CHAPTER 5:

System Plans

Vision: *Gresham's Transportation System Plan will support the growth and development of the city of Gresham as an economically vital and livable community by providing its residents and all transportation system users pleasant and convenient access and travel within, to and through the city.*

Overview

This chapter presents Gresham's preferred transportation system. It consists of a multimodal functional classification system plan and specific system plans for the pedestrian, bicycle, transit, freight and transit modes as well as for travel demand management, transportation system management/intelligent transportation systems and parking management. The system plans provide the framework for how Gresham's multimodal transportation system works to support and respond to the surrounding community and environment. This chapter is organized as follows:

1. Functional Classification
2. Pedestrian
3. Bicycle
4. Freight
5. Transit
6. Travel Demand Management
7. Transportation System Management and Intelligent Transportation Systems
8. Parking Management

Motorists and cyclists share the road on NE Division Street at NW Eastman Parkway.

1. Functional Classification

The functional classification system plan defines the function and design of the city's roadways to serve all **travel modes**, support existing and planned land uses, create aesthetic streets and accommodate stormwater management. Gresham's preferred functional classification system plan was refined for the 2035 TSP through the lens of meeting three objectives:

Travel mode is the specific type of travel: automotive, bicycle, pedestrian, transit and freight are the primary modes of travel considered for this TSP.

- Ensure street function supports existing and future land uses.
- Ensure street design is responsive to the community's needs and vision.
- Ensure feasibility of development costs.

The refinements also create consistency in planning for the transportation network throughout both the incorporated City areas, and also the planned Pleasant Valley and Springwater Plan areas. They meet the automobile and bicycle travel demand between curbs while creating a more inviting pedestrian environment back of curbs. The main refinements to meet the objectives were to:

1. Narrow the curb-to-curb distance adopted in the 2020 TSP to match the majority of existing **curb-to-curb** widths. The 2020 TSP standard right-of-way for arterial and collector streets was wider than most existing and built curb-to-curb widths. In some instances the proposed right-of-way width encroached into existing buildings and historic properties. Since adoption of the 2020 TSP, the city has more often granted waivers for the additional right-of-way that would have been needed to meet that plan's required curb-to-curb width than actually constructing that width.

   Curb-to-curb is the road width between curbs and typically includes travel lanes, a center lane or center median and bike lanes on arterial streets and travel lanes collector streets.

   The narrowing of this distance in the 2035 TSP better reflects actual, on-the-ground existing curb-to-curb widths, thereby minimizing potential negative impacts to adjacent property owners that would otherwise require additional right-of-way acquisition. In large part the curb-to-curb distance is narrowed by transferring stormwater management from swales in the roadway center median to back-of-curb landscape strips and rain gardens. This curb-to-curb width retains safe and adequate widths for all modes to travel.

2. Increase the width of landscape strips. The 2020 TSP provided for 4' wide landscape strips on streets classified as arterial, collector and community street and 8' wide on the principle arterial classification. The 2035 TSP refines the landscape width to 8' on major and standard arterials and 6' on the minor arterial, major, standard and minor collectors. The wider landscape strip enhances the pedestrian experience with a wider and greener buffer from traffic, creates a space for stormwater management systems and allows for larger trees which add to the health and appearance of the community. The larger plantings also tend to encourage motorists to travel safely within speed limits with the regular and substantial trees indicating progress along the street.

View of NE 181st Avenue north of SE Stark Street.

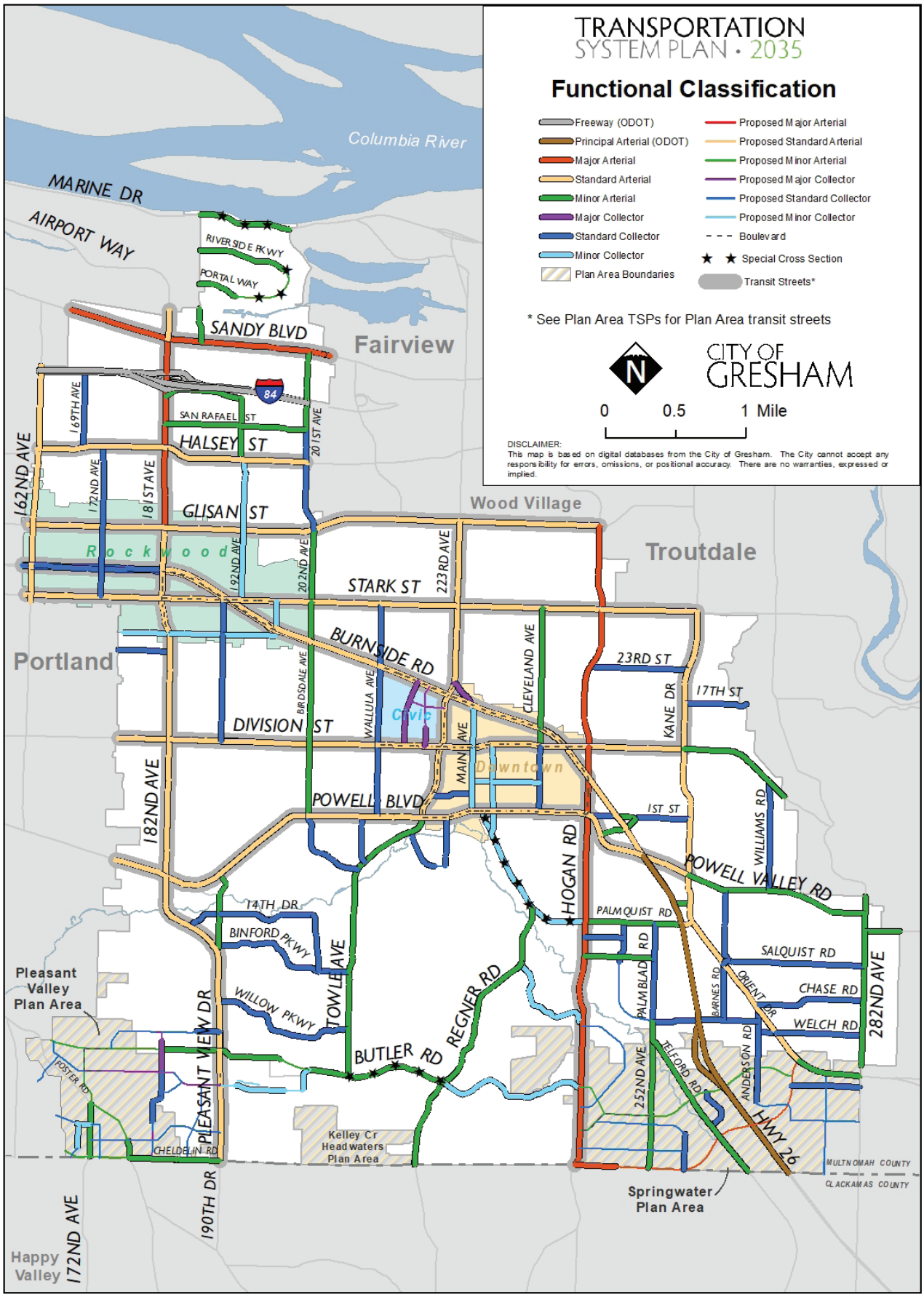
3. Create a more streamlined system of classifications between the City's three TSPs. The adoption of the 2020 TSP, Pleasant Valley TSP, and Springwater TSP as separate documents during different years and through different processes, resulted in many different functional classifications. This was confusing for developers and for planners. This 2035 TSP standardizes functional classifications for these three Plans. On certain street segments, particularly in the plan areas and design districts, "overlay" design treatments are allowed. The overlay treatments can be wider sidewalks or multi-use paths.

Map 20 shows the updated functional classification system. The classifications vary in their functional parameters (typical traffic volume, design speed and lane number and width) as well as design elements (parking, bicycle facilities, medians, sidewalks and planter strips). Table 24 identifies the functional parameters and design elements for each arterial and collector classification. The stated volume ranges in Table 24 are used as one factor in determining the appropriate classification for a given facility and represent the parameters under which, in most cases, that classification will operate at an acceptable level. The ranges do not represent a standard.

The actual capacity of roadways is typically governed by traffic operations at intersections along with other roadway features such as turning movements, grade, number of lanes and hourly traffic variations. Detailed engineering studies may determine that the actual capacity of a particular road section falls outside these ranges.

The arterial and collector streets create a grid-like network based upon county road spacing. The arterials and collectors generally run parallel, intersecting at right angles. The local streets generally follow this pattern though some follow a spaghetti pattern because of geographic constraints such as buttes or streams. The arterials generally are spaced one mile apart, with the exception of Powell Boulevard to Butler Road spacing over one mile apart, where Gresham Butte creates a topographic barrier. Collectors generally are spaced one-half mile from the arterials. Local streets fill in the spaces between the arterials and collectors, providing internal circulation and connectivity.

Map 20: Functional Classification



Function and Operating Parameters

The following sections describe the general function and operating parameters for each classification. The right-of-way requirements are provided along with generalized cross-sections. More specific design detail and requirements are provided in the Gresham Community Development Code and Gresham Public Works Standards. Some intersections may require auxiliary turn lanes that may necessitate additional right-of-way or easements.

Table 24: Functional Classification System: Arterial and Collector Functional Parameters and Design Elements

	Functional Parameters		Design Elements							
Street					Parking				Curb &	
Major Arterial	25,000-60,000	35-45	4 lanes 12' wide	Yes 6' wide	Not allowed except where designated boulevard, then optional.	Yes	Yes 8' wide	Yes 6' wide	2'	104'
Standard Arterial	15,000-40,000	35-45	4 lanes 12' wide	Yes 6' wide	Not allowed except where designated boulevard, then optional.	Yes	Yes 8' wide	Yes 6' wide	2'	96'
Minor Arterial	10,000-20,000	25-40	2 lanes 12' wide	Yes 6' wide	No	Yes	Yes 6' wide	Yes 6' wide	2'	74'
Major Collector	1,000-10,000	25-35	2 lanes 12' wide	Yes 6' wide	Yes 7' wide	No	Yes 6' wide	Yes 6' wide	2'	74'
Standard Collector	1,000-10,000	25-35	2 lanes 12' wide	Yes 6' wide	No	No	Yes 6' wide	Yes 5' wide	2'	60'
Minor Collector	1,000-10,000	25-35	2 lanes 12' wide	No	Yes 7' wide	No	Yes 6' wide	Yes 5' wide	2'	60'

1 Average Daily Trips
2 Miles Per Hour

About Table 24

Where a design element is listed as "no" for a particular classification, that element is not included in the standard design due to the operational characteristics of that classification, particularly design speed and volume. Bicycle lanes are required on all streets except for those designated as minor collectors. Where bicycle lanes are not required, bicycle travel will occur within the travel lanes. Sharrows or other bicycle travel indicators may be used to provide bicyclists directional information and to inform motorists of bicyclists on the road. For other design elements, when "yes" is listed or other guidance is provided, the design element is preferred but may not be included in a particular improvement project depending on specific operational or land use characteristics identified during project development and design. Parking on standard and major arterials designated as boulevard have an "optional" requirement. Where adequate right-of-way allows for on-street parking on boulevards, it should be built. Where adequate right-of-way does not exist, the

Bicycle lanes on SW Towle Avenue between the Springwater Trail and SW 10th Drive. Bicycle lanes are required on all streets except for those designated as minor

developer may choose to dedicate right-of-way and provide on-street parking. The on-street parking must meet Public Works Standards.

ODOT facilities (I-84 and Highway 26 south of Powell Boulevard) are not included in the Functional Classification System Table because they are within ODOT's jurisdiction and will be managed by ODOT according to state standards.

The following section provides the cross-sections associated with each classification.

