# **EXISTING CONDITIONS MEMORANDUM**

DATE:	March 14, 2025	
TO:	Lindsey Channing, Greg Stamatiou   City of Sammamish	
FROM:	Wintana Miller, PE, PTOE, Bincy Koshy, Alexander Emmons   DKS	Associates
SUBJECT:	City of Sammamish Bicycle and Pedestrian Mobility Plan – Existing Conditions Memorandum	Project # 24810-007

This memorandum documents the existing conditions assessment of non-motorized services in the City of Sammamish. The assessment of existing conditions serves as a baseline for measurement of capacity for future planning including projects to address gaps in the non-motorized network.

### INTRODUCTION

The Transportation Master Plan (TMP) of the City of Sammamish that was adopted in December 2024 focuses on developing a well-connected multimodal transportation network in the City. To achieve this objective, the City of Sammamish Bicycle and Pedestrian Mobility Plan (Plan) was recommended to be prepared.

The existing conditions memorandum for the City of Sammamish details the goals and objectives of the Plan. The memorandum provides a review of the pedestrian and bicycle facilities inventory including an assessment of existing safety conditions for nonmotorized modes. The City of Sammamish inherited its street and sidewalk network from King County when the City was incorporated in 1999 and through subsequent annexations. Though many upgrades throughout Sammamish communities have occurred since incorporation, many barriers and gaps still exist. A gap analysis of pedestrian and bicycle facilities along the Priority Network, as defined in the adopted TMP, was conducted. The level of traffic stress (LTS) was updated to reflect the latest guidance from WSDOT which resulted in an update to the level of service (LOS) assessment as defined in the adopted TMP.

This memorandum will inform the development of pedestrian and bicycle projects in the City that will address the connectivity, safety, and accessibility issues in the network.

# PLANS AND POLICIES REVIEW

The goals and objectives of the Plan were developed based on the review of similar peer cities plans (Bellevue, Issaquah, Redmond, and Bellingham) and City of Sammamish policies and plans. This will help develop an understanding of the pedestrian and bicycle needs and requirements and guide the City decision makers concerning future nonmotorized facility needs.



Peer review of similar city plans offer insight and highlight effective strategies based on approaches that have worked in similar contexts. Peer city plans that were reviewed include:

- City of Bellevue Pedestrian and Bicycle Transportation Plan Report
- City of Issaguah Mobility Master Plan
- Redmond Transportation Master Plan
- Bellingham Pedestrian and Bicycle Master Plan

# CITY OF BELLEVUE PEDESTRIAN AND BICYCLE TRANSPORTATION PLAN REPORT (FEBRUARY 2009)<sup>1</sup>

The primary goal of this <u>plan</u> is to design, build, and maintain an integrated, comprehensive network of pedestrian and bicycle facilities in collaboration with community stakeholders. Some of the goals and policies that align with the Sammamish Plan's focus include:

- Provide transportation choices for those who can or wish to travel by foot or bicycle to destinations within their neighborhood, city, and the greater Eastside and region
- Improve health and fitness and enhance recreational benefits
- Ensure that those in the community who cannot drive due to age, income, or disability have • mobility options
- Provide a safe and accessible street environment for all users
- Reduce pedestrian/vehicle and bicycle/vehicle accidents by 25 percent from 2007 levels within • 10 years
- Increase trips made by bicycles and foot by 10 percent over 2009 levels within 10 years
- Design and coordinate the proximity of bike racks, wheelchair access and other pedestrian amenities with transit facilities
- Ensure safe crossing opportunities for pedestrians or avoid barriers by constructing pedestrian crossing improvements at intersections and midblock crossings
- Provide for adequate pedestrian and bicycle connections in newly developing and redeveloping areas of the city

The Bellevue plan focuses on policy refinements in the following areas:

- Implementation Targets: The plan incorporates performance metrics to evaluate progress in establishing a safe, convenient, and appealing environment for bicycling and walking.
- Improvement Priorities: The plan provides a framework for evaluating pedestrian and bicycle projects, prioritizing those that enhance network connectivity, improve access to key community facilities, and address safety concerns.
- Context Sensitive Design: The plan emphasizes context-sensitive design that involves the public in designing transportation facilities that are safe.
- Inter-Departmental Coordination: The plan includes a coordinated approach involving multiple city departments to implement pedestrian and bicycle projects.
- Best Practices: The plan encourages learning from other cities that have successful pedestrian and cycling infrastructure.

<sup>&</sup>lt;sup>1</sup> https://bellevuewa.gov/sites/default/files/media/pdf\_document/ped-bike-plan-2009.pdf



 Standard Operation Procedures: While it is standard practice for Bellevue to incorporate nonmotorized facilities and connections throughout the process, there is a need to foster a "complete streets" mindset.

# **Performance Measures**

The City keeps track of completed bicyclist and pedestrian projects and uploads updated reports online (View the reports here). Some of the performance measures include:

- Pedestrian facilities added by year
- Arterial sidewalks added by year
- Bicycle facilities added by year
- Priority bicycle corridors completion status

# **Multimodal Level of Service**

This plan does not include a measurement of multimodal level of service, but repeatedly emphasizes the importance of a multimodal transportation system.

# CITY OF ISSAQUAH MOBILITY MASTER PLAN (MARCH 2021)<sup>2</sup>

This plan focuses on the following nonmotorized goals and policies that align with the intent of the Plan:

- Goal: Provide safe and comfortable streets that encourage people to walk, bike, or use transit •
  - Policy: Implement safety improvements with a history of severe and/or fatal collisions
- Goal: Design mobility to improve outcomes for the environment, for public health and for equitable access to resources and opportunities
  - Policy: Expand transportation access to services, jobs, and activities for seniors, people with disabilities, and low-income residents
- Goal: Develop a multimodal, balanced transportation system that will support increased • transportation options for the community
  - Policy: Build a connected street grid that prioritizes the movement of people and goods
  - Goal: Build a system that enhances local connectivity and comfortable walking network
- Goal: Develop a bicycle network that attracts people of all ages and abilities and provides access to destinations throughout the community
  - Policy: Increase use of electric bicycles to support bicycle use in hilly areas
- Goal: Advance the transit system to connect to the region and improve access to transit for all community members.
  - Policy: Provide safe non-motorized connections to transit facilities

# **Performance Measures**

The City of Issaquah maintains a Mobility Performance Dashboard on their website (Access the dashboard here). Some of the performance measures include:

<sup>&</sup>lt;sup>2</sup> https://www.issaquahwa.gov/DocumentCenter/View/7365/Issaquah\_Mobility\_Master\_Plan?bidId=



- Linear feet of bicycle facilities and walkways constructed and maintained
- Commute mode share
- Residents perception of mobility modes within Issaquah

# **Multimodal Level of Service**

The plan adopts the LTS framework to design bike infrastructure for cyclists of varying abilities

# **REDMOND TRANSPORTATION MASTER PLAN (MAY 2013)**<sup>3</sup>

This plan (2013 Update) guides transportation decisions and investments for a time period of 18 Years. Some of the goals that align with the Sammamish Plan's focus include:

- Create a safe and walkable environment
  - o Create high-quality pedestrian environments in urban centers and light rail station areas
  - Complete a high-density, well-connected network of pedestrian facilities throughout all Redmond neighborhoods
  - Improve the safety and comfort of pedestrian crossings and increase separation of pedestrians from traffic
- Encourage a "Bicycle Renaissance" in Redmond •
  - Promote a dense, connected network of on-street bicycle facilities
  - Provide abundant access to bicycles through supporting programs and facilities
- Incorporate "Complete Streets" design principles
  - Enable safe, attractive, and comfortable access and travel for all users, including pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities
- Promote walking and biking as attractive transportation modes
  - Provide safe, comfortable, and interesting pedestrian and bicycle infrastructure, helping to increase access to neighborhoods and support urban centers
- Improve connectivity and accessibility for pedestrians and bicyclists
  - o Improve connectivity for both pedestrians and bicyclists throughout the city, particularly to transit stations and urban centers
- Increase mode share for walking and bicycling
- Integrate active transportation into broader transportation planning efforts
  - The TMP identifies actions to integrate active transportation into broader transportation planning efforts, like updating zoning codes to be consistent with the goals of the plan, and conducting studies to evaluate the need for additional regional trail connections

# **Performance Measures**

Redmond has selected nine key performance indicators, referred to as "dashboard measures," to gauge the plan's progress. These measures are featured in the City's regular transportation

<sup>&</sup>lt;sup>3</sup> https://www.redmond.gov/DocumentCenter/View/852/FULL\_TRANSPORTATION\_MASTER\_PLAN?bidId=



performance measurement report, the Mobility Report Card. The methodology to calculate each performance measure is shown in Chapter 3 of the TMP (<u>Access the TMP here</u>). The relevant performance measures include:

- Connectivity: Percentages of the Downtown urban center and Overlake Village, by developed square footage, that achieve connectivity levels of "medium" or higher
- Network Completion: Segments of the bicycle modal corridor network are considered "complete" if they are served by a trail or another type of physically separated bikeway, such as a cycle track. Pedestrian network completion is the percent of connections within Redmond's pedestrian priority zones that achieve a high level of pedestrian-oriented design, including increased width and landscaping; the percent of the transportation network in Redmond's neighborhoods that has some pedestrian facility present.
- Mode Share: Percentage of daily trips made by means other than the single occupant vehicle (i.e., walking, bicycling, transit, and carpooling) among Redmond residents within the city
- Safety: Per capita traffic-related injury and fatality rate for Redmond

# **Multimodal Level of Service**

This plan considers multimodal levels of service. Instead of relying solely on traditional metrics like vehicle miles traveled or automobile delay, Redmond's plan-based concurrency system utilizes a mode-neutral measure called the "mobility unit" (MU). This unit represents person-miles traveled, allowing for various modes to be included.

