Transportation System Plan Update

Wood Village Transportation System Plan Update

Wood Village, Oregon

Prepared For:
City of Wood Village, Oregon

Updated Street Element Prepared By:
WSP | Parsons Brinckerhoff
851 SW Sixth Avenue, Suite 1600
Portland, OR 97204
(503) 478-2800

In Association with:
Urbsworks, Inc.
3845 SW Condor Avenue
Portland, OR 97239
(503) 827-4155

Final June 15, 2017

2012 Plan Prepared By:
Kittelson & Associates, Inc.
610 SW Alder, Suite 700
Portland, OR 97205
(503) 228-5230

In Association with:
Angelo Planning Group
921 SW Washington St, Suite 468
Portland, OR 97205
(503) 224-6474

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The contents of this document do not necessarily reflect views or policies of the State of Oregon.
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Section 1
Preface
**Preface**

This 2016 update to the Transportation System Plan (TSP) augments the 2012 TSP update. The Project Management Team (PMT), the Technical Advisory Committee (TAC), and the Citizen Advisory Committee (CAC) guided work and efforts during the 2012 update. The PMT, TAC, and CAC members are identified below, along with members of the consultant team. In 2012, the TAC and CAC members devoted a substantial amount of time and effort to the development of this plan and their participation was instrumental in the development of this document. The consultant team and PMT believe that the city's future transportation system will be better because of their commitment.

**Project Management Team (PMT)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Randy Jones</td>
<td>City of Wood Village</td>
</tr>
<tr>
<td>Ross Kevlin</td>
<td>Oregon Department of Transportation</td>
</tr>
</tbody>
</table>

**Technical Advisory Committee (TAC)**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Miranda Bateschell</td>
<td>Metro Representative</td>
</tr>
<tr>
<td>Susan Peithman</td>
<td>Bicycle Transportation Alliance</td>
</tr>
<tr>
<td>Joanna Valencia</td>
<td>Multnomah County</td>
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<tr>
<td>Ross Kevlin</td>
<td>Oregon Department of Transportation</td>
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<tr>
<td>Allan Berry</td>
<td>City of Fairview</td>
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<tr>
<td>Rich Faith</td>
<td>City of Troutdale</td>
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<tr>
<td>Brent Laizure</td>
<td>MCSO</td>
</tr>
<tr>
<td>Bill Peterson</td>
<td>City of Wood Village</td>
</tr>
<tr>
<td>Jeff Donnelly</td>
<td>Gresham Fire &amp; Rescue</td>
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<tr>
<td>Katherine Kelly</td>
<td>City of Gresham</td>
</tr>
<tr>
<td>Randy Jones</td>
<td>City of Wood Village</td>
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<tr>
<td>Carole Connell</td>
<td>City of Wood Village</td>
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<tr>
<td>Philip Healy</td>
<td>Port of Portland</td>
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<tr>
<td>Kelly Betteridge</td>
<td>TriMet</td>
</tr>
<tr>
<td>Chuck Rhoads</td>
<td>Reynolds School District</td>
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**Citizen Advisory Committee**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Patricia Smith</td>
<td>Wood Village City Council</td>
</tr>
<tr>
<td>Betty Dominguez</td>
<td>Portland Housing Authority</td>
</tr>
<tr>
<td>Mark Clark</td>
<td>Wood Village City Council</td>
</tr>
<tr>
<td>Jim Mott</td>
<td>Advanced Metal &amp; Wire</td>
</tr>
<tr>
<td>Jake Johnston</td>
<td>Lowe’s</td>
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<tr>
<td>Bruce Nissen</td>
<td>Planning Commission</td>
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<tr>
<td>David Harvey</td>
<td>M&amp;J Wilkow</td>
</tr>
<tr>
<td>Scott Harden</td>
<td>Planning Commission</td>
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<tr>
<td>Jim Maynard</td>
<td>Walmart</td>
</tr>
<tr>
<td>Samer Hakim or Khalil Hazeem</td>
<td>Yazzi’s Bar &amp; Grill</td>
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<tr>
<td>Jerry Hinton</td>
<td>Brashers Auto Auction</td>
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<tr>
<td>Jimmy &amp; Nancy Frank</td>
<td>Riverwood HOA</td>
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<tr>
<td>Bill Ehmann</td>
<td>Baptist Church</td>
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**Consultant Team**

<table>
<thead>
<tr>
<th>Name</th>
<th>Organization</th>
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<tbody>
<tr>
<td>Philip S. Worth</td>
<td>Project Principal, Kittelson &amp; Associates, Inc.</td>
</tr>
<tr>
<td>Darci Rudzinski</td>
<td>AICP, Angelo Planning Group, Inc.</td>
</tr>
<tr>
<td>Matt Hughart</td>
<td>Project Manager, AICP, Kittelson &amp; Associates, Inc.</td>
</tr>
<tr>
<td>Shayna Rehberg</td>
<td>AICP, Angelo Planning Group, Inc.</td>
</tr>
<tr>
<td>Matthew Bell</td>
<td>Project Analyst, Kittelson &amp; Associates, Inc.</td>
</tr>
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</table>
The 2016 TSP update followed a similar management process to develop and update the plan. The focus of the 2016 effort was to update the street elements of the plan and coordinate with the Town Center Master Plan (TCMP), which includes street, pedestrian and bicycle elements. We would like to acknowledge the time and effort of those who participated in the most recent planning process.

Project Management Team (PMT)

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Bill Peterson, Wood Village City Manager</td>
<td>Terra Lingley, Oregon Department of Transportation</td>
</tr>
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<td></td>
<td>Stephanie Millar, Oregon Department of Transportation</td>
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Technical Advisory Committee (TAC)

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<tr>
<th>Name</th>
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</thead>
<tbody>
<tr>
<td>Bill Peterson, Wood Village City Manager</td>
<td>Mark Gunter, Wood Village Public Works</td>
</tr>
<tr>
<td>Greg Dirks, Wood Village</td>
<td>Scott Sloan, Wood Village</td>
</tr>
<tr>
<td>Allan Berry, City of Fairview</td>
<td>Chris Damgen, City of Troutdale</td>
</tr>
<tr>
<td>Joanna Valencia, Multnomah County</td>
<td>Jesse White, Grand Ronde Tribe</td>
</tr>
<tr>
<td>Grace Cho, Metro</td>
<td>Vanessa Vissar, TriMet</td>
</tr>
<tr>
<td>Terra Lingley, Oregon Department of Transportaion</td>
<td>Tom Bouillion, Port of Portland</td>
</tr>
<tr>
<td>Katherine Burns, Oregon Department of Transportation</td>
<td>Stephanie Millar, Oregon Department of Transportation</td>
</tr>
<tr>
<td>Canh Lam, Oregon Department of Transportation</td>
<td>Jennifer Donnelly, Department of Land Conservation</td>
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Citizen Advisory Committee

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
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</thead>
<tbody>
<tr>
<td>Michelle Van Hise, Riverwood HOA Board</td>
<td>Jatin Patel, Best Western</td>
</tr>
<tr>
<td>John Miner, Lower Village</td>
<td>Greg Mickelson, GM Realty Advisors, LLC</td>
</tr>
<tr>
<td>Teresa Rios Campos, Wood Village Green</td>
<td>Stephanie McEntee, Wood Village Town Center</td>
</tr>
<tr>
<td>Pastor Bill Eihmann, Wood Village Baptist Church</td>
<td>Ken Fletcher, Wood Village Citizen</td>
</tr>
<tr>
<td>Betty Dominguez, Home Forward</td>
<td>Jan Reibach, Tribal Lands Development Manager</td>
</tr>
<tr>
<td>Grant Brown, Poplar Mobile Home Park</td>
<td>Oleg Borishkevich, Freight Industry</td>
</tr>
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Consultant Team

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Bridget Wieghart, Project Manager, WSP / Parsons Brinckerhoff</td>
<td>Marcy McInelly, AIA, Urbworks</td>
</tr>
<tr>
<td>Sine Adams, AICP, WSP / Parsons Brinckerhoff</td>
<td>Erika Warhus, Urbworks</td>
</tr>
<tr>
<td>Chris Zahas, AICP, Leland Consulting Group</td>
<td>Bob Wise, Cogan Owens Greene</td>
</tr>
<tr>
<td>Kate Washington, Leland Consulting Group</td>
<td>Kirsten Greene, Cogan Owens Greene</td>
</tr>
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Section 2
Introduction
INTRODUCTION

Overview

The City of Wood Village completed and adopted the Transportation System Plan (TSP) in 1999. The city completed a special update of this plan in 2001, focusing on the motor vehicle and roadway capacity/safety element. Since that time, the transportation planning landscape within the city and amongst the surrounding communities has changed including the development of several facility plans for key roadway corridors and the adoption of new state/regional planning requirements. These changes, and the passage of time since the prior TSP work, necessitated an update to the city’s TSP in 2012. The City of Wood Village, in conjunction with the Oregon Department of Transportation (ODOT), updated the city’s pedestrian, bicycle, and public transportation systems sections of the TSP in 2012.

The city prepared the 2012 TSP update to guide the management and implementation of the transportation facilities, policies, and programs related to pedestrian and bicycle connectivity within Wood Village. At that time, the city did not include the roadway and capacity element as Metro was working to complete its East Metro Connections Plan (EMCP). The EMCP included analysis and recommendations that influenced and affected roadways in Wood Village. In particular, one focus of the EMCP was to identify regional freight solutions. To avoid inconsistencies between the May 2012 TSP update and the East Metro Connections Plan, the city postponed the Roadway Element until after Metro adopted the EMCP in June of 2012. Further, the city initiated an update to the Wood Village Town Center Master Plan (TCMP) in 2015. A part of the TCMP effort was to identify bike, pedestrian and roadway network improvements within the town center.

This 2016 TSP updates the 2012 TSP with the roadway elements identified in the EMCP as well as the subsequent TCMP effort. This plan reflects the community's vision, while remaining consistent with state and other local plans and policies.

State of Oregon planning rules require that the TSP be based on the current comprehensive plan land use map and must provide a transportation system that accommodates the expected 20-year growth in population and employment that will result from implementation of the land use plan. Oregon Revised Statute (ORS) 197.712 and the Department of Land Conservation and Development (DLCD) administrative rule known as the Transportation Planning Rule (TPR) guide the contents of this TSP update. These laws and rules require that jurisdictions develop the following:

- a road plan for a network of arterial and collector streets;
Introduction

- a bicycle and pedestrian plan;
- an air, rail, water, and pipeline plan;
- a transportation financing plan; and
- policies and ordinances for implementing the TSP.

The TPR requires that the transportation system plan incorporates the needs of all users and abilities. In addition, the TPR requires that local jurisdictions adopt land use and subdivision ordinance amendments to protect transportation facilities and to provide bicycle and pedestrian facilities between residential, commercial, and employment/institutional areas. It is further required that local communities coordinate their respective plans with the applicable county, regional, and state transportation plans.

TSP Organization and Methodology

The city started developing this TSP update with a review of the city’s May 2012 TSP documents, the 1999 Wood Village Transportation System Plan (Reference 1), the 2001 Wood Village Transportation System Plan Roadway Element (Reference 2), and the 1999 Wood Village Comprehensive Plan (Reference 3), which provides the goals and policies used to guide land use and transportation planning decisions in the city. Section 3 of this report summarizes the plans, policies and standards reviewed as part of this TSP update as well as those reviewed as part of previous efforts.

The transportation system inventory summarized in Section 4 allowed for an objective assessment of the current pedestrian, bicycle, public transportation and roadway systems within Wood Village, while the existing traffic conditions presented in Section 5 provides an understanding of vehicle, pedestrian and bicycle safety at many of the city’s major intersections. The needs, opportunities, and constraints presented in Section 6 along with the transportation system tools presented in Section 7 provided the basis for the transportation improvement projects identified in the Section 8 Transportation System Plan.

Ultimately, the city updated the long range implementation plan based on comments received from the technical and citizen advisory committees, elected officials, and community that reflects a consensus on which elements should be incorporated into the city's transportation system. The solutions in Section 8 include a roadway system plan, a public transportation system plan, a bicycle system plan, and a pedestrian system plan as well as plans for other transportation modes serving Wood Village.

Finally, the Transportation Funding Plan in Section 9 provides several options for funding future pedestrian and bicycle improvements throughout the city.
Study Area

The City of Wood Village is located within Multnomah County on the eastern side of the Portland Metropolitan Region. Figure 1 illustrates the location of Wood Village with respect to the City of Troutdale to the east, the City of Fairview to the west and north, and the City of Gresham to the south.

Figure 2 illustrates a street map of Wood Village, with the city limits indicated by a dashed black line. The study area for the TSP consists of the area within the city limits. Based on the requirements of the TPR, the city focused the existing conditions assessment on significant roadways (arterials and collectors) as well as pedestrian and bicycle facilities, public transportation, and other transport facilities and services, including rail service, air service, pipelines and water service.
Section 3
Plans, Policies, and Standards
PLANS, POLICIES, AND STANDARDS

The project team completed an evaluation of the 1999 Wood Village TSP and the 2001 Wood Village TSP Roadway Element to determine compliance with regional requirements. Specifically, the team reviewed the city’s adopted transportation plans against requirements set out in the Metro Regional Transportation Plan (RTP), Regional Transportation Functional Plan (RTFP), and Urban Growth Management Functional Plan (UGMFP). The evaluation results guided this TSP update to ensure consistency with the RTFP. Appendix A (2012) and Appendix B (memo 6) includes the results of the evaluation.
Section 4
Transportation System Inventory
TRANSPORTATION SYSTEM INVENTORY

Street System

The street system provides the primary means of mobility for Wood Village citizens, serving a majority of trips over multiple modes. In addition to motorists, pedestrians, bicyclists, and public transit riders all utilize the street system to access areas both locally and regionally.

JURISDICTION

Streets within Wood Village are owned and operated by three separate jurisdictions: Multnomah County, the Oregon Department of Transportation (ODOT), and the City of Wood Village. All collector and higher roadways are owned and operated by Multnomah County (with the exception of I-84, under ODOT jurisdiction). The City of Wood Village is responsible for all local streets.

Each jurisdiction is responsible for determining the road’s functional classification, defining the roadway’s major design and multimodal features, maintenance, and approving construction and access permits. Coordination is required among the three jurisdictions to ensure that the transportation system is planned, operated, maintained, and improved to safely meet public needs.

FUNCTIONAL CLASSIFICATION

A street's functional classification reflects its role in the transportation system and helps define desired operational and design characteristics such as right-of-way requirements, pavement widths, pedestrian and bicycle features, and driveway (access) spacing requirements. The city follows Multnomah County’s definition of functional classification for both collector and arterial streets. Figure 3 shows the existing Wood Village functional classification plan for all roadways within the city. Given the overlapping ownership/maintenance and jurisdictional relationships that exist amongst the study area roadways, the existing functional classifications reflect coordination between multiple jurisdictions to ensure consistency throughout the transportation system. Table 1 summarizes the functional classification comparison for all collector and higher roadways in Wood Village.
TRAFFIC CONTROL

There are seven signalized intersections within Wood Village. One-way, two-way, three-way or four-way stop signs control non-signalized intersections.

PAVEMENT CONDITION

ODOT and Multnomah County monitor pavement conditions on their roadways. According to ODOT’s 2014 Pavement Condition map, pavement condition on I-84 is in good condition. There is no other roadway within Wood Village that is documented as part of the state’s Pavement Management System (Reference 10). The City of Wood Village has a pavement management system in place for the municipally managed roadways, none of which are a part of this plan. The overall rating of local roads in Wood Village was 82.

TRAFFIC SPEED

Table 1 summarizes speed zones on arterials and collectors within the City of Wood Village. A residential district may be posted at 25 mph and school zones are posted at 20 mph. The community is concerned with vehicle speeds on several collector and residential streets. Enforcement of speed limits and education about the effects and dangers of speeding in the city is key to maintaining speed adherence in the city.
Table 1. Functional Classification Comparison by Jurisdiction, Posted Speed, and Pavement Condition

<table>
<thead>
<tr>
<th>Roadway</th>
<th>ODOT</th>
<th>Multnomah County</th>
<th>Wood Village</th>
<th>Metro</th>
<th>Posted Speed (mph)</th>
<th>Pavement Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-84</td>
<td>Interstate Highway</td>
<td>-</td>
<td>Freeway</td>
<td>Principal Arterial</td>
<td>55</td>
<td>Good</td>
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<tr>
<td>NE Sandy Boulevard</td>
<td>-</td>
<td>Minor Arterial</td>
<td>Minor Arterial</td>
<td>-</td>
<td>40</td>
<td>Excellent</td>
</tr>
<tr>
<td>NE 238th Drive</td>
<td>-</td>
<td>Minor Arterial</td>
<td>Minor Arterial</td>
<td>Major Arterial</td>
<td>35</td>
<td>Excellent</td>
</tr>
<tr>
<td>NE 223rd Avenue</td>
<td>-</td>
<td>Major Collector</td>
<td>Major Collector</td>
<td>-</td>
<td>40</td>
<td>Excellent</td>
</tr>
<tr>
<td>NE Wood Village Boulevard</td>
<td>-</td>
<td>Major Collector</td>
<td>Major Collector</td>
<td>-</td>
<td>30</td>
<td>Good</td>
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<tr>
<td>NE Glisan Street</td>
<td>-</td>
<td>Major Arterial</td>
<td>Major Arterial</td>
<td>Major Arterial</td>
<td>40</td>
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<tr>
<td>NE Arata Road</td>
<td>-</td>
<td>Neighborhood Collector</td>
<td>Neighborhood Collector</td>
<td>-</td>
<td>35</td>
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<tr>
<td>NE 244th Avenue</td>
<td>-</td>
<td>Major Collector</td>
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<tr>
<td>NE Halsey Street</td>
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<td>Minor Arterial</td>
<td>Minor Arterial</td>
<td>Minor Arterial</td>
<td>35</td>
<td>Excellent</td>
</tr>
</tbody>
</table>

Note: Roadways in bold indicate ownership/maintenance responsibilities
Sources: Oregon Highway Plan; 2016 Edition, Oregon Transportation Map Showing Federal Functional Classification of Roads, City of Wood Village, Multnomah County; 2001 City of Wood Village Transportation System Plan Roadway Element; Multnomah County Functional Classification of Trafficways; Metro 2035 Regional Transportation Plan; Multnomah County Master Road List (pavement condition).

FREIGHT ROUTES

The 2035 Regional Freight Plan (RFP-Reference 8) identifies NE Sandy Boulevard, NE Glisan Street (via NE Fairview Parkway) and NE 238th Drive north of I-84 as regional freight routes. The plan also identifies the need for future connectivity along the eastern city limits between NE 242nd Drive, Sandy Boulevard, and Marine Drive. Further, the 2014 Regional Transportation Plan identifies I-84 as a Main Roadway Route and NE Sandy Boulevard, NE Glisan Street (via NE Fairview Parkway), NE 238th/242nd Drive, Airport Way, and Marine Drive in Wood Village as Road Connectors on the Regional Freight Network, in accordance with the 2012 EMCP. The plan also identifies the need for future connectivity along the eastern city limits between NE 242nd Drive, Sandy Boulevard, and Marine Drive.

Within Wood Village, NE Glisan Street and NE 238th Drive north of I-84 accommodate large vehicles, while the county has developed the intersections of these roadways with other major roadways to accommodate wide turning movements. Currently, the county prohibits trucks over 40 feet from 238th/242nd Avenues between Glisan St. and Halsey St. due to safety concerns.
Public Transportation System

TRANSIT ROUTES AND STOPS

TriMet provides public transportation within Wood Village. TriMet Line #21 from the Parkrose/Sumner Transit Center and the Gresham Central Transit Center, providing service along Sandy Boulevard and 223rd with scheduled service every 20 minutes from 5:00 A.M. to midnight. TriMet provided service seven days a week between 5:30 a.m. and 10:30 p.m. on 20-40 minute headways. TriMet Line #77 provides service between Montgomery Park and the City of Troutdale via NE Halsey Street on Monday through Friday between 5:30 a.m. and 11:30 p.m. on 20-minute headways, on Saturdays between 6:00 a.m. and 11:00 p.m. on 30-minute headways, and on Sunday between 6:00 a.m. and 11:00 p.m. on 30-minute headways. Several stops are currently located along both routes within Wood Village with various amenities.

Figure 4 illustrates TriMet’s service routes and stops located within Wood Village along with the types of amenities available at each stop. A majority of stops currently do not provide shelters or seating. All stops in Wood Village are in areas with sidewalks, while the approaches to the stops from adjacent side streets do not have any pedestrian or bicycle facilities.

SERVICE COVERAGE

Service coverage is a measure of the area within walking distance of transit service. Areas must be within ¼-mile of a bus stop or ½ mile of a transit center or park & ride to be considered an area served by transit (There are currently no designated park & rides within Wood Village. The closest park & rides are located east along NE Halsey Street at the Reynolds School District Park & Ride and south along 223rd Avenue at the Gresham City Hall Park & Ride). Figure 5 illustrates the areas within Wood Village served by the existing transit routes and stops. A significant portion of the residential and commercial areas located south of NE Halsey Street and east of NE 233rd Avenue are not being served by transit. These deficiencies in service areas are being addressed by the proposed East Side Enhancement Plan adopted by TriMet.

RIDERSHIP

TriMet maintains average daily ridership data for each stop located within Wood Village. The data includes the average number of daily boardings and alightings reported at each stop over a three-month period. Figure 6 illustrates the average daily ridership data for spring 2011. The stops located at the NE 223rd Avenue/NE Halsey Street intersection generate significantly more trips than other stops located along NE 223rd Avenue and/or NE Halsey Street within the city limits.
The stops located along NE Halsey Street between NE Wood Village Boulevard and NE 238th Drive and along NE Sandy Boulevard adjacent to one the city’s major commercial areas generate a significant number of trips. The city should prioritize access improvements to these stops.

Pedestrian System

Traditionally, pedestrian facilities serve a variety of needs, including:

- Relatively short trips (generally considered to be under a mile) to major pedestrian attractors, such as schools, parks, and public facilities;
- Recreational trips (e.g., jogging or hiking) and circulation within parks;
- Access to transit (generally trips under ½-mile to bus stops); and,
- Commute trips, near mixed-use development and/or where people live near where they work.

Pedestrian facilities should connect transit stops to residential, retail, and commercial areas throughout the city and effectively separate pedestrians from conflicts with vehicular traffic. Furthermore, pedestrian facilities should provide continuous connections among neighborhoods, employment areas, and nearby pedestrian attractors. Pedestrian facilities usually refer to sidewalks or paths, but also include pedestrian crossing treatments for high volume roadways such as NE Sandy Boulevard, NE Halsey Street, and NE Glisan Street.

The pedestrian system serving Wood Village consists of sidewalks, multi-use paths and trails as well as marked and unmarked, signalized and unsignalized pedestrian crossings (multi-use paths and trails are addressed in a separate section below). Figure 7 shows the existing pedestrian facilities serving Wood Village along with major pedestrian generators and attractors such as parks, public schools, and transit stops. A majority of the arterial and collector streets within Wood Village currently provide sidewalks on both sides of the roadway.

PEDESTRIAN CROSSINGS

All unsignalized intersections in Oregon are considered legal crosswalks and motorists are required to yield the right-of-way to allow pedestrians to cross. However, compliance is not consistent statewide and pedestrians may have a difficult time crossing high volume roadways. The City of Wood Village has several intersections along key roadways with unmarked crossings that rely on drivers to yield the right-of-way. Along with the crosswalks at signalized intersections, one marked pedestrian crossing location is on Halsey just west of the intersection with Wood Village Boulevard. NE Halsey Street has a
signaled crossing at the NE 223rd Avenue intersection, west of the Wood Village Boulevard intersection and then at the 238th Avenue intersection located approximately 1/2 mile to the east.

This and other roadways throughout the Wood Village tend to have long segments without a marked pedestrian crossing, requiring a significant amount of out-of-direction travel for the pedestrian. The Gresham Vista industrial property development in Gresham, immediately across Glisan from Wood Village, provides a pedestrian crossing at the signalized intersection at the entry to On Semiconductor and facilities at 242 and 223, leaving similar large distances between safe pedestrian crossings to a newly developing employment center. The city or county could enhance the pedestrian environment at these locations and will further review these locations in the opportunities analysis.

Bicycle System

Similar to pedestrian facilities, bicycle facilities (including dedicated bicycle lanes in the paved roadway, multi-use paths shared with pedestrians, etc.) serve a variety of trips. These include:

- Trips to major attractors, such as schools, parks and open spaces, retail centers, and public facilities;
- Commute trips, where changing and showering facilities are provided at the workplace;
- Recreational trips; and
- Access to transit, where bicycle storage facilities are available at the stop, or where space is available on bus-mounted bicycle racks.

OREGON BICYCLE AND PEDESTRIAN PLAN

The following general guidelines were derived from the *Oregon Bicycle and Pedestrian Plan* (Reference 4).

- Dedicated bicycle facilities should be provided along major streets where automobile traffic speeds are significantly higher than bicycle speeds.
- Bicycle facilities should connect residential neighborhoods to schools, retail centers, and employment areas.
- Allowing bicycle traffic to mix with automobile traffic in shared lanes is acceptable where the average daily traffic (ADT) on a roadway is less than 3,000 vehicles per day.
- Lower volume roadways should be considered for bike shoulders or lanes if anticipated to be used by children as part of a Safe Routes to School program.
In areas where there is no street connection currently or where substantial out-of-direction travel would otherwise be required, a multi-use path may be appropriate to provide adequate facilities for bicyclists.

The city's TSP provides similar guidelines for bicycle facilities on local streets. Bikeways on local streets with less than 3,000 ADT consist of shared roadways, which is consistent with the cross sections for local streets provided in the city's 2001 update. Bicycle lanes are appropriate on all arterial and collector roadways.

Figure 8 illustrates the existing bicycle facilities within Wood Village. A majority of the collector and arterial roadways currently have bicycle facilities on both sides of the roadway with the exception of segments along NE Sandy Boulevard, NE Arata Road, NE 238th Drive, and the NE 244th Avenue connection to the Columbia river Highway.

Multi-Use Paths & Trails

Figure 7 and Figure 8 also illustrate the multi-use paths and trails located within Wood Village that augment and support the pedestrian and bicycle systems. These paths and trails play an important role in providing pedestrian and bicycle circulation within the city. The most notable trail system is located within Donald L Robertson City Park. Pathways are under construction from Halsey to Bridge Street, and along Arata Road. These multi-use paths and trails provide off-street connections throughout the city.

Rail Service

There is one Union Pacific Railroad (UPRR) freight line that traverses the northern half of Wood Village. The UPRR Graham Line extends through Wood Village paralleling the south side of I-84 connecting the city of Portland to the west and the city of Boise to the east.

The maximum authorized speed for freight trains along the Graham Line is 55 mph under UPRR's current timetable. However, this is a Class 4 track so freight speeds could go as high as 60 mph if UPRR revises its timetable. There are on average approximately 33 train movements per day. Given the rail line's location adjacent to I-84, there is only one at-grade crossing within the city at NW 244th Avenue. This crossing is controlled by a gated signalized crossing. All other crossings are grade separated.
Refer to Section 2 of the 1999 City of Wood Village TSP for additional information related to existing rail service within Wood Village.

Air Service

Refer to Section 2 of the 1999 City of Wood Village TSP for additional information related to existing air service within Wood Village.

Pipeline Service

Refer to Section 2 of the 1999 City of Wood Village TSP for information related to Pipeline Service within Wood Village.
Section 5
Existing Traffic Conditions
EXISTING TRAFFIC CONDITIONS

The 2012 EMCP conducted extensive traffic analysis using multiple data sources. The following sections present findings relevant to Wood Village.

Traffic Operations

DAILY TRAFFIC VOLUMES

Figure 9 shows pm traffic performance in 2010 on key roadway segments in Wood Village. Most roadways perform very well and are not congested during the pm peak period. The only exceptions are the westbound onramp at NE 238th Drive which is constrained and the eastbound off ramp which is congested. Additionally, NE 238th Drive southbound becomes constrained as it approaches NE Arata Road.

Figure 9 2010 PM 2 Hour Traffic Conditions in Wood Village

Source: EMCP Traffic Analysis
INTERSECTION OPERATIONS

Metro prepared intersection analyses within the EMCP study area. Table 2 shows three study area intersections within Wood Village. All intersections perform at or above the minimum requirements.

Table 2. Wood Village Intersection Performance, 2010

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Jurisdiction</th>
<th>Minimum LOS</th>
<th>2010 LOS v/c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glisan Street &amp; 223rd Avenue</td>
<td>Multnomah County</td>
<td>D</td>
<td>C 0.75</td>
</tr>
<tr>
<td>Glisan Street &amp; 242nd Drive</td>
<td>Multnomah County</td>
<td>D</td>
<td>D 0.87</td>
</tr>
<tr>
<td>Arata Street &amp; 238th Drive</td>
<td>Multnomah County</td>
<td>D</td>
<td>A 0.62</td>
</tr>
</tbody>
</table>

LOS: Level of Service; v/c: volume to capacity

Figure 10 shows the EMCP existing conditions analysis, indicating the eastbound ramp off of I-84 performs at greater than 90% capacity during the 2-hour PM peak period.

Figure 10   EMCP Existing Volume/Capacity Ratio

Source: EMCP July 27, 2011 Steering Committee Packet
FREIGHT OPERATIONS

Metro conducted a truck travel analysis within the EMCP study area as part of the plan. The analysis found that truck traffic represents only 1 to 2 percent of total vehicle trips in the EMCP study area and is evenly split on north-south and east-west arterials, which includes Glisan Street, Halsey Street, Sandy Boulevard, NE 223rd Avenue and NE 238th/242nd Drive. The majority of truck traffic on 238th/242nd/Hogan between I-84 and Glisan was traveling through the city rather than having an origin or destination in Wood Village and this was the preferred route for trucks traveling between I-84 and US 26. Through traffic was 66 to 78 percent of all trucks using the corridor during midday and 69 to 83 percent of PM peak trips. Because of this prominent through trip function, Metro added 238th/242nd/Hogan to the regional freight system. Figure 11 shows the through truck use compared to all truck trips during the midday and PM peak for several north-south arterials in the ECMP study area.