Major and Standard Arterials

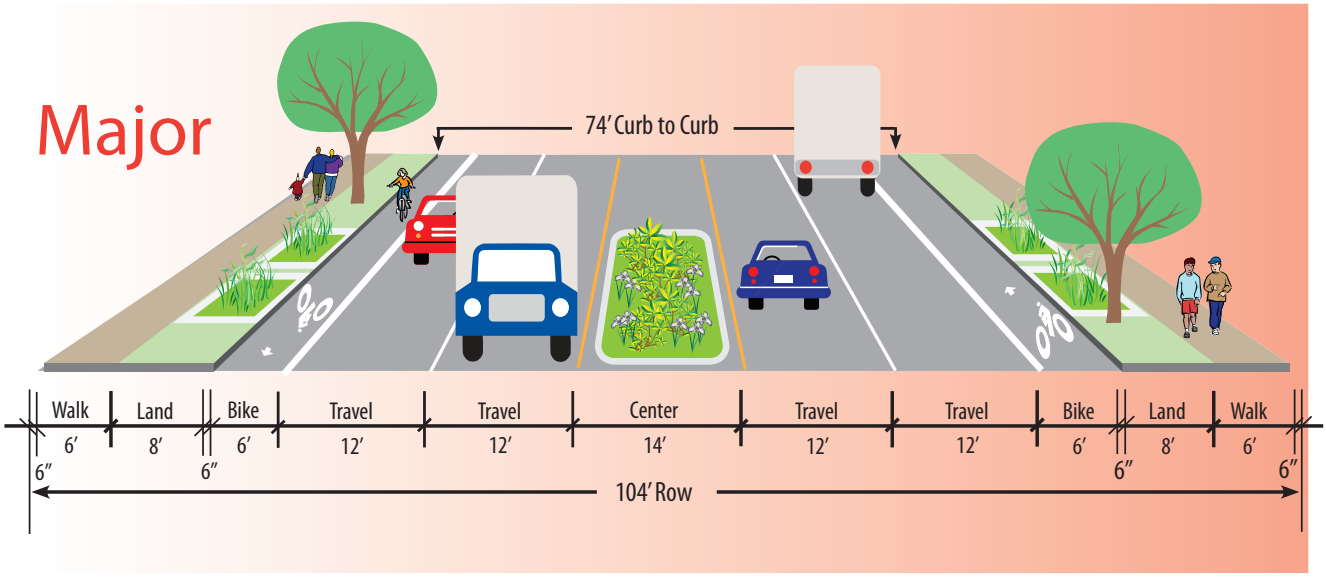
Major and standard arterials are moderate speed, high volume streets that accommodate the majority of regional travel through Gresham. They consist of four travel lanes, bicycle lanes and a center lane designed as a turn lane or raised median as needed for travel safety and mobility. The major and standard arterials provide access to major activity centers and facilitate travel from collector streets to the freeway and principle arterial. They carry traffic volumes typically between 15,000 and 30,000 and maybe as high as 40,000 vehicles per day.

Primary bus routes are provided on the arterial street system, with frequent bus stops located to serve major destinations. Sidewalks and planter strips behind the street curb are also provided for pedestrian mobility, street aesthetics and stormwater management.

Major Arterial

The major arterial is designed to facilitate high demand travel needs of Gresham's valuable industrial and employment land uses. Gresham's major arterials are Sandy Boulevard and Hogan Drive. Sandy Boulevard serves Gresham's **Title 4** industrial/employment land. Hogan Drive serves north/south freight movement and will increase freight volumes as the industrially significant Springwater Plan Area develops. The major

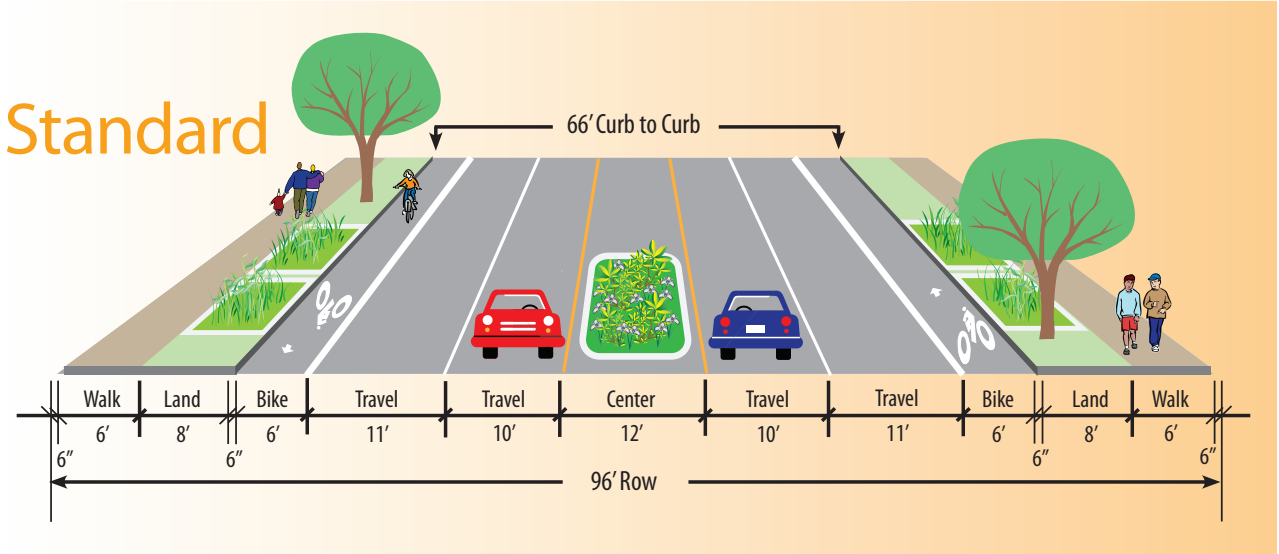
Title 4 is established and defined in the Regional Framework Plan. " The Regional Framework Plan calls for a strong regional economy. To improve the economy, Title 4 seeks to provide and protect a supply of sites for employment by limiting the types and scale of non-industrial uses in Regionally Significant Industrial Areas (RSIAs), Industrial and Employment Areas. Title 4 also seeks to provide the benefits of "clustering" to those industries that operate more productively and efficiently in proximity to one another than in dispersed locations. Title 4 further seeks to protect the capacity and efficiency of the region's transportation system for the movement of goods and services and to encourage the location of other types of employment



arterial has two 12' auto travel lanes in each direction and a 14' median to accommodate turning the radii of large freight vehicles, 6' bicycle lanes, 8' planter strips and 6' sidewalks. A raised median is preferred where functionally appropriate for travel safety and mobility.

Standard Arterial

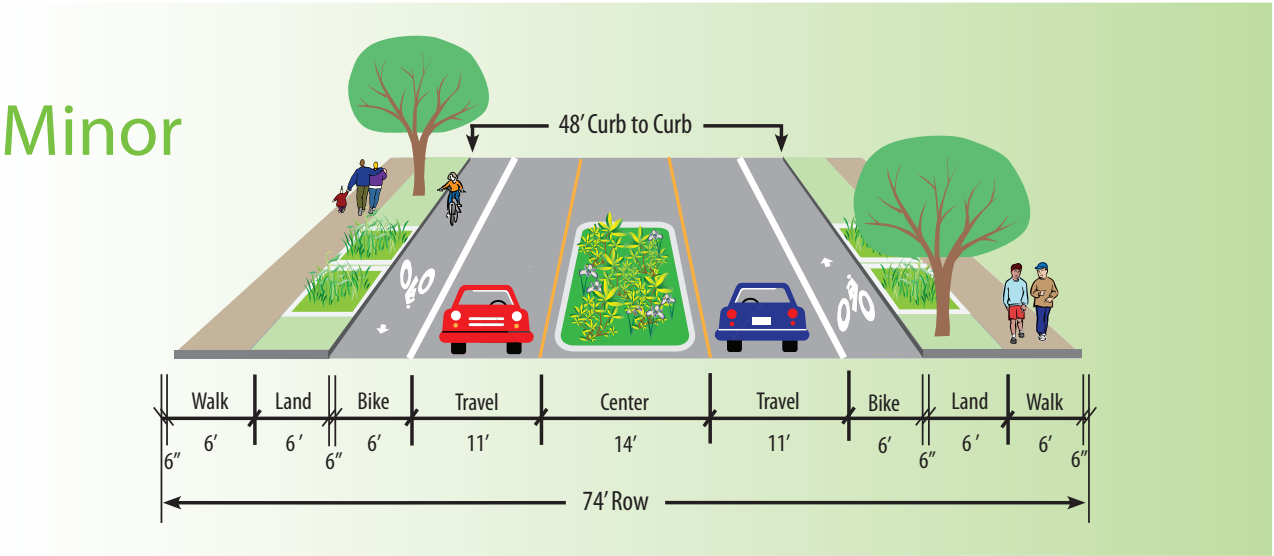
The standard arterial is designed to accommodate high traffic volumes at a community level scale. The standard arterial has one 10' interior and one 11' exterior travel lane in each direction and a 12' center lane



for autos, 6' bicycle lanes, 8' planter strips, and 6' sidewalks. A raised median is preferred where functionally appropriate for travel safety and mobility. The narrower cross-section will support adjacent land uses but is more pedestrian friendly to cross and requires less right-of-way dedication from developments.

Minor Arterial

Minor arterials provide access between neighborhoods or from neighborhoods to the arterial system. Emphasis is on collection and distribution of trips within an arterial grid. Minor arterials consist of one 11' travel lane in each direction with a 14' center lane for a turn lane or planted median, 6' bicycle lanes, 6' planter strips, and 6' sidewalks. Left turn lanes are provided at local streets and major driveways. A continuous left turn lane may be provided where necessary for access within commercial and industrial areas. Raised medians are preferred



where functionally appropriate for travel safety and mobility. Traffic volumes are typically between 10,000 and 15,000 and maybe as high as 20,000 vehicles per day.

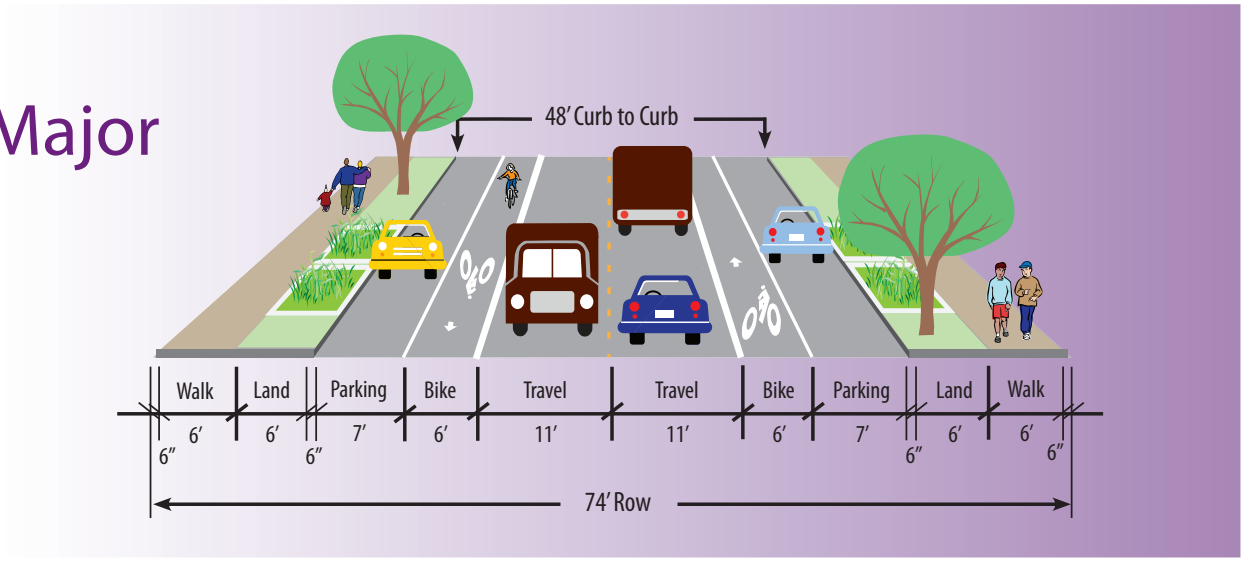
Major, Standard and Minor Collector

Major, standard and minor collectors facilitate travel within the community and neighborhoods, with an emphasis on serving adjacent land uses. Traffic volumes are typically 1,000-10,000 per day.

