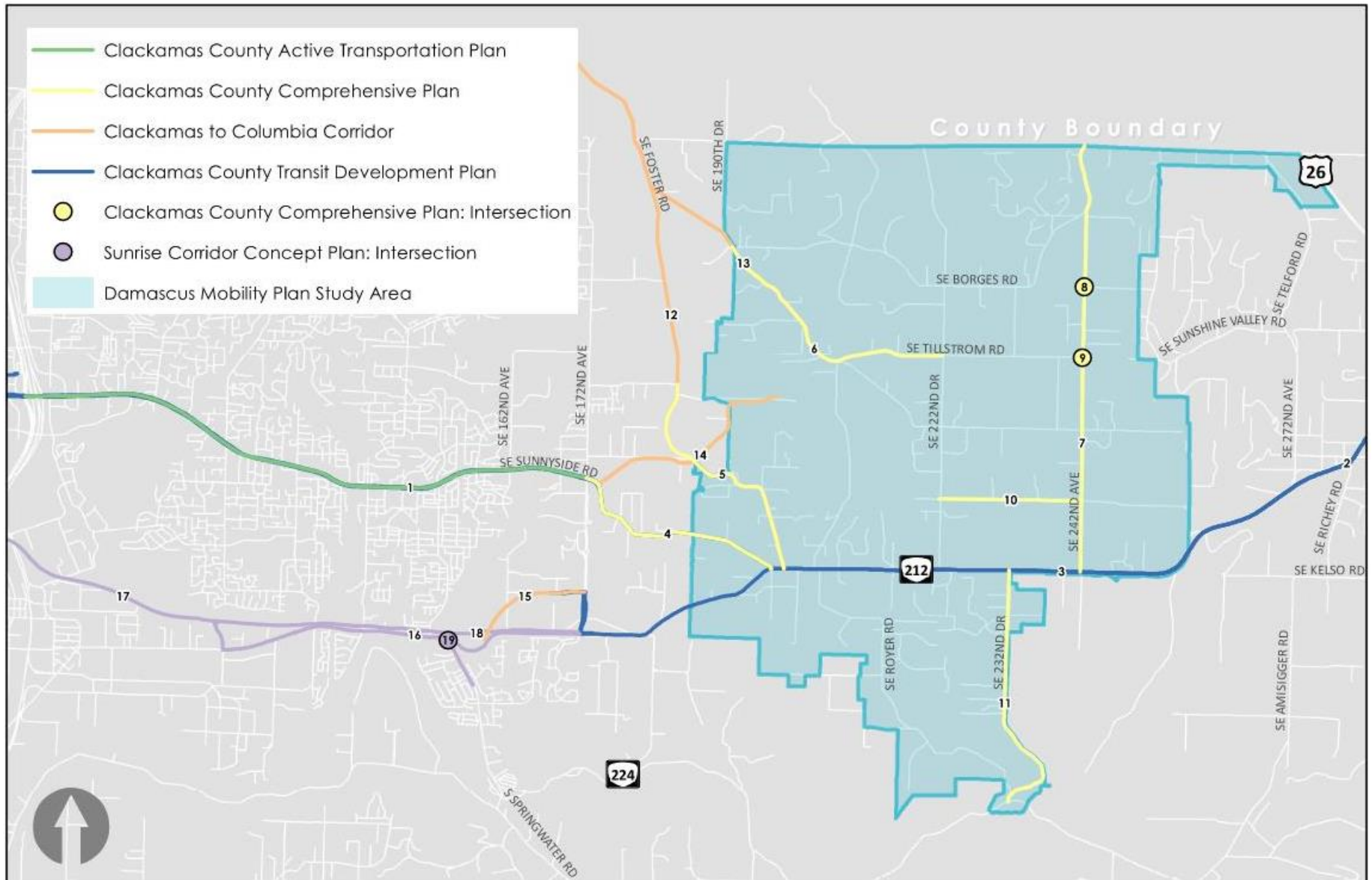
Table 2. Project List

Map ID	Project Name	Description	Time-Frame	Source
1	Connector Principal Active Transportation Route C19 – Sunnyside Road	Buffered bike lanes or cycle track on Sunnyside Road between I-205 and Highway 212.	Near-Term	Clackamas County ATP
2	Damascus Transit Service (MT-9)	Establish hourly service (about 10 runs per day). Service would run between Damascus and Boring, from Nelson High School on SE 172 nd Avenue and Highway 212.	Medium-Term	Clackamas County TDP
3	Highway 212: I-205 to US 26 Transit Service (MT-11)	Establish hourly service (about 8 runs per day). Service would run between Sandy and Clackamas Town Center, along Highway 212 and Sunnyside Road.	Medium-Term	Clackamas County TDP
4	Sunnyside Road	Adjust roadway alignment to improve safety, widen roadway to add shoulders, install traffic signal at Highway 212 from 172 nd Avenue to Highway 212	20 years	Clackamas County Comp Plan (2005)

Map ID	Project Name	Description	Time-Frame	Source
5	Foster Road	Four-lane widening with left-turn lane from Highway 212 to Troge Road	20 years	Clackamas County Comp Plan (2005)
6	Tillstrom Road	Adjust roadway alignment to improve safety along 222 nd Drive, relocate intersection. From SE 222 nd Drive to Borges Road	20 years	Clackamas County Comp Plan (2005)
7	SE 242 nd Avenue	Reconstruct and widen (rural), add turn lanes from Highway 212 to Multnomah County Line	20 years	Clackamas County Comp Plan (2005)
8	242 nd - Sunshine Valley Road intersection	Install northbound right-turn lane	20 years	Clackamas County Comp Plan (2005)
9	242 nd Tillstrom Road intersection	Install northbound left-turn lane and southbound right-turn lane	20 years	Clackamas County Comp Plan (2005)
10	Hoffmeister Rd/ SE 257 th Ave	Adjust roadway alignment to improve safety along 242 nd Ave., relocate intersection, from Highway 212 to 242 nd Avenue	20 years	Clackamas County Comp Plan (2005)
11	SE 232 nd Avenue	Reconstruct and widen (rural) from Highway 212 to Highway 224	20 years	Clackamas County Comp Plan (2005)
12	Foster Road	Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks from Cheldelin Road to OR 212.	Not Specified	C2C
13	Tillstrom Road	Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks.	Not Specified	C2C
14	SE Sunnyside Road East Extension	Identify alignment and construct new five-lane road with continuous left turn lane, sidewalks, bike lanes, and traffic signals.	Not Specified	C2C
15	Rock Creek Boulevard Improvements	Construct new five-lane vehicle cross section from Sunrise Corridor to 162 nd Avenue; Widen existing alignment of Rock Creek Boulevard to five lanes from 162 nd to 177 th 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.	Not Specified	C2C

Map ID	Project Name	Description	Time-Frame	Source
16	Sunrise Phase 2 Stage 1	Reconstruct portions of Highway 212 including sidewalks, bicycle facilities and crossings to improve multimodal access and safety. Construct elevated intersection at 142nd and realign local connections at 135 th and 152 nd .	Not Specified	Sunrise Corridor Concept Plan
17	Sunrise Phase 2 Stage 2	Construct 2-Lane Sunrise Corridor, including access-controlled interchange at 122 nd Avenue	Not Specified	Sunrise Corridor Concept Plan
18	Sunrise Phase 2 Stage 3	Implement 4-Lane Sunrise Corridor	Not Specified	Sunrise Corridor Concept Plan
19	Sunrise Phase 2 Stage 4	Install a roundabout at Rock Creek Junction	Not Specified	Sunrise Corridor Concept Plan

Figure 2. Damascus Mobility Plan Study Area Previous Planned Projects



Project Evaluation Framework

The Clackamas County TSP developed a process for evaluating and prioritizing projects, which was used in conjunction with input from a Technical Advisory Committee and the public to develop three project lists. This process will serve as a guide for the Damascus Mobility Plan and is included here as a resource for future project activities. Part of the project scoring used in the Clackamas County TSP utilized additional analysis efforts not applicable to the Damascus area, but the goal scoring and needs assessment can be applied to Damascus. These are described in Technical Memorandum 12.3 from the Clackamas County TSP, provided in *Appendix B*, and summarized below:

- **Goals 1 – 6:** projects were assessed on metrics for each goal and assigned a score from -1 to +2. The goals, metrics, scoring scale and resources used for the analysis are detailed in the table in *Appendix A: Goal Scoring Matrix*. Based on input from the PAC, all TSP goals were weighted equally.
- Addresses Identified Need:
 - » projects that address both a gap **and** a deficiency were given a score of +2;
 - » projects that address a gap **or** a deficiency were given a score of +1;
 - » all other projects, those that don't address either a gap or a deficiency, were given a score of 0.

Next Steps

Draft TM #3: Damascus Mobility Plan Transportation Planning Framework was reviewed by the Project Management Team (PMT) and Technical Advisory Committee (TAC).

The project list provided in this memorandum will serve as a starting point that will be used in collaboration with the future traffic conditions analysis to identify projects for further evaluation in Task #8 of the project.

Appendices

Appendix A: Plan Summaries

Appendix B: Technical Memorandum 12.3 from the Clackamas County TSP



APPENDIX A. PLAN SUMMARIES

This appendix only includes information on projects that have been proposed in previous plans.

Clackamas County Transportation System Plan (TSP)

Date: Adopted December 2013

Location: Clackamas County

Purpose: “The TSP reflects all relevant national, state and regional transportation and planning requirements, and provides policies, guidelines and projects to meet transportation needs for residents, businesses and visitors in unincorporated Clackamas County for 20 years.”

Vision: “Building on the foundation of our existing assets, we envision a well-maintained and designed transportation system that provides safety, flexibility, mobility, accessibility and connectivity for people, goods and services; is tailored to our diverse geographies; and supports future needs and land use plans.”

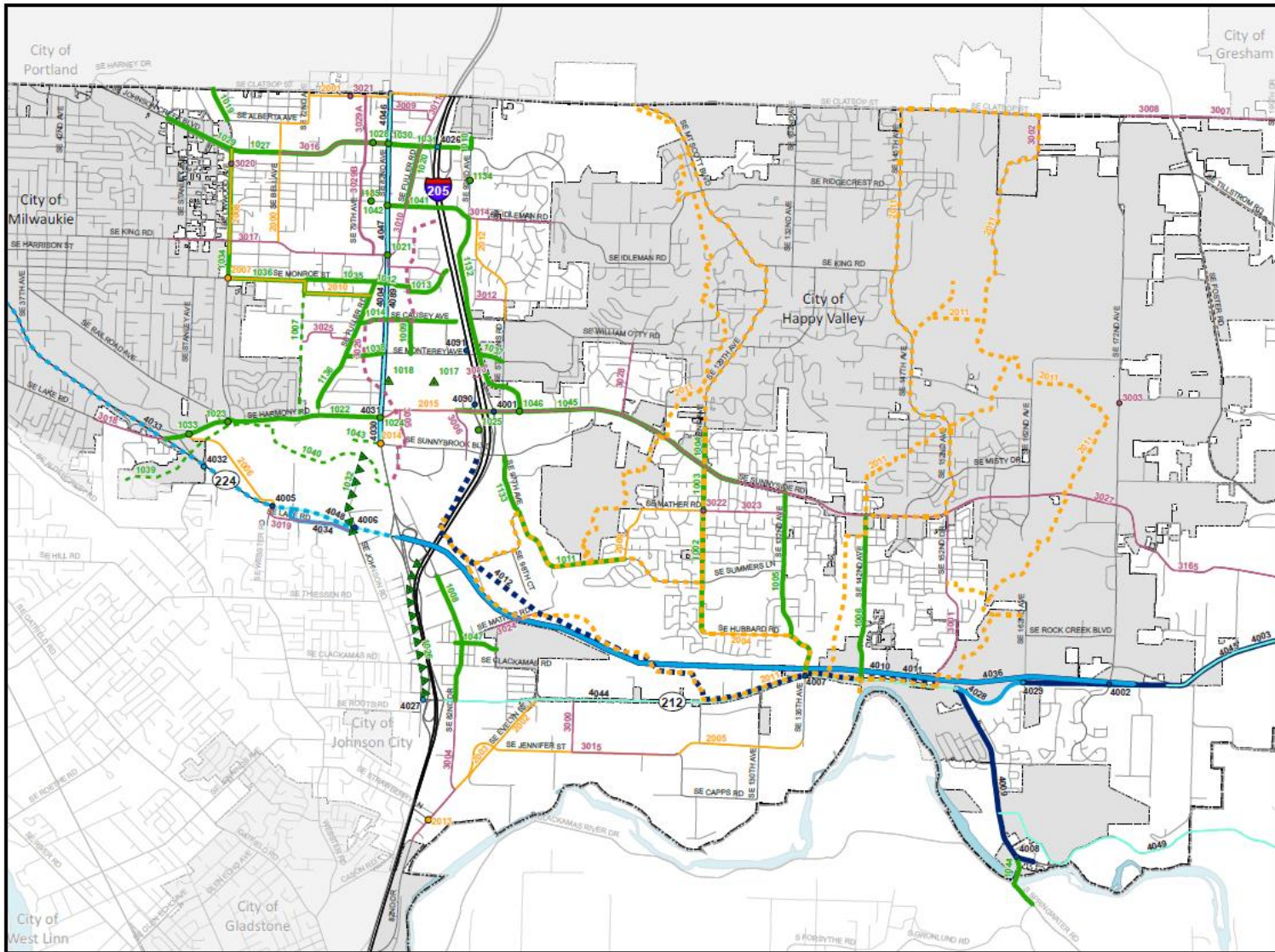
Goals: Sustainable, Local Business and Jobs, Livable and Local, Safety and Health, Equity, Fiscally Responsible

Relevant Projects:

The Clackamas County TSP focuses on the unincorporated portions of the County, deferring to City planning efforts for incorporated areas of the County. Given that Damascus was a City at the time the County TSP was last developed, projects were not identified or evaluated within Damascus, with the exception of projects on Oregon Department of Transportation facilities. The Clackamas County TSP identified three categories of projects:

- **Tier 1: 20-year capital projects** – Needed projects and investments matched with anticipated funding
- **Tier 2: Preferred capital projects** – Projects and investments needed to meet population, housing and employment projections, but that don't have identified funding at this time
- **Tier 3: Long-term capital project needs** – Projects that would be beneficial to do if funds were available

Map 5-11a illustrates projects from all three tiers within the Greater Clackamas Regional Center/Industrial Area, which includes the Damascus Mobility Plan study area. The only projects within the Damascus Mobility Plan study area are on OR 212.



Capital Improvement Plan

Greater Clackamas Regional Center / Industrial Area

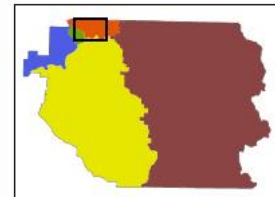
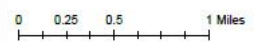
- Priority**
- 20-Year Capital Projects (Table 5-3a)
 - Preferred Capital Projects (Table 5-3b)
 - Long-Term Capital Project Needs (Table 5-3c)

Projects on Non-County Facilities

- Priority**
- High (Table 5-3d)
 - Medium (Table 5-3d)
 - Low (Table 5-3d)



- ▲ Study*
 - Multi-Use Path*
 - ▭ Metro Urban Growth Boundary
 - ▭ Incorporated City
- *Symbol color consistent with Priority symbologies shown above



Last Updated November 27, 2018



CLACKAMAS COUNTY COMPREHENSIVE PLAN

MAP 5-11a



Clackamas County Comprehensive Plan (2005)

Date: Last updated August 2005

Location: Clackamas County

Purpose: “The basic aim of the Comprehensive Plan is to organize and coordinate the complex interrelationships among people, land, resources, and facilities in such a way as to protect the future health, safety, quality of life and welfare of Clackamas County residents.”