This plan also considers distance between crosswalks and provides recommendations to provide a pedestrian friendly environment

# BELLINGHAM PEDESTRIAN AND BICYCLE MASTER PLAN (APRIL 2024)<sup>4</sup>

The City of Bellingham adopted two separate documents namely the <u>Bicycle Master Plan</u> and the <u>Pedestrian Master Plan</u>. Both plans identified several policies, projects, and programs to achieve the following goals:

- Safety: Improved pedestrian and bicyclist safety through well-designed walking and biking facilities and by promoting safe travel behaviors
- Equity: Provide accessible pedestrian and bicycle facilities through equitable community engagement and prioritizing investments in underserved communities
- Connectivity: Provide a citywide network of accessible and comfortable pedestrian and bicycle infrastructure that connects people of all ages and abilities to major activity centers
- Increased Trips: Increase the proportion of walking and biking trips to promote a healthy Bellingham and remove access barriers to create an accessible and safe environment

<sup>&</sup>lt;sup>4</sup> Bellingham Bicycle Master Plan - <u>https://cob.org/wp-content/uploads/Bellingham-Bicycle-Plan-Master-Plan-v7-</u> 20240422sm.pdf

Bellingham Pedestrian Master Plan - https://cob.org/wp-content/uploads/2024\_11\_25\_Bellingham-Pedestrian-Plan-Master-Plan\_v6.pdf

# **Performance Measures**

Bellingham uses the Transportation Reports on Annual Mobility (TRAM) to document transportation concurrency status on the citywide multimodal transportation network (Access website here).

The bicycle performance measures include:

- Bicyclist/micromobility crashes
- Serious injury or fatal bicyclist/micromobility crashes
- Level of traffic stress
- Area of historical underinvestment or greatest need
- Access to low-income housing
- Complete, connected network •
- Park and trail access
- School bike routes •
- Citywide biking rate
- Rate of kids biking to school

The pedestrian performance measures include:

- Pedestrian crash rate
- Serious injury or fatal pedestrian • crashes
- Accessible sidewalks and crossings
- Area of historical underinvestment or greatest need
- Access to low-income housing
- Sidewalk condition
- Transit connections
- School walk routes
- Complete pedestrian network
- Citywide walk rate •
  - Rate of kids walking to school

# Multimodal Level of Service

The plan adopts the Oregon Department of Transportation (ODOT) LTS framework to identify highstress intersections and corridors.

#### CITY OF SAMMAMISH TRANSPORTATION MASTER PLAN (DECEMBER 2024)<sup>5</sup>

The Transportation Master Plan (TMP) which is adopted by reference into Volume 2 of the City's Comprehensive Plan emphasizes enhancement of connectivity within the city and to the region.

Per the TMP, the Sammamish community has a vision for greater pedestrian mobility and connectivity throughout. To achieve this vision, an integrated network of sidewalks, bicycle facilities, single and multi-purpose trails is needed to connect neighborhoods to local activity centers, including schools, parks, transit, commercial areas, Town Center, and regional destinations as feasible. The development of an integrated network of pedestrian facilities requires a holistic approach and interdepartmental coordination between Parks and Public Works Departments to bring greater efficiency to the effort of building needed pedestrian infrastructure throughout Sammamish.

#### **COMMON THEMES**

The common themes across these plans include:

Improve pedestrian and bicycle **safety and connectivity** through better infrastructure and • facilities along and across streets and reduce pedestrian/vehicle and bicycle/vehicle crashes.

<sup>&</sup>lt;sup>5</sup> https://www.sammamish.us/media/2iwh3bfk/transportation-master-plan-final-sml.pdf



- Implement a framework of **pedestrian and bicycle projects** that prioritize bicycle and pedestrian network connectivity, accessibility to key community facilities, and addresses crossing challenges and issues.
- Incorporate a **'complete streets'** mindset and design principles such that people of all ages and abilities are encouraged to use non-motorized transportation in the City.

# PLAN GOALS AND OBJECTIVES

A workshop with City staff was conducted by DKS on December 11<sup>th</sup>, 2024 to understand project goals and objectives and other items. Based on the plan reviews documented above for adjacent cities and the workshop conducted with City staff, the goals and objectives of the Plan are as follows:

- Ensure alignment of the Plan with the goals in Sammamish's TMP and focus on providing a safe, connected, and efficient walking and biking network in Sammamish
- Confirm framework for evaluating bicycle and pedestrian projects The City of Sammamish 2025-2030 Transportation Improvement Plan (TIP) documents the project scoring criteria for all types of projects as well as specific program criteria for the Sidewalk Gap & Non-Motorized Program in the Citywide Ongoing Transportation Programs category. These existing criteria will be evaluated and updated if needed to evaluate the bicycle and pedestrian projects.
- Add bicycle and pedestrian projects to the Transportation Improvement Plan (TIP)
- Create policies around complete streets, ebikes, crossing frequency, and crossing type

#### **PERFORMANCE MEASURES**

Based on feedback received from the City workshop and goals and objectives defined, the following data-driven performance measures are proposed to gauge progress in improving access and mobility for pedestrians and bicyclists:

- Bicycle Facilities Built: This measure tracks the total mileage of bicycle facilities constructed, such as bike lanes, shared-use paths, and general bike infrastructure. The goal is to enhance connectivity and safety for bicyclists by providing a comprehensive network that encourages cycling as a viable mode of transportation.
- Pedestrian Facilities Built: This metric monitors the development of pedestrian-oriented infrastructure, including sidewalks and crosswalks. The aim is to increase accessibility and safety for pedestrians, particularly in areas with high foot traffic.
- Multimodal LOS: This performance measure evaluates the quality and efficiency of transportation systems that accommodate multiple modes, including walking and biking. Multimodal LOS provides a more comprehensive view of the transportation network's performance by considering the needs of all users, rather than prioritizing motor vehicles. Bicycle LOS and Pedestrian LOS were included in the TMP adopted in December 2024.

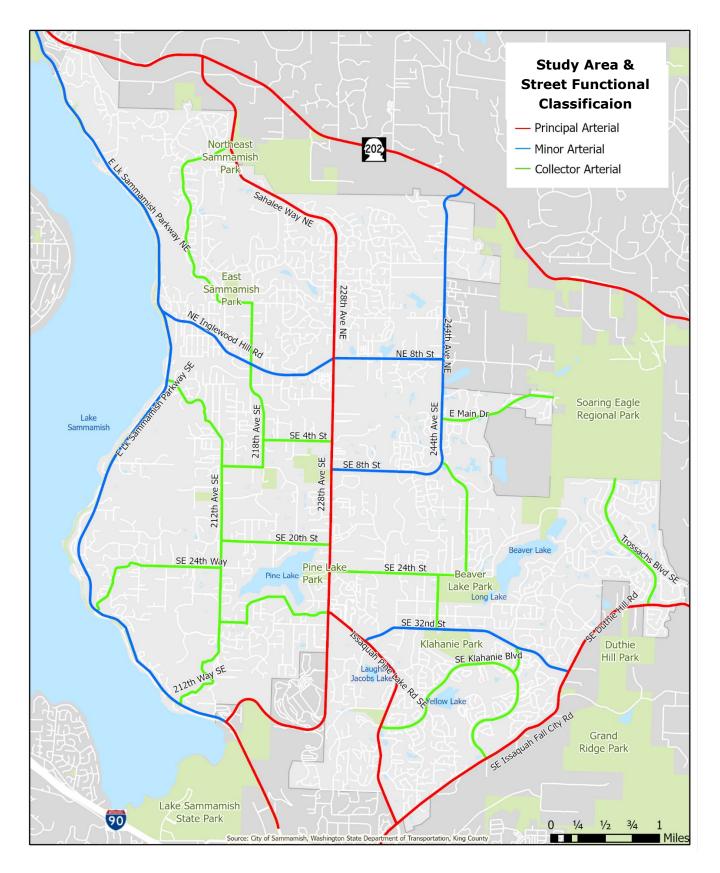
# STUDY AREA

For this effort, the pedestrian and bicycle facilities along the arterial roadways (principal arterials, minor arterials and collector arterials) namely the 'Priority Network' within the City of Sammamish



were included in the study area. The Bicycle and Pedestrian Priority Network is a network identified as providing bicycle and pedestrian connectivity to key areas of Sammamish. Identifying the Bicycle and Pedestrian Priority Network helps understand where to focus pedestrian and bicycle enhancements. Tier 1 is all Principal and Minor Arterials. Tier 2 is all Collector Arterials.

**Figure** 1 illustrates the arterial network in the City that showcases the study area and street functional classification.



