

TRANSPORTATION ELEMENT

Introduction

The networks of highways, roads, trails, and transit services move residents, visitors, and goods into, through, and out of the community. Today's circulation routes and infrastructure reflect the incremental development that has happened over 150 years or longer. Changes have occurred as transportation modes have transitioned, as demands on the system have evolved, and as the city has grown and integrated with regional highway and trail systems. Optimizing existing infrastructure and planning for future needs is necessary to maintain an efficient system that will serve the city into the future. A comprehensive, well-planned and efficiently functioning transportation system is essential to Snohomish's long-term growth and vitality, and to sustaining a high quality of life.

The Transportation Element together with its companion document, the Transportation Master Plan, provides the framework to guide the growth and development of the city's transportation infrastructure. They integrate land use and the transportation systems, responding to current needs and ensuring that all future developments are adequately served. The Transportation Element addresses the development of a balanced, multi-modal transportation system for the city and adjacent urban growth area (UGA) and recognizes the regional nature of the transportation system and the need for continuing interagency coordination.

This Transportation Element and Transportation Master Plan are based on a 2014 study of Snohomish's existing transportation network, combined with a 20-year (2035) projection of future growth and transportation needs. The Transportation Element establishes a policy framework for making decisions consistent with the City's vision, and describes a strategy for accomplishing the City's vision over the 20 year planning horizon. Based on the goals and policies in the Transportation Element, the Transportation Master Plan is intended to serve as a guide for transportation decisions to address both short and long term needs.

Policy frameworks

The Growth Management Act requires that a transportation element be consistent with the Land Use Element and that it address:

- Land use assumption used in estimating travel;
- Estimated traffic impacts to state-owned transportation facilities resulting from land use assumptions to assist the department of transportation in monitoring the performance of state facilities, to plan improvements for the facilities, and to assess the impact of land-use decisions on state-owned transportation facilities;
- Facilities and services including:

