



PLANNING COMMISSION REGULAR MEETING
June 15, 2017 6:30 – 8:30 PM
SAMMAMISH CITY HALL 801-228TH AVE SE

AGENDA

	<u><i>Approx. start time</i></u>
CALL TO ORDER	6:30 pm
ROLL CALL	
APPROVAL OF THE AGENDA	
APPROVAL OF THE MINUTES: June 1, 2017	
PUBLIC COMMENT – Non Agenda (3 minutes per person / 5 if representing an organization)	
<u>OLD BUSINESS</u>	6:45 pm
Comprehensive Plan Amendments – Transportation Element	
<ul style="list-style-type: none">• Public Hearing• Deliberation	
PUBLIC COMMENT – Agenda (7 minutes per person)	7:15 pm
ADJOURN	8:30 pm

Note: This is an opportunity for the public to address the Planning Commission. For non-agenda items, three (3) minutes are granted per person, or five (5) minutes if representing the official position of a recognized community organization. Seven (7) minutes are granted per person for agenda items.

If you are submitting written material, please supply 8 copies (7 for Planning Commission; 1 for the record). If you would like to show a video or PowerPoint, it must be submitted or emailed by 5pm the day of the meeting to Kevin Johnson at Kjohnson@sammamish.us. Please be aware that Planning Commission meetings are videotaped and available to the public.

The City of Sammamish Planning Commission is appointed and is the advisory board to the City Council on the preparation and amendment of land use plans and implementing ordinances such as zoning. Planning Commissioners are selected to represent all areas of the City and as many "walks of life" as possible. The actions of the Planning Commission are not final decisions; they are in the form of recommendations to City Council who must ultimately make the final decision.

THE COMMISSION MAY ADD OR TAKE ACTIONS ON ITEMS NOT LISTED ON THIS AGENDA.

Planning Commission meetings are wheelchair accessible. American Sign Language (ASL) interpretation is available upon request. Please phone (425) 295-0500 at least 48 hours in advance. Assisted Listening Devices are also available upon request.

PLANNING COMMISSION AGENDA CALENDAR

Date	Time	Type	Staff	Topics
July 6	6:30 PM	Regular Meeting	Doug McIntyre David Goodman Public Works Staff	Work Session: Electronic Reader Boards Code Work Session: Comprehensive Plan Amendments – Capital Facilities Element
July 20	6:30 PM	Regular Meeting	Kellye Hilde Doug McIntyre David Goodman Public Works Staff	Public Hearing / Deliberation: Electronic Reader Boards Code Public Hearing / Deliberation: Comprehensive Plan Amendments – Capital Facilities Element
August		No Meetings		
September 6	5:00 PM	Special Meeting w/ Parks Commission	Kellye Hilde Parks Staff	Work Session: Urban Forestry Management Plan Work Session: PRO Plan Update
	6:30 PM	Regular Meeting	ARCH Staff Public Works Staff	Work Session: Housing Strategy Update Work Session: Storm Water Code Updates
September 7	Cancelled	Regular Meeting		
September 21	6:30 PM	Regular Meeting	Jeff Thomas David Pyle Public Works Staff	Public Hearing / Deliberation: Storm Water Code Updates Work Session: Erosion Hazards Near Sensitive Water Bodies Overlay No-Disturbance Area Code
October 5	6:30 PM	Regular Meeting	Jeff Thomas David Pyle	Public Hearing / Deliberation: Erosion Hazards Near Sensitive Water Bodies Overlay No-Disturbance Area Code



Memorandum

Date: June 15, 2017
To: City of Sammamish Planning Commission
From: Doug McIntyre, AICP, Senior Planner
Re: 2017 Comprehensive Plan Docket – Transportation Element

The Sammamish Municipal Code (SMC), in accordance with the Growth Management Act (GMA), allows the City to consider certain types of amendments to the Comprehensive Plan on an annual basis. These amendments fall into two categories: text amendments, which address technical updates and do not require substantive changes to policy language, and site-specific land use map amendments, which seek to change the future land use map zoning designation of an individual's or group of individuals' property.