Transit service, where provided, consists of neighborhood circulation routes. Sidewalks and bicycle lanes or shared automobile/bicycle travel lanes facilitate neighborhood access.

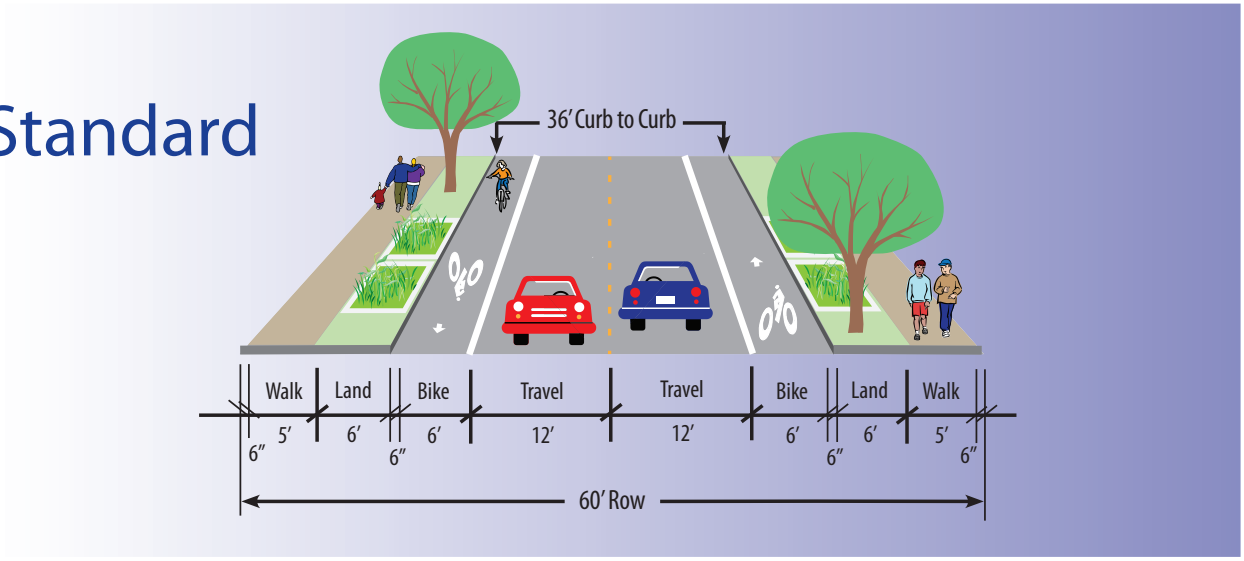
Major Collector

Major collectors consist of two 11' auto lanes, 6' bicycle lanes, 7' parking zones, 6' planter strips, and 6' sidewalks and on-street parking. They are located primarily in the specially planned areas of Civic Neighborhood and Pleasant Valley.



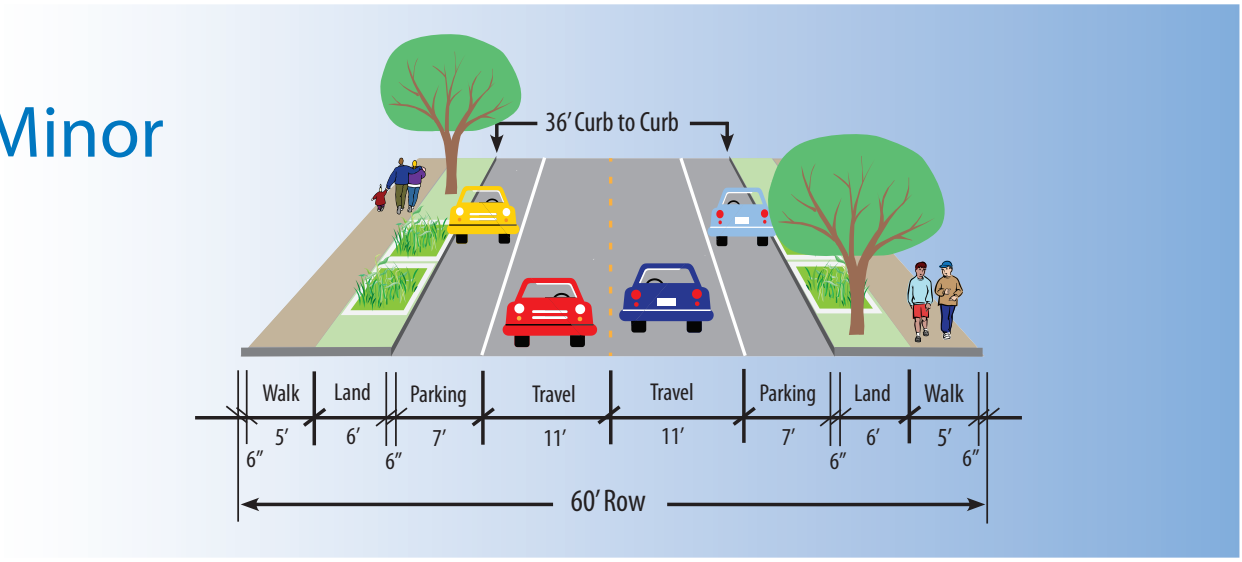
Standard Collector

Standard collectors consist of two 12' auto lanes, 6' bicycle lanes, 6' planter strips, and 5' sidewalks. On-street parking will be provided by the adjacent local street network.



Minor Collector

Minor collectors consist of two 11' auto lanes, 7'on-street parking, 6' planter strips, and 5' sidewalks. Bicycle travel will be provided within the motor lanes. Sharrows, or other bicycle indicators may be utilized to illustrate the shared nature of the Minor Collector's motor/bicycle lane.



Transit Streets

The transit street designation is not a functional classification, per se, but rather relates to specific land development standards to ensure adjacent land uses support the use of adjacent high quality transit service.

The transit design criteria in Gresham's Community Development Code applicable to development along transit streets is intended to provide convenient, direct and accessible pedestrian routes to and from transit facilities via sidewalks and bicycle facilities; provide safe, pleasant and convenient pedestrian circulation by connecting activities within a structure to the adjacent sidewalk and to nearby transit stops; and promote the use of pedestrian and transit modes to access retail and commercial uses. Standards for windows and walls are designed to increase surveillance opportunities, avoid a monotonous pedestrian environment and prevent fortress-like facades along public streets.

Special Street Cross Sections

The functional classification system plan identifies four streets with "special street" cross-sections. These streets are not able to be built to the design standards noted in the sections above due to environmental constraints, impacts to historically designated properties, or unknown development configuration. Alternate designs for these streets must ensure they remain able to adequately serve all modes of travel.

- ### Marine Drive

  Marine Drive is located along the Multnomah County Drainage District's Columbia River levee. The portion of Marine Drive within Gresham is configured with an auto and bicycle lane in each direction but without a planter strip or sidewalk behind the curb. This is due to slope and environmental constraints. However, a multi-use path is planned on top of the levee along this portion of Marine Drive and would accommodate both bicycle and pedestrian traffic. Therefore, the special street designation is applied to Marine Drive because it still serves all modes and includes stormwater management via the levee system. Marine Drive remains a minor arterial due to its expected traffic volumes and function as an east/west arterial.

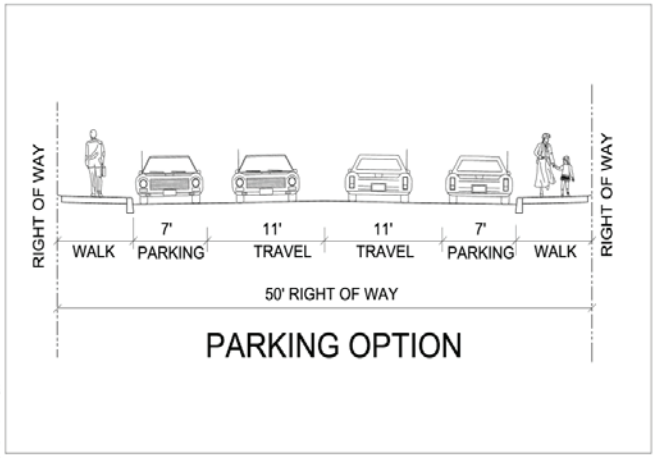
- **Riverside Parkway**

  Riverside Parkway is planned to be constructed as a loop that connects with Portal Way. However, should the adjacent property develop in a fashion that does not require the looped connection, per the Development Code and Public Works Standards, (i.e. with a large lot development), the connection may not be required.

- **Roberts Avenue**

  Roberts Avenue, between Powell Boulevard and Regner Road, is surrounded by many of Gresham's historic homes and graced by well-established trees. Roberts Avenue is classified as a minor collector but not currently built to that standard; the required 60' right-of-way would encroach on front yards and require removal of several trees. The special street designation, as shown in the graphic below, retains the existing built configuration along Roberts Avenue.

Graphic #: Roberts Avenue Special Street Design



View of Roberts Avenue, classified in the TSP with "special street" cross-sections.

- **Butler Road**

  Butler Road is an important east/west route in southern Gresham. The existing built configuration is comprised of one travel lane in each direction and no sidewalks or bicycle lanes. The special street section of Butler, between Towle Avenue and Regner Road, has Metro owned property to the north and south. The long-term plan for this land is open space. As such, access to the adjacent property may be unnecessary. When Butler Road is considered for redevelopment, multimodal aspects should be incorporated but a center lane may be unwarranted.

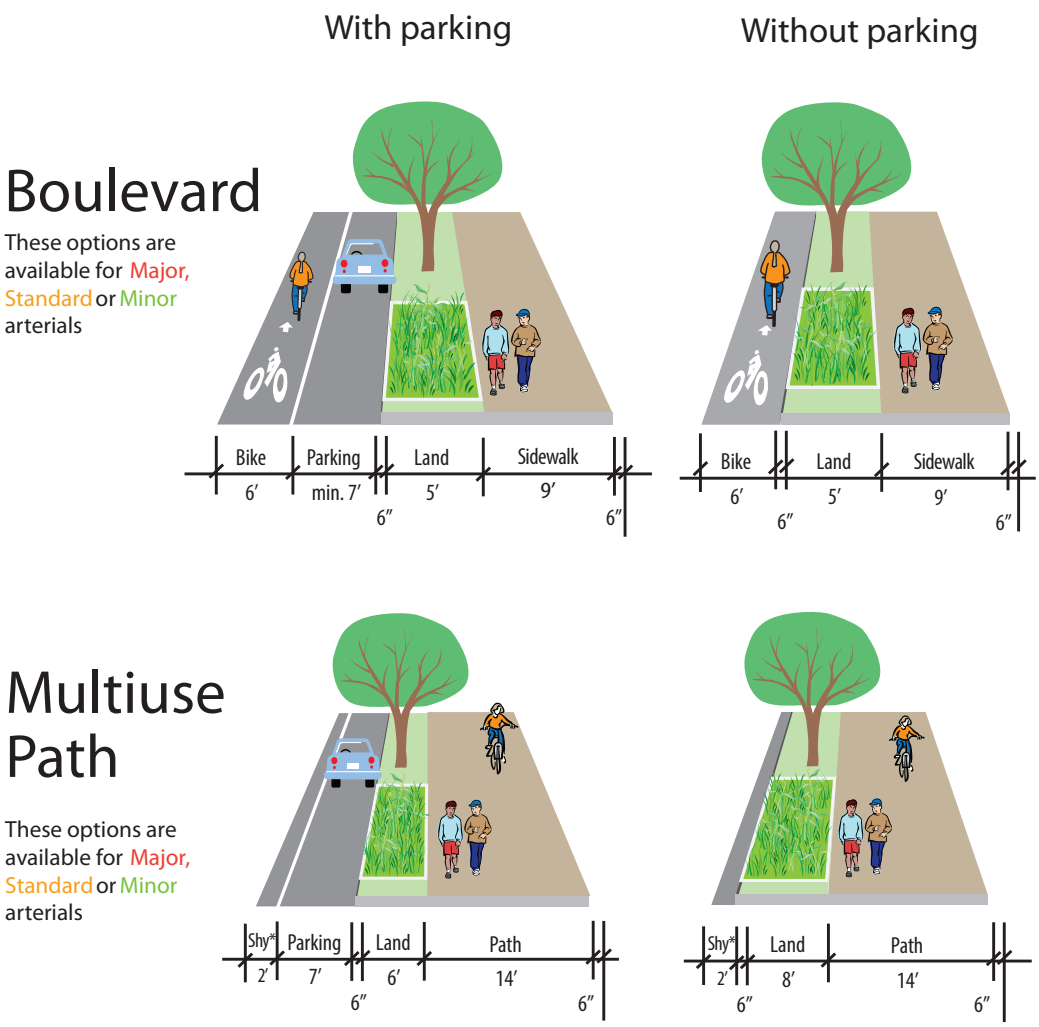
Boulevard improvements on SE Stark Street in the Central Rockwood Plan Area.

