

Appendix 4-A

Monroe Transportation Plan

TRANSPORTATION MASTER PLAN

City of Monroe

Prepared for:
City of Monroe
September 2024
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Introduction to the Plan

The City of Monroe's network of highways, roads, sidewalks, trails, railroads, 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 patterns of the past. Changes have occurred as transportation modes have changed, as demands on the system have expanded, 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 Monroe's long-term growth and sustained vitality.



The Transportation Plan provides the framework to guide growth and development of the City's transportation infrastructure. It integrates land use and the transportation system, responding to current needs and ensuring that all future developments are adequately served. The Transportation Plan addresses the development of a balanced, multimodal transportation system for the City and adjacent unincorporated portions of the Monroe Urban Growth Area (UGA) and recognizes the regional nature of the transportation system and the need for continuing interagency coordination.

This Transportation Plan is based on a study of Monroe's existing transportation network, combined with a 20-year (2044) projection of future growth and transportation needs. The document includes five sections:

1. Consistency with other Agencies
2. Existing Transportation Facilities and Conditions
3. Forecasts Evaluation
4. Goals and Policies
5. Implementation

As a companion document, the Transportation Plan implements the Transportation Element of the Comprehensive Plan. Consistent with the other elements of the Comprehensive Plan, the Transportation Element establishes a policy framework for making decisions consistent with the Imagine Monroe, the guiding principles, and describes a strategy for accomplishing this vision over the 20-year planning horizon. Based on the goals and policies in the Transportation Element, the Transportation Plan is intended to serve as a guide for transportation decisions to address both short- and long-term needs. To meet Growth Management Act (GMA)¹ requirements, the Transportation Element and Transportation Plan must identify existing transportation system characteristics, establish standards for levels of service, and identify existing and future deficiencies based on land use growth projections. The Transportation Plan also discusses roadway mobility and accessibility needs, and identifies improvements necessary to enhance safety, travel by active modes, and public transit support.

¹ Washington State 36.70A RCW. Available at <http://apps.leg.wa.gov/rcw/default.aspx?cite=36.70A>

Plan Development

Development of an updated City of Monroe Transportation Plan was commissioned by the City Council in 2022 to replace the adopted 2015 City of Monroe's Transportation Plan. The Plan addresses transportation needs, improvement projects, and funding sources to support the projected residential and employment growth through the year 2044. The Plan is also intended to satisfy GMA requirements.

The following sections summarize the regulatory setting and regional planning efforts that guided the development of the Transportation Plan.

Growth Management Act

Under GMA (RCW 36.70A.070), a transportation element is required to assess the needs of a community and determine how to provide appropriate transportation facilities for current and future residents. A 2023 GMA amendment included requirements to develop and implement a multimodal level of service (MMLOS) for pedestrian, bicycle and transit travel in addition to vehicular level of service (LOS). The transportation element must contain:

- Inventory of existing multimodal facilities;
- Assessment of future multimodal facility needs to meet current and future demands;
- Multi-year plan for financing proposed vehicular and multimodal transportation improvements;
- Forecasts of traffic for at least 10 years based on adopted land use plan;
- Level of service (LOS) standards for arterials, active transportation facilities, and public transportation, including actions to bring deficient facilities into compliance;
- Transportation Demand Management (TDM) strategies, and;
- Identification of intergovernmental coordination efforts.

Under GMA, development may not occur if the development will cause the transportation facility to decline below the City's adopted level of service standard unless strategies are identified and implemented within six years of the development to accommodate the development's impact to the transportation system. To accommodate the impacts of the development, local governments may change the phasing or timing of new development, provide transportation facilities or services to serve the new development, reduce the LOS standard, or revise the land use element. Finally, the transportation element must include a reassessment strategy to address how the City will respond to potential funding shortfalls.

Transportation Impact Fees

A funding program for constructing the transportation projects identified in the Plan and the Capital Facilities Element of the Comprehensive Plan can be supplemented by a transportation impact fee (TIF) program to assist in funding projects that will accommodate traffic growth associated with the future land use development of the City and its arterial system. The findings of this Plan will provide the City with documentation and justification for grant applications to seek funding for transportation improvement projects, and a guide for prioritizing its transportation needs to maintain adopted level of service standards.

Consistency with Other Agencies

Monroe's transportation system is part of, and connected to, a broader regional highway and arterial system. The GMA works to increase coordination and compatibility between the various agencies that are responsible for the overall transportation system. Since transportation improvements need to be coordinated across jurisdictional boundaries, the Transportation Plan needs to be consistent with and supportive of the objectives identified in the Washington State Transportation Plan, PSRC's Vision 2050, and the transportation plans or capital improvement plans of the surrounding agencies. Developing the Transportation Plan is primarily a bottom-up approach to planning, with the City exploring its needs based on the land use plan. Eventually, local projects are incorporated into regional and state plans. A schematic of this approach is shown below in Figure 0-1. The following sections provide a review of this Plan's consistency with neighboring jurisdictions.



Figure 0-1 Transportation Plan Approach

WSDOT Highway Improvement Program & Six-Year Transportation Improvement Program

As required by the 1998 amendments to the GMA, the Monroe Transportation Plan addresses the state highway system. Specifically, the Transportation Plan addresses the following elements related to the state highway system:

- Inventory of existing facilities – see Chapter 1
- Level of service standards – see Chapters 1 and 2
- Concurrency on state facilities – see Chapters 1 and 2
- Analysis of traffic impacts on state facilities – see Chapters 1 and 2
- Consistency with the State Highway Systems Plan –described below

Summarized below are the improvements on state facilities listed in the Statewide Transportation Improvement Program (STIP) 2024 – 2027, which are consistent with the Plan identified in Chapter 4.

WSDOT maintains two improvements programs, the Highway System Plan (HSP) and the State Transportation Improvement Program (STIP). WSDOT is currently updating the HSP, which was last updated over 12 years ago. A draft of the HSP has been published and recommends new revenues for state highways be dedicated over the next 20 years.

The 2024-2027 STIP was approved in January 2023 and identifies 4 projects in Monroe:

1. New traffic signal at 147th Street and 179th Avenue
2. Kelsey Street At-Grade Rail Crossing Improvements (new pedestrian flashers, escape paths and gates, consistent with updated MUTCD guidance)
3. North Kelsey Overlay (US-2 to Chain Lake Road)
4. Tjerne Phase III (Woods Creek Road to Old Owen Road) – install curb, gutter, shared use paths, and center turn lane.

Puget Sound Regional Council

The Puget Sound Regional Council (PSRC) maintains the Regional TIP. The Regional TIP must be a 4-year program of projects that is updated at least every 4 years. The TIP ensures that transportation projects meet regional transportation, growth and economic development goals and policies, and clean air requirements. Regional TIP projects are required to meet the following criteria:

- Consistency with VISION 2050 and the Regional Transportation Plan
- Consistency with local comprehensive plans
- Funds are available or expected to be available
- Consistency with the region's air quality conformity determination
- Consistency with federal and state requirements such as functional classification
- Consistency with PSRC's project tracking policies

The Regional TIP identifies five projects in and around Monroe and those projects include (note some of these projects overlap with the STIP projects noted above):

- Construct two segments of new sidewalk along the west side of 179th Ave to complete the sidewalk network between a collector (154th St) and a minor arterial (W Main St). The proposed work includes curb and gutter, planter strip, sidewalk, and drainage improvements. In addition, the paved shoulder will become a separated bike lane, and will be an extension of the existing bike lane south of 157th Pl.
- Install a signal at the intersection of 147th St. and 179th Ave. in the City of Monroe to include ADA ramps, APS (Pedestrian Signals), widening to accommodate truck traffic, provide dedicated left turn lane on 147th, pavement markings as necessary and remove existing mid-block ADA ramps.
- Install new rail crossing protective device pedestrian flashers as a train warning for pedestrians, pedestrian escape paths and escape gates. Upgrade MUTCD signage, channelization, and pavement markings. BNSF upgrades to rail warning devices, constant warning time, relocate bungalow, new warning bell, crossing warning light

upgrade to LED, review/update the signal pre-emption timing, install pedestrian safety enhancements including protective fencing, extend a section of sidewalk, installing ADA compliant detectable warnings, remove existing driveway, and relocating a transit stop.

- Install curb, gutter, shared use paths, and center turn lane on Oaks Street. Intersection improvements at Oaks Street and Old Owen Road by signalization or roundabout. Extend sidewalks from Oaks Street to existing sidewalk network near US 2.
- Grind and overlay North Kelsey Street from US-2 to Chain Lake Road. ADA ramps will be upgraded within the project corridor as deemed necessary to meet current federal ADA compliance. Pavement markings will be restored as necessary.

Snohomish County and Adjacent Cities

Countywide Planning Policies (CPPs) establish a countywide framework for developing and adopting County and City comprehensive plans. The role of the CPPs is to coordinate comprehensive plans of jurisdictions in the same county for regional issues or issues affecting common borders. The Multicounty Planning Policies (MPPs) for transportation call for better integrated land use and transportation planning, with a priority placed on cleaner operations, dependable financing mechanisms, alternatives to driving alone, and lower transportation-related energy consumption. CPPs were last adopted in June 2011 and amended in February 2022 effective March 2022. The County's and Cities' comprehensive plans will be made consistent with the vision and policies in the Countywide Planning Policy Update.

Snohomish County's six-year TIP (2024-2029) currently has no projects identified in Monroe.

Community Transit

Community Transit is a regional transportation provider that operates transit service in the City of Monroe. Three routes provide bus service for the City of Monroe. The city supports Community Transit's strategic plans and coordinates with the agency to identify how transit needs should be addressed, particularly as new development occurs.

Federal and State Air Quality Regulations

The Transportation Plan is subject to the Washington State Clean Air Conformity Act that implements the directives of the Federal Clean Air Act. Because air quality is a region wide issue, the City's Comprehensive Plan must support the efforts of state, regional, and local agencies as guided by WAC 173-420-080.

1. Existing Transportation Facilities and Conditions

Travel needs within the City of Monroe as well as connections to the greater region are accommodated by a range of multimodal transportation facilities and services. The City's existing transportation system is comprised of three state highways, arterials, collectors, local roads, pedestrian and bicycle facilities, and transit routes and facilities. A Burlington Northern rail line also crosses through the city bisecting it at 5 separated crossing points which has a negative impact on the daily commutes of city residents, delays access to essential services, and slows the flow of goods throughout the city.

The following inventory summarizes key elements of the existing transportation system serving the City through maps, figures, and descriptions that illustrate the transportation system in its current condition. The inventory provides input for identifying and prioritizing the City's transportation improvement projects and programs presented later in the Plan. Following the description of the planning area, subsequent sections describe the existing multimodal transportation system within the current City limits and UGA for each of the travel modes incorporated into the City's transportation network.



1.1. Roadway Network

The roadway network provides mobility and access for a range of travel modes and users. The road network, traffic volumes, and traffic operations at intersections are summarized within this section. This survey and analysis of the roadway network's existing conditions provides background for identifying potential transportation improvement projects and programs.

The following sections describe the number of lanes and existing traffic controls, traffic volumes and operations, transportation safety conditions, and the freight system. Active transportation and transit facilities and services that use the roadway system are also described in the next sections.

Monroe's street system accommodates multiple transportation modes that move people and freight throughout the City and broader region. While the automobile has historically been the primary means of transportation, Monroe's street network is accommodating to active modes of travel (walking, bicycling) and public transit. The following is a listing and brief description of some of the key arterials that serve the City:

Frylands Boulevard is a 4-lane divided arterial that runs generally north-south from Main Street to US 2 along the city's western boundary. The road has sidewalk on one side of the street from Main Street to just north of Currie Rd and a shared path on the other. The path is extended northward on the western side of the road that ends at Tye Street SE and transitions into a sidewalk continuing North and connecting to the Lake Tye loop trail. The roadway is intersected by an at-grade railroad crossing just south of US 2 and has traffic signals at the intersections of US 2, Wales Street SE, and 154th Street SE. The posted speed limit on Frylands Boulevard is 35mph. North of US 2, Frylands Boulevard is called Roosevelt Road.

Main Street is a two-lane minor arterial that runs generally east west through the City's southern half. The posted speed limit on Main Street is 20mph during the school year and 25mph during summer break, when school is not in session. Portions of Main Street between 177th Avenue and Kelsey Street have a two-way center turn lane. West of Frylands Boulevard, Main Street is called Old Snohomish-Monroe Road, east of US 2 it is called Old Owen Road. The roadway has sidewalk on the north side of the street starting at the roundabout at SR 522, and sidewalk on both sides starting at the roundabout at Tester Road. At US 2, the sidewalk is reduced to a single side of the street again. Designated bike routes are marked along both sides of Main Street from the roundabout at Tester Road to Village Way. On-street parking is located between Kirby Drive and Railroad Avenue. An at-grade railroad crossing exists on Main Street just north of Railroad Avenue. In addition to the two roundabouts located west and east of SR 522, there are several signalized intersections along Main Street which can be found at 179th Avenue SE, Kelsey Street, and S Lewis Street.

Kelsey Street is a two-lane residential collector street that provides generally north south connectivity through the City from Terrace Street near the southern City limits to the roundabout at Chain Lake Road, intersecting Main Street and US 2 along the way. There is sidewalk along one or both sides of Kelsey Street, and no marked bike facilities. The posted speed limit is 25, with 20-mph school zone between W Hill Street and W Columbia Street. An at-grade railroad

crossing can be found just south of US 2. The intersections with US 2, and Main Street are signalized.

Chain Lake Road, also known as N Lewis Street/SR 203 south of US 2, is a 2-lane minor arterial roadway that runs generally north south, providing connectivity between Trombley Road in unincorporated Snohomish County, and downtown Monroe. Sidewalk is provided along both sides between US 2 and the roundabout at Kelsey Street where it is reduced to the west side only. A shared use path extends from the Chain Lake Road roundabout to the north city limits. The only intersection on Chain Lake Road that is signalized is at Tjerne Place E.

Woods Creek Road is a minor arterial with a center two-way left turn lane beginning at US 2 before transitioning to two lanes and ending north of the City at Lake Roesiger Road in unincorporated Snohomish County. Except at the south end where sidewalk is provided along both sides of the street, Woods Creek Road has a rural character with the sidewalk on the west side of the road extending to a trail that leads to the Farm neighborhood. Along the sections where the sidewalk is present on both sides of the street, the speed limit is 25mph. Farther to the east, where the sidewalk is present only on the westbound side, the speed limit is increased to 35 mph.

Table 1-1 summarizes the main roadways traversing the City of Monroe.

Table 1-1 Existing Major Roadways within City of Monroe

| Roadway | Posted Speed Limit (mph) | Number of Lanes ² | Parking? | Sidewalks? | Bicycle Facilities? |
|--------------------------------|--------------------------|------------------------------|--------------|-----------------|---------------------|
| US Highway 2 | 35-45 | 2-6 | No | Intermittent | No |
| State Route 522 | 60 | 2-5 | No | No | No |
| Lewis Street (State Route 203) | 25 | 2-6 | Yes | Yes | No |
| Fryelands Boulevard | 35 | 2-4 | No | Shared Use Path | Shared Use Path |
| Main Street | 20-25 | 2-5 | Intermittent | Yes | Intermittent |
| Kelsey Street | 25 | 2-5 | Intermittent | Yes | No |
| Chain Lake Road | 25-35 | 2-4 | No | Intermittent | No |
| Woods Creek Road | 25-35 | 2-3 | No | Yes | Intermittent |
| Wales Street | 25 | 2 | Yes | Yes | No |
| 154th Street | 25 | 2-3 | Intermittent | Yes | Intermittent |
| 179th Avenue | 25 | 2-3 | No | Intermittent | Intermittent |
| Blueberry Lane | 25 | 2-3 | Yes | Yes | No |
| Tjerne Place | 25 | 2-3 | No | Yes | No |
| Country Crescent Boulevard | 25 | 2-3 | No | Yes | No |

1. Roadway Classification from City of Monroe.¹

2. Includes center turn lanes in lane count.

Note: mph = miles per hour

Arterial and Collector Classifications

Roadways are classified by their intended function and traffic volumes to provide for a hierarchy of roadways. The City of Monroe 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, as summarized in Monroe's Street Design Standard². The functional classification designations for City roadways are described in Table 1-2. Figure 1-1 summarizes the roadway functional classification within Monroe.

Table 1-2 Monroe Roadway Functional Classification

| Roadway Type | Description/Purpose | Examples | Speed |
|-----------------------|---|--|--------------|
| Principal Arterial | The Highway system serves as the primary arterial roadway system within the City. Highways connect major regions with one another, and WSDOT classifies certain State highways. | US 2 SR 522 SR 203 | 25 to 60 mph |
| Arterial | City maintained roadways that prioritize mobility within the arterial roadway system. These roadways connect highways and provide mobility in areas between towns and communities. | Fryelands Blvd Main Street Kelsey Street | 20 to 35 mph |
| Collector | Provide both access and mobility within the City of Monroe between the arterial network and local streets. The predominant function of these roadways is to collect traffic from business and commercial areas and local streets. | Tjerne Place 179th Avenue | 25 mph |
| Residential Collector | Provide both access and mobility within the City of Monroe between the arterial network and local streets. The predominant function of these roadways is to collect traffic from residential areas and local streets. | 154th Street SE Chain Lake Rd SE Wales St SE | 25 |
| Local Street | Streets that provide direct access to adjoining properties, commercial businesses, and similar traffic destinations. These roadways also provide traffic circulation within or through neighborhoods. | S Blakeley Street 167th Ave SE 136th PI SE | 20 to 25 mph |

Note: WSDOT = Washington State Department of Transportation

In addition to the Functional Classification system adopted by the City of Monroe, there are federal and state roadway designations. Federal and state grant programs provide funding for improvement projects that are on streets that have been classified with the federal or state roadway designations.

Highways of Statewide Significance

WSDOT designates interstate highways and other principal arterials that are needed to connect major communities in the state as Highways of Statewide Significance (HSS). This designation assists with the allocation of some state and federal funding. These roadways typically serve corridor movements having travel characteristics indicative of substantial statewide and interstate travel. US 2 and SR 522 are classified as Highways of Statewide Significance.