The City docketed two of the eight proposed Comprehensive Plan Amendments submitted for the 2017 Docket by Resolution R2016-709 (Attachment A). The docket includes the following text amendment proposals:

1. **City of Sammamish Department of Public Works** – Amend the Transportation Element of the Sammamish Comprehensive Plan to update the City's concurrency project list and the City's Traffic Impact Fee. Additional changes include an updated traffic model to reflect growth and the annexation of Klahanie.
2. **City of Sammamish Department of Public Works** – Amend the Sammamish Comprehensive Plan to be consistent with revised Storm and Surface Water Management Comprehensive Plan, Surface Water Design Manual, Public Works Standards, and Low Impact Development codes, among other minor edits.

Process

The two proposals included in the 2017 Docket will be reviewed separately by Planning Commission and City Council in succession, with review of the Transportation Element first. Amendments to the Comprehensive Plan require a recommendation from the Planning Commission to be considered for City Council's approval. On June 1, the Planning Commission discussed the proposed amendments and provided suggestions to improve and clarify the proposed amendments. Staff have made multiple changes to the text of the transportation element based on these suggestions, which are reflected in the attachments to this memo (Attachments B, C, and D).

A tentative schedule for further review of the proposed amendment to the Transportation Element has been set with the following dates:

Planning Commission

- **June 15, 2017** - Public Hearing, Deliberation, and Recommendation

City Council

- **July 11, 2017** - Public Hearing and First Reading of the Ordinance
- **July 18, 2017** - Second Reading of the Ordinance and anticipated Adoption

Analysis

Department of Community Development (DCD) staff have reviewed the proposed amendment to the Transportation Element submitted by the Department of Public Works against criteria in SMC Title 24. Staff finds that the proposal is within the parameters of allowable amendments, pursuant to SMC 24.25.030. The proposal specifically meets provisions SMC 24.25.030(2)(a), (c), (g), and (k), which relate to technical amendments, amendments to transportation needs, amendments to technical appendices, and other amendments initiated by the City, respectively.

The proposed amendment will update the City's concurrency project list and establish an updated framework for the City to update its Traffic Impact Fee in Chapter 14A.15 SMC. The proposed amendment will also include the recently annexed Klahanie Area and incorporate the results of updated data into the City's traffic model, incorporating the May 2016 traffic counts and the installation of the adaptive traffic signal (ITS) controls along the 228th Avenue corridor. The proposed amendment will also include new development that has been completed in the City between May 2012 and May 2016.

In addition, minor non-substantive updates will improve consistency throughout the entire Transportation Element.

Attachment

- A. Resolution R2016-709
- B. Summary matrix of proposed amendments to Transportation Element
- C. Planning Commission comments on proposed amendments to Transportation Element (June 1, 2017 meeting)
- D. Redlined version of proposed amendments to Transportation Element (redlines made to June 1 clean version)
- E. Draft Ordinance Adopting Amendment

CITY OF SAMMAMISH
WASHINGTON
Resolution No. R2016-709

**A RESOLUTION OF THE CITY OF SAMMAMISH,
WASHINGTON RELATED TO SETTING THE
COMPREHENSIVE PLAN AMENDMENT DOCKET FOR
2017**

WHEREAS, the City of Sammamish plans under Chapter 36.70A RCW, the Growth Management Act (“GMA”), which requires cities to adopt a comprehensive plan that is consistent with the GMA and with county and regional planning policies;

WHEREAS, the City Council initially adopted the City’s Comprehensive Plan in 2003 by Ordinance O2003-130, and has adopted various subsequent revisions; and

WHEREAS, the City Council updated the Sammamish Comprehensive Plan in accordance with RCW 36.70A.130 on October 26, 2015 (“2015 Comprehensive Plan”) by adopting Ordinance O2015-396; and

WHEREAS, Sammamish Municipal Code (SMC) Chapter 24.15.040 authorizes the City to consider site-specific land use map amendments and text amendments to the Comprehensive Plan on an annual basis; and

WHEREAS, City staff solicited Comprehensive Plan amendment proposals from citizens and City departments in August and September 2016; and

WHEREAS, a total of eight proposals were submitted and deemed complete, including four from the general public and four from City departments; and