Boulevards and Multi-use Path Design

Multi-use paths and streets with a boulevard designation are intended to be active multimodal spaces.

Boulevards are located in the Gresham Regional Center and Central Rockwood Plan Area to support adjacent high-density, mixed-use and transit-oriented development. They are designed to slow traffic, encourage commercial activity and provide a pleasant pedestrian atmosphere. Primary bus routes provide services on boulevards with frequent bus stops. On-street bicycle and parking lanes are provided and 10' wide sidewalks accommodate high levels of pedestrian travel.

The multi-use paths identified on the functional classification map are adopted in the Regional Transportation Plan and this TSP as shown on Map ##. Where they are adjacent to the City's streets, the streets are to be designed with a 14' multimodal path and a parking lane based upon the adjacent street's functional classification.



Gresham's Centers

Major and standard arterial streets within Gresham's Regional Center and Central Rockwood Plan areas that are not designated as boulevard must be designed with a 10' sidewalk in order to create an inviting pedestrian environment within these areas.

Planned Area Street Design

As indicated on the functional classification map, Gresham's Downtown and Civic Neighborhood have adopted street designs. The following plans should be referenced to determine if a street design applies:

- Community Development Plan, Section 4.1100, Downtown Plan District Design Manual
- Community Development Plan, Section 4.1200, Civic Neighborhood Plan District

Local Streets

The local street system provides circulation and direct access to individual properties. Local streets carry neighborhood traffic and make up the largest percentage of total street mileage in the city. They are all shared-road bicycle facilities as they carry lower traffic volumes at lower speeds. The local streets are designed with sidewalks and planter strips for a quality pedestrian environment that is also enhanced with lower volume and speeds conditions. There are five local street types. The TSP does not identify the type of each local street. Local street type is determined upon development and as dictated by the City of Gresham's Community Development Plan and Public Works Standards.

Required local street designs are shown below. Green street design standards for each street is available in the City's Public Works Standards. The green street design features a 6' wide landscape strip that may be utilized for stormwater management.

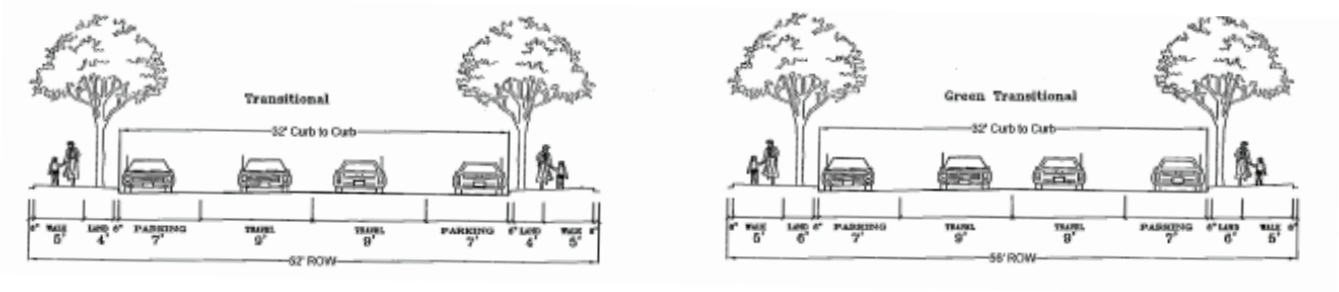
Transitional

Transitional streets are low volume, low speed local streets that serve neighborhood access needs. They provide two 9' auto lanes and two parking lanes. Traffic volumes are typically 1,000 vehicles or less per day.

Transitional streets are used to continue existing local streets in established neighborhoods, in mixed-use neighborhoods where density precludes queuing streets due to insufficient off-street parking, on primary emergency response routes, when a street must be terminated in a cul-de-sac, or on local streets where volumes are expected to exceed 800 vehicles per day.

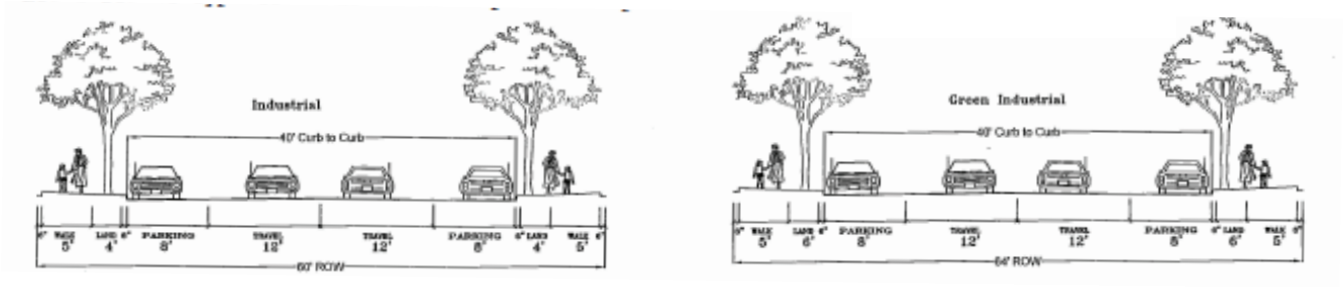
Industrial

Industrial local streets are low volume, low speed streets that serve primarily industrial access needs. They provide two 12 foot auto travel lanes and two parking lanes. Traffic volumes are typically 1,000 vehicles or less per day.



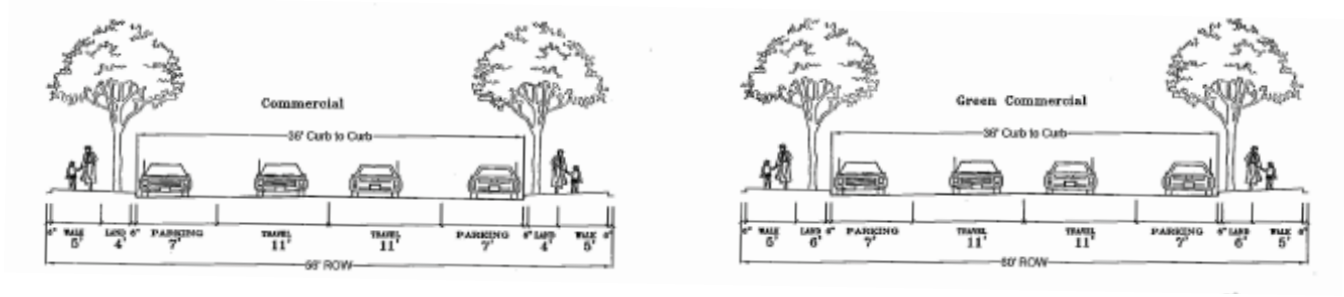
Commercial

Commercial local streets are low volume, low speed streets that serve primarily commercial access needs. They provide two 11 foot auto travel lanes and two parking lanes. Traffic volumes are typically 1,000 vehicles or less per day.



Queuing

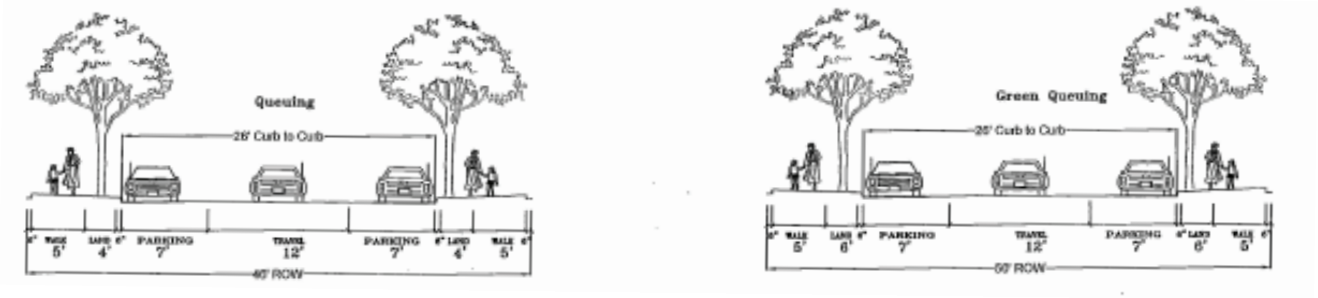
Queuing streets are low volume, low speed through streets intended for two-way auto travel. They provide one 12 foot auto travel lane and two parking lanes. When two vehicles meet on a queuing street, one vehicle must



yield by pulling into a vacant segment of the adjacent parking lane. Queuing streets are the primary local streets for new residential development. Queuing street block lengths are limited to 400 feet. Traffic volumes are typically 800 vehicles or less per day.

Minor Access

Minor access streets provide public street access to lots created as part of an infill process, where there is no opportunity for connection to another public street by a lane or other local street. A minor access street may



serve no more than six dwelling units and may not exceed 150 feet in length. Additional off-street parking for residents and visitors must be provided because no on-street parking is allowed. Sidewalks are not required because of the extremely low traffic volumes on the street.

Alley

Alleys can be useful in providing property access and allowing efficient property use when direct public street access is either not possible or is undesirable. The use of alleys in residential neighborhoods can enhance front

yard pedestrian orientation to adjacent streets and reduce the number of individual driveways, improving pedestrian safety. Alleys may also be useful in commercial areas to separate service vehicle traffic from other vehicle and pedestrian traffic.

In all cases, alleys must connect to a street at each end. All adjacent lots must also have frontage on a public street. Additional parking spaces may also be necessary if parking is restricted on the adjacent public street.

ODOT Roads

As discussed in the existing conditions Chapter 2, ODOT maintains jurisdiction of two road sections within Gresham's study area: I-84 and US 26 south of Powell Boulevard. They are shown on the functional classification system plan and discussed below as they perform a vital role in the transportation system plan. However, their design and function is managed by ODOT.

Freeway

Freeways are high speed, high volume corridors that facilitate through movements of regional, statewide and interstate travel. They include grade separated interchanges, four to eight travel lanes with median separation and fully controlled property access. Volumes can be in excess of 60,000 vehicles per day. Interstate 84 is the only freeway facility in Gresham. It is within ODOT jurisdiction and any improvements will be addressed through ODOT and Gresham coordination.

Transit service, if it is provided, consists of express buses or fixed-guideway service such as light rail. Bicycle and pedestrian travel within these corridors is provided on either parallel streets or on dedicated pathways. I-84 features a parallel 10' wide multi-use path, providing bicyclists and pedestrians a major east-west travel arterial.

Principal Arterial

Principal arterials are high speed, high volume arterials that provide a high level of mobility for regional and inter-regional travel. Principal arterials include four to six travel lanes, raised medians and street intersections generally limited to signalized intersections with arterial and collector streets. Traffic volumes are typically between 35,000 and 50,000 vehicles per day, and may be as high as 60,000 vehicles per day.

Transit service will generally consist of regional or express bus service with relatively infrequent stops. On-street bicycle lanes are provided along with wide sidewalks separated from the street.

Highway 26/Mt. Hood Highway south of Burnside Road is Gresham's only principle arterial. It is within ODOT jurisdiction and any improvements will be addressed through ODOT and Gresham coordination.