Federal Functional Classification

The Federal Functional Classification system provides a hierarchy of roadways as defined by the Federal Highway Administration (FHWA). This classification system defines the role of travel through a network of roadways, rather than focusing on individual roadways. As a result, the Federal Functional Classification differs in several ways from the City's Functional

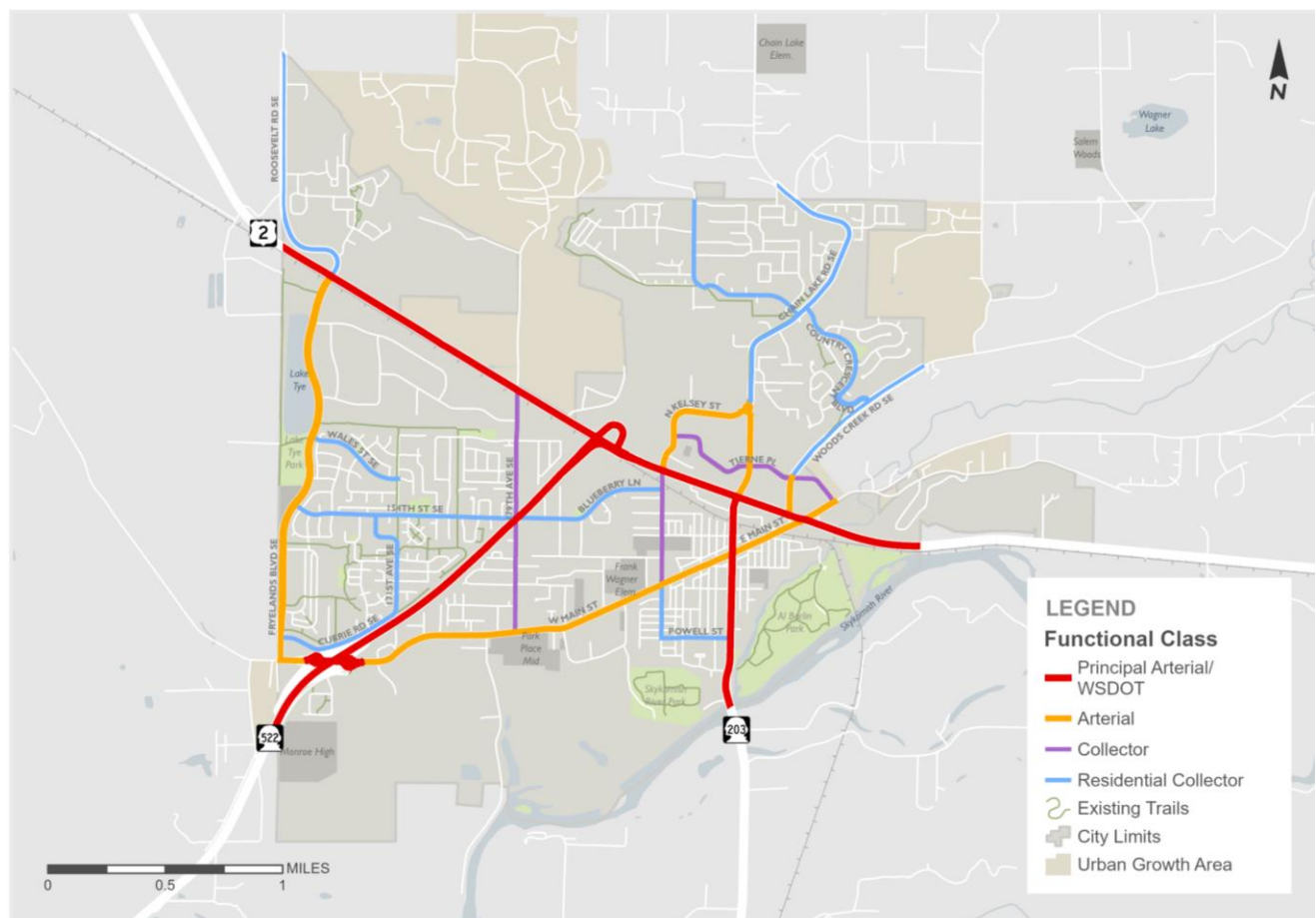
² <https://www.monroewa.gov/DocumentCenter/View/15229/300-Street-Standard-Details>

Classification. Changes to the Federal Functional Classification may be submitted through the Washington State Department of Transportation (WSDOT).

National Highway System

The National Highway System (NHS) includes the Interstate Highway System as well as other roads important to the nation's economy, defense, and mobility as defined by the Federal Highway Administration (FHWA).

Figure 1-1 Functional Classification



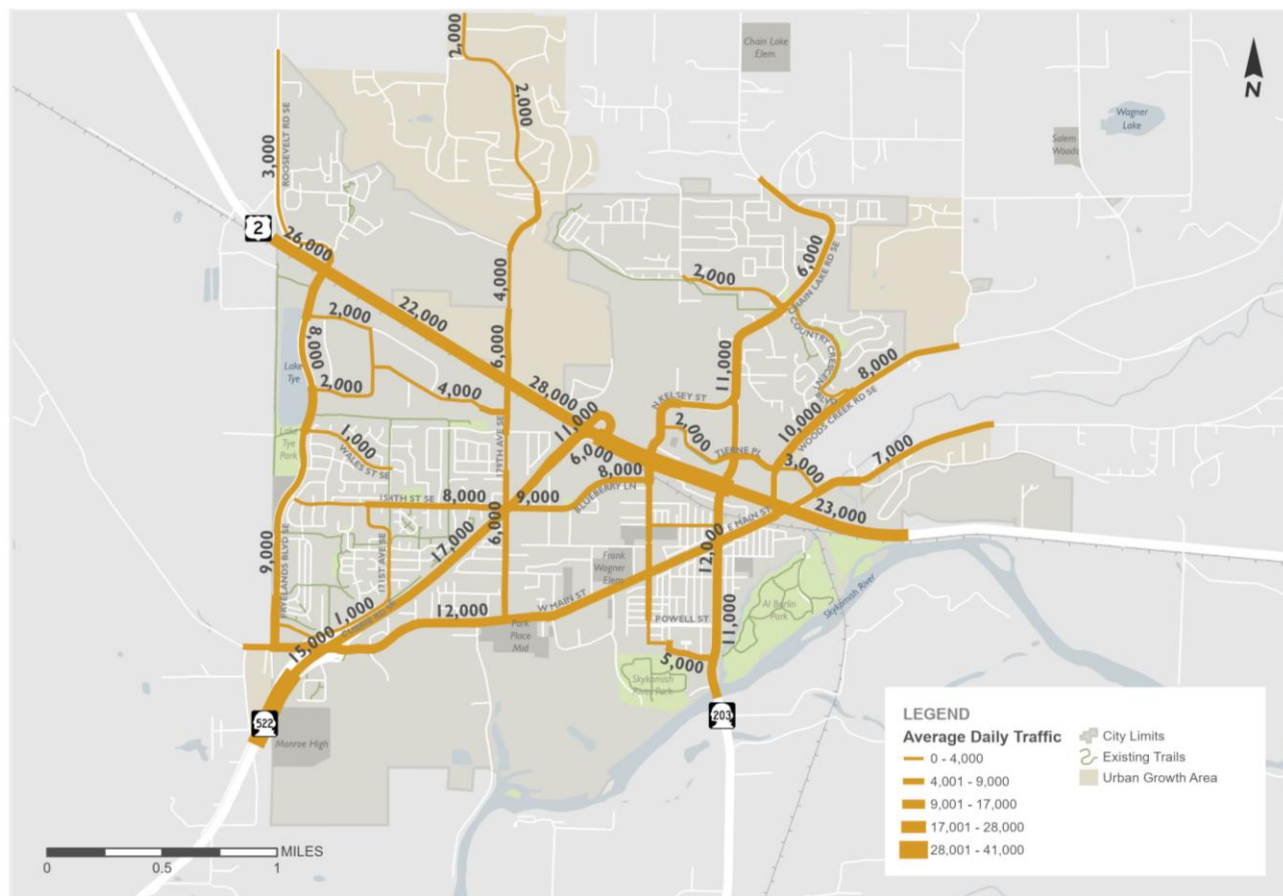
Traffic Volumes

This section of the report describes vehicle traffic volumes on City of Monroe roadways. Traffic counts were collected at several locations on State Highways, County facilities, and City roadways in June 2022. Traffic counts were collected at intersections by installing video cameras to monitor traffic flows, and on roadways by installing pneumatic tube counters which count the number of vehicle axles, and vehicle speed. 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 and 6

p.m., Monday through Friday. Therefore, the weekday PM peak hour was used to evaluate transportation system needs.

Existing weekday daily traffic volumes along key roadways are shown in Figure 1-2.

Figure 1-2 Existing Daily Traffic Volumes



Level of Service (LOS) Standards

Vehicle level of service is both a qualitative and quantitative measure of roadway operations. Vehicle level of service uses an “A” to “F” scale to define the operation of roadways described as follows:

LOS A: Primarily free flow traffic operations at average travel speeds. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delays at intersections are minimal.

LOS B: Reasonably unimpeded traffic flow operations at average travel speeds.

LOS C: Stable traffic flow operations. However, ability to maneuver and change lanes may be more restricted than in LOS B, and longer queues may contribute to lower-than-average travel speeds.

LOS D: Small increases in traffic flow may cause substantial increases in approach delays and decreases in speed.

LOS E: Significant delays in traffic flow operations and lower operating speeds.

LOS F: Traffic flows at extremely low speeds. Intersection congestion is likely, with high delays and extensive vehicle queuing.

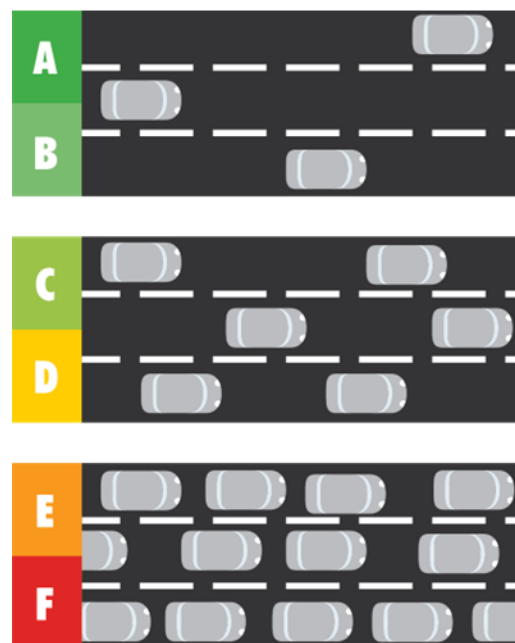


Figure 1-3 Illustration of Vehicle LOS



The following sections discuss the currently adopted LOS standards for the City of Monroe, the Washington State Department of Transportation (WSDOT), and Snohomish County.

Monroe Level of Service Standards

Previously, the City of Monroe had based their roadway LOS standard on intersection-based operations. However, as part of the 2024 comprehensive plan update, the City of Monroe adopted an updated LOS based on roadway travel speed. This updated roadway LOS standards maintains a LOS C standard for collectors, and LOS D for arterials (see

Figure 1-1). The roadway LOS values are based on percent of posted speed limit, as summarized in Table 1-3.

Table 1-34 Monroe Roadway LOS based on posted speed limit

| Roadway Type | Percent of Posted speed | Example Speed Threshold for 25 mph signed roadway |
|--------------|-------------------------|---|
| LOS A | > 85% | > 21.3 mph |
| LOS B | 67 – 85% | 16.8 mph - 21.3 mph |
| LOS C | 50 - 67% | 12.5 mph – 16.8 mph |
| LOS D | 40 - 50% | 10 mph – 12.5 mph |
| LOS E | 30 - 40% | 7.5 mph – 10 mph |
| LOS F | < 30% | < 7.5 mph |

Note: based on Exhibit 16-4 in Highway Capacity Manual

State Highway Level of Service Standards

There are three Washington state routes located within the city (as shown in red on Figure 1-1) where WSDOT sets the LOS standard.

- US 2 runs generally east-west, starting in Everett Washington at I-5 and continues east, through Monroe terminating in the Upper Peninsula in Michigan.
- SR 522 connects the City of Seattle to the northeastern suburbs of Kenmore, Bothell, Woodinville and Monroe. It runs generally east-west, connecting I-5 to I-405, SR 9, and terminates in Monroe at US 2.
- SR 203 runs generally north-south through the Snoqualmie Valley connecting Fall City, Carnation, Duvall and Monroe. SR 203 provides connectivity between US 2 and I-90 in North Bend

Portions of US 2 and SR 522 have been designated as Highways of Statewide Significance. The LOS standards for Highways of Statewide Significance are set by WSDOT. Within Monroe, both SR 522 and US 2 are considered Urban Highways of Statewide Significance and have an LOS standard of “D”. SR 203 is classified within the City of Monroe as a Tier 2 Highway of Regional Significance and has an LOS standard of “D”.

Cities and counties are required to include the LOS standards for all state routes in the transportation element of their local comprehensive plan. PSRC certifies the transportation elements of the city and county plans and ensures that the regional LOS standards are included. PSRC notes that state law is silent on whether agencies include or exempt non-HSS facilities from local concurrency requirements.

WSDOT applies these standards to highway segments, intersections, and freeway interchange ramp intersections. When a proposed development affects a segment of intersection where the level of service is already below the state’s adopted standard, then the pre-development level of service is used as the standard. When a development has degraded the level of service on a state highway, WSDOT works with the local jurisdiction through the Washington State Environmental Protection Act (SEPA) process to identify reasonable and proportional mitigation

to offset the impacts. Mitigation could include access constraints, construction improvements, right-of-way dedication, or contribution of funding to needed improvements.

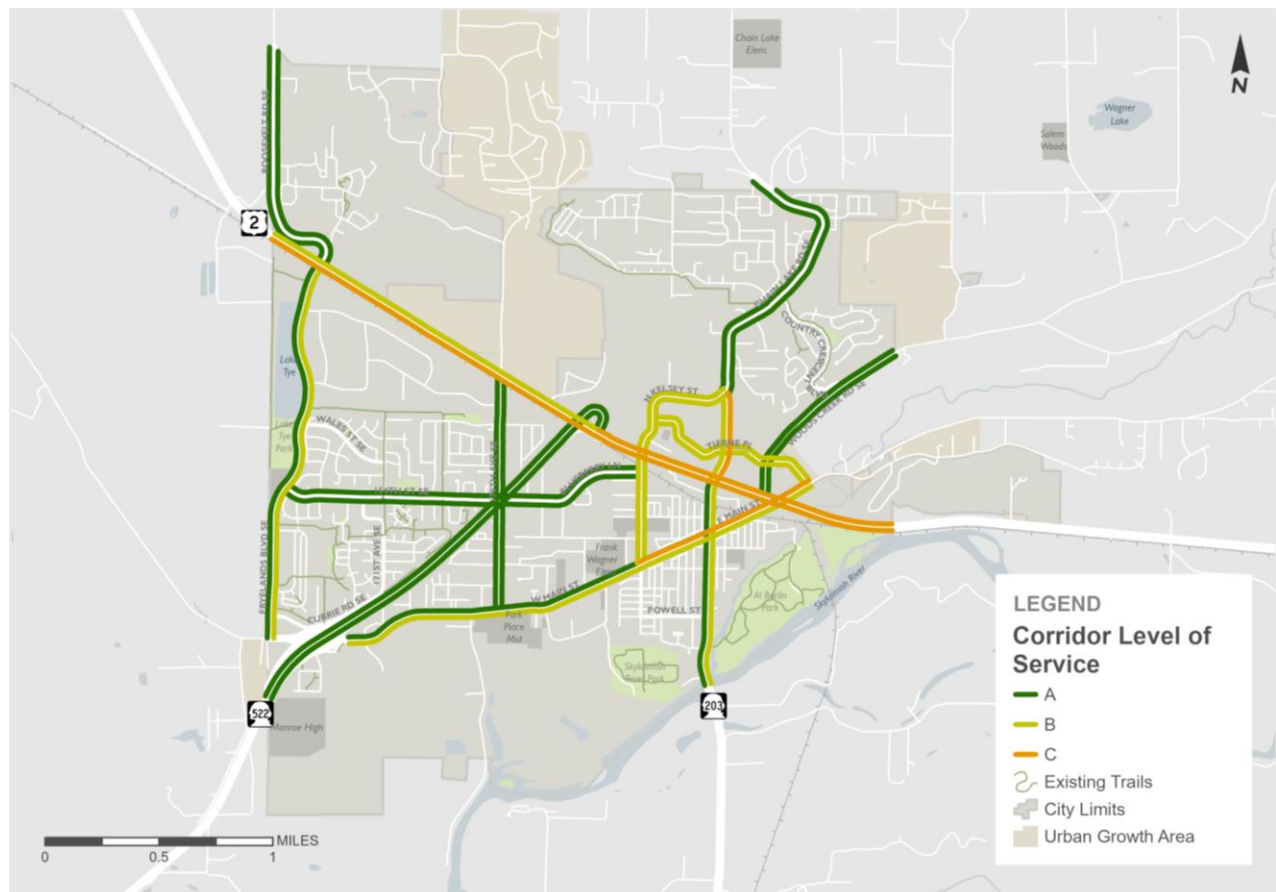
Snohomish County Level of Service Standards

Snohomish County LOS standards are defined based on arterial operations and not intersection LOS. The level of service along key arterials is measured by calculating corridor travel speeds. LOS standards for key arterials are defined by Snohomish County based primarily on arterial classification, number of lanes, average daily traffic (ADT) and average travel speed. In rural areas LOS standards range from LOS C to LOS D depending on the roadway type. In Urban areas LOS E is considered acceptable.

Existing (2024) Roadway LOS

Existing roadway LOS was calculated by gathering roadway traffic speed data from INRIX, a third-party traffic data source that captures travel time data using connected vehicle, location-based service (cell phone application) data, and private trucking fleet GPS data. Data was summarized during the weekday PM peak hour for Tuesday, Wednesday and Thursdays during Spring 2024. Existing roadway LOS is summarized in Figure 1-4.

Figure 1-4 Existing Roadway LOS – PM Peak Hour



Traffic Safety

Collision records for the most recent complete five-year period were reviewed for all collisions reported in the City of Monroe. Historical safety data was requested from WSDOT for the period of January 1, 2018, through December 31, 2022. A review of the collision history was then conducted to identify potential safety issues for vehicles, pedestrians, and cyclists. The most recent collision data encompassing a five-year period for all roadways in Monroe, including state routes, were used for analysis.