Figure 11  Truck through Trips as a Percentage of All Truck Trips, Midday and PM Peak

![Figure 11: Truck through Trips as a Percentage of All Truck Trips, Midday and PM Peak](source: 2010 Regional Model)

Traffic Safety

This section provides an analysis of roadway safety information in Wood Village. The project team reviewed I-84 for areas on the ODOT Safety Priority Index System (SPIS). This is followed by an analysis of crash data at key intersections for the five-year period from January 1, 2005 to December 31, 2009. The EMCP included a safety conditions evaluation on major roadways in the study area. The section below includes safety analysis findings.
STATEWIDE PRIORITY INDEX SYSTEM

The Statewide Priority Index System (SPIS) is a system developed by ODOT for identifying hazardous locations on state highways through consideration of crash frequency, crash rate, and crash severity. As described by ODOT, a roadway segment is designated as a SPIS site if a location experiences three or more crashes or one or more fatal crashes over a three-year period. Under this method, all state highways are analyzed in 0.10 mile segments to identify SPIS sites. Statewide, there are approximately 6,000 SPIS sites. SPIS sites are typically intersections, but can also be roadway segments. Within Wood Village, ODOT has not identified sites in the top ten percent of ODOT’s SPIS ranking program for 2010\(^1\). However, ODOT has included the segment of I-84 through Wood Village in the state’s Safety Investment Program (SIP), given that there have been three to five crashes over the last three-year period.

CRASH DATA ANALYSIS

ODOT provides detailed intersection crash data for all crashes that occurred in Wood Village for the five-year period from January 1, 2005 to December 31, 2009. Table 3 summarizes the frequency and types of crashes that occurred at major intersections during this time period.

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Collision Type</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rear-End</td>
<td>Turning</td>
</tr>
<tr>
<td>NE 223rd Avenue/NE Gilsan Street</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>NE 223rd Avenue/NE Park Lane</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>NE 238th Drive/NE Arata Road</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>NE 238th Drive/NE Halsey Street</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>NE 238th Drive/I-84 EB Ramp</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>NE 238th Drive/I-84 WB Ramp</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>NE 238th Drive/NE Sandy Boulevard</td>
<td>0</td>
<td>17</td>
</tr>
</tbody>
</table>

\(^1\) It is important to note that the SPIS data reported for 2010 is based on 2007-2009 crash data whereas all other crash data analysis presented within this report reflects the period beginning January 1, 2005 through December 31, 2010.
Table 4. Wood Village Crash Analysis Ranking within the EMPC Study Area

<table>
<thead>
<tr>
<th>Corridor</th>
<th>Segment</th>
<th>Miles</th>
<th>All Crashes in the EMCP Study Area</th>
<th>Ped/Bike Crashes in the EMCP Study Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Rank</td>
<td>Statewide Priority Index System-based Relative Score</td>
</tr>
<tr>
<td>238th/242nd/Hogan</td>
<td>I-84 ramp</td>
<td>0.16</td>
<td>8th</td>
<td>1,235</td>
</tr>
</tbody>
</table>

PDO – Property Damage Only

The EMCP also examined safety data. The plan ranked arterial segments by the number and severity of crashes. Table 4 shows that the 238th/242nd/Hogan corridor between I-84 and Halsey Street was the only corridor segment in Wood Village that was ranked within the EMCP study area. It is in the top ten percent of ODOT's SPIS ranking program as of February 2015.
Section 6
Needs, Opportunities, & Constraints
NEEDS, OPPORTUNITIES, & CONSTRAINTS

This section summarizes the needs, opportunities, and constraints associated with the existing transportation system. The following sections address street system connectivity along with the pedestrian, bicycle, and transit facilities along each of the major arterial and collector roadways. The freight system is addressed separately as it pertains to only specific roadways within Wood Village.

Street System

A well-connected transportation network minimizes the need for out-of-direction travel while supporting efficient distribution of travel demand among multiple parallel roadways. The most common example of an efficient transportation network is the traditional grid system, with north-south and east-west streets spaced at generally equal distances. NE Sandy Boulevard, NE Halsey Street, NE Glisan Street, NE 223rd Avenue and NE 238th/242nd Drive are all part of a larger grid system that provides connectivity on a regional level as well as access within Wood Village. The only exceptions to the grid are due to topographical and other natural constraints as well as existing development patterns. The following sections highlight the needs associated with greater street system connectivity within Wood Village.

ARterial CONNECTIVITY

The RTP identifies spacing guidelines of one mile between regional arterials. At a technical level, many of the major roadways within Wood Village meet these guidelines for arterial connectivity. However, the general lack of lower classification roadways that parallel these routes focuses excessive demand on only a few major roadways. NE Arata Road and NE Wood Village Boulevard provide alternative east-west and north-south connections through the south end of Wood Village, however, other areas within the city lack these types of alternative routes.

COLLECTOR AND LOCAL STREET CONNECTIVITY

The RTP identifies collector and local streets as general access facilities for neighborhood circulation and as support facilities for the regional transportation network. Connectivity at these levels is especially important for local pedestrian and bicycle trips. The RTP recommends a maximum spacing of 1/2 mile for collectors and 1/10 mile for local streets in order to encourage local traffic to use these streets instead of higher order facilities, such as arterials.
Many of the local streets within Wood Village are characterized by numerous cul-de-sacs and stub streets. These can limit traffic speeds and volumes on local streets. However, they also result in indirect travel paths and a reliance on arterials for local trips. Opportunities for new roadway connections in Wood Village are limited and may be very expensive due to topographical and other natural constraints as well as the built environment. Figure 13 illustrates the existing street stubs in Wood Village. As new development occurs, new roadways should be constructed to create a more efficient network consistent with the RTP guidelines.

There are gaps and opportunities for improvement for specific streets in Wood Village’s existing roadway system. The following sections describe gaps and issues that should be addressed within the city’s street network to provide better multimodal mobility and access for vehicles and trucks as well as pedestrians and bicyclists.

**NE Sandy Boulevard**

NE Sandy Boulevard is a minor arterial through Wood Village that provides local and regional access to major centers and commercial and industrial uses. The 2001 Sandy Boulevard corridor refinement plan identifies land use and transportation solutions to guide new development, redevelopment, and public investment along the Sandy Boulevard to achieve the Corridor Vision. The study identified land use solutions and modeled future transportation conditions. Other solutions facilitate neighborhood connectivity and encourage corridor investment. The EMCP analysis includes this corridor solution. In 2015, Multnomah County initiated a street design refinement keeping with the desires to see improved safety for all roadway users while responding to industrial and freight needs.

**Opportunity:** Reconstruct Sandy Boulevard to minor arterial standards, per the design refinement study ongoing (STIP ID 18020).

**NE Halsey Street**

Halsey Street provides access to residential areas through Wood Village. Beyond the city, Halsey Street provides connection to regional centers. In the fall of 2015, the cities of Wood Village, Troutdale and Fairview obtained a grant to study economic development opportunities along Halsey Street. The 2005 Halsey Street Conceptual Design Project (Reference 6) presented minor arterial improvements that focused on multimodal transportation improvements for bicycles, pedestrians and transit. The economic development project was initiated in July of 2016 and may refine the street cross section developed in 2005.

**Opportunity:** Reconstruct Halsey to minor arterial standards with construct any modifications determined by the economic development opportunities study. The 2005 cross section included one lane in each direction, adding a center turn lane/median, and providing sidewalks and bicycle lanes on
both sides of the street (RTP ID 11287). Exhibits 1 and 2 show the recommended cross-sections for NE Halsey Street from the Halsey Street Project, however, they may be modified as part of the new study. The cross sections are consistent with Multnomah County's standard cross-section for a minor arterial.

Exhibit 1: NE Halsey Street Cross Section with 12-foot continuous Left Turn Lane

Source: 2005 Halsey Street Conceptual Design Project

Exhibit 2: NE Halsey Street Cross Section with 12-foot Pedestrian Refuge

Source: 2005 Halsey Street Conceptual Design Project
The 2035 RTP project list includes reconstructing NE Halsey Street between NE 238th Drive and the Columbia River Highway to minor arterial standards with a center turn lane/median, sidewalk and bike lanes consistent with the Halsey Street Conceptual Design Plan. The time period for the reconstruction is 2008-2017.

**NE Arata Road**
The 2008 Arata Road Conceptual Design Plan (Reference 7) developed a multi-modal street design for Arata Road within the cities of Wood Village and Fairview to accommodate bicycles, pedestrians, and vehicles. The cities identified Arata Road as a substandard street with pedestrians and cyclist safety concerns and drainage issues. The street design has evolved as the project entered into preliminary and final design in 2014/2015. The typical street cross-section is provided in Exhibit 3. Construction began in the fall of 2016 and should be complete in late summer 2017 (RTP ID 10387, STIP ID 18019).

![Exhibit 3: NE Arata Road Typical Cross Section (looking east)](image)

Source: Arata Road Active Transportation Project, Multnomah County

**NE 238th/NE 242nd/NE Hogan Drive**
The Wood Village I-84 Interchange (exit 16) provides access to main thoroughfares in east metro, including NE 238th/Hogan Drive, Halsey and Glisan streets in Wood Village; further south to Stark and Division; and east and west toward NE 223rd and SW 257th Avenues. Significant destinations outside Wood Village include Mt. Hood Community College, Gresham Golf Course, and McMenamins Edgefield. There are current capacity, mobility and accessibility issues today and will likely increase into the future (between 2010 and 2035):
Southbound NE 238th Drive (county owned) will continue to be congested and this condition will spread.

Northbound on NE 238th Drive (county owned) will experience a 13 percent increase in traffic congestion over the planning period.

Lack of sidewalks and bike lanes on the hill portion of 238th Drive.

Table 5 shows the projects identified through the various planning processes recommended for this corridor.

<table>
<thead>
<tr>
<th>Opportunity</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>238th/242nd/Hogan corridor management (RTP ID 99143).</td>
<td>Install Adaptive Signal timing</td>
<td>EMCP</td>
</tr>
<tr>
<td>Reconfigure NE 238th Avenue (RTP ID 99132)</td>
<td>Repurpose the climbing lane on NE 238th Avenue between NE Glisan and NE Halsey avenues to construct the roadway to arterial standards, including wider lanes, median/turn lane, and bicycle/pedestrian facilities</td>
<td>EMCP</td>
</tr>
<tr>
<td>Widen NE 238th and Glisan Avenue (RTP ID 99132)</td>
<td>Address capacity issues at the intersection through widening</td>
<td>EMCP</td>
</tr>
<tr>
<td>Ramp queuing study at I-84/NE 238th Drive interchange</td>
<td>The study should develop strategies and improvements to reduce system backups onto I-84 and queuing on the off-ramps.</td>
<td>TCMP and TSP</td>
</tr>
</tbody>
</table>

**Wood Village Town Center Local Street Network**

The Wood Village Town Center is roughly 81 acres and is partially developed with just over 400,000 square feet of mainly larger retail outlets. The Town Center is bounded to the north by Arata Road, west by 223rd Avenue, south by Glisan Street, and to the east by a wetland. Wood Village Boulevard is the only public arterial street through the Town Center. There are private roadways through the big-box retail parking lots; however, these roadways do not provide adequate multimodal pedestrian, bicycle or freight accessibility.

The TCMP planning effort identified a preferred alternative that addresses both land use and transportation. Specific transportation related evaluation criteria of the TCMP support the hierarchy of solutions in the RTFP. They are:

- Block widths range from 225-250 feet, lengths from 250-425 feet and blocks have alleys or rear lanes.
- Local road network accommodates future traffic volumes at v/c of 0.99 or better.
- More people have ½ mile access to schools, recreation facilities, transit and shopping centers.
- Enhance safety and comfort of multimodal travel as measured through pedestrian level of service.

There are several local street network opportunities identified as part of the Town Center (bicycle and pedestrian opportunities are identified in the following section):

- Construct new east-west streets north of the old Multnomah Greyhound track and south of the Fred Meyer and Khol’s at the appropriate block width ranges.
- Construct new north-south streets at the appropriate block width ranges.

Figure 12 displays the general street network for the Town Center.
Figure 12  Town Center Street Network Plan
Pedestrian and Bicycle Systems

Section 2.2 of the Multnomah County Design and Construction Manual (Reference 5) provides standard cross-sections for all major arterial and collector streets through Wood Village, including NE Sandy Boulevard, NE Halsey Street, NE Arata Road, NE Glisan Street, NE 223rd Avenue, NE Wood Village Boulevard, and NE 238th/242nd Drive. Based on the manual, all arterial and collector streets should include sidewalks and bike lanes on both sides of the roadway unless significant restrictions in right-of-way exist.

Most of the arterial and collector streets within Wood Village currently provide sidewalks and bike lanes on both sides of the roadway and most major intersections are signalized with marked pedestrian crossings. However, there are number of gaps in the pedestrian and bicycle systems and locations where opportunities to improve access and circulation exist. Figure 14 and Figure 15 illustrate the gaps in the pedestrian and bicycle systems as well as the location of major pedestrian generators within the city, such as parks, public schools, and transit stops. Also illustrated on the figures are the locations of major intersections throughout Wood Village and the types of traffic control (marked, unmarked, signalized, and unsignalized).

The following sections highlight the gaps in the pedestrian and bicycle systems as well as opportunities to improve access and circulation throughout Wood Village.

NE SANDY BOULEVARD

NE Sandy Boulevard provides access to several major commercial and industrial areas located within Wood Village as well as major regional centers west of the city limits. Figure 14 and Figure 15 shows pedestrian and bicycle facilities along the segment of NE Sandy Boulevard between the Wood Village Park mobile home park access and NE 238th Drive (adjacent to Walmart) and the NE 238th Drive/NE Sandy Boulevard intersection marked and signalized for pedestrian crossings.
Figure 14

Existing Pedestrian System Deficiencies
Figure 15

Existing Bicycle System Deficiencies
The segment of NE Sandy Boulevard west of the Wood Village Park mobile home park access within the city limits currently lacks pedestrian and bicycle facilities and the entire stretch of the roadway between the city limits and NE 238th Drive lacks marked and/or signalized pedestrian crossings. Developing sidewalks along both sides of NE Sandy Boulevard along with enhanced pedestrian crossings at key locations would help improve access to the land uses and transit stops located along both sides of the roadway. Coordination with the City of Fairview may be required to develop continuous pedestrian and bicycle facilities further west of the city limits.

*The 2035 RTP project list includes the reconstruction of NE Sandy Boulevard between NE 207th Avenue and NE 238th Drive to minor arterial standards with bike lanes sidewalks and drainage improvements. The time period for the reconstruction is 2008-2017.*

**NE HALSEY STREET**

NE Halsey Street provides access to several of the residential areas located within Wood Village as well as major regional centers located east and west of the city limits. Figure 14 and Figure 15 shows continuous pedestrian and bicycle facilities along both sides of the roadway within the city limits. Also, NE 238th Drive/NE Halsey Street intersection and the NE 223rd Avenue/NE Halsey Street intersection (technically located outside the city limits) are marked and signalized for pedestrian crossings.

NE Halsey Street, however, currently lacks pedestrian facilities east of NE 244th Avenue. Although technically outside the city limits, pedestrian facilities that extend further east would improve access to one of the area’s largest attractors, McMennamins Edgefield. NE Halsey Street also lacks pavement makings and/or other enhanced pedestrian crossing treatments to help facilitate movement across the roadway between NE 238th Drive and NE 223rd Avenue (a distance of approximately ¾ mile).
The 2005 Halsey Street Conceptual Design Project (Reference 6) identified the need for sidewalks east of 244th Avenue to the Columbia River Highway as well as two locations for enhanced pedestrian crossings along NE Halsey Street; one adjacent to NE 230th Court and one across from the Best Western Hotel (approximately ¼ mile west of the NE 238th Drive/NE Halsey Street intersection). The Halsey Street Conceptual Design Project recommends that both crossings are offset to orientate pedestrians toward oncoming traffic and include raised median islands. *Section 8 includes examples of these types of pedestrian crossings treatments.*

The Street Systems section describes the economic development opportunities study in 2016 that Wood Village and the cities of Troutdale and Fairview started for the Halsey Street corridor. This effort may refine the street cross sections developed in 2005.

**NE ARATA ROAD**

NE Arata Road parallels NE Halsey Street to the south providing access to several residential areas located within Wood Village and two major roadway facilities (NE 223rd Avenue and NE 238th Drive). Figure 14 and Figure 15 show the pedestrian and bicycle facilities located along NE Arata Road are fairly limited.

NE Arata Road currently lacks pedestrian and bicycle facilities as well as pavement makings and/or other enhanced pedestrian crossing treatments to help facilitate movement across the roadway between NE 238th Drive and NE 223rd Avenue (a distance of approximately ¾ mile). Developing sidewalks along both sides of NE Arata Road along with enhanced pedestrian crossings at key locations would help improve access to the many residential properties located along both sides of the roadway including the Wood Village Green Mobile Home Park located along the south side of NE Arata Road between NE Wood Village Boulevard and NE 238th Drive.

As referenced in the Street System section, the Arata Road improvements are currently under construction. The improvements will address the pedestrian and bicycle needs. Exhibit 3 shows the typical cross section.
NE GLISAN STREET

As the only major arterial adjacent to Wood Village, NE Glisan Street provides fairly limited access to residential and commercial properties; however, it does provide major east-west connections throughout the region. Figure 14 and Figure 15 show NE Glisan Street currently provides pedestrian and bicycle facilities along both sides of the roadway and multiple marked and signalized pedestrian crossings. However, as the area located south of NE Glisan Street (and the city of Wood Village) develops, the city may need to add new crossings opportunities to facilitate movement across the roadway.

NE 223RD AVENUE

NE 223rd Avenue provides north-south connectivity regionally and access to one of Wood Village's major commercial centers in the southwest corner of the city limits. Figure 14 and Figure 15 show NE 223rd Avenue currently has pedestrian and bicycle facilities located along both sides of the roadway within the Wood Village city limits. However, both the pedestrian and bicycle facilities end approximately 250-feet north of NE Halsey Street. Although technically outside the city limits, adding these facilities would improve access for pedestrians and bicyclists to Fairview and destinations north of I-84.

The 2035 RTP project list includes reconstructing NE 223rd Avenue between NE Halsey Street and NE Sandy Boulevard and then between NE Sandy Boulevard and NE Marine Drive. Both projects will bring NE 223rd Avenue to major collector standards with two travel lanes, a center turn lane/median, sidewalks, and bike lanes. The time period for the projects is 2008-2017 and 2018-2025, respectively.
NE 238TH/242ND DRIVE

NE 238th/242nd Drive provides north-south connectivity on a regional level as well as direct access to I-84. Locally, NE 238th/242nd Drive provides connections between the residential, retail, commercial, and industrial areas located north of I-84 to the areas located south. Figure 14 and Figure 15 show NE 238th/242nd Drive currently provides pedestrian and bicycle facilities along both sides of the roadway north of NE Arata Road and pedestrian facilities along the east side of the roadway to the south. Each of the major intersections located along NE 238th/242nd Drive within the city limits are also currently signalized with marked crosswalks.

The lack of pedestrian facilities on Figure 10 and bicycle facilities on Figure 11 is primarily due to topographical constraints through the curved portion of the roadway. Significant grades on both sides of NE 238th/242nd Drive through the curves have prevented the county from adding pedestrian and/or bicycle facilities. While opportunities do exist to provide connections between the east and west sides of the road, the county is unlikely to develop additional facilities.

NE WOOD VILLAGE BOULEVARD

NE Wood Village Boulevard parallels NE 223rd Avenue providing access between multiple residential areas and the commercial center located in the southwest corner of the city. Figure 14 and Figure 15 show there are currently pedestrian and bicycle facilities located along both sides of NE Wood Village Boulevard between NE Glisan Street and Halsey and multiple pedestrian crossings located at regular intervals along the roadway.

WOOD VILLAGE TOWN CENTER

The project team identified several pedestrian and bicycle opportunities as part of the Town Center master planning process. These include:
- Create a trail connection between Arata Road and Glisan Street through the wooded areas along the eastern edge of the Town Center with a trail connection westward to Wood Village Boulevard. These trail improvement should include with some park improvements to make it a community asset and minimize safety concerns.
- Create a new pedestrian connection between the existing plaza next to Fred Meyer and Multnomah Greyhound Park site.
- All new local streets should include bicycle facilities.

Public Transportation System

TRANSPORT ROUTES AND STOPS

The existing conditions analysis identified the location of TriMet's existing transit routes and stops within Wood Village along with the types of amenities available at each stop. A majority of the stops currently do not provide shelters or seating and while many stops are located in areas with sidewalks, the stops located along the segment of NE Sandy Boulevard are not. While it may not be feasible to install shelters or benches in all locations, the city and TriMet should prioritize high activity stops for these types of facilities.

SERVICE COVERAGE

A significant portion of the residential and commercial areas located south of NE Halsey Street and east of NE 233rd Avenue are not being served by transit. Significant modifications are pending in the East Side Enhancement Plan proposed by TriMet, including increases in frequency, the addition of a Line N, and other modifications that will provide complete service coverage in Wood Village in accord with these standards. The adopted East Side Enhancement Plan is shown on Figure 16.

The project team assumed stops at all major intersections for each analysis and the distance from each stop at ¼ mile (the average distance a person is willing to walk to get to a transit stop with less than frequent service). The analysis results presented in the figures are intended for discussion purposes only and do not require TriMet and/or the city to re-route Route 12 or improve the roadway facilities to accommodate transit use. Service enhancements in the Wood Village will require the city to
appropriately plan for transit facilities in the Wood Village Town Center, as well as improvements on other identified routes.
Figure 16: Future Vision for Eastside Bus Service.
Subarea Access and Circulation

SOUTHEND

The southend includes the area located south of NE Halsey Street, north of NE Glisan Street, east of NE 233rd Avenue, and west of NE 242nd Drive. The southend includes a mix of single-family residential home developments, mobile home parks, and a large commercial/retail center that represents one of the area’s largest trip generators.

A review of the city’s development code indicates that existing developments are generally consistent with the desired use, suggesting that future developments or redevelopments will likely follow existing development patterns. As future development and redevelopment occurs it will be important for the city to secure the right-of-way for new roadways that will provide east-west and north-south connectivity in the Southend. Figure 17 identifies several non-motorized connectivity opportunities within the Southend. New opportunities for multimodal connectivity within the Town Center were extensively explored as part of the 2016 TCMP effort. The following provides a description of the each opportunity.

**East-West Connection Need/Opportunity #1**

The existing Wood Village Commercial Town Center and the adjacent Upper/Lower Village residential areas lack direct pedestrian/bicycle connections. Pedestrians and bicyclists are forced to travel out-of-direction and utilize NE Glisan Street and NE Arata Road corridors. This out-of-direction travel plus the lack of existing sidewalks and bicycle lanes on Arata Road serves to minimize non-motorized travel or leads to an undesirable walking/bicycling condition.

The TCMP identifies a new east-west connection (conceptually illustrated as Opportunity #1 in Figure 17) from Wood Village Boulevard to the existing Wood Village Green Mobile Home Park to address this need. These connections could occur through the undeveloped portion of the town center located east of Wood Village Boulevard and south of the Riverwood Subdivision, using the currently stubbed Riverwood Subdivision street gird, new multi-use pathways, or a combination of both.
North-South & East-West Connection Need/Opportunity #2

The natural area along the eastern edge of the Town Center presents itself as an opportunity for a bicycle and pedestrian trail connecting NE Arata Road to Glisan Street and the southern portion of Wood Village Boulevard. As the Town Center develops and residential neighborhoods grow within and in the vicinity, this natural greenway is an asset and opportunity to provide access to nature to the community. This trail would connect to the larger street and pathway network in and around the Town Center.

North-South & East-West Connection Need/Opportunity #3

The existing Wood Village Green Mobile Home Park currently separates the Wood Village Commercial Town Center from the Upper/Lower Village residential neighborhood. Its design and internal private street layout is a barrier to establishing connections between the town center and adjacent residential neighborhoods.

While mobile home parks are an allowed use within the underlying zone, the city recognizes that this area is likely to redevelop over the long-term planning horizon. The city has an opportunity to plan for local street and bike/ped connections that could be established under a future redevelopment scenario. It will also provide an opportunity to provide central access to the Town Center from the east. Given the site’s proximity, these connections could be developed as a continuation of the east-west connections identified under East-West Connectivity Opportunity #1 that ultimately link to the Stanley Street and Holladay Place street stubs to the west (conceptually illustrated as Opportunity #3 in Figure 17). While the Stanley Street and Holladay Place connections are logical, there is specific language in the Wood Village Code that restricts the extension of these two streets westward. The city would need to revisit this policy restriction.

In addition to the east-west connections, there are opportunities for enhanced north-south connectivity under a potential future redevelopment scenario of the Wood Village Green Mobile Home Park. These connections in the form of local streets and/or bicycle-pedestrian connections would provide north-south connections between NE Arata Road, the previously mentioned east-west connections and undeveloped property to the south.

North-South Connection Need/Opportunity #4

There is a sizable portion of land located between Glisan Street to the south and the previously mentioned Wood Village Green Mobile Home Park that is largely undeveloped. While topographically challenged, this property could potentially develop as single family residential. Under that scenario, the city has an opportunity to plan for and establish a north-south connection that would link Glisan Street...
to potential future redevelopment of the Wood Village Green Mobile Home Park and the associated east-west and north-south connections (conceptually illustrated as Opportunity #4 in 17). With this connection in place, it would establish a continuous north-south connection between Glisan Street and Arata Road.

**East-West Connection Need/Opportunity #5**

The former Multnomah Greyhound Park property is likely to redevelop in the near to mid-term timeframe, as was explored in the TCMP. Given the site's size and proximity within the Wood Village Commercial Town Center, the city has an opportunity to provide an east-west connection that would link Wood Village Boulevard to 223rd Avenue (conceptually illustrated as Opportunity #5 in Figure 17, and in more detail within the TCMP). Depending upon how the city establishes the connection, it could potentially create a continuous east-west connection when coupled with the east-west connections identified under East-West Connectivity Opportunity #1 & #3.

**North-South Connection Need/Opportunity #6**

The Poplar Mobile Manor mobile home park between NE Arata Road and the former Multnomah Greyhound Park site and the undeveloped parcel to the west is a barrier between NE Arata Road and the Multnomah Greyhound Park site.

Like other mobile home park sites, the city recognizes the potential redevelopment of this area over the long-term planning horizon. The city has a long-term opportunity to plan for north-south local street and bike/ped connections under a future redevelopment scenario (conceptually illustrated as Opportunity #6 in Figure 17). Given the location, a north-south connection would enhance connectivity within and surrounding the Wood Village Town Center.

**North-South Connection Need/Opportunity #7 & #8**

With the exception of the multi-use path at the northern terminus of Wood Village Boulevard at NE Arata Road, there are limited connections between NE Arata Road and NE Halsey Street. The city needs to improve connectivity between these two corridors given the commercial retail located in the Wood Village Town Center and the presence of residences along NE Halsey Street.

To enhance these connections, the city has an opportunity to provide a formal non-motorized corridor along two existing private residential streets located east of 231st Court (conceptually illustrated as Opportunity #7 in Figure 17). These private streets currently have a fence at their respective end points that physically prevent motorized travel between NE Halsey Street and NE Arata Road.
Upgrading these streets to a public corridor (including sidewalks) would be costly and potentially have impacts, but would significantly enhance non-motorized opportunities.

The city has a second opportunity to provide a formal non-motorized corridor between Arata Road and Halsey Street further to the east. The Wood Village Baptist Church on the north side of Arata Road has a significant amount of property that is used for open space and recreation. In addition, there is a commercial property that abuts the north side of church’s recreation field and that fronts onto Halsey Street (conceptually illustrated as Opportunity #8 in Figure 17). As the church proposes additional improvements and the commercial property along Halsey Street redevelops, the city could establish a non-motorized pathway between NE Halsey Street and NE Arata Road.

**East-West Connection Need/Opportunity #9**
The east end of NE Shannon Street currently ends at a city-owned parcel that contains an assortment of maintenance and pump facilities. This parcel separates NE Shannon Street from NE 238th Drive. Given that this parcel is city-owned, there is an opportunity to potentially modify it to include a pathway connection to NE 238th Drive that would better connect the Upper/Lower Village residential area to this important north-south corridor (conceptually illustrated as Opportunity #9 in Figure 17). However, it should be noted that there are currently no sidewalks on the west side of NE 238th Drive south of NE Arata Road. The need/desirability of this connection is contingent upon the development of a more complete sidewalk system on the west side of NE 238th Drive.

**East-West Connection Need/Opportunity #10**
The east end of NE Treehill Drive currently transitions from a paved roadway to an unpaved trail that provides access to the trail system within Donald L Robertson City Park. Although the trail currently provides access to pedestrians and bicyclists, the city has an opportunity to provide a new local street connection from NE Treehill Drive to NE Cedar Lane via NE Hawthorne Avenue. The new connection (conceptually illustrated as Opportunity #10 in Figure 17) would reduce reliance on NE 238th Drive for vehicular traffic between the two residential areas.

**East Connection Need/Opportunity #11**
Aside from sidewalks and bicycle lanes along NE 238th Drive and Halsey Street, there are no other east-west multimodal trail connections to the trail system within Donald Robertson City Park. An opportunity may present itself for the city to encourage connecting to trails that extend through Troutdale to the Sandy River and the 40 mile loop (conceptually illustrated as Opportunity #11 in Figure 17).
NORTHEND

The northend includes the area located north of NE Halsey Street within the city limits. The northend consists primarily of commercial/retail uses with some light industrial and residential uses located north and south of I-84. Figure 17 shows access between the areas located north and south of I-84 (including the Southend) is limited to NE 238th Drive. NE 238th/242nd Drive provides north-south connectivity on a region level as well as direct access to I-84. The combination has resulted in a seven lane cross section north of NE Halsey Street, traffic signals at all major intersections, and a significant amount of vehicular traffic. Although there are currently pedestrian and bicycle facilities along both sides of NE 238th Drive over I-84, the environment is not well suited for everyone.

Additional opportunities to cross I-84 would require grade separation and would likely need to include both I-84 and the railroad. The costs associated with this type of crossing makes it highly unlikely in the near future.

East-West Connection Need/Opportunity #12 & #13

Access to the Wood Village mobile home park is provided by NE Eldeberry Street, which forms a loop throughout the park. There is limited access between the park and the commercial/retail areas to the east. As future development occurs, the city has an opportunity to provide a new local street connection between the commercial/retail properties to the east and west of the mobile home park. The new connections (conceptually illustrated as Opportunity #12 & #13 in Figure 17) would reduce reliance on NE Sandy Boulevard for vehicular traffic as well as pedestrians and bicyclists between the areas.
Future Connectivity Improvements

Multi-Modal Opportunity Corridors

C(#) See Table 5 – Connectivity Improvement Program

Figure 17
Truck Freight System

The EMCP addressed long standing questions regarding freight designations in the study area. Rather than focus on one major route, it established a freight grid on several arterials in the ECMP study, which resulted in Metro adding NE 238th/242nd to the regional freight system.