WHEREAS, proposals that are included on the 2017 docket will be added to the City’s 2017 work plan, thoroughly analyzed, and returned to the Planning Commission and City Council for consideration; and

WHEREAS, on October 27, 2016 the Planning Commission held a work session on the proposals for the 2017 Comprehensive Plan docket; and

WHEREAS, on November 3, the Planning Commission held a public hearing on the proposals for the 2017 Comprehensive Plan docket, considered public comment, and made a recommendation to the City Council regarding which proposals to include on the 2017 docket; and

WHEREAS, on November 8, 2016 the City Council held a work session on the proposals for the 2017 Comprehensive Plan docket; and

WHEREAS, on November 15, 2016, the City Council held a public hearing on the proposals for the 2017 Comprehensive Plan docket in order to provide further opportunity for public comment and participation;

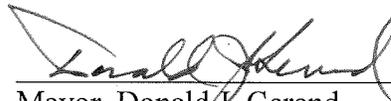
NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DO RESOLVE AS FOLLOWS:

Section 1. Docket Decision. The City Council of the City of Sammamish hereby approves the following proposals to be included on the 2017 Comprehensive Plan docket:

6. City of Sammamish – Department of Public Works
 - Amend Transportation element to update the City’s concurrency project list and the City’s Traffic Impact Fee, as well as other traffic model updates reflecting growth and the annexation of Klahanie.
7. City of Sammamish – Department of Public Works
 - Amend Comprehensive Plan to be consistent with revised Storm and Surface Water Management Comprehensive Plan, Surface Water Design Manual, Public Works Standards and Low Impact Development codes, among other minor edits.

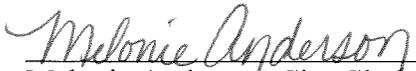
PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 6th DAY OF DECEMBER, 2016.

CITY OF SAMMAMISH



Mayor, Donald J. Gerend

ATTEST/AUTHENTICATED:



Melonie Anderson, City Clerk

Approved as to form:



Michael R. Kenyon, City Attorney

Filed with the City Clerk: November 29, 2016

Passed by the City Council: December 6, 2016

Resolution No.: R2016-709

FIGURE or TABLE #	NAME	DESCRIPTION OF CHANGE(S)
	Sound Transit	Added text description of Sound Transit 3's (ST3) proposed Park and Ride lot on Sammamish traffic.
Figure T-1	Roadway Functional Classification	MINOR ARTERIALS: Deleted 244th Ave. SE (SE 32nd to SE 8th); Deleted SE 4th St (218th to 228th); Added 244th Ave SE (SE 8th to NE 8th) COLLECTORS: Added NE 37th Way/205th Place NE/211th Way NE/NE 16th St (Sahalee to 216th); Added 216th Ave NE (16th to IWHRd); Added SE 4th St (218th to 228th); Added SE Windsor Blvd (SE 8th to SE 24th); Added SPLR (212th to 228th); Added 244th Ave SE (SE 32nd to SE 24th); Added Klahanie Blvd (IPLRd to IFCRd); Added SE 256th Ave (Klahanie to IBLRd). See text revisions pages T.10-13.
Table T-1	Miles of Roadway by Classification	Revised to reflect changes in Figure T-1 above.
	Roadway Design Standards	Updated text to reflect the city's Public Works Standards adopted in December 2016.
Figure T-2	Traffic Signal Locations	Updated to 2016 status
Figure T-4	Roadway Design Standards	Updated to reflect the city's Public Works Standards adopted in December 2016.
Table T-2	2016 Average Weekday Traffic (AWDT's)	Updated to reflect both added roadway segments (Increased the number of traffic count locations from 21 to 78) and to reflect actual field gathered 2016 AWDT's
Figure T-7	2016 Average Weekday Traffic (AWDT's)	Updated to reflect both added roadway segments (Increased the number of traffic count locations from 21 to 78) and to reflect actual field gathered 2016 AWDT's
	Intersection Level of Service (LOS) Criteria	Added text describing roundabout (RAB) LOS criteria
Table T-4	Level of Service (LOS) Criteria	Updated to include Roundabout (RAB) LOS criteria to be the same as that for signalized intersections
Table T-5	Level of Service (LOS) Criteria	Updated to eliminate RAB LOS criteria being the same as that for stop controlled intersection
Table T-6	2016 Intersection LOS	Updated to reflect intersection LOS based on 2016 field gathered traffic counts; increased the total number of included intersections from 30 to 48.
Figure T-8	2016 Intersection LOS	Updated to reflect intersection LOS based on 2016 field gathered traffic counts; increased the total number of included intersections from 30 to 48.
Figure T-9	Concurrency Segments	Updated to include revised currency segments, both those that are new (Klahanie annexation and others - segment numbers 50 and above) and those existing segments that were split for the sake of more accurate concurrency calculations (these segments have a letter in their number); increased the total number of roadway segments from 49 to 73.
Table T-7	Roadway Segment Concurrency Thresholds & AWDT's	Updated to include revised currency segments, both those that are new (Klahanie annexation and others - segment numbers 50 and above) and those existing segments that were split for the sake of more accurate concurrency calculations (these segments have a letter in their number); increased the total number of roadway segments from 49 to 73.
Table T-8	Concurrency Threshold Definitions	Revised "Median" values to reflect a left turn constrained roadway; clarified "Walkway/Bikeway" threshold capacity values.
Table T-9	Collision Summary	Updated to 2012 - 2016 numbers