Goals:

- Balance public and private interests and adopt a coordinated set of goals and policies to guide future development in Clackamas County.
- Identify the most appropriate land uses for individual sites by evaluating site characteristics in light of market demand, human needs, technology, and state, regional, and County goals.
- Provide for growth in areas where public facilities can economically be provided to support growth.
- Create development opportunities most compatible with the fiscal and financial capacity of the County and its residents.
- Implement the policies of this Plan by adopting a zoning map and set of regulations, and by guiding public investments to support anticipated growth.
- Establish a system whereby individual interests may be compared to stated County policy, and provide a process for review and amendment of those policies as expressed in this Comprehensive Plan.

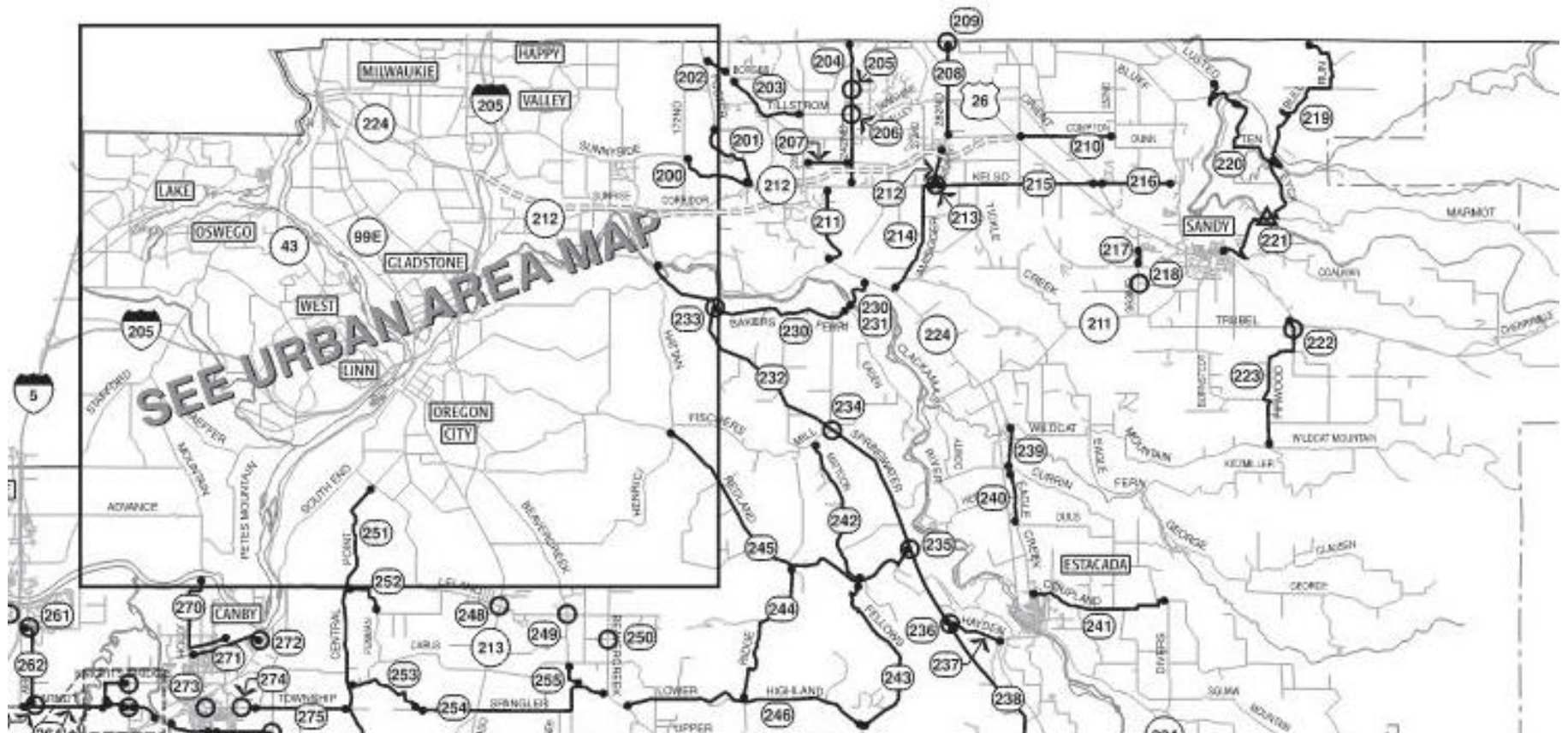
Relevant Projects:

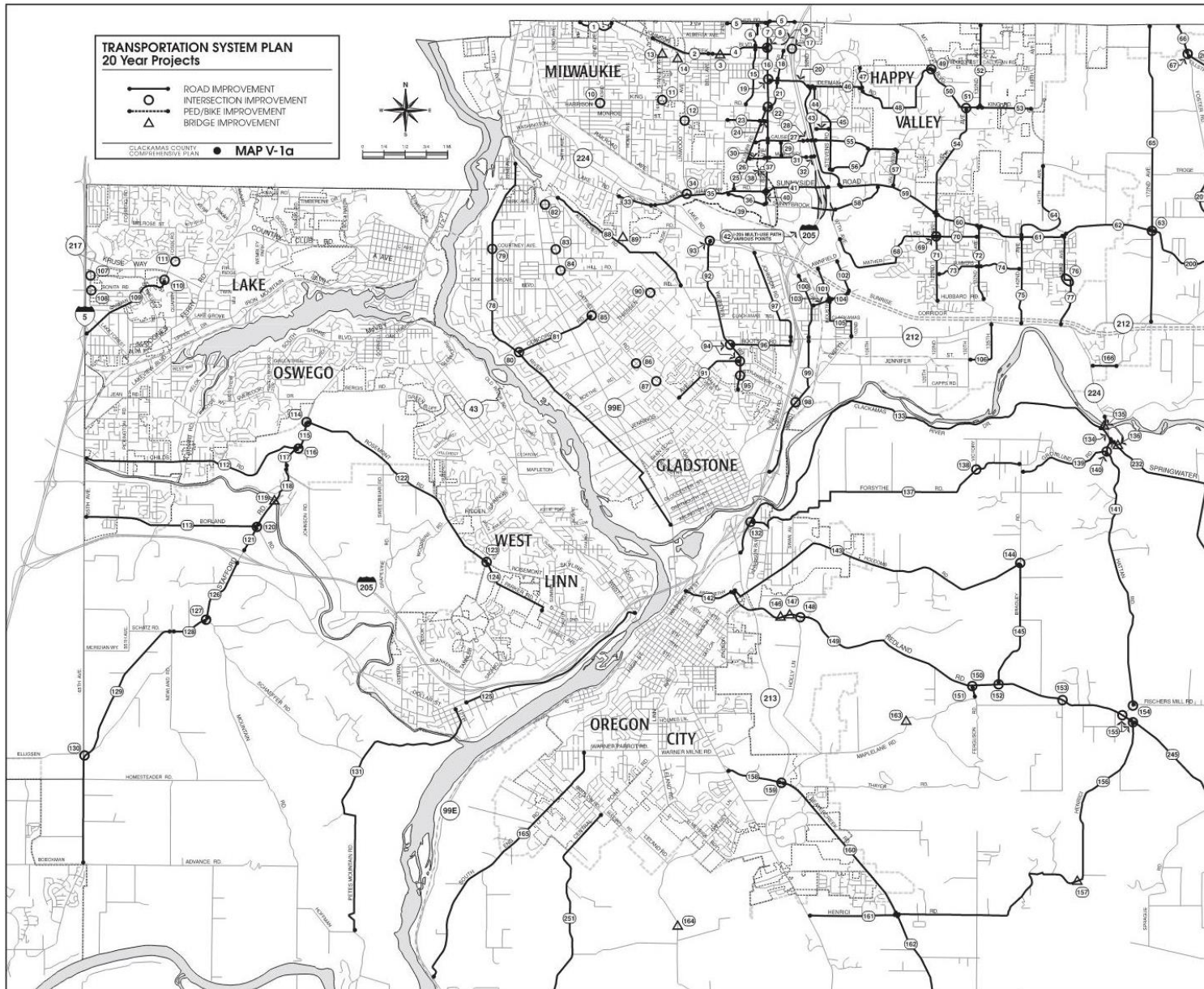
20 year projects are shown on Map V-1b and those in the Damascus Mobility Study Area are listed in Table 2.

Table 3. 2005 Clackamas County Comprehensive Plan

ID	Project	Section	Description
200	Sunnyside Road	172 nd Avenue and Highway 212	Realign curves, widen to add shoulders, install traffic signal at Highway 212
201	Foster Road	Highway 212 to Troge Road	Four lane widening with left-turn lanes
203	Tillstrom Road	SE 222 nd Drive to Borges Road	Remove or decrease vertical curve along 222 nd Drive, relocate intersection
204	SE 242 nd Avenue	Highway 212 to Multnomah County Line	Reconstruct and widen (rural), add turn lanes
205	SE 242 nd Avenue	242 nd /Sunshine Valley Road intersection	Install northbound right-turn lane
206	SE 242 nd Avenue	Highway 212 to Multnomah County Line	Install northbound left-turn lane and southbound right-turn lane

ID	Project	Section	Description
207	Hoffmeister Rd/ SE 257 th Ave	Highway 212 to 242 nd Avenue	Remove or decrease vertical curve along 242 nd Ave., relocate intersection
211	SE 232 nd Avenue	Highway 212 to Highway 224	Reconstruct and widen (rural)





Clackamas County Active Transportation Plan (ATP)

Date: June 2015

Location: Clackamas County

Purpose: “identify key active transportation routes that connect destinations and communities in Clackamas County, both rural and urban. The 24 Principal Active Transportation (PAT) routes detailed in this plan provide access to popular and needed services such as transit, shopping and employment centers, and provide safe facilities for recreation and exercise. Making the pedestrian and bicycling improvements along the PAT routes will increase active transportation opportunities, improve safety and provide more convenience for people to walk, bike and use transit in Clackamas County.”

Vision: “Clackamas County will have an interconnected, safe and equitable active transportation network accessible to and used by people who live, work, do business and play within the County.”

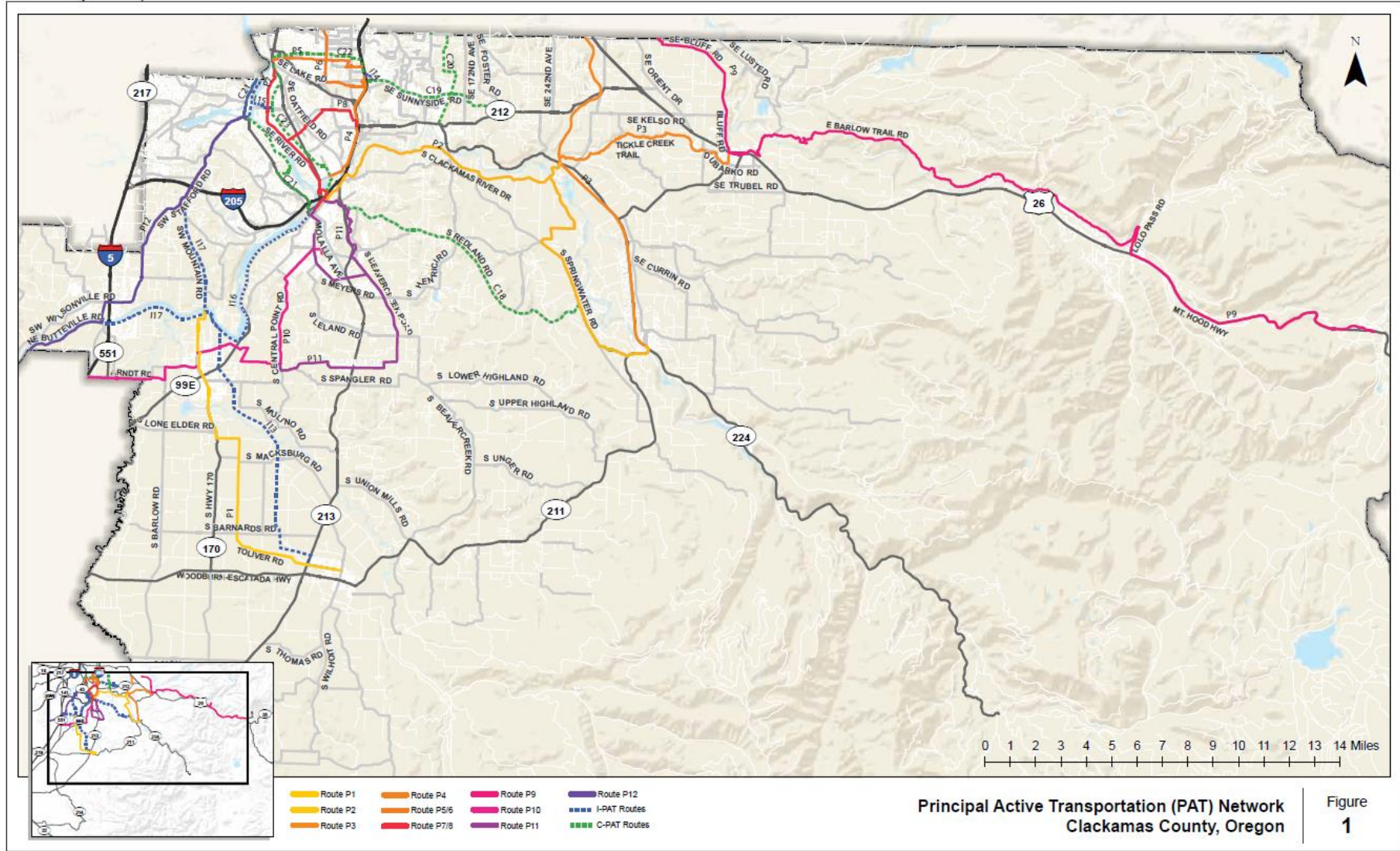
Goals: Active Transportation Infrastructure, Connectivity, Tourism Development, Accessibility and Safety, and Improve Health

Relevant Projects:

The plan includes a Connector PAT Route that ends within the Damascus Mobility Plan study area. The route is labeled as C19 and recommended to be provided with a cycle track or buffered bike lanes on Sunnyside Road between I-205 and Highway 212 in Damascus. The plan states that “Sunnyside Road is an important east-west connector between the Clackamas Regional Center (CRC) and the cities of Happy Valley and Damascus. Improved active transportation facilities between the CRC and east county communities would provide safer transportation alternatives for bicyclists and pedestrians. Potential facility type improvements include a cycle track or buffered bike lane.”

Other Items to Note:

The Plan includes a Facility Design Toolkit with guidance on how to select and implement the appropriate treatment.



Coordinate System: NAD 1983 HARN StatePlane Oregon North FIPS 3201 Feet Int
Data Source: Clackamas County GIS

Clackamas County Transit Development Plan (TDP)

Date: April 2021

Location: Clackamas County

Purpose: “provide guidance on transit connections between existing providers outside the TriMet service area, as well as input into transit service within the TriMet service area. The TDP includes transit project priorities to connect communities within Clackamas County, both urban and rural, and provides guidance on infrastructure investments needed to support transit use throughout the county. The intent of the TDP is to guide future transit investments and communicate a connected and coordinated vision for transit service and access to transit within Clackamas County.”

Vision: “Provide guidance for an equitable, safe, convenient and connected transit network throughout Clackamas County that will support the health and well-being of Individuals, communities, the economy and the environment.”