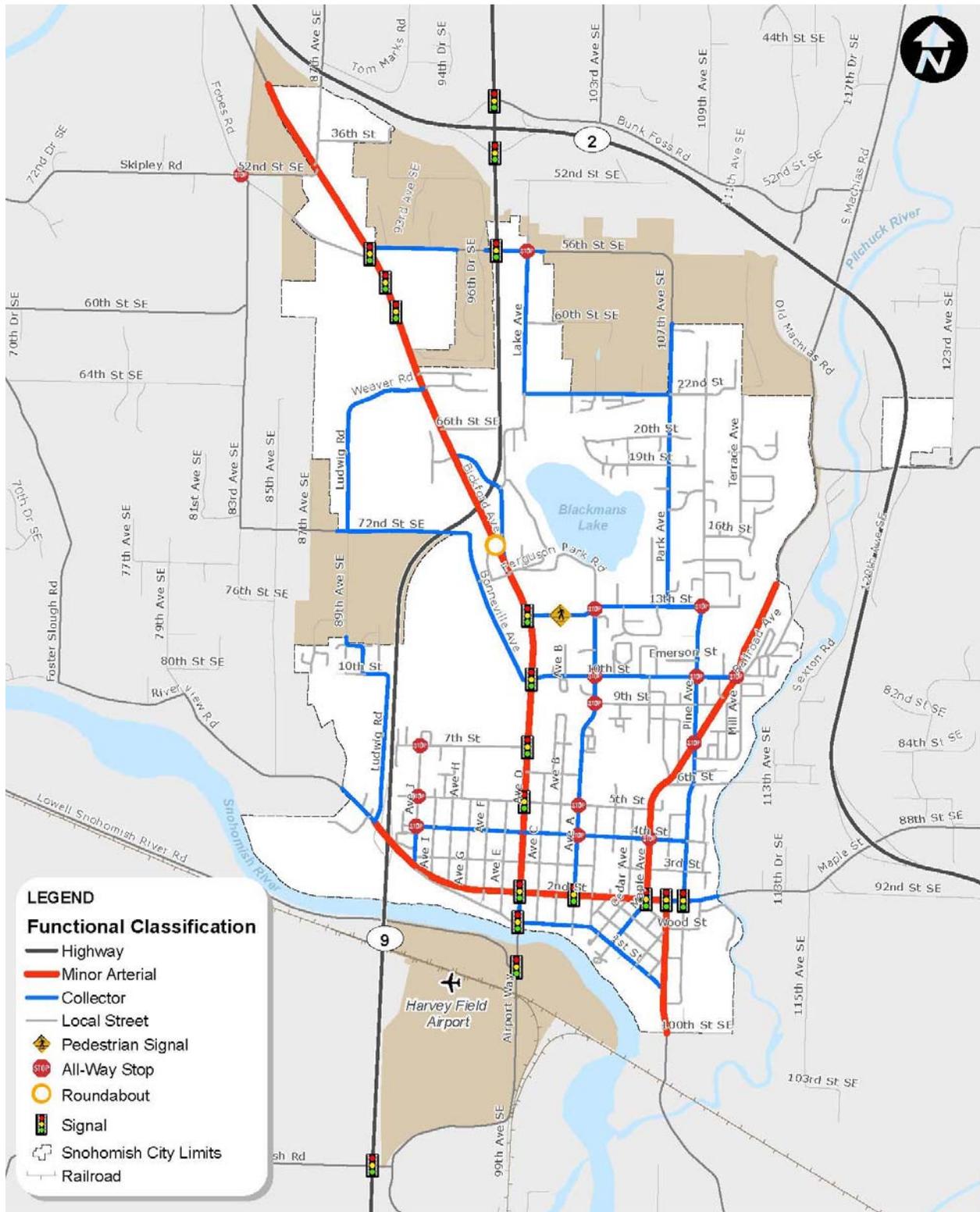
- An inventory of air, water, and ground transportation facilities and services, including transit alignments and general aviation airport facilities, to define existing capital facilities and travel levels as a basis for future planning. This inventory must include state-owned transportation facilities within the city or county's jurisdictional boundaries;
- Regionally coordinated level of service standards for all locally owned arterials and transit routes to serve as a gauge to judge performance of the system;
- Level of service standards for state-owned highways;
- Specific actions and requirements for bringing into compliance locally owned transportation facilities or services that are below an established level of service standard;
- Forecasts of traffic for at least ten years based on the adopted land use plan to provide information on the location, timing, and capacity needs of future growth; and
- Identification of state and local system needs to meet current and future demands. Identified needs on state-owned transportation facilities must be consistent with statewide multimodal transportation planning;
- Financing, including:
 - An analysis of funding capability to judge needs against probable funding resources;
 - A multiyear financing plan based on the needs identified in the comprehensive plan, the appropriate parts of which shall serve as the basis for the six-year street, road, or transit program; and
 - A discussion of how additional funding will be raised, or how land use assumptions will be reassessed to ensure that level of service standards will be met, if probable funding falls short of meeting identified needs;
- Intergovernmental coordination efforts, including an assessment of the impacts of the transportation plan and land use assumptions on the transportation systems of adjacent jurisdictions;
- Demand management strategies; and
- Pedestrian and bicycle component to include collaborative efforts to identify and designate planned improvements for pedestrian and bicycle facilities and corridors that address and encourage enhanced community access and promote healthy lifestyles.

Creating a functional, coherent, and seamless regional transportation systems requires coordination of transportation planning between jurisdictions and agencies. To ensure the efforts of all service providers are coordinated, consistent and meet a range of regional goals, the Puget Sound Regional Council's Vision 2040 and the Snohomish County Countywide Planning Policies establish transportation policy frameworks for the region and the county, respectively. Direction contained in each of these documents is incorporated in the goals and policies of this element.

Roadway Network

The roadway network provides mobility and access for a range of travel modes and users. The following sections describe the number of lanes and existing traffic controls, traffic volumes and operations, transportation safety conditions, and the freight system. Non-motorized and transit facilities and services that use the roadway system are described in the next sections.