FIGURE or TABLE #	NAME	DESCRIPTION OF CHANGE(S)
Figure T-10	Traffic Collisions	Updated to 2012 - 2016 numbers
	Traffic Calming	Updated text to conform with current city of Sammamish traffic calming locations and standards
Table T-10	2017-2022 Six Year TIP	Updated from 2016-2021 TIP to current 2017-2022 TIP
	Transit Service	Added text to describe the Microsoft "Connector" bus service for its employees who live in Sammamish.
	Travel Forecasting Model	Updated text to describe the 2016 updating of the travel demand forecast analysis
Table T-12	Committed CIP Projects	Updated to match Table T-10
Table T-13	2035 Intersection LOS with Committed CIP Projects Only	Updated to include revised intersection list
Figure T-14	2035 Intersection LOS with Committed CIP Projects Only	Updated to include revised intersection list from Table T-13
Table T-14	AWDT Thresholds & 2035 Segment Volumes	Updated to reflect added roadway concurrency segments (Klahanie annexation & others) and revised existing concurrency segments; updated with recalculated 2035 concurrency threshold capacities and traffic model projected 2035 AWDT traffic volumes.
	Recommended Transportation Improvements	Updated text to refer to 2016 and 2035 project needs vs. 2012 project needs.
Table T-15	Summary of Recommended Transportation Improvements	Updated to include revised list of recommended transportation improvements based on revised projected 2035 traffic volumes.
Figure T-15	Recommended Transportation Improvements	Updated to reflect recommended transportation improvements listed in Table T-15.
Table T-16	2035 Intersection LOS with Recommended Improvements	Updated to reflect 2035 intersection LOS based on recommended transportation improvements listed in Table T-15.
Figure T-16	2035 Intersection LOS with Recommended Improvements	Updated to reflect 2035 intersection LOS listed in Table T-16.
Table T-17	2035 Segment Concurrency Status with Recommended Improvements	Updated to reflect 2035 segment concurrency threshold status based on recommended transportation improvements listed in Table T-15.
	Concurrency Monitored Corridors	Updated list of those roadway corridors from Figure T-9 that will be monitored by the city for concurrency compliance.