Within the City, there were 1,296 total crashes on all streets. Of the total crashes, 2 resulted in a fatality and 16 resulted in serious injuries. A review of collision history was performed to identify potential safety issues for vehicles, pedestrians, and cyclists. Figure 1-5 illustrates that the number of collisions remained steady over the five-year period with a decrease in 2020.

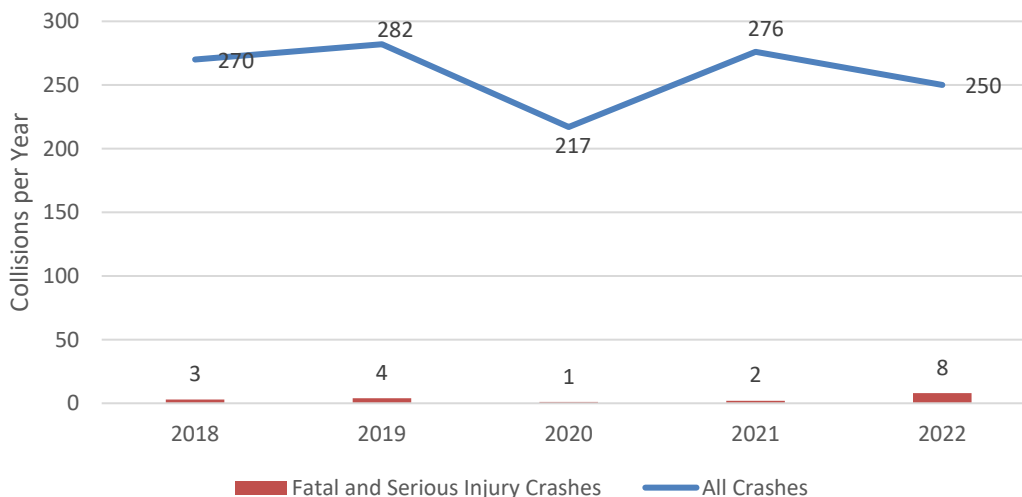


Figure 1-5 Five-Year Summary of Monroe Collisions

Figure 1-6 provides a summary of fatal and serious injury collisions reported within the City. Over the five-year period there were no reported fatalities and 16 serious injury related collisions. Of the fatality or serious injury crashes the most common collision type involved pedestrians followed by angle collisions and approach-turn-related collisions. Angle and approach-turn collisions typically involve one vehicle making a left-turn with the other vehicle going straight ahead.

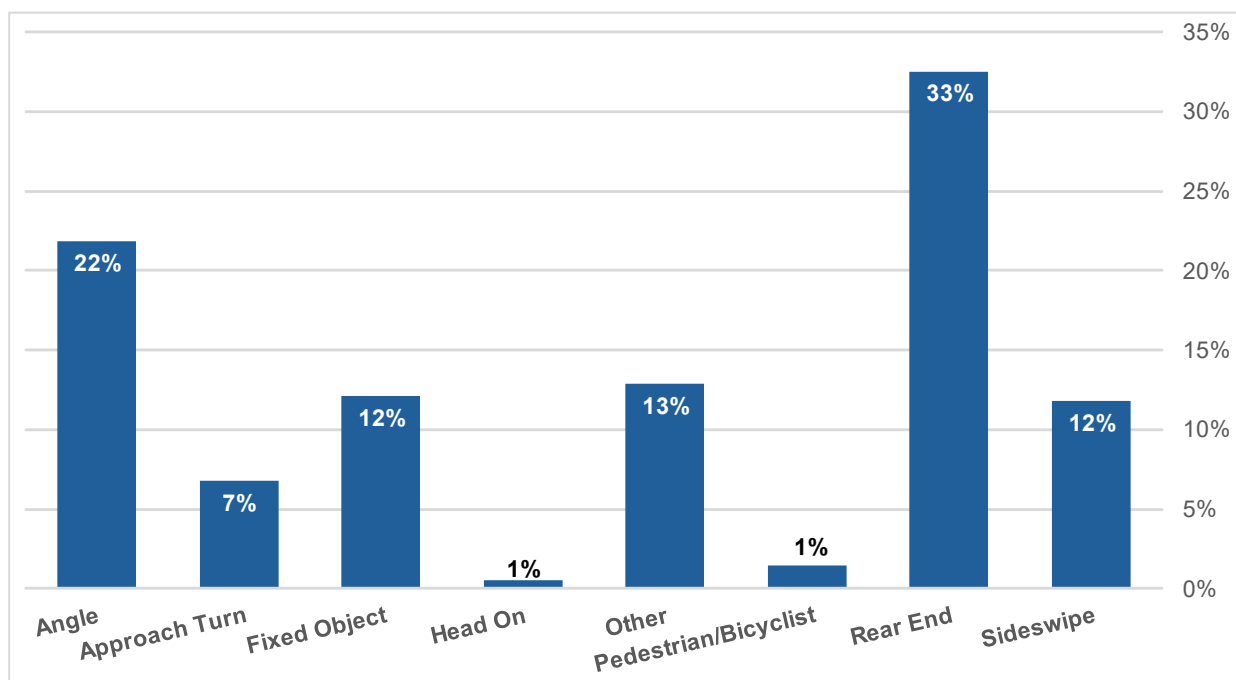


Figure 1-6 Five-Year Fatal and Serious Injury Collision Types

Crash rates were compiled by each study intersection to identify potential safety issues. Crash rates were analyzed to identify the average crash frequency based on the number of vehicles

traveling through the study intersections. The typical measure for determining crash rates at intersections is the number of crashes per million entering vehicles (MEV). Intersections that averaged fewer than two collisions per year or an MEV of less than one were not included in the summary tables due to the low number of incidents available to identify crash patterns. Table 1-5 summarizes the collisions for intersections averaging two or more collisions per year or having collisions per MEV over 1.

Table 1-5 Collision Summary at Select Intersections

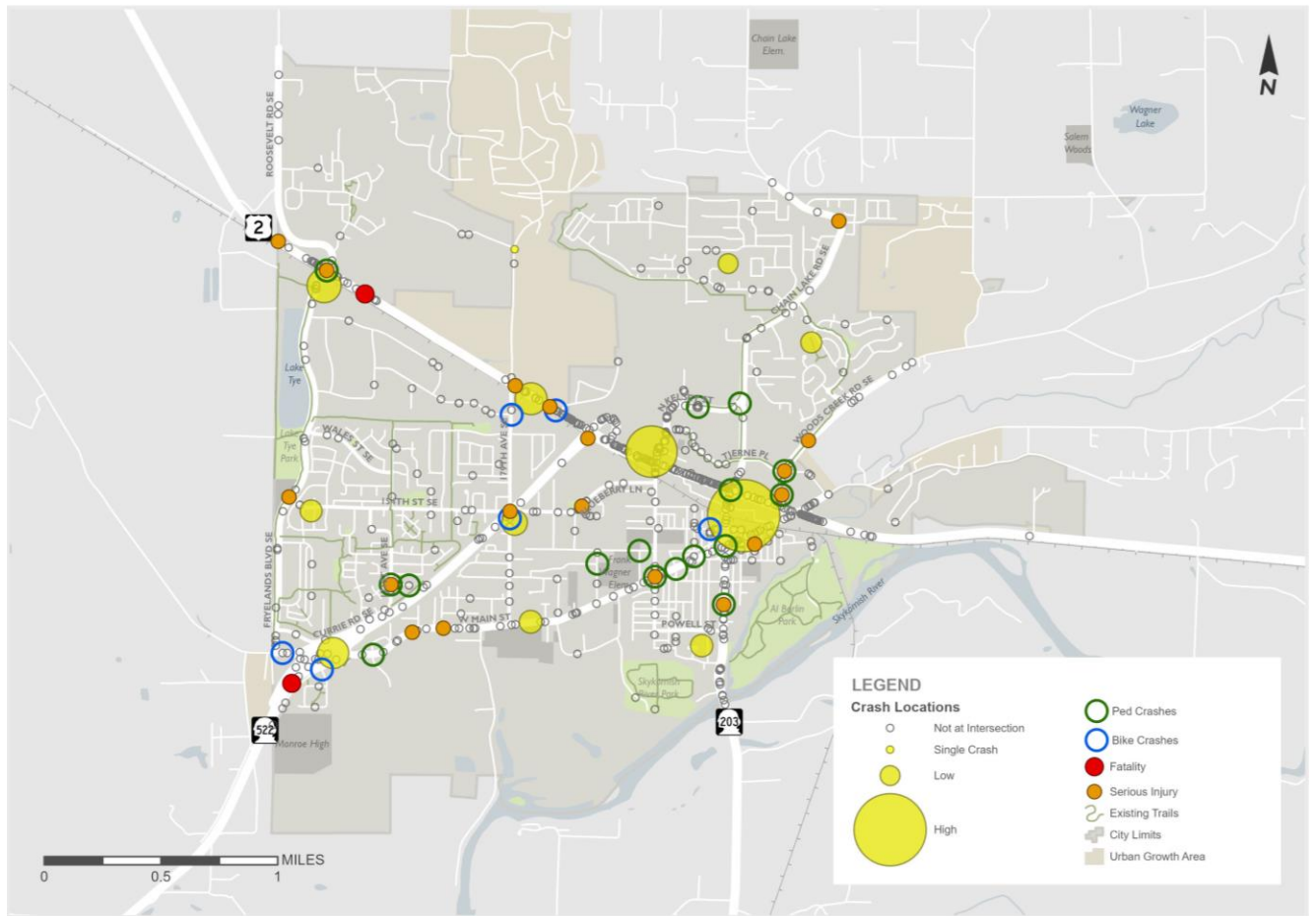
| Intersection | Existing Traffic Control ¹ | Number of Collisions | | | | | Total | Annual Average | Collisions per MEV ² |
|-------------------------|---------------------------------------|----------------------|------|------|------|------|-------|----------------|---------------------------------|
| | | 2018 | 2019 | 2020 | 2021 | 2022 | | | |
| SR 522 Ramps/US 2 | Signalized | 7 | 4 | 4 | 2 | 5 | 22 | 4.40 | 0.39 |
| Kelsey St/US 2 | Signalized | 2 | 1 | 1 | 3 | 5 | 12 | 2.40 | 0.15 |
| Lewis St/Main St | Signalized | 3 | 4 | 2 | 2 | 5 | 16 | 3.20 | 0.47 |
| Chain Lake Rd/Tjerne Pl | Signalized | 0 | 6 | 4 | 2 | 2 | 14 | 2.80 | 0.50 |
| Main St/US 2 | Signalized | 11 | 10 | 6 | 8 | 8 | 43 | 8.60 | 0.86 |

1. AWSC = All-way stop-control

2. Crashes per MEV

As shown in the table, five intersections had an average annual number of collisions over two. Most of the collisions reported at these intersections resulted in property damage only with no reported fatalities. However, a total number of 35 injuries were reported along these intersections with the Main Street/US 2 intersection showing 11 injury collisions. There were two reported pedestrian/bicyclist collisions which were at the Lewis Street/Main Street intersection. Potential safety improvements are identified in a subsequent section. A graphical summary of the collision locations is shown in Figure 1-7.

Figure 1-7 Collision Summary (2018-2022)



Freight Routes

The Washington State Freight and Goods Transportation System (FGTS) classifies highways, County roads, and City streets according to the average annual gross truck tonnage they carry. Truck tonnage values are derived from actual or estimated truck traffic count data that is converted into average weights by truck type.³ The FGTS uses five truck classifications, T-1 through T-5, depending on the annual gross tonnage the roadway carries.

- T-1: more than 10 million tons per year
- T-2: 4 million to 10 million tons per year
- T-3: 300,000 to 4 million tons per year
- T-4: 100,000 to 300,000 tons per year
- T-5: at least 20,000 tons in 60 days and less than 100,000 tons per year

Routes with the highest annual gross tonnage, T-1, and T-2 routes, are also identified as Strategic Freight Corridors SR 2 and SR 522, as well as Main Street, are classified as T-2 routes. Additionally, SR 203, Fryelands Boulevard SE, 179th Avenue SE, N Kelsey Street, Woods Creek Road SE, and US 2, east of Main Street are classified as T-3 routes. Chain Lake Road is classified as a T-4 route. Beyond these primary routes, delivery vehicles use many other streets to reach their final destinations. Existing WSDOT classified freight routes are shown on Figure 1-8. WSDOT designates and updates the FGTS system every two years to meet state legislative requirements, support transportation planning processes, and inform freight investment decisions made by the state.

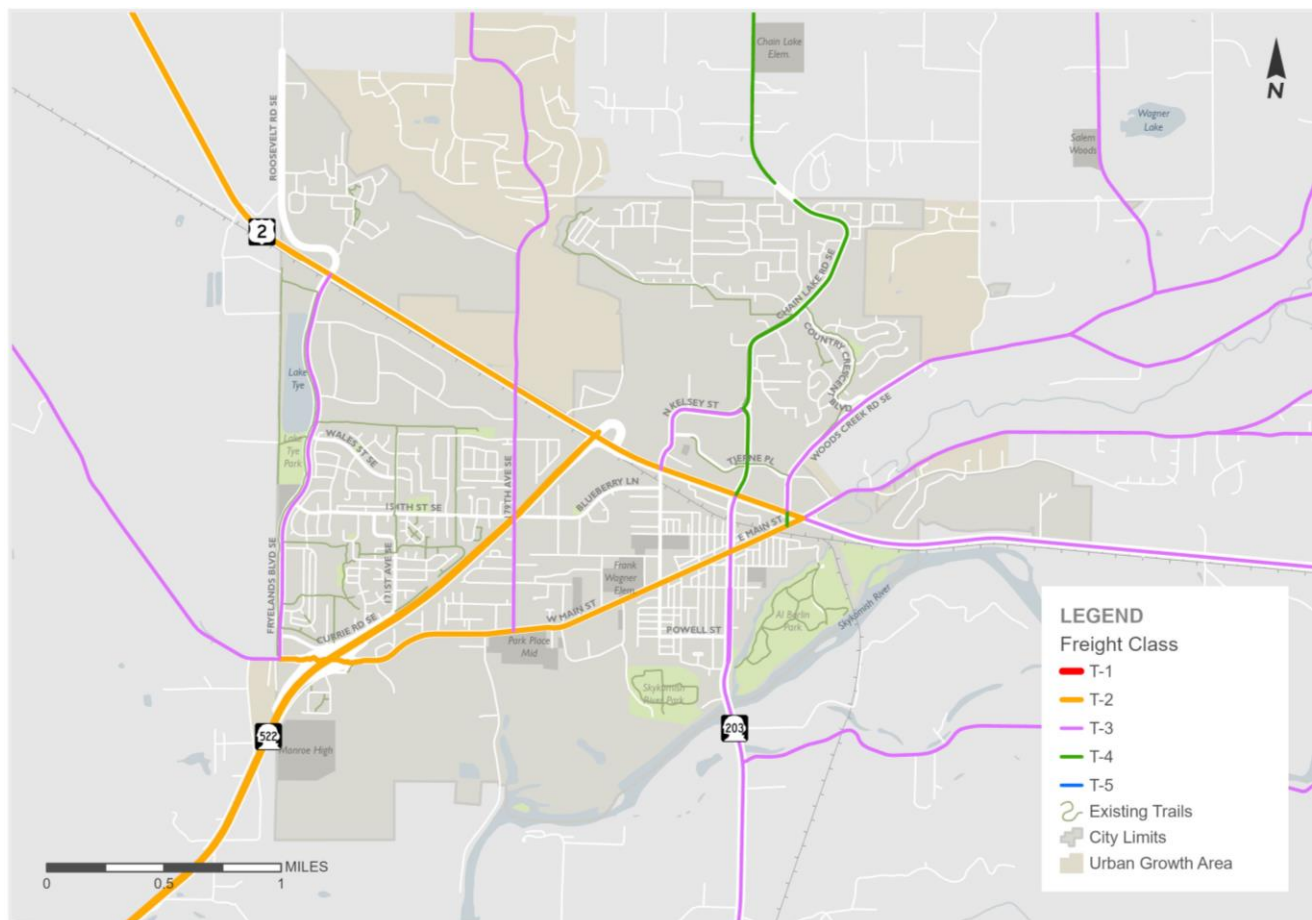
Additionally, Monroe Municipal Code (MMC) 10.24.030 designates the following roadways as approved truck routes in the city:

- Lewis Street
- SR 2
- SR 522
- Tye Street
- Beaton Road
- 147th Street – Tye Street to 179th Avenue
- 146th Street – Fryelands Boulevard to 169th Drive
- 167th Avenue – 146th Street to Tye Street
- 169th Drive – 146th Street to Tye Street
- 172nd Drive – Beaton Road to cul-de-sac.

Vehicle weight exceeding 15,000 pounds is only approved on this list of roadways within the city (with a few exceptions listed in MMC 10.24030). The city list is more of an operation goal, intended to keep truck traffic to a minimum on non-truck designated routes on city streets. The WSDOT FGTS routes are a statewide planning and financing designation.

³ *Washington State Freight and Goods Transportation System (FGTS) 2023 Update*. WSDOT, 2023.

Figure 1-8 Existing Freight Routes



1.2. Transit

Transit service in the City of Monroe is provided by Community Transit. Community Transit offers bus, paratransit, vanpool, and commuter services. The following section describes the existing service and facilities provided by Community Transit as well as future plans for service and facilities in the Monroe UGA. Community Transit currently operates three bus routes providing weekday and weekend trips through Monroe and maintains 24 bus stops and one park & ride facility. The park & ride facility is served by Route 424. There are also paratransit and vanpool groups that originate in the City of Monroe and travel to employment destinations in south Snohomish County and King County.

Snoqualmie Valley Transportation previously provided a five run per day shuttle between Monroe and Duvall that has been suspended due to staffing shortages. Snoqualmie Valley Transportation staff indicated a desire to reopen this shuttle system when sufficient staffing resources become available.