#### FIGURE 1. STUDY AREA AND STREET FUNCTIONAL CLASSIFICATION

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#### PEDESTRIAN AND BICYCLE FACILITIES INVENTORY

The following section details the inventory of existing nonmotorized facilities in the City of Sammamish. An inventory of sidewalks, crosswalks, off-street trails, and bike lanes was undertaken to identify the current level of nonmotorized connectivity in Sammamish. **Figure 2** illustrates the pedestrian and bicycle facilities and infrastructure along the Priority Network.

### SIDEWALK FACILITIES

Sidewalks provide a safe and accessible space for pedestrians along the public street network. The City of Sammamish inherited its street and sidewalk network from King County when the City incorporated in 1999. Though many upgrades throughout the City have occurred since incorporation, many gaps still exist in the sidewalk network that require attention. Dense areas with commercial land uses and streets that serve schools are particularly important for safe walking, as they support more pedestrians and may have a larger portion of vulnerable users than other streets.

#### CROSSWALKS

Crosswalks are designated areas on the street where pedestrians can safely cross, often marked with pavement striping, signage, and sometimes flashing beacons or traffic signals. These facilities play a crucial role in enhancing pedestrian safety and accessibility by providing clear and prioritized crossings, especially in areas with higher traffic volumes or near key destinations like schools and parks.

Crosswalks vary in design based on their location and usage. Marked crosswalks at intersections or midblock locations are used to guide pedestrians and alert drivers to pedestrian activity. Enhanced crosswalks, which may include features such as raised crossings, rapid flashing beacons, or pedestrian refuge islands, provide additional safety measures in high-traffic or high-speed areas.

In Sammamish, crosswalks are a vital component of the pedestrian network. However, some areas still lack sufficient crossing infrastructure, which can create barriers to safe and efficient mobility. Priority is often given to installing crosswalks near schools, transit stops, and community hubs, ensuring safe access for all users and supporting active transportation.

#### **BICYCLE FACILITIES**

Bike lanes are portions of paved streets which have been designated by striping, signage, and pavement markings for exclusive use by bicyclists. These facilities provide physical separation between bicyclists and vehicle traffic and generally create a more comfortable experience for bicyclists relative to shared-use lanes, particularly on high-speed, high-volume streets.

Shared use of travel lanes by vehicles and bicycles can provide a viable option for bicycle connectivity on low-volume, low-speed streets. Shared-use streets may be identified using Shared Lane Markings (SLMs) or "sharrows." SLMs are not currently used in the Sammamish street network.

Paved shoulders may be used by pedestrians and cyclists, although they are considered a gap in the pedestrian and bicycle network.

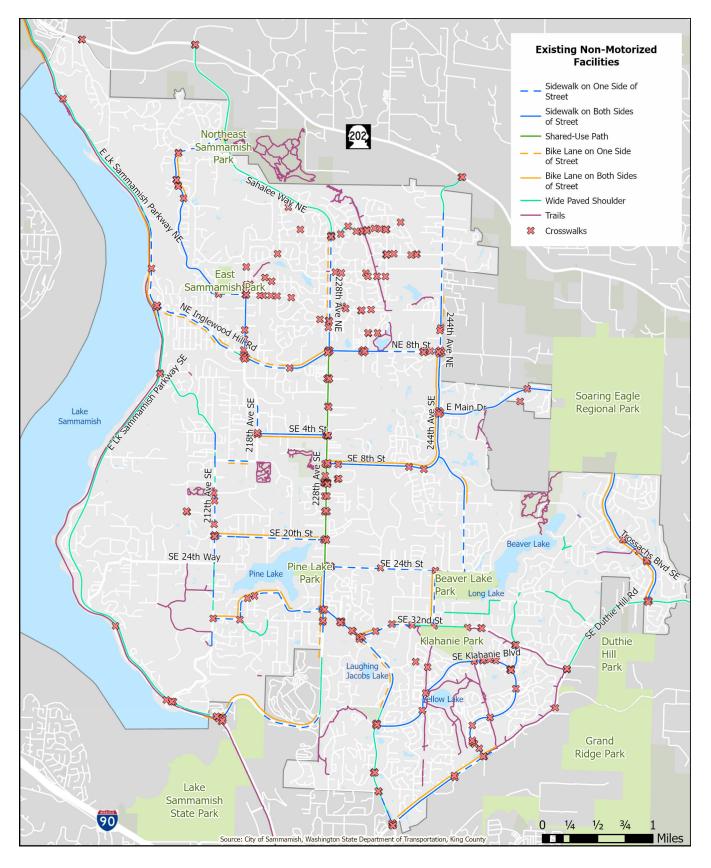


#### **OFF-STREET TRAILS**

Off-street trails consist of both paved and unpaved (gravel or grass surface) paths which provide varying levels of access to pedestrians, bicyclists, and other wheeled mobility users. Off-street trails provide connections between schools, parks, transit stops, and other facilities of public interest, in locations which do not follow the existing street alignment. They also provide recreational opportunities for the community. The City operates its own trail network and has several county-owned trails within or near to Sammamish City limits, including a 7.3-mile paved section of the regional East Lake Sammamish Trail. The <u>2024 Parks, Recreation, and Open Space Plan</u><sup>6</sup> (January 2024) includes more information about the path forward for providing high quality trails, open spaces, and recreation opportunities.

<sup>&</sup>lt;sup>6</sup> https://www.sammamish.us/media/1vej4sxo/samm2024\_pros\_vfinal121823low.pdf





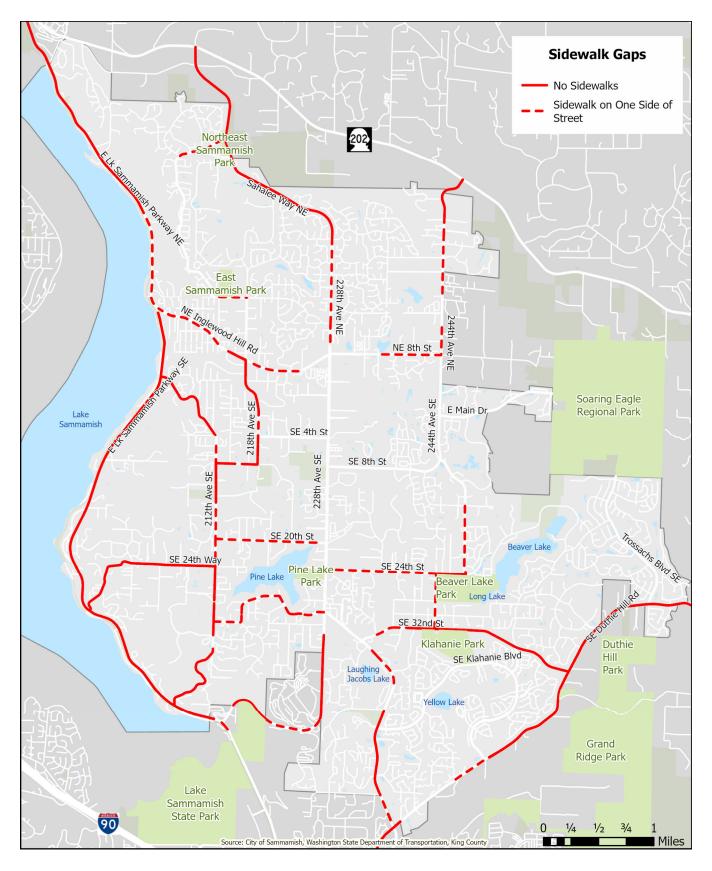
#### FIGURE 2. PEDESTRIAN AND BICYCLE FACILITIES INVENTORY

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# **GAP ANALYSIS**

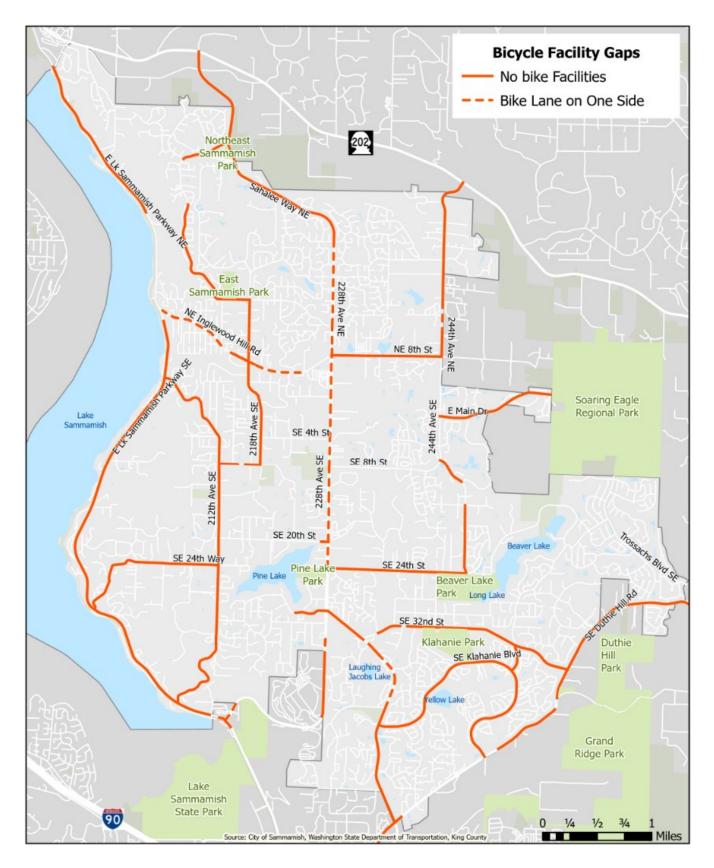
A gap analysis of pedestrian and bicycle facilities along the Priority Network was conducted to identify missing, inadequate, or disconnected segments and to understand how the current infrastructure meets the needs of users. **Figure 3** and **Figure 4** represent the sidewalk and bike lane gaps along the Pedestrian and Bicycle Priority Network, respectively.