Future Streets Plan

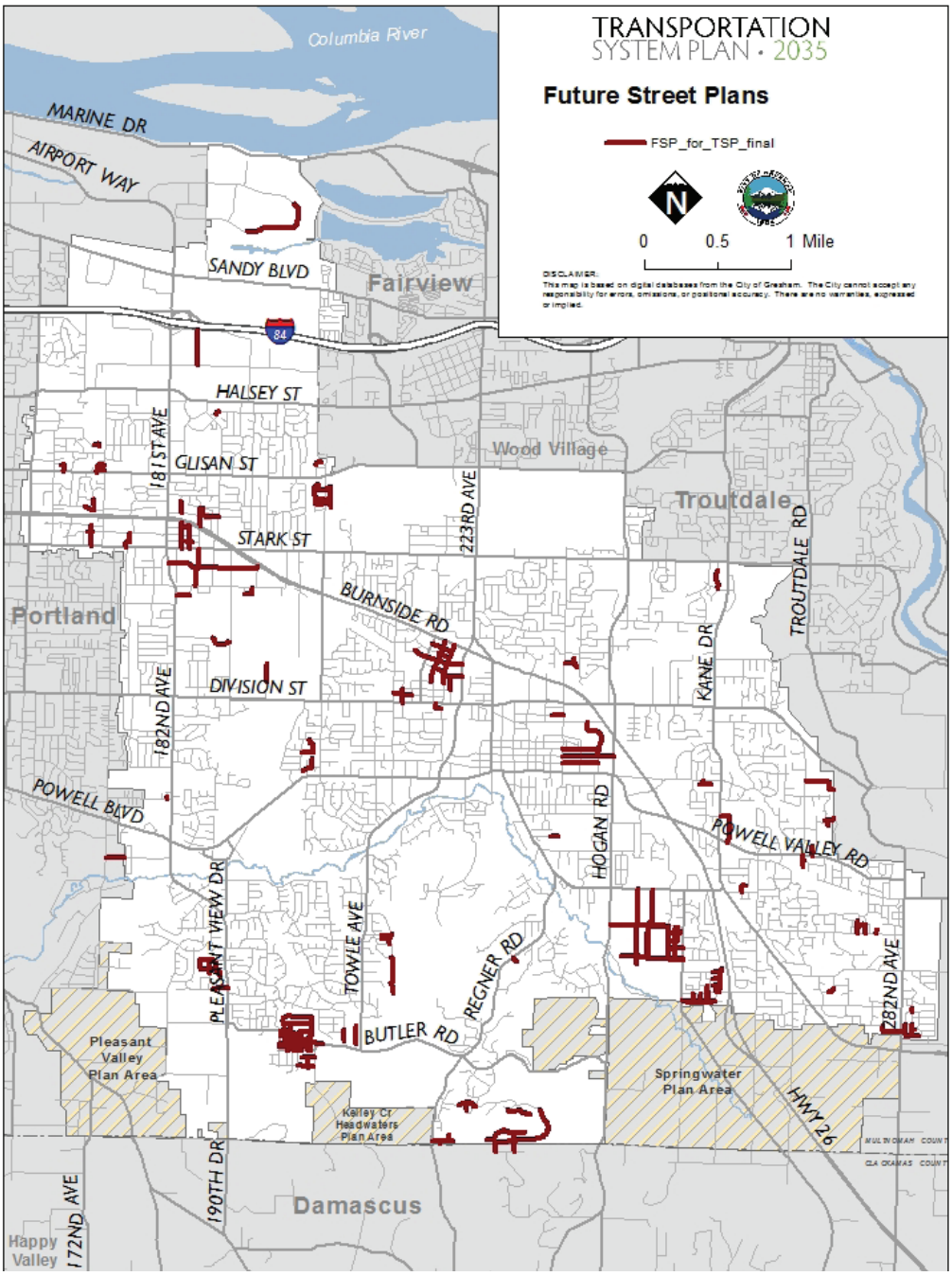
The future streets plan (FSP) implements the city's policy to ensure a well-connected street network. It provides a guide for transportation connectivity and circulation to a developing site and its immediate area.

US Highway 26/Mt.. Hood Highway south of Burnside Road is Gresham's only principal arterial.

The conceptual alignments on Map 21 show how streets, primarily local streets, may connect in the future and how access may be provided to other properties in the immediate area. They are conceptual in that they do not establish a precise alignment. A precise alignment is established through the Site Development Review process with the Urban Design and Planning Department. Any proposed changes to future streets shown in Map 19 will be in accordance with the Community Development Code and the future streets plan modification process outlined in Section 9.0712.

The future streets plan and functional classification system plan serve as the conceptual map of new streets per Title 1, Street Design Sec 3.08.110D. The City will undergo a community outreach process to identify additional future street plans as an action item from this TSP.

Map 21: Future Street Plans



2. Pedestrian System Plan

The City supports a safe, pleasant, and continuous pedestrian network throughout the city. There are many types of infrastructure to improve safety and comfort for all pedestrians, from creative crosswalks to sidewalk planters. The pedestrian system is largely incorporated into the functional classification system plan which calls for wide sidewalks, planting strips, on-street parking in centers and a flexible use of medians. It creates an accessible environment compliant with the Americans with Disabilities Act (ADA).

View of pedestrian-friendly development on E. Burnside Street west of SE 187th Avenue in Rockwood.

The following programs enhance the functional classification system by addressing specific pedestrian circulation needs.

Pedestrian Districts

Downtown, Civic Neighborhood and Rockwood have been identified as pedestrian districts within Gresham. All have land use plans supporting pedestrian-friendly development. The plans include minimum or zero setback buildings, higher densities, building orientation toward the street and transit corridor designations, among other pedestrian amenities.

The existing street standards in Downtown and Civic Neighborhood also support these areas as pedestrian districts. The Civic Neighborhood street standards widen the sidewalks to 15 feet with planter strips and buffer zones. Downtown streets call for 8 to 12 foot sidewalks with street trees, pedestrian-scale lighting, underground utilities, curb extensions, on-street parking and narrow travel lanes. Moreover, the Downtown street standards include a shared street classification. A shared street is shared by all travel modes but designed for pedestrians as the predominant mode, such as Beech Street located just north of the Arts Plaza. Autos are allowed but must travel at a walking pace to operate safely. The street is intended for local access and provides a continuous and connected street grid pattern.

Missing Links

Missing links is an ongoing effort to infill missing segments of sidewalk. Many areas exist in Gresham with a curb in place but sidewalk was never constructed. Additionally, development-related improvements may not link to the existing sidewalk network, leaving small gaps in the system. Missing links constructs these types of small sidewalk projects. Major destination routes are prioritized for sidewalk infill. These routes include: parks, community service uses, major retail centers, Rockwood, Downtown and Civic Neighborhood.

Missing sidewalk along NE Cleveland Avenue north of Burnside Road.

Street Connectivity

A very important element of the pedestrian system is adequate local street connectivity. A well-connected local street system provides convenient connections between neighborhoods, schools, parks, shopping and transit. The City has adopted neighborhood circulation and street connectivity standards for new residential and mixed-use development. These requirements have resulted in the development of several future street plans that guide the construction of new local street connections with land use development and redevelopment.

Pedestrian-to-MAX

The Pedestrian-to-MAX program improves pedestrian access to transit. The program is primarily focused around light rail stations and transit centers but improvements to well-used bus stops are also included. The program includes a wide range of possible improvements such as wide sidewalks, street trees and lighting, crosswalks, public art and urban plazas. The priority station areas are Downtown, Rockwood and Cleveland Station.

An ADA-compliant curb ramp on SE Rene Avenue.

Curb Ramps

The ADA requires an appropriate street accommodation for all users. Curb ramp retrofits and new installations are required of new street construction and major street reconstruction. However, relying on street projects to implement the City's curb ramp program is inadequate. The curb ramp program works independently from street repair to install and upgrade curb ramps citywide. Priority areas for ramp construction are the identified pedestrian districts of Rockwood, Downtown and Civic Neighborhood. School zones will also take priority.

Multi-Use Paths

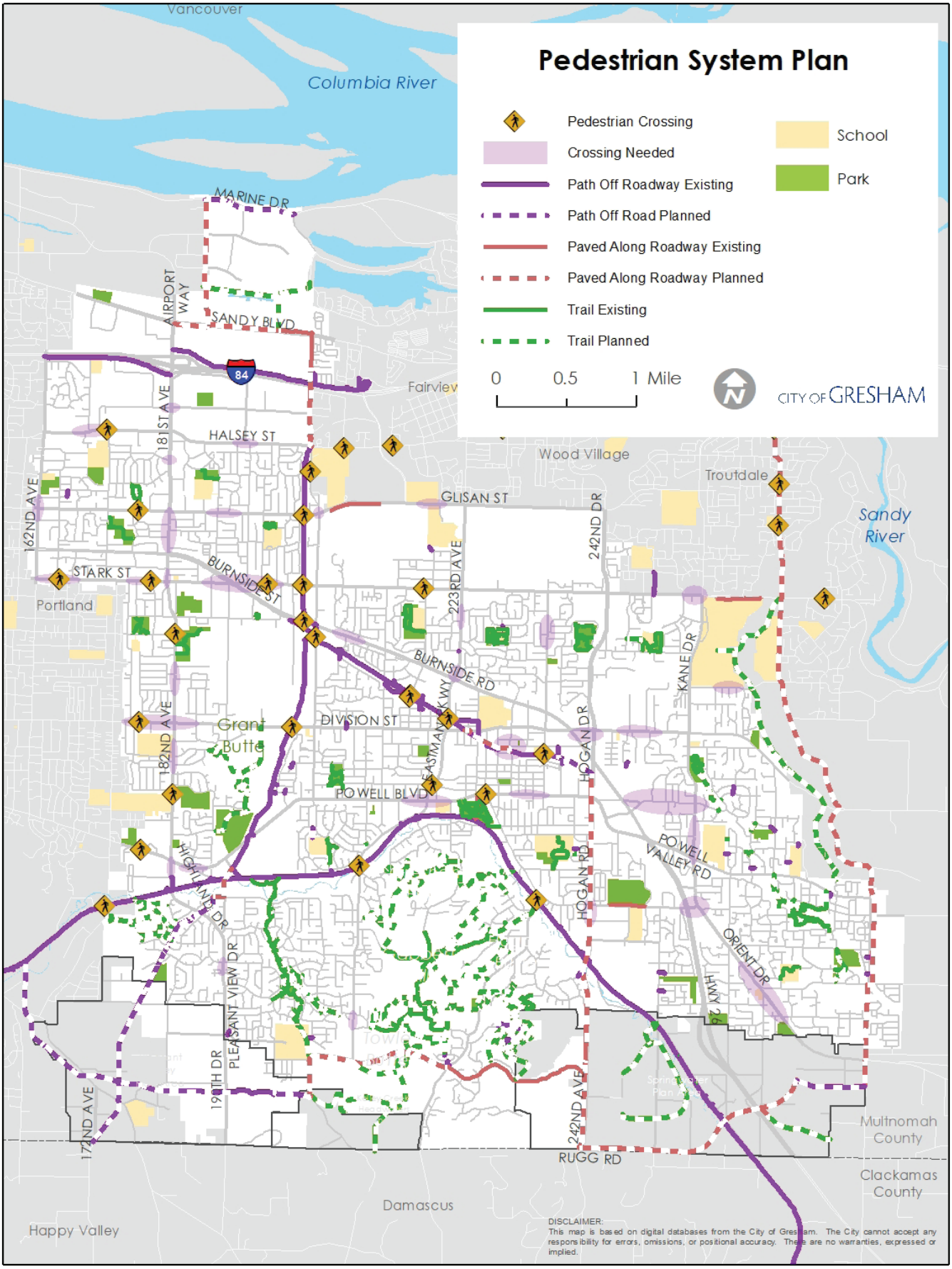
Off-street paths are designed to establish safe and convenient routes separate from auto traffic for walking and other non-motorized users. Multi-use paths form the backbone of the pedestrian and bicycle system, providing connectivity to and through neighborhoods. The following additional paths will complete the network:

Kelley Creek Trail: The proposed multi-use path will parallel Kelley Creek and connect to the Springwater Corridor at Powell Butte Nature Area. The trail will provide pedestrian access across Pleasant Valley.