Figure TR 1: Roadway Functional Classification and Intersection Control



Functional Classification. Figure TR 1 shows the existing functional classification transportation system and all-way stop and signalized intersections serving the City of Snohomish. Roadways are classified by their intended function and traffic volumes to provide for a hierarchy of roadways. The City of Snohomish Functional Classification defines the characteristics of individual roadways to accommodate the travel needs of all roadway users. The design of cross-sections for existing and planned roadways is tied to the functional classification of city roadways.

Traffic Volumes. Traffic counts were collected at several locations on state highways and city roadways in June 2014. Traffic volumes in urban areas are typically highest during the weekday PM peak hour. This reflects the combination of commuter work trips, shopping trips, and other day-to-day activities that result in travel between 4:00 and 6:00 p.m., Monday through Friday. Therefore, the weekday PM peak hour is used to evaluate transportation system needs. Roadways with the highest PM peak hour traffic volumes include Bickford Avenue west of SR 9 and 2nd Street through downtown. Forecast (2035) traffic volumes show moderate changes in overall growth with the highest areas of growth on Bickford Avenue and within the downtown.

Intersection traffic operations evaluate the performance of signalized and stop-controlled intersections according to the industry standards set forth in the *Highway Capacity Manual 2010* (Transportation Research Board, 2010). Peak hour traffic operations are evaluated at the study intersections based on level of service (LOS) methodology, and evaluated using Synchro version 8.0. The PM peak hour intersection operations were selected due to the higher typical traffic volumes occurring for a single hour between 4 and 6 p.m.

Level of Service (LOS) Standards. Signalized intersection LOS is defined in terms of a weighted average control delay for the entire intersection. Control delay quantifies the increase in travel time that a vehicle experiences due to the traffic signal control and provides a surrogate measure for driver discomfort and fuel consumption. Signalized intersection LOS is stated in terms of average control delay per vehicle.

WSDOT sets the LOS standards for Highways of Statewide Significance (HSS), which include SR 9 and US 2. The LOS standard for facilities in urban areas is LOS “D” and for facilities in rural areas is LOS “C”. Both US 2 and SR 9 with the City of Snohomish vicinity are designated as urban and have a LOS “D”. The City is required to include the LOS standards for all state routes in the Transportation Element.

WSDOT applies these HSS LOS standards to highway segments, intersections, and freeway interchange ramp intersections. When a proposed development affects a segment or intersection where the LOS is already below the State’s adopted standard, then the pre-development LOS is used as the standard. When a development has degraded the LOS on a state highway, WSDOT works with the local jurisdiction through the SEPA process to identify reasonable and proportional mitigation to offset the impacts. Mitigation may include access constraints, constructing improvements, right-of-way dedication, or contribution of funding to needed improvements.

The City of Snohomish LOS standard for roadways within the city is LOS E. The results of the LOS analysis indicate that all of the study intersections currently meet City's LOS standards, with the exception of the three locations. The three intersections exceeding the City's LOS standard are two-way stop-controlled intersections that report LOS F for the worst movement at the intersection. These intersections typically involve low-volume side streets that experience high vehicle delays during the PM peak hour.

Intersection Improvements. Improvement projects are identified for certain intersections with capacity or safety issues under existing or forecast conditions. These projects include adding turn lanes or modifications to traffic control at intersections. Where applicable, intersection improvements may also include upgrading traffic signals and implementing Intelligent Transportation Systems.

Three intersections with operational or capacity issues are on Bickford Avenue in the northwest quadrant of the city. Two-way stop-controlled intersections at Sinclair Avenue (34th Street), Weaver Way, and 19th Street operate at LOS F today and are anticipated to worsen in the future. There are already signals along Bickford Avenue at 30th Street, the Fred Meyer entrance, and the Home Depot driveway. Providing signal coordination along this segment of the corridor and adding new signals at one or more of the intersections operating at LOS F would improve traffic flow for all roadway users.