The highest priority corridor improvements in the ECMP were to 238th/242nd from Halsey Street to Glisan Street in order to better accommodate freight and other needs. Multnomah County has received funding to develop multimodal improvements to this stretch intended to improve its safety and function for all modes, including trucks. The project will reduce the curvature of the road and construct multimodal facilities. Elements include constructing a cross-section that includes a southbound travel lane with a passing lane, and a northbound travel lane, and bike and pedestrian facilities on both sides.
Section 7
Transportation System Tools
TRANSPORTATION SYSTEM TOOLS

This section summarizes the tools that the city can apply toward the development of a comprehensive transportation system within Wood Village. These tools focus on improvements for pedestrian travel, bicycle travel, and other techniques that can be applied to the local street system for calming traffic and enhancing non-auto travel modes.

PLANS GOALS AND POLICIES

The city’s existing transportation plans, goals, and policies are included in the 1999 Comprehensive Plan. Wood Village added several new draft policy statements to comply with the RTP. The project team used these new policy statements to formulate this TSP update.

- Improve/allow more access between Wood Village Town Center and neighborhoods to the east
- Generally improve connectivity in the city
- Ensure local and county street design consistency with regional street designs
- Allow for “green street” designs
- Increase and improve crossings
- Support measures to improve access management and safety
- Limit and prohibit residential driveways on collectors and arterials
- Improve pedestrian and bicycle connections to transit
- Expand parking management techniques as needed in the future
- Consider changes to plan amendment review criteria as needed to address potential transportation system capacity constraints in the future.

PEDESTRIAN FACILITIES

Pedestrian facilities are the elements of the transportation system that enable people to walk safely and efficiently to their desired destination. These facilities include sidewalks, multi-use paths and trails for pedestrian connectivity as well as marked and unmarked, signalized and unsignalized pedestrian crossings. Each of these facilities plays an important role in the comprehensive pedestrian system that promotes both walking trips and multi-modal trips such as using a combination of walking and transit to complete a trip.
The project team separated types of pedestrian facilities for Wood Village into two categories: sidewalks and pedestrian crossings.

**Sidewalks**

Ideally, all streets in Wood Village would have sidewalks on both sides, and current city development standards require sidewalks with any new construction project. However, there are currently several roadways with no sidewalks or sidewalks on only one side. For these roadways the city can use two tools to help develop a comprehensive pedestrian system:

- Develop sidewalks on both sides of street: This consists of installing sidewalks on both sides of an existing roadway which does not currently provide sidewalks or parallel multi-use pathways. In some cases the new sidewalks may require additional right-of-way.
- Sidewalks - fill in gaps: This includes installing sidewalks along sections of existing roadways were the pedestrian system is discontinuous or has short gaps on one side of the street or both.

**Pedestrian Crossings**

There are a number of treatments that the city could implement at key intersections throughout Wood Village to improve the safety and efficiency of pedestrian crossings. The section below presents a summary of these treatments, including advantages, challenges, and location types.

**Marked crosswalks**

Marked crosswalks are painted roadway markings that indicate the location of a crosswalk to motorists. Marked crosswalks can be accompanied by signs, curb extensions and/or median refuge islands, and may occur at intersections or at mid-block locations.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increases visibility of crossing area</td>
<td>• May not be suitable for all crossing locations</td>
<td>• Low volume roadways</td>
</tr>
<tr>
<td>• Improves driver yield rates</td>
<td>• Requires maintenance</td>
<td></td>
</tr>
<tr>
<td>• Concentrates crossings in one location</td>
<td></td>
<td></td>
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</tbody>
</table>
Research has shown that marked crosswalks in certain situations are not effective and may even reduce pedestrian safety. On multi-lane roadways (more than two lanes), the city should not install marked crosswalks without accompanying treatments (e.g., signalization) when traffic volumes exceed 12,000 ADT (no median refuge island) or 15,000 ADT (with median island).²

Unmarked Crosswalks

Under Oregon law, pedestrians have the right-of-way at any unsignalized intersection. On narrow, low-speed streets unmarked crosswalks are generally sufficient for pedestrians to cross the street safely, as the low-speed environment makes drivers more responsive to the presence of pedestrians. However, drivers are less likely to yield to pedestrians at unmarked crosswalks on high-speed and/or high-volume roadways, even when the pedestrian has stepped onto the roadway. In these situations, the city needs to add delineated pedestrian crossing facilities to remind drivers that they must yield when pedestrians are present.

### Unmarked Crosswalks

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Does not require any action by city</td>
<td>• Low driver yielding rates</td>
<td>• Narrow, low speed streets</td>
</tr>
</tbody>
</table>

Curb Extensions

Curb extensions create additional space for pedestrians and allow pedestrians and vehicles to better see each other at crosswalks. Cities typically install curb extensions at intersections along roadways with on-street parking to help reduce crossing distances and the amount of exposure pedestrians have to vehicle traffic. Curb extension also narrow the vehicle path, slow down traffic, and prohibit fast turns.

### Curb Extensions

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Shorten crossings distances for pedestrians</td>
<td>- Physical barrier can be exposed to traffic</td>
<td>- Streets with on-street parking</td>
</tr>
<tr>
<td>- Reduces motorist turning speeds</td>
<td>- Greater cost and time to install than high visibility crosswalks</td>
<td></td>
</tr>
<tr>
<td>- Increased visibility between motorists and pedestrians</td>
<td>- May require changes to roadway drainage</td>
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</tr>
</tbody>
</table>

#### Raised Median Islands

Raised median islands provide a protected area in the middle of a crosswalk for pedestrians to stop while crossing the street. The raised median island allows pedestrians to complete a two-stage crossing if needed.

### Raised Median Island

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Provides pedestrian refuge in center of roadway</td>
<td>- Must have at least 6 feet of space to accommodate wheelchairs; not all streets will have adequate space.</td>
<td>- Preferred on multi-lane approaches or at an entry point into area of high pedestrian activity</td>
</tr>
<tr>
<td>- Requires shorter gaps in traffic to cross streets</td>
<td>- Physical barrier in the Street</td>
<td>- Areas with high conflict or high pedestrian crash locations</td>
</tr>
<tr>
<td>- Reduces the number of crashes at marked and unmarked crosswalks</td>
<td></td>
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</tr>
</tbody>
</table>

In general, the city should include median refuge islands with marked crosswalks to improve pedestrian safety wherever crossing distances are significant, pedestrian volumes are above average, vehicle speeds are above a residential standard, vehicle volumes make full crossings difficult, physical space is available, and/or pedestrians in the area are incapable of full crossings at standard pedestrian rates of speed.

#### Raised Crosswalk

A raised crosswalk is raised higher than the surface of the street to give motorists and pedestrians a better view of the crossing area. A raised crosswalk is similar to a speed table marked and signed for pedestrian crossing.
Raised Crosswalk

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provides better view of pedestrians and motorists</td>
<td>Can be difficult to navigate for large trucks, buses, and snow plows</td>
<td>Areas with high speeds and difficulty crossings the street</td>
</tr>
<tr>
<td>Slows motorists travel speeds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broad application on both arterial &amp; collector streets</td>
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<td></td>
</tr>
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</table>

Rectangular Rapid Flashing Beacon

Rectangular Rapid Flashing Beacons, or RRFBs, are user-actuated amber lights that have an irregular flash pattern similar to emergency flashers on police vehicles. These supplemental warning lights are used at unsignalized intersections or mid-block crosswalks to improve safety and visibility for pedestrians using a crosswalk.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increases motorists yielding behavior</td>
<td>Motorists may not understand flashing lights</td>
<td>Areas with high speeds and difficulty crossing the street</td>
</tr>
<tr>
<td>Provides warning to driver at eye level</td>
<td>Requires pedestrian activations</td>
<td>Unsignalized intersections and mid-block crossings</td>
</tr>
<tr>
<td>Low-cost alternative to traffic signals and hybrid signals</td>
<td></td>
<td>Two-lane or multi-lane approaches</td>
</tr>
</tbody>
</table>

Pedestrian Hybrid Signal

The pedestrian hybrid signal is a pedestrian-actuated hybrid signal that stops traffic on the mainline to provide a protected crossing for pedestrians at an unsignalized location. Warrants for the installation of pedestrian-actuated hybrid signal are based on the number of pedestrian crossings per hour (PPH), vehicles per hour on the roadway, and the length of the crosswalk. Thresholds are available for two types of roadways: locations where prevailing speeds are above 35 mph and locations where prevailing speeds are below 35 mph.
Pedestrian Hybrid Signal

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Increases motorists yielding behavior</td>
<td>• Expensive compared to other crossings treatments</td>
<td>• Larger roadways where mid-block crossing is difficult or crossings opportunities are limited</td>
</tr>
<tr>
<td>• Drivers experience less delay at hybrid signals compared to other signalized intersections</td>
<td>• Requires pedestrian activations</td>
<td></td>
</tr>
</tbody>
</table>

Source: achdidaho.org

Leading Pedestrian Interval

Leading Pedestrian Intervals allow pedestrians to begin crossing at the crosswalk before conflicting vehicles start moving. For example, left or right-turning vehicles may have a red light for five to seven seconds while pedestrians and through vehicles are allowed to begin moving through the intersection.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Minimal staff time for signal re-timing</td>
<td>• Reduces green time for conflicting vehicles</td>
<td>• Signalized intersections with heavy turning volumes</td>
</tr>
<tr>
<td>• Reduces vehicle/pedestrian conflicts</td>
<td>• Right-turn on red is often prohibited</td>
<td></td>
</tr>
<tr>
<td>• Increases motorists yielding behavior</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: koonceportland.blogspot.com

Grade-Separated Crossing

Grade-separated crossings are underpasses or overpasses that allow pedestrians to entirely avoid conflicts with automobiles when crossing a busy roadway. When used as part of a multi-use path, grade-separated crossings also accommodate bicycles. Grade-separated crossings are common on pedestrian-restricted facilities such as freeways and railroad crossings. However, pedestrians often perceive them as unsafe (especially under-crossings), and may result in significant out-of-direction travel for pedestrians. Grade-separated crossings can be relatively expensive to build. The city should use grade-separated crossings sparingly.
Grade-Seperated Crossing

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Separates pedestrians from vehicular traffic</td>
<td>* Very expensive</td>
<td>* Where there is demand for freeway and/or railroad crossings</td>
</tr>
</tbody>
</table>

Source: VeloTraffic.com

BICYCLE FACILITIES

Bicycle facilities are the elements of the transportation system that enable cyclists to safely and efficiently travel to their desired destination. These facilities include bicycle lanes, multi-use paths and trails, signing and striping as well as off-road facilities secure parking, changing rooms and showers at worksites. Each facility plays an important role in developing a comprehensive bicycle system.

**Types of Bicycle Facilities**

The project team has separated the types of bicycle facilities appropriate for Wood Village into three categories: bicycle lanes, bicycle crossings, and off-road facilities.

**Shared Roadways**

Any roadway without a dedicated bicycle facility is generally considered a shared roadway. Where traffic volumes are low, shared roadways are generally safe and comfortable facilities for cyclists. However, the *ODOT Bicycle and Pedestrian Plan* (Reference 9) does not recommend shared roadways where automobile volumes or vehicle speeds are high. Thresholds for where shared-lanes are appropriate are based on several factors, including land-use and grade. Generally, bike lanes are preferred on most roadways with greater than 3,000 average daily trips or with a speed limit greater than 25 miles per hour. For these roadways, dedicated bicycle facilities, typically bicycle lanes, are recommended.

**Shared-lane Pavement Marking**

Shared-lane pavement markings (often called “sharrows”) are a tool designed to help accommodate bicyclists on roadways where bicycle lanes are desirable but infeasible to construct. The sharrow marking indicates a shared roadway space, and are typically centered approximately four feet from the edge of the travelway to encourage cyclists to ride further away from parked and parking cars and/or the curb. Typically, sharrows are suitable on roadways with fewer than 3,000 average daily trips.
Shared-Lane Pavement Marking

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Reduce wrong way and sidewalk riding</td>
<td>• Pavement marking maintenance</td>
<td>• Streets with moderate speeds and traffic volumes and where space for bike lane markings is limited</td>
</tr>
<tr>
<td>• Improve cyclists position in roadway</td>
<td>• Not as effective as bike lane</td>
<td></td>
</tr>
<tr>
<td>• Informs motorists of bicyclists in roadway</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bicycle lanes

Bicycle lanes are striped lanes on the roadway dedicated for the exclusive use of bicycles. Typically, bicycle lanes are placed at the outer edge of pavement (but to the inside of right-turn lanes and/or on-street parking). Bicycle lanes improve bicycle safety, improve cyclist security, and (if comprehensive) can provide direct connection between origins and destinations. However, inexperienced cyclists often feel uncomfortable riding on busy and high-speed streets, even when they include bicycle lanes. Multnomah County street standards currently include bicycle lanes on all arterial and collector streets.

Low-Traffic Bikeway (Bike Boulevard)

Low-traffic bikeways are also known as bike boulevards and provide high-quality bicycle facilities on continuous street corridors with low vehicular traffic volumes. Typically, low-traffic bikeways are made from existing local streets, which are reconfigured to prioritize bicycle trips and reduce through automobile trips. Local automobile access is retained. Cities improve bicycling conditions by reducing stop signs along the route and providing bicyclist-specific wayfinding information. Cities often use traffic calming to slow automobile speeds and eliminate the cut-through automobile traffic that stop sign removal would otherwise attract.
Wood Village Transportation System Plan Update
Transportation System Tools

Low-Traffic Bikeway (Bike Boulevard)

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Treatments facilities continuous bicycle movement along roadway</td>
<td>• Motorists may choose to use roadway given low traffic volumes</td>
<td>• Low speed and traffic volume roadways</td>
</tr>
<tr>
<td>• Improves cyclists experience</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Dave Pansi

Bicycle Detection

Many traffic signals in Wood Village are actuated, meaning that the signal allocates green phases to a movement when the signal detects a vehicle. However, actuating a signal as a cyclist is difficult if there is no information about the location of detection equipment. The city should use pavement markings, including actuated left-turn lanes, to show cyclists where to stand to actuate a signal. Additionally, the city or county should set the sensitivity of all loop detectors to allow for bicycle activation.

Bicycle Detection

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Cyclists can activate traffic signal without dismounting</td>
<td>• None</td>
<td>• At signalized intersections</td>
</tr>
</tbody>
</table>

Source: http://garyridesbikes.blogspot.com

Bicycle Parking

Bicyclists also benefit from several other types of bicycle support facilities, such as secure bicycle parking, either open or covered U-shaped racks, and storage lockers for clothing and gear. Areas that typically provide secured bicycle parking are often located at areas of high bicycle and pedestrian traffic such as transit stations, shopping centers, schools, and multi-use trails. The city currently requires bicycle parking included in new development as a condition of approval. TriMet buses are outfitted with bicycle racks that allow cyclists to bring their bikes with them on transit. Allowing bicycles on transit vehicles increases the range of trips possible by both transit and bicycling, and reduces cyclists’ fears of being stranded in the event of a mechanical or physical breakdown.
Bicycle Parking

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provides a secure location to store and lock bicycles</td>
<td>• Requires space in potentially busy area</td>
<td>• Location that are generally close to and visible from the point of interest</td>
</tr>
<tr>
<td>• Relatively inexpensive and easy to install</td>
<td>• May remove on-street parking space</td>
<td>• Areas of high bicycle ridership and pedestrian traffic</td>
</tr>
<tr>
<td>• Encourages bicycle use</td>
<td></td>
<td></td>
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</tbody>
</table>

Wayfinding Signs

Wayfinding signs direct pedestrians and bicyclists towards destinations in the area. They typically include distances and average walk/cycle times.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provides guidance to residents and visitors to destinations within the city</td>
<td>• Signs require maintenance</td>
<td>• Areas adjacent to bicycle and pedestrian facilities</td>
</tr>
<tr>
<td>• Offers another indication to motorists of the presence of bicyclists</td>
<td>• Vandalism</td>
<td></td>
</tr>
</tbody>
</table>

Multi-Use Paths and Trails

Multi-use paths and trails can augment and support pedestrian and bicycle facilities located throughout the city. They can also provide children and seniors with safe, off-street alternatives to substandard roadways with no bike lanes, shoulders, or sidewalks. They can provide safe, traffic-free path for walkers, joggers, cyclists, and others to exercise and enjoy the outdoors. They can support downtown economic development by providing an off-street transportation route to downtown businesses. And finally, they can provide direct, non-motorized access to bus stops.
Multi-Use Paths and Trails

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Challenges</th>
<th>Location Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Separate pedestrians and bicyclists from vehicle traffic</td>
<td>• Requires adequate space to accommodate buffer from street and width to allow passing</td>
<td>• Non-urban areas with few or no driveways</td>
</tr>
<tr>
<td>• Combination of pedestrian and bicyclists requires less space than separate facilities for each</td>
<td>• Bicycle and pedestrian conflicts</td>
<td></td>
</tr>
</tbody>
</table>

There are several existing multi-use paths and trails located within Wood Village dedicated to pedestrians and bicyclists, such as the multi-use path between NE Arata Road and NE Halsey Street and the trail system located along the eastern city limits. It will be important for the city to include new multi-use path and trail projects in the TSP update along with standards for the development and maintenance for each.

TRAFFIC CALMING

The city can consider and apply several potential traffic calming measures to the local street network to calm traffic and enhance the non-auto travel modes.

Traffic Diverter

A traffic diverter is a raised channelization island that cities most often use at intersections. Traffic diverters eliminate through trips or other forms of intersection turning movements and divert them to other streets, thereby changing travel patterns and altering traffic volumes. The cost of diverters varies with size and design.

Traffic Calming Circle

A traffic calming circle is an elevated circular island that cities can place in the middle of intersections. Traffic calming circles force traffic to slowly navigate in a counterclockwise manner around the island as they pass through the intersection. Depending on the design, traffic calming circles can cost anywhere from $5,000-$15,000 per intersection.

Modification of Intersection Traffic Control Devices

Modification of traffic control devices include the conversion of uncontrolled movements to controlled movements or the replacement of yield signs with stop signs. The cost of the measures is typically very minimal ~ $500.
Speed Humps and Speed Cushions

A speed hump is a raised hump (approximately 3.5 inches high) in the roadway with a parabolic shape that extends across the street at right angles to traffic. Typically placed in groups along a roadway, speed humps are primarily used to slow traffic down. Sometimes they can result in a reduction of traffic volumes on streets where they are employed by diverting traffic to other nearby streets that don’t have speed reduction devices. Depending on the design, speed humps can cost anywhere from $2,000-$2,500 per location.

Speed cushions are typically asphalt or rubber mounds that are 3-4 inches in height and 10 feet in length. Spaces between the cushions allow emergency vehicles to straddle or partially straddle the devices, thus resulting in minimal impact to emergency response times. Depending on the manufacturer, speed cushions can cost anywhere from $3,000-$5,000 per location.
Section 8
Transportation System Plan
TRANSPORTATION SYSTEM PLAN

This section presents the individual elements of the Wood Village Transportation System Plan (TSP). The TSP addresses those components necessary for the future transportation network, including Roadway, Public Transportation, Pedestrian, and Bicycle System Plans as well as plans for Air, Rail, and Pipeline service.

This update addresses the city’s pedestrian, bicycle, and public transportation systems. This TSP update guides the management and implementation of the transportation facilities, policies, and programs within Wood Village over the next twenty years.

Roadway System Plan

FUNCTIONAL CLASSIFICATION PLAN

The purpose of the functional classification plan is to create a mechanism through which the city can develop a balanced transportation system that facilitates mobility for all transportation modes and access to adjacent land uses. A roadway’s functional classification helps the city codify its intended purpose, the amount and character of traffic it is expected to carry, the degree to which non-auto travel is emphasized, and the roadway’s design standards and overall management approach. A roadway’s functional classification should consider the adjacent land uses and the transportation modes that need to be accommodated. The public right-of-way must also provide sufficient space for utilities to serve adjacent land uses.

Figure 18 shows the functional classification plan for Wood Village. The plan incorporates four functional categories: freeways, arterials (major and minor), collectors (major and neighborhood), and local streets. Wood Village does not own/operate any roadways above local streets. As a result, the functional classification plan mirrors the functional classification of Multnomah County in order to ensure interjurisdictional consistency.

Freeway

Freeways are state facilities that provide the highest level of regional mobility and connectivity. These roadways usually extend across several jurisdictions and are often characterized by limited access points and high travel speeds. I-84 is the only freeway within Wood Village.
**Major Arterials**

Major arterial streets provide a high level of regional mobility and connectivity, but also serve local trips to and from major commercial, residential, industrial, and institutional areas. Major Arterial streets maintain mobility as a priority and therefore limit access. NE Glisan Street is the only major arterial in Wood Village.

**Minor Arterials**

Minor arterial streets serve to connect and support the freeway and major arterial system. These streets link major commercial, residential, industrial, and institutional areas. Minor arterial streets maintain mobility as a priority and therefore access is limited, but not to the extent of major arterials. Within Wood Village, NE Sandy Boulevard, NE Halsey Street, and NE 242nd-NE 238th Drive are all minor arterials that provide connections to other cities and I-84.

**Major Collectors**

Collector streets provide both access and mobility within and between residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of an intra-city circulation function, do not require as extensive access control (compared to arterials), and provide access to residential neighborhoods. These roadways distribute trips to and from the neighborhood and local street system. NE Wood Village Boulevard and NE 244th Avenue are major collector roadways.

**Neighborhood Collectors**

Neighborhood Collectors are long relative to local streets and provide connectivity to major collectors and/or arterials. Neighborhood collectors have greater connectivity and are used by residents in the area to get into and out of the neighborhood, but do not serve citywide/large area circulation. NE Arata Road is the only neighborhood collector in Wood Village.
**Local Streets**

Local streets are primarily intended to provide access to abutting land uses. Local streets offer the lowest level of mobility and consequently tend to be short, low-speed facilities. Local streets should primarily serve passenger cars, pedestrians, and bicyclists; heavy through truck traffic is discouraged. On-street parking is common while bike lanes are not, though the relatively low travel speeds and traffic volumes allow bicycles to share the vehicle travel lanes.

**TRUCK FREIGHT SYSTEM COMPONENTS**

Based on the design capacity described in the functional classification plan, certain roads are ideal for truck freight movements through Wood Village. Roads that comprise the freight network in Wood Village include those listed in Table 6.

<table>
<thead>
<tr>
<th>Roadway</th>
<th>Route Type</th>
<th>Functional Classification in Wood Village</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-84</td>
<td>Main Roadway Route</td>
<td>Freeway</td>
</tr>
<tr>
<td>NE Sandy Boulevard</td>
<td>Regional Freight Route</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>NE Glisan Street</td>
<td>Regional Freight Route</td>
<td>Major Arterial</td>
</tr>
<tr>
<td>NE 238&lt;sup&gt;th&lt;/sup&gt; Drive north of I-84</td>
<td>Regional Freight Route</td>
<td>Minor Arterial</td>
</tr>
<tr>
<td>NE 238th/242nd Drive</td>
<td>Road Connector</td>
<td>Minor Arterial</td>
</tr>
</tbody>
</table>
Figure 19: Roadway System Plan

Map Features:
- Freeway
- Major Arterial
- Minor Arterial
- Major Collector
- Neighborhood Collector
- Local Street
- Private
- Other Streets
- Railroads
- Tax Lots
- Streams
- Wetlands
- Parks
- City Limits
- Signal
- City Hall
- School
- Shopping

Roadway System Plan

Wood Village Transportation System Plan Update
May 2017
STREET DESIGN STANDARDS

Street design standards support the functional and operational needs of the community's roadway network. The standards provide guidance on the operations, appearance and function of a roadway by defining factors such as the type of pedestrian and bicycle facilities, the number of travel lanes, capacity, operating speed, and safety. The standards ensure that the street network will be capable of safely and efficiently serving the traveling public while also accommodating the orderly development of adjacent lands. Within Wood Village, all major roadways are owned and operated by Multnomah County, which is also responsible for administering street design standards. To ensure consistency with Multnomah County, the Wood Village street design standards are consistent with the Multnomah County street design standards for all collector and higher streets. The local street design standards are unique to Wood Village.

Figure 20 and Figure 21 show the street design standards as cross sections. The city uses these cross sections for planning purposes for new road construction, as well as for those locations where it is physically and economically feasible to improve existing streets. The figures identify on-street parking along the city's 32 foot Standard Residential Streets only. Within the context of the streets owned and operated by Wood Village, on-street parking is a natural component of the local street network, where adjacent land uses support the use of on-street parking. Also, additional width for turn lanes may be needed at specific intersections based on an engineering investigation; these are not shown in the street design standards. The standards shown define typical cross-sections of streets between intersections and the city may implement them with some flexibility recognizing unique and special situations as appropriate.

The Town Center Master Plan created several new road types only employed within the Town Center. These roadways address the unique character and sense of place desired within the Town Center. Figure 22, 23 and 24 detail the cross sections for specific roadways within the Town Center.
Figure 20

Wood Village Transportation System Plan Update

Note:
Typical rights-of-way and cross sections shown. Additional width may be needed to accommodate turn lanes at intersections.
* Reference: Halsey Street Concept Plan

Standard Cross-Sections
Note:
Typical rights-of-way and cross sections shown. Additional width may be needed to accommodate turn lanes at intersections.

* Certain adjacent land-use conditions may warrant the elimination of on-street parking. These situations will be determined at the discretion of the public works director.

** Reference: Arata Road Concept Plan

Standard Cross-Sections

Figure 21
Recent planning efforts have developed new roadway cross sections standards for NE Halsey Street and NE Arata Road. The county based the new standard cross sections for NE Halsey Street and NE Arata Road on the conceptual design plans prepared for each roadway as part of previous planning efforts.

Many agencies are developing “green street” programs that incorporate stormwater management features involving natural absorption and treatment. While green street treatments are independent of functional class, they may require landscape area modification or other street design standards to accommodate this evolving practice. The street design standards shown should not preclude green street treatments.

*Local Street Options*

Skinny Street Option

The standard cross-section for local streets includes a total paved width of 32 feet, which accommodates parking on one or both sides of the street. The city identifies a skinny street option for local street settings where the community desires low traffic volumes and narrow roadway elements. Skinny streets typically result in slower vehicle speeds, making them attractive in residential areas. Other benefits include reduced impervious surface area (reduced stormwater and environmental impact) and improved pedestrian and bicycle safety related to the lower vehicle speeds.

On-street parking along skinny streets can pose challenges for emergency vehicles as well as other service providers such as garbage/recycling trucks, school busses, and other delivery vehicles. The city can permit 26 foot wide streets, accommodating parking on only one side of the street. This option is most appropriate for lower volume streets (typically less than 400 vehicles per day).

Landscaping

The city’s local street design standards include a landscape strip between the roadway curb and the sidewalk. This landscaping strip separates motorized vehicle and pedestrian traffic and creates an opportunity for landscaping including street trees or other elements. The city will incorporate street trees in all street landscaping areas where possible.

Town Center Street Options

The Town Center Master Plan identifies several specific new local street types applicable only within the Town Center.
Main Street

A traditional main street with on-street parking that prioritizes access to commercial activity for people on foot or bicycle as well as local vehicular trips. Main streets are an important component of the Town Center street and path network. Main streets may accommodate high frequency bus.

Universal Street

Universal streets prioritize bicycle and pedestrian mobility and provide pedestrian and local internal vehicular connectivity. Universal streets are an important component of the Town Center bicycle network.

Service Street

Within the Town Center, these streets prioritize business access for freight and deliveries. As a minor role, they provide bicycle, pedestrian and local vehicular connectivity.
Figure 22  Town Center Main Street Cross Section
Figure 23  Town Center Local Street Cross Section
Figure 24  Town Center Universal Street Cross Section
Figure 25  Town Center Service Street Cross Section
Figure 26  Town Center Service Street Cross Section
Pedestrian System Plan

Providing connections between major activity centers is a key objective of the pedestrian and bicycle system plans. Major activity centers are locations that typically attract high levels of pedestrian and bicycle activity on a regular basis. Within Wood Village, these activity centers include the retail and commercial areas located along NE Glisan Street and NE Sandy Boulevard, city parks and schools located along NE Halsey Street, and the multiple transit stops located along TriMet Routes 12 and 77. This section identifies specific pedestrian and bicycle priorities for local connectivity and access.

PEDESTRIAN SYSTEM COMPONENTS

The pedestrian improvement projects include providing sidewalks and off road multi-use paths and trails to facilitate pedestrian travel throughout the transportation system, and treatments to aid pedestrians crossing traffic. Street design standards can help ensure that the city provides pedestrian facilities in conjunction with all new public streets. For existing roadways without sidewalks, the city should require sidewalks with any redevelopment of adjacent properties or with significant improvements in the roadways.

The pedestrian system plan improves pedestrian access and circulation in a number of areas throughout the city. Many of the priority areas identified during the TSP process are located along major commercial and residential streets, such as NE Sandy Boulevard, NE Arata Road, and NE 242nd-238th Drive. Figure 27 and Project Summary Tables 9, 10, & 11 present the projects for the pedestrian system plan. The plan does not include a project for new sidewalks along the segment of NE 242nd-238th Drive located along the west side of the roadway between NE Holladay Street and NE Shannon Street. Topographical conditions along this segment make adding sidewalks or other pedestrian facilities cost prohibitive. It is also important to note that in addition to the several sidewalk projects included in the plan, there are two priority pedestrian crossing projects. Examples of the crossing improvement types are below.