Sandy River to Springwater Multimodal Corridor: The planned multi-use path runs north/south along 282nd Avenue. It will enhance bicycle access for the neighborhoods in southeast Gresham. The path will connect with the Springwater Trail for full access to the multi-use path network.

East Buttes Loop Trail: The East Buttes Loop Trail will cross east/west through Gresham Butte and Pleasant Valley and have connectivity with the Springwater Corridor Trail.

Map 22: Pedestrian System Plan



Safe Routes to School

Gresham's Safe Routes to School (SRTS) progam works with schools and partners on projects that improve safety for students walking and rolling to school. For instance, the City recently installed an asphalt pathway along the east side of Hogan Drive to improve safety for students crossing the busy arterial to get to Dexter McCarty Middle and East Gresham Elementary. To support infrastructure improvements, the City works on programming that encourages students to walk and roll, such as 'Walk and Roll to School' events, and provides transportation safety education in partnership with Multnomah County.

3. Bicycle System Plan

Gresham aims to provide a bicycle system that continues to attract new cyclists and realize the policy of integrating bicycling into daily life. Bicycles are legally classified as vehicles and are allowed on most roadways except urban freeways. Just like auto drivers, bicyclists need well-designed facilities to operate safely. The city's functional street classification system aims to provide safe, well-designed, connected, and accessible facilities. Bike lanes are required on streets classified as major, standard and minor arterial streets as well as major and standard collector streets. Minor collector streets are shared bicycle facilities. All street improvements require the construction of applicable bicycle system components.

The bicycle system plan has three primary elements: off-street multi-use paths, bike lanes and Gresham Greenways. The system plan develops a connected bicycling network that establishes direct and convenient access to all significant destinations within the city and provides comfortable facility types for different types of cyclists. Map 23 shows the planned bicycle network.

The Springwater Spur Trailhead at Main City Park, completed in 2013, is part of the City's Bicycle System Plan to provide a system that continues to attract new cyclists to Gresham.

Multi-Use Paths

Off-street paths are designed to establish safe and convenient routes separate from auto traffic for cycling, walking and other non-motorized users. They are essential to completing the bicycle system since not all users are comfortable using on-street facilities. They also often serve as an "expressway" for bicycle commuters because there are typically fewer stops required along paths compared with the street system.

Gresham's existing off-street, multi-use paths are the Springwater Corridor Trail, Gresham-Fairview Trail, Wy'East Way and I-84 Path. Per findings from Gresham's bi-annual counts discussed in the Existing Conditions chapter, they are well-used facilities that provide a backbone framework for bicycle access.

The following three additional paths are proposed to complete the network:

- **Kelley Creek Trail:** The proposed multi-use path will parallel Kelley Creek and connect to the Springwater Corridor at Powell Butte Nature Area. The trail will provide bicycle access across Pleasant Valley.
- **East Buttes Loop Trail:** The East Buttes Loop Trail

will cross east/west through Gresham Butte and Pleasant Valley and have connectivity with the Springwater Corridor Trail.

- **Sandy River to Springwater Multimodal Corridor:** Gresham's off-street access to Portland and within Gresham is improving. However, greater access to the east is needed. The Sandy River to Springwater Multimodal Corridor is a proposed north/south multi-use corridor aligned along 282nd Avenue in Gresham and north along Troutdale Road to the Sandy River. The new path will link to the Springwater Corridor Trail through Springwater for full access to the multi-use path network. It will enhance bicycle access for the neighborhoods in southeast Gresham.

On-Street Bicycle Lanes

All streets should be accessible by bicycle and the functional street classification assures this by requiring striped bicycle lanes on major, standard and minor arterial streets as well as on major and standard collector streets. Any substandard street will be upgraded to include the required bicycle facility at time of construction.

The streets of highest priority for new bicycle lanes include: Sandy Boulevard, Wallula Avenue, Cleveland Avenue between Burnside Road and Stark Street, Regner Road, Palmquist Road, and Orient between Salquist Road and the planned Springwater arterial. These streets are prioritized because they complete significant links in the bicycle network and provide access to major destinations in and around Gresham. Future streets and redevelopment of existing streets will require bicycle lanes per the Functional Classification Plan.

Gresham Greenways

Gresham Greenways is a network of low-stress streets and multi-use paths that connect key destinations across Gresham. The network was developed from the Active Transportation Plan's Bike Routes for Everyone network. To create the Bike Routes for Everyone a "Level of Comfort" analysis was done on streets with good connectivity. The analysis looked at how street design elements (such as posted speed limit and number of travel lanes) impact the experience for bicyclists of all skill levels. The analysis informed design options for infrastructure improvements, such as sharrows and signage, throughout the network to make it safer and more comfortable for all users.

Street Connectivity

A very important element of the bicycle system is adequate local street connectivity. A well-connected local street system provides convenient connections between neighborhoods, schools, parks, shopping, and transit. The City has adopted aggressive neighborhood circulation and street connectivity standards for new residential and mixed-use development. These requirements often result in the development of future street plans that guide the construction of new local street connections with land use development and redevelopment.

Bike Signage

Signage for safety and wayfinding is a best practice along all of Gresham's bicycle infrastructure. Bicycle signage was originally installed in June of 2010. The 78 signs were installed along major bike routes and multi-use trails showing multiple destinations. Directional arrows, mileage and time markers are included on the signs. There were 35 of these wayfinding signs that showed access to trails from major streets and an additional 32 rider signs that pointed out food, transit or trails.

Encouragement

The City implements programming that encourages bicycling across the city. In 2017, Gresham was awarded a Bicycle Friendly Community rating of Silver by the League of American Bicyclists. This score is based on Gresham's number of bicycle facilities, education, and encouragement activities and safety statistics.

A wayfinding sign at SE 174th/Jenne Road directs Springwater Trail Corridor users to destinations in Gresham.

City Transportation staff fit a youth for a bicycle helmet at the Transportation Safety Fair.

The City of Gresham's Bike Month promotes cyclist activities for all ages through events, including Bike-to-Work Day, a " bike rodeo" to teach children rules of the road, and group bike rides through Gresham trails.

In 2017, the Gresham Area Chamber of Commerce received grant funds to promote bicycle tourism in the greater Gresham Area. Part of that effort included Gresham Parkways, a city-wide event to encourage cycling along Gresham's multi-use paths. Over 800 cyclists of all ages participated as they bicycled along the Gresham-Fairview Trail, Wy'East Way Path, and Springwater Trail.

Education

Education is an important element to increasing bicycling by improving the safety skills of cyclists. The City's Safe Routes to School (SRTS) program provides support for making walking and biking to school a fun and safe experience.

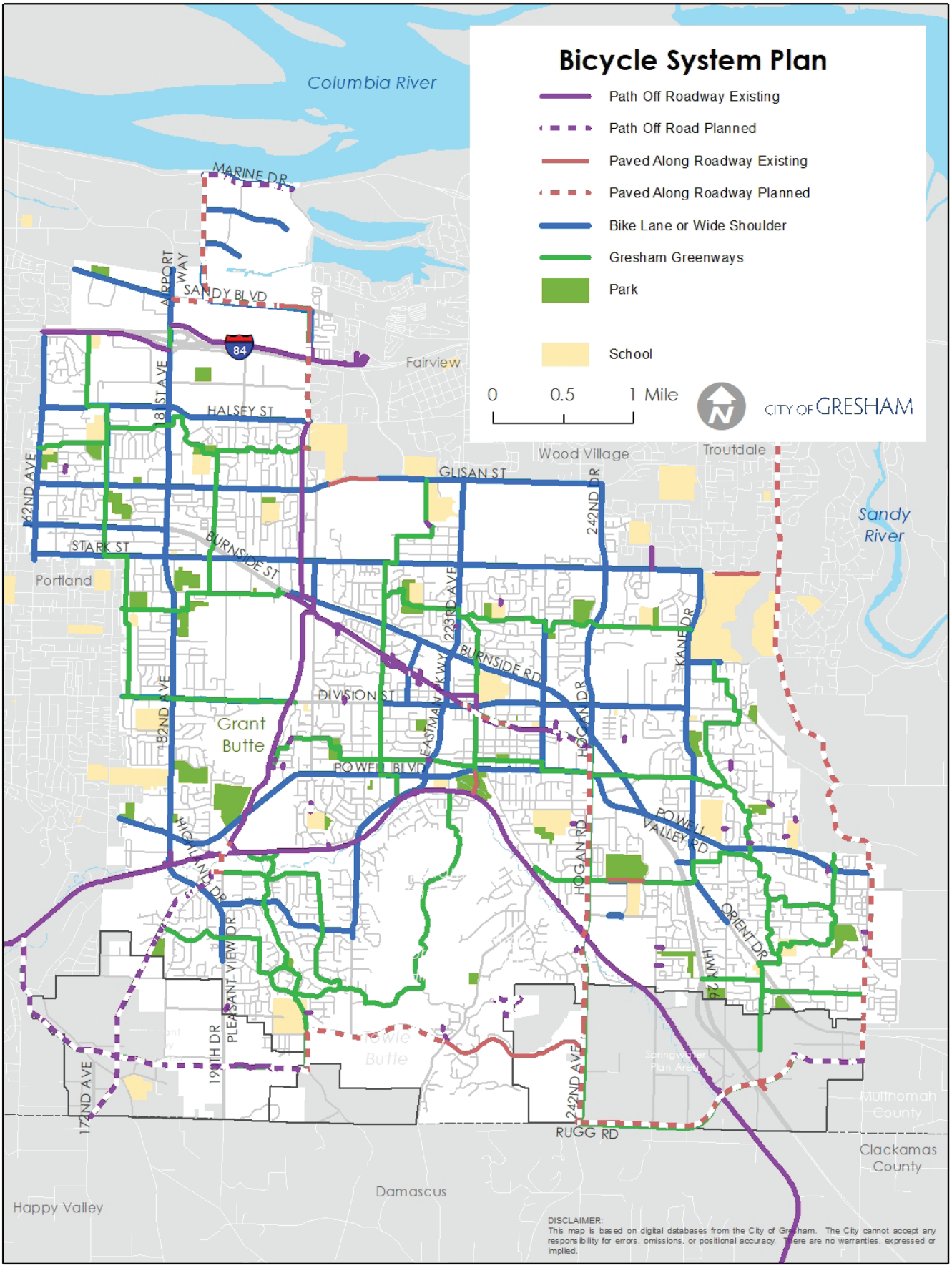
The City partners with Metro, Multnomah County, and staff from the three school districts (Centennial, Gresham-Barlow, and Reynolds) to support the program. The City has worked with partners to develop school Action Plans that identify key routes to school and necessary infrastructure improvements. In 2019, SRTS staff worked with Davis Elementary on an Action Plan that identified improvements and received grant funding to install new sidewalk and a new crossing on routes to the school. These efforts are supported by ongoing traffic safety education and encouragement events, such as Walk + Roll to School Days.

Bicycle Parking

Having a safe place to park your bike at your destination is essential to creating a welcoming environment for bicyclists and encouraging people to use bicycles for everyday trips. Appropriate bicycle parking is metal, securly anchored to the ground and supports the frame of the bicycle allowing for secure locking.

The Gresham Development Code requires bicycle parking at all new developments. There are provisions for both long term parking for employees and short term parking for visitors, which are provided on private property. Some bicycle parking is provided in the right of way, most notably in Downtown Gresham.

Map 23: Bicycle Plan



4. Truck and Rail Freight System

Freight traveling south on SE Kane Drive.

The East Metro Connection Plan identifies transportation and other investments that advance economic and community development. It was an east Multnomah County planning effort lead by Metro from 2010 through

Freight mobility is essential to the movement of goods and services. National and international freight movement contributes significantly to the city's regional and local economies. The "2040 Commodity Flow" analysis completed by Metro for the region, predicts freight volumes to more than double by 2040.

The significant growth in freight projected by the 2040 Commodity Flow Analysis indicates the need to ensure adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities, and to maintain and enhance the freight transportation network. Map 24 is the freight network plan.