#### FIGURE 3. SIDEWALK GAPS ALONG THE PEDESTRIAN PRIORITY NETWORK

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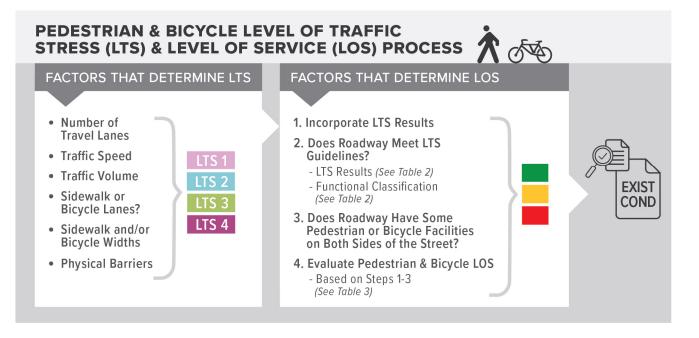
#### FIGURE 4. BIKE FACILITY GAPS ALONG THE BICYCLIST PRIORITY NETWORK

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#### MULTIMODAL LEVEL OF SERVICE

Like vehicular Level of Service (LOS), Multimodal Level of Service (MMLOS) provides a performance metric for user experience on a given element of transportation infrastructure. MMLOS for the City of Sammamish are defined in the Transportation Master Plan as aspirational and implemented as guidelines. LOS for bicycles and pedestrians are based on level of traffic stress (LTS) and Sammamish's adopted public works standards. Evaluating LTS is the first step in determining the MMLOS of the roadway. The TMP<sup>7</sup> (page 57) analyzed and illustrated the existing level of traffic stress and level of service for pedestrians and bicyclists in Sammamish. The following section provides an update to the multimodal level of service analysis from the TMP using the latest Washington Department of Transportation (WSDOT) Design Manual guidelines that were updated in September 2024. Figure 5 illustrates the process of determining the level of traffic stress score and level of service category.

#### FIGURE 5. PEDESTRIAN AND BICYCLE MMLOS PROCESS



#### PEDESTRIAN AND BICYCLE LEVEL OF TRAFFIC STRESS

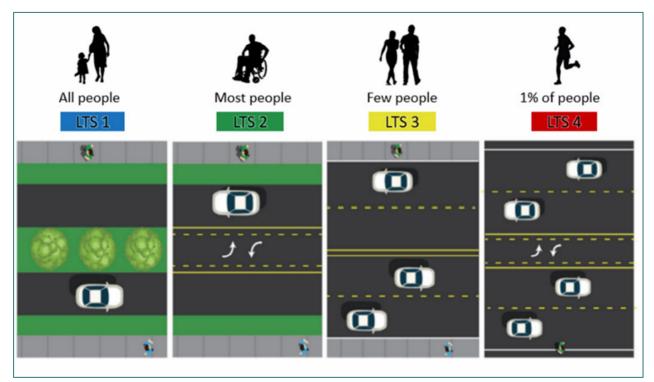
LTS is a metric based on user perception of personal comfort and/or safety. LTS is the recommended standard of practice for bicycle and pedestrian system planning; the WSDOT *Design Manual* M 22-01.23 Chapters 1510, 1515 and 1520 define a planning-level methodology, updated in September 2024. The WSDOT *Design Manual* methodology was used as the basis for the LTS. At a minimum, the numeric LTS rating is based on Average Annual Daily Traffic (AADT), posted speed, and the number of travel lanes.

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<sup>&</sup>lt;sup>7</sup> https://www.sammamish.us/media/2iwh3bfk/transportation-master-plan-final-sml.pdf

Pedestrian LTS (PLTS) and Bicycle LTS (BLTS) are expressed on a scale of 1 to 4, where a higher LTS score represents lower level of user comfort. Pedestrian and bicycle LTS categories are defined and illustrated in **Table 1, Figure 6** and **Figure 7**, where a designation of LTS 4 equals the lowest level of comfort, LTS 3 equals low level of comfort, LTS 2 equals a high level of comfort and LTS 1 equals highest level of comfort. Appendix A includes the WSDOT guidance used to analyze pedestrian and bicycle level of traffic stress.

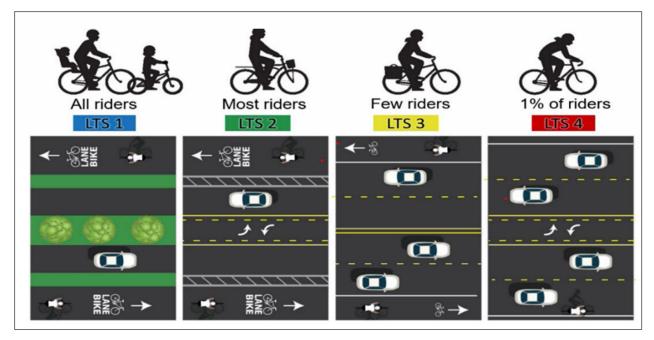
A PLTS and BLTS score was calculated for each functionally classified (collector or arterial) street segment in Sammamish. Both sides of the street (i.e. northbound and southbound) were evaluated for LTS, and the worse of the two sides of the street is assigned to the street overall. The roadway segmentation for LTS assignment followed an intuitive approach according to the context. The LTS segmentation was refined to account for smaller segments, with the overall LTS assignment reflecting the highest stress level encountered within each grouping. This approach represents the most challenging conditions for pedestrians and bicyclists along a given route.



SOURCE: WSDOT

#### FIGURE 6. PEDESTRIAN LEVEL OF TRAFFIC STRESS AND COMFORT





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SOURCE: WSDOT
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# FIGURE 7. BICYCLE LEVEL OF TRAFFIC STRESS AND COMFORT

As illustrated in **Figure 6** and **Figure 7**, the greater the separation between the pedestrian or bicyclist and vehicular traffic, the lower the Level of Traffic Stress.

Several factors affect the levels of stress that a pedestrian or bicyclist can experience, including:

- Number of travel lanes
- Speed of traffic
- Traffic volume
- Presence or lack of sidewalk or bicycle lanes
- Width of the sidewalk or bicycle lane
- Presence of physical barriers

All of these are considered when evaluating pedestrian and bicycle LTS as shown in Figure 5 and in Appendix A.

Roadway grade (changes in elevation) is an important factor for pedestrian and bicyclist comfort in Sammamish due to the City's hilly terrain. However, WSDOT level of traffic stress guidelines, which were used for this analysis, do not explicitly account for grade or elevation changes. Understanding grade as important in Sammamish, the project team will take into account grade/elevation changes in the next phase of this Plan when prioritizing pedestrian and bicycle projects.



#### TABLE 1. LEVEL OF TRAFFIC STRESS DEFINITIONS

LTS	USER CATEGORY	DESCRIPTION	EXAMPLE
1	Very Low Stress	All Ages & Abilities: LTS 1 is a level that most children and their parents would find comfortable and safe.	Physically separated bike lane or a 5-foot sidewalk on a 25-mph two-lane street with an AADT less than 3,000 vehicles.
2	Somewhat Low Stress	Interested but Concerned: LTS 2 facilities are acceptable to a typical mainstream adult, who can accept some degree of stress while walking or riding.	Buffered bike lane or 6-foot sidewalk on a 30-mph two-lane street with an AADT less than 6,000 vehicles.
3	Somewhat High Stress	Enthused & Confident: LTS 3 users can tolerate some stress even though they may prefer to ride with a lower level of traffic stress.	Unbuffered bike lane or 5-foot sidewalk on a high-volume (AADT above 6,000 vehicles) 4 lane street with speeds of 30-35mph.
4	Very High Stress	Strong & Fearless: LTS 4 is tolerated for any significant distance only by users classified "strong and fearless," who are comfortable walking or riding in close proximity to high-volume roadways.	No bike lane or sidewalk on a high- speed (35-mph and above) arterial.

Pedestrian Level of Traffic Stress results are shown in **FIGURE 8**. Bicycle Level of Traffic Stress results are shown in **FIGURE 9**. Appendix B documents the pedestrian and bicycle level of traffic stress analysis in table format that was conducted using Geographic Information System (GIS) software.