*Raised Median Islands*

This TSP includes raised median islands in the street design standards for NE Halsey Street to accommodate pedestrian crossings at the two mid-block crossings identified in the NE Halsey Street Design Plan. Raised median islands provide pedestrians with a refuge area within the crosswalk to stop while crossing the street and complete a two-stage crossing if needed.
Figure 27

Pedestrian Facilities
- Install Sidewalks on Both Sides
- Install Sidewalks on One Side
- Sidewalks - Both Sides
- Sidewalks - One Side Only
- Install Multi-Use Path
- Multi-Use Path
- Nature Trail

Map Features
- Other Streets
- Tax Lots
- Railroads
- Streams
- Wetlands
- Parks
- City Limits
- Signal
- City Hall
- School
- Shopping
- Shopping
- City Hall
- School
**Rectangular Rapid Flashing Beacon**

Given the relatively high traffic volumes expected along NE Halsey Street during peak time periods, Rectangular Rapid Flashing Beacons, or RRFBs, can help facilitate pedestrian crossings at the proposed mid-block crossings. However, the city should conduct an engineering study to evaluate the types of pedestrian crossing treatments needed at the mid-block crossings.

**Other Pedestrian Crossing Treatments**

The Transportation System Tools section includes several additional pedestrians crossing treatments that can also be applied on future projects. As part of all street and intersection improvement projects in the future, the city will work with Multnomah County to ensure that the pedestrian system includes treatments to further enhance the comfort, convenience and safety of pedestrian crossings at intersections throughout the city.

**Bicycle System Plan**

The bicycle plan will establish a network of bicycle lanes and routes that connect the city's bicycle generators and provide a safe and effective system. Although bicycle lanes are required along all arterials and collectors per city code, many of the arterial and collector roadways in Wood Village do not have sufficient width to accommodate bicycle lanes. Therefore, the projects included in the TSP represent a prioritization of the most important bicycle facility needs, most of which require widening.

These designated facilities will provide essential connections between many of the residential neighborhoods, commercial areas, schools, and various recreational areas within the city. Figure 28 shows the bicycle improvement projects and are included in the Project Summary Tables 9, 10, & 11.

**BICYCLE LANES**

A majority of the bicycle improvement projects in the TSP update involve widening to accommodate striped bicycle lanes. Striped bicycle lanes can improve bicycle safety along high speed and higher volume roadways by separating slower moving bicyclists from faster moving motorists. A comprehensive system of bicycle lanes can provide direct connections between major commercial, residential, industrial, and institutional areas throughout the city.
MULTI-USE PATHS AND TRAILS

The prioritized TSP project list includes the continued use of the existing multi-use paths and trails as well as new multi-use paths.

Public Transportation Plan

The public transportation plan establishes a comprehensive transit system that provides access to areas within the city as well as destinations too far to walk or bike. The TSP update identifies the following service enhancements, capital improvements, and policy improvements.

TRANSIT STREET DESIGNATIONS

Figure 29 depicts the streets that are designated as transit streets: streets that currently have fixed-route transit service, or there is a desire to potentially see fixed-route transit service along them over the next 20 years.

SERVICE ENHANCEMENTS

TriMet determines its service enhancements through five-year Transit Investment Plans (TIP), which identify the agency's programs and strategies to meet regional transportation and livability goals. The Regional Transportation Plan and local Transportation System Plans help guide the TIP, which is updated annually. The city will coordinate with TriMet on the annual TIP update process to ensure that TriMet includes any service enhancements within Wood Village.

CAPITAL IMPROVEMENTS

TriMet prioritizes capital improvements based on the number of boardings, the type of service (local, express, frequent, Max, etc.) and special circumstances, such as the presence of a nearby senior center. Most stops in Wood Village have a single pole with schedule display while a few stops have shelters with and without information. As ridership increases, the city will work with TriMet to provide additional facilities such as shelters, stops, and park & ride facilities and ensure that access to transit service is provided by consistent pedestrian and bicycle facilities.
Designated Transit Streets

Figure 29
POLICY AMENDMENTS

The following policy amendments will improve transit conditions in the city.

*Improve Service to “Transit Dependent” Populations*

Designate 238th Drive and Sandy Boulevard as transit streets to reflect current transit routes. Designate Wood Village Boulevard and Arata Road as transit streets to reflect the potential for future transit service along these key corridors, along with the proposed roadway through the Wood Village Town Center.

*Improve Transit Safety*

Work with TriMet to ensure that consistent pedestrian and bicycle facilities provide access to all existing and future transit stops, including enhanced pedestrian crossings in key locations, and that all transit stops are well lit and patrolled by local police.

*Maintain Transit Facilities*

Work with TriMet to ensure all transit service stops are maintained, and that the information is up-to-date and available.

*Other Transit Policies*

- Park & Ride Facilities: explore opportunities to establish a park & ride facility within existing retail, commercial, or institutional parking lots within the city limits.
- Frequency of Service: explore opportunities to increase the frequency of transit service along existing transit routes.
- North-South Travel: Explore opportunities to establish a north-south transit route between the Wood Village city center and areas to the south.

*Air Service / Rail Service / Pipeline Service*

Refer to Section 2 of the 1999 City of Wood Village TSP for additional information related to Air, Rail, and Pipeline Service within Wood Village.
Transportation System Implementation Plan

This section outlines the transportation system improvement projects for Wood Village as part of this TSP update as well as a basic timeline for implementation. The implementation plan does not identify specific years when the city should construct infrastructure, but rather prioritizes projects for the city to develop within near-term (1-5 year) and long-term (6-20 year) horizons. The City of Wood Village will periodically update its TSP and will review the need and timing for longer-term improvements as conditions evolve.

Table 7 and Table 8 list transportation improvement prioritization in the city for the near-term and long-term, respectively. The project team selected projects based on their ability to enhance pedestrian and bicycle travel within and through the city. The implementation plan recognizes that a limited amount of money will be available to fund projects. As a result, the team included only those projects with a reasonably likely funding source in the near-term category. The longer project timelines reflect a combination of anticipated future needs and the reality that many of the long-term projects will need to secure a future funding source.

<table>
<thead>
<tr>
<th>Project No. (see Figures 19, 27 &amp; 28)</th>
<th>Project Location</th>
<th>Project Description</th>
<th>Potential Funding Source</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Roadway Improvement Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R1</td>
<td>Arata Road: NE 223rd Avenue and NE 238th Drive</td>
<td>Reconstruct Arata Road with safety and connectivity improvements, per Exhibit 3</td>
<td>Funded G, PDF</td>
<td>$4,783,5001</td>
</tr>
<tr>
<td>R2</td>
<td>238th/242nd Avenue: NE Halsey Street and NE Glisan Street</td>
<td>Reconstruct 238th/242nd Avenue to arterial standards including adaptive signal timing and improvements</td>
<td>Funded G, PDF</td>
<td>$9,567,0001</td>
</tr>
<tr>
<td>R3</td>
<td>Sandy Boulevard: NE 230th Avenue to NE 238th Drive</td>
<td>This project addresses the substandard road conditions on NE Sandy Blvd. that affect existing freight access between existing freight-oriented businesses and industrial lands and I-84 via Exit 16 at 238th Avenue.</td>
<td>Funded G</td>
<td>$2,467,7222</td>
</tr>
<tr>
<td><strong>Pedestrian Improvement Projects</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1</td>
<td>NE Arata Road: NE 223rd Avenue to NE 238th Drive</td>
<td>Install a multi-use path on the north side of the roadway per Arata Road Concept Plan (see Exhibit 3)</td>
<td>Funded G, PDF</td>
<td>See R1</td>
</tr>
<tr>
<td>P2</td>
<td>NE Arata Road: NE 223rd Avenue to Poplar Home Manor Property Line; and Greenway Drive to 238th Drive</td>
<td>Install sidewalks on the south side of the roadway per Arata Road Concept Plan (see Exhibit 3)</td>
<td>Funded G, PDF</td>
<td>See R1</td>
</tr>
<tr>
<td>P3</td>
<td>NE Halsey Street</td>
<td>Install mid-block crossings (2 locations)3 consistent with the Halsey Street Concept Plan</td>
<td>G</td>
<td>$45,0004</td>
</tr>
<tr>
<td>P4</td>
<td>NE Sandy Boulevard: NE 230th Avenue to NE 238th Drive</td>
<td>Install sidewalks on both sides of the roadway per Minor Arterial design standards</td>
<td>Funded G</td>
<td>See R3</td>
</tr>
</tbody>
</table>
### Project No. (see Figures 19, 27 & 28) | Project Location | Project Description | Potential Funding Source | Estimated Cost
--- | --- | --- | --- | ---
P5 | Wood Village Town Center | Trail connection between Arata Road and Glisan Street through the wooded areas along the eastern edge of the Town Center with a trail connection westward to Wood Village Boulevard | PDF | $75 per linear foot<sup>1</sup>
P6 | 238th/242nd Avenue: NE Halsey Street and NE Glisan Street | Complete pedestrian and bicycle improvements on 238<sup>th</sup> along with R2 | Funded G, PDF | See R2

#### Bicycle Improvement Projects

| Project No. | Project Location | Project Description | Potential Funding Source | Estimated Cost |
--- | --- | --- | --- | ---
B1 | NE Arata Road: NE 223<sup>rd</sup> Avenue to NE 238<sup>th</sup> Drive | Install a multi-use path on the north side of the roadway per Arata Road Concept Plan (see Exhibit 3) | Funded G, PDF | See R1 |
B2 | NE Sandy Boulevard: NE 230<sup>th</sup> Avenue to NE 238<sup>th</sup> Drive | Widen both sides of the roadway to accommodate bicycle lanes per Minor Arterial design standards | Funded G, PDF | See R3 |
B3 | 238th/242nd Avenue: NE Halsey Street and NE Glisan Street | Complete pedestrian and bicycle improvements on 238<sup>th</sup> | Funded G, PDF | See R2 |

1. Cost estimates are in 2016 
3. The exact location of mid-block crossings along Halsey Street will be determined based on a more detailed planning/engineering study.
4. Cost estimate is in 2012 
5. This is only construction costs, excavation, base rock, shoulder rock and asphalt for a 12’ wide path. Does not include fencing, landscaping, civil engineering, or preliminary engineering.

### Table 8. Long-Term Transportation Improvement Program

| Project No. (see Figures 19, 27 & 28) | Project Location | Project Description | Potential Funding Source | Estimated Cost |
--- | --- | --- | --- | ---

#### Roadway Improvement Projects

| Project No. | Project Location | Project Description | Potential Funding Source | Estimated Cost |
--- | --- | --- | --- | ---
R4 | NE Halsey Street: NE 223<sup>rd</sup> and NE 238<sup>th</sup> | Evaluation and refinement, along with improvements to the roadway. Improvements will need to consider safe pedestrian crossings, as well as accommodating all modes | CF, G, PDF | $305,000 |
R5 | 238th/242nd at Glisan intersection modification<sup>2</sup> | System Management: Employ adaptive signal timing and other system management techniques to improve intersection performance | CF, G, PDF | $100,000 |
R6 | I-84 on-ramp | Evaluate ramp queuing issues on I-84 at 238<sup>th</sup> | CF, G, PDF | $20,000 |
R7 | Wood Village Boulevard: NE Glisan Street and NE Halsey Drive | Corridor safety evaluation of Wood Village Boulevard and all intersections with public and private roadways | CF, G, PDF | $20,000 |
R8 | NE 223<sup>rd</sup> and NE Glisan Street intersection modifications | Address capacity issues | CF, G, PDF | $250,000 |

#### Pedestrian Improvement Projects

| Project No. | Project Location | Project Description | Potential Funding Source | Estimated Cost |
--- | --- | --- | --- | ---
P7 | NE Sandy Boulevard: NE 238<sup>th</sup> Drive to Camp World Driveway (See Figure 19) | Half-Street Improvements - Install sidewalks on the north side of the roadway per street design standards | PDF | $130,000 |
P8 | NE Sandy Boulevard: Camp World Driveway to Roadway Terminus | Install sidewalks on both sides of the roadway per street design standards | PDF | $235,000 |
Bicycle Improvement Projects

<table>
<thead>
<tr>
<th>Project No.</th>
<th>Project Location</th>
<th>Project Description</th>
<th>Potential Funding Source</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>B4</td>
<td>NE Sandy Boulevard: NE 238th Drive to Camp World Driveway</td>
<td>Half-Street Improvements - Widen the north side of the roadway to accommodate bicycle lanes per street design standards</td>
<td>PDF</td>
<td>$12,000</td>
</tr>
<tr>
<td>B5</td>
<td>NE Sandy Boulevard: Camp World Driveway to Roadway Terminus</td>
<td>Widen both sides of the roadway to accommodate bicycle lanes per street design standards</td>
<td>PDF</td>
<td>$102,000</td>
</tr>
</tbody>
</table>

1 Transportation System Management and Operations (TSMO) projects are more effective when implemented corridor-wide. While this project and cost estimate addresses one intersection, a larger project would provide more benefit for the larger system.

CONNECTIVITY IMPROVEMENTS

Table 9 summarizes the connectivity improvement program for Wood Village. This program includes a mixture of improvements to local street connectivity as well as pedestrian/bicyclist access and circulation. The project team has separated these projects from the near- and long-term bicycle/pedestrian improvements given that the vast majority would likely be constructed as part of private development projects. Figure 17 illustrates the general location of the projects identified in Table 9.

Table 9. Connectivity Improvement Program

<table>
<thead>
<tr>
<th>Project No. (see Figure 17)</th>
<th>Project Location</th>
<th>Project Description</th>
<th>Potential Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>East-West Connection #1</td>
<td>Provide an east-west connection that would link NE Wood Village Boulevard to potential future redevelopment to the east (Wood Village Green Mobile Home Park)</td>
<td>PDF</td>
</tr>
<tr>
<td>C2</td>
<td>North-South &amp; East-West Connection #2</td>
<td>Provide a north-south multi-use trail connection along the eastern edge of the Town Center between NE Arata Road and NE Glisan Street.</td>
<td>PDF</td>
</tr>
<tr>
<td>C3</td>
<td>North-South &amp; East-West Connection #3</td>
<td>Upon potential redevelopment of the Wood Village Green Mobile Home Park, provide a north-south connection to Arata Road along with east-west connections from NE Stanley Street, NE Shannon Street and NE Holladay Place</td>
<td>PDF</td>
</tr>
<tr>
<td>C4</td>
<td>North-South Connection #4</td>
<td>Provide a north-south multi-use trail connection that would link NE Glisan Street and potential future redevelopment of the Wood Village Green Mobile Home Park</td>
<td>PDF</td>
</tr>
<tr>
<td>C5</td>
<td>East-West Connection #5</td>
<td>Provide an east-west connection between NE 223rd Avenue and NE Wood Village Boulevard</td>
<td>PDF</td>
</tr>
<tr>
<td>C6</td>
<td>North-South Connection #6</td>
<td>Provide a north-south connection between NE Arata Road and east-west connection #5</td>
<td>PDF</td>
</tr>
<tr>
<td>C7</td>
<td>North-South Connection #7</td>
<td>Provide a north-south multi-use path connection between NE Arata Road and NE Halsey Street east of NE 131st Court</td>
<td>CF, PDF</td>
</tr>
</tbody>
</table>
### Project Description Table

<table>
<thead>
<tr>
<th>Project No. (see Figure 17)</th>
<th>Project Location</th>
<th>Project Description</th>
<th>Potential Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>C8</td>
<td>North-South Connection #8</td>
<td>Provide a north-south multi-use path connection between NE Arata Road and NE Halsey Street adjacent to the Wood Village Baptist Church</td>
<td>CF, PDF</td>
</tr>
<tr>
<td>C9</td>
<td>East-West Connection #9</td>
<td>Provide an east-west multi-use path connection between NE Shannon Street and NE 238th Drive</td>
<td>CF, G</td>
</tr>
<tr>
<td>C10</td>
<td>East-West Connection #10</td>
<td>Provide an east-west multi-use path connection between NE Treehill Drive and NE Hawthorne Avenue</td>
<td>CF, G, PDF</td>
</tr>
<tr>
<td>C11</td>
<td>Easterly Connection #11</td>
<td>Complete the bicycle/pedestrian connections from Arata Road easterly to the trail system through the park. Encourage connection connecting to trails that extend through Troutdale to the Sandy River and the 40 mile loop</td>
<td>G, PDF</td>
</tr>
<tr>
<td>C12</td>
<td>East-West Connection #12</td>
<td>Provide an east-west connection between the Wood Village Park mobile home park and the industrial property located west of the city limits</td>
<td>PDF</td>
</tr>
<tr>
<td>C13</td>
<td>East-West Connection #13</td>
<td>Provide an east-west connection between the Wood Village Park mobile home park and the retail/commercial property to the east</td>
<td>PDF</td>
</tr>
</tbody>
</table>

*CF – Capital Funds (Motor Vehicle Tax, Bonds, User Fees, Local Improvement District)*

*G – Grants (Any Federal, State, or Local Grants)*

*PDF – Private Development Funds (Developer Dedications of Right-of-Way and Local Street Improvements)*

### ORDINANCE AMENDMENTS

The project team recommended regulatory language for the Zoning and Development Ordinance (ZDO) to implement the TSP, and to ensure consistency with the RTFP and the state Transportation Planning Rule (OAR 660-12). That language, contained in Appendix C Proposed Implementation Language of the 2012 TSP, included the complete code analysis and amendments. All of the proposed code amendments were adopted by the City in conjunction with the 2012 TSP. The remaining requirement to meet the RTFP is for the city to adopt a street element and the required performance standards, both of which are contained in this TSP update.
Section 9
Transportation Funding Plan
TRANSPORTATION FUNDING PLAN

This chapter provides an overview of funding and financing options that may be of interest to the City of Wood Village. Funding describes methods that generate revenue for transportation projects, while financing refers to how projects are paid for over time. For each of the funding options listed below, there is a brief description and a short discussion. The project team has not screened funding options according to their political or legal feasibility. The funding environment is dynamic so the following list should not be considered exhaustive.

FEDERAL RESOURCES

Community Development Block Grants (CDBG)
The Federal Department of Housing and Urban Development offers Community Development Block Grants (CDBG). Cities must compete for grants based upon a formula that includes factors such as rural/urban status, demographics, local funding match, and potential benefits to low-to-moderate income residents, including new job creation. Cities may also use CDBG funds for emerging public work needs.

Potential: In small communities such as Wood Village, this program has limited application but may be a source of street funds for roads serving new developments supporting job creation or multifamily housing. The city should coordinate CDBG funding requests through Multnomah County.

Federal Economic Development Administration (EDA)
The Federal Economic Development Administration provides annual grant funding on a competitive basis for public works improvements that directly generate or retain jobs in local communities. Cities can use these funds for local utilities and transportation facilities that serve new development sites.

Potential: EDA funds are difficult to obtain but could be considered for targeted improvements for local industry expansion. The city should coordinate funding requests for EDA grants with Multnomah County and the Oregon Economic and Community Development Department (OECDD).
STATE FUNDING OPTIONS

State Highway Fund

In addition to Federal funds, the State of Oregon currently collects the following fuel and vehicles fees for the State Highway Fund:

- State Gas Tax $0.30 per gallon\(^3\)
- Regular Vehicle Registration Fees\(^4\)
  - Light Trailer $86.00 two-year fee
  - Low-Speed Vehicle $86.00 two-year fee
  - Motorcycles/Mopeds $43.00 two-year fee
  - Passenger Vehicles $86.00 two-year fee
  - Snowmobiles $10.00 two-year fee

The state also assesses a weight-mile tax on freight carriers to reflect their use of and impact on state highways. The state distributes the revenue from the fund to cities and counties throughout the state based on a given city's share of statewide population, and the county distribution based on a county's share of statewide vehicle registration.

Existing Application: ODOT Region 1, Multnomah County, and the City of Wood Village each receive funds from the state Motor Vehicle Fund. ODOT uses their allocation from the State Motor Vehicle Fund for maintenance and capital projects. Multnomah County and the City of Wood Village typically use their funding allocation for street maintenance; however it could be used for other types of projects such as pedestrian and bicycle projects.

The state currently distributes approximately 16 percent of the State Motor Vehicle Fund to cities and 24 percent to counties based on a per capita rate (cities) and vehicle registration (counties)\(^5\).

\(^3\) Source: http://www.oregon.gov/ODOT/CS/FTG/current_ft_rates.shtml

\(^4\) Source: http://www.oregon.gov/ODOT/DMV/fees/vehicle.shtml#RegularReg. Several additional registration fees are identified on ODOT's webpage, including fees for registering vehicles for disabled veterans, as well as for campers, charitable non-profit vehicles, etc.

remaining amount in the State Motor Vehicle Fund is used to maintain and enhance the state highway system. The state operates a grant program available to cities for bicycle-related transportation system improvements and state law requires a minimum of one percent of the state fuel tax and vehicle registration funds be set aside for pedestrian and bicyclist facilities.

**Potential:** With an increase in population, number of registered vehicles, and fuel sales, the total revenue from the State Highway Fund will rise but if the fees (tax per gallon) remain at current levels, there will be a reduction in buying power due to inflation and more fuel-efficient vehicles. The gas tax will however continue to be a source of funds for the city through ODOT for highway and pedestrian and bicycle projects.

*Special City Allotment*

**Description:** The State of Oregon, through the League of Oregon Cities, provides grants to Oregon cities with populations less than 5,000 to help cities repair or reconstruct local streets that are over capacity or are in poor condition.

**Potential:** These funds are limited to streets that are owned or maintained by the local government (state- or county-owned streets are ineligible). Applications are limited to local streets within Wood Village.

*Special Public Works Funds (SPWF) and Immediate Opportunity Funds (IOF) — Lottery Program*

**Description:** The State of Oregon, through the Economic and Community Development Department (OECDD), provides grants and loans to local governments to construct, improve, and repair public infrastructure to support local economic development and create new jobs.

**Existing Application:** The state has used SPWF and IOF funds in a number of cities to construct water, sewer, and limited street improvements.

**Potential:** The state limits these funds to situations where a project will contribute to economic development and creating family-wage jobs. An example of the application of these funds in Wood Village may be for street improvements along NE Sandy Boulevard and NE Halsey Street such as medians, landscape strips, curb extensions, and sidewalks to better facilitate access to businesses on both sides of the streets and facilitate walking trips for customers accessing retail businesses. The city should coordinate funding applications with Multnomah County, OECDD, and ODOT.
**ODOT Statewide Transportation Improvement Program**

**Description:** The Statewide Transportation Improvement Program (STIP) provides federal highway funds for projects in a number of programs. There is a Bridge Program, an Enhance Program, an Interstate Maintenance Program, an Operations Program, a Preservation Program and a Safety Program. ODOT distributes most of the Program funds based on internal management systems, but the Program most applicable to the City of Wood Village is the Enhance Program that focuses funding on activities that enhance, expand, or improve the transportation system.

**Existing Application:** The Enhance Program funds non-highway projects that may be on or off the state system that are consistent with state and local plans and are demonstrate the greatest benefits in relation to costs. These projects typically make key connections between modes or facilities, improve access to economic opportunities and/or address identified system bottlenecks. Given the limited funding ODOT has, the primary focus of the Enhance Program is to ensure funds are allocated to high priority and strategic transportation investments that directly or indirectly benefit the state’s multimodal transportation system. These funds are highly competitive and jurisdictions throughout the Portland Metro area compete for funding. For the 2018-2021 cycle there was $30 million available for the Enhance Program.

**Potential:** The City of Wood Village could seek Enhance Program funds in the next round as ODOT has already developed the 2018-2021 Enhanced Program, though the competitive and regional nature of these projects could make it difficult for the city to compete for funds.

**State Parks Funds**

**Description:** The Oregon Parks and Recreation Department (OPRD) administers Recreational Trails Grants for recreational trail-related projects, such as hiking, running, bicycling, off-road motorcycling and all-terrain vehicle riding.

**Existing Application:** OPRD distributes more than $4 million annually to Oregon communities for outdoor recreation projects, and has awarded more than $40 million in grants across the state since 1999. OPRD can award grants to non-profits, cities, counties, and state and federal agencies.

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6 Source: https://www.oregon.gov/ODOT/HWY/REGION1/Pages/stip/index.aspx
7 Source: http://www.oregon.gov/OPRD/GRANTS/trails.shtml
**Potential:** Funding is primarily intended for recreational trail projects, so the City of Wood Village could seek funding for additions to the trail systems located in the Donald L Robertson City Park.

**LOCAL FUNDING OPTIONS**

Cities commonly use the following local funding programs in the funding of transportation improvements.

*Metro Regional Flexible Fund*

**Description:** Regional flexible funds come from two different federal grant programs: the Surface Transportation Program and the Congestion Mitigation/Air Quality Program. Metro allocates the funds every two years based on projects identified in the Regional Transportation Plan. Projects and program applications may be nominated by jurisdictions, transportation or transit agencies within the metropolitan region. Jurisdictions can spend the funds on a number of different types of improvements, except local street construction.

**Existing Application:** Multnomah County recently received funding from the Regional Flexible Fund for two projects within Wood Village. The first project constructed Arata Road, including adding sidewalks, bike lanes, lighting, landscaping and drainage improvements on the south side of Arata Road between NE wood Village Boulevard and NE 238th Drive. The second project is NE Sandy Boulevard between NE 230th Avenue and NE 238th Drive. This project will improve NE Sandy Boulevard to urban design standards with two 12 foot travel lanes, one 14 foot turn lane, and two 6 foot sidewalks and bike lanes on both sides of the roadway.

**Potential:** Multnomah County and the City of Wood Village could use Regional Flexible Funds to complete the pedestrian and bicycle facilities located along NE Arata Road as well as along many other streets within the city.

*General Obligation Bonds (G.O. Bonds)*

**Description:** Municipal governments often sell bonds to fund transportation (or other types) of improvements, and then repay the bonds with property tax revenue generated by the local government. Under Oregon Measure 50, voters must approve G.O. Bond sales with at least a 50 percent voter turnout.

**Existing Application:** Cities all over the state use this method to finance transportation improvement construction. For smaller jurisdictions, the cost of issuing bonds in relation to the amount that they can reasonably issue creates a problem. Underwriting costs can become a high percentage of the total cost.
for smaller jurisdictions. According to a representative of the League of Oregon Cities, the state is considering developing a “Bond Pool” for smaller jurisdictions. By pooling together several small bond issues, they will be able to achieve an economy of scale and lower costs.

**Potential:** Within the limitations outlined above, G.O. bonding can be a viable alternative for funding transportation improvements for specific projects.

*Serial Levy/Property Taxes within the Limits of Ballot Measure 50*

**Description:** The city or county could use local property tax revenue to fund transportation improvements through a serial bond levy.

**Existing Application:** Revenue from property taxes ends up in the local government general fund where it is used for a variety of purposes. Examples of jurisdictions using property taxes as a funding source for transportation capital improvements are throughout the state. However, with the limitations resulting from Measure 50, using property taxes for transportation capital improvements will continue to compete with other general government services under the three percent assessed value increase allowed by Measure 50 and the local tax limits of $15 per $1,000 of assessed value established under Measure 5. Under Measure 50, however, there is no limit on assessed value generated by new construction.

**Potential:** Because the potential for increased funding from property tax revenue is limited by Ballot Measures 5 and 50 and by competition from other users who draw funds from the general fund, serial levies and/or property taxes are not practical sources for financing major local street improvements but could finance a package of minor improvement projects.

*Local Street Utility/User Fee*

**Description:** The City of Wood Village has an adopted Street Utility Fee. The fee combines fees for storm water and transportation and includes a minor annual allocation to the TSP elements. The city dedicates most of the funds from the fee to local roadway maintenance.

**Existing Application:** Many Oregon cities assess street user fees through a monthly fee charged to local dwelling units and businesses. The assessment formulas range from a flat rate per dwelling unit and per business to fees tied to trip rates calculated for each property individually based on the Institute of Transportation Engineers Trip Generation Manual. Wood Village assesses its Street Utility Fee based on trip generation.
Potential: In Wood Village, The transportation utility fee generates $223,700 for fiscal year 2016-17, and is inflation adjusted annually.

Local Improvement District (LID)

Description: A LID is a special district within which properties are voluntarily assessed in order to pay for specific infrastructure improvements that benefit the district. Revenues can be collected up front or paid over a fixed period of time in annual assessments.

Existing Application: LID programs have wide application for funding new or reconstructed streets, sidewalks, water/sewer or other public works projects that benefit the district. The LID method is used primarily for local or collector roads, though arterials have been built using LID funds in certain jurisdictions.

Potential: LIDs continue to offer a good mechanism for funding projects such as new sidewalks and street surface upgrades. The City of Wood Village may be able to fund the cost of sidewalks on collector streets to provide a connected pedestrian system for current and future residents in the previously developed areas of the city lacking sidewalks.

Urban Renewal District and Tax Increment Financing (TIF)

Description: TIF captures the net new property taxes generated by real estate development within an Urban Renewal Area (URA) and directs those funds towards needed infrastructure improvements in the district. Therefore, when working properly, TIF creates a “virtuous cycle” of needed public infrastructure and actions, and private investments. The Wood Village URA was adopted in 2010.

Existing Application: Over 50 cities have Urban Renewal Areas, including Wood Village. The plan for the URA includes limited investment in identified roadways, and significant funding for right of way enhancements on major roadways.

Potential: The city can use Urban Renewal dollars to fund infrastructure projects such as roadway, sidewalk, or transit improvements. The Wood Village URA has a focus on Arata Road, Halsey, and right of way improvements other than roadway.

Developer Dedications of Right-of-Way and Local Street Improvements

Description: A developer provides new local streets required to serve new development areas in accordance with the tentative and final plan approvals granted by the City Council.
**Existing Application:** Current city ordinance requires developers to provide local streets and utilities in accordance with the adopted Land Use Plan, and the zoning ordinance and subdivision ordinance. This includes dedication of street/utility right-of-way and construction of streets, pedestrian/bicycle facilities, and utilities to city design standards.

**Potential:** Private developer street dedications are an excellent means of funding new local street/utility extensions, and are most effective if guided by a local roadway network plan. This funding mechanism could apply to all new local street extensions in Wood Village within the 20-year planning period.
Performance Measures

Section 10
**PERFORMANCE MEASURES**

The RTFP requires local jurisdictions to develop performance targets and measures, periodically measuring transportation system performance against targets to monitor progress towards achieving regional goals. Figure 2 illustrates the cyclical Performance Measurement System in the RTP which includes plan development and evaluation, plan implementation, and monitoring. This TSP includes Wood Village's performance measures to better understand and monitor the extent to which transportation system investments achieve desired outcomes and provide the best return on public investments. The performance measurement system also satisfies benchmarks mandated by the TPR and federal requirements to use performance monitoring as part of the region’s Congestion Management Program (CMP).

Figure 30. RTP Performance Measurement System

Table 10 lists the Wood Village Performance Measures and Targets. These are compatible with the 2014 Metro RTP performance measures for safety, congestion, freight reliability, active transportation, and travel. These will be used to track progress towards local and regional goals.