No.	COMMENT	RESPONSE
1	Front Page (Clean Version); Front page should be changed.	The front page of Volume 2 of the Comp Plan Transportation Chapter matches the front page of Volume 1 as well as is consistent with all of the other front pages of Volumes 1 & 2 of the other Comp Plan chapters; as such, it will be left as is.
2	Page T.18 (Clean Version); Background Figure T-3; Freight Routes; Rotes shown on the figure should be extended through Issaquah to I-90 on the south.	This figure has been revised to show the continuation of the freight routes in Sammamish to both the north and the south to the edges of the figure.
3	Page T.19 (Clean Version); Background Figure T-4; Current Roadway Design Standards; Minor and Collector Roadway Sections are the same, they should be different.	These roadway sections were copied directly from the City's 2016 Public Works Standards document, adopted by the City Council in December 2016 (see standard details 1-01, 1-02, 1-03, 1-05A & 1-05B of these standards). While the standard roadway sections may be the same, the City's Roadway Standards require other characteristics of each roadway classification to be different such as design speed, sidewalk width in commercial areas, etc.
4	Page T.19 (Clean Version); Background Figure T-4; Current Roadway Design Standards; Roadway sections are hard to read, increase size of text so it is legible.	In the final electronic pdf version of the document, the figure will be able to be increased in size by the reader to make the content of the figure larger.
5	Page T.19 (Clean Version); Background Figure T-4; Current Roadway Design Standards; These sections are out of scale	The roadway sections as contained in this figure are Not To Scale (N.T.S.) figures meant for depiction purposes only. They are not intended to be scaled drawings.
6	Page T.47 (Clean Version); The subtitle under the page number has been cut off.	This formatting error was also found on pages T.46 and T.48 -- this has been corrected.
7	Page T.47 (Clean Version); The reference to the Mars Hill Church site should be updated to the Central Washington University site or a street address used instead.	This has been updated to use a street address as the site reference to avoid any confusion should the use of this site change in the future. A street intersection reference has also been added for additional clarification.
8	Page T.47 (Clean Version); The reference to the Park and Ride locations in Klahanie should be moved from being in the "outside the City" description to "inside the City".	This revision has been made. Research by City staff indicates that one of the P&R lots (Klahanie Blvd @ 244th Place SE) is now inside the City of Sammamish while the 2nd P&R lot (Klahanie Blvd @SE Issaquah-Fall City Road) remains in King County.
9	Page T.72 (Clean Version); Current text references only Skyline High School, also need to reference Eastlake and Eastside Catholic High schools.	This revision has been made.
10	Page T.75 (Clean Version); Question regarding the impact of Town Center development/traffic on Issaquah-Pine Lake Road	The extent of the various types of development have an effect on all of the arterial streets in the City to one extent or another. So, if the actual mix of uses in the Town Center varies from what is assumed in the Comp Plan, then the traffic impacts on the arterial streets in the City will be different than what is contained in the Comp Plan. That is why there is language in the Comp Plan stating the need to monitor the future LOS's when the actual Town Center development mix is known. This has to do with the fact that there are a range of Town center uses that could happen.

No.	COMMENT	RESPONSE
11	Page T.76 (Clean Version); Reference is made in the "Flexibility in Roadway Design Guidelines" paragraphs to roadway aesthetics - more description of these aesthetics should be included here.	Guidelines and standards for roadway aesthetics are contained in the City's "2016 Public Works Standards" document approved by the City Council in December 2016. A note cross referencing the reader to these Standards has been added to page T.76 of the amended document.
12	Pages T.79, 80 and 81 (Clean Version); References to the City's "Trails, Bikeways and Pathways Plan" should be changed to the "Non-motorized Plan"	The Trails, Bikeways and Pathways Plan is the City's most current document related to non-motorized facilities. This Plan will be updated as a part of the Parks, Recreation and Open Space (PRO) Plan that is just getting underway. Therefore, no change is required in this text.
13	Are the 2016 traffic counts accurate - some concern that the Inglewood Hill Road Stormwater/Non-motorized Project may have reduced the traffic using this roadway.	The May 2016 traffic counts are accurate - the Inglewood Hill Project started after the May 2016 traffic counts were gathered.
14	Question regarding how the proposed revisions are a "text" amendment to the Comprehensive Plan	The state Growth Management Act (GMA) defines a "Text Amendment" as amendments that address technical updates and do not require substantive changes to policy language. Since this proposed amendment to the Transportation Background Information chapter of the Comprehensive Plan is not proposing any revisions in Comp Plan policies or goals, it falls within this GMA text amendment definition.
15	Should previous data be included in the document to show trends over time	The Comp Plan and all of its various chapters are a forward looking vision document for the City. Data from past versions of the Comp Plan is still available in those documents for use in establishing trends if that is desired by the City at some point in time
16	Maps and Figures should be labeled differently than the page numbers - it is confusing with all of them beginning with the letter T	The numbering of pages, tables and figures in this update follow the page, table and figure numbering convention of the rest of the Comp Plan document. The "T" designation is used to distinguish that these pages, tables and figures are from the Transportation chapter of the Comp Plan. The Land Use chapter uses "LU" as its designation, the Environment & Conservation chapter uses "EC", the Housing chapter uses "H", etc. The use of the "T" designation for all pages, tables and figures will be maintained in this chapter to be consistent with the overall Comp Plan identification convention.
17	All acronyms used in tables and figures should be defined in those tables and figures	Acronyms used in the document are defined in either the document text or in a table or figure in which they are used, depending on where the acronym is first used. Staff has reviewed the document to make sure all acronym's are defined in the document; hopefully we have caught all of those that were not previously defined.
18	All streets referenced in the text of the document should be shown on the referenced maps; show more street names on the base maps used in the document.	These revisions will be made in the version of the amended document that goes forward to the City Council for their consideration.
19	Map text in the document should be larger - it is hard to read.	In the final electronic pdf version of the document, the maps/figures will be able to be increased in size by the reader to make the content of the figure larger and thus easier to read.