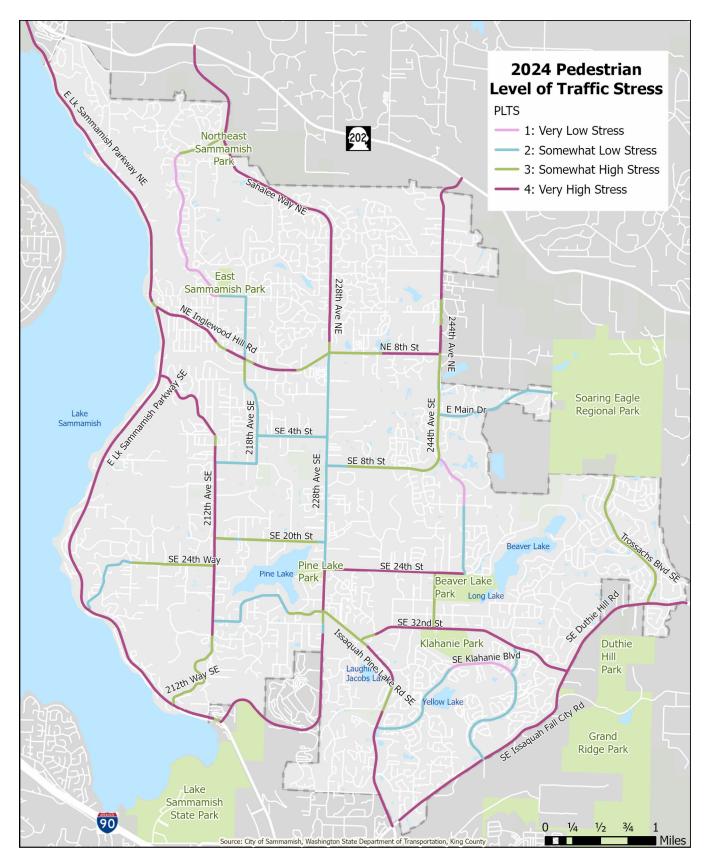


FIGURE 8. EXISTING PEDESTRIAN LEVEL OF TRAFFIC STRESS

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#### FIGURE 9. EXISTING BICYCLE LEVEL OF TRAFFIC STRESS

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# PEDESTRIAN AND BICYCLE LEVEL OF SERVICE

A pedestrian LOS and bicycle LOS are assigned to each principal, minor, and collector arterial within the City. The LOS is based on functional classification, evaluated LTS, and presence of a pedestrian or bicycle facility as defined by the TMP<sup>8</sup> (Page 63). Pedestrian and bicycle LOS for each roadway are evaluated following the steps below and as shown in Figure 5.

- 1. Evaluate PLTS and BLTS
  - Based on several factors, including AADT, posted speed limit, and width of pedestrian or bicycle facility, as described in the previous section
- 2. Determine if the roadway meets LTS guidelines
  - Based on LTS and functional classification, using **Table 2**
- 3. Determine if the roadway has some pedestrian or bicycle facility on both sides of the street
- 4. Evaluate Pedestrian and Bicycle LOS
  - Based on steps 1-3, using Table 3

**Table 2** displays the LTS guidelines used in evaluating LOS as defined in the TMP.

#### TABLE 2. PEDESTRIAN AND BICYCLE LEVEL OF TRAFFIC STRESS GUIDELINES

FUNCTIONAL CLASSIFICATION	PEDESTRIAN LTS GUIDELINES	BICYCLE LTS GUIDELINES
PRINCIPLE ARTERIALS	LTS 2	LTS 2
COLLECTOR ARTERIALS	LTS 2	LTS 2
MINOR ARTERIALS	LTS 3	LTS 3

<sup>&</sup>lt;sup>8</sup> https://www.sammamish.us/media/2iwh3bfk/transportation-master-plan-final-sml.pdf



Using **Table 3**, each principal, minor, and collector arterial is assigned a Level of Service for Pedestrians and Bicycles as Green, Yellow, or Red.

LEVEL OF SERVICE	PEDESTRIAN DEFINITION	BICYCLE DEFINITION
GREEN	Roadway meets LTS guidelines and sidewalk is present	Roadway meets LTS guidelines
YELLOW	Roadway does not meet LTS guidelines, but some pedestrian facility (i.e. sidewalk) is present. Or roadway meets LTS guidelines but no sidewalk is present	Roadway does not meet LTS guidelines, but some bicycle facility (i.e. bike lane) is present.
RED	Roadway does not meet LTS guidelines, and no pedestrian facility is present.	Roadway does not meet LTS guidelines, and no bicycle facility is present.

#### TABLE 3. PEDESTRIAN AND BICYCLE LEVEL OF SERVICE DEFINITION

Pedestrian Level of Service results are shown in Figure 10. Bicycle Level of Service results are shown in Figure 11. Appendix B documents the pedestrian and bicycle level of service analysis in table format that was conducted using Geographic Information System (GIS) software.



#### FIGURE 10. EXISTING PEDESTRIAN LEVEL OF SERVICE

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#### FIGURE 11. EXISTING BICYCLE LEVEL OF SERVICE

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#### SAFETY ANALYSIS

The City has completed multiple Local Road Safety Plans to meet the WSDOT Highway Safety Improvement Program guidelines. This includes identification of crash trends, safety concerns, and countermeasures to reduce fatal and serious injury crashes. This analysis focuses on crashes involving a bicyclist and/or pedestrian that occurred on all roads in the city.

#### DATA ANALYSIS

A crash history analysis of only crashes involving a pedestrian or bicyclist was performed by reviewing WSDOT collision reports on City of Sammamish maintained public streets during the five-year period from January 1, 2019 through December 31, 2023, obtained from the WSDOT Transportation Data Office. A total of 45 collisions were reported during the five-year period, of which five involved a serious injury. Most collisions involving pedestrians are a result of motorists not granting right-of-way to pedestrians. One fatal injury collision involving a pedestrian occurred in 2023. The nature of the reported five serious injury crashes and one fatal crash include:

- 2 collisions (33%) involved a pedestrian:
  - 1 fatal collision at SE 240<sup>th</sup> Way and SE 8<sup>th</sup> Street involved a vehicle making an improper turn/merge (left turn) and not granting the pedestrian the right-of-way.
  - 1 serious injury collision involved a vehicle making a turn and striking the pedestrian.
- 4 collisions (67%) involved a bicyclist:
  - 1 serious injury collision involved a bicyclist that was reported as disregarding traffic signs and not granting right-of-way to the vehicle.
  - 3 serious injury collisions each involved a bicyclist that collided with a parked vehicle.

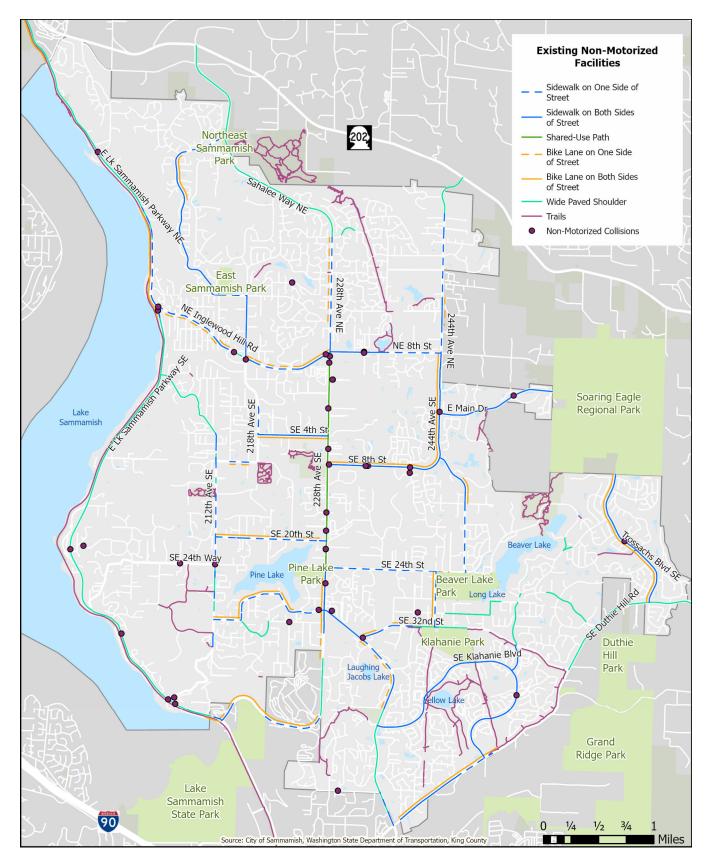
Collision trends over time are summarized in **Table 4.** 

YEAR	FATAL 8	& SERIOUS CRASHES			TOTAL CRA	SHES
	Ped	Bike	Total	Ped	Bike	Total
2019	0	1	1	3	6	9
2020	0	0	0	2	3	5
2021	1	1	2	1	7	8
2022	0	1	1	2	11	13
2023	1	1	2	2	8	10
TOTAL	2	4	6	10	35	45

#### TABLE 4. 2019-2023 COLLISION TRENDS



Approximately 16% of crashes involving a pedestrian or bicyclist in Sammamish occurred on E Lake Sammamish Parkway corridor, 20% occurred on 228<sup>th</sup> Avenue. **Figure 12** illustrates the nonmotorized collisions for a five-year period (2019 - 2023).



#### FIGURE 12. NONMOTORIZED COLLISIONS IN THE CITY (2019-2023)

DKS

#### **NEXT STEPS**

The existing conditions analysis documented in this memorandum will be used to develop the future conditions analysis. The future conditions assessment and analysis will help identify the need for pedestrian and bicycle projects to prioritize in the City of Sammamish. The findings will guide strategic investments in the City of Sammamish to enhance connectivity, safety, and accessibility for nonmotorized transportation, aligning with the Plan's goals and objectives.