Truck Freight

Trucks are a critical part of moving goods within the Portland metropolitan region. To provide adequate truck freight access and capacity, the TSP includes the following elements that aim to ensure adequate mobility and access for freight movement to, through, and from Gresham:

- Findings and projects from the **East Metro Connections Plan** that support retention of adequate roadway capacity for freight movement, including:
- **Eastman/223rd connections:** Projects address future traffic growth with targeted north-south roadway capacity investments along 223rd/Eastman, including at Stark/223rd and Eastman and Powell. Projects to better coordinate the signal timing at intersections along Eastman/223rd will provide needed capacity improvements. ***Catalyst projects:*** *Intersection improvements on Eastman/223rd & Stark.*
- **242nd connections to Clackamas County:** Projects address future growth with additional roadway capacity along this corridor, particularly south of Powell, along with opportunities for access and safety enhancements to the existing conditions. This includes intersection improvements at Glisan and Stark, including signal coordination. ***Catalyst projects:*** *Widening of Hogan/242nd south of Powell Boulevard, Palmquist improvements, intersection improvements Stark.*
- **Southeast gateway:** Projects address future capacity needs, safety (this is one of the highest crash areas). ***Catalyst projects:*** *Improvements to Hogan and Powell, Burnside intersections, safety improvements.*
- **Gresham Vista Business Park:** The Port of Portland's November 2011 purchase of one of the area's largest shovel-ready employment sites is an immediate opportunity to bring jobs and revenue to East Metro communities. Projects increase mobility along the north/south and east/west arterials and improve access to industrial employment land. ***Catalyst projects:*** *Intersection improvements on Stark and Glisan.*
- **Catalyst for Springwater District:** Projects help develop the necessary public infrastructure for private investment and jobs in this regionally significant employment area. Projects include a new interchange on US 26 and an extension of Rugg Road to connect US 26 and Hogan, as well as collector street improvements to provide needed access for future jobs and employment. ***Catalyst projects:*** *New interchange on US 26 and arterial connections.*

- Projects within Gresham city limits that have been identified by the **Columbia Corridor Association and the Columbia Cascade River District** committee as top priority projects to improve freight access to Portland International Airport and intermodal facilities in the west Columbia River Corridor. Sandy Boulevard improvements are prioritized in the Gresham area.

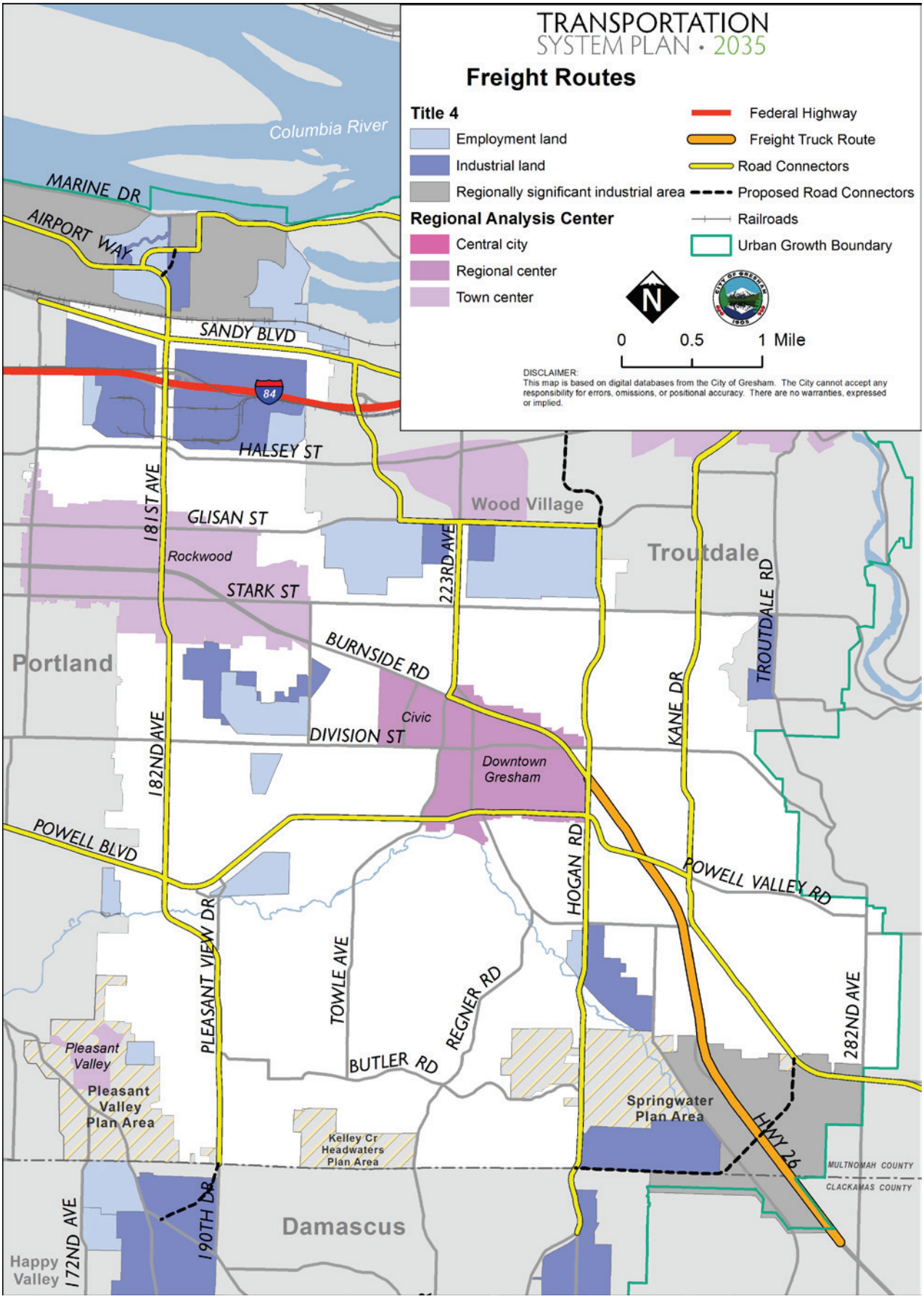
The Columbia Corridor Association is a non-profit organization and Columbia Cascade River District is comprised of East Metro area partners. Both are working to enhance economic prosperity in the Columbia Corridor.

- An action measure and projects in the project list to support improving substandard rail crossings that limit freight mobility on north/south arterial and collector streets
  - **Action Measure:** Identify and correct safety problems on the freight network including roadway geometry and traffic control deficiencies, at-grade rail crossings, truck-infiltration into neighborhoods, congestion on grades and the movement of hazardous materials.
- Projects that support improving intersections along arterial corridors to remove traffic bottlenecks. The projects are included in Chapter 7.

Rail Freight System

The Union Pacific heavy rail line serves the Rockwood-Banfield Corporate Park industrial areas. This line crosses the north side of the city and has two parallel branches, the mainline north of and parallel to Sandy Boulevard (1.8 miles) and the branch line parallel to I-84 (2 miles) that provides direct rail service to Rockwood-Banfield Corporate Park industrial areas and several large manufacturing and distribution uses. The area enjoys tri-weekly rail service. The Gresham industrial areas served by the Union Pacific allows the City to more effectively encourage the location of businesses needing direct and efficient rail service with the assurance that rail service will continue to be provided for those businesses.

Map 24: Freight System Plan



TriMet buses service riders at the Gresham Central Transit Center on NE Eighth and Kelly avenues.

5. Public Transit System Plan

TriMet, the region's largest transit service provider, and Sandy Area Metro (SAM) are the two transit providers that serve Gresham. The transit network consists of a hierarchy of service designated to provide the highest possible service to Downtown, Civic Neighborhood and Rockwood, employment areas and along major regional arterials. Neighborhood access and circulation routes provide more flexible transit service to connect outlying low-density neighborhoods to the regional centers and other transit lines. Map 25 is the public transit plan.

Gresham supports the following findings from the East Metro Connections Plan:

- Addition of Bus Rapid Transit (BRT) in the Powell/Division corridor, extending from Portland Central City to Mt. Hood Community College via Gresham Transit Center. The Powell Corridor HCT is designated as a "Near Term Regional Priority Corridor" in the Metro High Capacity Transit System Plan and in the High Capacity Transit System Expansion Policy; the extension to Mt. Hood Community College is not part of the identified corridor but has been included in this study. The BRT would run on Powell Boulevard west of I-205, and on Division Street east of I-205. Frequency of line 4-Division local service would be reduced to hourly service in the plan area where the route is duplicated by BRT.
- Shortening of line 20, moving the terminus to Mt. Hood Community College instead of Gresham Transit Center. The removed routing is duplicated by the extension of the proposed BRT from Gresham Transit Center to Mt.. Hood Community College.
- Improved frequency of line 12 to provide frequent service on Sandy Boulevard / Halsey Street / 223rd Avenue between Parkrose and Gresham Transit Center.
- Routing change of 12-Sandy from Halsey Street to Arata Road between NE 223rd Ave and NE 238th Drive to provide accessibility to more households.
- Improved frequency of lines 80 and 81 from hourly service to twice-hourly service.
- Routing change of portions of line 80 off of Kane Drive and onto 242nd Avenue between Powell Boulevard and Stark Street. This provides new service to 242nd Avenue.
- Routing change of portions of line 84 off of US 26 and onto Hogan Road and Palmquist Road, resulting in new service in those currently unserved areas.
- Addition of new hourly service between Gresham Transit Center and Damascus, traveling on Roberts Road and Hogan Road in the Plan Area.

High Capacity Transit

In 2010 the Metro region adopted a High Capacity Transit (HCT) Plan that identifies priority high capacity transit corridors within the region. Within Gresham three HCT facilities were identified. Exact alignment and mode for each of these lines will be identified through a public process when funding is available.

- An east-west connection in the vicinity of Powell Boulevard and/or Division Street from west city limits to Downtown Gresham. That line was ranked as a "Near Term Regional Priority" corridor. This facility was further defined through the EMCP as described above in the section above.
- The extension of light rail from Gresham to Troutdale as a "Developing Regional Priority" corridor. This connection will provide a needed link for Mount Hood Community College with Gresham's centers and other growth areas.
- The extension of light rail between Troutdale and Damascus along Hogan Drive and/or Kane Road as a "Regional Vision" corridor. A portion of corridor was identified as traveling along Roberts Avenue in Gresham between Powell Boulevard and Hogan Drive. Gresham has evaluated this alignment and due to limited right-of-way and surrounding residential land uses, recommends that this portion of the corridor be readjusted to travel along Hogan Drive which is a major arterial planned for heavy vehicular and transit movement along primarily commercial land uses. This light rail alignment is more compatible along Hogan Drive than Roberts Avenue. This adjustment is planned to be finalized during the 2014 Regional Transportation Plan Update.

Map 25: Transit Plan

Passengers wait for the MAX Blue Line at the Gresham Central Transit Center.

Bicycle commuters on Main Avenue in historic downtown. A key component of the TSP is the establishment of targets to increase the number of trips made by biking, not driving as a single occupant in a vehicle.

Major Transit Stops

Major transit stops are intended to provide a high degree of transit passenger comfort and access. They are located at stops on primary and secondary transit routes. Improvements will be focused at these locations to ensure high levels of passenger amenities are provided. At a minimum, major transit stops will provide schedule information, lighting, benches, shelters, and trash receptacles. Other features may include real time transit information, special lighting or shelter design, public art, or bicycle parking.

Each major transit stop is located on a designated transit street. As such, developments adjacent to these locations are required to meet transit-orientation standards as described in the Gresham Community Development Code. In addition, per Gresham Development Code, developments are required to provide transit facilities at adjacent transit stops, including landing pads, benches, shelters or lighting.

Fareless Square

In order to increase mobility and reduce total auto trips, Gresham will work with TriMet to develop a fareless transit area in the Gresham Regional Center by the year 2035. Implementation of a fareless area should enhance local land use and transportation management plans that encourage transit use. TriMet's implementing criteria for special fare zones requires areas meet specific criteria such as having a transportation and parking management plan, fees for parking, and an analysis of the financial impacts and evaluation of the costs and benefits to TriMet and the region.

Gresham will pursue a study of implementation measures such as parking and partnership opportunities to fund and operate a fareless square in the Gresham Regional Center with the community and TriMet.