Fixed Route Service

Community Transit provides transit service throughout the City of Monroe. Community Transit offers bus, paratransit, vanpool, and commuter services. Bus routes 270, 271, and 424 travel through the City. Bus routes 270, a local route, and 271, a Boeing route, provide service between Gold Bar and Everett via US 2, with average headways or the amount of time between buses arriving at a stop, of approximately 60 minutes. Bus route 424 is a commuter route with limited service of two trips from Monroe to Seattle in the morning, and two trips from Seattle to Monroe in the afternoon. Route 424 travels between the cities of Snohomish and Seattle and passes through Monroe via US 2, 179th Avenue SE, and SR 522, with average headways ranging from 75 to 90 minutes.

Transit routes, run times, and recent ridership data available from Community Transit are summarized in Table 1-6.

Table 1-6 January 2024 Community Transit Routes and Daily Ridership

| Route Number | Route Description | Hours of Operation | Average Daily Boardings (May 2023) |
|--------------|----------------------|--|------------------------------------|
| Route 270 | Gold Bar to Everett | Weekdays Only (5:45 a.m.– 5:30 p.m.) | 690 |
| Route 271 | Gold Bar to Everett | Weekdays (6:015 a.m. – 10:01 p.m.) Saturdays (7:05 a.m. – 9:29 p.m.) Sundays (7:05 a.m. – 9:28 p.m.) | 920 |
| Route 424 | Snohomish to Seattle | Weekdays Only (3:37 p.m. – 6:47 p.m.) | 955 |

As shown in the table, Route 424 has the highest average weekday boardings (just under 1,000 per day). Route 271 has the next highest average weekday boardings (955 daily) of the non-BRT routes with stops in the City of Monroe. **Error! Reference source not found.** shows the transit routes currently operating in the City of Monroe.

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 0.75 mile of all local fixed-routes during hours of fixed-route operation. Community Transit currently provides Dial-A-Ride Transit (DART) paratransit service to eligible riders who are unable to use fixed route bus service due to a disability. Service is available to all origins and destinations within 0.75 mile of local, non-commuter bus routes.

Snoqualmie Valley Transportation also provides door-to-door shuttle services for all members of the public within Monroe. This service requires three-to-five-day advance notice of the

requested trip and operates as a shared-ride service. The shuttle will pick riders up anywhere within Monroe and travel to their destination (within their service area) for \$1. This service is available Monday through Friday from 6am to 7pm.

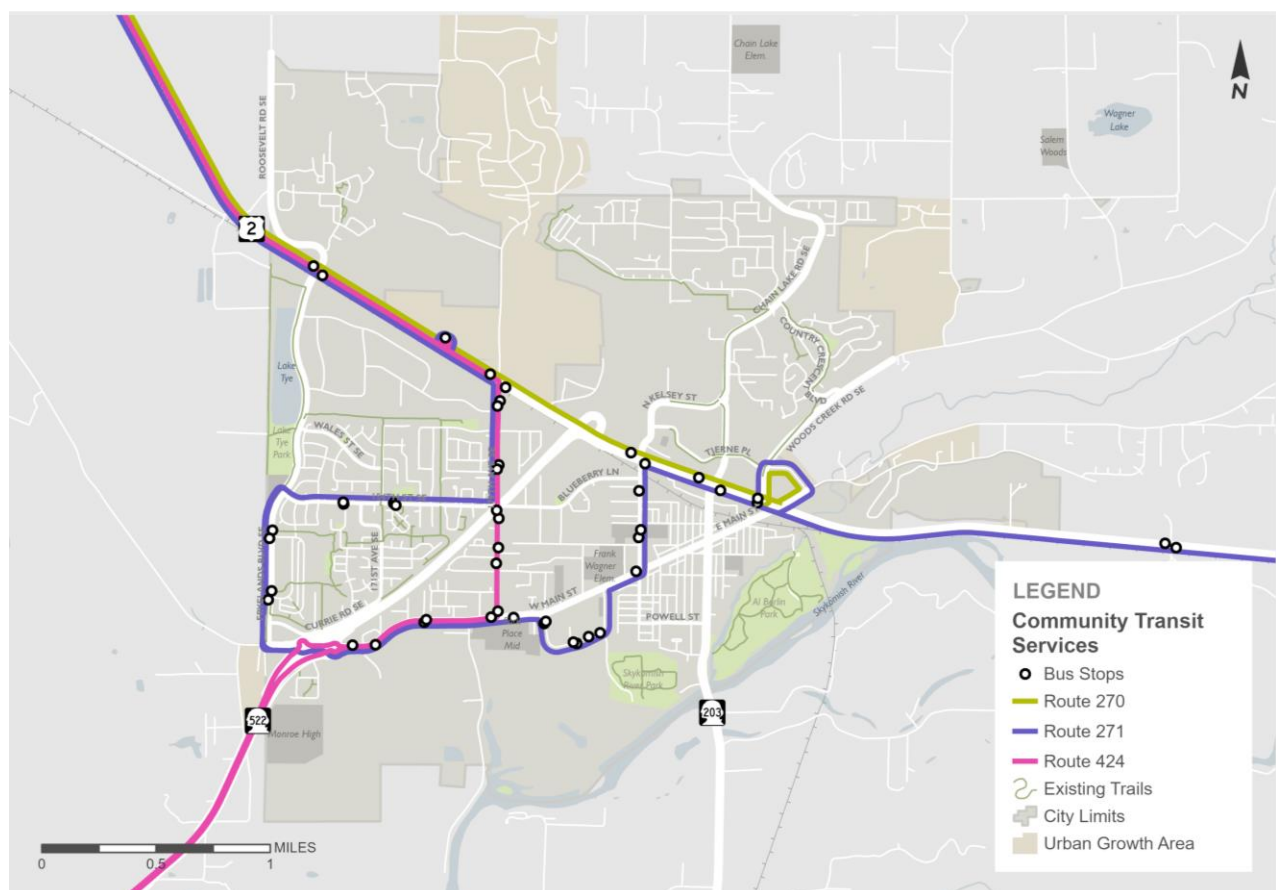
Vanpool Program

Community Transit also offers vanpool services for citizens who wish to carpool to work. Vanpools must consist of at least three riders and can accommodate up to 12 per vanpool group. Users pay a fare based on the daily round trip miles and size of the van used while Community Transit will provide the van (including routing service and maintenance), gas, insurance and pay any highway tolls.

Park-and-Rides

There is one facility within Monroe, Monroe Park and Ride with a capacity for 102 cars, which is located at 17433 Hwy 2 (west of fairgrounds). This facility is owned by WSDOT and operated by Community Transit, and offers direct access to routes 270, 271, and 424.

Figure 1-9 Existing Transit Service



1.3. Active Transportation

The active transportation network consists of facilities for residents and visitors to participate in active transportation modes and recreational activities in the City of Monroe. A combination of on-street facilities and off-street pathways/trails provide the core network for walkers, cyclists, and other active transportation 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. Active transportation facilities, particularly off-street pathways, are also used for recreational trips or access to parks and other recreational destinations.



Types of Facilities

Active transportation facilities in the City of Monroe include a range of types that are suited for pedestrians, cyclists, and other active transportation users.

Sidewalks

Along with off-street trails, sidewalks are the primary pedestrian facility within major roadways and developed areas. Cyclists may also use sidewalks provided they yield right-of-way to pedestrians. Sidewalks within the City of Monroe are typically provided on both sides of the street. Figure 1-10 shows the existing sidewalks on one or both sides of the street in the city. Most roadways have access to sidewalks or shared-use paths. Many of the City's signalized

intersections provide crosswalks. As identified in the Planned Improvements section, annual sidewalk improvements and implementation of ADA-compliant facilities is a specific goal for the City of Monroe. The City's ADA Transition Plan was adopted in 2021.

On-Street Facilities

On-street facilities include bicycle lanes, striped shoulders, and shared roadways that comprise the active transportation facilities on State Highways and City roads. The current bike facilities are described in the following sections and shown in Figure 1-10.

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 wide. Bicycle pathways are less present; however, many sidewalks and shared use paths/roadway shoulders are wide enough to safely accommodate bicycle traffic. Dedicated bike lanes are present at the following locations:

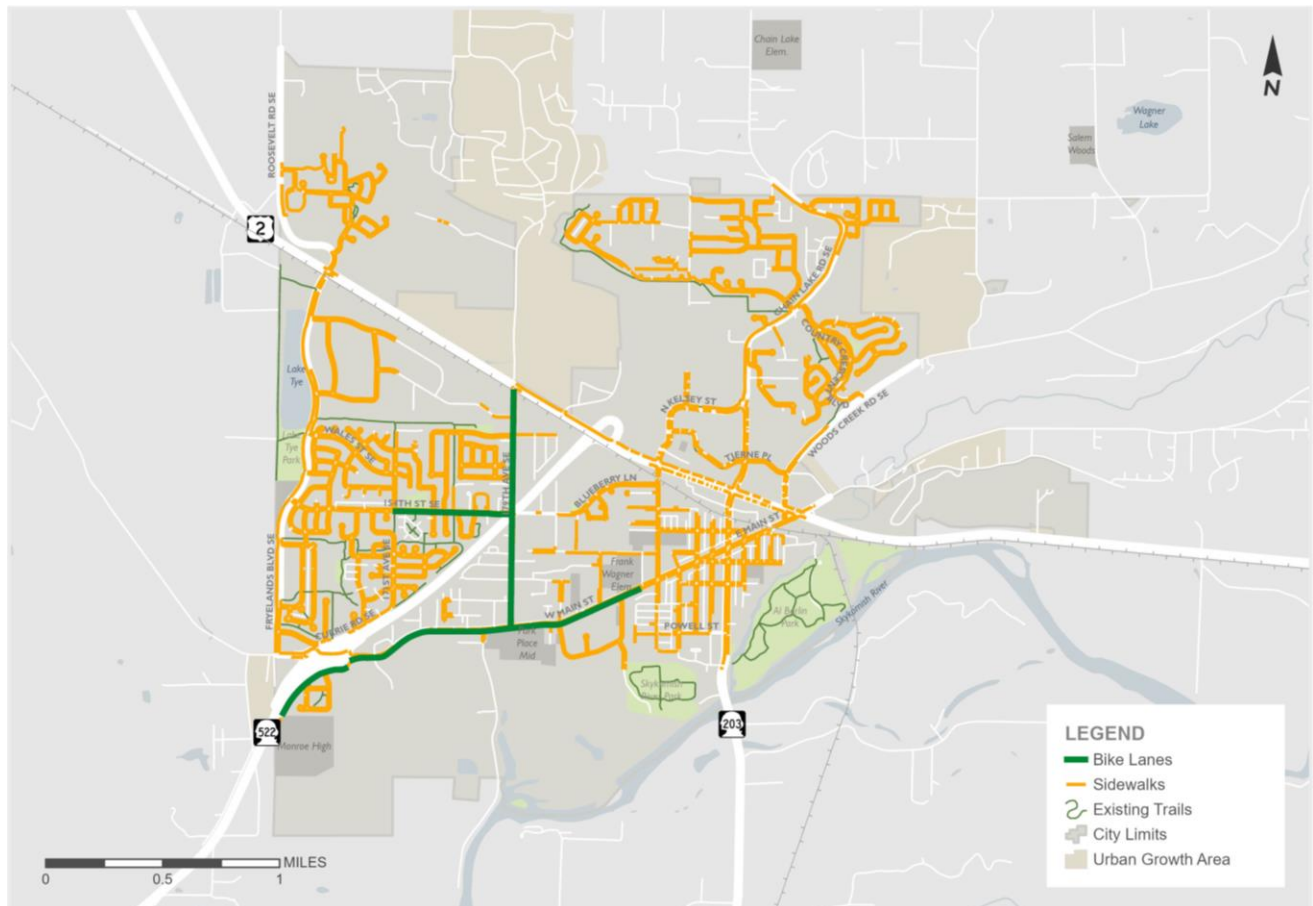
- Main Street between SR 522 eastbound Ramp and Village Way
- 154th Street between 171st Avenue SE and 179th Avenue SE
- 179th Avenue south of 147th Street SE

Off-Street Facilities

Off-street facilities include multi-use pathways and unpaved trails that are used by all types of active transportation 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.

Existing shared-use pathways, used by both pedestrians and bicyclists, are shown in Figure 1-10. The Lake Tye, Skykomish River Park, and Al Borlin Park Trails are the most popular multi-use trails within the City of Monroe. These trails are located adjacent to Lake Tye and within Al Borlin Park and Skykomish River Park, respectively. Additionally, there are multiple other trails distributed across the city, particularly in residential areas on the western, northwestern, and northeastern sides of Monroe.

Figure 1-10 Existing Active Transportation Facilities

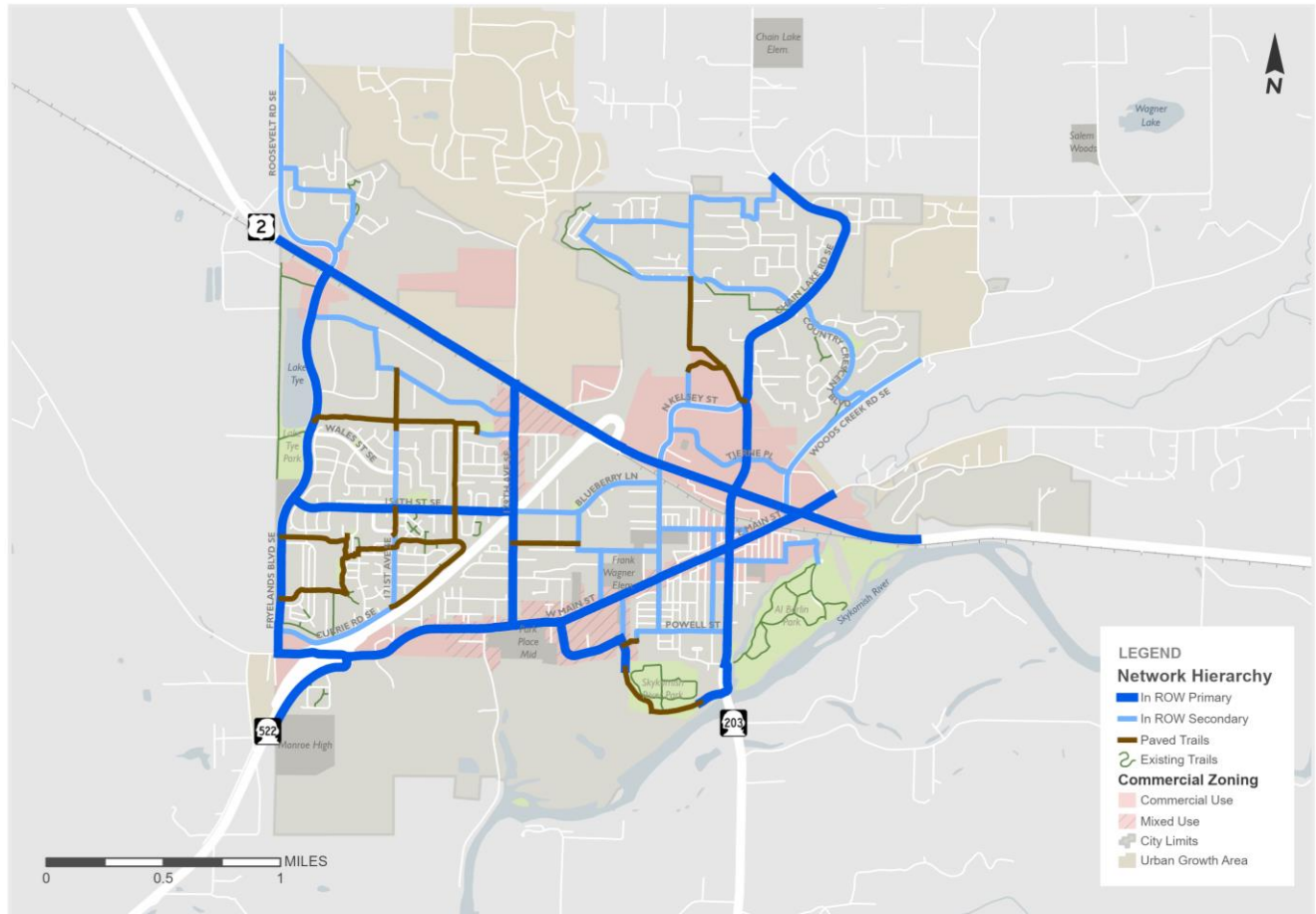


Pedestrian Network

The City has established a planned pedestrian network that outlines a fully built-out system of on and off-street facilities across the City. The planned network contains a series of primary or secondary routes. Corridors identified as primary or secondary routes are used to make a distinction between routes that are more regional or that extend completely through the community (primary), and those that serve to make the second leg of the journey to connect to destinations, extend into neighborhoods, or complete a loop (secondary).

The planned pedestrian network, shown in Figure 1-11, provides a comprehensive network of pedestrian facilities for Monroe. The Plan shows the interconnected system of on-road and off-road facilities, which include sidewalks, pathways, and shared-use trails. The system is designed to facilitate pedestrian travel to key destinations within Monroe where higher pedestrian demand is expected, such as routes connecting residential areas to recreational facilities and schools, downtown, and the parks. Trails are included in the pedestrian network to help complete the network.

Figure 1-11 Planned Pedestrian Network



Pedestrian Level of Service Standard

Pedestrian LOS standards were developed based on the future primary and secondary on-sidewalk, pathway, and trail system. This pedestrian system was first identified in coordination with the City. The LOS standards are shown in Figure 1-12 and emphasize the systems completion of sidewalks, pathways, or multi-use trails on arterial and collector roadways. The LOS designations are shown in green, orange, and red.

A green LOS (the standard) indicates a facility meets adopted roadway standards and has facilities on both sides of the street for primary routes, while a secondary facility may only have facilities on one side of the street. An orange LOS (acceptable) indicates a primary route has facilities on only one side of the roadway, when both sides or a shared use path would be preferred. A red LOS indicates no designated facilities are provided for pedestrians and is considered unacceptable. The City utilizes these standards to prioritize investments in the pedestrian transportation network and identify where significant gaps in the system need to be addressed to serve the City's land use plan. The long-term project list identified in the Transportation Element would implement the green LOS for primary and, at a minimum, orange LOS for secondary routes.