Table 10. Wood Village Performance Targets

<table>
<thead>
<tr>
<th>Measure</th>
<th>Performance Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>By 2040, reduce the number of fatal and severe injury crashes for pedestrians, bicyclists, and motor vehicle occupants each by 50% compared to 2007 – 2011 average.</td>
</tr>
<tr>
<td>Congestion</td>
<td>By 2040, reduce vehicle hours of delay (VHD) per person by 10 percent compared to 2010.</td>
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<tr>
<td>Freight Reliability</td>
<td>By 2040, reduce vehicle hours of delay per truck trip by 10 percent compared to 2010.</td>
</tr>
<tr>
<td>Active transportation</td>
<td>By 2040, triple walking, biking and transit mode shares compared to 2010 modeled mode shares.</td>
</tr>
<tr>
<td>Travel</td>
<td>By 2040, reduce vehicle miles traveled per person by 10 percent compared to 2010.</td>
</tr>
</tbody>
</table>
Section 11
References
REFERENCES

7. Spencer & Kupper; Donald Genasci & Associates; Warren Greaser GIS. *Arata Road Conceptual Design Plan*, 2008.
APPENDIX A: TSP EVALUATION 2012
Introduction

This memorandum provides an evaluation of the adopted City of Wood Village 1999 TSP and the TSP Roadway Element (adopted 2001) given regional requirements set out in the Metro Regional Transportation Plan (RTP), Regional Transportation Functional Plan (RTFP), and Urban Growth Management Functional Plan (UGMFP), as part of fulfilling Task 3.1. The evaluation in this memorandum focuses on consistency of the City TSP with the RTFP. The RTFP implements and incorporates the elements of the RTP and UGMFP that are pertinent to local TSP updates. Metro has provided agency members and consultants with a draft “checklist” for reviewing local TSPs, codes, and comprehensive plans for compliance with the RTFP. This memorandum uses the checklist for presenting findings of City TSP compliance with RTFP requirements. In some cases the code or comprehensive plan addresses the RTFP requirement in the TSP checklist and this is called out accordingly.

As has been described in the project scope and in the first Technical and Project Advisory Committee meetings, this TSP update is focusing primarily on local street connectivity, bicycle and pedestrian systems, and transit. It will not include roadway capacity and related infrastructure analysis. Roadway capacity analysis and recommendations for improvements based on analysis findings are to be completed as part of the East Metro Connections Plan (EMCP). This is a separate and subsequent planning study that will consider alternative corridors for providing connections between I-84 and US 26. Results from the EMCP will need to be incorporated into the Wood Village TSP at a later date. How the RTFP requirements are expected to be addressed – as either part of this TSP update or the EMCP process or both – is indicated in the findings below.

In 2015 the City of Wood Village embarked on a TSP update and Town Center Master Planning process. The TSP update incorporated the outcomes of the EMCP process along with the Town Center Master Plan transportation projects. The City will adopt the TSP update in June 2017. This memorandum includes updates to the RTFP checklist to ensure that the City’s TSP complies with Metro’s requirements.
Table 1. Checklist for Compliance with Regional Transportation Functional Plan (RTFP)

<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include, to the extent practicable, a network of major arterial streets at one-mile spacing and minor arterials or collectors at half-mile spacing, considering: • existing topography; • rail lines; freeways; pre-existing development, leases, easements or covenants; • requirements of Metro’s Urban Growth Management Functional Plan Title 3 (Water Quality and Flood plains) and Title 13 (Nature in Neighborhoods), such as streams, rivers, flood plains, wetlands, riparian and upland fish and wildlife habitat areas. • arterial design concepts in chapter 2 of RTP • best practices and designs as set forth in regional state or local plans and best practices for protecting natural resources and natural areas (Title 1, Street System Design Sec 3.08.110C)</td>
<td>The City of Wood Village Street Plan was developed in its 1999 TSP (Section 3). The 1999 plan indicated that the city was largely built-out and that the main opportunity for connections was in the Town Center, both in terms of the Metro land use designation and as had already begun to be developed and so named. The TSP street element defers functional classification and spacing standards on arterials and collectors to Multnomah County standards since the county owns all arterial and collector roads within the city. Current arterials meet Metro’s spacing guidelines, however the lower classification streets are limited due to topographical, natural constraints, and the built environment. The City only has jurisdiction over local streets- all streets functionally classified as collectors or above are under the jurisdiction of Multnomah County or the Oregon Department of Transportation (ODOT). Local street spacing standards are included in the Zoning and Development code for local roadway development on the limited lands that are undeveloped. For the largest undeveloped parcels in the Town Center Zone, the plan utilizes a regulating diagram to identify where specific intersections are required within the Town Center. The Town Center regulating diagram allows for the kinds of conditions called out under these RTFP provisions by providing flexibility in location of required intersections to accommodate existing conditions on the site. Transportation policies are housed in the City Comprehensive Plan and not the TSP. Existing transportation policies related to connectivity include: 6. Except where precluded by existing development, topographical or natural constraints, new development shall include local street designs that discourage cul-de-sacs and extend existing streets, or connect residential areas with services and institutions by short, direct public pedestrian and bicycle ways. 7. Improve bicycle and pedestrian access to the Town Center, the City park and institutional uses from existing and new residential areas in Wood Village. The TSP update addresses connectivity in terms of policy and possible connections for bicyclists, pedestrians, and motorists including roadway system improvements needed based on forecasted capacity demand. The TSP update is consistent with the RTP.</td>
</tr>
<tr>
<td>Regional Transportation Functional Plan Requirement</td>
<td>Findings Regarding Local TSP</td>
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</tr>
<tr>
<td>Include a conceptual map of new streets for all contiguous areas of vacant and re-developable lots and parcels of five or more acres that are zoned to allow residential or mixed-use development. The map shall identify street connections to adjacent areas and should demonstrate opportunities to extend and connect new streets to existing streets, provide direct public right-of-way routes and limit closed-end street designs consistent with Title 1, Sec 3.08.110E (Title 1, Street System Design Sec 3.08.110D)</td>
<td>The Town Center Master Plan includes a street plan in the Town Center, but outside of the Town Center the TSP does not include proposed street plans for vacant and re-developable lots of five acres or more zoned for residential or mixed use, however, these conditions are probably minimal to none. The TSP does include figure 17 titled Future Connectivity Improvements identifying multi-modal opportunity corridors. <em>The TSP update addresses connectivity in terms of policy and possible connections for bicyclists, pedestrians, and motorists within the Town Center. Due to the already built-out nature of the existing street system in the City, the TSP does not recommend additional street connectivity outside of the Town Center except as provided in the opportunity corridors. The TSP update is consistent with the RTP.</em></td>
</tr>
<tr>
<td>To the extent feasible, restrict driveway and street access in the vicinity of interchange ramp terminals, consistent with Oregon Highway Plan Access Management Standards, and accommodate local circulation on the local system. Public street connections, consistent with regional street design and spacing standards, shall be encouraged and shall supersede this access restriction. Multimodal street design features including pedestrian crossings and on-street parking shall be allowed where appropriate. (Title 1,Street System Design Sec 3.08.110G)</td>
<td>The TSP defers to County and ODOT standards for access management on arterials and collectors. It includes a recommendation for a safety study at the I-84 ramps that could address access nearby. Local street cross sections include on-street parking but do not address pedestrian crossings. The City code includes a section on block requirements (Subsection 460.020.B) in Section 460 (Transportation and Utility Design Standards). That is the closest the code comes to addressing access management. <em>The TSP and development code includes a policy to support measures to improve access management and safety. The TSP update is consistent with the RTP.</em></td>
</tr>
<tr>
<td>Include investments, policies, standards and criteria to provide pedestrian and bicycle connections to all existing transit stops and major transit stops designated in Figure 2.15 of the RTP. (Title 1, Transit System Design Sec 3.08.120A)</td>
<td>Figure 2.15 in the RTP identifies transit stops and centers along Halsey Boulevard and at the intersection of Sandy Boulevard and 238th Avenue as part of the Regional Transit Network. Transportation policies in the Comprehensive Plan are generally supportive of bicycle and pedestrian facility planning and implementation but there is no specific policy about connecting with transit facilities. The TSP includes a goal to improve pedestrian and bicycle connections to transit. The Transportation System Tools chapter includes bicycle parking to support transit. The City code Town Center Zone (Section 235) and Neighborhood Commercial Zone (Section 230) set requirements for pedestrian connections to transit facilities, but this is not universal for all zones in the city. <em>Connections and access to transit facilities – and associated proposed code and implementation language – are addressed in the TSP update. The TSP update is consistent with the RTP.</em></td>
</tr>
</tbody>
</table>
### Regional Transportation Functional Plan Requirement

Include a transit plan consistent with transit functional classifications shown in Figure 2.15 of the RTP that shows the locations of major transit stops, transit centers, high capacity transit stations, regional bike-transit facilities, inter-city bus and rail passenger terminals designated in the RTP, transit-priority treatments such as signals, park-and-ride facilities, and bicycle and pedestrian routes, consistent with sections 3.08.130 and 3.08.140, between essential destinations and transit stops. *(Title 1, Transit System Design Sec 3.08.120B(1))*

<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Include a pedestrian plan, for an interconnected network of pedestrian routes within and through the city or county. The plan shall include:</td>
<td>Figure 2.15 in the RTP identifies transit stops and centers along Halsey Boulevard and at the intersection of Sandy Boulevard and 238th Avenue as part of the Regional Transit Network. None of the other designations listed in RTFP Section 3.08.120B(1) are identified in the city in this figure.</td>
</tr>
<tr>
<td>• An inventory of existing facilities that identifies gaps and deficiencies in the pedestrian system;</td>
<td>The TSP designates Halsey Boulevard, 223rd Avenue, a segment of Main Street in the Town Center, Glisan Street, and Sandy as part of the city’s public transportation system. The TSP and RTP are consistent.</td>
</tr>
<tr>
<td>• An evaluation of needs for pedestrian access to transit and essential destinations for all mobility levels, including direct, comfortable and safe pedestrian routes;</td>
<td><em>The TSP update is consistent with the RTP.</em></td>
</tr>
<tr>
<td>• A list of improvements to the pedestrian system that will help the city or county achieve the regional Non-SOV modal targets in Table 3.08-1 of the RTFP, and other targets established pursuant to section 3.08.230;</td>
<td>The Pedestrian System section of the Existing Conditions in the TSP identifies pedestrian deficiencies and needs, including specific provisions for transit access. It does not make specific provisions for all mobility levels.</td>
</tr>
<tr>
<td>• Provisions for sidewalks along arterials, collectors and most local streets, except that sidewalks are not required along controlled roadways, such as freeways;</td>
<td>Cross sections in the Roadway Element (Figures 21-26) include sidewalks on all local, collector, and arterial roadways.</td>
</tr>
<tr>
<td>• Provision for safe crossings of streets and controlled pedestrian crossings on major arterials</td>
<td>Recommended projects are described in Tables 7, 8, and 9 and shown in Figure 27. These projects will help the city achieve the regional non-SOV modal targets.</td>
</tr>
<tr>
<td><em>(Title 1, Pedestrian System Design Sec 3.08.130A)</em></td>
<td>The pedestrian System Plan includes specific provisions for safe or controlled crossings.</td>
</tr>
<tr>
<td></td>
<td><em>The TSP update is consistent with the RTP.</em></td>
</tr>
<tr>
<td>Regional Transportation Functional Plan Requirement</td>
<td>Findings Regarding Local TSP</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| Include a bicycle plan for an interconnected network of bicycle routes within and through the city or county. The plan shall include:  
  - An inventory of existing facilities that identifies gaps and deficiencies in the bicycle system;  
  - An evaluation of needs for bicycle access to transit and essential destinations, including direct, comfortable and safe bicycle routes and secure bicycle parking, considering *TriMet Bicycle Parking Guidelines*;  
  - A list of improvements to the bicycle system that will help the city or county achieve the regional Non-SOV modal targets in Table 3.08-1 of the RTFP and other targets established pursuant to section 3.08.230;  
  - Provision for bikeways along arterials, collectors and local streets, and bicycling parking in centers, at major transit stops shown in Figure 2.15 in the RTP, park-and-ride lots and associated with institutional uses;  
  - Provision for safe crossing of streets and controlled bicycle crossings on major arterials  
  *(Title 1, Bicycle System Design Sec 3.08.140)* | The Bicycle System section of the Existing Conditions in the TSP identifies bicycle deficiencies and needs, including specific provisions for bicycle access to transit facilities.  
  Cross sections in the Roadway Element (Figures 21-26) include bike lanes on all collector and arterial roadways but not on local residential roadways.  
  Recommended projects are described in tables 7, 8, and 9 and shown in Figure 28. These projects will help the city achieve the regional non-SOV modal targets.  
  The TSP includes references to bicycle detection at crossings with signals, and bicycle parking.  
  The City code addresses bicycle parking. Section 350.045(6) establishes basic provisions for the number of bicycle parking spaces for multi-family, industrial, commercial, and industrial uses and their location and design, but not with detail to the level of the *TriMet Bicycle Parking Guidelines or specifically regarding parking at transit facilities.*  
  *The TSP update is consistent with the RTP.* |
| Include a freight plan for an interconnected system of freight networks within and through the city or county. The plan shall include:  
  - An inventory of existing facilities that identifies gaps and deficiencies in the freight system;  
  - An evaluation of freight access to freight intermodal facilities, employment and industrial areas and commercial districts;  
  - A list of improvements to the freight system that will help the city or county increase reliability of freight movement, reduce freight delay and achieve targets established pursuant to section 3.08.230.  
  *(Title 1, Freight System Design Sec 3.08.150)* | The TSP includes a reference to the 1999 TSP for information and description of future needs of rail and air facilities in the city or vicinity.  
  The Transportation System Inventory chapter provides detail about existing freight routes in the city. The Existing Traffic Conditions chapter provides information on freight truck operations through the city. The plan includes freight system components in Table 6 consistent with the RTP. The TSP’s improvement program includes projects specifically designed to accommodate freight within and through the city.  
  There is no analysis in the TSP that is particular to freight intermodal facilities, employment and industrial areas, and commercial districts.  
  *The TSP update is consistent with the RTP.* |
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
</table>
| Include a transportation system management and operations (TSMO) plan to improve the performance of existing transportation infrastructure within or through the city or county. A TSMO plan shall include:  
  - An inventory and evaluation of existing local and regional TSMO infrastructure, strategies and programs that identifies gaps and opportunities to expand infrastructure, strategies and programs  
  - A list of projects and strategies, consistent with the Regional TSMO Plan, based upon consideration of the following functional areas:  
    - Multimodal traffic management investments  
    - Traveler Information investments  
    - Traffic incident management investments  
    - Transportation demand management investments  
     *(Title 1, Transportation System Management and Operations Sec 3.08.160)* | Since the city does not own or operate any of the arterials or collectors within the study area, there is little discussion regarding TSMO, however, there is a system management project in Table 8 that is consistent with TSMO improvements identified in the EMCP.  
  *The TSP update is consistent with the RTP.* |

| Incorporate regional and state transportation needs identified in the 2035 RTP as well as local transportation needs. The determination of local transportation needs based upon:  
  - System gaps and deficiencies identified in the inventories and analysis of transportation system pursuant to Title 1;  
  - Identification of facilities that exceed the Deficiency Thresholds and Operating Standards in Table 3.08-2 or the alternative thresholds and standards established pursuant to section 3.08.230;  
  - Consideration and documentation of the needs of youth, seniors, people with disabilities and environmental justice populations within the city of county, including minorities and low-income families. | The EMCP process identified the need for north-south connections between I-84 and US 26, improve access to downtowns and jobs, and leverage previous investments by making the existing system smarter and more efficient. The TSP adopts the recommendations within Wood Village to support these identified needs. Additionally, the TSP identifies system gaps and deficiencies identified by the EMCP and the resulting roadway, bicycle, and pedestrian projects in the TSP include recommendations identified through the EMCP process.  
  *The TSP update is consistent with the RTP.* |
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
</table>
| A local determination of transportation needs must be consistent with the following elements of the RTP:  
  - The population and employment forecast and planning period of the RTP, except that a city or county may use an alternative forecast for the city or county, coordinated with Metro, to account for changes to comprehensive plan or land use regulations adopted after adoption of the RTP;  
  - System maps and functional classifications for street design, motor vehicles, transit, bicycles, pedestrians and freight in Chapter 2 of the RTP;  
  - Regional non-SOV modal targets in Table 3.08-1 and the Deficiency Thresholds and Operating Standards in Table 3.08-2.  

When determining its transportation needs, a city or county shall consider the regional needs identified in the mobility corridor strategies in Chapter 4 of the RTP.  
(*Title 2, Transportation Needs Sec 3.08.210*) | The TSP includes pedestrian, bicycle, transit, motor vehicle, and roadway capacity needs to address the city’s population and employment forecast. The TSP includes system maps and functional classifications for all modes as required by the RTP. The City has also included Performance Measures consistent with Metro’s requirement.  

*The TSP is consistent with the RTP.* |

| Consider the following strategies in the order listed, to meet the transportation needs determined pursuant to section 3.08.210 and performance targets and standards pursuant to section 3.08.230. The city or county shall explain its choice of one or more of the strategies and why other strategies were not chosen:  
  - TSMO, including localized TDM, safety, operational and access management improvements;  
  - Transit, bicycle and pedestrian system improvements;  
  - Traffic-calming designs and devices;  
  - Land use strategies in OAR 660-012-0035(2)  
  - Connectivity improvements to provide parallel arterials, collectors or local streets that include pedestrian and bicycle facilities, consistent with the connectivity standards in section 3.01.110 and design | The TSP includes an appendix that describes the hierarchy of determining street element projects included in the TSP that follows the RTFP section 3.08.210.  

The TSP includes transit, bicycle and pedestrian improvements and makes recommendations about requirements for pedestrian connections to transit facilities for commercial, industrial, and institutional development and in parking areas. (Note: The City code Town Center Zone (Section 235) and Neighborhood Commercial Zone (Section 230) set requirements for pedestrian connections to transit facilities.) Traffic calming measures are included in the Town Center Master Plan text for local streets.  

Connectivity issues are addressed in response to RTFP Sec 3.08.110 C and D (Street System Design) above.  

The TSP includes motor vehicle system improvements, consistent with the RTP Arterial and Throughway Design and Network Concepts in Table 2.6 and Section 2.5.2 of the RTP  

*The TSP is consistent with the RTP.* |
Regional Transportation Functional Plan Requirement | Findings Regarding Local TSP
---|---
classifications in Table 2.6 of the RTP, • Motor vehicle capacity improvements, consistent with the RTP Arterial and Throughway Design and Network Concepts in Table 2.6 and Section 2.5.2 of the RTP, only upon a demonstration that other strategies in this subsection are not appropriate or cannot adequately address identified transportation needs

A city or county shall coordinate its consideration of the above strategies with the owner of the transportation facility affected by the strategy. Facility design is subject to the approval of the facility owner.

If analysis under subsection 3.08.210A (Local Needs determination) indicates a new regional or state need that has not been identified in the RTP, the city or county may propose one of the following actions:

• Propose a project at the time of Metro review of the TSP to be incorporated into the RTP during the next RTP update; or

• Propose an amendment to the RTP for needs and projects if the amendment is necessary prior to the next RTP update.

(Title 2, Sec 3.08.220 Transportation Solutions) Land use strategies would be implemented through the City code and not the TSP. Of the strategies identified in OAR 660-012-0035(2)\(^1\), there are currently no general provisions for minimum densities (or maximum lot size). The code does, however, establish a minimum floor area ratio (FAR) in the Town Center Zone. The Town Center Zone has been applied to land for a community shopping center, and is adjacent to or nearby residential development and includes mixed use development to accommodate both jobs and housing within the Zone.

The TSP is consistent with the RTP.

---

\(^1\) OAR 660-012-0035(2): (2) Local governments in MPO areas of larger than 1,000,000 population shall, and other governments may also, evaluate alternative land use designations, densities, and design standards to meet local and regional transportation needs. Local governments preparing such a strategy shall consider:

(a) Increasing residential densities and establishing minimum residential densities within one quarter mile of transit lines, major regional employment areas, and major regional retail shopping areas;

(b) Increasing allowed densities in new commercial office and retail developments in designated community centers;

(c) Designating lands for neighborhood shopping centers within convenient walking and cycling distance of residential areas; and

(d) Designating land uses to provide a better balance between jobs and housing considering:

(A) The total number of jobs and total number of housing units expected in the area or subarea;

(B) The availability of affordable housing in the area or subarea; and

(C) Provision of housing opportunities in close proximity to employment areas.
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate that solutions adopted pursuant to section 3.08.220 (Transportation Solutions) will achieve progress toward the targets and standards in Tables 3.08-1, and 3.08-2 and measures in subsection D (local performance measures), or toward alternative targets and standards adopted by the city or county. The city or county shall include the regional targets and standards or its alternatives in its TSP. A city or county may adopt alternative targets or standards in place of the regional targets and standards upon a demonstration that the alternative targets or standards:</td>
<td>The TSP includes performance measures consistent with the RTP that address safety, VMT per capita, freight reliability, congestion, and walking, bicycling and transit mode shares. The City has not adopted alternative standards.</td>
</tr>
<tr>
<td>* Are no lower than the modal targets in Table 3.08-1 and no lower than the ratios in Table 3.08-2;</td>
<td>The TSP does not address parking, but City code, Section 350 (Parking and Loading). Section 350 addresses both motor vehicle and bicycle parking. The code establishes both minimums and maximums for the number of required motor vehicle parking spaces. The code also allows for joint use parking under certain conditions. Special parking provisions are established for the Town Center Zone (Section 235.390). The provisions address carpool parking and allow for “blended” calculations of minimum parking including counting on-street parking.</td>
</tr>
<tr>
<td>* Will not result in a need for motor vehicle capacity improvements that go beyond the planned arterial and throughway network defined in Figure 2.12 of the RTP and that are not recommended in, or are inconsistent with, the RTP; and</td>
<td>The TSP includes designs for street, transit, bicycle, freight and pedestrian systems consistent with Title I, and the TSP is consistent with the TSMO projects and strategies as noted above, and the TSP and Town Center Master Plan are both consistent to the land use actions pursuant to OAR 660-012-0035(2).</td>
</tr>
<tr>
<td>* Will not increase SOV travel to a degree inconsistent with the non-SOV modal targets in Table 3.08-1.</td>
<td><strong>The TSP is consistent with the RTP.</strong></td>
</tr>
</tbody>
</table>

If the city or county adopts mobility standards for state highways different from those in Table 3.08-2, it shall demonstrate that the standards have been approved by the Oregon Transportation Commission.

Each city and county shall also include performance measures for safety, vehicle miles traveled per capita, freight reliability, congestion, and walking, bicycling and transit mode shares to evaluate and monitor performance of the TSP.

To demonstrate progress toward achievement of performance targets in Tables 3.08-1 and 3.08-2 and to improve performance of state highways within its jurisdiction as much as feasible and avoid their further
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
</table>
| degradation, the city or county shall adopt the following:  
- Parking minimum and maximum ratios in Centers and Station Communities consistent with subsection 3.08.410A;  
- Designs for street, transit, bicycle, freight and pedestrian systems consistent with Title 1; and  
- TSMO projects and strategies consistent with section 3.08.160; and  
- Land use actions pursuant to OAR 660-012-0035(2). (Title 2, Performance Targets and Standards Sec 3.08.230) | There are no new regional facilities or interchanges recommended in the TSP. |

Specify the general locations and facility parameters, such as minimum and maximum ROW dimensions and the number and width of traffic lanes, of planned regional transportation facilities and improvements identified on general location depicted in the appropriate RTP map. Except as otherwise provided in the TSP, the general location is as follows:  
- For new facilities, a corridor within 200 feet of the location depicted on the appropriate RTP map;  
- For interchanges, the general location of the crossing roadways, without specifying the general location of connecting ramps;  
- For existing facilities planned for improvements, a corridor within 50 feet of the existing right-of-way and  
- For realignments of existing facilities, a corridor within 200 feet of the segment to be realigned as measured from the existing right-of-way depicted on the appropriate RTP map.  
A City or county may refine or revise the general location of a planned regional facility as it prepares or revises impacts of the facility or to comply with comprehensive plan or statewide planning goals. If, in developing or amending its TSP, a city or county

Existing facilities in the city with regional designations include: I-84, Sandy Boulevard, 223rd Avenue, 238th Avenue, 242nd Avenue, Halsey Street, and Glisan Street. These are all either State or County facilities.  

Planned facilities – or existing facilities slated for planned improvements – in the city that are identified in the 2035 RTP project list include:  
- Reconstruct Halsey St. with Improvements  
- Halsey St. Improvements  
- 238th/242nd Ave/Hogan Dr.: Arterial Corridor Management with Adaptive Signal Timing.  
The planned improvements are working within existing right-of-way and are consistent with the location requirements of this section.  

Cross sections in the existing TSP are consistent with Multnomah County cross sections and recent refinement plans addressing Arata Road, Sandy Boulevard, and Halsey Boulevard.  

*The TSP is consistent with the RTP.*
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
</table>
| determines the general location of a planned regional facility or improvement is inconsistent with its comprehensive plan or a statewide goal requirement, it shall:  
  • Propose a revision to the general location of the planned facility or improvement to achieve consistency and, if the revised location lies outside the general location depicted in the appropriate RTP map, seek an amendment to the RTP; or  
  • Propose a revision to its comprehensive plan to authorize the planned facility or improvement at the revised location.  
*(Title 3, Defining Projects in Transportation System Plan Sec 3.08.310)* | Parking is not addressed in the existing TSP but in the City code, Section 350 (Parking and Loading). Section 350 addresses both motor vehicle and bicycle parking. The code establishes both minimums and maximums for the number of required motor vehicle parking spaces. The code also allows for joint use parking under certain conditions. Special parking provisions are established for the Town Center Zone.² The provisions address carpool parking and allow for “blended” calculations of minimum parking including counting on-street parking. |

² Section 235.390  
C. Parking and Loading.  
(1) The requirements of Section 350 apply.  
(2) In addition, parking requirements in the Town Center zone may be met by blending parking rates. Calculating parking stalls for a use may include counting adjacent on-street spaces, nearby public parking, cross-patronage, and shared parking possibilities due to variation in hours of operation and as per Section 350.045(5).  
(3) In addition to the requirements of Section 350, for all institutional, office and industrial uses having more than 20 auto parking spaces on the site, the following standards must be met:  
(a) Five spaces or five percent of the parking spaces on the site for such institutional, office and industrial uses, whichever is less, must be reserved for carpool use before 9:00 AM on weekdays.  
(b) The spaces will be those closest to the building entrance or elevator, but not closer than the spaces for disabled parking and those signed for exclusive customer use.  
(c) Signs must be posted indicating these spaces are reserved for carpool use before 9:00 AM on weekdays.  
(4) A parking area other than on-street parking shall not be located between a street and a main building entrance described in Section 235.345.F(1). A street between a main building entrance described in Section 235.345.F(1) and a parking area may be a private street, as long as it satisfies the applicable pedestrian standards of Section 235.345.
<table>
<thead>
<tr>
<th>Regional Transportation Functional Plan Requirement</th>
<th>Findings Regarding Local TSP</th>
</tr>
</thead>
</table>
| May be adopted in TSPs or other adopted policy documents and may focus on sub-areas of Centers. Plans shall include an inventory of parking supply and usage, an evaluation of bicycle parking needs with consideration of TriMet Bicycle Parking Guidelines. Policies shall be adopted in the TSP. Policies, plans and regulations must consider and may include the following range of strategies:  
  • By-right exemptions from minimum parking requirements;  
  • Parking districts;  
  • Shared parking;  
  • Structured parking;  
  • Bicycle parking;  
  • Timed parking;  
  • Differentiation between employee parking and parking for customers, visitors and patients;  
  • Real-time parking information;  
  • Priced parking;  
  • Parking enforcement.  
  *(Title 4, Parking Management Sec 3.08.410I)* | Parking plans currently required by the code are a component of development site plans, not the comprehensive management plans as laid out in this section of the RTFP. There are parking maximums, and parking-specific policies in the Town Center Zone code.  
  *The TSP is consistent with the RTP.* |

If the city or county decides not to build a project identified in the RTP, it shall identify alternative projects or strategies to address the identified transportation need and inform Metro so that Metro can amend the RTP. This section does not apply to city or county transportation projects that are financed locally and would be undertaken on local facilities.  
  *(Title 5, Amendments of City and County Comprehensive and Transportation System Plans Sec 3.08.510C)* | The TSP only includes roadway projects that relate SOV capacity or facility function and capacity already included in the RTP. All other projects are anticipated to be financed locally and undertaken on local facilities.  
  *The TSP is consistent with the RTP.* |
The following table summarizes regional designations that are made in the RTP and are referred to in the preceding evaluation table. The text following the table are descriptions and policy statements from the RTP related to the designations.

Table 2. Designations for Regional Facilities in Wood Village

<table>
<thead>
<tr>
<th>Regional Design</th>
<th>Regional Street and Throughway System</th>
<th>Regional Bicycle System</th>
<th>Regional Pedestrian System*</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-84 Throughway (Freeway)</td>
<td>Principal arterial</td>
<td>(not classified)</td>
<td>(not classified)</td>
</tr>
<tr>
<td>Sandy Boulevard</td>
<td>Regional street</td>
<td>(not classified)</td>
<td>Regional bikeway</td>
</tr>
<tr>
<td>223rd Avenue Community boulevard</td>
<td>(not classified)</td>
<td>Regional bikeway</td>
<td>Mixed-use corridor</td>
</tr>
<tr>
<td>238th Avenue Community street</td>
<td>Minor arterial</td>
<td>Community bikeway</td>
<td>(not classified)</td>
</tr>
<tr>
<td>242nd Avenue Regional Street</td>
<td>Major arterial</td>
<td>Community bikeway</td>
<td>(not classified)</td>
</tr>
<tr>
<td>Halsey Street Community street</td>
<td>Minor arterial</td>
<td>Regional bikeway</td>
<td>Mixed-use corridor</td>
</tr>
<tr>
<td>Glisan Street Regional street</td>
<td>Major arterial</td>
<td>Regional bikeway</td>
<td>(not classified)</td>
</tr>
</tbody>
</table>

* A pedestrian district or mixed-use center is located between Halsey Street, 223rd Avenue, and Glisan Street in Wood Village.