Goals: Enhance Connectivity; Prioritize Equity, Healthy & Safety; Promote Sustainability; and Improve Customer Experience and Mobility

Relevant Projects:

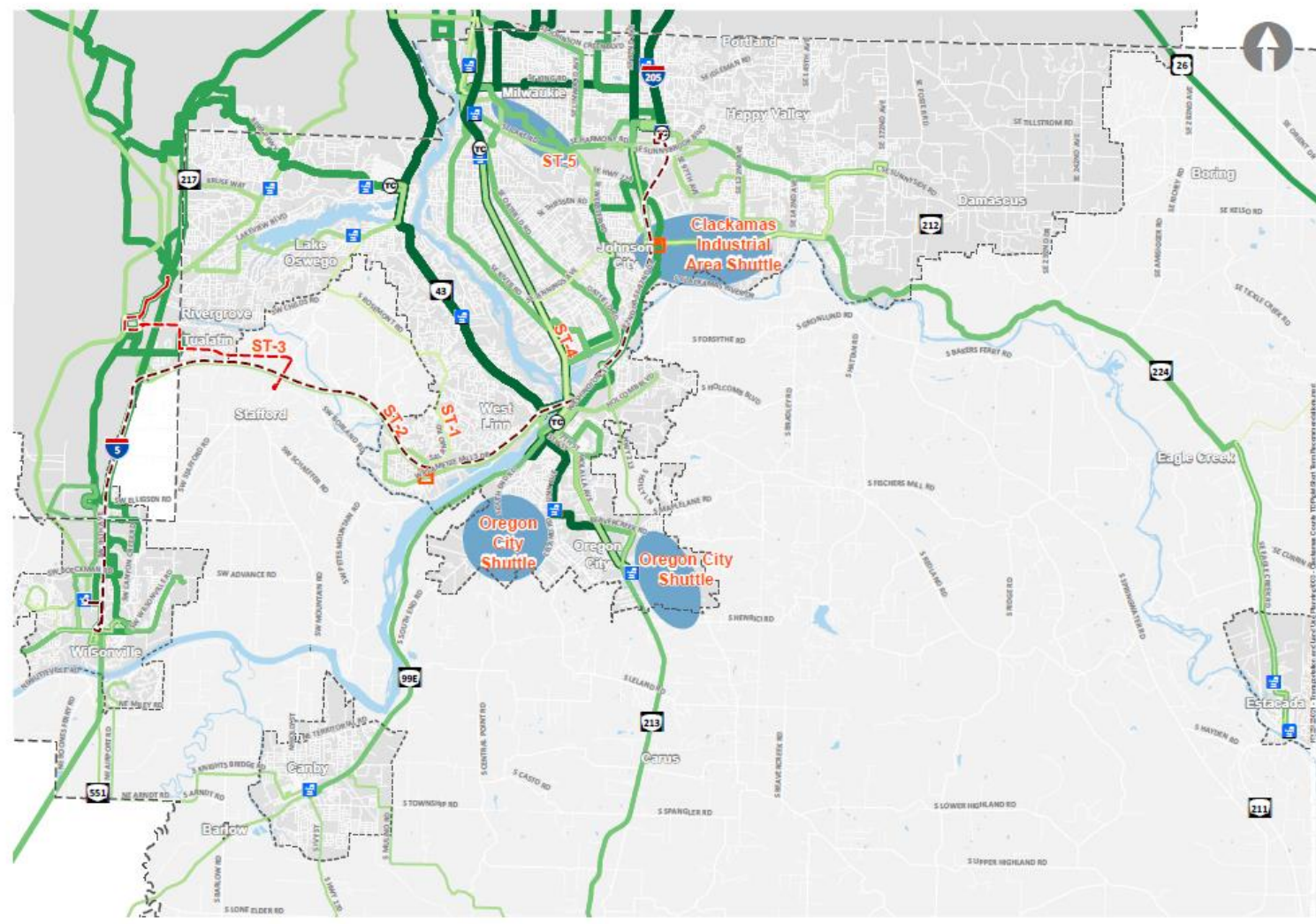
- Short-Term Recommendation for service on Highway 224 between Clackamas Industrial Area and Estacada (just south of the Damascus Mobility Plan study area)
- Medium- and Long-Term Recommendation for service within Damascus on Sunnyside Road and Highway 212 (MT-9 and LT-8). In the medium-term, hourly service with about 10 runs per day. In the long-term, it is recommended to evaluate the service and consider increased service span and frequency to add about 10 runs per day.

Other Items to Note:

The Plan includes a section on transit-supportive land use implementation strategies. It notes that “Land uses, development density, transportation system connectivity and access, parking requirements, and urban form (e.g., building setbacks) are all regulatory elements and code strategies related to development that impact how supportive an area is for transit service.”



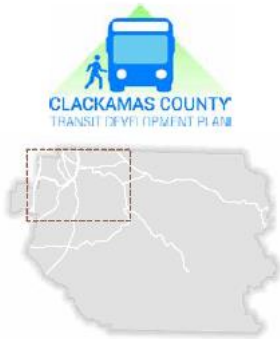
- Short-Term Recommendations: Routes**
- 8 or Fewer Runs per Day
 - 9 - 16 Runs per Day
 - 17 - 32 Runs per Day
 - 33 - 64 Runs per Day
 - 65 or More Runs per Day
- Short-Term Recommendations: Areas**
- 9 - 16 Runs per Day
- Planned Services**
- Wilsonville to Clackamas Town Center
 - Tualatin Shuttle (New)
 - Mobility Hub
 - TC Transit Centers
 - P Park and ride lots
 - U Urban Growth Boundaries
 - County Boundary



**Short-Term Recommendations
Clackamas County Transit Development Plan**

Figure
17





Medium-Term Recommendations: Routes

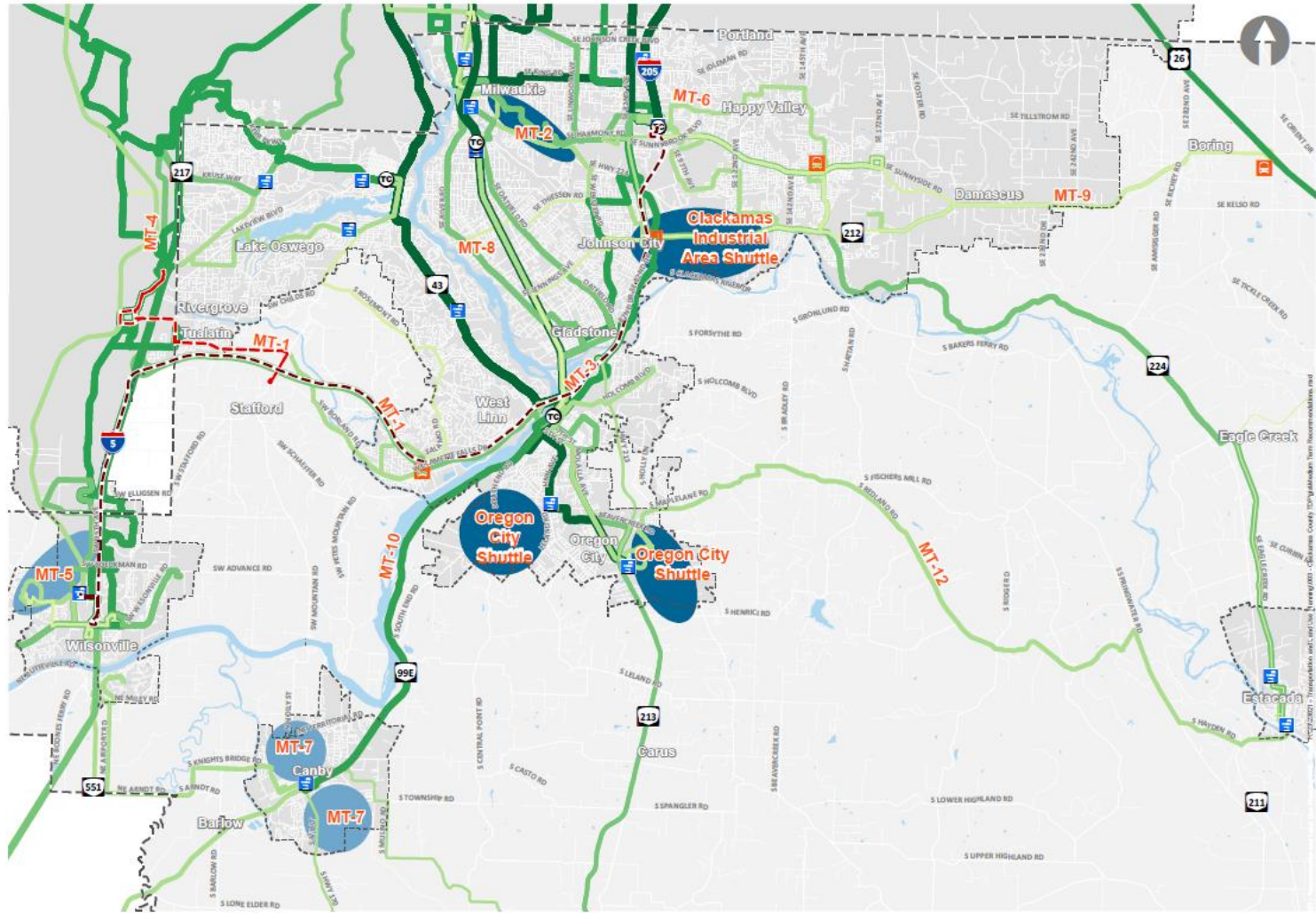
- 8 or Fewer Runs per Day
- 9 - 16 Runs per Day
- 17 - 32 Runs per Day
- 33 - 64 Runs per Day
- 65 or More Runs per Day

Medium-Term Recommendations: Areas

- 9 - 16 Runs per Day
- 17 - 32 Runs per Day

Planned Services

- - - Wilsonville to Clackamas Town Center
- - - Tualatin Shuttle (New)
- Mobility Hub
- TC Transit Centers
- P Park and ride lots
- Urban Growth Boundaries
- County Boundary



**Medium-Term Recommendations
Clackamas County Transit Development Plan**

Figure
20



**Long-Term Recommendations:
Routes**

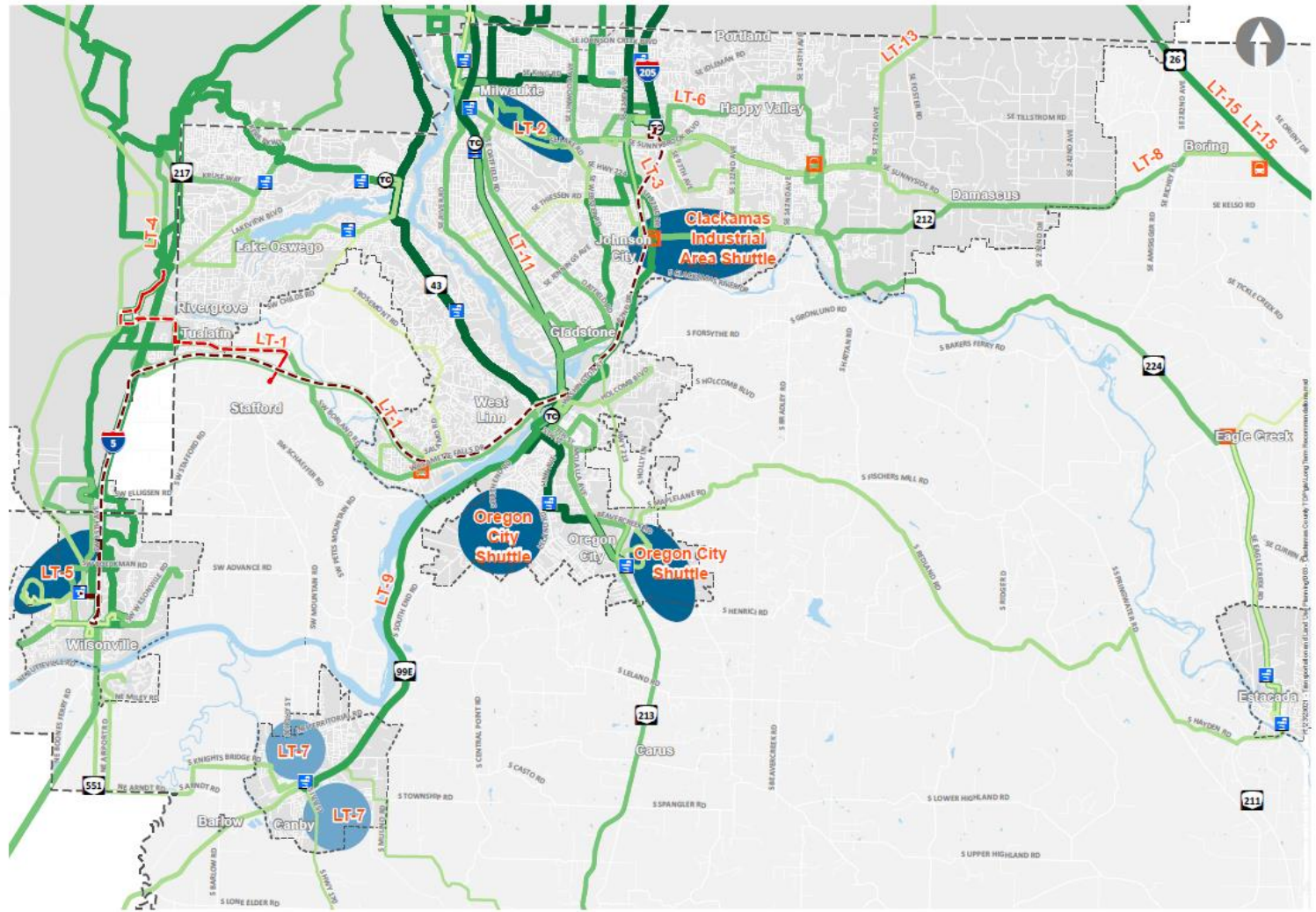
- 8 or Fewer Runs per Day
- 9 - 16 Runs per Day
- 17 - 32 Runs per Day
- 33 - 64 Runs per Day
- 65 or More Runs per Day

Long-Term Trips

- + 9 - 16 Runs per Day
- + 17 - 32 Runs per Day

Planned Services

- - - Wilsonville to Clackamas Town Center
- - - Tualatin Shuttle (New)
- + Mobility Hub
- TC Transit Centers
- P Park and ride lots
- U Urban Growth Boundaries
- C County Boundary



**Long-Term Recommendations
Clackamas County Transit Development Plan**

Figure
23

SE 172nd Avenue/190th Drive Corridor Management Plan

Date: Originally Prepared February 2012, Revised May 2016

Location: SE 172nd Avenue and SE 190th Drive between Sunnyside Road to the south and approximately Cheldelin Road to the north

Purpose: "to effectively address the SE 172nd Avenue/190th Drive Corridor congestion and safety problems, serve future north-south traffic, serve expected population growth in Damascus, Happy Valley, the Pleasant Valley Plan Area and Gresham, and to serve the growing demand for regional travel."