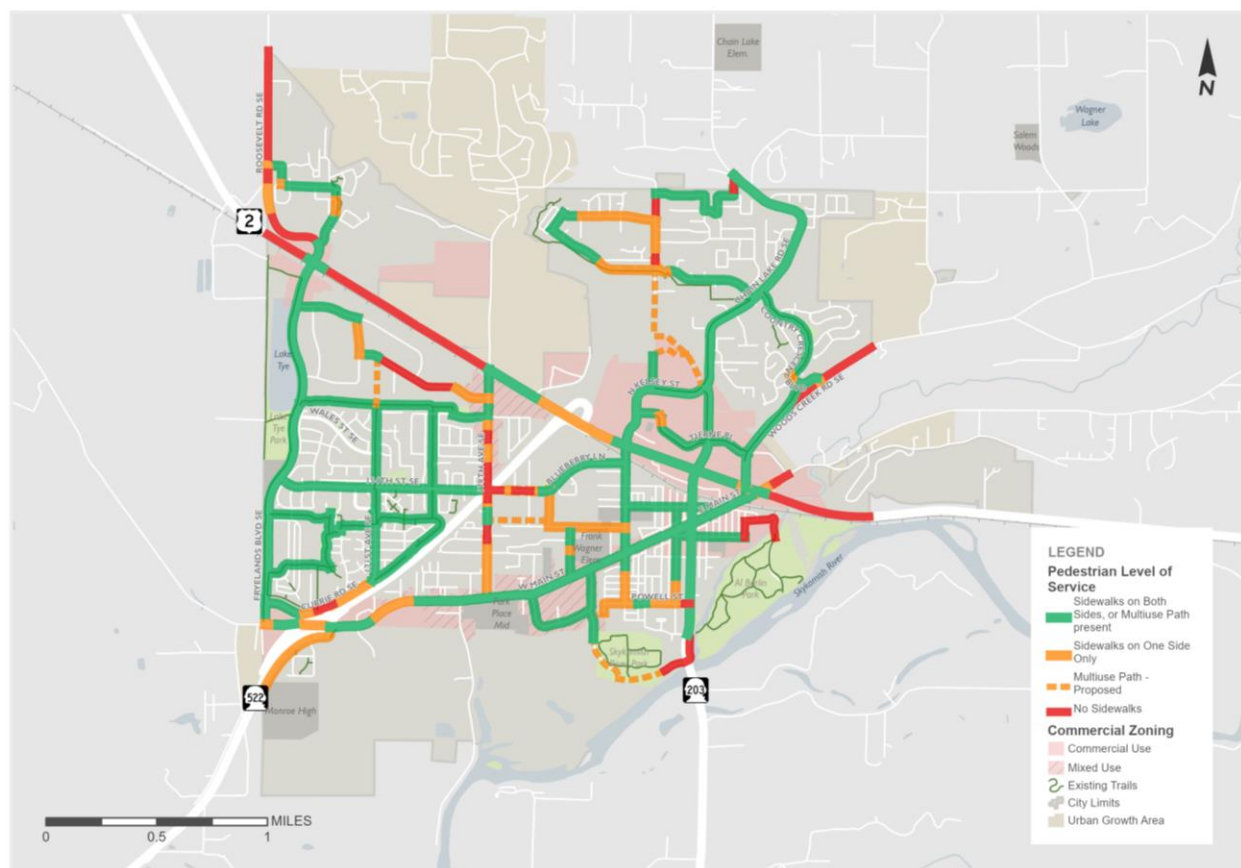
| LOS | Primary Route | Secondary Route |
|---|--|---|
|  | Meets City standards, facilities on both sides | Meets City standards, facilities on one or both sides |
|  | Facilities exist, but only on one side | N/A |
|  | No facilities exist, does not meet standards | No facilities exist, does not meet standards |

Figure 1-12 Active Transportation Levels of Service Overview

Given the above method of calculating LOS for the pedestrian network, Figure 1-13 shows the resulting pedestrian LOS within Monroe.

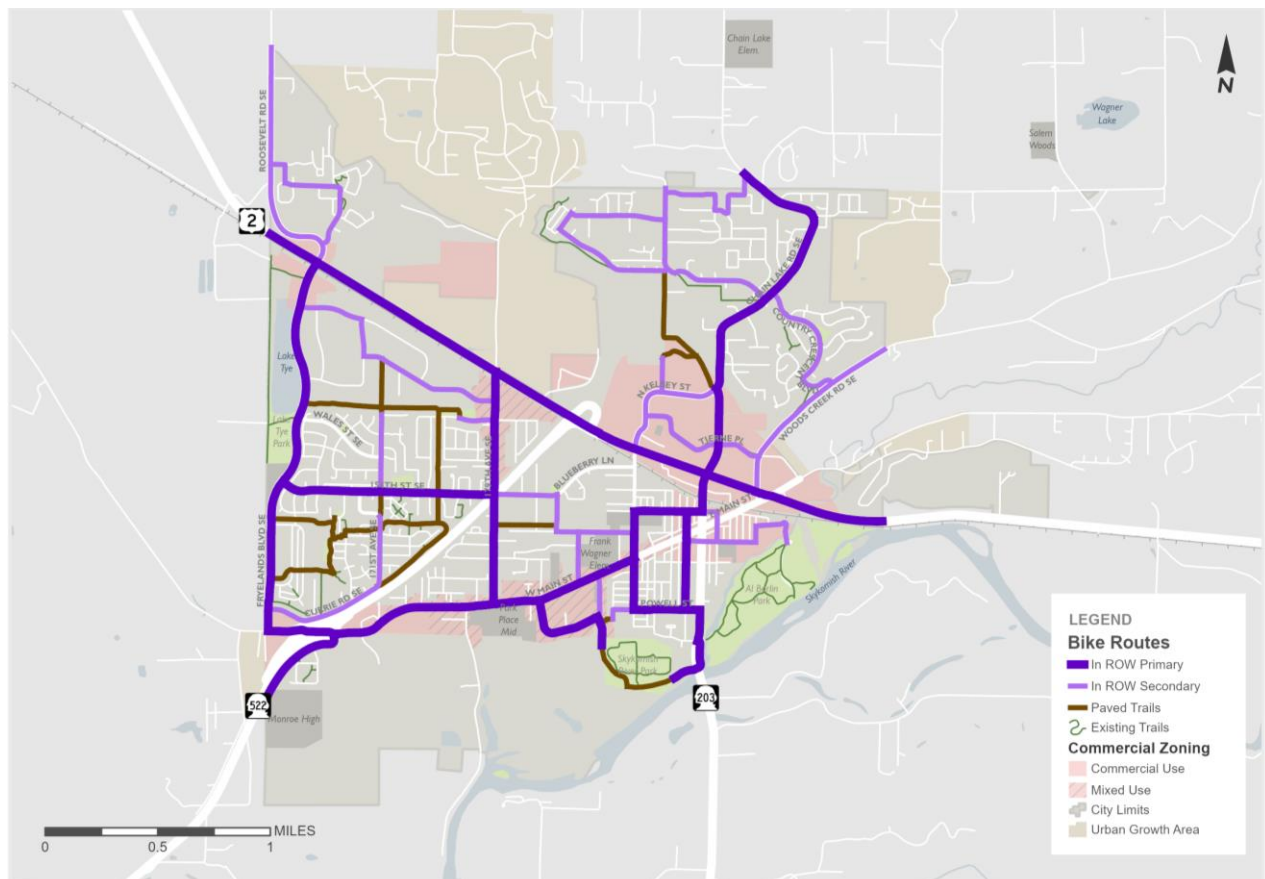
Figure 1-13 Existing Pedestrian Level of Service



Bicycle Network

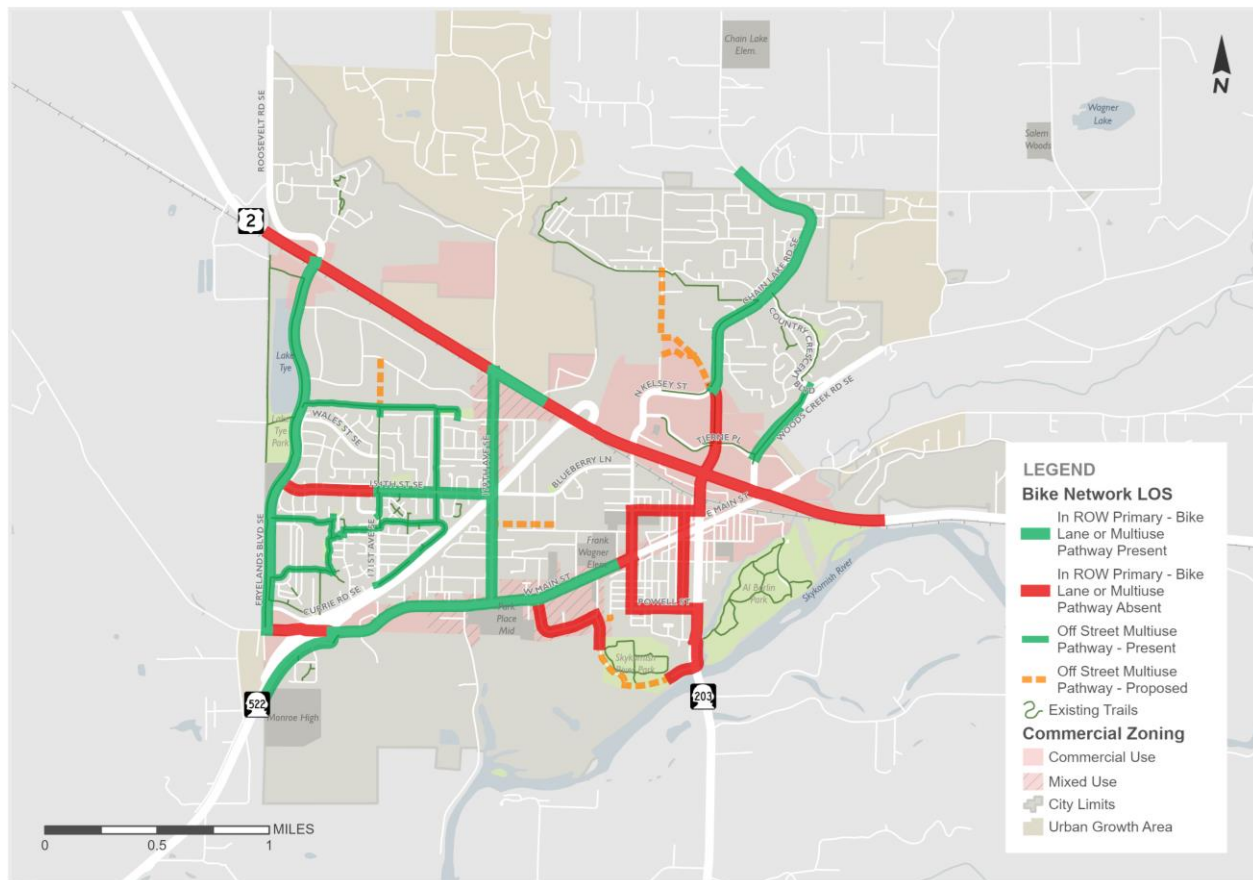
The City has also established a planned bicycle network that outlines a fully built-out system of on and off-street facilities across the City. Corridors identified as primary or secondary routes are used to make a distinction between routes that are more regional or that serve to make the second leg of the journey, respectively. The planned bicycle network, shown on

Figure 1-14 Planned Bicycle Network



The bicycle LOS standards are based on the presence of bike facilities on primary or secondary corridors within the designated bicycle network within Monroe. Bike facilities include dedicated bike lanes, protected bike lanes, or multiuse paths within the roadway right of way (ROW). A green LOS (the standard) means that bike facilities that meet City design standards are present. An orange LOS (acceptable) is exclusively for off-road trails where a current unpaved path is scheduled to be paved. A red LOS (poor) indicates a lack of a dedicated bicycle facility. Monroe utilizes these bike LOS standards to prioritize investments in the bicycle transportation network and identify where significant gaps in the system need to be addressed to serve the City's plans. The resultant bicycle LOS map is shown in Figure 1-15.

Figure 1-15 Bicycle Network Level of Service



1.4. Other Transportation Services

Several other transportation services are also included within the City of Monroe. Those services include transportation demand management program, air transportation, and freight rail services. Those components are described in the following sections.

Transportation Demand Management Program

The City of Monroe recognizes the importance of transit and travel demand management programs as key elements of a multimodal transportation system. These programs build on regional programs and plans with some refinements to reflect the specific needs of the City. The Transportation Demand Management (TDM) strategy is multi-pronged and will reduce both local and regional vehicle trips. Projects recently or currently under way in the City include:

- **New Active Transportation Facilities.** The buildout of the city's active transportation facilities will provide Monroe residents and visitors with the increased ability to travel safely on foot, by bicycle, or by bus. Build out of the active transportation network will reduce vehicle demand on roadways within the city.
- **Transit.** Transit service in Monroe is provided by Community Transit which provides three routes in the city. Improvements planned by 2026 include a new route with

increased frequency to Link light rail stations. Snoqualmie Valley Transportation also provides door-to-door services and may soon be re-opening a shuttle service between Duvall and Monroe.

- **Park & Ride Facilities.** Park & ride facilities provide regional benefits as commuters can transfer to public transit or carpool from this location to destinations further west or south along SR 522 and US 2. The city currently has one park & ride facility located at 17433 Highway 2.

Air Transportation

Aviation in Monroe is accommodated by First Air Field, a privately owned airport adjacent to the Evergreen State Fairgrounds that is available for public use. First Air Field is not listed in the National Plan of Integrated Airport Systems (NPIAS) and according to WSDOT it is classified as a community airport.

Regional and national air travel for Monroe is provided via Paine Field in Everett, located approximately 24 miles west of Monroe. Regional, national, and international travel is provided by Sea-Tac International Airport, located approximately 40 miles southwest of Monroe. There are no changes to air transportation as part of this Plan.

Freight Rail Services

The City of Monroe is bisected by a railroad line that runs east-west through the city, just south of US 2. This railroad line is used by Burlington Northern Santa Fe (BNSF) for freight services and by Amtrak for east-west passenger service. There are no changes to freight rail as part of this plan.

2. Forecasts & Evaluation

Monroe's Transportation Plan is developed based on the evaluation of the existing transportation system and future transportation system needs based on planned future growth. The City of Monroe selected a 2044 horizon year. Year 2044 provides a long-range look at the transportation system needed to support anticipated growth in the city and other communities in Snohomish County. The year 2044 also corresponds to the current planning horizon for the Comprehensive Plan overall and associated population and employment forecasts adopted in the Snohomish County Countywide Planning Policies.



Travel forecasts have been developed and analysis has been conducted for average weekday conditions during the PM peak hour. The weekday PM peak hour generally has the highest overall traffic volumes in the community and thus provides the basis for identifying capacity-related improvement needs. The travel forecasts provide a technical basis for identifying the transportation improvement projects.

2.1. Travel Forecast Model

Primary analyses of the 2044 traffic forecasts were initially based on the following travel forecasting assumptions:

- Committed improvement projects in Monroe's current Transportation Improvement Program (TIP)

- Improvement projects in available transportation plans from adjacent jurisdictions
- Puget Sound Regional Council's (PSRC) Transportation Vision 2050 Update Regional Capacity Projects List (as of May 2022)
- WSDOT's 2024-2027 Statewide Transportation Improvement Program (STIP)
- City of Monroe's forecast land use data
- PSRC 2050 Land Use Targets forecasts and regional trip end data from the 2050 regional travel demand model

Based on these assumptions, travel forecasts were developed using Monroe's travel demand model. This model is a tool that is used to convert existing and future land uses into weekday vehicle trips. The Monroe travel demand model was updated to reflect existing 2022 conditions and was used as the basis for preparing 2044 travel demand forecasts for the Monroe UGA. The following provides an overview of the land use assumptions, planned network improvements, and the alternatives analysis.

Baseline Transportation Network

As a part of the baseline forecast 2044 conditions, any transportation improvements that are planned and funded in the near-term were included in the analysis. For the baseline network, no planned project was included.

2.2. Forecast Methodology

A strong relationship exists between land use and the transportation facilities necessary to provide mobility within the community. Future transportation improvements recommended in the Projects and Projects Section have been defined to support the Land Use Element of the Comprehensive Plan.

The 2044 forecasts of land use growth throughout the city and its Urban Growth Area (UGA) were developed based on the land use growth estimates from the Land Use Chapter.

The Monroe Travel Demand Model was developed in 2022 and is used as a basis for the 2024 Comprehensive Plan Update and the 2024 Transportation Plan to determine future traffic forecasts. The model accounts for the number of households and employees within the city and converts those into weekday PM peak hour trips. These trips were then converted to travel modes and allocated to City roadways to understand the overall impacts on the transportation system for the proposed 2044 land use.

Table 2-1 summarizes the existing and forecast land use assumptions (from the Land Use Element) that form the basis of the transportation forecasting.

Table 2-1 City of Monroe Land Use Growth

| | Population in 2020 | Population by 2044 | Increase |
|--------------------|-----------------------|-----------------------|----------|
| Monroe City | 19,699 | 24,302 | 4,603 |
| Unincorporated UGA | 1,567 | 1,974 | 407 |
| Total | 21,266 | 26,276 | 5,010 |
| | Housing units in 2020 | Housing units by 2044 | Increase |
| Monroe City | 6,163 | 8,379 | 2,216 |
| Unincorporated UGA | 551 | 758 | 207 |
| Total | 6,714 | 9,137 | 2,423 |
| | Employment in 2020 | Employment by 2044 | Increase |
| Monroe City | 10,096 | 12,420 | 2,324 |
| Unincorporated UGA | 164 | 241 | 77 |
| Total | 10,260 | 12,661 | 2,401 |

Source: Snohomish Countywide Planning Policies

As shown in Table 2-1, by 2044 the number of jobs is anticipated to increase by 2,401 (23% increase), while the number of housing units is anticipated to increase by 2,423 (36% increase).

2.3. Forecast Evaluation

The alternative analysis is based on the land use forecast described above and used to identify transportation needs for Monroe, develop the framework for the transportation network, and ultimately the 20-year transportation improvement project list. The evaluation is completed using the City's travel demand model to forecast transportation demands and then applying the multimodal level of service (LOS) standards to determine both vehicular and active transportation needs. The results of the alternatives analyses are used to develop a recommended 2044 transportation network with improvements.