Corridor Upgrades. These projects include upgrading and widening of roadways to City standards to provide turn lanes at major access locations as well as improvements to non-motorized facilities. These projects are intended to serve both the growth in vehicular traffic, as well as the range of non-motorized users through the addition of multimodal facilities. Two roadways were identified for corridor upgrades and are expected to serve as examples of complete streets in the city:

Second Street – Second Street is a vital east-west connection through the city that serves both local and regional traffic. This project would restrict parking along Second Street near unsignalized intersections to improve sight distance for vehicles and pedestrians. The project also includes curb bulbs at both existing and future marked crosswalks. In addition, signals would be coordinated through new interconnect cables at Avenue D, Avenue A, Maple Avenue, Lincoln Avenue and Pine Avenue to improve traffic flow through the corridor.

Avenue A – This roadway is a critical north-south corridor in the city that is anticipated to serve future growth and accommodate multiple travel modes. Avenue A currently changes width in several locations and does not have consistent non-motorized facilities. In addition, this key corridor that connects downtown to residential neighborhoods does not have curb and gutter along both sides of the street for much of its length. The Avenue A corridor improvement project would upgrade the corridor to existing city roadway standards, including provisions for sidewalks and bicycles.

Two intersections along Avenue D at **Second Street** and **Seventh Street** are identified as locations with potential safety concerns due to the number of driveway accesses in the vicinity.

The projects identified for these locations are primarily safety focused and include upgrades to the traffic signal and implementation of access management strategies.

Active Transportation

Active transportation refers to non-motorized modes of travel. The non-motorized transportation network consists of facilities for residents and visitors to participate in active transportation modes and recreational activities in the City of Snohomish. A combination of on-street facilities and off-street pathways provide the core network for walkers, cyclists, and other non-motorized users to travel. These facilities can be used for many of the same purposes as personal vehicles and transit, including commuter travel, grocery store trips, and other errands within the city. Non-motorized facilities, particularly off-street pathways, are also used for recreational trips or for access to parks and other recreational destinations. Safe, convenient and comfortable facilities for walking and bicycling offer opportunities for and encourage healthy lifestyles as well as providing alternatives to motor vehicles.

Types of Facilities. Non-motorized facilities vary across the City of Snohomish to include a range of types that are suited for pedestrians, cyclists, and other types of non-motorized users.

Sidewalks. Sidewalks are the primary pedestrian facility and are typically included in the roadway frontage improvements required of new development. The characteristics of sidewalks, such as width and separation from the parking or travel lanes, vary with the land use context and the era of development.

On-Street Facilities. On-street facilities include the bicycle lanes, striped shoulders, and shared roadways that comprise the non-motorized facilities on state highways and city roads.

Bicycle Lanes. Bicycle lanes are dedicated striped roadway space for cyclists that are typically in both directions on the edge of the traveled way. They are marked with a wide white stripe and range from 4 to 6 feet in width. The City of Snohomish has a bicycle lane on 30th Street, east of Bickford Avenue.

Striped Shoulder - Striped shoulders serve as less-formal bicycle lanes. They are on the edge of the traveled way where there is a reasonable distance available for pedestrians and cyclists to travel outside motor vehicle lanes.

Shared Roadway - A portion of the formal bicycle network is provided by shared roadways. On these street segments, shared use of lanes by bicycles and motor vehicles is indicated by shared lane markings, or “sharrows”. The City has sharrows on 1st Street from Avenue D to Lincoln Avenue and on Avenue A from First Street to Fourth Street.

Off-Street Facilities. Off-street facilities include multiuse pathways and unpaved trails that are used by all types of non-motorized users. These facilities are generally used for recreational purposes, but may also serve commuter and utility travel between neighborhoods and to surrounding areas.

Standard trails are separated from the roadways and vary in width from approximately 5 feet to 12 feet wide. ADA access is provided on many trails, but some may not include these features.