**Regional Street and Throughway System Designations**

**Throughways** currently carry between 50,000 to 100,000 vehicles per day, providing for high-speed travel on longer motor vehicle trips and serving as the primary freight routes, with an emphasis on mobility. Throughways help serve the need to move both trucks and autos through the region. Throughways connect major activity centers within the region, including the central city, regional centers, industrial areas and intermodal facilities.

**Arterial streets** usually carry between 10,000 and 40,000 vehicles per day and allow higher speeds than collector and local streets. Major arterial streets accommodate longer-distance through trips and serve more of a regional traffic function. Minor arterial streets serve shorter trips that are localized within a community.
Figure 1. Throughway and Arterial Design Concepts

<table>
<thead>
<tr>
<th>Trip Type</th>
<th>2040 Design Concept</th>
<th>Network Function</th>
<th>Illustrative Design Concept</th>
<th>Typical number of planned travel lanes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Throughway</td>
<td></td>
<td></td>
<td>6 through lanes (plus auxiliary lanes) with grade separated interchanges</td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interstate</td>
<td>Throughway (Freeway)</td>
<td>Principal arterial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highway</td>
<td></td>
<td></td>
<td>6 through lanes (plus auxiliary lanes) with grade separated intersections/interchanges</td>
<td></td>
</tr>
<tr>
<td>Parkway</td>
<td></td>
<td></td>
<td>6 through lanes (plus auxiliary lanes) with grade separated intersections/interchanges</td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td></td>
<td></td>
<td>4 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>Regional Boulevard</td>
<td>Major Arterial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>2040 centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Community Boulevard</td>
<td>Minor Arterial</td>
<td>2 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Boulevard</td>
<td>2040 centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Community</td>
<td>Street</td>
<td>Minor Arterial</td>
<td>2 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Boulevard</td>
<td>2040 centers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Employment areas</td>
<td>Major Arterial</td>
<td>4 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Employment areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>Employment areas</td>
<td>Minor Arterial</td>
<td>2 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Industrial areas</td>
<td>Employment areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regional</td>
<td>Employment areas</td>
<td>Minor Arterial</td>
<td>2 through lanes with turn lanes</td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td>Employment areas</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial areas</td>
<td></td>
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</tr>
</tbody>
</table>
Regional Bicycle System Designations

Regional Bicycle Parkways form the backbone of the regional bicycle network, providing for direct and efficient travel with minimal delays in different urban environments and to destinations outside the region.

Halsey Street, Sandy Boulevard, and 238th/242nd Avenues are designated Bicycle Parkways within the City of Wood Village.

Regional Bikeways provide for travel to and within the Central City, Regional Centers, and Town Centers.

Glisan Street and 223rd Avenue are designated Regional Bikeways within the City of Wood Village.

Community Bikeways provide for travel to and within other 2040 Target Areas. These routes also provide access to regional attractions such as schools and parks and connect neighborhoods to the rest of the regional bicycle network.

All of the regionally designated bicycle streets within the City of Wood Village either have bike lanes on both sides, or the TSP includes recommendations to provide bike lanes on both sides.

Regional Pedestrian System Designations

Transit/mix-use corridors are priority areas for pedestrian improvements. They are located along good-quality transit lines and will be redeveloped at densities that are somewhat higher than today. These corridors will generate substantial pedestrian traffic near neighborhood-oriented retail development, schools, parks and bus stops.

These corridors should be designed to promote pedestrian travel with such features as wide sidewalks with buffering from adjacent motor vehicle traffic, street crossings at a minimum of 530 feet – though an ideal spacing is 200 to 400 feet where possible (unless there are no intersections, bus stops or other pedestrian attractions), special crossing amenities at some locations, special lighting, bus shelters, awnings and street trees.

Pedestrian districts are areas of high, or potentially high, pedestrian activity where the region places priority on creating a walkable environment. These include the central city, regional and town centers and light rail station communities where sidewalks, plazas and other public spaces are integrated with civic, commercial and residential development...They are often characterized by compact mixed-use development served by transit...These areas will be characterized by buildings oriented to the street and boulevard-type street design features such as wide sidewalks with buffering from adjacent motor vehicle traffic, marked street crossings at all intersections with special crossing amenities at some locations, special lighting, benches, bus shelters, awnings and street trees. All streets within pedestrian districts are important pedestrian connections.
The Wood Village Town Center is a Metro-designated pedestrian district. The Town Center Master Plan includes numerous recommendations to provide or enhance pedestrian connections throughout the Town Center.

**Pedestrian Parkways** are a new functional class for pedestrian routes on the regional pedestrian network and the highest functional class. They are high quality and high priority routes for pedestrian activity. Pedestrian Parkways are generally major urban streets that provide frequent and almost frequent transit service (existing and planned). They can also be regional trails. Adequate width and separation between pedestrians and bicyclists should be provided on multi-use trail parkways.

Halsey Street, Sandy Boulevard and 223rd Avenue are designated Pedestrian Parkways within the City of Wood Village.

**Regional Pedestrian Corridors** are the second highest functional class of the regional pedestrian network. On-street Regional Pedestrian Corridors are any major or minor arterial on the regional urban arterial network that is not a Pedestrian Parkway. Regional trails that are not Pedestrian Parkways are classified as Regional Pedestrian Corridors. These routes are also expected to see a high level of pedestrian activity.

Glisan Street and 238th/242nd Avenues are designated Regional Pedestrian Corridors within the City of Wood Village.

All of the regionally designated pedestrian streets within the City of Wood Village either have sidewalks on both sides, or the TSP includes recommendations to provide sidewalks on both sides.

**Regional Transit System Designations**
Halsey Street and 223rd Avenue are designated frequent bus corridors, and there are a number of major bus stops along Halsey and 223rd Avenues.

**Regional Freight System Designations**
The freight designations in Wood Village include two Main Railroad Lines, a Main Roadway (I-84), and Road Connectors on Sandy Boulevard and Glisan Street. When the county upgrades 238th/242nd Avenue to address geometric deficiencies, Metro will designate that north-south corridor a freight road connector.

Figure 2.20 (Regional Freight Network) in the RTP notes: “The Main Roadway designation on Burnside/181st Avenue is the current NHS route. The proposed I-84/US 26 corridor refinement plan will identify the main roadway freight route and long-term mobility strategy in this area.”
APPENDIX B: IMPLEMENTATION LANGUAGE OF THE 2012 TSP
Memorandum

TO: Technical Advisory Committee and Public Advisory Committee
FROM: Darci Rudzinski, AICP
       Shayna Rehberg, AICP
DATE: February 6, 2012
CC: Frank Angelo, Principal
FILE #: 024-029
RE: City of Wood Village Transportation System Plan (TSP) Update
    Task 4.2: Proposed Implementation Language – Revised

Introduction

This memorandum presents draft implementation language for the City of Wood Village Comprehensive Plan, Transportation System Plan (TSP), and Zoning and Development Ordinance (ZDO), and addresses objectives established in Task 4. The language proposed in this memorandum addresses issues that have been raised during the update of the TSP and identified during the initial regulatory review conducted for Task 2 of this project’s scope of work (see Plan and Policy Summary Report) and an evaluation of the City’s TSP using a Regional Transportation Functional Plan (RTFP) compliance checklist in Task 3. The intent of the proposed amendments is to ensure consistency between local code requirements, policy language, and the TSP and address compliance with the Regional Transportation Functional Plan (RTFP) and Oregon Transportation Planning Rule (TPR).

A summary list of proposed changes that correspond to RTFP and TPR requirements is provided in Table 1. Proposed amendments to the City’s Comprehensive Plan begin on page 9, proposed amendments to the TSP on page 10, and proposed amendments to the ZDO on page 11. Recommended amendments to the TSP are referred to in this memorandum but are included in the updated TSP document. Proposed policy and code language is presented in this memorandum; language recommended for addition to the Comprehensive Plan or ZDO is underlined and language recommended for removal is struck through.

Recommended ZDO amendments will be adopted when the City initiates legislative action. It is expected that ZDO amendments will be adopted concurrently with the TSP amendments.
<table>
<thead>
<tr>
<th>Document Section</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>City of Wood Village Comprehensive Plan</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| P1 | Transportation Policies – delete or revise Policy 16 | Improve/allow more access between Wood Village Town Center and neighborhoods to the east | RTFP  
Title 1, Street System Design Sec 3.08.110C  
Title 1, Street System Design Sec 3.08.110D |
| P2 | Transportation Policies – new Policy 17 | Generally improve connectivity in the city | RTFP  
Title 1, Street System Design Sec 3.08.110B  
Title 1, Street System Design Sec 3.08.110C  
Title 1, Street System Design Sec 3.08.110D |
| P3 | Transportation Policies – new Policy 18 | Ensure local and county street design consistency with regional street designs | RTFP  
Title 1, Street System Design Sec 3.08.110A(1) |
| P4 | Transportation Policies – new Policy 19 | Allow for “green street” designs | RTFP  
Title 1, Street System Design Sec 3.08.110A(2) |
| P5 | Transportation Policies – new Policy 20 | Increase and improve crossings | RTFP  
Title 1, Street System Design Sec 3.08.110A(3)  
Title 1, Street System Design Sec 3.08.110G  
Title 1, Pedestrian System Design Sec 3.08.130A  
Title 1, Bicycle System Design Sec 3.08.140 |
| P6 | Transportation Policies – new Policy 21 | Limit residential driveways on collectors and arterials | RTFP  
Title 1, Street System Design Sec 3.08.110G |
| P7 | Transportation Policies – new Policy 22 | Support connectivity through access spacing standards | RTFP  
Title 1, Street System Design Sec 3.08.110G |
| P8 | Transportation Policies – new Polices 23-29 | Improve pedestrian and bicycle connections to transit. Support improvements to transit service and facilities. | RTFP  
Title 1, Street System Design Sec 3.08.110A(3)  
Title 1, Transit System Design Sec 3.08.120A  
Title 1, Pedestrian System Design Sec 3.08.130A  
Title 1, Bicycle System Design Sec 3.08.140 |
| P9 | Transportation Policies – new Policy 30 | Expand parking management techniques as needed in the future | RTFP  
Title 4, Parking Management Sec 3.08.410I |
| P10 | Transportation Policies – new Policy 31 | Consider additional changes to plan amendment review criteria as needed to address changing conditions and city policy in | RTFP  
Title 5, Amendments of City and County Comprehensive and Transportation System Plans Sec 3.08.510A,B |
<table>
<thead>
<tr>
<th>T1</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
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<tbody>
<tr>
<td>Allow for narrower local street cross-section</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B</td>
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<th>T2</th>
<th>Description of Proposed Amendment</th>
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<tbody>
<tr>
<td>Present potential traffic calming techniques and, in general, appropriate locations for each technique</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B Title 2, Sec 3.08.220 Transportation Solutions</td>
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<th>T3</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
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</thead>
<tbody>
<tr>
<td>Transit street designations for 238th Street and Sandy Boulevard</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110A(3) Title 1, Transit System Design Sec 3.08.120B(1)</td>
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<th>T4</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
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</thead>
<tbody>
<tr>
<td>Show connections to transit facilities</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110A(3) Title 1, Transit System Design Sec 3.08.120B(1)</td>
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<th>T5</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Included updated pedestrian inventory and proposed improvements and connections</td>
<td>RTFP Title 1, Pedestrian System Design Sec 3.08.130A Title 2, Transportation Needs Sec 3.08.210</td>
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<th>T6</th>
<th>Description of Proposed Amendment</th>
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<tbody>
<tr>
<td>Included updated bicycle inventory and proposed improvements and connections</td>
<td>RTFP Title 1, Bicycle System Design Sec 3.08.140 Title 2, Transportation Needs Sec 3.08.210</td>
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<th>T7</th>
<th>Description of Proposed Amendment</th>
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<tbody>
<tr>
<td>Included updated transit inventory and proposed improvements and connections</td>
<td>RTFP Title 1, Transit System Design Sec 3.08.120B(1)</td>
<td></td>
</tr>
<tr>
<td>Document Section</td>
<td>Description of Proposed Amendment</td>
<td>Corresponding Regulatory Requirement</td>
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</tr>
<tr>
<td>Figures 12-14 in Section 6 - Needs, Opportunities, &amp; Constraints; and Section 8 - Transportation System Plan</td>
<td>improvements and connections</td>
<td>Title 2, Transportation Needs Sec 3.08.210</td>
</tr>
<tr>
<td>T8</td>
<td>Figures 12-14 in Section 6 - Needs, Opportunities, &amp; Constraints</td>
<td>Include map of connectivity concepts</td>
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<tr>
<td>T9</td>
<td>Addressed in proposed code language</td>
<td>Include general description/map of possible crossings based on connectivity concepts and connections to transit and key community locations</td>
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<tr>
<td>T10</td>
<td>Addressed in proposed policy language and in Section 7 - Transportation System Tools and Section 9 - Transportation Funding Plan</td>
<td>Acknowledge benefits of proposed improvements to youth, seniors, people with disabilities, and environmental justice populations</td>
</tr>
<tr>
<td></td>
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<tr>
<td>T11</td>
<td>Figures 17 and 18 in Section 8 - Transportation System Plan</td>
<td>Ensure that cross-sections (or at least references to them or tables with dimensions) are consistent between TSP and recent refinement plans and County standards.</td>
</tr>
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<tr>
<td>T12</td>
<td>Figure 16 in Section 8 - Transportation System Plan</td>
<td>Reconcile functional classification of Arata Road with County.</td>
</tr>
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<tr>
<td>T13</td>
<td>Addressed in proposed policy language</td>
<td>Identify potential future parking management strategies</td>
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</table>

**City of Wood Village Zoning and Development Ordinance**

**Section 400 Overlay Zones and Land Divisions / Transportation and Utility Design Standards**

<table>
<thead>
<tr>
<th>Document Section</th>
<th>Description of Proposed Amendment</th>
<th>Corresponding Regulatory Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>460.010 Streets D. Minimum right-of-way and roadway width (Additional)</td>
<td>Include references to cross-sections (updated) in code. Update and expand table. Include narrow/skinny street option.</td>
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<td>Document Section</td>
<td>Description of Proposed Amendment</td>
<td>Corresponding Regulatory Requirement</td>
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</tr>
<tr>
<td><strong>C2</strong> 460.010 Streets <strong>K. Cul-de-sac</strong> (Additional language)</td>
<td>Limit/prohibit cul-de-sacs to improve connectivity</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110E</td>
</tr>
<tr>
<td><strong>C3</strong> 460.010 Streets <strong>Q. Sidewalks</strong> <strong>R. Multi-use pathways</strong> (New subsections)</td>
<td>Add sidewalk and multi-use pathway specifications to the general design section for streets, borrowing from existing language for sidewalks in subdivisions and adding provisions for minimum clear zones on sidewalks</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B</td>
</tr>
<tr>
<td><strong>C4</strong> 460.020 Block Requirements <strong>B. Size</strong> (Additional language)</td>
<td>Allow local street access on arterials at local block size standards and add requirements for pedestrian and bicycle access or pathway where street connections cannot be reasonably made. Add provisions addressing use of skinny street standards.</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110E Title 1, Pedestrian System Design Sec 3.08.130C</td>
</tr>
<tr>
<td><strong>C5</strong> 460.030 Building Sites <strong>B. Access:</strong> (New sub-sections) <strong>C. Pedestrian circulation</strong> (New sub-section)</td>
<td>Expand requirements for on-site pedestrian circulation and connections to adjacent sites and facilities, transit in particular</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B Title 1, Transit System Design Sec 3.08.120B(2) Title 1, Pedestrian System Design Sec 3.08.130C</td>
</tr>
<tr>
<td><strong>C6</strong> 460.100 Improvements in Subdivisions <strong>G. Future Extensions of Streets</strong> (Additional language)</td>
<td>Limit length of closed-end street and identify street stub as site of possible street extension in the future</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B Title 1, Street System Design Sec 3.08.110E Title 1, Street System Design Sec 3.08.110F</td>
</tr>
<tr>
<td><strong>Section 500 Land Use Review Procedures</strong></td>
<td></td>
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<tr>
<td><strong>C7</strong> Quasi-Judicial Process <strong>Type II Procedure</strong> 520.110 Notification (Additional language)</td>
<td>Add notice to and coordination with ODOT and other affected agencies.</td>
<td>TPR 660-12-0045(2)(d) 660-12-0045(2)(f)</td>
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<tr>
<td>Document Section</td>
<td>Description of Proposed Amendment</td>
<td>Corresponding Regulatory Requirement</td>
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</tr>
<tr>
<td>C8 Quasi-Judicial Process Type III Procedure 520.150 Notification (Additional language)</td>
<td>Add notice to and coordination with ODOT and other affected agencies</td>
<td>TPR 660-12-0045(2)(d) 660-12-0045(2)(f)</td>
</tr>
<tr>
<td>C9 Legislative Process 560.130 Hearing Notice (Additional language)</td>
<td>Add notice to ODOT and Multnomah County</td>
<td>TPR 660-12-0045(2)(d) 660-12-0045(2)(f)</td>
</tr>
<tr>
<td>Section 600 Land Use Review Criteria</td>
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</tr>
<tr>
<td>C10 630.070 Design Review Plan Contents (1) Access to the site (Additional language) (2) Access to transit (New sub-section) (7) Pedestrian circulation (Additional language)</td>
<td>Add references to standards in Section 460.030 regarding pedestrian access, transit access, and pedestrian circulation</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B Title 1, Transit System Design Sec 3.08.120B(2) Title 1, Pedestrian System Design Sec 3.08.130C</td>
</tr>
<tr>
<td>Section 700 General Terms</td>
<td></td>
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</tr>
<tr>
<td>C11 730.120 Local Street Design</td>
<td>Replace with updated street design cross-sections from TSP</td>
<td>RTFP Title 1, Street System Design Sec 3.08.110B</td>
</tr>
</tbody>
</table>
Proposed Transportation Policy/Comprehensive Plan Amendments

The following amendments are recommended for inclusion in the Comprehensive Plan Transportation Element with reference to the Comprehensive Plan Transportation Element in the Updated TSP.

(Note: The proposed policy numbering below reflects the existing numbering format of transportation policies in the adopted Comprehensive Plan. Numbering can be modified as needed after proposed policies are reviewed and recommended for adoption.)

16. It is City policy that NE Stanley Street and Holladay Place shall never be extended west from their current terminus.

OR

16. In order to improve access between residential neighborhoods and the Wood Village Town Center, the City shall explore ways to connect existing neighborhoods with the Town Center. The connection should be made with at least a multi-use pathway, and preferably a fully improved roadway in the long term.

17. The City shall seek opportunities to create a more grid-like and connected transportation system in Wood Village. This includes making more roadway and pathway connections between local roads and County roads in the city and connecting existing and planned residential development to employment, commercial uses, institutional uses, collector and arterial roads, transit corridors, trails, open space and recreational uses, and other community activity centers.

18. In terms of street design of arterials and collectors in Wood Village, the City will consult with Multnomah County to ensure that designs are consistent with regional street designs for throughways and arterials and allow for integration of transit features such as pull-outs and sidewalk space for benches or shelters.

19. The City may allow “green street” design standards for local roads that allow for the storage and natural infiltration of storm water.

20. The City will encourage more marked and protected pedestrian crossings on collectors and arterials in the city to improve safety, accessibility, and mobility for pedestrians. Marked or protected crossings should be considered as follows:
   a. every 500-600 feet where signal spacing exceeds ½ mile,
   b. on streets adjacent to commercial centers, community centers, institutional uses, and uses that generate a significant number of trips, and
21. The City shall reduce the number of private access and points of conflict on collectors and arterials through development review, through access management measures such as consolidation of access points and crossover easements.

22. The City shall support connectivity and access to collectors and arterials with public streets that are spaced consistent with the access spacing standards of the jurisdiction with roadway authority.

23. The City shall work with transit providers to identify and make improvements in access to transit including improved pedestrian and bicycle connections to all existing and planned transit stops and major transit stops or facilities, intersection and mid-block traffic management improvements for facilitating crossing at and near transit stops, and lighting and public safety enforcement at transit stops and along streets with transit routes.

24. The City will designate Sandy Boulevard and 238th Drive as transit streets to reflect the allocation of existing transit service.

25. The City will designate Arata Road and Wood Village Boulevard as transit streets and will coordinate with TriMet regarding the potential for future transit service along these important north-south and east-west corridors.

26. The City will work with TriMet to ensure all transit stops are maintained and that the information is available and up-to-date.

27. The City will explore opportunities to establish a park-n-ride facility within existing retail, commercial, or institutional parking lots within the city limits, with particular consideration for the Town Center area.

28. The City will explore opportunities to increase the frequency of transit service along existing transit routes.

29. The City will explore opportunities to establish a north-south transit route between the Wood Village city center and areas to the south.

30. If motorized vehicle traffic volumes within the city continue to grow, the City shall consider parking strategies as a way to manage traffic demand and associated land use including expanding the amount and types of bicycle parking requirements.

1 The U.S. Department of Transportation’s 1995 National Personal Transportation Survey found that most pedestrian trips are ½ mile (2,640 feet) or less in distance. Assuming pedestrians may not be willing to increase their trip length more than a portion of this for out-of-direction travel, safe crossing opportunities should generally be provided every 500 to 600 feet. This distance also approximates block length standards (530 feet) in the city.
31. The City will consider modifications to its review criteria for amendments to its Comprehensive Plan and Transportation System Plan if future traffic analysis demonstrates roadway capacity constraints in the city. The Regional Transportation Functional Plan allows for significant reductions in trip generation rates used in analyzing traffic impacts if jurisdictions implement parking management strategies, land use management strategies, and/or transportation facility designs and management strategies that reduce trips.

Proposed Zoning and Development Ordinance (ZDO) Amendments

SECTION 460
TRANSPORTATION AND UTILITY DESIGN STANDARDS

460.010 Streets

D. Minimum right-of-way and roadway width: Unless otherwise indicated on the development plan approved by the City, the street right-of-way and roadway widths shall not be less than the minimum width in feet shown in the following table and as illustrated in the cross-sections in Section 730.120.

<table>
<thead>
<tr>
<th>Type of Street</th>
<th>Minimum Right-of-Way Width</th>
<th>Minimum Roadway Width</th>
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<tbody>
<tr>
<td>Arterial</td>
<td>80-120 feet</td>
<td>40-52 feet</td>
</tr>
<tr>
<td>Collector Street</td>
<td>60-80 feet</td>
<td>36-48 feet</td>
</tr>
<tr>
<td>Local Street</td>
<td>55 feet</td>
<td>32 feet</td>
</tr>
<tr>
<td>Minor streets less than 2,400 feet in length which cannot be extended</td>
<td>44 feet</td>
<td>28 feet</td>
</tr>
<tr>
<td>Radium for turn-around at end of cul-de-sac</td>
<td>50 feet</td>
<td>35 feet</td>
</tr>
<tr>
<td>Alleys</td>
<td>20 feet</td>
<td>20 feet</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Type of Street</th>
<th>Minimum Right-of-Way Width</th>
<th>Minimum Roadway Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Arterial</td>
<td>80-115 feet</td>
<td>66-84 feet</td>
</tr>
<tr>
<td>Minor Arterial</td>
<td>80-105 feet</td>
<td>44-73 feet</td>
</tr>
<tr>
<td>Major Collector</td>
<td>60-98 feet</td>
<td>40-65 feet</td>
</tr>
<tr>
<td>Neighborhood Collector</td>
<td>50 feet</td>
<td>32 feet</td>
</tr>
<tr>
<td>Standard Local Street</td>
<td>55-60 feet</td>
<td>32 feet</td>
</tr>
<tr>
<td>Local “Skinny” Street</td>
<td>40 feet</td>
<td>26 feet</td>
</tr>
<tr>
<td>Alleys</td>
<td>20 feet</td>
<td>20 feet</td>
</tr>
</tbody>
</table>

Note: Typical rights-of-way and ultimate roadway widths shown. Additional width may be
Local Skinny Street standards may only be utilized where maximum block length does not exceed 330 feet, or where the street is less than 2,400 feet in length and cannot be connected or extended.

K. Cul-de-sac: In order to improve connectivity in the city, cul-de-sacs shall generally be prohibited. When environmental or topographical constraints or existing development patterns preclude local street connectivity, a cul-de-sac shall be as short as possible and shall have a maximum length of 200 feet (except for long narrow lots on Glisan Street where cul-de-sacs may not exceed 400 feet) and serve building sites for not more than 25 dwelling units. A cul-de-sac shall terminate with a circular turn-around.

Q. Sidewalks: Sidewalks shall be installed on all public streets adjacent to the proposed development. Planning Commission may recommend approval for development without sidewalks if a variance application is submitted, alternative pedestrian routes are planned or available, and if it can be shown that the proposed routes adequately provides for pedestrian circulation within, and connectivity to and from, the development. On local City streets, concrete sidewalks, planter strips or furnishing zones, and street trees shall be provided as shown in the cross-sections in the City Transportation System Plan. On County streets, sidewalks shall be provided in accordance with Multnomah County Street Standards and regional street design standards. In all cases, at least five feet shall be clear for through travel on sidewalks.

R. Multi-use pathways: Multi-use pathways shall be eight (8) feet wide, surfaced with asphalt, concrete, turf pavers, low-impact pavers, compacted gravel, engineered wood fiber, or other City approved materials to meet ADA standards. Pathways shall be located in a 20 foot wide public easement. Pathway width and easements or rights-of-way may be altered with the specific approval of the City if such pathway alternatives are constrained by existing right-of-way, easements, topography, and as specifically directed in the water quality resource area overlay zone Section 430 of this code. In all cases, at least five feet shall be clear for through travel on pathways.

460.020 Block Requirements:

B. Size: No block shall be more than 530 feet in length between street corner lines unless it is adjacent to an arterial street or unless the topography or the location of adjoining streets justifies an exception. A block shall have sufficient width to provide for two tiers of building sites unless topography, or the location of adjoining streets, or a similar constraint justifies an exception. Where existing street spacing is non-conforming, or a variance to the street spacing standards is proposed, a pedestrian and bicycle multi-use pathway shall be provided with spacing no more than 330 feet except where impracticable due to factors such as topography, environmental features, or existing development.
Block size for the use of the Local “Skinny” Street standard shall not exceed 330 lineal feet in any dimension without connection to street corner lines. However, where constrained by topography, environmental features, or existing development, the Local “Skinny” Street standard may be used in any roadway less than 2,400 feet in length and for which extension or connection to other streets is not possible.

460.030 Building Sites

A. Sizes and Shape […]

B. Access: Except as set forth in Section 460.010 (C) each lot and parcel shall abut upon a street other than an alley for a width of 20 feet, or 15 feet for flag lots.
   (1) Pedestrian access;
       (a) Pedestrian connections to adjoining properties shall be provided except where such a connection cannot be reasonably accommodated due to existing development, topography, or environmental constraints. Pedestrian connections shall connect the on-site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;
   (2) Access to transit: Proposed development within 600 feet of an existing or planned transit route or stop shall provide for pedestrian access to transit through the following measures:
       (a) Locate building for the primary use within 20 feet of an existing or planned transit stop, a street with existing or planned transit service, or an intersecting street;
       (b) Provide a direct pedestrian connection between the transit facility and building entrances on the site;
       (c) Provide a transit passenger landing pad accessible to disabled persons;
       (d) Provide an easement or dedication for a passenger shelter if requested by the transit provider; and
       e) Provide lighting to a transit facility, if located on site;

C. Pedestrian circulation:
   (1) Walkways shall be provided connecting building entrances and streets adjoining the site;
   (2) Connections shall be direct and driveway crossings minimized; and
   (3) Walkways shall be at least five-feet-wide, raised, include curbing, or have different paving material when crossing driveways.

D. Through Lots and Parcels […]

E. Lot and Parcel Side Lines […]
460.100 Improvements in Subdivisions

G. Future Extensions of Streets: Where necessary to give access to or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary of the subdivision or partition and the resulting dead-end streets may be approved without a turn-around. Reserve strips and street plugs may be required to preserve the objectives of street extensions. Stubbed streets shall be limited to 200 feet in length and have no more than 25 dwelling units. The street end shall be posted identifying it as the site for possible street extension when there is future development.

SECTION 500
LAND USE REVIEW PROCEDURES

QUASI-JUDICIAL PROCESS

TYPE II PROCEDURE

520.110 Notification. Under the Type II procedure, an application is scheduled for public hearing before either the Planning Commission or the Design Review Board. The City Administrator shall notify all property owners within 150 feet of the subject property and any recognized neighborhood organization whose boundaries include the site. For proposals located adjacent to a state or county roadway or where proposals are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.

TYPE III PROCEDURE

520.150 Notification. Under the Type III Procedure, an application is scheduled for public hearing before the Planning Commission. The City Administrator shall notify all property owners within 250 feet of the subject property. The City Administrator shall post notices of the requested review and public meeting on the subject site and any recognized neighborhood organization whose boundaries include the site. For proposals located adjacent to a state or county roadway or where proposals are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.

LEGISLATIVE PROCESS

560.130 Hearing Notice. (1) The City Administrator may inform persons believed to have a particular interest and provide the general public with reasonable opportunity to be aware of the hearings on the proposal. For proposals located adjacent to a state or county roadway or where proposals are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.
SECTION 600
LAND USE REVIEW CRITERIA

630.070 Design Review Plan Contents.

D. A preliminary site development plan may be in freehand form and shall generally indicate the following as appropriate to the nature of the use:

(1) Access to site from adjacent rights-of-way, streets, and arterials;
   (a) Pedestrian connections shall be provided pursuant to standards in Section 460.030.B(1);
(2) Access to transit, pursuant to standards in Section 460.030.B(2);
(23) Parking and circulation areas;
(34) Location and design of buildings and signs;
(45) Orientation of windows and doors;
(56) Entrances and exits;
(67) Private and shared outdoor recreation spaces;
(78) Pedestrian circulation, pursuant to standards in Section 460.030.C;
(89) Outdoor play areas;
(910) Service areas for uses such as mail delivery, trash disposal, above-ground utilities, loading and delivery;
(4011) Areas to be landscaped;
(4+12) Exterior lighting;
(4213) Provisions for handicapped persons; and
(4314) Other site elements and spaces which will assist in the evaluation of site development.