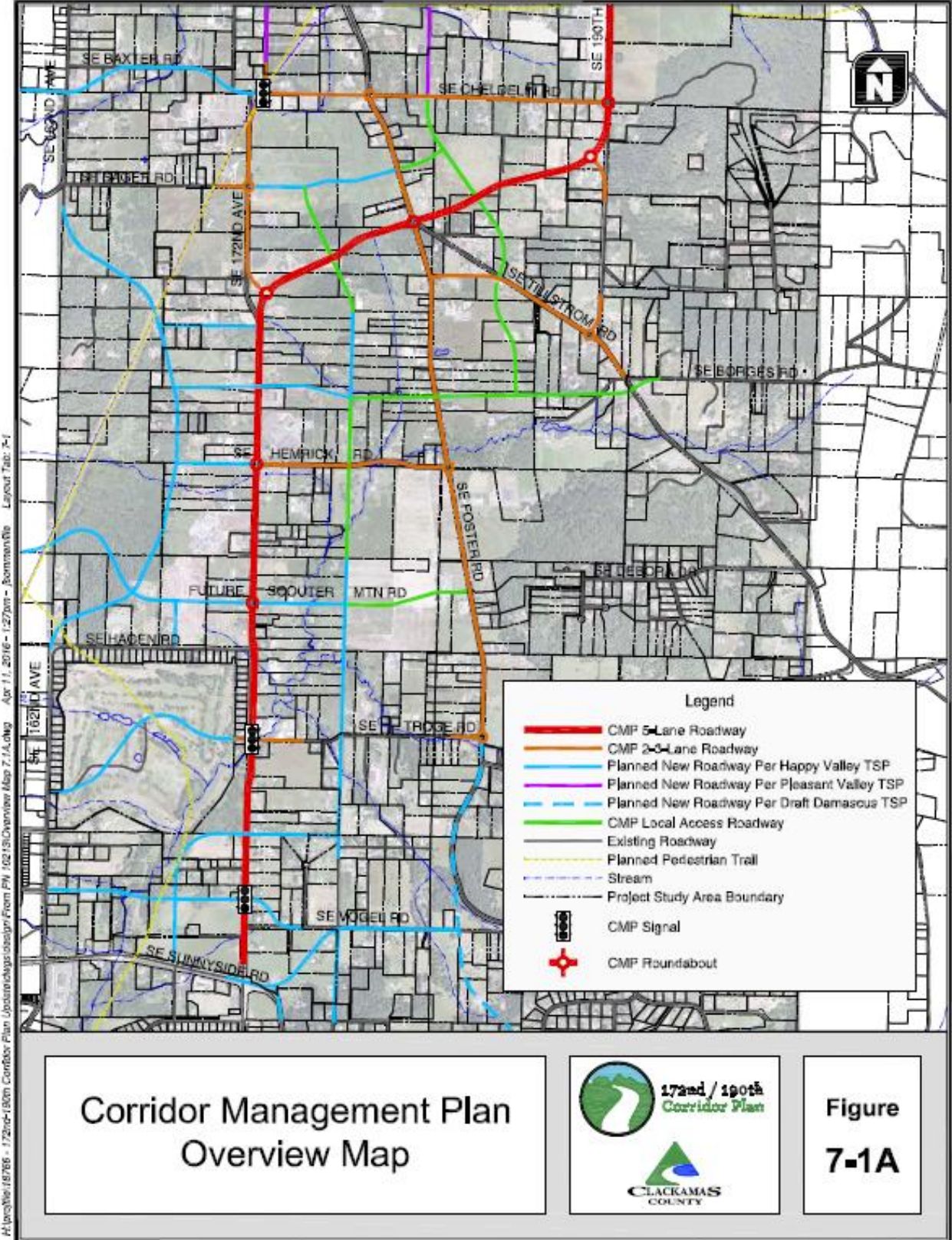
Goals:

1. Improve mobility by accommodating through traffic and freight movement, as well as serve local community/commercial/multi-family nodes.
2. Ensure that the planning and design of transportation system improvements minimize environmental, cultural and social impacts to the greatest extent possible.
3. Provide flexibility to respond to changing socio-economic conditions, concurrency of development and the opportunities and constraints represented by the various plans of the jurisdictions within and adjacent to the corridor.
4. Provide a unique and aesthetically pleasing design that is integrated with the place-making of each community and with sustainability goals.
5. Integrate environmental/Green Streets design with the natural features.
6. Improve traffic safety for all users.
7. Support healthy and walkable communities.
8. Protect the long-term function of the corridor.
9. Ensure that the corridor plan supports local economic development.
10. Ensure effective project implementation over time.

Relevant Projects:

The western boundary of the study area for the Damascus Mobility Plan is roughly 190th Drive, and therefore the majority of the 172nd/190th Corridor is just outside the study area. The corridor largely falls within the study area for the Pleasant Valley/North Carver Comprehensive Plan, which will be annexed into Happy Valley.

Figure 7-1A from the plan illustrates the preferred roadway network.



H:\proj\16766 - 172nd-190th Corridor Plan Update\chgs\design\From PW 10219\Overview Map 7-1A.dwg Apr 11, 2016 - 1:27pm - Bommert@b Layout Tab: 7-1

Sunrise Project Final Environmental Impact Statement

Date: December 2010

Location: The Sunrise Project extends approximately five miles between I-205 and the Rock Creek Junction

Purpose: "The purpose of the Sunrise Project is to effectively address the existing congestion and safety problems in the OR 212/224 corridor between its interchange with I-205 and Rock Creek Junction, and to serve the growing demand for regional travel and access to the state highway system."

Goals: Transportation/Operations, Industrial and Commercial Vitality, Community Livability, Natural and Cultural Resources

Relevant Projects:

The FEIS identified a preferred alternative for the OR 212/224 corridor, which was reviewed as part of the Sunrise Concept Corridor Plan and provides guidance to the highway network.

City of Damascus Transportation System Plan (Unadopted)

Date: July 2013

Location: Damascus

Purpose: "The TSP identifies the multi-modal transportation system that is envisioned to serve the city for the next 20 to 40 years, designating the function, capacity and location of future facilities in order to serve local, regional, and statewide needs. It also recommends areas for future refinement plans that will look in more detail at the Damascus Town Center and Carver Village area."

Goals: "Damascus is to provide a transportation system that is safe, convenient, accessible and economically feasible that incorporates a range of transportation option."

Relevant Projects:

The unadopted Damascus TSP includes a functional classification map, including existing and proposed roadways. The map shows several new connections as well as areas for further planning efforts, including Carver and downtown Damascus. The Damascus TSP study area included North Carver and the Foster Road area, which is now planned for annexation into Happy Valley through the PV/NC Comprehensive Plan project. Therefore, some projects in the unadopted Damascus TSP are being pursued by other planning efforts.

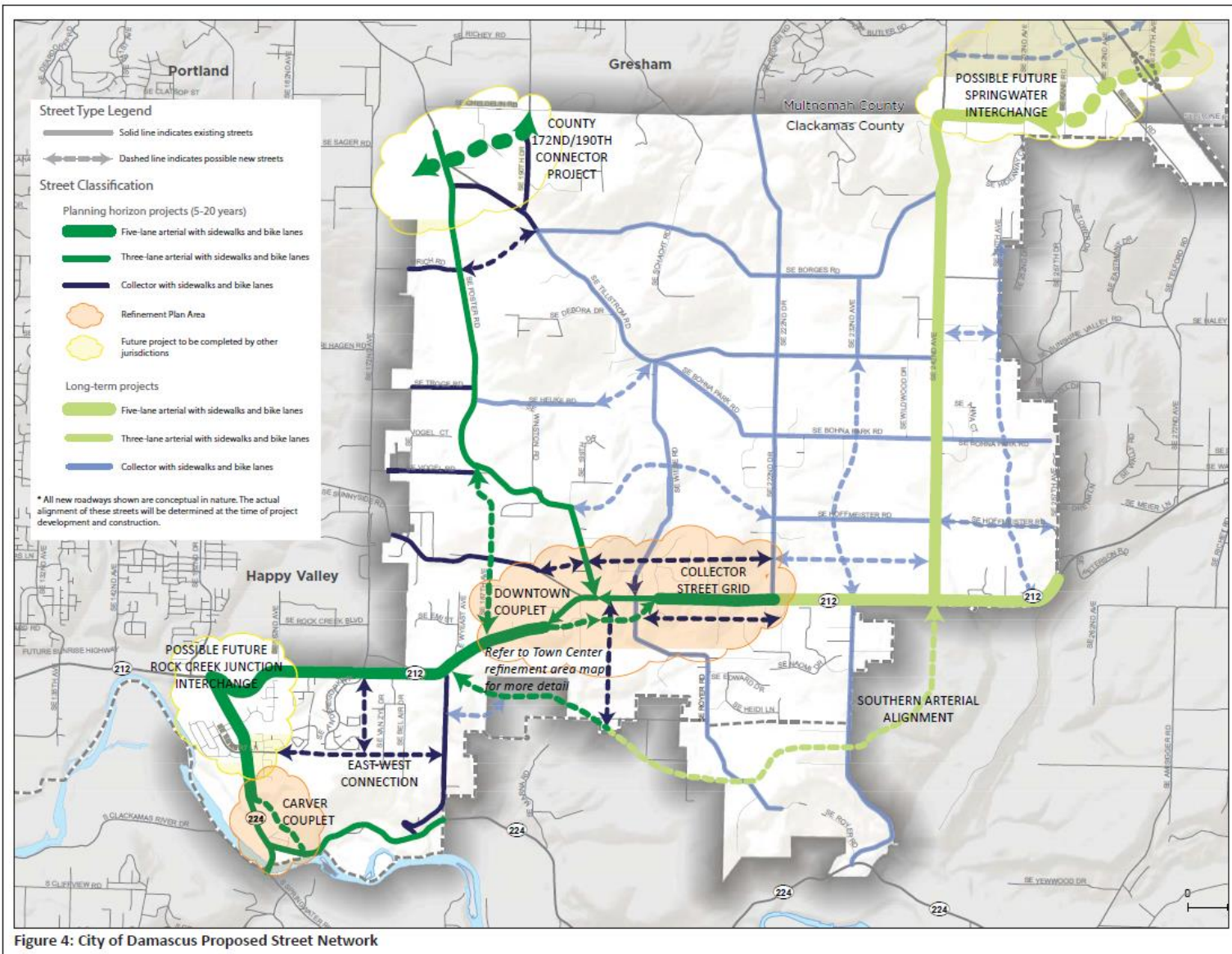


Figure 4: City of Damascus Proposed Street Network

The unadopted TSP includes the projects in Table 4 as “those needed to support the growth in households and jobs expected over the next twenty years.” The projects on the table that are fully or partially within the Damascus Mobility Study Area are indicated in bold.

Table 4. City of Damascus TSP (Unadopted)

20-Year Needs Projects	Project Length (mi)	Cost Estimate	Right-of-way Acquisition Cost
SE Tillstrom urban upgrades in 172 nd /190 th Corridor <i>(City of Damascus/City of Happy Valley/County Project)</i>	0.63	\$3,660,000	\$1,240,000
SE 190 th urban upgrades <i>(City of Damascus/City of Happy Valley/County Project)</i>	0.50	\$2,900,000	\$560,000
New arterial connection between SE 190 th and SE 172 nd <i>(City of Damascus/City of Happy Valley/County Project)</i>	0.90	\$11,380,000	\$5,460,000
Town Center Refinement Plan (with possible one-way couplet, additional east-west collector connections, additional north-south local connections)	-	\$200,000 + \$40,700,000* (Refinement Plan + Implementation)	\$18,270,000
Carver Area Refinement Plan (with possible one-way couplet)	-	\$150,000 + \$12,520,000* (Refinement Plan + Implementation)	\$5,480,000
SE 172 nd extension and urban upgrades south to east-west collector	0.61	\$5,550,000	\$2,430,000
New east-west collector connection between Carver and OR 212	1.04	\$11,700,000	\$5,120,000
SE Weise Road realignment at the southern end to meet SE Royer	0.18	\$1,960,000	\$890,000
SE 187th Ave arterial urban upgrades and extension north to Foster/Vogel	1.12	\$12,470,000	\$5,400,000
Foster Road widening and urban upgrades	2.15	\$22,020,000	\$4,690,000
OR 224 urban upgrades from south of Carver to UGB (east of Tong Road)	1.00	\$10,210,000	\$2,170,000
New southern arterial from OR 212/Tong to SE 202nd	1.10	\$11,200,000	\$5,280,000
SE 202nd urban upgrades	0.53	\$5,830,000	\$1,260,000
SE Tong Road urban upgrades	0.93	\$10,290,000	\$2,230,000
SE 202nd extension south to new arterial	0.27	\$3,010,000	\$1,370,000
SE Vogel Road urban upgrades	0.44	\$1,780,000	\$0
SE Hemrich Road extension east to Tillstrom	0.56	\$3,230,000	\$2,090,000
SE Hemrich Road urban upgrades	0.27	\$1,090,000	\$0
SE Troge Road urban upgrades	0.51	\$2,060,000	\$0

20-Year Needs Projects	Project Length (mi)	Cost Estimate	Right-of-way Acquisition Cost
SE Sunnyside Road urban upgrades	1.08	\$6,270,000	\$1,210,000
OR 212 widening to 5 lanes and urban upgrades between OR 224 (Rock Creek Junction) and SE 222nd Ave (Town Center cross-section to be determined)	2.91	\$37,480,000	\$10,030,000
OR 224 widening to 5 lanes and urban upgrades between OR 212 (Rock Creek Junction) and the north side of Carver	0.82	\$10,550,000	\$2,830,000

* Refinement Plan costs are based on one possible option for the refinement areas. This cost will vary based on the conclusions of the Refinement Plan.

In addition, the unadopted TSP notes that the following intersections may need improvements based on how development occurs. Again, bold indicates intersections within the Damascus Mobility Study Area.

- Foster Road/172nd-190th Connector
- Foster Road/Vogel Road
- Hemrich Road/Foster Road
- Heuke Road/Foster Road
- **Bohna Park Road/Tillstrom Road/Weise Road**
- 187th Avenue/OR 212 (ODOT)
- Tong Road/OR 212 (ODOT)
- **Weise Road/OR 212 (ODOT)**
- **Royer Road/Town Center Couplet (ODOT)**
- **222nd Drive/OR 212 (ODOT)**
- Eckert Lane/OR 224 (ODOT)

As illustrated in the figure from the unadopted TSP, potential long-term projects to serve growth anticipated farther in the future (20-40 years at the time of the Damascus TSP) include:

- **SE Borges Road urban upgrades**
- **SE Tillstrom Road urban upgrades**
- **SE Heuke Road urban upgrades and extension east to Tillstrom**
- **SE Bohna Park Road urban upgrades**
- **SE Weise Road urban upgrades**
- **SE Royer Road urban upgrades**
- **SE Hoffmeister Road urban upgrades and extension west to Foster**
- **SE 222nd Drive urban upgrades**
- **SE 232nd Ave urban upgrades and connection between Tillstrom and Hwy 212**
- OR 212 widening to 5 lanes and urban upgrades east of SE 222nd Drive
- SE 242nd Ave widening to 5 lanes and urban upgrades
- **New southern arterial from SE 202nd to SE 242nd**

- New north-south collector connection east of SE 242nd
- New east-west collector between Sunshine Valley Road and SE 242nd

Metro: 2018 Regional Transportation Plan

Date: Adopted December 2018

Location: Oregon portion of the Portland-Vancouver urbanized area, covering 24 cities and three counties

Purpose: “The Regional Transportation Plan is a blueprint to guide investments for all forms of travel – motor vehicle, transit, bicycle and walking – and the movement of goods and freight throughout the greater Portland region. The plan identifies the region’s most urgent transportation needs and priorities for investment in all parts of the system with the funds the region expects to have available over the next 25 years to make those investments a reality.”

Vision: “In 2040, everyone in the Portland metropolitan region will share in a prosperous, equitable economy and exceptional quality of life sustained by a safe, reliable, healthy, and affordable transportation system with travel options.”

Goals: Vibrant Communities, Shared Prosperity, Transportation Choices, Reliability and Efficiency, Safety and Security, Healthy Environment, Healthy People, Climate Leadership, Equitable Transportation, Fiscal Stewardship, Transparency and Accountability

Relevant Projects:

There is one project on the RTP list located in Damascus, ID 11670. Table 5 includes this project as well as projects to the west of Damascus, largely related to the 172nd-190th Corridor.