The city is served by two primary trails: the Centennial Trail, which is a portion of a regional trail and the Interurban Trail. The Centennial Trail is 12-foot wide paved multiuse pathway on abandoned railroad right-of-way that extends through the eastern portion of the city; the Interurban Trail is an unpaved, dirt trail that crosses east-west within the city.

Future Network Connections. A viable active transportation network consists of connections to pedestrian generators, such as major employers, shopping districts, schools, residential areas, parks, and transit stops. Connectivity to schools, transit stops, parks, and other destinations were used to identify critical gaps in the pedestrian and bicycle networks to be included in these active transportation plans.

Pedestrian Network improvements add sidewalks to roadways or construct multiuse pathways for pedestrians to complete gaps in the existing pedestrian network. This ongoing program would be funded to enhance the pedestrian network. This program would account for potential sidewalk and path improvements, driveway reconstruction, curb and gutter construction, and landscaped buffers.

As part of the development of the citywide pedestrian network, a strategy to address compliance with federal Americans with Disabilities Act (ADA) requirements is needed. A program to establish an ADA Transition Plan includes funding for the inventory of existing barriers in the pedestrian network, and recommendations for upgrading pedestrian ramps, pedestrian pushbuttons at signals, and relocation of objects within the minimum space for pedestrians.

Bicycle Network improvements expand travel options for residents by providing safe, comfortable places to ride a bicycle for commute or recreational trips. Specific bicycling improvements may include widening shoulders on existing or planned roadways, installing shared lane markings to indicate where cyclists will be present in travel lanes, or developing multi-use pathway for bicyclists and other users.

Transit and Transportation Demand Management

Community Transit currently operates four bus routes providing 53 weekday trips through Snohomish, and maintains 22 bus stops and one park & ride facility. There are also 11 vanpool groups that originate in the City of Snohomish and travel to employment destinations in south Snohomish County and King County.

Fixed Route Service. Transit service is operated by Community Transit, which operates four routes through the City of Snohomish: Routes 270, 275, 277, 424. These routes serve both local riders and commuters.

Paratransit Service. Community Transit also provides paratransit services for patrons who cannot use fixed-route bus services due to disability, in accordance with the Americans with Disabilities Act (ADA). This service provides curb-to-curb paratransit service within three-quarters of a mile of all local fixed-routes during hours of fixed-route operation.

Vanpool Program. Community Transit’s vanpool fleet of more than 400 vans is one of the largest in the nation. A vanpool is a group of 5 to 15 riders who begin or end their trip in Snohomish County. There are currently 11 vanpool groups that originate in Snohomish.

Park-and-Ride. The Snohomish Park & Ride is located near the Bickford Avenue overpass above State Route 9. This facility has 102 parking stalls with a 35 percent occupancy rate and it has bicycle facilities.

Future Transit Service. Transit service in Snohomish County is expected to continue being provided by Community Transit in 2035. The *Long Range Transit Plan*¹, which is anticipated to be updated in 2015, contains the transit agency’s 20-year vision and establishes the standards and policies to support it. The future transit network built around a corridor-based, fixed-route transit system. While Community Transit also provides paratransit (DART), vanpool, transportation demand management (TDM)/Commute Trip Reduction (CTR), and ride-matching services, the emphasis of future transit service in the City of Snohomish will be fixed-route service.

Land Use and Transportation

Future land use allocations are based on anticipated changes to population and employment types and densities within city limits, UGA, and adjacent areas. Future forecasts must incorporate growth in travel demand entering and exiting the city to develop a consistent picture with neighboring jurisdictions and regional growth strategies.

According to the adopted growth targets in the Snohomish County Countywide Planning Policies, the number of households for the city and UGA may increase by more than one-third over the planning horizon. The City is also required to plan for employment growth of about 40 percent for both the city and UGA.

Environment

As the population continues to grow in Snohomish over the next 20 years, it is important to consider and plan for how the growth will impact the natural environment. With proper planning techniques, the environmental impact created by the transportation system can be mitigated. The City has adopted policies that address housing and employment density to concentrate growth and make the transportation systems serving the growth efficient and accessible.