No.	COMMENT	RESPONSE
20	For improvements to Issaquah-Fall City Road/Duthie Hill Road verbiage should be added encouraging coordination with King County similar to called for with the cities of Redmond and Issaquah on other roadway improvements	References in the document related to coordination with the cities of Redmond and Issaquah and King County are made with reference to improvements to signals and roadway segments outside the City of Sammamish that will fail their respective level of service standards between 2016 and 2035. The sections of Issaquah Fall City Road/Duthie Hill Road outside Sammamish will not fail their LOS standards between 2016 and 2035 - that is why no similar language is included in the document for these 2 roadways. To do so would be inconsistent with the rest of the document. NOTE: An additional revision has been made on pages T.33 and T.58 with respect to the need to coordinate with King County and the Washington State Department of Transportation on improvements to Sahalee Way between the north City limits and SR 202 and on SR 202 between Sammamish and Redmond.
21	Recommendation for wider roadway rights of way	Guidelines and standards for roadway right of way widths are contained in and governed by the City's "2016 Public Works Standards" document approved by the City Council in December 2016.
22	Smaller streets should also be addressed	Guidelines and standards for smaller roadways (including non-arterial streets, woonerfs, alleys and private streets) in the City of Sammamish are contained in and governed by the City's "2016 Public Works Standards" document approved by the City Council in December 2016.
23	Transit services in the City should promote non-motorized transportation alternatives	This is a topic better discussed in the City's upcoming Transportation Master Planning effort - recommending revisions to transit services in Sammamish is outside of the scope of this narrowly focused Transportation Chapter update.
24	Activities on a smaller scale should be allowed in neighborhoods to promote walking and other non-motorized alternatives	This is a land use related vision and should be addressed in the land use chapter of the Comprehensive Plan and as such is outside of the scope of this narrowly focused Transportation Chapter update.
25	Make sure references in Volume 1 to Volume 2 in the Transportation chapter are consistent with this revision.	This cross reference "truing" will occur in the final version of the revisions as they are adopted by the City Council.
26	Map graphics should be made clearer; maps should be bigger	The maps used in this Transportation chapter of Volume 2 of the Comp Plan are the same base maps used in all of the other 8 chapters of Volume 2 of the Comp Plan. For consistency throughout the entire Comp Plan document, the maps in this chapter will not be changed. In the final electronic pdf version of the document, the maps will be able to be increased in size by the reader to make the content of the map larger and more readable.



Background Information

TRANSPORTATION

soap box derby —

someone's front wheel

a little wobbly

Painting by Anna Macrae
Haiku by Michael Dylan Welch



soap box derby —

someone's front wheel

a little wobbly

Background Information

TRANSPORTATION

The purpose of the Transportation Element is to establish goals and policies that will guide the development of surface transportation in the City of Sammamish, in a manner consistent with the overall goals of the Comprehensive Plan. Based upon existing and projected land use and travel patterns, the Transportation Element Background Information addresses roadway classifications, levels of service, transit and non-motorized modes, future travel forecasts, transportation system improvements, financing strategies, and concurrency management. It establishes the technical basis for transportation system development, and for existing and future improvement of transportation programs and facilities guided by the Transportation Polices of the Comprehensive Plan.