Table 5. Metro 2018 RTP Projects

ID	Project Name	Start Location	End Location	Description	Estimated Cost (2016 dollars)	Time Period	Financially Constrained project list
11670	OR 212 widening to 5 lane boulevard	172nd	East of Damascus town center (intersection with 222nd Ave)	Widen Highway 212 to a 5-lane boulevard section from 172nd through Damascus town center including intersection improvements at Foster Rd, safety improvements at major crossing points for bicyclists and pedestrians, and ADA accessibility improvements as necessary.	\$24,500,000	2028-2040	No

ID	Project Name	Start Location	End Location	Description	Estimated Cost (2016 dollars)	Time Period	Financially Constrained project list
10035	Upper Foster Rd. Improvements	County Line	172nd 190th Connector	Widen two-lane minor arterial from the county line to the 172nd/190th connector, to include continuous left turn lane, sidewalks and bike lanes. Project Segment Length 4,500 feet.	\$6,271,700	2028-2040	No
11669	Middle Foster Rd. Improvements	172nd 190th Connector	Sunnyside Road Extension	Widen two-lane minor arterial from the 172nd/190th connector to Sunnyside Road east, to include continuous left turn lane, sidewalks and bike lanes. Project segment is 8,000 feet in length.	\$11,055,200	2028-2040	No
10033	172nd Ave & 190th Connector (Phase 1 - Design)	Clatsop	Sunnyside Rd.	Phase 1 design work to widen 172nd to 5 lanes; construct connector between 172nd and 190th Ave using adopted alignment; project includes bike lanes, sidewalks and continuous left turn lane; last connector in n/s freight route alternative to I-205 between I-84 and Hwy-212.	\$4,000,000	2018-2027	Yes
12071	172nd Ave. & 190th Connector (Phase 2 - Construction)	Clatsop Street	Sunnyside Road	Public right-of-way acquisition and construction work to widen 172nd to 5 lanes; construct connector between 172nd and 190th Ave using adopted alignment; project includes bike lanes, sidewalks and continuous left turn lane; last connector in n/s freight route alternative to I-205 between I-84 and OR 212.	\$5,841,240	2028-2040	No

ID	Project Name	Start Location	End Location	Description	Estimated Cost (2016 dollars)	Time Period	Financially Constrained project list
11901	177th Ave. ROW Acquisition and Planning	Sager Rd. Extension East	Rock Creek Blvd.	Conduct planning and preliminary right-of-way acquisition for a new 3 lane roadway (with sidewalks, bike lanes and continuous left turn lane) from Sager Rd. extension east to Rock Creek Blvd.	\$3,243,300	2028-2040	No
11938	172nd Avenue Frequent Transit Access and Safety Enhancements	Intersection of 172nd Ave and OR 212	Clackamas Town Center/ end of MAX Green Line	Improve safety on 172nd/190th and on OR 212, an identified high crash corridor by implementing frequent transit with proven safety counter measures at stop locations on OR 212.	\$23,300,000	2028-2040	No

East Metro Connections Project

Date: June 2012

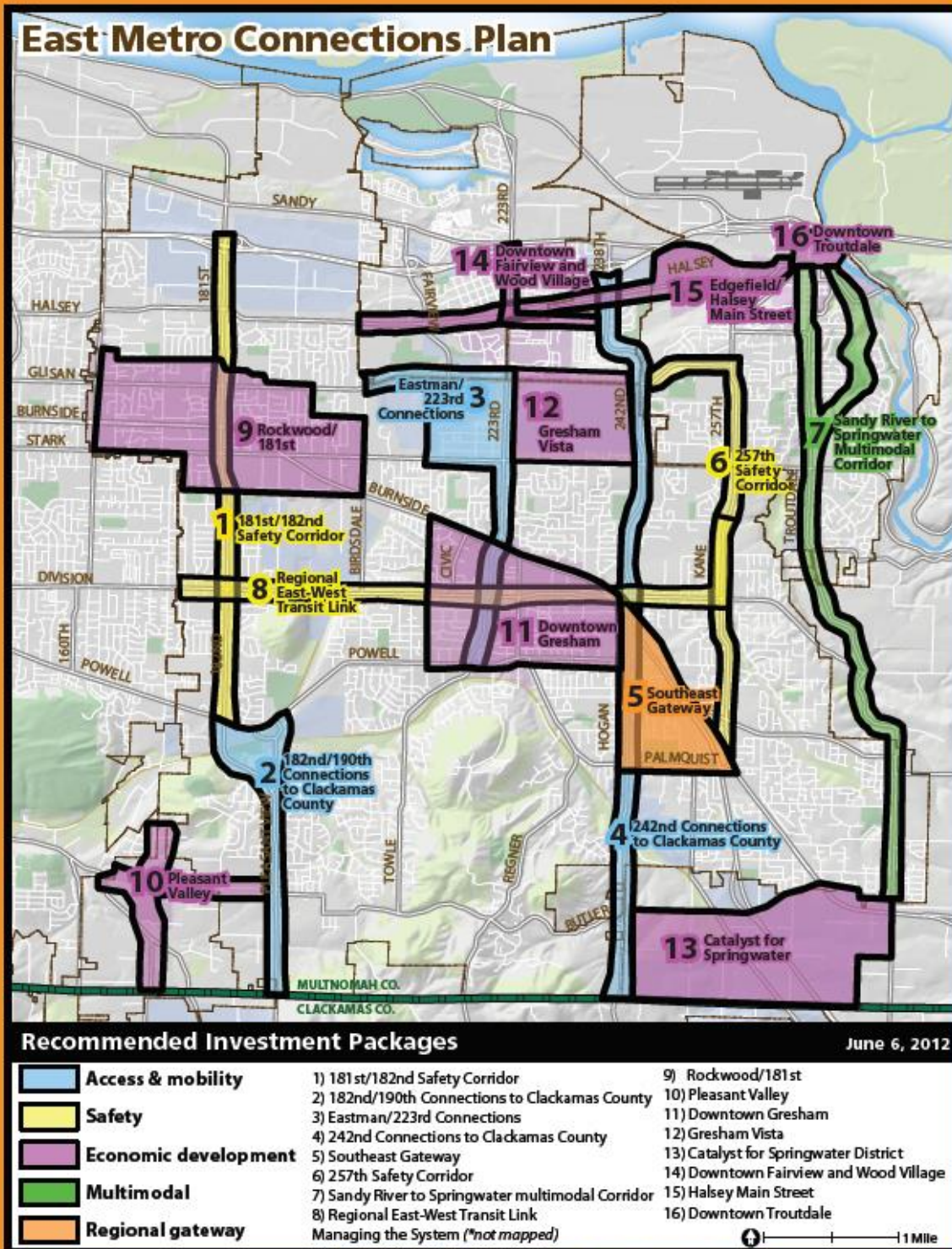
Location: Gresham, Wood Village, Fairview, Troutdale

Purpose: “The East Metro Connections Plan analyzed present and future transportation challenges and presents solutions that reflect community values.” It recommends investments in the plan area to “support economic and community development by providing better access and mobility, increasing safety, activating employment areas and helping people find their way through and to key destinations in the East Metro area.” The Action Plan Projects presented in the plan were recommended for advancement in the Regional Transportation Plan.

Relevant Projects:

The plan includes recommended investment packages in Pleasant Valley and on 182nd/190th between Powell and the border of Multnomah County and Clackamas County. These projects are located north of the study area for the Damascus Mobility Plan.

East Metro Connections Plan Action Plan



Numbers are for the map key, and do not imply project priority

Pleasant Valley/North Carver (PV/NC) Comprehensive Plan

Date: Ongoing (Anticipated Adoption Late 2021/Early 2022)

Location: 2700-acre addition to Happy Valley at the “eastern edge of Happy Valley, on the east side of the Portland Metro region. It is within the Metro Urban Growth Boundary (UGB), bounded on the west by the City of Happy Valley, on the north by the City of Gresham, and on the south by the Clackamas River and rural reserves.”

Purpose: “Prepare land use concepts and mapped designations for new residential neighborhoods and employment districts; define two new mixed-use districts...; prepare transportation plans (streets, bikeways, and trails) that are integrated with the future land use.” The plan will “serve as an adopted appendix to the Happy Valley Comprehensive Plan.”

Vision: “The Pleasant Valley/North Carver area is an integral part of the growing Happy Valley community, and a natural extension of East Happy Valley.

The natural beauty of the landscape is embraced, the ecological health of the area is preserved and enhanced through environmental stewardship, and nature is made part of every neighborhood.

The Carver riverfront has been transformed to include great public access and unique destinations.

The area is comprised of a network of walkable neighborhoods, vibrant mixed-use centers, and thriving employment areas.

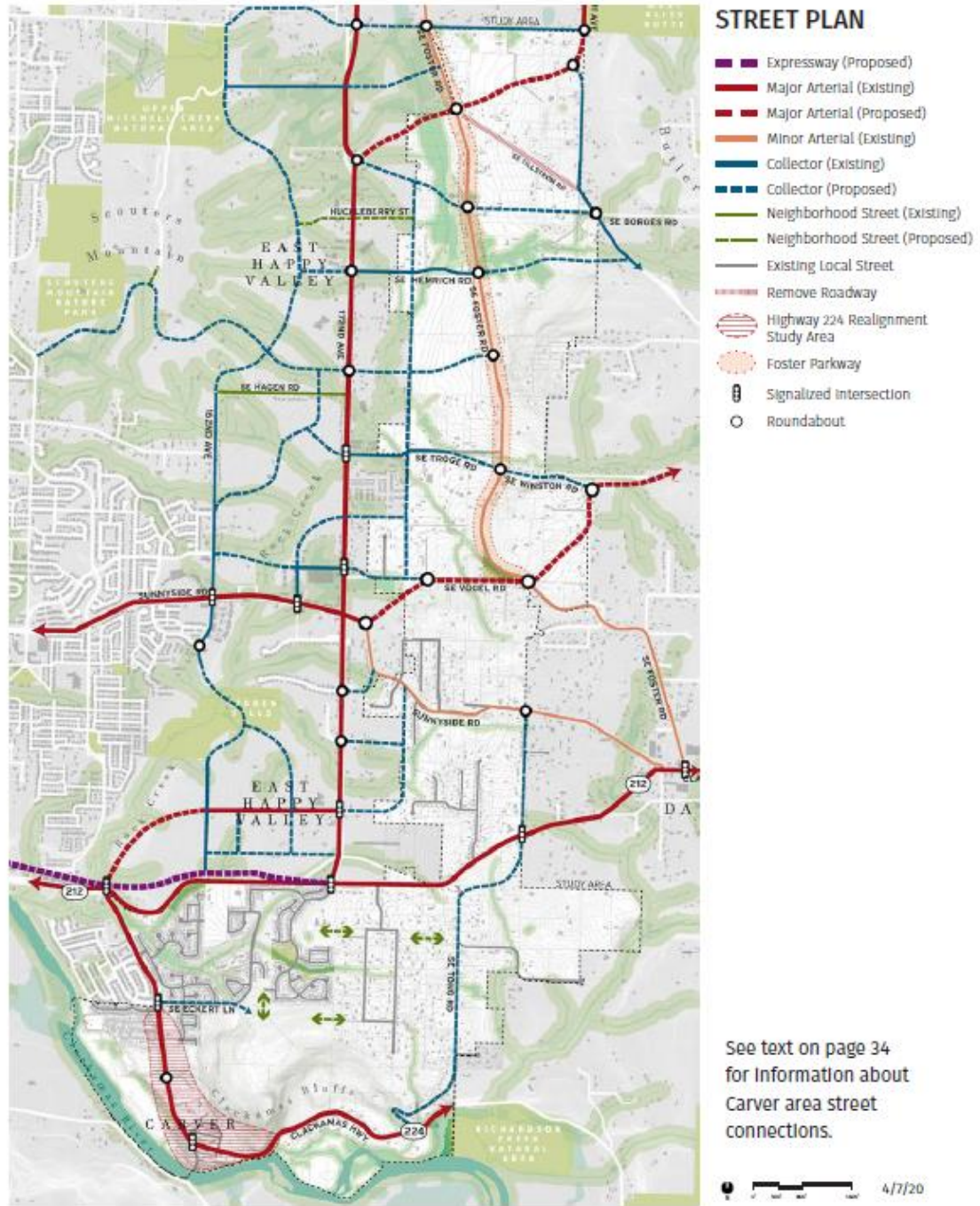
The area is supported by a resilient and safe network of streets, transit service, infrastructure, high-quality schools, and attractive parks and trails.”

Guiding Principles: Promote a sense of community; preserve and celebrate nature; form walkable, welcoming neighborhoods; create vibrant, mixed-use centers; craft distinctive places; attract local jobs and businesses; design a resilient, connected transportation system; ensure regional fit; plan for fiscal health.

Relevant Projects:

The Plan envisions the future transportation network for the area immediately west of Damascus, as well as south of Highway 212. As part of the plan, “amendments were prepared for the City of Happy Valley’s Transportation System.” The Street Plan and Bikeways and Trails Network from the PV/NC Plan are provided on the following pages. These will be used in development of the Damascus Mobility Plan to ensure connectivity and consistency between the areas.

Figure 18. Street Plan



BIKEWAYS AND TRAILS NETWORK

Figure 23. Trail and Bikeway System

The Pleasant Valley/North Carver area is planned to include a robust trail network, which will highlight the natural amenities of the area and connect to the significant regional trail system. The area's many creeks and drainages provide great corridors for off-street trails. If properly designed and maintained, these trail systems can also serve as wildlife corridors and natural habitat areas.

The Kelley Creek corridor lies to the north of the area, with future connections to Powell Butte, the Springwater Corridor, and the Butler Buttes Regional Trail connects to the Power Line Corridor Trail and the Kelly Creek Trail System to the north.

In addition to a network of trails, the roadways within the Pleasant Valley/North Carver area will provide connectivity for pedestrians and bicycle travel.



Clackamas to Columbia (C2C) Corridor Plan

Date: September 2020

Location: 181st/182nd/190th/172nd corridor through Gresham and Happy Valley

Purpose: “to 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, and develop a preferred investment package to aid in funding and implementation of the plan.”

Goals: Safety & Security, Equitable Transportation, Multimodal Mobility, Livability and Accessibility, Economic Development, Fiscal Stewardship, Connectivity

Relevant Projects:

The plan includes projects within and adjacent to Damascus, including those shown in Table 6. The bolded projects are at least partially within the Damascus Mobility Plan study area. The C2C Plan also includes projects on the Sunrise Corridor, not included in Table 6.

Table 6. C2C Corridor Plan projects

ID	Name	Description	Cost
12	Cheldelin Extension & Road Improvements	Extend Cheldelin Road from 172nd Avenue to Foster Road. Widen Cheldelin Road from Foster Road to 190th Drive. Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks.	\$12,000,000
14	172 nd -190 th Two-Lane Connector	Connects 172nd and 190th to complete the C2C Mainline. Realigns Tillstrom Road at Foster Road at a stop-controlled intersection.	\$61,600,000
16	Foster Road	Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks from Cheldelin Road to OR 212.	\$28,000,000
17	Tillstrom Road	Provide three-lane vehicle cross section, bicycle lanes, landscape strip, and sidewalks.	\$15,054,000
18	SE Sunnyside Road East Extension	Construct new five-lane road with continuous left turn lane, sidewalks, bike lanes, and traffic signals.	\$13,159,000
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.	\$13,539,000

FIGURE 2. INVESTMENT PACKAGES



Sunrise Corridor Concept Plan

Date: June 2021

Location: Existing OR 212 and Future Sunrise between 122nd and 172nd Avenues

Purpose: "Development of the Sunrise Corridor Concept Plan sought to review, analyze, and identify enhanced projects for the OR 212 corridor in the Sunrise Phase 2 (122nd to 172nd) segment, with an emphasis on projects for inclusion in Metro's Get Moving 2020 transportation measure (Get Moving 2020). The refinement reviewed the previous Phase 2 Environmental Impact Study (EIS) and developed an enhanced, cost-effective, multimodal corridor concept."

Goals:

- » Goal 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.
- » Goal 2: Provide transportation improvements that support the viability of the Clackamas area for **industrial uses**.
- » Goal 3: Support **community livability** and protect the quality and integrity of **residential uses** within and adjacent to the corridor.
- » Goal 4: Provide a facility that minimizes and effectively mitigates adverse impacts to **natural and cultural resources** within the project corridor.