The highest household growth percentages are seen in the Bickford Avenue subarea, west of SR 9 within the UGA, and the Pilchuck District. While these areas are projected to have some of the highest growth percentages, the majority of new households are anticipated to be located in the central, north, and northwest areas of the city.

Active transportation is an effective way of moving people while minimizing the harmful environmental impacts of increased vehicular traffic. Non-motorized facilities serving the Bickford Avenue subarea and Pilchuck District as they continue to grow will help to reduce traffic demand as well as parking demand in these areas.

¹ Community Transit. 2011.

Maintenance and Preservation

Citywide programs include annual transportation maintenance and operations costs within the city. This program includes a general budget for performing pothole repairs, pavement patching, shoulder restoration and mowing, crack sealing, sign replacements, striping and other maintenance tasks. Without maintenance at regular intervals, pavement will fall into disrepair, eventually requiring more costly replacement of road sections.

General Fund costs for pavement maintenance and preservation are significantly supported by the sales tax revenue stream of the Transportation Benefit District (TBD), established by the city's voters in 2011. Unless re-approved through another ballot measure, the TBD will conclude in 2021.

Finance

Table TR 1 summarizes the costs of the recommended transportation improvement projects and programs. These cover City of Snohomish capital improvements, maintenance and operations. The costs are summarized for the life of the Plan. Improvements under the responsibility of WSDOT or Snohomish County are not included in the summary table. However, the City may choose to include a share of the costs of WSDOT improvements in its transportation impact fee or other funding options.

Table TR 1: Transportation Improvements and Estimated Costs

Improvement Type	(2015-2035) Total Costs ¹	Percent of Total Costs
Transportation Capital Projects²		
Intersection Improvements	\$6,280,000	15%
Corridor Upgrades	\$9,840,000	23%
Active Transportation	\$24,660,000	57%
Small Capital Projects	\$2,310,000	5%
Subtotal Capital Projects	\$43,090,000	100%
Maintenance & Operations (M & O) Programs		
Maintenance & Operations	\$27,300,000	92%
Pavement Preservation and Overlay	\$2,310,000	8%
Subtotal M & O Programs	\$29,610,000	100%
Total Costs	\$72,700,000	

1. All costs in 2014 dollars, rounded to \$1,000

2. Does not include other agency improvements

The estimated capital cost of the Transportation Plan is approximately \$43 million (in 2014 dollars). Over half of the capital costs are associated with completion of the active transportation

network in the city. These costs include upgrading roadways to provide expanded options for pedestrians and bicyclists, along with construction of urban features such as crosswalks and sidewalks. Another quarter of the capital project costs are for upgrading corridors, and approximately 15 percent of capital costs are for intersection improvement projects.

Maintenance and operations costs were projected based on recent expenditures and assume three percent annual growth to account for expected population growth and annexations. Maintenance and operations costs cover general administration, roadway and storm drainage maintenance, street lighting, traffic signal and street signs, street sweeping, and other miscellaneous safety improvement programs. To reduce the need for extensive capital reconstruction projects, the maintenance and operations program to preserve the existing street system is estimated to be nearly \$30 million, of the total \$73 million Transportation Plan cost.

Although the financing plan in the Transportation Master Plan identifies the potential for a total revenue shortfall of approximately \$16 million (in 2014 dollars) over the life of the Plan, the City is committed to reassessing their transportation needs and funding sources each year as part of its six-year Transportation Improvement Program (TIP). This allows the City to match the financing program with the short term improvement projects and funding. In order to implement the Transportation Plan, the City will consider the following principals in its transportation funding program:

- Balance improvement costs with available revenues as part of the annual six-year TIP;
- Review project design standards to determine whether costs could be reduced through reasonable changes in scope or deviations from design standards;
- Fund improvements or require developer improvements as they become necessary to maintain LOS standards;
- Explore ways to obtain more developer contributions to fund improvements;
- Coordinate and partner with WSDOT, Snohomish County, and others to implement improvements to the SR 9;
- Vigorously pursue grant funds from state and federal sources;
- Work with Snohomish County to develop multiagency grant applications for projects that serve growth in the city and its UGA;
- Review and update the traffic impact fee program regularly to account for the updated capital improvement project list, revised project cost estimates, and annexations;
- The City could consider changes in its level of service standards and/or limit the growth potential in the city and UGA as part of future updates to its Comprehensive Plan.