Planning Context

The Plan's Transportation Element has been developed to be consistent with transportation policy and plans that have been adopted at the State and local levels, as described in the following sections.

State of Washington

Growth Management Act

Transportation planning at the State, County and local levels is mandated by the State of Washington Growth Management Act (GMA) [RCW 36.70A]. The GMA contains many requirements for the preparation of a Comprehensive Plan's Transportation Element. In addition to requiring consistency with the land use element, specific GMA requirements for a Transportation Element include [RCW 36.70A.070(6)]:

- Inventory of facilities by mode of transport.
- Level-of-service standards to aid in determining the existing and future operating conditions of the facilities.
- Proposed actions to bring these deficient facilities into compliance with adopted level-of-service standards.
- Traffic forecasts, based upon land use.
- Identification of transportation infrastructure needs to meet current and future demands.
- Funding analysis for needed improvements, as well as possible additional funding sources.
- Identification of intergovernmental coordination efforts.
- Identification of transportation demand management strategies as available.
- Identification of improvements for pedestrian and bicycle facilities and corridors.

In addition to these elements, GMA mandates that development cannot occur unless infrastructure exists, infrastructure improvements or strategies are concurrent with development, or a financial commitment is in place to complete the improvements or strategies within six years. In addition to construction of new capital facilities, infrastructure may include transit service, ride share programs, transportation demand management (TDM) strategies, or transportation system management (TSM) strategies.

Washington Transportation Plan

The Washington Transportation Plan (WTP) 2030 presents the State of Washington's strategy for implementation programs and budget development over a 20-year planning horizon. The WTP contains an overview of the current conditions of the statewide transportation system, as well as an assessment of the State's future transportation investment needs. The WTP policy framework sets the course for meeting those future needs. The WTP is based on the following six transportation policy goals:

- **Economic Vitality:** To promote and develop transportation systems that stimulate, support, and enhance the movement of people and goods to ensure a prosperous economy.
- **Preservation:** To maintain, preserve, and extend the life and utility of prior investments in transportation systems and services;
- **Safety:** To provide for and improve the safety and security of transportation customers and the transportation system;
- **Mobility:** To improve the predictable movement of goods and people throughout Washington state;
- **Environment:** To enhance Washington's quality of life through transportation investments that promote energy conservation, enhance healthy communities, and protect the environment; and
- **Stewardship:** To continuously improve the quality, effectiveness, and efficiency of the transportation system.

The WTP addresses the essential and interconnected roles of the Regional Planning Organizations and their local jurisdictions, and the important transportation issues of tribal governments in Washington State. It highlights the role of the Washington State Department of Transportation (WSDOT) to maintain, preserve and improve the transportation system while meeting the other societal goals defined above.

Puget Sound Region

Puget Sound Regional Council—*Transportation 2040*

Transportation 2040 is a 30-year action plan for transportation in the central Puget Sound Region (King, Pierce, Snohomish, and Kitsap Counties). The plan identifies investments to support growth and improve transportation services to people and businesses, provides a financing plan for funding transportation improvements, and proposes strategies for reducing environmental impacts.

Transportation 2040 establishes three integrated and sustainable strategies: congestion and mobility; environment; and funding.

These three strategies are then broken into four major investment categories that pertain to maintaining existing services; enhancing safety and security; improving system efficiency through travel demand management (TDM); and implementing strategic capacity investments for all travel modes and facilities.

Transportation 2040 is an offshoot of the *Vision 2040* plan whose fundamental goal is to focus growth in urban areas to maintain and promote the well-being of people and communities, economic vitality, and a healthy environment (PSRC 2014).

King County

2012 King County Planning Policies

Supporting Growth

An effective transportation system is critical to achieving the Regional Growth Strategy and ensuring that centers are functional and appealing to the residents and businesses they are designed to attract.