Traffic Forecasts

Trip generation was developed through the modeling process, which converts estimates of housing and employment into weekday PM peak hour vehicle trips based. Table 2-2 summarizes the weekday PM peak hour trip generation for both existing and forecast 2044 conditions.

Table 2-2 City of Monroe Weekday PM Peak Hour Vehicle Trips

| | PM Peak Hour Vehicle Trips |
|---------------------------|----------------------------|
| Forecast 2044 | 17,074 |
| Existing | 12,353 |
| Increase in Vehicle Trips | 4,721 |

Source: Transpo Group, 2024

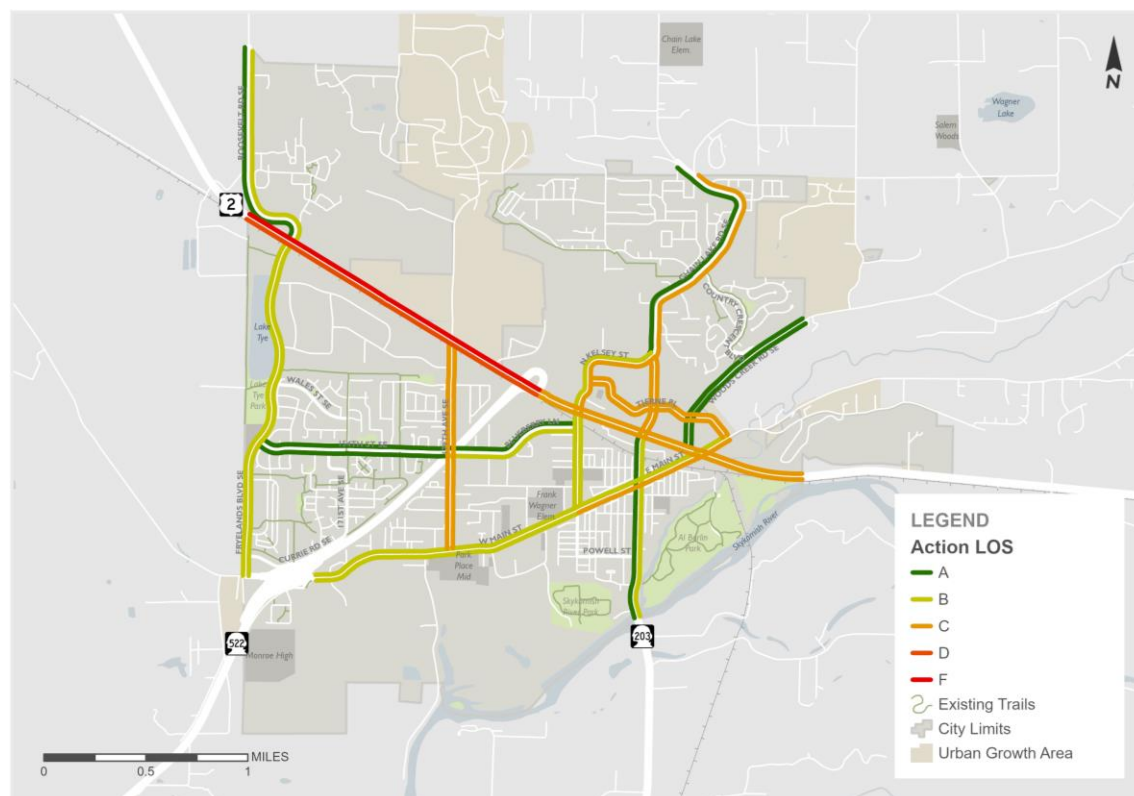
The growth in traffic volumes will result in additional traffic congestion along City streets assuming similar driving behaviors as today. As traffic volumes increase, the number of hours

during the day when congestion is experienced may also increase. A review of the roadway system capacity for Monroe shows that additional roadway improvements and connections may be required to handle this increase in traffic volumes and maintain adopted LOS standards. Additional analysis is completed in the subsequent section to determine what improvements are needed at intersections with the growth in projected vehicle traffic.

Traffic Operations

Consistent with existing conditions and methodologies, weekday PM peak hour traffic speeds were evaluated across the collector and arterial network. Forecast travel speeds were calculated by adding additional intersection delay incurred by traffic growth between existing and future 2044 forecast conditions along each corridor. Forecast 2044 roadway LOS is shown in Figure 2-1.

Figure 2-1 Forecast 2044 Roadway Level of Service



Forecast 2044 roadway operations generally result in speed decreases compared to existing conditions. However, the roadway LOS standard is only exceeded on US 2 in the westbound direction from the western city limits to SR 522. The speeds are forecast to decrease to LOS F without any improvements.

While Monroe has adopted a roadway travel speed-based methodology for measuring roadway LOS, intersection operations will continue to play an important role in roadway travel speeds. While only US 2 is forecast to operate below LOS standard, six intersections were identified as

not performing well during the development of the travel speed forecasts. The intersections include:

- Fryelands Blvd/US 2 (signalized)
- Fryelands Blvd/Tye St (two-way stop-controlled)
- Fryelands Blvd/Main St (all-way stop-controlled)
- 179th Ave/US 2 (signalized)
- Lewis St/US 2 (signalized)
- Chain Lake Rd/Rainier View Rd (two-way stop-controlled)

The Transportation Projects and Programs provides a list of projects or programs to address these operational deficiencies.

Active Transportation System Evaluation

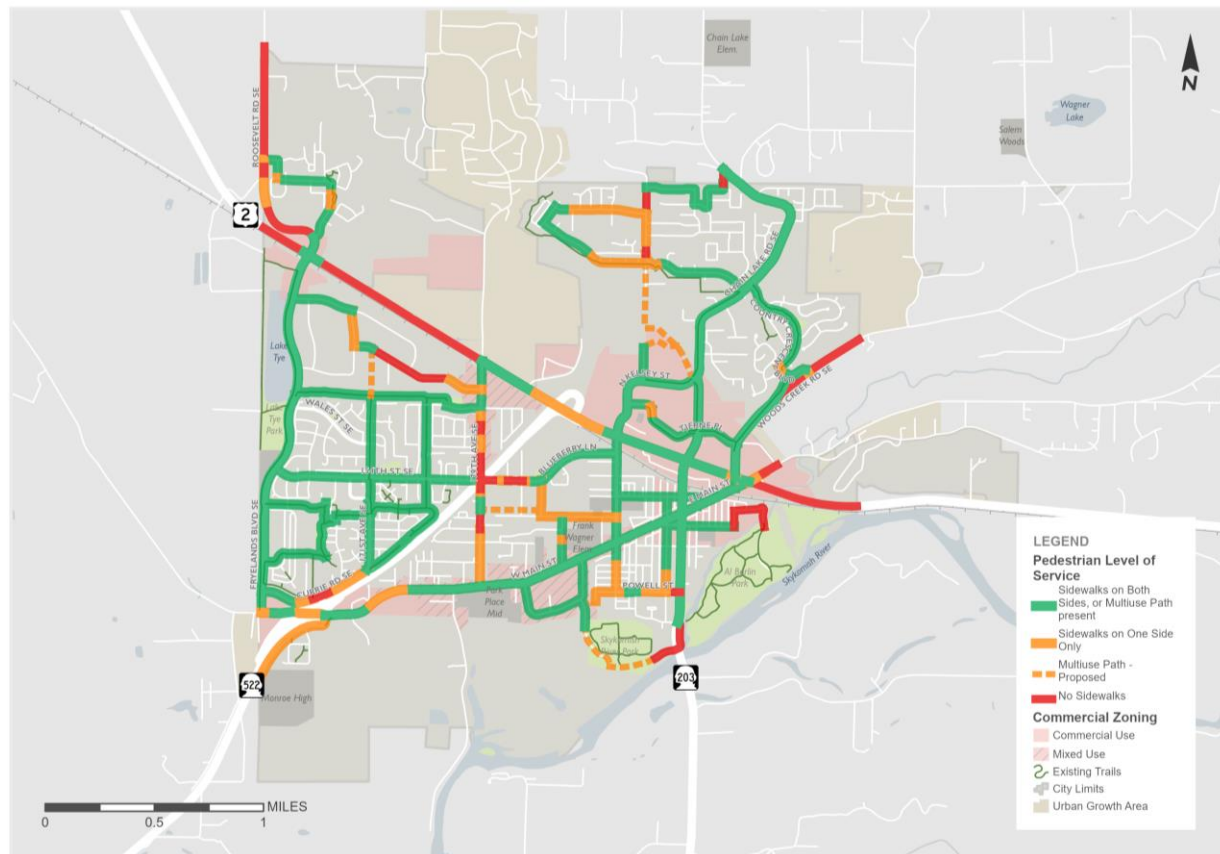
Bicycle, pedestrian, and trail facilities play a vital role in the City's transportation environment. The Monroe active transportation system is comprised of facilities that promote mobility without the aid of motorized vehicles. A well-established system encourages healthy recreational activities, reduces vehicle demand on roadways, and enhances safety within the community.

As described in Chapter 1 the active transportation LOS standard is based on the presence of facilities along designated routes (primary or secondary classifications). Active transportation corridors identified as primary or secondary routes are not indicative of an implementation strategy, but rather they are used to make a distinction between routes that are more regional or that extend completely through the community (primary), and those that serve to make the second leg of the journey to connect to destinations, extend into neighborhoods, or complete a loop (secondary). The primary and secondary networks are designated in the transportation system plans in Chapter 1 (see Figure 1-11 and

Figure 1-14). Based on the system plan networks and LOS criteria, pedestrian and bicycle networks were evaluated and summarized in Figure 2-2 and Figure 2-3, respectively.

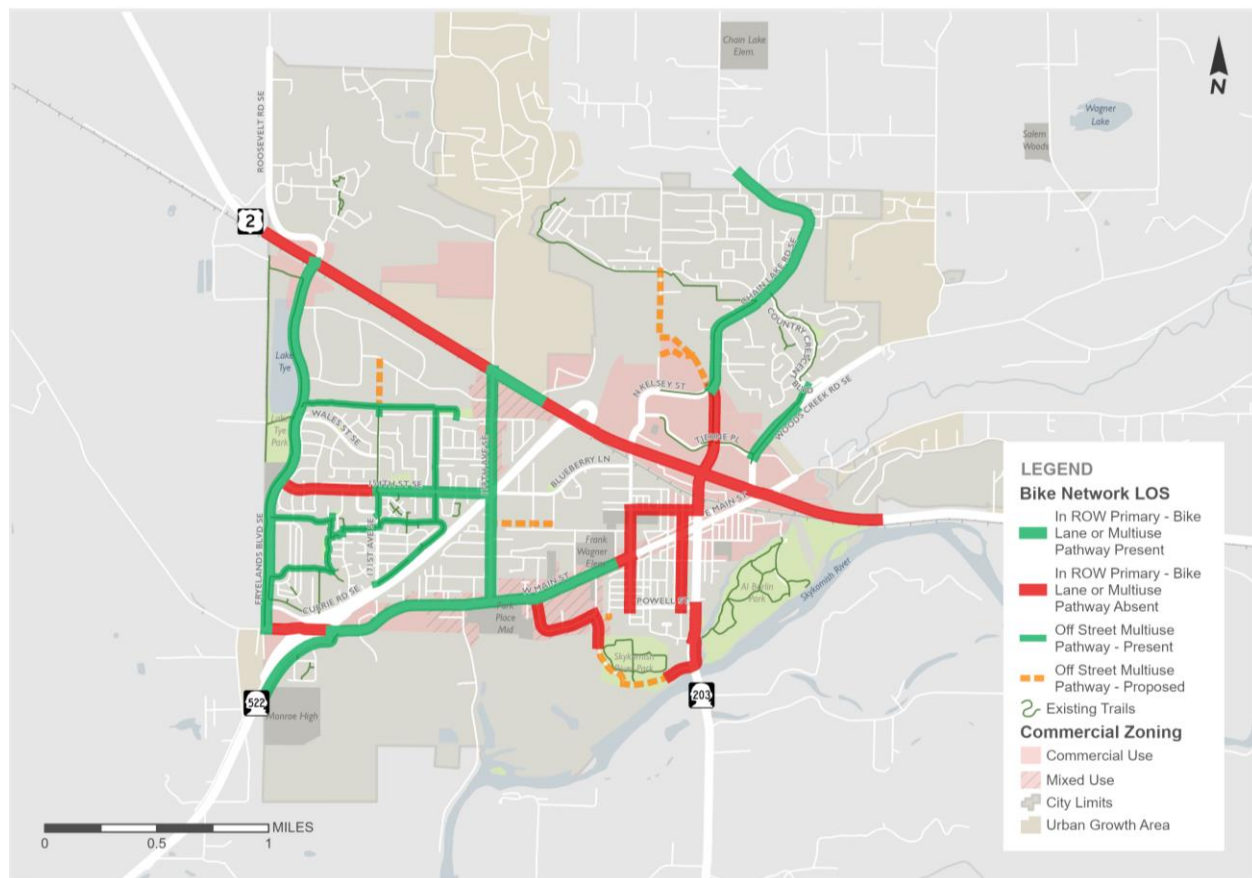
As shown in Figure 2-2, the pedestrian system meets LOS standards in most of the southern section of the city. The northern and western sections of the city are missing facilities. There are some key areas that are missing sidewalks as well as corridors such as portions of US 2, Roosevelt Road, and Woods creek Road that have missing sidewalks. The long-term project list identifies projects to improve the pedestrian network LOS and ensure the City's standard of green or orange LOS is met.

Figure 2-2 Forecast 2044 Pedestrian Level of Service



As shown in Figure 2-3, the bicycle system does not meet LOS standards in most of the city. The city lacks bicycle facilities to connect the street system to the trail network and destinations within the city. The long-term project list seeks to implement bicycle lanes or multi-use pathways to achieve an acceptable LOS for the bicycle network.

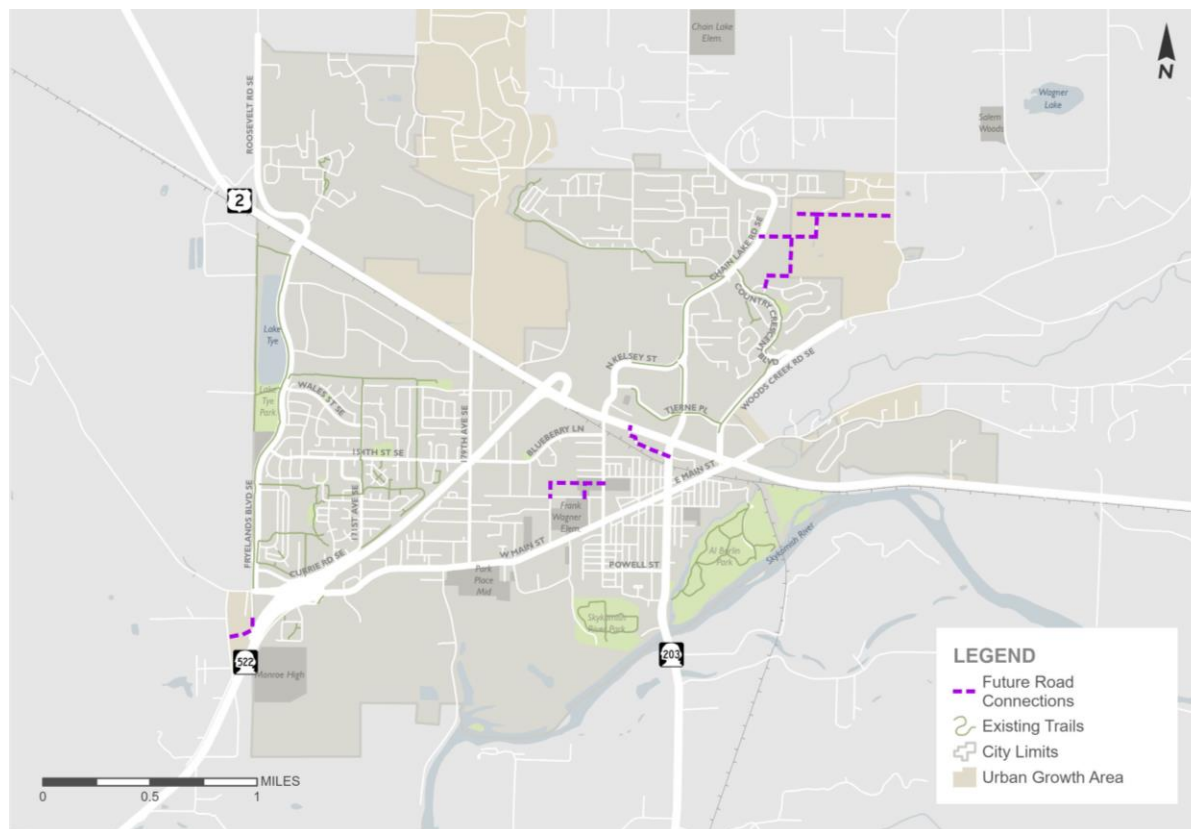
Figure 2-3 Forecast 2044 Bike Level of Service



New Road Connections

As part of planned development in the city over the next 20 years, new roadway connections are anticipated to provide access and circulation. New roadway connections would primarily be constructed by developers as part of new developments. The final locations and specifications would be determined through the permitting and design review process; however, initial anticipated locations are shown on Figure 2-4.

Figure 2-4 Future Road Connections



2.4. Transportation Projects & Programs

The existing and future transportation needs analysis and the proposed modal plans for the components described above were utilized to develop a list of multimodal transportation improvement projects to support growth in the City of Monroe.

The project improvements address safety, capacity, connectivity, and expanded active transportation facilities. Improvements also cover upgrades to existing roads and construction of new roadways and interconnected street systems to support the forecast economic development and growth in the city. The roadway and intersection projects incorporate needs for pedestrians, bicyclists, and transit riders that will use the same corridors. The four project improvement types are described below, with the complete list of projects summarized in Table 2-3 and in Figure 2-5.

Intersection Improvements

Intersection improvements were identified where existing or forecast operational deficiencies are anticipated with growth in and around the City of Monroe. The projects are intended to improve operations at the identified intersections or to improve travel along the corridor to improve roadway travel speeds.

Bike Lane

Several bike lane projects were identified to close the gap between the planned bicycle network and the existing bicycle network. The bike lane projects primarily consist of restriping existing roadways to add bike lanes by narrowing travel land widths.