# Appendix A - WSDOT Guidance on Level of Traffic Stress

# Appendix A - WSDOT Guidelines on Level of Traffic Stress

WSDOT https://wsdot.wa.gov/publications/manuals/fulltext/M22-01/M22-0123Revision.pdf manual Ped LTS

Guidelines - page 1510-3 to 1510-5 Bike LTS Guidelines - page 1520-8 and 1520-9

#### WSDOT Pedestrian LTS Guidelines

#### Exhibit 1510-1 Pedestrian Level of Traffic Stress (PLTS) no dedicated pedestrian facility, with shoulder

No dedicated pedestrian facility, with shoulder									
Lane configuration	AADT (total)	Target Speed							
cane <u>comguration</u>	AADT ((otal)	≤20	25	30	35	40	45	50+	
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	2	3	4	4	4	4	
	751 - 1500	1	2	3	4	4	4	4	
	1501 - 3000	2	2	3	4	4	4	4	
	> 3000	2	3	3	4	4	4	4	
2 thru lanes per direction	0 - 6000	3	3	3	4	4	4	4	
	> 6000	3	3	4	4	4	4	4	
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4	

Exhibit 1510-2 Pedestrian Level of Traffic Stress (PLTS) based on Sidewalk Width

<u>5' to 7.5'</u> Sidew	ralk <u>with no buff</u> e	<u>r</u>						
Lane configuration	AADT (total)	Target Speed						
Lane <u>configuration</u>	AADT (total)	≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	3	4	4	4
	751 - 1500	1	1	2	<u>3</u>	4	4	4
	1501 - 3000	1	1	2	3	4	4	4
	> 3000	2	2	2	3	4	4	4
2 thru lanes per direction	0 - 6000	2	2	2	3	4	4	4
	> 6000	2	2	3	4	4	4	4
3+ thru lanes per direction	Any ADT	2	2	3	4	4	4	4

Sidewalk <u>8' or w</u>	ider with <u>no</u> bu	ffer						
Lane Configuration	AADT (total)			Tar	get Sp	eed		
cane <u>coniguration</u>	ANDT <u>(total)</u>	≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	2	2	3	3	4
	751 - 1500	1	1	2	2	3	3	4
	1501 - 3000	1	1	2	2	3	3	4
	> 3000	2	2	2	2	3	3	-4
2 thru lanes per direction	0 - 6000	2	2	2	2	3	3	4
	> 6000	2	2	2	2	3	3	4
3+ thru lanes per direction	Any ADT	2	2	2	2	3	3	4

L Exhibit 1510-3 Pedestrian Level of Traffic Stress (PLTS) Sidewalk with Buffer

Sidewalk separated b	y physical sepa	ration[	1					
Loss Conferencies	A 4 10 T (1 - 1 - 1)			Tar	get Sp	eed		
Lane Configuration	AADT (total)	≤20	25	30	35	40	45	50+
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	1	1	2	2	2	2
	751 - 1500	1	1	1	2	2	2	2
	1501 - 3000	1	1	1	2	2	2	2
	> 3000	2	2	2	2	2	2	2
2 thru lanes per direction	0 - 6000	2	2	2	2	2	2	2
	> 6000	2	2	2	2	2	2	2
3+ thru lanes per direction	Any ADT	2	2	2	2	2	2	2

Physical separation typically consists of either a planting strip or other constructed buffer strip, a separated bicycle lane, a parking lane, or traffic barrier. Note that a roadway shoulder or a conventional bicycle lane are not considered physical separation.

#### WSDOT Bicycle LTS Guidelines

#### Exhibit 1520-5 Bicycle Level of Traffic Stress in mixed traffic (no bicycle facility)

BLTS in mixed traffic (no bicycle facility)									
Lanes	AADT	Target Speed							
Lalles	AADI	≤20	25	30	35	40	45	50+	
1 thru lane per direction (or 1 lane one-way street)	0 - 750	1	2	3	4	4	4	4	
	751 - 1500	1	2	3	4	4	4	4	
	1501 - 3000	2	2	3	4	4	4	4	
	> 3000	2	3	3	4	4	4	4	
2 thru lanes per direction	0 - 6000	3	3	3	4	4	4	4	
	> 6000	3	3	4	4	4	4	4	
3+ thru lanes per direction	Any ADT	4	4	4	4	4	4	4	

Exhibit 1520-6 Bicycle Level of Traffic Stress for Conventional Bike Lane

Conventional Bike Lanes (5' or greater)									
Lane Configuration	AADT (total)			Targ	get Spe	eed			
Lane <u>Configuration</u>	ANDI <u>Itotali</u>	≤20	25	30	35	40	45	50+	
1 thru lane per direction (or 1 lane one-way street)	0-750	1	1	2	3	4	4	4	
	751-1500	1	1	2	3	4	4	4	
	1501-3000	1	1	2	3	4	4	4	
	3000+	2	2	2	3	4	4	4	
2 thru lanes per direction	0-6000	2	2	2	3	4	4	4	
	>6000	2	2	3	3	4	4	4	
3+ thru lanes per direction	Any ADT	3	3	3	4	4	4	4	

Exhibit 1520-7 Bicycle Level of Traffic Stress for Buffered Bike Lane

Buffered Bike Lanes (minimum 2' buffer / greater than or equal to 7 feet total)									
Lane Configuration	AADT			Targ	et Spe	ed			
Lane <u>Configuration</u>	(total)	≤20	25	30	35	40	45	50+	
1 thru lane per direction (or 1 lane one-way street)	0-750	1	1	2	3	4	4	4	
	751-1500	1	1	2	3	4	4	4	
	1501-3000	1	1	2	3	4	4	4	
	3000+	2	2	2	3	4	4	4	
2 thru lanes per direction	0-6000	2	2	2	3	4	4	4	
	>6000	2	2	3	3	4	4	4	
3+ thru lanes per direction	Any ADT	3	3	3	4	4	4	4	

Exhibit 1520-8 Bicycle Level of Traffic Stress for Separated Bike Lane

Separated Bicycle Lane													
Lane Configuration	AADT			Targ	et Spe	ed							
Lane <u>computation</u>	(total)	≤20	25	30	35	40	45	50+					
1 thru lane per direction (or 1 lane one-way street)	0-750	1	1	1	2	2	2	2					
	751-1500	1	1	1	2	2	2	2					
	1501-3000	1	1	1	2	2	2	2					
	3000+	2	2	2	2	2	2	2					
2 thru lanes per direction	0-6000	2	2	2	2	2	2	2					
	>6000	2	2	2	2	2	2	2					
3+ thru lanes per direction	Any ADT	2	2	2	2	2	2	2					