Some lower priority improvements may be deferred or removed from the Transportation Plan. The City will use the annual update of the six-year TIP to re-evaluate priorities and timing of projects and need for alternative funding programs. Throughout the planning period, projects will be completed and priorities revised. This will be accomplished by annually reviewing traffic growth and the location and intensity of land use growth in the City and its UGA. The City will then be able to direct funding to areas that are most impacted by growth or to roadways that may be falling below the City's level of service standards. Development of the TIP will be an ongoing process over the life of the Plan and will be reviewed and amended annually.

Transportation Master Plan

The City's Transportation Master Plan is a companion document to this Transportation Element. The Master Plan is based on and guided by the Transportation Element goals and policies. The Master Plan, as approved by the City Council, is incorporated herein by reference to provide detail and analysis on current and future transportation needs and implementation measures and to support the conclusions of this Element and the list of transportation project priorities in the Capital Facilities Element.

TRANSPORTATION ELEMENT GOALS AND POLICIES

- GOAL TR 1:** Develop an integrated and balanced transportation system in Snohomish that provides safe, efficient, and reliable multimodal transportation and improves the system’s environmental outcomes.
- GOAL TR 2:** Increase the share of trips made by non-motorized travel modes.
- GOAL TR 3:** Provide a transportation system that supports the City’s Land Use Plan and is consistent with the Snohomish County Countywide Planning Policies and the Puget Sound Regional Council’s Vision 2040 Multicounty Planning Policies.
- GOAL TR 4:** Preserve and extend the service life and utility of transportation investments.
- GOAL TR 5:** A stable, long-term financial foundation for improving the quality, effectiveness, and efficiency of the transportation system.

Policies

Transportation System. A multimodal transportation network moves people and goods safely through the city and nearby areas. These policies include monitoring data to ensure consistent measurements over time, implementing standards that improve safety and efficiency for all roadway users, and maintaining design standards.

- TR 1:** **Safety and efficiency.** Evaluate the safety and efficiency of the transportation system across all modes on an ongoing basis so that it continues to adequately serve the city’s residents and businesses.
- TR 2:** **SR 9 capacity.** Support efforts to increase capacity on State Route 9.
- TR 3:** **Residential streets.** Residential streets should be designed to discourage through traffic and provide pedestrian comfort and convenience.
- TR 4:** **Number of lanes.** Limit arterials to a maximum of two through lanes, one each way and one left turn, except at the intersection of arterials.
- TR 5:** **Traffic calming.** Employ effective traffic calming measures to reduce speeds where there is a benefit to safety.
- TR 6:** **Regional traffic.** Consider the impacts of regional traffic volumes using city streets in designing transportation improvements.

- TR 7: Emergency response.** Design transportation facilities to accommodate emergency response vehicles.
- TR 8: Monitor LOS.** Monitor and adjust level of service standards that promote the optimal movement of people across a multimodal transportation network.
- TR 9: Multi-modal LOS.** Assess transportation level of service standards for potential inclusion of pedestrian, non-motorized, and other multimodal transportation options.
- TR 10: Street grid.** Maintain and continue a consistent street grid system where natural features and existing development allow.
- TR 11: Harvey Field.** Recognize Harvey Field as an integral component of the regional and community transportation systems.

Active Transportation. The active transportation system includes pedestrian, bicycling, and other modes that promote healthy lifestyles and provide alternative modes to private vehicles for commuting. These modes depend on increasing network connectivity and constructing non-motorized facilities within the city.