Relevant Projects:

Projects along the Sunrise Phase 2 corridor included staged improvements:

- » Stage 1 - Reconstruct portions of Highway 212 roadway including sidewalks, bicycle facilities and crossings to improve access and safety. Grade-separate intersection with 142nd and realign 135th to build local connections.
- » Stage 2 - Construct 2-Lane Sunrise Corridor, including access-controlled interchange at 122nd Avenue
- » Stage 3 - Implement 4-Lane Sunrise Corridor
- » Stage 4 – Install a roundabout at Rock Creek Junction

APPENDIX B.
TECHNICAL MEMORANDUM 12.3
FROM THE CLACKAMAS COUNTY TSP

Tech Memo 12.3: Project Prioritization Process Overview – Current Status and Next Steps

Date: April 15, 2013

Project #: 11732

To: Transportation System Plan (TSP) Public Advisory Committee (PAC) Members

From: TSP Project Management Team

Project: Clackamas County Transportation System Plan Update

Subject: Project Prioritization Process Overview – Current Status and Next Steps

This memorandum outlines the process that has been used to prioritize the Master Project List for the Clackamas County Transportation System Plan (TSP) update and the remaining steps for finalizing prioritized project lists. Since PAC Meeting #5a in November 2012, the following activities have taken place:

- **Project Scoring and Initial Tier Recommendations:** The projects were scored based on the PAC-reviewed and approved goals and objectives, evaluation criteria and additional analysis conducted to better understand future capacity needs.
- **Geographic Area Review:** The Geographic Area Projects (GAPS) groups reviewed and revised the initial prioritized list of projects by geographic area.
- **Countywide Review:** The Technical Advisory Committee (TAC) reviewed the GAPS prioritization recommendations and made recommendations based on their expertise from a Countywide perspective.

I. PROJECT LISTS AND TIERS

At this stage of the TSP update, we are focused on prioritizing the Master List of Projects according to the goals, priorities and available funding. Ultimately, this process will result in three project lists, shown in Table 1, that will define the County's transportation priorities for the next 20 years.

Table 1 TSP Project List Organization

Project List Name	Tier	Previous Name	Funding Available	Type of Projects Included
20-Year Capital Projects	1	Fiscally Constrained List	Approximately \$444 million (based on funding forecast)	Top recommended projects that can reasonably be undertaken given the current estimates of available funding.
Preferred Capital Projects	2	Preferred Project List	Approximately \$444 million (potential additional funding)	Additional recommended projects that the County hopes to undertake if additional funding becomes available during the next 20 years.
Long-Term Capital Project Needs	3	Vision Project List	None known	All other needed projects identified in the TSP update process. These are not expected to be funded or constructed by the County during the next 20 years, but they are still needed to meet the County's projected transportation demands.

II. PROJECT SCORING AND INITIAL TEIR RECOMMENDATIONS

The *Prioritization Process Memorandum* (November 20, 2012) outlined the initial approach for scoring and prioritizing projects on the Master Project List. This process was refined based on further discussions with the PAC and County staff. All projects were initially scored based on the following criteria:

- **Goals 1 – 6:** projects were assessed on metrics for each goal and assigned a score from -1 to +2. The goals, metrics, scoring scale and resources used for the analysis are detailed in the table in *Appendix A: Goal Scoring Matrix*. Based on input from the PAC, all TSP goals were weighted equally.
- **70% Growth Analysis:** [See *70% Household and Employment Growth Scenario* (February 11, 2013) for additional information¹.]
 - projects that address a deficient facility under the 70% growth analysis were given a score of +1;
 - projects that do not address a deficient facility under the 70% growth analysis were given a score of -1;
 - all other projects (e.g. multimodal and safety projects) received a score of 0.
- **Dynamic Traffic Assignment (DTA) Analysis:** (See *Dynamic Traffic Assignment (DTA) - Initial Findings* (February 11, 2013) for additional information¹.)
 - projects included in the analysis that were not part of the recommended improvements for the Clackamas Regional Center Southwest Access Corridor area were given a score of -1;
 - projects included in the analysis that were part of the recommended improvements for the Clackamas Regional Center Southwest Access Corridor area received a score of 0;
 - projects not included in the analysis received a score of 0.
- **Addresses Identified Need:**
 - projects that address both a gap **and** a deficiency were given a score of +2;
 - projects that address a gap **or** a deficiency were given a score of +1;
 - all other projects, those that don't address either a gap or a deficiency, were given a score of 0.

¹ Memos referenced here can be found online at <http://www.clackamascountytsp.com/> under Documents/Meeting Materials.

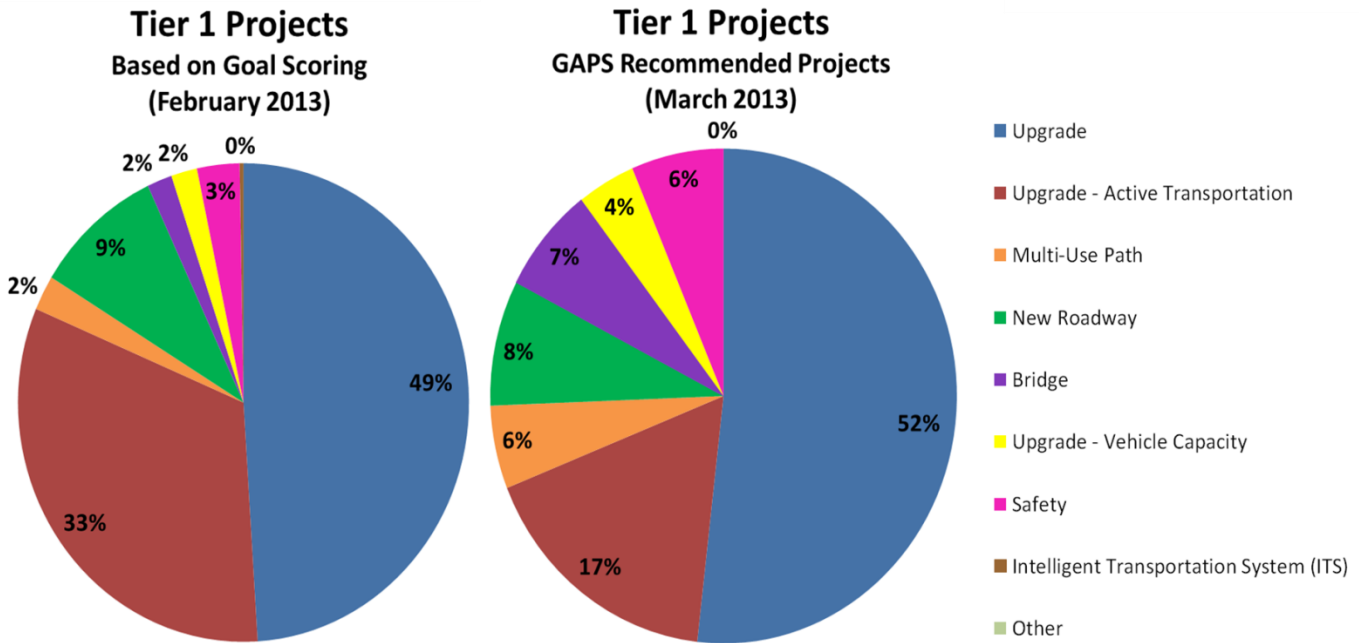
Based on the process outline above, the initial draft project prioritization lists were developed and documented in Technical Memorandum 12.2 – Project Scoring and Draft Project Lists (March 4, 2013). The initial scoring process resulted in a range of project scores from 0 to 12, with an average score of approximately 7. The projects were assigned an initial tier category (1, 2, or 3) based on the project score and project costs in each geographic subarea. The County’s Draft Funding Forecast memorandum (October 22, 2012) estimates that there will be funding available to cover approximately 15% of the total projects on the Project Master List. Therefore, the top scoring projects in each subarea, totaling approximately 15% of the total project costs in the subarea, were assigned to Tier 1. The next highest scoring projects totaling approximately 15% of the total project costs in the subarea were assigned to Tier 2. The remainder of the projects were assigned to Tier 3.

III. GEOGRAPHIC AREA REVIEW

In early March 2013, the GAPS groups reconvened to review the initial tier recommendations based on the project scoring. Each of the five GAPS groups provided feedback on projects in its respective area. Projects were prioritized in tiers based on available funding, and participants noted any projects recommended for removal. As noted above, estimated forecast funding covers approximately 15% of the projects on the Master List based on total project costs. Therefore, each GAPS group had to make decisions to select their Tier 1 projects and priorities.

GAPS groups recommended changing the tiers of approximately one-third of the projects. The most significant changes were made in the McLoughlin area. In some cases, the GAPS group elected to split a project into multiple segments in order to prioritize a portion of the project. This resulted in some changes to project descriptions and extents. The GAPS group focused on the Clackamas Regional Center/Industrial Area also discussed dedicated funding sources in the Regional Center, which could be used towards projects on the Master List. The charts in **Exhibit 1** compare the breakdown of projects by category in Tier 1 before and after the GAPS review.

Exhibit 1: Tier 1 Project Priorities – Goal Scoring versus GAPS Review



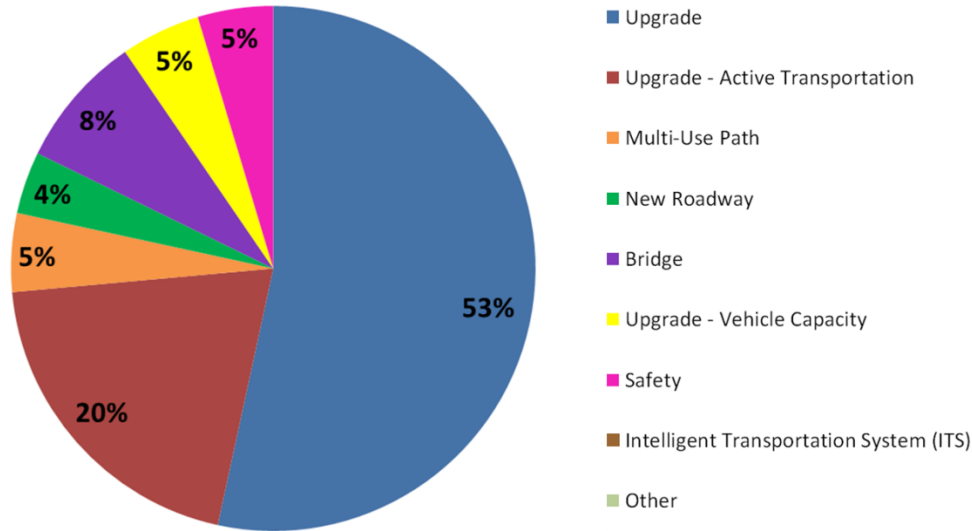
As seen in the charts, the GAPS groups placed a greater portion of bridge, safety, and multi-use path projects in Tier 1, and a smaller portion of upgrade – active transportation projects in that tier.

IV. COUNTYWIDE REVIEW

The recommended project rankings by geographic area were combined in one countywide list, which the Technical Advisory Committee (TAC) reviewed on March 28 and April 4, 2013. The TAC provided feedback, including project prioritizations by tier and recommendations for projects to remove. The TAC considered the overall TSP goals and objectives, project scoring, GAPS recommendations, local knowledge of the transportation system and available funding to prioritize the projects. Based on the TAC’s review, seven projects were added to the Master List, primarily focused on replacing failing bridges. The TAC also recommended different tiers than the GAPS groups for just over 70 projects. The breakdown of projects in Tier 1 by category based on the TAC review is shown in **Exhibit 2**.

Exhibit 2: Tier 1 Project Priorities – TAC Review

**Tier 1 Projects
TAC Recommended Projects
[Late March 2013]**



The distribution of projects by category is not significantly different than recommended by the GAPS group. Most noticeably, the portion of upgrade and active transportation projects in Tier 1 is slightly higher in the TAC recommendations.

V. FINALIZING PROJECT PRIORITIZATION RECOMMENDATIONS FOR PUBLIC REVIEW

PMT staff compared the GAPS and TAC recommendations to identify projects where the GAPS and TAC agree on priority, as well as projects where the recommendations differed. The results of this comparison and next steps in the prioritization process are summarized below.

A. Projects with Agreement

For nearly 80 percent (257) of the projects, the GAPS groups and TAC agreed on the project prioritization tier recommendation. Unless the PAC identifies a specific project to consider for a tier change, the tier recommendations for these projects will move forward for public review. PAC members will be asked to recommend this group formally by vote on April 23. These projects are listed on “Table B: Projects with Agreement,” provided in *Appendix B* along with maps of the projects.

B. Projects with Remaining Questions

The focus of discussion for the April 23, 2013 PAC meeting will be on the projects for which there is a difference between the GAPS and the TAC recommended tier. These projects are listed on “Table C: Projects with Remaining Questions,” provided in *Appendix C* along with maps of the projects. These projects fall into two categories:

- **Tier 1 Questions:** There are 50 projects that either the GAPS group or the TAC recommended be in Tier 1, while the other group recommended the project be in Tier 2 or Tier 3.
- **Tier 2 Questions:** There are 9 projects that either the GAPS group or the TAC recommended be in Tier 2, while the other group recommended the project be in Tier 1 or Tier 3.

Based on available funding, only a portion of the Tier 1 **Question** and Tier 2 **Question** projects can be funded. **Table 2** shows the portion of funding remaining for these projects after accounting for the projects with agreement.

Table 2: Funding Remaining after GAPS and TAC Projects with Agreement

	Total Funding Available	Funding Allocated via Projects With Agreement	Funding Remaining
Tier 1	\$444,000,000	\$277,275,000	\$166,725,000
Tier 2	\$444,000,000	\$304,530,000	\$139,470,000

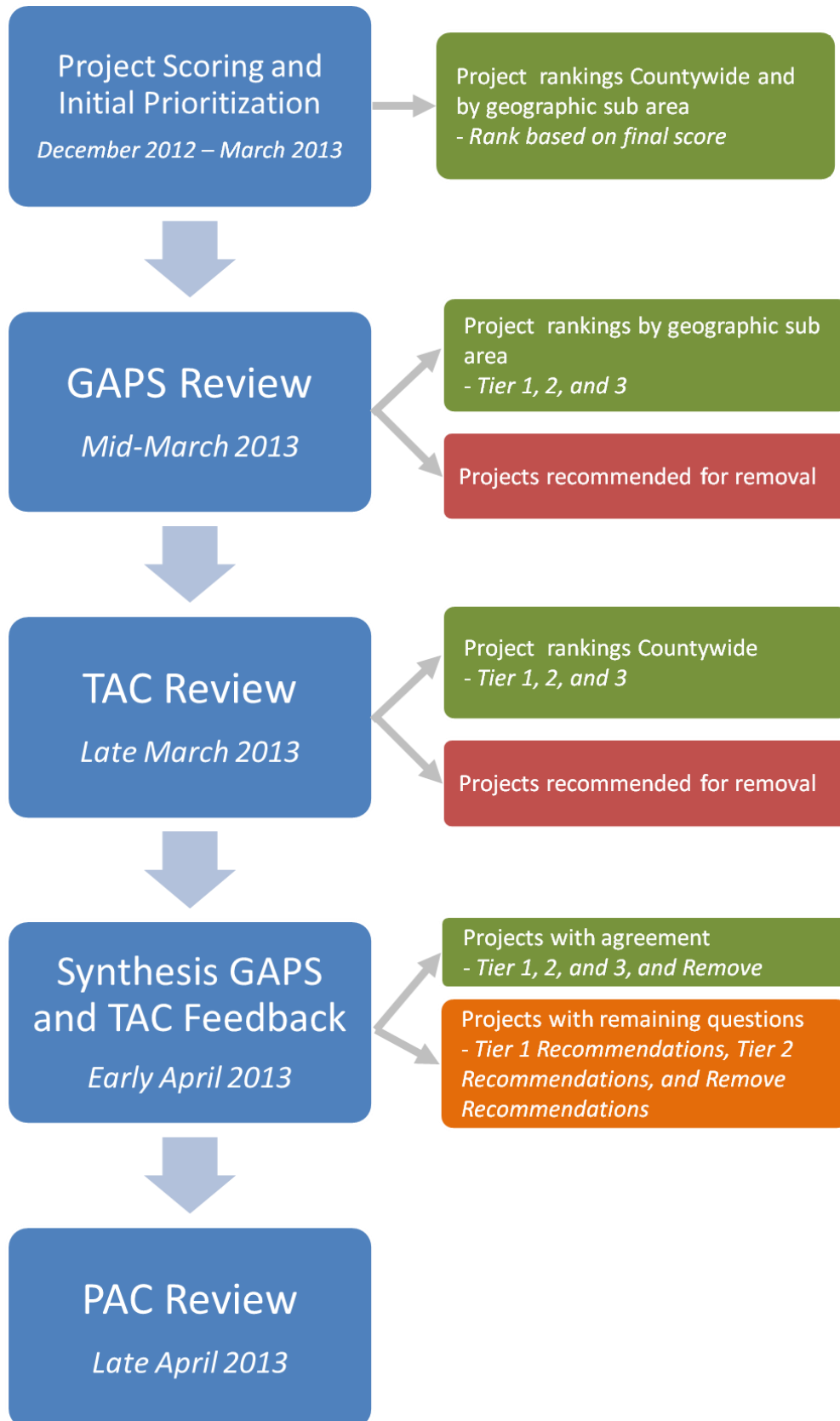
While considering the vision, goals and objectives, PAC members will be asked to prioritize the projects with remaining questions into Tier 1 and Tier 2 categories April 23..