SECTION 700
GENERAL TERMS

MEASUREMENTS

730.120 Local Street Design

[Add new/updated cross-sections]
ORDINANCE NUMBER 06-2012

AN ORDINANCE ADOPTING THE UPDATED TRANSPORTATION SYSTEM PLAN AND AMENDING AND READOPTING THE TRANSPORTATION GOAL SECTION OF THE COMPREHENSIVE PLAN FOR THE CITY OF WOOD VILLAGE

WHEREAS, The comprehensive plan for the City of Wood Village was adopted in July of 1999 by ordinance number 4-1999, and

WHEREAS, A limited scope Transportation System Plan (TSP) update was completed in 2012, and

WHEREAS, The adoption of the 2012 TSP will amend and update the specific elements of the transportation system included in the plan, all existing adopted system elements from the May of 1999 TSP will remain in place, as will the roadway elements and portions of the information contained in the 2001 TSP update, and

WHEREAS, The completion of the East Metro Connections Plan corridor refinements will provide additional detailed traffic and similar information to allow for a future update for this adopted plan as well as consolidating all Transportation Planning documents to a single adopted plan, and

WHEREAS, The comprehensive plan policies necessary to achieve future connectivity in the transportation system and to guide development and redevelopment for the City of Wood Village, and

WHEREAS, The City of Wood Village must comply with the Regional Transportation System Functional Transportation Plan.

THE CITY OF WOOD VILLAGE ORDAINS AS FOLLOWS:

Section 1: The Comprehensive Plan, Transportation goal for the City of Wood Village, is modified and readopted in accord with Exhibit “A” attached hereto.

Section 2: The Transportation System Plan Update dated 2012, attached to this ordinance as Exhibit “B”, is adopted as the Transportation System Plan for the City of Wood Village, with the caveat that elements of the 2001 plan and the 1999 plan have not been modified or updated and remain in place.

Section 3: Codification. The modifications to the Comprehensive Plan will be included in that plan, and the Transportation System Plan adoption is a plan document read in conjunction with other applicable master plan documents. This ordinance is not codified in the Wood Village Municipal Code, nor in the Wood Village Zoning and Development Code.

UPON UNANIMOUS CONSENT OF THE CITY COUNCIL, THERE BEING PERSENT A QUORUM, READ BY TITLE ONLY THIS 8TH DAY OF MAY, 2012.
READ A SECOND TIME BY TITLE ONLY THIS 8th DAY OF MAY, 2012, WITH UNANIMOUS CONSENT OF ALL MEMBERS OF THE CITY COUNCIL, THERE BEING PRESENT A QUORUM.

PASSED BY THE CITY COUNCIL OF THE CITY OF WOOD VILLAGE, OREGON, THIS 8th DAY OF MAY 2012.

Motion to approve by Mark Clark; seconded by Dirks and adopted this 8th day of MAY, 2012.

YEAS 5  NAYS 0

PATRICIA SMITH, MAYOR
CITY OF WOOD VILLAGE

ATTEST:

GREG DIRKS
CITY RECORDER
EXHIBIT “A”

City of Wood Village Comprehensive Plan
Originally Published January, 1979
Amended by Resolution 15-1988, December 14, 1988
Amended by Ordinance 8-1996, October 22, 1996
Amended by Ordinance 4-1999, July 14, 1999
Amended by Ordinance XX-2012, May 8, 2012

TRANSPORTATION

Goal: To help provide for and encourage a safe, convenient, and economical transportation system.

Discussion: Wood Village has evolved as an automobile-dependent suburb, similar to Fairview, Troutdale and Gresham in terms of its relationship to this mode of transportation. In spite of the rising cost of automobile ownership and operation, residents of Wood Village are still very skeptical about alternate forms of transportation. Regional planners continually point out the inefficiency of the automobile in terms of energy consumption and resource allocation. In addition, the pollution of the physical environment by automobile usage is well documented: acres of parking lots to offend the eye, incredibly high noise levels near freeways and arterials, and perhaps worst of all, the air pollution resulting from the internal combustion engine.

In spite of these problems, it is unlikely that the majority of residents of towns such as Wood Village will soon look to other transportation modes. As some point, the costs of owning and operating a private automobile will probably become prohibitive to a majority of people. In the meantime, efforts to provide alternatives to the automobile such as light rail, bus, and bicycling run into much public resistance by people who would rather see their tax dollars spent on the upgrading of highways and freeways.

An integrated transportation system that offers a variety of choices can only be developed at a regional level. The task for Wood Village is one of making the transportation planners aware of what the specific needs of the community are in order to insure that the development of the system recognizes those needs. In the case of Wood Village, development of a light rail system connecting east Multnomah County to Portland will be a of benefit to the Portlandbound commuters and to a lesser degree, shoppers. Establishment of a local transit service connecting Wood Village directly to Gresham would also be of benefit to the community. Tri-Met operates bus routes on an east-west axis only, with no local north-south routing yet planned. Commuters to Portland make some use of these existing routes, which operate along Halsey, and a special Bonfield Flyer that operates during rush hours only, with limited north south connectivity.

Development of an area-wide bicycle path system for commuters is a laudable goal, although most Wood Village residents would probably derive no direct benefit from
it. Upgrading of arterial streets and intersections, including Halsey St., N.E. 238th, Glisan St. and N.E. 223rd will help speed up the flow of traffic through the town (although the desirability of making traffic go faster through town is questionable).

North-south traffic moving through Wood Village between the Banfield and Gresham, Sandy, and Mt. Hood is very heavy during rush hours and weekends. Installation of left-turning lanes at the intersection of 238th and Halsey has been constructed to help relieve the problem. The 238th Drive and I-84 interchange was rebuilt in 1999. It is a high priority of the City to maintain the integrity of the intersection as the City continues to develop in that area. Also, plans have been made to provide a route on 257th Drive through Trousdale, which would also help relieve crowding on 238th. Recent improvements to Glisan Street and 223rd Avenue will help to improve traffic movement through these areas.

Regional planning has concentrated on separating land-use to such an extreme that the oldest form of transportation—walking—is not even given consideration. Separation of land uses by arterials and freeways is the practice that has evolved in suburban development. The sense of scale is derived from designing for an occupant of a vehicle moving at the speed from 30 to 50 miles per hour. Not only is it physically difficult to walk anywhere in Wood Village and its environs, but also the sensual experience of perceiving the environment in this manner is bankrupt. The City of Wood Village could develop a program to help shape the city into one that would be pleasing to walk in, but at this point in time, efforts in this direction are not likely to occur.

The City has completed a Transportation System Plan (TSP) to address multi-modal transportation needs within the City. Policies and maps related to the TSP are stated in this section of the Comprehensive Plan and in the TSP. The TSP did not include traffic analysis due to the pending County TSP and Regional RTP both of which directly affect the City's arterial and collector streets. Due to significant development proposals on the MKC Town Center site, the Krueger Truck Stop property, there is still a need for completing the traffic and street analysis. The City intends to complete this aspect of the TSP in the next biennium.

Transportation Policies

1. Wood Village will cooperate with ODOT, Metro and Multnomah County to improve the transportation network in the east county area, and provide a coordinated review of future land use decisions affecting transportation facilities. The City will notify public agencies of land use actions that subdivide or partition land, or that require public hearings for properties adjoining their facilities.

2. Requests will be made to Tri-Met for a local service from Wood Village to Gresham

2. The City shall require compliance with the Transportation System Plan (TSP) as a criterion for approval of development and plan amendments proposals. The City will implement the TSP to achieve a multi-modal
transportation system including street, transit, bicycle, pedestrian, and rail facilities.
3. The City will use adopted road, sidewalk, bike and pedestrian path standards to govern the improvements of those public and private facilities.
4. The City may require that any subdivision, planned developments, and site developments be accompanied by a traffic impact statement describing the potential on-site and off-site impacts of the proposed development, including the need for off-site road improvements and signals.
5. The City will consider, in coordination with Multnomah County, regional street design standards when reviewing new development on Halsey Street and 238th Drive (community street), Sandy Blvd. (urban road), 223rd Avenue, (community boulevard), and Glisan Street (regional street).
6. Except where precluded by existing development, topographical or natural constraints, new development shall include local street designs that discourage cul-de-sacs and extend existing streets, or connect residential areas with services and institutions by short, direct public pedestrian and bicycle ways.
7. The City will utilize the Transportation Performance Standards (Growth Concept Title 6, Section 4 and MOU for MKC site) when reviewing Town Center development, including motor vehicle congestion analysis and management.
8. Encourage the City of Fairview and Multnomah County to extend Wood Village Blvd from Arata Road north to Halsey Street in order to improve transportation circulation in the City.
9. Improve bicycle and pedestrian access to the Town Center, the City Park and institutional uses from existing and new residential areas in Wood Village.
10. Develop and construct bikeways and pedestrian access ways to minimize potential conflicts between transportation modes.
11. The City will cooperate in development and improvement of the regional bicycle and pedestrian routes that run through Wood Village. Regional bicycle routes are: Sandy Blvd., Halsey and Glisan Streets, 223rd and 238th Avenues. Regional pedestrian routes are: Sandy Blvd., Halsey Street, 223rd Ave. and the Town Center Zone.
12. The City will cooperate in the development and improvement of Halsey Street and 223rd Ave. as regional public transportation routes.
13. The City will complete compliance of the State Transportation Planning Rule requirement regarding a street and traffic analysis at the next possible opportunity.
14. The City shall seek opportunities to create a more grid-like and connected transportation system in Wood Village. This includes making more roadway and pathway connections between local roads and County roads in the city and connecting existing and planned residential development to employment, commercial uses, institutional uses, collector and arterial roads, transit corridors, trails, open space and recreational uses, and other community activity centers.
15. In terms of street design of arterials and collectors in Wood Village, the City will consult with Multnomah County to ensure that designs are consistent with regional street designs for throughways and arterials and allow for integration of transit features such as pull-outs and sidewalk space for benches or shelters.

16. The City may allow “green street” design standards for local roads that allow for the storage and natural infiltration of storm water.

17. The City will encourage more marked and protected pedestrian crossings on collectors and arterials in the city to improve safety, accessibility, and mobility for pedestrians. Marked or protected crossings should be considered as follows:
   a. every 500-600 feet where signal spacing exceeds ½ mile,
   b. on streets adjacent to commercial centers, community centers, institutional uses, and uses that generate a significant number of trips, and
   c. on streets with transit routes and stops.

18. The City shall reduce the number of private access and points of conflict on collectors and arterials through development review, through access management measures such as consolidation of access points and crossover easements.

19. The City shall support connectivity and access to collectors and arterials with public streets that are spaced consistent with the access spacing standards of the jurisdiction with roadway authority.

20. The City shall work with transit providers to identify and make improvements in access to transit including improved pedestrian and bicycle connections to all existing and planned transit stops and major transit stops or facilities, intersection and mid-block traffic management improvements for facilitating crossing at and near transit stops, and lighting and public safety enforcement at transit stops and along streets with transit routes.

21. The City will designate Sandy Boulevard and 238th Drive as transit streets to reflect the allocation of existing transit service.

22. The City will designate Arata Road and Wood Village Boulevard as transit streets and will coordinate with TriMet regarding the potential for future transit service along these important north-south and east-west corridors.

23. The City will work with TriMet to ensure all transit stops are maintained and that the information is available and up-to-date.

24. The City will explore opportunities to establish a park-n-ride facility within existing retail, commercial, or institutional parking lots within the city limits, with particular consideration for the Town Center area.

25. The City will explore opportunities to increase the frequency of transit service along existing transit routes.

26. The City will explore opportunities to establish a north-south transit route between the Wood Village city center and areas to the south.

27. If motorized vehicle traffic volumes within the city continue to grow, the City shall consider parking strategies as a way to manage traffic demand and associated land use including expanding the amount and types of bicycle parking requirements.

28. The City will consider modifications to its review criteria for amendments to its Comprehensive Plan and Transportation System Plan if future traffic analysis demonstrates roadway capacity constraints in the city. The Regional Transportation Functional Plan allows for significant reductions in trip generation rates used in analyzing traffic impacts if jurisdictions implement parking management strategies, land use management strategies, and/or transportation facility designs and management strategies that reduce trips.
EXHIBIT B

The Document identified as Wood Village Transportation System Plan Update, dated January 2012 and prepared by Kittleson and Associates, Inc. in Association with Angelo Planning Group is attached hereto in its entirety and adopted by this ordinance.

Special note must be made that the provisions of the Transportation System Plan of 2001 as prepared by DKS and the Transportation System Plan of 1999 as prepared by Carole Connell remain in place to the extent that there are not conflicting provisions.
ORDINANCE NUMBER 07-2012

AN ORDINANCE AMENDING AND READOPTING SECTIONS OF THE WOOD VILLAGE ZONING AND DEVELOPMENT CODE, REPEALING SECTIONS IN CONFLICT, AND PROVIDING FOR CODIFICATION OF THE MODIFICATIONS

WHEREAS, The completion of a Transportation System Plan(TSP) in 2012 had a limited scope, and

WHEREAS, A significant portion of that scope was to revise the codes and policies of the City of Wood Village to achieve compliance with the Regional Transportation Functional Plan adopted for our area, and

WHEREAS, Significant changes to the standards for development, rights of ways, styles of development and connectivity for the transportation system need to be reflected in the development code for the City, and

WHEREAS, Revisions have been taken to public hearing, findings of fact prepared, and the entire package recommended to the Wood Village City Council by the Planning Commission.

THE CITY OF WOOD VILLAGE ORDAINS AS FOLLOWS:

Section 1: Section 460 of the Wood Village Zoning and Development Code is amended and re-enacted as provided in Exhibit A attached hereto, specifically modifying sections 460.010, 460.020, 460.030, and 460.100.

Section 2: Section 500 of the Wood Village Zoning and Development Code is amended and re-enacted as provided in Exhibit B attached hereto, specifically modifying sections 520.110, 520.150, and 560.130.

Section 3: Section 600 of the Wood Village Zoning and Development Code is amended and re-enacted as provided in Exhibit C attached hereto, specifically modifying section 630.070.

Section 4: Section 700 of the Wood Village Zoning and Development Code is amended and re-enacted as provided in Exhibit D attached hereto, specifically eliminating all template drawings of roadway sections provided in the code and inserting the sections identified in Exhibit D.

Section 5: Codification. The section above noted shall be made a part of the Wood Village Zoning and Development Code in the manner prescribed in the exhibits attached to this ordinance.

UPON UNANIMOUS CONSENT OF THE CITY COUNCIL, THERE BEING PRESENT A QUORUM, READ BY TITLE ONLY THIS 8TH DAY OF MAY, 2012.

READ A SECOND TIME BY TITLE ONLY THIS 8TH DAY OF MAY, 2012, WITH UNANIMOUS CONSENT OF ALL MEMBERS OF THE CITY COUNCIL, THERE BEING PRESENT A QUORUM.

PASSED BY THE CITY COUNCIL OF THE CITY OF WOOD VILLAGE, OREGON, THIS 8TH DAY OF MAY 2012.
Motion to approve by Tim Clark; seconded by Harden and adopted this 8th day of MAY, 2012.

YEAS  5  NAYS  0

PATRICIA SMITH, MAYOR
CITY OF WOOD VILLAGE

ATTEST:

GREG DIRKS
CITY RECORDER
Appendix B

EXHIBIT A

SECTION 460
TRANSPORTATION AND UTILITY DESIGN STANDARDS

460.010 Streets

A. Generally. The location, width and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, to the proposed use of land to be served by the streets and the public interest. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. Where location is not shown in a development plan, the arrangement of streets shall either:

(1) Provide for the continuation or appropriate projection of existing principal streets in surrounding areas; or

(2) Conform to the Transportation System Plan or to a plan for the neighborhood approved or adopted by the Planning Commission to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical.

B. Creation or Extension of Public Street Outside Subdivision:

(1) The creation or extension of a public street and the resultant separate land parcels shall be in conformance with requirements for subdivisions except, however, the Planning Commission shall approve the creation or extension of a public street to be established by deed without full compliance with the regulations applicable to subdivisions provided any of the following conditions exist:

(a) The establishment or extension of the public street is initiated by the City Council and is declared essential for the purpose of general traffic circulation and the partitioning of land is an incidental effect rather than the primary objective of the street.

(b) The tract in which the street, new or extension, is to be dedicated is a major partition within an isolated ownership either of not over one acre or of such size and characteristics as to make it impossible to develop building sites for more than three dwelling units.

(2) In those cases where approval of a public street or extension is to be without full compliance with the regulations applicable to subdivision, a copy of a tentative plan and the proposed deed shall be submitted to the City at least fifteen days prior to the Planning
Commission meeting at which consideration is desired. The plan, deed and such information as may be submitted shall be reviewed by the Planning Commission and, if not in conflict with the standards of Section 460 of this Code, shall be approved with conditions necessary to preserve these standards.

(3) In those cases in which the Planning Commission has granted approval to a proposal for a street or extension thereof under B(1) above the same shall thereafter be submitted to the City Council, which shall within thirty days of such submission, make determination by appropriate resolution that said street or extension thereof is in the public interest. Such determination by the Council shall be required before any street or extension thereof created under B(1) above be effective. If the City Council finds that such street proposal is not in the public interest, it shall indicate the same by appropriate resolution, setting forth reasons for its determination, which shall be submitted to the applicant for such street or extension.

C. **Creation of Private Street Outside a Subdivision:** A street which is created in order to allow the partitioning of land for the purpose of transfer of ownership or building development, whether immediate or future, shall be in the form of a street in a subdivision or as provided in B above, except that a private street to be established by deed without full compliance with these regulations shall be approved by the Planning Commission provided it is the only reasonable method by which the rear portion of an unusually deep land parcel of a size to warrant partitioning into not over two parcels may be provided with access. A copy of the tentative plan to create the street and partition the tract shall be submitted to the City at least fifteen days prior to the Planning Commission meeting at which consideration is desired. The document and such information as may be submitted shall be reviewed by the Planning Commission and, if assurance of adequate utility and vehicular access is indicated, shall be approved.

(1) In the event the Planning Commission shall grant approval to said proposal under this Section, the same shall thereafter be submitted to the City Council for its approval or disapproval for the reason and in the manner indicated in B(3) above.

D. **Minimum right-of-way and roadway width:** Unless otherwise indicated on the development plan approved by the City, the street right-of-way and roadway widths shall not be less than the minimum width in feet shown in the following table and as illustrated in Section 730.120. Right-of-way and roadway width on county roads shall be in compliance with Multnomah County Streets Standards. Further, the City will consider regional design standards when reviewing new development on NE Halsey Street and 238th Drive (community street design), Sandy Blvd. (urban road design), 223rd Ave. (community boulevard design), and Glisan Street (regional street design).
<table>
<thead>
<tr>
<th>Type of Street</th>
<th>Minimum Right-of-Way Width</th>
<th>Minimum Roadway Width</th>
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<tbody>
<tr>
<td>Arterial</td>
<td>80-120 feet</td>
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<tr>
<td>Collector Street</td>
<td>60-80 feet</td>
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<tr>
<td>Local Street</td>
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<td>32 feet</td>
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<tr>
<td>Minor streets less than 2,400 feet in length which cannot be extended</td>
<td>44 feet</td>
<td>28 feet</td>
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<tr>
<td>Radium for turn-around at end of cul-de-sac</td>
<td>50 feet</td>
<td>35 feet</td>
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<td>Alleys</td>
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<tr>
<th>Type of Street</th>
<th>Minimum Right-of-Way Width</th>
<th>Minimum Roadway Width</th>
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</thead>
<tbody>
<tr>
<td>Major Arterial</td>
<td>80-115 feet</td>
<td>66-84 feet</td>
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<tr>
<td>Minor Arterial</td>
<td>80-105 feet</td>
<td>44-73 feet</td>
</tr>
<tr>
<td>Major Collector</td>
<td>60-98 feet</td>
<td>40-65 feet</td>
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<td>Neighborhood Collector</td>
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<tr>
<td>Standard Local Street</td>
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<td>Local “Skinny” Street</td>
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<td>26 feet</td>
</tr>
<tr>
<td>Alleys</td>
<td>20 feet</td>
<td>20 feet</td>
</tr>
</tbody>
</table>

Note: Typical rights-of-way and ultimate roadway widths shown. Additional width may be needed to accommodate additional turn lanes at intersections or as needed to address circulation needs. The need for additional width will be based on an engineering study and approved by the Public Works Director.

Where conditions, particularly topography or the size and shape of the tract, make it impractical to otherwise provide buildable sites, narrow right-of-way may be accepted, ordinarily not less than 50 feet. If necessary, slope easements may be required.

Local Skinny Street standards may only be utilized where maximum block length does not exceed 330 feet, or where the street is less than 2,400 feet in length and cannot be connected or extended.

E. Reserve strips: Reserve strips or street plugs controlling access to streets will not be approved unless necessary for the protection of the public welfare or of substantial property rights and in these cases they may be required. The control and disposal of the land comprising such strips shall be placed within the jurisdiction of the City under conditions approved by the Planning Commission.

F. Alignment: As far as is practical, streets other than minor streets shall be in alignment with existing streets by continuations of the center lines thereof. Staggered street alignment resulting in "T" intersections shall, whenever practical, leave a minimum distance of 200 feet between the center lines of streets having approximately the same direction and, in no case, shall be less than 100 feet.
G. **Future Extensions of Streets:** Where necessary to give access to or permit a satisfactory future division of adjoining land, streets shall be extended to the boundary of the subdivision or partition and the resulting dead-end streets may be approved without a turn-around. Reserve strips and street plugs may be required to preserve the objectives of street extensions. **Stubbed streets shall be limited to 200 feet in length and have no more than 25 dwelling units.** The street end shall be posted identifying it as the site for possible street extension when there is future development.

H. **Intersection Angles:** Streets shall be laid out to intersect at angles as near to right angles as practical except where topography requires a lesser angle, but in no case shall the acute angle be less than 80° degrees unless there is a special intersection design. An arterial or collector street intersecting with another street shall have at least 100 feet of tangent adjacent to the intersection unless topography requires a lesser distance. Other streets, except alleys, shall have at least 50 feet of tangent adjacent to the intersection unless topography requires a lesser distance. Intersections which contain an acute angle of less than 80° degrees or which include an arterial street shall have a minimum corner radius sufficient to allow for a roadway radius of 20 feet and maintain a uniform width between the roadway and the right-of-way line. Ordinarily, the intersection of more than two streets at any one point will not be approved.

I. **Existing Streets:** Whenever existing streets adjacent to or within a tract are of inadequate width, additional right-of-way shall be provided at the time of the land division.

J. **Half Streets:** Half streets, while generally not acceptable, may be approved where essential to the reasonable development of the development, subdivision or partition when in conformity with the other requirements of these regulations and when the Planning Commission finds it will be practical to require the dedication of the other half when the adjoining property is divided. Whenever a half street is adjacent to a tract to be divided, the other half of the street shall be provided within such tract. Reserve strips and street plugs may be required to preserve the objectives of half streets.

K. **Cul-de-sac:** In order to improve connectivity in the city, cul-de-sacs shall generally be prohibited. When environmental or topographical constraints or existing development patterns preclude local street connectivity, a cul-de-sac shall be as short as possible and shall have a maximum length of 200 feet (except for long narrow lots on Glisan Street where cul-de-sacs may not exceed 400 feet) and serve building sites for not more than 25 dwelling units. A cul-de-sac shall terminate with a circular turn-around.

L. **Street Names:** Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street. Street names and numbers shall conform to the established
pattern in the City and shall be subject to the approval of the Planning Commission.

M. Grades and Curves: Grades shall not exceed six percent on arterials, ten percent on collector streets or 12 percent on other streets. Center line radii of curves shall not be less than 300 feet on major arterials, 200 feet on secondary arterials or 100 feet on other streets. Where existing conditions, particularly the topography, make it otherwise impractical to provide buildable sites, the Planning Commission may accept steeper grades and sharper curves. In flat areas, allowance shall be made for finished street grades having a minimum slope, preferably, of at least 0.5 percent.

N. Streets Adjacent to Railroad Right-of-Way: Wherever the proposed land division contains or is adjacent to a railroad right-of-way, provision may be required for a street approximately parallel to and on each side of such right-of-way at a distance suitable for the appropriate use of the land between the streets and the railroad. The distance shall be determined with due consideration at cross streets.

O. Marginal Access Streets: Where a land division abuts or contains an existing or proposed arterial street, the Planning Commission may require marginal access streets reverse frontage lots with suitable depth, screen planting contained in a non-access reservation along the rear or side property line, or other treatment necessary for adequate protection of residential properties and to afford separation of through and local traffic.

P. Alleys: Alleys may be provided in any zoning district, unless other permanent provisions for access to off-street parking and loading facilities are approved by the Planning Commission. The corners of alley intersections shall have a radius of not less than 12 feet.

Q. Sidewalks: Sidewalks shall be installed on all public streets adjacent to the proposed development. Planning Commission may recommend approval for development without sidewalks if a variance application is submitted, alternative pedestrian routes are planned or available, and if it can be shown that the proposed routes adequately provides for pedestrian circulation within, and connectivity to and from, the development. On local City streets, concrete sidewalks, planter strips or furnishing zones, and street trees shall be provided as shown in the cross-sections in the City Transportation System Plan. On County streets, sidewalks shall be provided in accordance with Multnomah County Street Standards and regional street design standards. In all cases, at least five feet shall be clear for through travel on sidewalks.

R. Multi-use pathways: Multi-use pathways shall be eight (8) feet wide, surfaced with asphalt, concrete, turf pavers, low-impact pavers, compacted gravel, engineered wood fiber, or other City approved materials to meet ADA standards. Pathways shall be located in a 20 foot wide public easement. Pathway width and easements or rights-of-way may be altered with the specific approval of the City if such pathway alternatives are constrained
by existing right-of-way, easements, topography, and as specifically
directed in the water quality resource area overlay zone Section 430 of this
code. In all cases, at least five feet shall be clear for through travel on
pathways.

460.020 Block Requirements:

A. The length, width and shape of blocks shall take into account the need for
adequate building site size and street width and shall recognize the
limitations of the topography.

B. Size: No block shall be more than 530 feet in length between street corner lines
unless it is adjacent to an arterial street or unless the topography or the
location of adjoining streets justifies an exception. A block shall have
sufficient width to provide for two tiers of building sites unless
topography, or the location of adjoining streets, or a similar constraint
justifies an exception. Where existing street spacing is non-conforming, or
a variance to the street spacing standards is proposed, a pedestrian and
bicycle multi-use pathway shall be provided with spacing no more than
330 feet except where impracticable due to factors such as topography,
environmental features, or existing development.

Block size for the use of the Local “Skinny” Street standard shall not
exceed 330 lineal feet in any dimension without connection to street
corner lines. However, where constrained by topography, environmental
features, or existing development, the Local “Skinny” Street standard may
be used in any roadway less than 2,400 feet in length and for which
extension or connection to other streets is not possible.

460.030 Building Sites:

A. Sizes and Shape: The size, width, shape and orientation of building sites
shall be appropriate for the location of the land division and for the type of
development and use contemplated, and shall be consistent with the
residential lot size provisions of this Code with the following exceptions:

(1) In areas that will not be served by a public sewer, minimum lot and
parcel sizes shall permit compliance with the requirements of the
Department of Environmental Quality and shall take into
consideration problems of sewage disposal, particularly problems
of soil structure and water table as related to sewage disposal by
septic tank.

(2) Where property is zoned and planned for business or industrial use,
other widths and areas may be permitted at the discretion of the
Planning Commission. Depth and width of properties reserved or
laid out for commercial and industrial purposes shall be adequate
to provide for the off-street service and parking facilities required
by the type of use and development contemplated.
(3) Under no circumstances shall the basic areas provided under (1) and (2) above be less than the minimum required by the pertinent provisions of this Code or be less than the standards set forth therein and at all times such requirements as provided in (1) and (2) above shall be equal to the minimum requirement of other applicable ordinances of the City relating to sewers, sewer connections and sewer service for the disposal of sewage effluence and storm and surface drainage.

B. Access: Except as set forth in Section 460.010 (C) each lot and parcel shall abut upon a street other than an alley for a width of 20 feet, or 15 feet for flag lots.

(1) Pedestrian access:

(a) Pedestrian connections to adjoining properties shall be provided except where such a connection cannot be reasonably accommodated due to existing development, topography, or environmental constraints. Pedestrian connections shall connect the on-site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property.

(2) Access to transit: Proposed development within 600 feet of an existing or planned transit route or stop shall provide for pedestrian access to transit through the following measures:

(a) Locate building for the primary use within 20 feet of an existing or planned transit stop, a street with existing or planned transit service, or an intersecting street;
(b) Provide a direct pedestrian connection between the transit facility and building entrances on the site;
(c) Provide a transit passenger landing pad accessible to disabled persons;
(d) Provide an easement or dedication for a passenger shelter if requested by the transit provider; and
(e) Provide lighting to a transit facility, if located on site;

C. Pedestrian circulation:

(1) Walkways shall be provided connecting building entrances and streets adjoining the site;
(2) Connections shall be direct and driveway crossings minimized; and
(3) Walkways shall be at least five-feet-wide, raised, include curbing, or have different paving material when crossing driveways.

C-D. Through Lots and Parcels: Through lots and parcels shall be avoided except where they are essential to provide separation of residential development from major traffic arteries or adjacent non-residential activities or to overcome specific disadvantages of topography and orientation. A planting screen easement at least ten feet wide and across
which there shall be no right of access may be required along the line of building sites abutting such a traffic artery or other incompatible use.

D-E. **Lot and Parcel Side Lines:** The lines of lots and parcels, as far as is practicable, shall run at right angles to the street upon which they face, except that on curved streets they shall be radial to the curve.

460.040 **Grading of Building Sites:** Grading of building sites shall conform to the following standards unless physical conditions demonstrate the propriety of other standards.

A. Cut slopes shall not exceed one and one-half feet horizontally to one foot vertically.

B. Fill slopes shall not exceed two feet horizontally to one foot vertically.

C. The character of soil for fill and the characteristics of lots and parcels made usable by fill shall be suitable for the purpose intended.

460.050 **Building Lines:** If special building setback lines are to be established in a subdivision, they shall be shown on the subdivision plat or, if temporary in nature, they shall be included in the deed restrictions.

460.060 **Large Building Sites:** In dividing tracts into large lots or parcels which at some future time are likely to be redivided, the Planning Commission may require that the blocks be of such size and shape, be so divided into building sites and contain such site restrictions as will provide for extension and opening of streets at intervals which will permit a subsequent division of any tract into lots or parcels of smaller size.