6. Travel Demand Management

A key component of the TSP is the establishment of targets to increase the number of trips made by walking, biking, taking transit, not driving as a single occupant in a vehicle ("non-SOV"), or other non-automobile modes. This is called "modal share". Within the Metro region, targets for increased modal share have been established and agreed-upon. Table 25 shows the non-single occupant vehicle (SOV) modal targets established by the Regional Transportation Plan.

Table 25: 2040 Non-SOV Modal Targets

2040 Design Type	Non-drive alone modal target
Regional centers Town centers Main streets Station communities Corridors Passenger intermodal facilities	45-55%
Industrial areas Freight intermodal facilities Employment areas Inner neighborhoods Outer neighborhoods	40-45%

RTP Note: The targets apply to trips to and within each 2040 design type. The targets reflect conditions needed in the year 2040 to comply with Oregon Transportation Planning Rule objectives to reduce reliance on single-occupancy

The TSP establishes many projects, programs, and strategies designed to increase the use of transit, walking, bicycling, work schedule changes, and telecommuting, particularly during the most congested times of the day. Increasing options to driving alone allows people to eliminate some trips or switch to another mode of travel, and helps maximize the efficiency of the transportation system. The strategies included in the TSP to manage and reduce travel demand over time include:

- Promoting effective employer incentive programs that reduce the number of people driving alone and dependence on the automobile. The City will continue to utilize TriMet's regional rideshare matching and promotional assistance, and guaranteed ride home programs, to increase vehicle occupancy and reduce automobile use during peak travel periods.
- Prioritizing pedestrian and bicycle amenities as well as improved connections to transit to increase non-auto trips.
- Supporting transportation management associations (TMAs) in the Gresham Regional Center, Rockwood Town Center, and industrial and employment areas.
- Improving end-of-trip facilities that support alternative transportation modes. For example, the Transit System Plan identifies transit facility improvements at major transit stops and along primary transit routes as a high priority.
- Promoting private and public sector programs and services that encourage employees to use non-SOV modes or changes to commuting patterns. The City will continue to encourage all large employers to join the City in participating in the state's Employee Commute Options (ECO) program by compiling travel information in a survey every two years.

City staff holds bike maintenance workshops for residents to encourage more biking and reduce travel demand.

In addition, there are many provisions included in the Gresham Community Development Code that help reduce overall travel demand and improve non-SOV mode share:

- The City provides tax incentives for transit-oriented developments within the Rockwood Town Center and Gresham Regional Center through the Transit Oriented Development Tax Exemption program (TOTE). To qualify for the tax exemption, the development must show public benefit through pedestrian, bicycle or transit facilities.
- The City also provides reductions of transportation system development charges (SDCs) – also referred to as "traffic impact fees (TIFs)" – for developments near light rail and designated transit streets and corridors. The reductions for other developments are allowed based on a specific transportation demand reduction strategy submitted by the developer.

7. Transportation Systems Management and Operations/ Intelligent Transportation Systems

The City of Gresham uses various strategies to manage the existing and forecasted supply of traffic through means other than expanding roadways. These strategies are referred to as "Transportation System Management Operations" (TSMO) or Intelligent Transportation Systems (ITS). The purpose of these strategies is to enhance travel time efficiency and reliability, safety, and use of existing roadway capacity. Strategies include multimodal traffic management, traffic incident management, and traveler and real-time information. Projects referenced in other modal plans and in the Transportation Demand Management section support and work in concert with TSM.

Signals at the NE Burnside Road/Civic Drive.

Signal Optimization

Future Projects

In 2013 Gresham and Multnomah County, in coordination with the City of Portland and the Oregon Department of Transportation, developed the "East Metro Connections ITS" Project. This project was a result of the extensive East Metro Connections Plan Study conducted by Metro in 2009-11. The project is intended to implement several TSM strategies to accommodate growth in northbound and southbound traffic along corridors through East Multnomah County. Specifically, it expands and the signal communications in Rockwood, Fairview, and Wood Village; upgrades signals with modern controllers and Ethernet communications; updates signal coordination timing; expands the City of Gresham's Scats Traffic Adaptive (SCATS) system; and installs the City's first arterial changeable message sign on northbound 181st Avenue approaching the I-84 freeway. It also complements the City of Portland I-84 Active Corridor Management project by upgrading signals and communications on two of the managed arterial corridors, Glisan Street and Halsey Street, between the City of Portland boundary and the NE 238th Avenue interchange with I-84.

The East Metro Connections ITS Project has the following components:

1. The City's signals communications network will be expanded to bring the following eight intersections under central control with upgraded controllers and Ethernet communications:

1. Halsey & 162nd
2. Halsey & 192nd
3. Halsey & 201st
4. Glisan & 162nd
5. Glisan & 172nd
6. Glisan & 185th
7. Glisan & 202nd
8. Stark & 162nd

2. In addition to the 8 intersections above, 12 intersections will receive Ethernet communications and controller upgrades:

1. Glisan & Fairview Pkwy
2. Glisan & 223rd
3. Glisan & 242nd
4. Burnside & 162nd
5. Burnside & 172nd
6. Burnside & 181st
7. Burnside & 197th
8. Stark & 174th
9. Stark & 181st
10. Stark & 223rd
11. Stark & Hogan
12. Hogan & 23rd/Red Sunset

3. Two intersections at the south end of the 181st/182nd corridor will be brought into the City of Gresham's Scats Traffic Adaptive signal system:

1. Powell & 182nd
2. Highland & SW 11th

4. Six intersections at the south end of the 257th/Kane Dr. corridor will be brought into the City's Scats Traffic Adaptive (SCATS) signal system:

1. Division & Kane
2. Kane & SE 1st
3. Kane & Powell Valley
4. Kane & 11th
5. Kane & Palmquist
6. US-26 & Palmquist

5. Five intersections on the existing Burnside SCATS corridor will get controller upgrades to add flashing yellow arrow left-turn phasing, as well as receive controller and Ethernet communications upgrades:

1. Burnside & Kelly
2. Burnside & Cleveland
3. Burnside & Oregon Trail Center
4. Burnside & SE 1st
5. Burnside & SE 3rd

The intersection of E. Powell Boulevard at N. Main Avenue features flashing yellow arrow left-turn phasing.

The controller and communications upgrades included in the East Metro Connections ITS project were not envisioned as part of the Master Plan, but they do help to facilitate the installation of CCTV cameras and arterial changeable message signs.

The East Metro Connections ITS project also includes elements that will be constructed within Multnomah County's jurisdiction, including expansion of communications in Fairview and Wood Village. The project is planned for implementation in the first half of 2014.

The remaining elements in the Master Plan, such as the expansion of the traffic signal interconnect system onto Sandy Boulevard and down Orient Drive, will be constructed as part of later projects.

Transit Signal Priority

Future Projects

The Powell corridor, which serves TriMet route 9, was identified as a TSP corridor by the 2001 Gresham/East Multnomah County Traffic Signal System and Communications Master Plan Update.

Real-Time Traveler Information and Incident Management

Future Projects

The East Metro Connections ITS project will install a new arterial changeable message sign (CMS) for northbound 181st Ave. south of I-84. ODOT will be installing similar arterial signs approaching I-84 interchanges in Fairview, Wood Village, and Troutdale, as well as installing a new freeway signs on westbound I-84 near NE 201st Avenue. All of these signs, which will be operated 24 hours a day by ODOT's Traffic Management and Operations Center in downtown Portland, will warn drivers of congestion on the freeway and suggest alternate routes.

The arterial and freeway CMS will also be used, together with special traffic signal timing plans, to operate the I-84 Active Corridor Management system. Similar to systems Portland and ODOT operate on Barbur Boulevard in SW Portland, the Active Corridor Management system will provide a relatively high-capacity parallel travel route when the freeway is blocked or severely reduced in capacity.

The Traffic Signal System and Communications Master Plan includes the planned construction of arterial CMS at the following locations:

- On Hogan Drive south of Glisan Street.
- On NE 181st Avenue south of Halsey (southbound).
- On US-26 south of Palmquist Road (both directions, freeway-sized CMS).

A long-term goal is to provide drivers on the I-84 freeway and highway US-26 with travel time information on the four major north-south routes through East Multnomah County. Using sensors that pick up unique identifiers from passing vehicles (such as Bluetooth sniffers), the system would calculate real-time travel times and then display them on the eastbound freeway CMS and northbound US-26 CMS signs. This service would work to spread traffic congestion evenly across the four major routes, allowing for the fullest possible use of the existing arterial infrastructure in East County.

Access Management Plan

The City's access management policy is to require new development to consolidate, relocate, and share driveways. Future road widening projects may incorporate raised, planted median barriers as space allows, but the primary purpose of these barriers will be for water quality or aesthetic purposes and not access management.

8. Parking Management

Parking management is in itself a transportation demand management and supply strategy. Parking management strategies are used to optimize the utility of existing parking supplies to avoid excess parking. These strategies can improve the capacity of parking inventories by increasing turnover rates and capitalizing on complementary needs. Other strategies are aimed at reducing the overall demand for parking by introducing parking meters or fee-based parking. The other strategies deal with new expansion to the parking supply.

Parking on NE Second Street in historic downtown

The City has adopted minimum and maximum parking ratios into its Development Code for new development in compliance with Title 2 of the **Regional Transportation Functional Plan**. In addition, the Code requires a minimum amount of carpool and vanpool parking spaces for industrial and office developments, allows and encourages the use of shared parking facilities, allows reduced parking ratios and requires minimum bicycle parking spaces.

The Regional Transportation Plan establishes an outcomes-based, performance-driven framework for implementing the RTP's goals and

The City has also adopted specific parking management plans for the Gresham Regional Center and Rockwood Town Center.

A public parking lot on NW Miller Avenue and NW Fifth Street in downtown Gresham.

Gresham Regional and Town Centers

Parking strategies for the Gresham Regional Center are aimed at increasing turnover of the on-street parking spaces, improving utilization of the existing inventory and creating a source of revenues to support future parking-related activities. Several strategy elements were considered to alleviate existing parking pressures and to accommodate forecast demands in a manner that supports economic vitality in the area:

- Develop a unified wayfinding system to public parking areas. When on-street parking occupancy reaches 85% in the peak period, additional parking management strategies must be implemented.
- Limit on-street parking in the cores of Downtown and Civic Neighborhood to two hours to increase turnover.
- Identify shared parking opportunities among various economic uses to optimize utilization of existing parking supply and the utility of land in the area. Such opportunities in the downtown area would be to pursue shared use agreement between downtown businesses and neighborhood churches.
- Establish fee parking to ensure compliance with time limits. This will also help to establish a dedicated revenue source that will augment the supply of parking and provide transportation demand management activities to encourage use of alternative travel modes. Parking rates should be established to distinguish short-term from long-term parkers.

- Purchase or lease vacant properties to phase in new public parking supplies as needed. These sites will serve to determine the customer priority for parking by area and test the feasibility of future centralized municipal parking structures. When new municipal parking facilities are provided, they should be designed to serve multiple uses, with an emphasis on short-term parking supporting desired economic activities. The objective is to optimize the utilization of parking inventories and reduce the need for additional parking spaces. Facilities need to be appropriately sited and managed to balance multiple access demand.
- Seek improvements to transit service and other travel mode options to reduce overall demand for parking.

Strategies specific to the Rockwood Town Center are to:

- Develop a unified wayfinding system to public parking areas.
- Impose time limits for on-street parking to ensure an adequate supply of short-term parking spaces for customers and visitors.
- Consider additional opportunities for on-street parking where roadway widths and traffic conditions permit.
- Provide on-street parking on new streets to meet public parking demands as future development occurs.
- Work with TriMet to improve security at the Rockwood Park and Ride lot at 18324 East Burnside Street and to pursue an agreement to allow short-term parking in the park and ride lot. Increasing the frequency of parkers coming and going will in itself help security. The park and ride lot has the potential for redevelopment as a parking structure or mixed-use community development.

Until the level of redevelopment in the Rockwood core increases, additional parking is not needed.

The Rockwood Park and Ride lot at 18324 E. Burnside St.