Multiuse Path

Multiuse paths are planned across the City of Monroe to provide a physically separated pathway for both pedestrians and bicyclists to travel outside of the roadway. The pedestrian and bicycle LOS methodology rates a multiuse path on one side of the street as LOS green (the standard) because these facilities provide safe travel routes for “all ages and abilities” – those for whom bicycling alongside vehicles feels uncomfortable.

Sidewalk Improvements

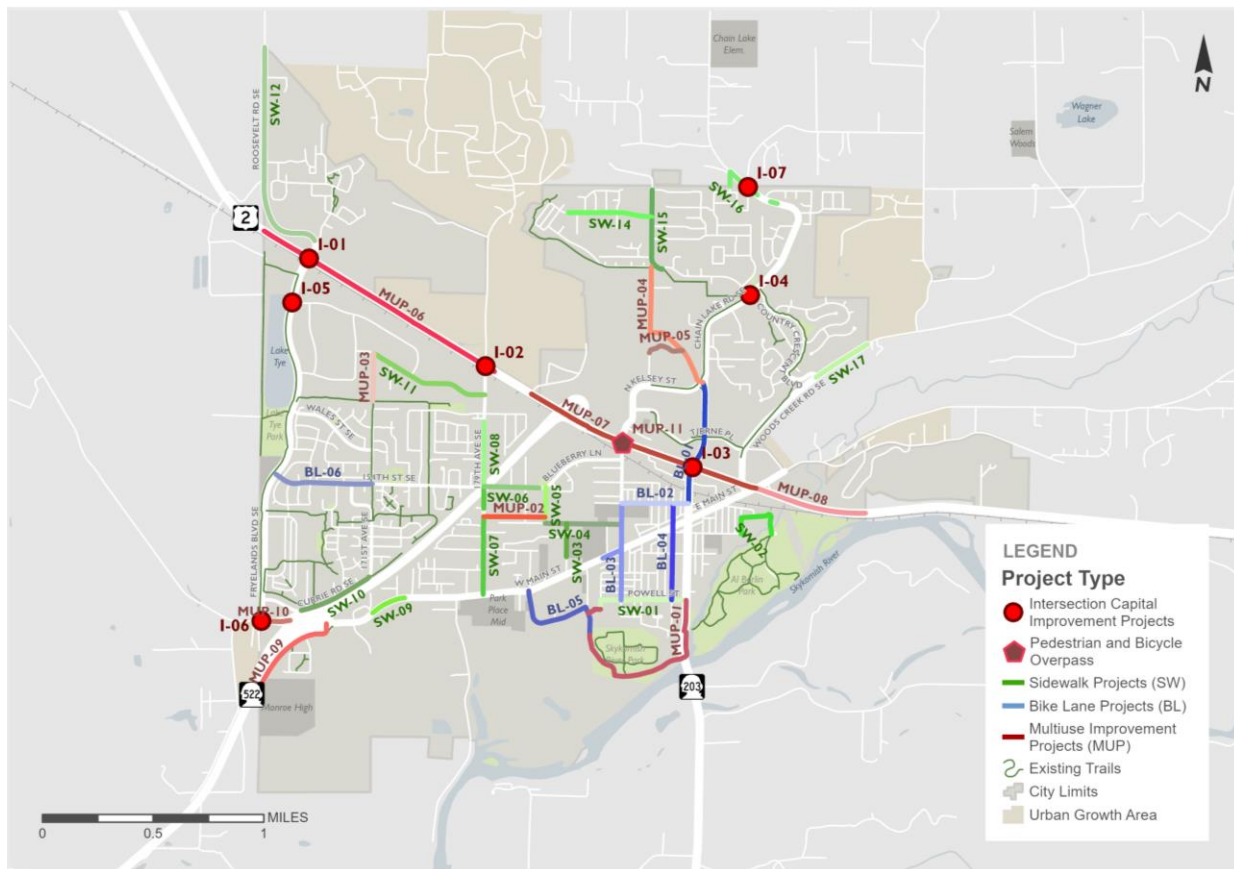
The final project type is for sidewalk construction. These projects include the construction of curb, gutter and sidewalk on one or both sides of the street in accordance with the City of Monroe’s design standards.

Table 2-3 2044 Transportation Improvement Project List

| Project ID | Roadway | Extents | Project Description |
|------------|---------------------------------------|-----------------------------------|---|
| BL-01 | Lewis Street | E Hill St to N Kelsey St | restripe for on-street bike lanes |
| BL-02 | W Hill St | N Kelsey St to Lewis Street | restripe for on-street bike lanes |
| BL-03 | Kelsey St | W Hill St to Powell St | restripe for on-street bike lanes |
| BL-04 | S Blakely St | W Hill St to Powell St | restripe for on-street bike lanes |
| BL-05 | Sky River Parkway | W Main St to Skykomish River Park | restripe for on-street bike lanes to join MUP1 |
| BL-06 | 154th St SE | 171st Ave to Frylands | restripe for on-street bike lanes, further study needed |
| I-01 | US 2 / Roosevelt Rd | Intersection | Construction of a northbound right-turn (from Frylands Boulevard to US 2) |
| I-02 | US 2 / 179th Ave | Intersection | Construct northbound and westbound right-turn lanes |
| I-03 | US 2 / Chain Lake Rd | Intersection | Construct a second eastbound left-turn lane |
| I-04 | Chain Lake Rd SE / Rainier View Rd Se | Intersection | Construct a signal or roundabout when warranted |
| I-05 | Frylands Blvd / Tye St SE | Intersection | Construct a signal or roundabout when warranted |
| I-06 | Frylands Blvd / W Main St | Intersection | Construct a signal or roundabout when warranted |
| I-07 | Brown Rd/Chain Lake Rd | Intersection | Intersection improvement, further study needed |
| MUP-01 | Skykomish River Park Entrance | Park entrance to Powell St | Construct multiuse path |
| MUP-02 | W Columbia St Path | 179th Ave to 182nd Ave | Construct multiuse path |
| MUP-03 | 171st Ave SE Path | Existing Path to Beaton Rd SE | Construct multiuse path |
| MUP-04 | 191st Ave SE Path | Rainier View Rd SE to Chain Lk Rd | Construct multiuse path |
| MUP-05 | New Path | Galaxy Way to 191st Ave Path | Construct multiuse path |

| Project ID | Roadway | Extents | Project Description |
|------------|--------------------|-------------------------------------|--|
| MUP-06 | US 2 | Roosevelt Rd SE to 179th Ave | add MUP on north side of US 2 |
| MUP-07 | US 2 | Cascade View Dr to Main St | widen existing sidewalk to MUP on north side of US 2 |
| MUP-08 | US 2 | Main Street to City Limits | add MUP on north side of US 2 |
| MUP-09 | SR 522 | city limits to Main St | add multiuse path on north side of SR 522 |
| MUP-10 | W Main St | Frylands Blvd SE to 522 interchange | widen existing sidewalk to MUP on north side of Frylands |
| MUP-11 | Kelsey St/ US2 | Kelsey St/ US2 | Active Transportation Grade Separation, further study needed |
| SW-01 | Powell St | Park Street to S Lewis St | add sidewalk where missing (both sides) |
| SW-02 | Ann St / Simons Rd | Fremont Street to Park entrance | add sidewalks to roadways for safe access to Park |
| SW-03 | Dickinson Street | Main St to W Columbia | add sidewalks to west side of street |
| SW-04 | W Columbia St | King St to Kelsey St | add sidewalk to north side of street |
| SW-05 | King St | Blueberry Lane to West Columbia | add sidewalk to east side of street |
| SW-06 | Blueberry Lane | 179th Ave SE to King St | add sidewalks to north and south side of street |
| SW-07 | 179th Ave | W Main St to 154th St SE | add sidewalk to east side of street |
| SW-08 | 179th Ave | 154th St SE to 149th St SE | add sidewalks to both sides of street |
| SW-09 | Main St | 171st Ave to Frylands 174th Dr | add sidewalk to north side of street |
| SW-10 | Currie Rd SE | 166th Dr SE to 171st Ave SE | add missing sidewalk on northside of Currie Rd St |
| SW-11 | Beaton Rd SE | 169th Dr SE to 179th Ave SE | add missing sidewalks on both sides of Beaton Rd SE |
| SW-12 | Roosevelt Rd SE | Foothills Rd to City Limits | add sidewalks on both sides of street |
| SW-13 | Rainier View Rd SE | 191st Ave SE to 137th St SE | add sidewalks on south side of street |
| SW-14 | 134th St SE | 191st Ave SE to 186th Ave SE | add sidewalks on both sides of street |
| SW-15 | 191st Ave SE | City Limits to Rainier View Rd Se | add sidewalks on both sides of street |
| SW-16 | Chain Lake Rd | city limits to existing sidewalk | add sidewalk to north side of street as missing |
| SW-17 | Woods Creek Rd | Country Crescent to city limits | add sidewalk to north side of street |
| BL-01 | Lewis Street | E Hill St to N Kelsey St | restripe for on-street bike lanes |

Figure 2-5 Transportation Improvement Project Map



Citywide Programs

Citywide programs include ongoing transportation costs within the City of Monroe. The Maintenance & Operations program includes an annual budget over the planning horizon for completing a range of pothole repairs, pavement patching, shoulder restoration and mowing, crack sealing, sign replacements, striping and other maintenance tasks. The two other programs are based on Transportation Benefit District (TBD) funding that has an end date of 2034. The TBD programs are separated into pavement preservations and overlays that are completed as part of ongoing maintenance and pavement preservation and road reconstruction as a component of City capital improvement projects.

Commute Trip Reduction

Commute Trip Reduction (CTR) began in 1991, when it was added to the Washington Clean Air Act. The law directs local jurisdictions to work with major employers to reduce the impacts of employee commuting. The goals of the program are to improve air quality, reduce traffic congestion and reduce gas usage. Within Monroe, there are currently four CTR sites:

- The City of Monroe
- WA DOC Monroe Corrections Complex

- Canyon Creek Cabinet Company
- Natural Force

Worksites conduct travel trip reducing surveys every other year to measure vehicle miles traveled and the mode choices of their employees. WSDOT and Monroe use these survey results to report on collective progress toward drive-alone and vehicle miles traveled. Monroe will continue to support CTR programs and evaluate opportunities for further expansion as Monroe's employment grows.

2.5. Technology Considerations

Advances in technology impact the short and long-term use of the transportation system and its users. The following sections describe technologies emerging or being considered in Monroe and the region.

Transportation System Management and Operations (TSMO)

Transportation System Management and Operations (TSMO) is an integrated approach to optimize the performance of existing infrastructure by implementing multimodal, intermodal, and often cross-jurisdictional systems, services, and projects. TSMO seeks to operate the existing transportation system as safely and efficiently as possible, often maintaining or even regaining previous capacity levels and improving safety performance levels. In practice, TSMO is applied on a corridor or in a region as a series of operational strategies instead of just intersection improvements.

Electric Vehicles

As the use of electric vehicles (EVs) continues to grow within transportation systems, it becomes essential to establish an accessible EV charging infrastructure. Currently, charging infrastructure in the city is provided at several private business locations. City-owned properties and right of way are not currently equipped with public charging systems for electric vehicles. The City may evaluate the benefits of entering a public private partnership to provide charging systems on City property if electric vehicle charging stations are desired by the community in the future.

E-Bikes / E-Scooters

E-bikes and scooters are electricity-assisted bicycles and scooters. Availability, diversity of types of e-bikes/scooters, and use of e-bikes/scooters has been increasing in recent years removing barriers and expanding transportation options for road users. Increased use of e-bikes/e-scooters will likely result in the need for increased bike facilities and infrastructure.

3. Goals and Policies

These initiatives aim to preserve Monroe's unique history and character, while fostering economic resilience, and enhancing the City's livability. They prioritize equitable investments in infrastructure and programs that contribute to vibrant neighborhoods, environmental protection, and transparent governance.

| 2015 Comp Plan Policy | Policy/Action | Policy/Action |
|--|----------------------|--|
| Goal 1: Provide and promote multimodal transportation infrastructure that coincides with need, growth, and long term objectives. | | |
| Goal 6 | Policy 1.1 | Coordinate active transportation and transit connections in areas of higher density land use and mixed use development. |
| Policy 125 | Policy 1.2 | Promote transportation system improvements that support efficient transport of goods and convenient access to businesses. |
| Policies 131, Action 002 | Policy 1.3 | Prioritize the preservation and maintenance of existing facilities over the construction of new ones |
| Policy 155 | Policy 1.4 | Encourage and promote new and redeveloped land uses that include mixed uses and higher density infill housing in close proximity to retail, health-care services, parks, and transportation routes, which facilitates multi purpose trips and reduces the quantity and length of trips by single-occupancy vehicles. |
| Policies 096, 099, 132 | Policy 1.5 | Develop and maintain an emergency response plan and other related policies to assure continued public safety and quality of life in the event of a natural or man-made disaster. |
| Policies 019 | Policy 1.6 | Ensure that natural hazard mitigation planning considers improvements to the resiliency of the transportation system including the restoration of transportation systems in case of disaster. |
| Policy 025 | Policy 1.7 | Implement Transportation System Management (TSM) improvements as an economical alternative to traditional capacity-increasing investments and explore application of emerging transportation technologies. |
| Goal 2: Plan for the types, quality, and quantities of housing and commercial development to assure land use compatibility, enhance neighborhood character, and facilitate Monroe's long-term sustainability. | | |
| Goal 4 | Policy 2.1 | Encourage new development and redevelopment in neighborhood centers, the downtown, and along Main Street, including related investment in streetscape improvements, transportation infrastructure and public, civic, and cultural facilities to promote them as a regional draw/destination. |

| 2015 Comp Plan Policy | Policy/Action | Policy/Action |
|--|----------------------|---|
| Policies 087, 095, 215 | Policy 2.2 | Direct new development to those areas where adequate multimodal transportation facilities exist or will be provided as defined in City-adopted facilities plans |
| Policy 156 | Policy 2.3 | Sustain and enhance street and pedestrian connections between the Highway 2/North Kelsey commercial district and downtown to promote it as a local and regional draw, enhancing its range of retail, service and housing options. |
| Policies 058, 059 | Policy 2.4 | Identify and promote the development of neighborhood commercial and mixed-use centers, such as Main Street between Kelsey and 179th Avenue, which serve and are compatible with surrounding residential areas, using location criteria and regulations. |
| Policies 062, 063 | Policy 2.5 | Promote redevelopment and infill along the west Main Street corridor, including higher-density residential and mixed-use development. |
| Policy 076 | Policy 2.6 | Stimulate continued development of a health services district and commercial node along 179th Avenue, supporting health-related uses and serving nearby neighborhoods and industrial areas. |
| Policy 77 | Policy 2.7 | Promote alternative modes of transportation by providing: <i>f</i> - sidewalks <i>f</i> - walking and biking paths <i>f</i> - interconnected street networks <i>f</i> - Improved transit systems <i>f</i> - Safer crossings for pedestrians and bicyclists where need has been identified. |
| Policies 007, 134 | Policy 2.8 | Prepare a citywide active transportation connectivity study, identifying and evaluating short and long-term projects and strategies to: <i>f</i> a.) Create alternative routes, improve walkability and crossing conditions at US 2, SR 203, SR 522, and the BNSF rail line <i>f</i> b.) Connect public and private trails <i>f</i> c.) Make Monroe a safer and more welcoming place for active modes of travel. <i>f</i> d.) Implement based on the results of the study and review and update at four-year intervals |

| 2015 Comp Plan Policy | Policy/Action | Policy/Action |
|--|----------------------|--|
| Action 001 | Policy 2.9 | Develop a grid-style street system, where feasible, that encourages the use of local streets as the primary routes from one location in the city to another. Include separation of vehicle lanes from sidewalks through the use of landscape strips, stormwater management systems or on-street parking and scaled lighting along sidewalks and median strips. |
| Policies 001, 003, 004, 133, 136 | Policy 2.10 | Develop compatible land use strategies that require new development to include site and building features that support alternative modes of transportation including walking, bicycle, carpool and transit. Develop public education programs that encourage public transportation use in cooperation with surrounding communities. |
| Goal 3: Provide multimodal means of transportation in a safe, compatible and efficient manner for people of all ages and abilities. | | |
| Currently no policy | Policy 3.1 | Racial and social equity, as well as environmental justice, will be included as key criteria in the planning, funding, and construction of transportation system improvements, programs, and services. |
| Policy 196 | Policy 3.2 | Provide for the needs of special populations in transportation and capital facilities planning, design and program services to include but not limited to: f Economically disadvantaged f Physically challenged f Developmentally disabled |
| Policy 017 | Policy 3.3 | Include "Americans with Disabilities Act" compliant access in the design of all new public facilities. Modify existing facilities where readily achievable. |
| Policy 026 | Policy 3.4 | Minimize noise generated by transportation, construction and commerce near residential areas using current technology and engineering practices. |
| Goal 4. Support the local and regional economy with timely transportation system investments. | | |
| n/a | Policy 4.1 | Safe, convenient, reliable, and efficient movement of people, goods, and freight all play a critical role in maintaining and growing the local and regional economies. |
| n/a | Policy 4.2 | Recognize the key transportation connections to inter-modal transportation hubs and facilities, such as airports, seaports, railroads, etc. |
| Policy 022 | Policy 4.3 | Coordinate inter-modal transportation system planning and encourage BNSF trains pass each other to minimize the amount of time crossings are blocked in the City of Monroe. |
| Goal 5: Protect Monroe's environment and natural resources, while supporting the health, safety, welfare, recreational needs and economic well-being of current and future generations. | | |
| Policy 057 | Policy 5.1 | Support renewable energy, alternative energy, greenhouse gas reduction, and water reclamation. |
| Policies 033 | Policy 5.2 | Encourage street design that incorporates best practices for low-impact development and localized stormwater management, reducing the need for stormwater collection and remote treatment. |