C. Projects Recommended for Removal

There are 6 projects that both the GAPS and TAC recommended for removal, and 19 projects that either the GAPS or TAC recommended be removed. These projects are listed on “Table D: Projects Recommended for Removal,” provided in *Appendix D* along with maps of the projects. Unless the PAC identifies a specific project to move back on to the project list, these projects will be removed from the Master List and will not move forward for public review.

The prioritization process to-date is summarized in **Exhibit 3**.

Exhibit 3: TSP Project Prioritization Process To-Date



VI. NEXT STEPS

The draft prioritized project lists in Appendices B, C and D will be the topic of discussion by the PAC on April 23, 2013 and, if needed, on April 30, 2013. Discussion will focus on the following questions:

- Of the projects with agreement between the GAPS and TAC, are there any that warrant further discussion regarding movement to another tier or removal?
- Are there any projects recommended for removal that should be considered for placement in a tier?
- Given the amount of available funding for Tier 1 and Tier 2 projects, how should the projects with remaining questions be prioritized?

The recommended project prioritization list that comes from the PAC meeting will be presented for review by the community-at-large in public outreach activities this spring, including presentations at community and business meetings, and an online “virtual” open house. The feedback will be used by the PAC and TAC in the late summer and early fall 2013 to develop a final draft preferred prioritized TSP project list that will be presented to the Planning Commission in October and the Board of County Commissioners in November or December for approval. These next steps are summarized in **Exhibit 4**.

Exhibit 4: TSP Project Prioritization Process Next Steps



LIST OF APPENDICES:

A: Goal Scoring Matrix

B: Projects with Agreement – Tables and Maps

C: Projects with Remaining Questions – Tables and Maps

D: Projects Recommended for Removal – Tables and Maps

Goals	Potential Metrics (Contained in Survey)	Scoring Scale				Resources for Determining Score
		-1	0	1	2	
Goal 1: Sustainability (environmental benefits only; other sustainability benefits are dealt with under goals 3 and 6)	<ol style="list-style-type: none"> Does the project increase the potential for walking, biking or taking transit? Does the project impact identified environmentally sensitive areas? 	Degrades non-motorized travel, negatively impacts the environment, increases vehicle emissions, and/or decreases network connectivity. <i>Example:</i> Enhances motorized vehicle capacity without providing pedestrian or bicycle facilities.	No impact. <i>Example:</i> None.	Indirectly improves non-motorized travel, decreases vehicle emissions and/or increases network connectivity. <i>Example:</i> Projects aimed at reducing vehicle crashes.	Directly improves non-motorized travel, decreases vehicle emissions and/or increases network connectivity. <i>Example:</i> Constructing pedestrian and bicycle facilities.	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map Environmentally Sensitive Areas Map
Goal 2: Local Businesses and Jobs	<ol style="list-style-type: none"> Is the project located in or near an existing or future employment area? Does the project create a direct connection from a highway or higher order facility to an employment area? 	Degrades access and/or mobility to existing or future employment areas. <i>Example:</i> Capacity enhancement without providing pedestrian or bicycle facilities.	No impact. <i>Example:</i> Capacity enhancement not related to an employment area.	Indirectly improves access and mobility to existing or future employment areas. <i>Example:</i> Projects aimed at reducing vehicle crashes.	Directly improves access and mobility to existing or future employment areas. <i>Example:</i> Capacity or active transportation enhancement project to or within an employment area.	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map
Goal 3: Livable and Local	<ol style="list-style-type: none"> Does the project increase connections between residential areas and commercial areas or to daily needs and services? Does the project reduce the potential impacts of flooding? Does the project help implement a local land use or development plan? 	Degrades neighborhood connectivity and/or access to daily needs or services. <i>Example:</i> Capacity enhancements that divide a contiguous neighborhood.	No impact. <i>Example:</i> None.	Indirectly improves neighborhood connectivity and/or access to daily needs or services. <i>Example:</i> Providing sidewalk access to an activity center but not connecting to a residential area.	Directly improves neighborhood connectivity and/or access to daily needs or services. <i>Examples:</i> <ul style="list-style-type: none"> Pedestrian or bicycle facility connecting residential to commercial areas or daily needs and services. Roadway improvements to prevent flooding on key roadway connections in rural areas. 	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map
Goal 4: Safety and Health	<ol style="list-style-type: none"> Does the project improve a safety focus intersection, a candidate road safety audit corridor or an ODOT Safety Priority Index System (SPIS) site? Does the project have the potential to reduce emissions near schools or densely populated areas? 	Degrades health and/or increases the likelihood of crashes. <i>Example:</i> Increases vehicle emissions within 500 feet of a school.	No impact. <i>Example:</i> Enhancing capacity on an existing roadway with pedestrian and bicycle facilities that is not within 500 feet of a school or densely populated area.	Indirectly improves health and/or decreases the likelihood of crashes. <i>Example:</i> Constructing safety improvements at an intersection or on a corridor that are not part of a safety focus intersection or road safety audit.	Directly improves health and/or decreases the likelihood of crashes. <i>Example:</i> Constructing a safety improvement (e.g., single-lane roundabout, realign intersection) at a safety focus intersection or on a candidate road safety audit corridor.	<ul style="list-style-type: none"> Highway Safety Manual Pedestrian Network Map Bicycle Network Map Activity Centers Map Safety Focus Intersections Candidate Road Safety Audit Corridors
Goal 5: Equity	<ol style="list-style-type: none"> Is the project located in a transportation disadvantaged area and does it increase transportation options for that disadvantaged community? Does the project increase access for transportation-disadvantaged populations to daily needs and services such as schools, medical services, jobs and groceries? 	Degrades transportation options, facilities, and/or community for transportation disadvantaged populations. <i>Example:</i> Constructing a freeway or highway through a transportation disadvantaged area.	No impact. <i>Example:</i> Enhancing rural capacity in an area that is not classified as transportation disadvantaged.	Indirectly improves transportation options and/or facilities for transportation disadvantaged populations. <i>Example:</i> Providing sidewalk access to an activity center that is not within a transportation disadvantaged area.	Directly improves transportation options and/or facilities for transportation disadvantaged populations. <i>Example:</i> Providing sidewalks to transit stops within an area with a high percentage of transportation disadvantaged population.	<ul style="list-style-type: none"> Transportation Disadvantaged Population Map Activity Centers Map Pedestrian Network Map Bicycle Network Map Transit Network Map
Goal 6: Fiscally Responsible	<ol style="list-style-type: none"> What is the estimated cost effectiveness of the project? Is the project located within an area prone to landslides? 	Cost effectiveness factor is in the lower 50 th percentile, indicating it is not a cost-effective project. Project is in area prone to landslides.	Cost effectiveness factor is in the 50 th to 60 th percentile.	Cost effectiveness factor is in the 70 th to 90 th percentile.	Cost effectiveness factor is in the 90 th or above percentile.	Cost effectiveness factor calculations described in Step 5.

Tech Memo 12.3: Project Prioritization Process Overview – Current Status and Next Steps

Date: April 15, 2013

Project #: 11732

To: Transportation System Plan (TSP) Public Advisory Committee (PAC) Members

From: TSP Project Management Team

Project: Clackamas County Transportation System Plan Update

Subject: Project Prioritization Process Overview – Current Status and Next Steps

This memorandum outlines the process that has been used to prioritize the Master Project List for the Clackamas County Transportation System Plan (TSP) update and the remaining steps for finalizing prioritized project lists. Since PAC Meeting #5a in November 2012, the following activities have taken place:

- **Project Scoring and Initial Tier Recommendations:** The projects were scored based on the PAC-reviewed and approved goals and objectives, evaluation criteria and additional analysis conducted to better understand future capacity needs.
- **Geographic Area Review:** The Geographic Area Projects (GAPS) groups reviewed and revised the initial prioritized list of projects by geographic area.
- **Countywide Review:** The Technical Advisory Committee (TAC) reviewed the GAPS prioritization recommendations and made recommendations based on their expertise from a Countywide perspective.

I. PROJECT LISTS AND TIERS

At this stage of the TSP update, we are focused on prioritizing the Master List of Projects according to the goals, priorities and available funding. Ultimately, this process will result in three project lists, shown in Table 1, that will define the County's transportation priorities for the next 20 years.

Table 1 TSP Project List Organization

Project List Name	Tier	Previous Name	Funding Available	Type of Projects Included
20-Year Capital Projects	1	Fiscally Constrained List	Approximately \$444 million (based on funding forecast)	Top recommended projects that can reasonably be undertaken given the current estimates of available funding.
Preferred Capital Projects	2	Preferred Project List	Approximately \$444 million (potential additional funding)	Additional recommended projects that the County hopes to undertake if additional funding becomes available during the next 20 years.
Long-Term Capital Project Needs	3	Vision Project List	None known	All other needed projects identified in the TSP update process. These are not expected to be funded or constructed by the County during the next 20 years, but they are still needed to meet the County's projected transportation demands.

II. PROJECT SCORING AND INITIAL TEIR RECOMMENDATIONS

The *Prioritization Process Memorandum* (November 20, 2012) outlined the initial approach for scoring and prioritizing projects on the Master Project List. This process was refined based on further discussions with the PAC and County staff. All projects were initially scored based on the following criteria:

- **Goals 1 – 6:** projects were assessed on metrics for each goal and assigned a score from -1 to +2. The goals, metrics, scoring scale and resources used for the analysis are detailed in the table in *Appendix A: Goal Scoring Matrix*. Based on input from the PAC, all TSP goals were weighted equally.
- **70% Growth Analysis:** [See *70% Household and Employment Growth Scenario* (February 11, 2013) for additional information¹.]
 - projects that address a deficient facility under the 70% growth analysis were given a score of +1;
 - projects that do not address a deficient facility under the 70% growth analysis were given a score of -1;
 - all other projects (e.g. multimodal and safety projects) received a score of 0.
- **Dynamic Traffic Assignment (DTA) Analysis:** (See *Dynamic Traffic Assignment (DTA) - Initial Findings* (February 11, 2013) for additional information¹.)
 - projects included in the analysis that were not part of the recommended improvements for the Clackamas Regional Center Southwest Access Corridor area were given a score of -1;
 - projects included in the analysis that were part of the recommended improvements for the Clackamas Regional Center Southwest Access Corridor area received a score of 0;
 - projects not included in the analysis received a score of 0.
- **Addresses Identified Need:**
 - projects that address both a gap **and** a deficiency were given a score of +2;
 - projects that address a gap **or** a deficiency were given a score of +1;
 - all other projects, those that don't address either a gap or a deficiency, were given a score of 0.

¹ Memos referenced here can be found online at <http://www.clackamascountytsp.com/> under Documents/Meeting Materials.

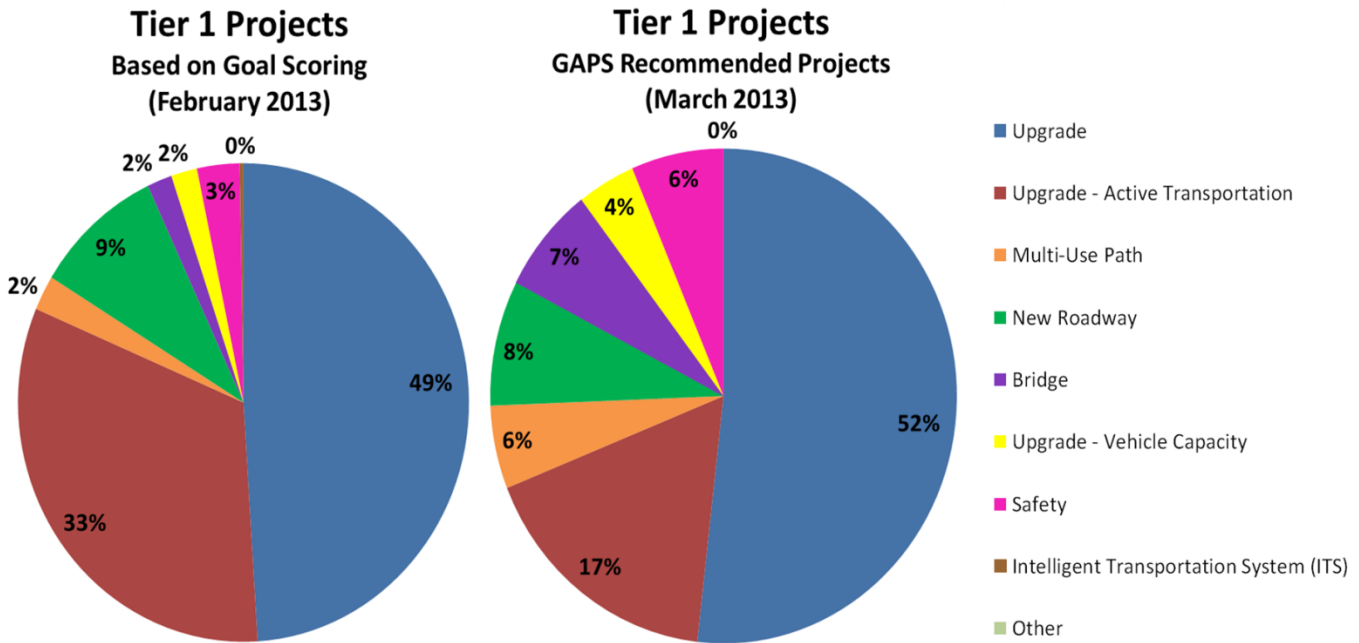
Based on the process outline above, the initial draft project prioritization lists were developed and documented in Technical Memorandum 12.2 – Project Scoring and Draft Project Lists (March 4, 2013). The initial scoring process resulted in a range of project scores from 0 to 12, with an average score of approximately 7. The projects were assigned an initial tier category (1, 2, or 3) based on the project score and project costs in each geographic subarea. The County’s Draft Funding Forecast memorandum (October 22, 2012) estimates that there will be funding available to cover approximately 15% of the total projects on the Project Master List. Therefore, the top scoring projects in each subarea, totaling approximately 15% of the total project costs in the subarea, were assigned to Tier 1. The next highest scoring projects totaling approximately 15% of the total project costs in the subarea were assigned to Tier 2. The remainder of the projects were assigned to Tier 3.

III. GEOGRAPHIC AREA REVIEW

In early March 2013, the GAPS groups reconvened to review the initial tier recommendations based on the project scoring. Each of the five GAPS groups provided feedback on projects in its respective area. Projects were prioritized in tiers based on available funding, and participants noted any projects recommended for removal. As noted above, estimated forecast funding covers approximately 15% of the projects on the Master List based on total project costs. Therefore, each GAPS group had to make decisions to select their Tier 1 projects and priorities.