460.070 **Land for Public Purposes:** If the City has an interest in acquiring a portion of a proposed subdivision for a public purpose, or if the City has been advised of such interest by a school district or other public agency, and there is reasonable assurance that steps will be taken to acquire the land, then the Planning Commission may require that those portions of the subdivision be reserved for public acquisition, for a period not to exceed one year, at a cost not to exceed the value of the land prior to subdivision.

Within or adjacent to a subdivision, a parcel of land of not less than six percent of the gross area of the subdivision shall be set aside and dedicated to the public by the subdivider. The parcel shall be approved by the Planning Commission as being suitable and adaptable for park and recreation uses. In the event no such area is suitable for park and recreation purposes, the subdivider shall, in lieu of setting aside land, pay into a public land acquisition fund a sum of money equal to current comparable assessed value. The sums so contributed shall be used to aid in securing suitable areas for park and recreation purposes to serve the area containing the subdivision. If the nature of the subdivision is such that over 34 percent of the tract to be subdivided is being dedicated to the public for streets, the requirements of this section shall be reduced so that the total obligation of the subdivider does not exceed 40 percent.
Appendix B

460.080 Improvement Procedures: In addition to other requirements, improvements installed by a land divider either as a requirement of these regulations or at his own option, shall conform to the requirements of this Code and improvement standards and specifications followed by the City in accordance with the City Stormwater Master Plan and Water Master Plan, and shall be installed in accordance with the following procedure:

B. A. Improvement work shall not be commenced until plans have been checked for adequacy and approved by the City. To the extent necessary for evaluation of the proposal, the plans may be required before approval of the tentative plan of a subdivision or partition.

B. Improvement work shall not commence until after the City is notified, and if work is discontinued for any reason, it shall not be resumed until after the City is notified.

C. Improvements shall be constructed under the inspection and to the satisfaction of the City. The City may require changes in typical sections and details in the public interest if unusual conditions arise during construction to warrant the change.

D. Underground utilities, sanitary sewers and storm drains installed in streets shall be constructed prior to the surfacing of the streets. Stubs for service connections for underground utilities and sanitary sewers shall be placed to the length obviating the necessity for disturbing the street improvements when service connections are made.

E. A map showing public improvements as built shall be filed with the City upon completion of the improvements.

460.090 Specifications for Improvements: The Public Works Director shall prepare and submit to the City Council specifications to supplement the standards of this Code based on engineering standards appropriate for the improvements concerned. Specifications shall be prepared for the design and construction of required public improvements, such other public facilities as a developer may elect to install, and private streets.

460.100 Improvements in Subdivisions: The following improvements shall be installed at the expense of the subdivider and at the time of subdivision.

A. Streets: Public streets, including alleys, within the subdivision and public streets adjacent but only partially within the subdivision shall be improved. Catch basins shall be installed and connected to drainage tile leading to storm sewers or drainage ways. Upon completion of the street improvement, monuments shall be reestablished and protected in monument boxes at every public street intersection and all points of curvature and points of tangency of their center lines.

B. Surface Drainage and Storm Sewer System: Drainage facilities shall be
provided within the subdivision and to connect the subdivision drainage to
drainage ways or storm sewers outside the subdivision. Design of drainage
within the subdivision, as provided by the City Engineer, shall take into
account the capacity and grade necessary to maintain unrestricted flow
from areas draining through the subdivision and to allow extension of the
system to serve such areas.

C. **Sanitary Sewers:** Sanitary sewers shall be installed to serve the
subdivision and to connect the subdivision to existing mains. In the event
it is impractical to connect the subdivision to the City trunk system, the
Planning Commission may recommend to the City Council and the City
Council may authorize by appropriate ordinance to which the emergency
clause will not be attached after public hearing before the Council, if
public need and necessity be shown, the use of septic tanks if lot areas are
adequate considering the physical characteristics of the areas and if sewer
laterals designed for future connection to a sewage disposal system are
installed and sealed. Design by the City Engineer shall take into account
the capacity and grade to allow for desirable extension beyond the
subdivision.

If required sewer facilities will without further sewer construction directly
serve property outside the subdivision, the following agreements will be
made to equitably distribute the cost:

1. If the area outside the subdivision to be directly served by the
   sewer line has reached a state of development to justify sewer
   installation at the time, the Planning Commission may recommend
to the City Council construction as an assessment project with such
   arrangement with the subdivider as is desirable to assure financing
   his share of the construction.

D. **Water System:** Water lines and fire hydrants serving each building site in
   the subdivision and connecting the subdivision to City mains shall be
   installed. The City Engineer's design shall take into account provisions for
   extension beyond the subdivision and to adequately grid the City system.

E. **Sidewalks:** Sidewalks shall be installed on both sides of a public street
   and in any special pedestrian way within a development or a subdivision,
   except that in the case of primary or secondary arterials, or special type
   industrial districts, the Planning Commission may approve a subdivision
   without sidewalks if alternative pedestrian routes are available and if they
   provide safe, convenient and reasonably direct pedestrian circulation. On
   local City streets concrete sidewalks, five (5) feet wide (6 feet in
   commercial areas), separated from the street by a 4-5 foot wide planter
   strip for approved, uniformly planted street trees, are required. In the
   event a pathway is preferable for access, multi-use pathways shall be eight
   (8) feet wide, asphalted or compacted gravel to meet ADA standards.
   Pathways shall be located in a 20 foot wide public easement. On County
   streets, sidewalks shall be provided in accordance with Multnomah
   County Street Standards and regional street design standards.
F. **Bicycle Routes:** If appropriate to the extension of a system of bicycle routes, existing or planned in compliance with the City, County or Regional Transportation Plans, the Planning Commission may require the installation of separate bicycle lanes within streets and separate bicycle paths. Existing and planned bicycle routes in the City as illustrated in the City Transportation System Plan, shall be built to Multnomah County bicycle path standards.

G. **Street Name Signs:** Street name signs shall be installed at all street intersections in a manner provided by pertinent City regulations.

H. **Street Lights:** Street lights shall be installed by the developer and shall be served from an underground source of supply. Street light style shall be approved by the City.

I. **Other:** The developer shall make necessary arrangements with utility companies or other persons or corporations affected for the installation of underground lines and facilities. Electrical lines and other wires, including but not limited to communication, street lighting and cable television, shall be placed underground.

**460.110 Improvements in Partitions:** The same improvements shall be installed to serve each building site of a partition as is required for a subdivision. However, if the Planning Commission finds that the nature of development in the vicinity of the partition makes installation of some improvements unreasonable, the Planning Commission shall recommend to the City Council such exception as appears necessary. The City Council shall, within 30 days after date of submission of such recommendation, approve or disapprove said recommendation. In lieu of accepting an improvement, the Planning Commission may recommend to the City Council that the improvement be installed in the area under special assessment financing or other facility extension policies of the City.
EXHIBIT B

QUASI-JUDICIAL PROCESS

TYPE II PROCEDURE

520.100 Purpose. The purpose of the Type II procedure is to provide for the review of certain applications within the City by the Planning Commission or Design Review Board at a public hearing.

520.110 Notification. Under the Type II procedure, an application is scheduled for public hearing before either the Planning Commission or the Design Review Board. The City Administrator shall notify all property owners within 150 feet of the subject property and any recognized neighborhood organization whose boundaries include the site. For proposals located adjacent to a state or county roadway or where proposals are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.

520.120 Hearing. The review body shall:

(a) review the request and any written comments and testimony;

(b) adopt findings based on the established criteria; and,

(c) make a decision by approving, conditionally approving, or denying the application.

Conditions and/or restrictions may be applied to the approval of any land use application granted under a Type II procedure in accordance with the relevant provisions of this Code.

520.130 Examples. Examples of applications processed through a Type II procedure include, but are not limited to Design Review and certain non-conforming use reviews.

TYPE III PROCEDURE

520.140 Purpose. The purpose of the Type III procedure is to provide for the review of certain land use applications by the Planning Commission at a public hearing. These decisions are usually complex in nature, and require the interpretation of the Comprehensive Plan policies and the criteria of this Code.

520.150 Notification. Under the Type III Procedure, an application is scheduled for public hearing before the Planning Commission. The City Administrator shall notify all property owners within 250 feet of the subject property. The City Administrator shall post notices of the requested review and public meeting on the subject site and any recognized neighborhood organization whose boundaries include the site. For proposals located adjacent to a state or county roadway or where proposals
are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.

520.160 Hearing.

The Planning Commission shall:

(a) review the request and any written comments and testimony;

(b) adopt findings based on the established criteria; and

(c) make a decision by approving, conditionally approving, or denying the application.

Conditions and/or restrictions may be applied to the approval of any land use application granted under a Type III procedure in accordance with the relevant provisions of this Code.

520.170 Examples. Examples of applications processed through a Type III procedure include, but are not limited to Zone changes, Comprehensive Plan amendments and conditional uses.

PUBLIC HEARINGS

530.100 Responsibility for Hearings. The City Administrator shall carry out the following duties pertaining to a hearing, all in accordance with other provisions of this Code:

(1) Schedule and assign the matter for review and hearing.

(2) Conduct the correspondence of the review body.

(3) Provide notices of public hearings as required by the Code and state law.

(4) Maintain a record and enter into the record relevant dates such as those of giving notice, hearings, postponement, and continuances and a summary of action taken by the review body.

(5) Prepare minutes to include the decision on the matter heard and the reasons given for the decision.

(6) Reduce the decisions of the review body to writing and maintain permanent record of such.

(7) Provide advance notice of all hearings and written decisions to persons requesting the same and not entitled to such by the section provided that such persons pay the actual cost for the service provided as established by the City (applicants excepted).
530.110 **Hearing Record.** The hearing proceedings will be recorded either stenographically or electronically.

(1) When an electronic recording is made, testimony shall be transcribed at the expense of the requesting party if required for judicial review or local appeal proceedings. The transcribing fee may include all actual costs up to $500 plus one-half the actual costs over $500 or as authorized by state law.

(2) The review body shall, where practical, retain as part of the hearing record each item of physical or documentary evidence presented and shall have the items marked to show the identity of the person offering the same and whether presented on behalf of a proponent or opponent. Exhibits received into evidence shall be retained in the hearing file until after all appeal periods have expired, at which time the exhibits may be released. Any physical evidence presented at the public hearing shall be submitted to the review body staff, distributed to members, and shall become part of the record.

(3) If a staff report and recommendation are made, they shall be included in the record.

(4) A person shall have access to the record of the proceedings at reasonable times, places, and circumstances. A person shall be entitled to make copies of the record at the person's own expense.

530.120 **Mailed Notice.**

(1) Addresses for a mailed notice required by this Code shall be taken from current County Assessor records. Any deficiency in the form of notice prescribed in this section or a failure of a property owner to receive notice shall not invalidate an action if a good faith attempt was made to comply with the requirements of this Code for notice.

(2) In addition to persons receiving notice as required by the matter under consideration, the City Administrator may provide notice to others he has reason to believe are affected or otherwise represent an interest that may be affected by the proposed development.

(3) The cost of notice mailings shall be included in the land use application fee.

(4) Notice of public hearing shall be sent by mail at least twenty (20) days before the hearing and shall contain the following information:

(a) The reviewing body, the date, time, and place of the hearing.

(b) The street address or other easily understood geographic reference to the subject property.
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(c) The nature of the application and the proposed use or uses which could be authorized.
(d) Where information may be examined and when and how written comments addressing findings required for a decision by the review body may be submitted.
(e) A list of the applicable criteria from the ordinance and/or the plan that apply to the application.
(f) A statement that failure to raise an issue, including constitutional or other issues regarding proposed conditions of approval, accompanied by statements or evidence sufficient to afford the decision maker and the parties an opportunity to respond to the issues precludes appeal to the City Council or Land Use Board of Appeals based on that issue, or to seek damages in circuit court due to a condition of approval.
(g) The name of a City representative to contact and the telephone number where additional information may be obtained.
(h) A statement that a copy of the application, all documents and evidence relied upon by the applicant and applicable criteria are available for inspection at no cost and copies will be provided at reasonable cost.
(i) A statement that a copy of any staff report that might be produced will be available for inspection at no cost at least seven days prior to the hearing and a copy will be provided at reasonable cost.
(j) A statement that all interested persons may appear and provide testimony and that only those making an appearance of record, either in person or in writing, shall be entitled to appeal.
(k) A general explanation of the procedure for the conduct of hearings.

530.125 Posted Notice. The sites that are the subject of Type III quasi-judicial public hearings shall be posted. At the discretion of the City Administrator the applicant may be responsible for providing a sign frame for the notice and also responsible for posting the notice at the correct time and location. The actual notice shall be provided by the City. The posting shall comply with the following requirements:

(1) The notice frame shall be a minimum of 1 ½ feet by 2 feet.
(2) The notice shall be posted in a location which is visible from a traveled public road or street abutting the property. If no public street abuts the property, the notice shall be placed in such a manner to be generally visible to the public.
(3) The notice shall be posted for at least seven (7) consecutive days prior to the first scheduled public hearing on the matter.
(4) If the subject property is a corner lot, then two signs are required in locations defined in (2) above.
(5) When the applicant is required to post the notice, an affidavit of posting shall be filed with the City Administrator at least five (5) days before any hearing.
(6) If the subject property is not properly posted as set forth in this section, the hearing may be postponed by the City Administrator until such provisions are met.

(7) The posted notice shall display the nature of the application and a telephone number for more information. The posted notice shall also include a photocopy of the original mailed notice sent to affected property owners.

530.130 Compliance and Waiver of Notice.

(1) Notice by mail shall be deemed received three calendar days after the notice is deposited with the US Postal Service, first class postage, fully prepaid, for mailing to the addressee at the addressee's last known mailing address. Failure of the addressee to actually receive notice shall not invalidate the proceeding.

(2) Posted notice is deemed given when the sign is first posted.

(3) The requirement for notice shall be deemed satisfied as to any person who, in any manner, obtains actual knowledge of the time, place, and subject matter of the hearing prior thereto.

(4) Appearance and testimony or comment on the merits of the proposed action by any person at a hearing, or submission by any person of written comment directed to the merits of the proposed action at or prior to the hearing and after the proceedings was initiated, shall be deemed a waiver of such person of any defect in notice.

530.140 Challenges to Impartiality. A party to a hearing or a member of a review body may challenge the qualifications of a member of the review body to participate in the hearing and decision regarding the matter. The challenge shall be incorporated into the record at the time of the hearing.

530.145 Disqualification. No member of a review body shall participate in a discussion of the proposal without removing himself or herself from the bench or shall vote on the proposal when any of the following conditions exist:

(1) Any of the following have a direct or substantial financial interest in the proposal: the review body member or the member's spouse, brother, sister, child, parent, father-in-law, mother-in-law, any business in which the member is then serving or has served within the previous two years, or in which the member is negotiating for or has an arrangement or understanding concerning prospective partnership or employment or is otherwise in a position of conflict of interest as determined by state law.

(2) The member has a direct private interest in the proposal.
(3) Any other valid reason for which the member has determined that participation in the hearing and decision cannot be in an impartial manner.

530.150 Participation by Interested Officer or Employee. No officer or employee of the City who has a financial or other private interest in a proposal shall participate in discussion with or give an official opinion or staff report to the review body on the proposal without first declaring for the record the nature and extent of such interest.

530.155 Ex Parte Contacts. The general public has a right to have review body members free from pre-hearing or ex parte contacts on matters heard by them. It is recognized that a countervailing public right is free access to public officials on any matter. Should ex parte communication occur, at the beginning of the hearing, the review body member shall reveal the source and substance of any significant pre-hearing or ex parte contacts regarding any matter at the commencement of the public hearing on such and the presiding officer shall allow for rebuttal of any information received through such ex parte contact. If such contacts have not impaired the member's impartiality or ability to vote on the matter, the member shall so state and shall participate or abstain in accordance with the following section.

530.160 Abstention or Disqualification.

(1) An abstaining or disqualified member of the review body may be counted for purposes of forming a quorum. A member who represents personal interest at a hearing may do so only by making full disclosure of his or her status and position at the time of addressing the review body, removing himself or herself from the seat on the hearing body and physically joining the audience.

(2) If a quorum of a review body abstains or is disqualified, all members present after stating their reasons for abstention or disqualification shall automatically be requalified and proceed to resolve the issues necessary to hear the matter before them.

(3) A member absent during the presentation of evidence in a hearing may not participate in the deliberations or final decision regarding the matter of the hearing unless the member has reviewed the evidence received and so states on the record.

530.170 Burden and Nature of Proof. The burden of proof is upon the proponent or appellant. The more drastic the change or the greater the impact of the proposal in the area, the greater is the burden upon the proponent. The proposal must be supported by proof that it conforms to the applicable provisions of this Code, especially the specific criteria set forth for the particular type of decision under consideration.

530.180 Hearing Procedures. Hearing procedures will depend in part on the nature of the hearing. The following may be supplemented by appropriate rules announced by the presiding officer:
(1) The presiding officer will state the case and call the public hearing to order, informing those present that testimony and evidence is to be directed towards the applicable criteria for the case and that failure to raise an issue accompanied by statements or evidence sufficient to afford the decision-makers and the parties an opportunity to respond to the issues precludes appeal to the State Land Use Board of Appeals on that issue. The presiding officer may establish the time allowed for the presentation of information.

(2) Any objections on jurisdictional grounds shall be noted in the record.

(3) Any abstentions or disqualifications shall be determined. Members shall announce all conflicts of interest and shall disclose the time, place, and nature of any ex parte contacts they have had. Parties to the case shall have the opportunity to rebut any information contained in the ex parte contact.

(4) The review body may view the area under consideration for purposes of evaluating the proposal, but shall state the place, time, manner, and circumstances of such viewing in the record.

(5) The presiding officer at the hearing may take official notice of known information related to the issue, such as provisions of federal or state law, or of an ordinance, resolution, official policy or charter of the City.

(6) Matters officially noticed need not be established by evidence and may be considered by the review body in the determination of the matters. Parties requesting official notice shall do so on the record.

(7) Presentation of staff report when one is provided, including a list of the criteria applying to the issue(s) being heard. City staff may also present additional information whenever allowed by the presiding officer during the proceedings.

(8) Presentation of information by the applicant or those representing the applicant.

(9) Presentation of evidence or inquiries by those persons who support the proposed change.

(10) Presentation of evidence or inquiries by those persons who oppose the proposed change.

(11) Presentation of evidence or inquiries by those persons who do not necessarily support or oppose the proposed change.

(12) If additional documents or evidence are provided in support of an application, any party shall, upon request, be entitled to a continuance of
the hearing to allow for adequate preparation of rebuttal. Such a continuance shall not be subject to the limitations of ORS 227.178.

(13) Only the applicant shall have the right to present rebuttal testimony. If the presiding officer allows rebuttal by an opponent, the proponent or applicant shall have the right to an additional and final rebuttal.

(14) The presiding officer may approve or deny a request to ask a question from a person attending the hearing. Unless the presiding officer specifies otherwise, the presiding officer will direct the question to the person who has submitted testimony.

(15) At the close of presentation of information the presiding officer shall declare that the hearing is closed unless a continuance has been granted.

(16) Unless there is a continuance, if a participant so requests before the conclusion of the first evidentiary hearing, the record shall remain open for at least seven (7) calendar days after the hearing.

(17) When the hearing has ended, the review body may openly discuss the issue and may further question a person submitting information or the staff if opportunity for rebuttal is provided.

(18) If the hearing is closed, it shall be reopened only upon a majority vote of the review body.

(19) Upon reopening a hearing, any person may raise new issues which relate to the new evidence, testimony, or criteria for decision-making which apply to the matter at issue.
DECISION

540.100 Findings. The review body shall make a decision and adopt findings based upon the information accompanying the application, staff report, and/or evidence presented at the hearing. The finding shall address:

(1) Applicable Zoning and Development Code criteria.

(2) For approval, a statement of the facts establishing compliance with each applicable policy or criteria. For denial, a statement of the facts establishing non-compliance with any required policy or criteria.

(3) Conditions of approval may be attached to a land use decision. Conditions may include, but are not limited to, a time limit, a termination date, a requirement for a performance bond or other type of security, and other conditions which meet one of the following criteria:

   (a) the condition is required to protect the public from the potentially deleterious effects from the proposed use;

   (b) the condition is required to fulfill the public service or public facility demand created by the proposed use; or

   (c) the condition is required to carry out the policies of an adopted City policy, plan or ordinance provision.

540.110 Notice of Decision.

(1) The City Administrator shall provide written notice of the decision of final action on a land use application, to the applicant and any other parties entitled to notice. The notice shall state the effective date of the decision, describe the right of appeal, and summarize the reasons for the decision and any conditions of approval or indicate where such can be reviewed in detail.

(2) The City shall take final action on all land use requests which are wholly within the authority and control of the City within 120 days of receipt of a completed application. However, by agreement with the applicant, this deadline may be extended for any reasonable length of time.

540.120 Effective Date of Decision. The Planning Commission or Design Review Board decision in any land use review becomes effective one day after the last day on which an appeal can be filed.
APPEALS

550.100 Appear Procedures.

(1) A decision of the Planning Commission or Design Review Board may be appealed to the City Council by an affected party by filing a "Notice of Appeal" within 14 days of the date the notice of decision is mailed.

(2) For any appeal proceeding, the City Administrator shall cause notice to be provided in the same manner as provided for the original decision, those testifying and any other parties to the proceedings who request notice in writing.

(3) A decision of the City Council may be appealed to the Land Use Board of Appeals by filing a notice of intent to appeal not later than 21 days after the decision becomes final.

550.110 Requirements of Notice of Appeal. A "Notice of Appeal" shall contain:

(1) An identification of the decision sought to be reviewed, including the date of the decision.

(2) The name, address, signature, phone number and a statement of the interest of the person seeking review and that he/she was a party to the initial proceedings.

(3) A statement of which approval criteria the decision violates.

(4) Any required fee as established by the City Council.

550.120 De Novo Hearing. The City Council shall hear an appeal as a "de novo hearing" on the merits of the case. "De novo hearing" shall mean a hearing by the City Council as if the request had not been previously heard and as if no decision had been rendered, except that all testimony, evidence, and other material from the record of the previous consideration may be included in the record of the review.

550.130 City Council Decision. Upon review, the City Council may affirm, remand, reverse, or modify in whole or part a determination or requirement of the decision that is under review. When the City Council modifies or renders a decision that reverses a decision of the review body, the City Council shall set forth its findings and state its reasons for taking the action. When the City Council elects to remand the matter back to the previous review body for such further consideration as the City Council deems necessary, it may include a statement explaining the error found to have materially affected the outcome of the original decision and the action necessary to rectify such.

550.140 Effective Date of Decision. The decision by City Council in any land use matter becomes effective seven (7) days after the "Notice of Decision" (as described in Section 540.110) is mailed.
LEGISLATIVE PROCESS

560.100 Purpose. The legislative process provides for the establishment and modification of land use plans, policies, regulations and guidelines. A required public hearing provides an opportunity for public comment and input on actions which may affect large areas of the City.

560.110 Initiation.

(1) The City Council may make changes in the Comprehensive Plan or Zoning and Development Code provisions and designations by legislative act where such changes affect a large number of persons, properties, or situations and are applied over a large area.

(2) The City Council, Planning Commission, or the Design Review Board may initiate a review on any legislative matter.

560.120 Hearing Required. The Planning Commission and City Council must hold at least one public hearing before recommending action on a legislative matter.

560.130 Hearing Notice.

(1) The City Administrator may inform persons believed to have a particular interest and provide the general public with reasonable opportunity to be aware of the hearings on the proposal. For proposals located adjacent to a state or county roadway or where proposals are expected to have an impact on a state or county transportation facility, notice shall also be sent to ODOT or Multnomah County as appropriate.

(2) Notice shall be posted in public places at least one week prior to the hearing and additionally as may be required by state law for a particular proceeding.

(3) Posted notice shall include the following information:

(a) The reviewing body, the date, time, and place of hearing.

(b) The nature of the proposed amendment.

(c) The name and telephone number of the staff member to contact for more information.

(3) Mailed notice to individual property owners shall be provided as follows:

(a) At least 20 days and not more than 40 days before the date of the first hearing on an ordinance that proposes to amend an existing comprehensive plan or an element thereof, or to adopt a new comprehensive plan, the City shall cause a written individual notice of land use change to be mailed to each owner whose property would have to be rezoned in order to comply with the
amended or new comprehensive plan if the ordinance becomes effective.

(a) (b) In addition, at least 20 days but not more than 40 days before the date of the first hearing on an ordinance that proposes to rezone the property, the City shall send a written notice of land use change to be mailed to the owner of each lot or parcel of property that the new ordinance proposes to rezone.

(c) The notice shall describe in detail how the proposed ordinance would affect the use of the property. The notice shall be mailed by first class mail to the affected property owner at the address shown on the last available complete tax assessment roll. The notice shall contain the following language in boldfaced type at the top of the page:

This is to notify you that the City of Wood Village has proposed a land use regulation that will affect the permissible uses of your land. On ______ (date of public hearing) the City Council of Wood Village will hold a public hearing regarding the adoption of Ordinance # ______. The City Council has determined that adoption of the ordinance will affect the permissible uses of your property and may reduce the value of your property. Ordinance # ______ is available for inspection at City Hall located at 2055 NE 238th Drive, Wood Village, Oregon. A copy of Ordinance # ______ also is available for purchase at the cost of copying the document. For additional information concerning Ordinance # ______ you may call City Hall at 503-667-6211.

(d) Notice for Periodic Review. At least 30 days before the adoption or amendment of a comprehensive plan or land use regulation by the City of Wood Village pursuant to a requirement of periodic review of the comprehensive plan, the City shall send a written individual notice of the land use change to the owner of each lot or parcel that will be rezoned as a result of adoption or enactment. The notice shall describe in detail how the ordinance or plan amendment will affect the use of the property. The notice shall contain the following language in boldfaced type across the top of the page:

This is to notify you that the City of Wood Village has proposed a land use regulation that will affect the permissible uses of your land. As a result of an order of the Land Conservation and Development Commission, Wood Village has proposed Ordinance # ______. Wood Village has determined that the adoption of this ordinance will affect the permissible uses of your property and may reduce the value of your property. Ordinance # ______ will become effective on (date). Ordinance # ______ is available for inspection at City Hall located at 2055 NE
238th Drive, Wood Village, Oregon. A copy of Ordinance # ______ also is available for purchase at the cost of copying the document. For additional information concerning Ordinance # ______ you may call City Hall at 503-667-6211.

560.140 Hearing Procedures. Interested persons may submit written recommendations and comments in advance of the hearing and this information shall be available for public inspection. At the hearing, written recommendations and other information will be received and oral statements will be permitted. The presiding officer may establish a time limit for presentation of information.

560.150 Planning Commission Recommendation. In preparing its recommendation to the City Council, the Planning Commission shall do the following:

(1) Evaluate the proposal based on the relevant Zoning and Development Code criteria.

(2) Prepare a recommendation and make findings in support of such recommendation.

560.160 City Council Action.

(1) In reaching a decision on a legislative matter, the Council shall adopt findings applicable to the relevant policies and criteria in support of the decision.

The City Council may:

(a) Enact, amend or defeat all or part of the proposal under consideration, or

(b) Refer some or all of the proposal back to the Planning Commission for further consideration.

560.170 Notice to DLC on Legislative Matters.

(1) The City Administrator shall notify Department of Land Conservation and Development for adoption of or amendment to the Comprehensive Plan, the Zoning and Development Code, or any other land use regulations. The notice shall be provided at least 45 days before the proposed first hearing on adoption and the notice shall contain information sufficient to inform the Department as to the effect of the proposal.

(2) If the City determines that the statewide goals do not apply to a particular proposed amendment or new regulation, notice under subsection (1) of this section is not required. In addition, the City may consider an amendment or new regulation with less than 45 days notice if the City Council determines that there are emergency circumstances requiring expedited review.

560.180 Decision Notice Requirements.
(1) Within five (5) working days following adoption of an amendment or new land use regulation, the City Administrator shall forward to the Department of Land Conservation and Development a copy of the adopted text and findings and notify the Department of any substantial changes which may have occurred in the proposal since any previous notification to the Department.

(2) Within five (5) working days, the City Administrator shall also notify any person who participated in the proceedings leading to the decision. Such notice shall briefly describe the final action taken, state the date and effective date of the decision, and explain the requirements for appealing the action under ORS 197.830 to 197.845.

**560.190 Appeal.** A legislative land use decision may be appealed to the Land Use Board of Appeals.
EXHIBIT C

630.070  **Design Review Plan Contents.**

A. Any preliminary or final design review plan shall be filed on forms provided by the City Administrator and shall be accompanied by such drawings, sketches and descriptions as are necessary to describe the proposed development. A plan shall not be deemed complete unless all information requested is provided.

B. Contents:

1. Preliminary Site Development Plan;
2. Preliminary Site Analysis Diagram;
3. Preliminary Architectural Drawings, indicating floor plans and elevations;
4. Preliminary Landscape Plan;
5. Design Review Application Fee;
6. For developments that generate more than 400 average daily motor vehicle trips (ADT’s), the applicant shall provide adequate information, such as a traffic impact study or traffic counts, to demonstrate the level of impact to the surrounding street system.

C. A preliminary site analysis diagram may be in freehand form and shall generally indicate the following characteristics:

1. Relation to adjacent lands;
2. Topography;
3. Natural drainage;
4. Natural features and structures having a visual or other significant relationship with the site.

D. A preliminary site development plan may be in freehand form and shall generally indicate the following as appropriate to the nature of the use:

1. Access to site from adjacent rights-of-way, streets, and arterials;
   a. Pedestrian connections shall be provided pursuant to standards in Section 460.030.B(1).
2. Access to transit, pursuant to standards in Section 460.030.B(2);
3. Parking and circulation areas;
4. Location and design of buildings and signs;
5. Orientation of windows and doors;
6. Entrances and exits;
7. Private and shared outdoor recreation spaces;
8. Pedestrian circulation, pursuant to standards in Section 460.030.C;
9. Outdoor play areas;
10. Service areas for uses such as mail delivery, trash disposal, above-ground utilities, loading and delivery;
11. Areas to be landscaped;
12. Exterior lighting;
(1213) Provisions for handicapped persons; and
(1314) Other site elements and spaces which will assist in the evaluation of site development.

E. The preliminary landscape plan shall indicate:

(1) The size, species and approximate locations of plant materials to be retained or placed on the site; and
(2) Proposed site contouring.
EXHIBIT D
SECTION 700
GENERAL TERMS

MEASUREMENTS

730.120 Local Street Design