- TR 12: Non-motorized systems.** Improve pedestrian and bicycle networks that provide an alternative to the use of the automobile as opportunities arise.
- TR 13: Safe walking conditions.** Coordinate with the Snohomish School District on priorities and funding for pedestrian improvements for safe and convenient walking conditions for students.
- TR 14: Complete streets.** Incorporate pedestrian, bicycle, and transit friendly designs into roadway improvement projects where feasible.

Transit and Transportation Demand Management. Transit service and transportation demand management (TDM) strategies are part of an integrated transportation system that provides travel options to people in the city.

- TR 15: Expand public transit.** Support the continued operation and expansion of county and regional public transportation systems to provide frequent and comprehensive transit service
- TR 16: Transit opportunities.** Promote improved transit opportunities.
- TR 17: TDM.** Encourage transportation demand management (TDM) programs to support commercial centers and employment areas to reduce single-occupancy vehicle (SOV) travel.

- TR 18: Special needs.** Incorporate mobility choices for people with special transportation needs, including persons with disabilities, the elderly, the young, and low income populations.
- TR 19: Rail options.** Work with partner agencies to promote and facilitate rail transportation options to serve the city.

Land Use and Transportation. The city's transportation network should be suitable for the land uses it serves. Concurrency programs and planning for forecasted growth are essential to the health and longevity of the network.

- TR 20: Plan for growth.** Plan for multimodal transportation improvements that support the 20-year growth targets and land use plans and that are compatible with surrounding land uses.
- TR 21: Urban design.** Consider urban design and community, district, and corridor land use and character in designing transportation improvements.
- TR 22: Land use planning.** Plan for land use densities and mixed-use development patterns that encourage walking, biking and transit use in designated areas.
- TR 23: Development review.** Review all land use and development proposals for compliance with the Transportation Element.
- TR 24: Concurrency.** Prohibit development if the development causes the level of service on transportation facility to decline below the standards adopted in this element, or ensure that funding is identified to implement improvements to increase capacity within six years of the development
- TR 25: Regional coordination.** Coordinate with state and county agencies to ensure access points on highways and major arterials in the UGA function as efficiently as possible.
- TR 26: Multi-modal concurrency.** Transition the City's concurrency program to facilitate the movement of people across multiple transportation modes, when feasible.
- TR 27: Connectivity.** Provide for connectivity within and between developments. Where cul-de-sacs are unavoidable, provide pedestrian access through to the adjacent parcels and rights-of-way.

Environment. Development of the transportation system includes potential environmental impacts that can be reduced or mitigated by reducing the number single-occupancy vehicle trips, advancing technology to reduce greenhouse gas emissions, and managing storm water runoff on transportation facilities.

- TR 28: New roadways.** Design new roadways to avoid crossing critical areas, park areas, and significant cultural resources where reasonable alternatives exist.

- TR 29: Electric vehicles.** Evaluate opportunities to install charging stations for electric vehicles.
- TR 30: LID.** Incorporate low impact development techniques in street design where feasible.
- TR 31: Minimize pavement.** Minimize the paved width of streets where public safety is preserved.

Maintenance and Preservation. The maintenance and preservation of the transportation system is important to the long-term use and safety for all travelers. Safety planning and mitigation, including strategies for protecting the transportation from disasters, includes multidisciplinary efforts that can significantly improve the livability of our community.

- TR 31: Facility maintenance.** Maintain and preserve the transportation system mindful of life-cycle costs associated with delayed maintenance.
- TR 32: Disaster planning.** Coordinate prevention and recovery strategies and disaster response plans with regional and local agencies to protect the transportation system against major disruptions.
- TR 33: Bridge improvements.** Support efforts to maintain and enhance or replace the Avenue D bridge and the Bickford Avenue bridge over State Route 9, including pedestrian and non-motorized facilities.

Finance. Adequate financial planning is necessary to achieve comprehensive future transportation network that meets the needs of existing and forecast travel demands.

- TR 34: Finance options.** Use grants, local taxes, impact fees, and other funding sources to implement capital projects identified in the City's transportation improvement program.