# Appendix B - LTS/LOS Analysis from GIS software

# Appendix B - LTS/LOS Analysis from GIS software

	City Functional		ADT Fraffic	Posted Speed	Sidewalk on Roadway	Bike Lanes on	Bike Lane Buffer	Sidewalk	Separated Sidewalk	Bicycle	Pedesrian	LTS Guidelines	Bicycle	Pedestrian
ID Road Name	Classification	Lanes V		Limit	Segment	Roadway Segmer		Width	(Yes/No)	LTS	LTS	for LOS	LOS	LOS
0 244th Ave NE	Major Collector	2	5532		35	0	0 0			0	4 4	1	2 red	red
1 East Lake Sammamish Pkwy NE	Minor Arterial	2	14953		35	1	2 0				3 4		3 green	vellow
2 216th Ave NE	Collector Arterial	2	3725		25	2	0 0				3 2		2 red	green
3 SE Klahanie Blvd	Collector Arterial	2	3751		25	2	0				3 2		2 red	green
4 256th Ave SE	Collector Arterial	2	4051		25	2	0 0				3 2		2 red	green
5 SE Duthie Hill Rd		0	6119		0	0	0		-	-	0 0	-	0	Breen
6 E Main Dr	Collector Arterial	2	2483		30	2	0 0			0	3 2		2 red	green
7 Trossachs Blvd SE	Collector Arterial	2	6756		35	2	2 0				3 3		2 yellow	vellow
8 SE Issaguah-Fall City Rd		0	0		0	0	0				0 (		0	,
9 Klahanie Dr SE	Collector Arterial	2	10199		25	2	0		-	-	3 2		2 red	green
10 SE 43rd Way	Principal Arterial	3	14943		35	1	2 0		-		3 4		2 yellow	yellow
11 SE Issaquah-Fall City Rd	Principal Arterial	4	17957		35	2	2 Buffered				3 4		2 yellow	yellow
12 292nd Ave SE	Thirdpar Arteria	0	1/35/		0	0	0				0 (		0	yenow
13 SE 8th St	Collector Arterial	2	2395		25	0	0 0		-		2 2		2 green	green
14 Trossachs Blvd SE	Collector Arterial	2	6756		35	2	2 0		-	-	3 3		2 yellow	yellow
15 244th Ave SE	Collector Arterial	2	5532		35	1	2 0				3 : 2 :		2 green	yellow
		2	2351		25	0	0 0		-		2 2		-	•
16 217th Ave NE	Collector Arterial								-	-			2 green	green
17 SE 24th St	Collector Arterial	2	1731		30	0	0		-	-	3 3		2 red	red
18 SE 32nd St	Collector Arterial	2	2010		25	1	20				2 2		2 green	green
19 216th Ave SE	Collector Arterial	2	1619		25	1	2 0		-		1 2		2 green	green
20 222nd PI SE	Collector Arterial	2	1619		25	1	2 0				1 2		2 green	green
21 SE 30th St	Collector Arterial	2	3226		25	1	2		•		2 3		2 green	yellow
22 SE 24th Way	Collector Arterial	2	1012		25	0	0 0				2 2		2 green	green
23 216th Ave NE	Collector Arterial	2	4916		25	0	0 0		•		3 3		2 red	red
24 218th Ave SE	Collector Arterial	2	2351		25	0	0 0		•	-	2 2	=	2 green	green
25 SE Windsor Dr	Collector Arterial	2	2814		25	2	0 0		-		2 1		2 green	green
26 244th Ave NE	Minor Arterial	2	7982		35	2	10		5	0	4 3	3	3 yellow	green
27 244th Ave NE	Minor Arterial	2	5532		35	0	0 0		0	•	4 4	•	3 red	red
28 SE 43rd Way	Principal Arterial	3	14943	3	35	0	2 0		0	0	3 4	1	2 yellow	red
29 SE Issaquah-Fall City Rd		0	C	1	0	0	0		0	0	0 0	כ	0	
30 SE Duthie Hill Rd	Principal Arterial	2	10145	3	35	0	0 0		0	0	4 4	1	2 red	red
31 SE Duthie Hill Rd	Principal Arterial	2	11493	3	35	0	0		0	0	4 4	1	2 red	red
32 Sahalee Way NE	Principal Arterial	2	14966	i 4	45	0	0 0		0	0	4 4	1	2 red	red
33 SE 20th St	Collector Arterial	2	4388	1	30	1	2 0		0	0	2 3	3	2 green	yellow
34 SE Issaquah-Beaver Lake Rd	Minor Arterial	2	6232		35	0	0 0		0	0	4 4	1	3 red	red
35 Issaquah-Pine Lake Rd SE	Principal Arterial	2	14445	3	35	0	0		0	0	4 4	1	2 red	red
36 SE 24th St	Major Collector	2	6281	. 3	35	2	0 0		0	0	4 3	3	2 red	yellow
37 SE 4th St	Collector Arterial	2	5470	1	25	2	2 0		8	1	2 2	2	2 green	green
38 SE 32nd Way	Minor Arterial	2	5683		35	2	2		6	1	3 3	3	3 green	green
39 SE 32nd St	Minor Arterial	2	4704		35	1	10		0	0	4 4		3 yellow	vellow
40 NE 8th St	Minor Arterial	2	10100		35	2	0 0		5	0	4		3 red	green
41 228th Ave SE	Principal Arterial	4	20118		35	2	2 0			-	3 4	•	2 yellow	yellow
42 228th Ave NE	Principal Arterial	4	19836		35	3	10				2 2		2 green	green
43 218th Ave SE	Collector Arterial	2	2409		25	0	00			-	2 2		2 green	green
43 218th Ave SL 44 Issaquah-Pine Lake Rd SE	Principal Arterial	4	16693		35	2	00			-	4 4		2 red	yellow
44 Issaquali-File Lake Ru SL 45 228th Ave SE	Principal Arterial	2	14385		35	0	0 0			-	4 4		2 red	red
45 220th Ave SE 46 SE Pine Lake Rd	Collector Arterial	2	3226		25	1	00				3 3		2 red	yellow
46 SE PINE Lake Ru 47 244th Ave NE		2				2					3 : 4 :			•
47 244th Ave NE 48 East Lake Sammamish Pkwy NE	Minor Arterial		7982		35		10			-			3 yellow	green
48 FASI LAKE SAMMAMISH PKWV NE	Principal Arterial	2	15266		35	0	2 0		0	0	3 4	+	2 yellow	red

FID Road Name	City Functional		AADT (Traffic	Posted Speed	Sidewalk on Roadway	Bike Lanes on	Bike Lane Buffer	Sidowalk	Separated Sidewalk	Bicycle	Podesrian	LTS Guidelines	Bicycle	Pedestrian
	Classification		Volumes)	•	Segment	Roadway Segmen		Width	(Yes/No)	LTS	LTS	for LOS	LOS	LOS
50 228th Ave SE	Principal Arterial	2			35	, ,	2		· · ·		3 3		2 yellow	yellow
51 East Lake Sammamish Pkwy SE	i interpart i tertar	0	1.000		0		0						0	yenon
52 East Lake Sammamish Pkwy SE	Principal Arterial	2	12939		35		10		0	0	4		2 yellow	yellow
53 SE 43rd Way	Principal Arterial	4	14943		40		10		0	0	4 4		2 yellow	yellow
54 East Lake Sammamish Pkwy NE	Minor Arterial	2	7275		35		0 0		0	0	4 4		3 red	red
55 East Lake Sammamish Pkwy NE	Minor Arterial	2	14953		35		2 0			1	3	-	3 green	green
56 East Lake Sammamish Pkwy NE	Minor Arterial	2	14991		35		0 0		0	0	4 4		3 red	red
57 228th Ave NE	Principal Arterial	4	16531		35		1 00			1	4 3	-	2 red	yellow
58 228th Ave SE	Principal Arterial	4	19836		35	3	1		5	1	2 2		2 green	green
59 228th Ave SE	Principal Arterial	4	20118		35		10			1			2 green	green
60 SE 24th St SE	Collector Arterial	2			35		00		0	0	4 4		2 red	red
61 248th Ave SE	Collector Arterial	2			25	1	00		0	0		-	2 green	green
62 SE 24th St	Major Collector	2			35		0 00		5	0	4 4		2 red	yellow
63 NE 37th Way	Collector Arterial	2			25		0 0		0	0	3		2 red	yellow
64 NE 19th Place	Collector Arterial	2			25		00		5	0	2 :	-	2 green	green
65 NE 16th St	Collector Arterial	2			25		0 0		0	0	2 2	-	2 green	green
66 NE 16th Street	Collector Arterial	2			25		00		5	0	2 2		2 green	green
67 205th PI NE	Collector Arterial	2			25	2	2 0			-	1 :	-	-	-
68 SE Issaguah-Fall City Rd		4	17597		35	1	2 0 2 Buffered		5 5	1	3 4		2 green	green
69 SE Issaquah-Fall City Rd	Principal Arterial	2	1/59/		35		2 Bullered 2 0		5 5	0	3 4	-	2 yellow	yellow
	Principal Arterial						0			-		-	2 yellow	red
70 Klahanie Dr SE	Collector Arterial	4	10199		25 25		0		5 5	1	3		2 red	green
71 SE Klahanie Blvd	Collector Arterial	2								1	2 :		2 green	green
72 SE Klahanie Blvd	Collector Arterial	2	2746		25	2	0		5	1	2 :	-	2 green	green
73 Issaquah-Pine Lake Rd SE	Principal Arterial	2	16693		35	1	0 0		0	0	4 4	-	2 red	yellow
74 Issaquah-Pine Lake Rd SE	Principal Arterial	2	15467		35		0		0	0	4 4	-	2 red	red
75 SE 32nd Way	Minor Arterial	2			35		0		0	0	4 4		3 red	yellow
76 SE 32nd St	Minor Arterial	2	6232		35		0 0		0	0	4 4	-	3 red	red
77 SE Issaquah-Beaver Lake Rd	Minor Arterial	2			35		0 0		5	0	4 4	-	3 red	red
78 218th Ave SE	Collector Arterial	2			25		0 0		0	0	2 2		2 green	green
79 211th Way NE	Collector Arterial	2	2110		25		0 0		5	0	2 :		2 green	green
80 East Lake Sammamish Pkwy NE	Minor Arterial	2	10222		35	1	2 0		0	0	3 4	4	3 green	yellow
81 East Lake Sammamish Pkwy NE	Minor Arterial	2			35		0		0	0	4 4	4	3 red	red
82 East Lake Sammamish Pkwy SE	Minor Arterial	2	7425		35	0	0 0		0	0	4 4	4	3 red	red
83 East Lake Sammamish Pkwy SE	Minor Arterial	2	8380		35	0	0 0		0	0	4 4		3 red	red
84 East Lake Sammamish Pkwy SE	Minor Arterial	2	8187		35		0 0		0	0	4 4	4	3 red	red
85 228th Ave SE	Principal Arterial	2	14385		35	2	2 0		6	1	4 2	2	2 yellow	green
86 228th Ave NE	Principal Arterial	2	15698	<b>i</b>	35	1	10		0	0	4 4	4	2 red	yellow
87		0	C	)	0	0	0		0	0	0 0	D	0 0	
88 228th Ave SE	Principal Arterial	4	24391	. ,	35	3	10		7	0	2 2	2	2 green	green
89 228th Ave SE	Principal Arterial	4	23149	) .	35	3	10		7	1	2 2	2	2 green	green
90 SE 20th St	Collector Arterial	2	4388		30	2	2 0		5	1	2 2	2	2 green	green
91 SE 20th St	Collector Arterial	2	4388		30	1	2 0		0	0	2 3	3	2 green	yellow
92 SE 20th St	Collector Arterial	2	4388		30	2	0 0		5	0	3	2	2 red	yellow
93 NE 8th St	Minor Arterial	2	7617		35	1	0 0		0	0	4 4	4	3 red	yellow
94 NE 8th St	Minor Arterial	2	10100	)	35	2	0 0		5	0	4 3	3	3 red	green
95 NE 8th St	Minor Arterial	2	10100	)	35	2	0 0		0	0	4	3	3 red	green
96 Sahalee Way NE	Principal Arterial	2	16099	)	45	0	0 0		0	0	4		2 red	red
97 Sahalee Way NE	Principal Arterial	2	14736		45	0	0 0		0	0	4 4		2 red	red
98 228th Ave NE	Principal Arterial	2	14966		45	0	0 0		0	0	4 4		2 red	red
99 East Lake Sammamish Pkwy NE	Minor Arterial	2	15266		35	0	0 0		0	0	4 4		3 red	red