| 2015 Comp Plan Policy | Policy/Action | Policy/Action |
|--|----------------------|--|
| Policy 043 | Policy 5.3 | Identify, inventory, classify, and protect fish and wildlife habitats, providing special consideration to fish which migrate for spawning and require passage improvement to culverts beneath roadways. |
| n/a | Policy 5.4 | New roads should avoid crossing critical areas, park areas, and significant cultural resources where reasonable alternatives exist, with special attention focused on minimizing impacts to public health and safety. |
| Goal 6. Provide and maintain an inventory of locally-owned multimodal transportation facilities and identify regional transportation service needs. | | |
| n/a | Policy 6.1 | Identify the existing conditions and needs of the traveling public of all ages and abilities in planning, programming, design, construction, retrofit, operations, and maintenance of the City's transportation system. |
| Text 4-10 and 4-11 | Policy 6.2 | Vehicular LOS standards for the State routes running through Monroe (US 2, US 203, and SR 522) are established through an interlocal agreement between WSDOT and the City. Where the vehicular LOS standards for State routes are: „ D or better prior to development, attempts to maintain LOS D shall be undertaken „ E prior to development, the state will request that LOS E be maintained after development „ F prior to development, the state will request mitigation measures so that either: a) the estimated delay for signalized intersections; b) or the reserve capacity for non-signalized intersections; c) or the volume-to-capacity ratio for segments is no worse than pre-development conditions. |
| n/a | Policy 6.3 | Multimodal LOS standards are: Pedestrian: Annual degree of completeness of the planned pedestrian network. Bicycle: Annual degree of completeness of the planned bicycle network. Transit: Partner with Community Transit and other transit operators to provide transit stop amenities and safe access to transit at major transit stops and park-and-ride facilities. |
| Policy 130 | Policy 6.4 | Maintain multimodal level of service standards for highway, non-highway, pedestrian, bicycle, and transit transportation facilities in Monroe. |
| n/a | Policy 6.5 | Work with PSRC and Snohomish County to coordinate travel demand forecasting to identify state, regional, and local transportation system improvements deemed necessary to meet future demand as well as improve health and safety for users of all ages and abilities. |
| n/a | Policy 6.6 | Preserve and extend the service life and utility of transportation investments by identifying maintenance and preservation projects and programs to ensure the long-term use and safety for all travelers. |
| Goal T-7: Secure funding to ensure an adequate multimodal transportation network that meets the City's LOS policy. | | |

| 2015 Comp Plan Policy | Policy/Action | Policy/Action |
|--|----------------------|---|
| n/a | Policy 7.1: | Use grants, local taxes, impact fees, and other stable funding sources to implement capital projects identified in the City's six-year transportation improvement program. |
| Policies 086, 107 | Policy 7.2. | Consider using special assessment (local improvement districts), revenue and other self-supporting bonds and impact fees to finance public facilities instead of tax-supported general obligation bonds. |
| n/a | Policy 7.3. | Balance the 20-year financing plan for transportation improvements deemed necessary to serve planned growth between stable and reliable funding sources, and proportional share funding from new development. |
| Policy 163 | Policy 7.4 | Maintain at least a six-year Capital Facilities Plan to finance needed capital facilities as determined within projected funding capacities. |
| Action 007 | Policy 7.5 | Prepare and present an annual report to the City Council regarding: <ul style="list-style-type: none"> f Progress implementing comprehensive plan policies and program Land consumption, Development patterns and activities. f Available land inventory, by land use category. f Planned and recently implemented capital projects. f Capital facilities inventory, identified needs and finance plan. f Level-of-Service (LOS) reporting on City services, and citywide employment to household ratios f Conflicts between policies and code, identifying issues for resolution. |
| Policies 080, 124, 140, 149, 150, 151 | Policy 7.6 | Work with Snohomish County, PSRC, WSDOT, and other jurisdictions to coordinate facility and transportation improvements, corridor beautification and appropriate mitigation for development/redevelopment. |
| Goal T-8: Provide long term planning support to ensure successful operation of First Air Field. | | |
| Policy 079 | Policy 8.1 | Evaluate existing and potential future alternative uses of First Air Field |
| Policy 168 | Policy 8.2 | Use inter-jurisdictional planning to identify goals, policies and development regulations that promote significant regional transportation linkages and multimodal connections between aviation facilities and employment centers, while discouraging incompatible uses around airports. |
| Policy 108 | Policy 8.3 | While First Air Field remains an airport, encourage economic development opportunities and aviation related uses adjacent to airports and promote the efficient mobility of goods and services region-wide while minimizing health, air quality, and noise impacts to communities. |

4. Implementation

The list of transportation improvement projects must be funded and implemented to meet existing and future travel demands in and around the City of Monroe. Estimated project costs and future revenues are presented and options to fund the projects are described in this section. Implementation strategies are discussed and include items such as coordination with WSDOT, Snohomish County, and Puget Sound Regional Council (PSRC) to prioritize and fund regional improvements. The implementation plan sets up the framework for the City to prioritize and fund the improvements identified in the transportation plan.

The GMA requires the Transportation Element of the Comprehensive Plan to include a multi-year financing plan based on the identified improvement needs in the transportation systems plan. The financing plan is to be the basis in developing the required six-year Transportation Improvement Program (TIP). If probable funding is less than the identified needs, then the transportation financing program must also include a discussion of how additional funding will be raised or how land use assumptions will be reassessed to assure that level of service standards will be met. Alternatively, the city can adjust its level of service standards.



A summary of costs for capital improvement projects and citywide maintenance and operation programs are presented. The capital project and maintenance and operations program costs are compared to estimated revenues from existing sources used by the City to fund transportation improvements. Other potential funding sources to help reduce the projected shortfall are described. Lastly, a summary of a reassessment strategy for the city to use for reviewing transportation funding in the context of the overall Comprehensive Plan is also included.

4.1. Project and Programs Cost Estimates

Table 4-1 summarizes the costs of the recommended transportation improvement projects and programs. These cover City of Monroe 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 4-1 Transportation Project and Program Costs (2024 – 2044)

| Improvement Type | (2024-2044) Total Costs ¹ | Percent of Total Costs |
|---|--------------------------------------|------------------------|
| Transportation Capital Projects² | | |
| Intersection Improvements | \$ 22,400,000.00 | 22.6% |
| Bike Lanes | \$ 1,800,000.00 | 1.8% |
| Multiuse Paths | \$ 13,800,000.00 | 13.9% |
| Sidewalk Projects | \$ 61,200,000.00 | 61.7% |
| Subtotal Capital Projects | \$99,200,000 | 100% |
| Transportation Maintenance & Operations (M & O) Programs | | |
| Maintenance & Operations | \$22,800,000 | 100% |
| Subtotal M & O Programs | \$22,800,000 | 100% |
| Total Costs | \$122,000,000 | |

1. All costs in 2044 dollars, rounded to \$1,000

2. Does not include other agency improvements

Planning-level cost estimates were developed for the capital improvements and presented in the Forecast and Evaluation Chapter. The planning estimates were prepared based upon average unit costs for transportation projects within the region. Planning-level costs were developed with the assumption that costs would include associated storm water development requirements, property acquisition, wetland mitigation, and utility extensions and/or upgrades, based upon historic costs for those items. More detailed cost estimates will need to be prepared as the projects are closer to design and construction. Future design studies will identify specific property impacts and options to reduce costs and impacts on properties.

The estimated capital cost of the Transportation Plan is approximately \$99.2 million (in 2024 dollars). Approximately 77 percent of the capital costs are associated with completion of the active transportation network in the city. These costs cover upgrading roadways to provide expanded options for pedestrians and bicyclists, along with construction of urban features such as crosswalks and sidewalks. The remaining 23 percent of capital costs are for intersection improvement projects.

Maintenance and operations costs were projected based on historic expenditures from 2019 through the 2024 budget. 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 \$122 million Transportation Plan cost.

4.2. Funding Analysis with Existing Revenue Sources

The City has historically used tax revenues, developer fees, and grants to construct and maintain their transportation facilities. In 2014, City of Monroe voters approved a ballot measure creating a Transportation Benefit District (RCW 36.73.020) coextensive with City limits for term of 10 years. In November 2023, city residents approved the continued 0.2% sales tax increase for an additional ten years. Funds from the 0.2% sales and use tax are used for resurfacing and preserving pavement on City streets, and financing improvements such as Powell Street and Madison Street reconstructions and the annual paving program, as allowed in RCW.82.14.0445. The description of this and other available funding sources and projected revenues are listed in Table 4-2.

Table 4-2 2024-204 Transportation Revenues

| Revenue Source | Total Revenues | Percent of Total Revenues |
|--|----------------------|---------------------------|
| Transportation Capital Revenues | | |
| Grant Funds | \$21,835,000 | 26.8% |
| GMA Fees/(TIF) | \$10,360,000 | 12.7% |
| TBD Revenues | \$33,260,000 | 40.9% |
| REET | \$15,920,000 | 19.6% |
| Subtotal Capital Revenues | \$81,375,000 | 100% |
| Transportation M & O Revenues | | |
| Sewer Utility Tax/UB | \$6,660,000 | 34.5% |
| Solid Waste Franchise Fees | \$4,780,000 | 20.6% |
| Multimodal Transp Fuel Tax | \$500,000 | 2.2% |
| Street Fuel Tax | \$7,440,000 | 32.1% |
| TBD Services | \$1,180,000 | 5.1% |
| ROWDP Permit Fees | \$920,000 | 4.0% |
| Eng Road Plan Review | \$80,000 | 0.3% |
| Eng Road Inspection | \$140,000 | 0.6% |
| Interest Revenue | \$100,000 | 0.4% |
| Streets Pcard Rebate Earnings | \$20,000 | 0.1% |
| Subtotal M & O Revenues | \$21,820,000 | 100% |
| Total Revenues | \$103,195,000 | |

Revenue projections were estimated based upon the City's 2024 budget, 5-years of historical revenues, and the adopted impact fee program. Based on recent historical data, it is estimated that revenues would be more than \$103 million during the 20-year period, of which approximately 79 percent would be dedicated for capital improvements, while the remaining would be for maintenance and operations programs.

Of the approximately \$81 million in revenues dedicated for capital improvements, TBD revenues are assumed to generate approximately 40 percent of revenue, while grant funding is expected to generate nearly 27 percent of the revenue. The funding forecast assumes the continued collection of Transportation Benefit District revenues beyond it's current 2035 end date and is expected to generate approximately \$33 million by 2044.

Approximately \$22 million in revenues dedicated for maintenance and operations programs are anticipated over 20 years. Sewer utility, solid waste and street fuel taxes make up most of the maintenance and operations revenues.

Developer Transportation Funding

The city uses several programs to help offset the increased traffic impacts of new development or redevelopment. These include construction of frontage improvements such as curb, gutter, and sidewalks, with or without dedication of right-of-way, and new roadways needed to serve the development. The City is also required to review the potential transportation impacts of development and define appropriate mitigation under the State Environmental Policy Act (SEPA) and GMA concurrency requirements. In addition, the City previously adopted a Transportation Impact Fee program as allowed for by the GMA to help fund growth-related transportation system improvements.

Transportation Impact Fees

The GMA allows agencies to develop and implement a Transportation Impact Fee (TIF) program to help fund part of the costs of transportation facilities needed to accommodate growth. State law (RCW 82.02) requires that TIF programs are:

- Related to improvements to serve new growth and not existing deficiencies;
- Assessed proportional to the impact of new developments;
- Allocated for improvements that reasonably benefit new development, and;
- Spent on facilities identified in the adopted Capital Facilities Plan.

TIFs can only be used to help fund improvements that are needed to serve new growth. The cost of projects needed to resolve existing deficiencies cannot be included.

The TIF program must allow developers to receive credits if they are required to construct all or a portion of system improvements to the extent that the required improvements were included in the TIF calculation. The city is in the process of updating its existing program based on the updated Transportation Plan.

Other Developer Mitigation and Requirements

The City has adopted specific development-related requirements which will help fund the identified improvements. These include requirements for frontage improvements, mitigation of transportation impacts under SEPA, and concurrency requirements. The City requires developments to fund and construct certain roadway improvements as part of their projects. These typically include reconstructing abutting streets to meet the City's current design standards. These improvements can include widening of pavement, drainage improvements, and construction of curb, gutter, and sidewalks.

Several of the projects identified in the Transportation Plan could be partially funded and constructed as part of new developments. As noted above, to the extent that costs of a transportation improvement are included in the TIF then credits must be provided. If improvements to an abutting local street are not included in the TIF, then credits against the TIF would not be required or allowed.

The city also evaluates impacts of development projects under SEPA. The SEPA review may identify adverse transportation impacts that require mitigation beyond payment of the TIF. These could include impacts related to safety, traffic operations, active transportation, or other transportation issues. The needed improvements may or may not be identified as specific projects in the Plan. If the required improvements are included in the TIF program, then the City must provide credits to the extent that the costs are included in the project list and impact fee calculations.

The city also requires an evaluation of transportation concurrency for development projects. The concurrency evaluation is intended to identify project impacts that will cause City facilities to operate below the City's level of service standard. To resolve such a deficiency, the applicant can propose to fund and/or construct improvements to provide an adequate level of service. Alternatively, the applicant can wait for the City, or another agency or developer to fund improvements to resolve the deficiency. According to the GMA, the City must deny any proposal that will cause the level of service for transportation facilities to decline below the adopted standard unless a financial commitment is in place to complete measures to achieve the LOS standard within six years. (RCW 36.70A.070(6)(b)).

Grants

Over the past several years the city has had significant success in securing grants for transportation improvements. Grant funding is typically tied to specific improvement projects and distributed on a competitive basis, often with a local funding match.

4.3. Forecasted Revenue Shortfall

Table 4-3 summarizes the City's proposed transportation financing strategy for the approximately \$99 million City portion of the capital improvement costs as well as the \$23 million in maintenance, operations, and program expenditures. The Plan results in a shortfall of approximately \$18.8 million. This assumes that the level of grants and developer commitments will be generated as estimated in the Transportation Plan. The deficit could be greater if the level of development or the level of grant funding is less than forecast. The former would be offset by a reduced need for transportation improvements to accommodate growth. If the City is more successful in obtaining grants or other outside funding for projects, then the potential deficit could be reduced, as discussed in the next section.

Table 4-3 Forecasted Revenues and Costs

| Revenue Source¹ | Total (2015–2035) |
|--------------------------------------|--------------------------|
| Transportation Capital Revenues | \$81,375,000 |
| Total Capital Project Costs | \$99,200,000 |
| Capital Estimated Shortfall | (17,825,000) |
| Transportation M&O Revenues | \$21,820,000 |
| Transportation M&O Costs | \$22,800,000 |
| M & O Estimated Shortfall | (980,000) |
| Total Estimated Shortfall | (\$18,805,000) |

1. All revenues in 2014 dollars

2. Does not include other agency improvements

Capital Revenue Shortfall

The approximately \$17.8 million shortfall in funding would primarily affect the ability of the city to fund all of the identified capital improvement projects during the planning period. As evidenced by the formation of the Transportation Benefit District, the City is committed to funding the existing maintenance and operations programs needed to preserve the integrity, safety, and efficiency of its existing transportation system. The maintenance and operations cost will expand with transportation system improvements and the future annexation of the City's unincorporated UGA.

Maintenance and Operations Revenue Shortfall

The financial forecast shows an approximately \$980,000 shortfall for funding the 20-year maintenance and operations program needs. General citywide maintenance and operations programs will not balance with forecasted revenues over the life of the plan; however, the city will review and adjust the maintenance and operation programs on an annual basis to balance with anticipated dedicated revenues.

4.4. Potential Options to Balance the Plan

As noted above, projected existing revenue sources would allow the city to fund the majority of the identified transportation improvement projects and program costs. The City could address this shortfall through delaying lower priority projects or increasing revenue allocations from discretionary sources, primarily the General Fund.

Options for Reducing the Funding Shortfall for Capital Improvement Projects

The city can increase funding for capital street projects using a range of revenue options. These include partnering with other agencies or additional grants as available. Alternatively, the city could delay implementation of projects, especially lower priority improvements. Possible applications of these funding strategies are discussed below.

Delaying Improvement Projects

The City will not likely be able to, or may choose not to, fund lower priority projects within the 20-year horizon without additional funding sources. Some of these projects may be funded through impact fees and/or frontage improvement requirements as development (or re-development occurs). As developments occur in these areas the city may require project-specific facility improvements including SEPA mitigation measures, as appropriate. The city also may identify other programs or opportunities to partially or fully fund some of these improvements.

Additional Grants and Other Agency Funding

As discussed above, the transportation financing analysis estimates that the city may receive approximately \$22 million in grant funding over the life of the Plan. If the City is able to pursue and receive grants at a higher rate, shortfalls may be less than projected.

Tax Increment Financing

Washington State allows cities to create “increment areas” that allows for the financing of public improvements, including transportation projects within the area by using increased future revenues from local property taxes generated within the area. The specific rules and requirements are noted in the Community Revitalization Financing (CRF) Act.

The Local Infrastructure Financing Tool (LIFT) program is a potential tool for the City to pursue. Under this concept the annual increases in local sales/use taxes and property taxes can be used to fund various public improvements.

The city may choose to further consider these types of funding programs in the future as part of its annual budget and six-year Transportation Improvement Program (TIP) processes.

Voter Approved Bond/Tax Package

Bonds do not result in additional revenue unless coupled with a revenue generating mechanism, such as a voter approved tax. The debt service on the bonds results in increased costs which can be paid with the additional tax revenues. Although the city does not anticipate issuing bonds in the near future, it remains an option for generating additional transportation revenues to fund some of the higher cost improvement projects.

Local Improvement Districts

A local improvement district (LID) is a special assessment area established by a jurisdiction to help fund specific improvements that would benefit properties within the district. LIDs could be formed to construct sidewalks, upgrade streets, improve drainage or other similar types of projects. A LID may be in residential, commercial, or industrial areas or combinations depending on the needs and benefits. LIDs can be proposed either by the city or by property owners. LIDs must be formed by a specific process which establishes the improvements, their costs, and assessments. The assessments are added to the property tax which helps to spread the costs over time.

4.5. Reassessment Strategy

Although the financing summary identifies the potential for a total revenue shortfall of approximately \$18.8 million (in 2024 dollars) over the life of the Plan, the city is committed to reassessing 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. 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 Transportation Improvement Program (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 US 2 and SR 522;
- 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 TIF program regularly to account for the updated capital improvement project list, revised project cost estimates, and annexations;

Some lower priority improvements may be deferred or removed from the Transportation Plan. The city will use the annual update of the six-year Transportation Improvement Program (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. The development of the TIP will be an ongoing process over the life of the Plan and will be reviewed and amended annually.