GAPS groups recommended changing the tiers of approximately one-third of the projects. The most significant changes were made in the McLoughlin area. In some cases, the GAPS group elected to split a project into multiple segments in order to prioritize a portion of the project. This resulted in some changes to project descriptions and extents. The GAPS group focused on the Clackamas Regional Center/Industrial Area also discussed dedicated funding sources in the Regional Center, which could be used towards projects on the Master List. The charts in **Exhibit 1** compare the breakdown of projects by category in Tier 1 before and after the GAPS review.

Exhibit 1: Tier 1 Project Priorities – Goal Scoring versus GAPS Review



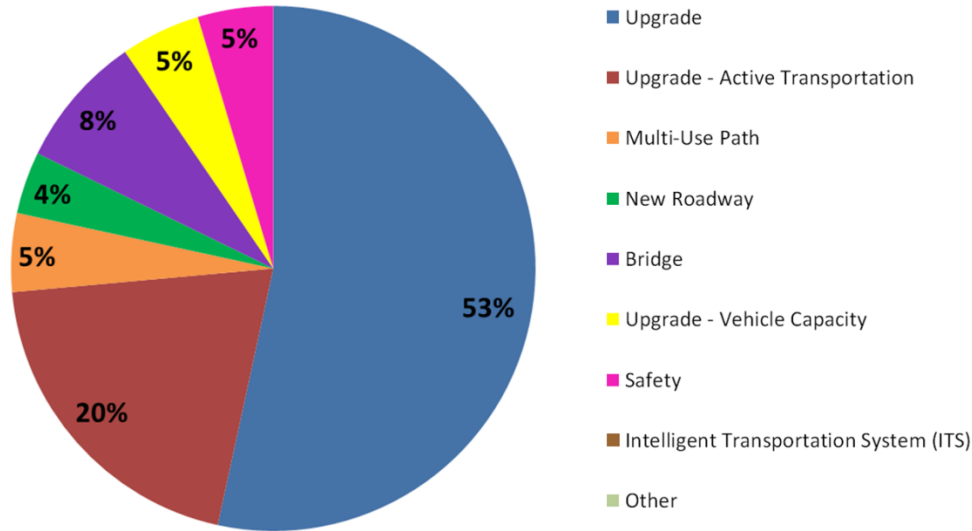
As seen in the charts, the GAPS groups placed a greater portion of bridge, safety, and multi-use path projects in Tier 1, and a smaller portion of upgrade – active transportation projects in that tier.

IV. COUNTYWIDE REVIEW

The recommended project rankings by geographic area were combined in one countywide list, which the Technical Advisory Committee (TAC) reviewed on March 28 and April 4, 2013. The TAC provided feedback, including project prioritizations by tier and recommendations for projects to remove. The TAC considered the overall TSP goals and objectives, project scoring, GAPS recommendations, local knowledge of the transportation system and available funding to prioritize the projects. Based on the TAC’s review, seven projects were added to the Master List, primarily focused on replacing failing bridges. The TAC also recommended different tiers than the GAPS groups for just over 70 projects. The breakdown of projects in Tier 1 by category based on the TAC review is shown in **Exhibit 2**.

Exhibit 2: Tier 1 Project Priorities – TAC Review

**Tier 1 Projects
TAC Recommended Projects
[Late March 2013]**



The distribution of projects by category is not significantly different than recommended by the GAPS group. Most noticeably, the portion of upgrade and active transportation projects in Tier 1 is slightly higher in the TAC recommendations.

V. FINALIZING PROJECT PRIORITIZATION RECOMMENDATIONS FOR PUBLIC REVIEW

PMT staff compared the GAPS and TAC recommendations to identify projects where the GAPS and TAC agree on priority, as well as projects where the recommendations differed. The results of this comparison and next steps in the prioritization process are summarized below.

A. Projects with Agreement

For nearly 80 percent (257) of the projects, the GAPS groups and TAC agreed on the project prioritization tier recommendation. Unless the PAC identifies a specific project to consider for a tier change, the tier recommendations for these projects will move forward for public review. PAC members will be asked to recommend this group formally by vote on April 23. These projects are listed on “Table B: Projects with Agreement,” provided in *Appendix B* along with maps of the projects.

B. Projects with Remaining Questions

The focus of discussion for the April 23, 2013 PAC meeting will be on the projects for which there is a difference between the GAPS and the TAC recommended tier. These projects are listed on “Table C: Projects with Remaining Questions,” provided in *Appendix C* along with maps of the projects. These projects fall into two categories:

- **Tier 1 Questions:** There are 50 projects that either the GAPS group or the TAC recommended be in Tier 1, while the other group recommended the project be in Tier 2 or Tier 3.
- **Tier 2 Questions:** There are 9 projects that either the GAPS group or the TAC recommended be in Tier 2, while the other group recommended the project be in Tier 1 or Tier 3.

Based on available funding, only a portion of the Tier 1 **Question** and Tier 2 **Question** projects can be funded. **Table 2** shows the portion of funding remaining for these projects after accounting for the projects with agreement.

Table 2: Funding Remaining after GAPS and TAC Projects with Agreement

	Total Funding Available	Funding Allocated via Projects With Agreement	Funding Remaining
Tier 1	\$444,000,000	\$277,275,000	\$166,725,000
Tier 2	\$444,000,000	\$304,530,000	\$139,470,000

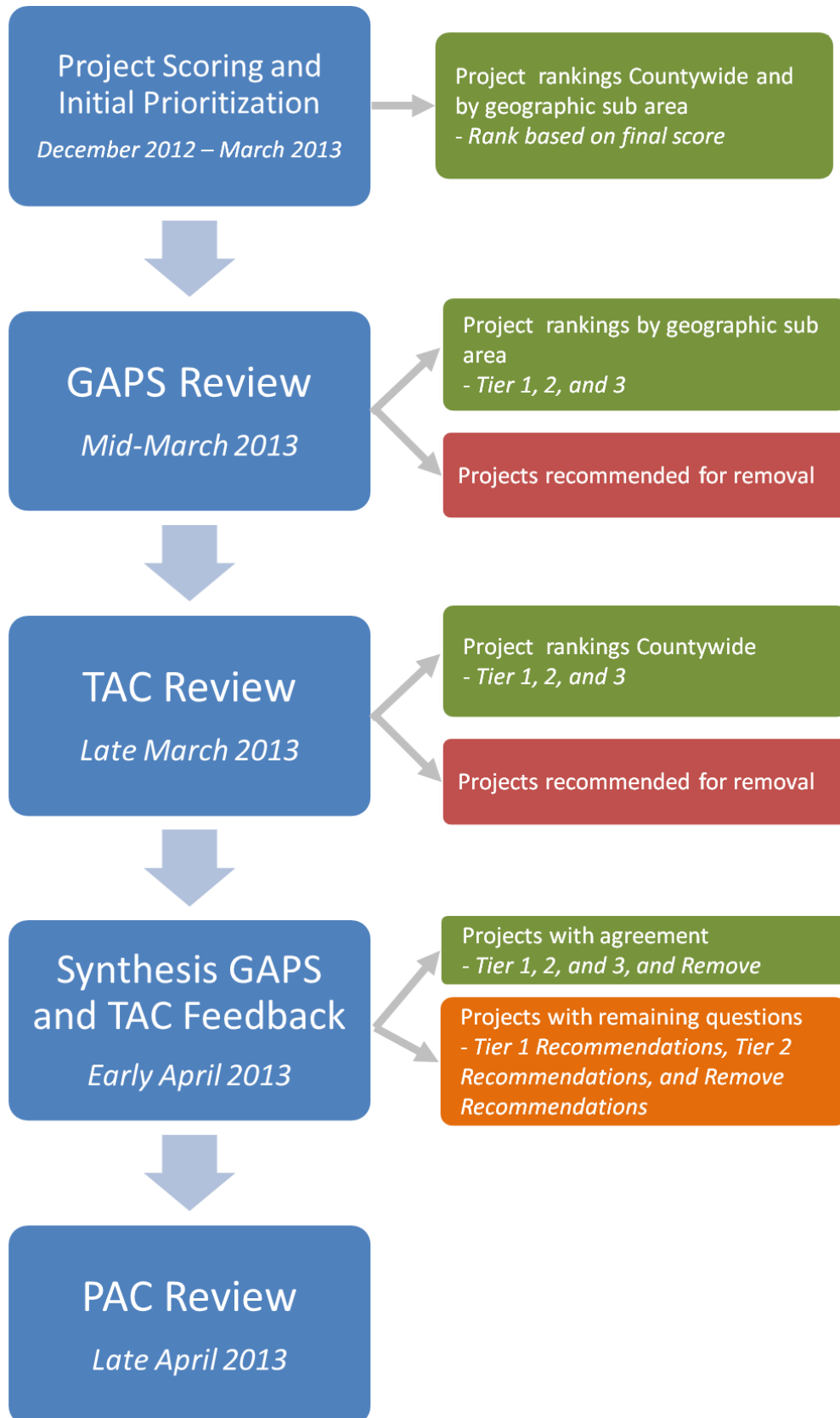
While considering the vision, goals and objectives, PAC members will be asked to prioritize the projects with remaining questions into Tier 1 and Tier 2 categories April 23..

C. Projects Recommended for Removal

There are 6 projects that both the GAPS and TAC recommended for removal, and 19 projects that either the GAPS or TAC recommended be removed. These projects are listed on “Table D: Projects Recommended for Removal,” provided in *Appendix D* along with maps of the projects. Unless the PAC identifies a specific project to move back on to the project list, these projects will be removed from the Master List and will not move forward for public review.

The prioritization process to-date is summarized in **Exhibit 3**.

Exhibit 3: TSP Project Prioritization Process To-Date



VI. NEXT STEPS

The draft prioritized project lists in Appendices B, C and D will be the topic of discussion by the PAC on April 23, 2013 and, if needed, on April 30, 2013. Discussion will focus on the following questions:

- Of the projects with agreement between the GAPS and TAC, are there any that warrant further discussion regarding movement to another tier or removal?
- Are there any projects recommended for removal that should be considered for placement in a tier?
- Given the amount of available funding for Tier 1 and Tier 2 projects, how should the projects with remaining questions be prioritized?

The recommended project prioritization list that comes from the PAC meeting will be presented for review by the community-at-large in public outreach activities this spring, including presentations at community and business meetings, and an online “virtual” open house. The feedback will be used by the PAC and TAC in the late summer and early fall 2013 to develop a final draft preferred prioritized TSP project list that will be presented to the Planning Commission in October and the Board of County Commissioners in November or December for approval. These next steps are summarized in **Exhibit 4**.

Exhibit 4: TSP Project Prioritization Process Next Steps



LIST OF APPENDICES:

A: Goal Scoring Matrix

B: Projects with Agreement – Tables and Maps

C: Projects with Remaining Questions – Tables and Maps

D: Projects Recommended for Removal – Tables and Maps

Goals	Potential Metrics (Contained in Survey)	Scoring Scale				Resources for Determining Score
		-1	0	1	2	
Goal 1: Sustainability (environmental benefits only; other sustainability benefits are dealt with under goals 3 and 6)	<ol style="list-style-type: none"> Does the project increase the potential for walking, biking or taking transit? Does the project impact identified environmentally sensitive areas? 	Degrades non-motorized travel, negatively impacts the environment, increases vehicle emissions, and/or decreases network connectivity. <i>Example:</i> Enhances motorized vehicle capacity without providing pedestrian or bicycle facilities.	No impact. <i>Example:</i> None.	Indirectly improves non-motorized travel, decreases vehicle emissions and/or increases network connectivity. <i>Example:</i> Projects aimed at reducing vehicle crashes.	Directly improves non-motorized travel, decreases vehicle emissions and/or increases network connectivity. <i>Example:</i> Constructing pedestrian and bicycle facilities.	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map Environmentally Sensitive Areas Map
Goal 2: Local Businesses and Jobs	<ol style="list-style-type: none"> Is the project located in or near an existing or future employment area? Does the project create a direct connection from a highway or higher order facility to an employment area? 	Degrades access and/or mobility to existing or future employment areas. <i>Example:</i> Capacity enhancement without providing pedestrian or bicycle facilities.	No impact. <i>Example:</i> Capacity enhancement not related to an employment area.	Indirectly improves access and mobility to existing or future employment areas. <i>Example:</i> Projects aimed at reducing vehicle crashes.	Directly improves access and mobility to existing or future employment areas. <i>Example:</i> Capacity or active transportation enhancement project to or within an employment area.	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map
Goal 3: Livable and Local	<ol style="list-style-type: none"> Does the project increase connections between residential areas and commercial areas or to daily needs and services? Does the project reduce the potential impacts of flooding? Does the project help implement a local land use or development plan? 	Degrades neighborhood connectivity and/or access to daily needs or services. <i>Example:</i> Capacity enhancements that divide a contiguous neighborhood.	No impact. <i>Example:</i> None.	Indirectly improves neighborhood connectivity and/or access to daily needs or services. <i>Example:</i> Providing sidewalk access to an activity center but not connecting to a residential area.	Directly improves neighborhood connectivity and/or access to daily needs or services. <i>Examples:</i> <ul style="list-style-type: none"> Pedestrian or bicycle facility connecting residential to commercial areas or daily needs and services. Roadway improvements to prevent flooding on key roadway connections in rural areas. 	<ul style="list-style-type: none"> Pedestrian Network Map Bicycle Network Map Activity Centers Map Transit Service Map Land Use Zoning Map
Goal 4: Safety and Health	<ol style="list-style-type: none"> Does the project improve a safety focus intersection, a candidate road safety audit corridor or an ODOT Safety Priority Index System (SPIS) site? Does the project have the potential to reduce emissions near schools or densely populated areas? 	Degrades health and/or increases the likelihood of crashes. <i>Example:</i> Increases vehicle emissions within 500 feet of a school.	No impact. <i>Example:</i> Enhancing capacity on an existing roadway with pedestrian and bicycle facilities that is not within 500 feet of a school or densely populated area.	Indirectly improves health and/or decreases the likelihood of crashes. <i>Example:</i> Constructing safety improvements at an intersection or on a corridor that are not part of a safety focus intersection or road safety audit.	Directly improves health and/or decreases the likelihood of crashes. <i>Example:</i> Constructing a safety improvement (e.g., single-lane roundabout, realign intersection) at a safety focus intersection or on a candidate road safety audit corridor.	<ul style="list-style-type: none"> Highway Safety Manual Pedestrian Network Map Bicycle Network Map Activity Centers Map Safety Focus Intersections Candidate Road Safety Audit Corridors
Goal 5: Equity	<ol style="list-style-type: none"> Is the project located in a transportation disadvantaged area and does it increase transportation options for that disadvantaged community? Does the project increase access for transportation-disadvantaged populations to daily needs and services such as schools, medical services, jobs and groceries? 	Degrades transportation options, facilities, and/or community for transportation disadvantaged populations. <i>Example:</i> Constructing a freeway or highway through a transportation disadvantaged area.	No impact. <i>Example:</i> Enhancing rural capacity in an area that is not classified as transportation disadvantaged.	Indirectly improves transportation options and/or facilities for transportation disadvantaged populations. <i>Example:</i> Providing sidewalk access to an activity center that is not within a transportation disadvantaged area.	Directly improves transportation options and/or facilities for transportation disadvantaged populations. <i>Example:</i> Providing sidewalks to transit stops within an area with a high percentage of transportation disadvantaged population.	<ul style="list-style-type: none"> Transportation Disadvantaged Population Map Activity Centers Map Pedestrian Network Map Bicycle Network Map Transit Network Map
Goal 6: Fiscally Responsible	<ol style="list-style-type: none"> What is the estimated cost effectiveness of the project? Is the project located within an area prone to landslides? 	Cost effectiveness factor is in the lower 50 th percentile, indicating it is not a cost-effective project. Project is in area prone to landslides.	Cost effectiveness factor is in the 50 th to 60 th percentile.	Cost effectiveness factor is in the 70 th to 90 th percentile.	Cost effectiveness factor is in the 90 th or above percentile.	Cost effectiveness factor calculations described in Step 5.