FID Road Name	City Function of		AADT	Posted	Sidewalk on	Dillas Lauras A.	Bike Lane	Cideur II	Separated		Dedeation		Disusla	Dedestrier
	City Functional Classification	Lanes	(Traffic Volumes)	Speed Limit	Roadway Segment	Bike Lanes on Roadway Segmen	Buffer t Bresence	Sidewalk Width	Sidewalk (Yes/No)	Bicycle LTS	Pedesrian LTS	LTS Guidelines for LOS	Bicycle LOS	Pedestrian LOS
100 East Lake Sammamish Pkwy NE	Minor Arterial	Lanes 2		-	35	1 8	0.0		1	0	3 4			red
100 East Lake Sammamish Pkwy NE	Collector Arterial	2			35 25		00			0	2 2		3 green	
101 SE 8th St	Collector Arterial	2			25		10			0	2 2		2 green	green
102 SE 8tri St 103 NE Inglewood Hill Rd		2			25 35		10		-	0	4 4		2 green	green yellow
103 NE Inglewood Hill Rd	Minor Arterial	2			35		10			0	4 3		3 yellow	,
105 228th Ave NE	Minor Arterial												3 yellow	green
	Principal Arterial	4			35		10 00			0	2 2		2 green	green
106 Issaquah-Pine Lake Rd SE	Principal Arterial	2			35	=			-	-	-	-	2 red	yellow
107 Issaquah-Pine Lake Rd SE	Principal Arterial	2			35		10		-	1	4 3	•	2 yellow	yellow
108 SE Issaquah-Fall City Rd	Principal Arterial	2			35	0	0		-	0	4 4		2 red	red
109 205th Pl NE	Collector Arterial	2			25		0 0		-	0	2 1		2 green	green
110 228th Ave NE	Principal Arterial	2			45		10		•	0	4 4	-	2 yellow	yellow
111 SE Issaquah-Beaver Lake Rd	Minor Arterial	2			35		0 0		-	0	4 4	•	3 red	red
112 SE Windsor Dr	Collector Arterial	2			25	2	2			1	1 1		2 green	green
113 SE 8th St	Minor Arterial	2			30		2 0		-	1	2 2		3 green	green
114 228th Ave SE	Principal Arterial	2			35		10		-	0	4 4	-	2 yellow	red
115 212th Ave SE	Collector Arterial	2			35		0 0			0	4 3	-	2 red	yellow
116 212th Ave SE	Collector Arterial	2			25		0 0		-	0	3 3		2 red	red
117 212th Ave SE	Collector Arterial	2			35		0 0		-	0	4 4		2 red	red
118 212th Ave SE	Collector Arterial	2			35		0 0		5	1	4 4		2 red	red
119 212th Ave SE	Collector Arterial	2			35	0	0 0		-	0	4 4	1	2 red	red
120 212th Ave SE	Collector Arterial	2	4163	3 .	35	1	0 0		5	1	4 4	1	2 red	yellow
121 212th Ave SE	Collector Arterial	2	4163	3	35	1	0 0		5	1	4 4	1	2 red	yellow
122 212th Ave SE	Collector Arterial	2	4163	3 .	35	0	0 0		0	0	4 4	1	2 red	red
123 212th Ave SE	Collector Arterial	2	4659	)	35	1	0 0		0	0	4 4	1	2 red	yellow
124 Louis Thompson Rd SE	Collector Arterial	2	3867	7	35	2	0 0		5	1	4 3	3	2 red	yellow
125 212th Ave SE	Collector Arterial	2	4807	7	35	1	0 0		0	0	4 4	1	2 red	yellow
126 212th Ave SE	Collector Arterial	2	4935	5	35	1	0 0	1	0	0	4 4	1	2 red	yellow
127 Louis Thompson Rd NE	Collector Arterial	2	3867	7	35	0	0 0		0	0	4 4	1	2 red	red
128 244th Ave NE	Minor Arterial	2	7982	2	35	1	0	1	0	0	4 4	1	3 red	yellow
129 244th Ave NE	Minor Arterial	2	6781	L	35	2	2 0		6	1	3 3	3	3 green	green
130 244th Ave NE	Major Collector	2	5532	2	35	1	0 0	1	0	0	4 4	1	2 red	yellow
131 244th Ave NE	Major Collector	2	5532	2	35	1	0 0		0	0	4 4	1	2 red	vellow
132 Issaguah-Pine Lake Rd SE	Principal Arterial	2	15467	7	35	1	10		0	0	4 4	1	2 yellow	vellow
133 216th Ave SE	Collector Arterial	2	1619	)	25	1	2 0		6	1	1 2		2 green	green
134 216th Ave SE	Collector Arterial	2	1619	)	25	1	2 0		0	0	1 2		2 green	green
135 East Lake Sammamish Pkwy NE	Minor Arterial	2	14991	L .	35	0	0 0		0	0	4 4		3 red	red
136 East Lake Sammamish Pkwy SE	Minor Arterial	2			35	0	0 0		0	0	4 4		3 red	red
137 East Lake Sammamish Pkwy SE	Principal Arterial	2			35		2 0			0	3 4		2 yellow	red
138 SE Duthie Hill Rd	Principal Arterial	2			35	0	0		0	0	4 4		2 red	red
139 SE Duthie Hill Rd	Principal Arterial	2			35	0	0		-	0	4 4	-	2 red	red
140 SE 30th St	Collector Arterial	2			25	1	0		-	0	3 3	•	2 red	yellow
140 SE 30th St	Collector Arterial	2			25	1	0			1	3 3		2 red 2 red	vellow
142 212th Ave SE	Collector Arterial	2			35		00			0	4 4		2 red	red
142 2120 Ave SL 143 Issaquah-Pine Lake Rd SE	Principal Arterial	2			35	2	20		-	1	3 3	-	2 yellow	yellow
144 Sahalee Way NE	Principal Arterial	2			45	0	00			0	4 4		2 yellow 2 red	red
•	•	2			45 45		00			0	4 4		2 red 2 red	red
145 Sahalee Way NE 146 SE 4th St	Principal Arterial	2			45 25	2	20		-	1	2 2	•		
	Collector Arterial					2				-			2 green	green
147	Minor Arterial	2			35		2		-	0			0 green	green
148	Minor Arterial	2			35	1	1		-	0	4 4		0 yellow	yellow
149	Minor Arterial	2	8512	2	35	2	2		0	0	3 3	5	0 green	green

			AADT	Posted	Sidewalk on		Bike Lane		Separated					
	City Functional		(Traffic	Speed	Roadway	Bike Lanes on	Buffer	Sidewalk	Sidewalk	Bicycle	Pedesrian	LTS Guidelines	Bicycle	Pedestrian
FID Road Name	Classification	Lanes	Volumes)	Limit	Segment	Roadway Segmen	t Presence	Width	(Yes/No)	LTS	LTS	for LOS	LOS	LOS
150	Minor Arterial	2	8512	2 3	5	0	0	(	) (	0	4 4	ļ	0 red	red
151	Minor Arterial	2	8512	2 3	5	1	1	(	) (	0	4 4	Ļ	0 yellow	yellow
152	Minor Arterial	0	8512	2 3	5	2	2	(	) (	0	3 3	3	0 green	green
153	Minor Arterial	0	8512	2 3	5	0	0	(	) (	0	4 4	Ļ	0 red	red
154	Collector Arterial	2	4935	5 3	5	0	0	(	) (	0	0 4	L .	0	red
155	Collector Arterial	2	4935	5 3	5	1	0	(	) (	0	0 4	l .	0	yellow
156	Collector Arterial	2	4935	5 3	5	0	0	(	) (	0	4 (	)	0 red	
157 East Lake Sammamish Pkwy NE	Minor Arterial	2	15266	; 3	5	0	0 0	(	) (	0	4 4	l .	3 red	red
158 East Lake Sammamish Pkwy NE	Minor Arterial	2	15266	5 3	5	0	0 0	(	) (	0	4 4	l .	3 red	red
159 East Lake Sammamish Pkwy NE	Minor Arterial	2	15266	; 3	5	0	0 0	(	) (	0	4 4	l .	3 red	red
160 244th Ave NE	Major Collector	2	5532	2 3	5	1	0 0	C	) (	0	4 3	}	2 red	yellow
161 244th Ave NE	Major Collector	2	5532	2 3	5	1	0 0	(	)	0	4 4	L .	2 red	yellow
162 SE Issaquah-Fall City Rd	Principal Arterial	2	11567	/ 3	5	0	2	5	5 1	0	4 4	ļ.	2 red	red