Goal Statement: Local and regional development of the transportation system is consistent with and furthers realization of the Regional Growth Strategy.

Mobility

Mobility is necessary to sustain personal quality of life and the regional economy. For individuals, mobility requires an effective transportation system that provides safe, reliable, and affordable travel options for people of all ages, incomes and abilities. While the majority of people continue to travel by personal automobile, there are growing segments of the population (e.g. urban, elderly, teens, low income, minorities, and persons with disabilities) that rely on other modes of travel such as walking, bicycling, and public transportation to access employment, education and training, goods and services.

The movement of goods is also of vital importance to the local and regional economy. International trade is a significant source of employment and economic activity in terms of transporting freight, local consumption, and exporting of goods.

Goal Statement: A well-integrated, multi-modal transportation system transports people and goods effectively and efficiently to destinations within the region and beyond.

System Operations

The design, management and operation of the transportation system are major factors that influence the region's growth and mobility.

Goal Statement: The regional transportation system is well-designed and managed to protect public investments, promote public health and safety, and achieve optimum efficiency.

King County Metro Strategic Plan for Public Transportation 2011–2021

The King County Strategic Plan for Public Transportation 2011–2021 describes a vision for the county’s future transportation system and sets objectives, goals, and strategies for getting there. The plan is consistent with other regional and countywide policies and plans, such as *Vision 2040*. Strategies to achieve Metro’s goals are as follows:

- Increase safety and security in public transportation operations and facilities.
- Increase travel opportunities and public transportation products to serve appropriate markets (including low-income, elderly, and students) and mobility needs.
- Provide travel options and alternatives to regular fixed route-transit, such as ridesharing and other alternative or “right-sized” services.
- Expand services to account for the region’s growing population and serve new transit markets.
- Support CTR and TDM strategies for employers, local jurisdictions, and other agencies.
- Enhanced service to and within jurisdictions that aggressively implement local land use plans, growth management strategies, and transit-oriented development.
- Design and modification of services and infrastructure to be more efficient and effective.
- Coordinate with Sound Transit, Community Transit, Pierce Transit, and the Washington State Ferry System to provide integrated efficient service to major destinations throughout the region.
- Improve access for pedestrians (with and without disabilities) and bicyclists, as well as the waiting environment at transit facilities with the highest use.
- Provide service that is easy to understand and use and promote. (King County Metro 2013)

Sound Transit

Sound Transit 2 expands mass transit with the addition of more regional express transit and link light rail and commuter rail service. This second mass transit phase builds onto the Sound Move strategic program, approved by voters in 1996. Sound Transit 2 expands the link light rail system to include link light rail from North Seattle into Snohomish County (Sound Transit 2008).

Sound Transit 3 includes a planned North Sammamish Park-and-Ride of up to 200 spaces, scheduled for completion by 2024. The park-and-ride will provide a bus connection with planned Link light rail in Redmond. No site has been selected for the North Sammamish Park-and-Ride, however 228th Avenue is a likely candidate due to its connection to SR 202 via Sahalee Way. The construction of a park-and-ride on 228th Avenue NE would create a localized increase in vehicular and nonmotorized traffic related to transit users driving, carpooling, walking, and biking to the site. Traffic to the north of the park-and-ride would be reduced slightly with an increase in transit ridership to Redmond.

Inventory and Existing Conditions

The primary objective of this section of the report is to assess existing traffic conditions within and adjacent to the City of Sammamish. In order to identify existing traffic conditions, a comprehensive data collection process has been undertaken. The data was primarily collected from the City of Sammamish, King County, and WSDOT. The assessment of existing conditions serves as a baseline for measurement of capacity for future land use and transportation planning.

The following categories are included in this section:

- Identification of State Highways;
- Roadway Inventory;
- Traffic Signal Inventory;
- Roadway Design Standards;
- Traffic Level-of-Service Analysis;
- Analysis of Access to the city;
- Traffic Calming;
- Current Six-Year Transportation Improvement Program (TIP);
- Existing Transit Service; and
- Existing Non-Motorized Conditions.

Identification of State Highways

Identification of State Highways

No state highways are located within the Sammamish city limits. However, three State-controlled highways, Interstate 90 (I-90), State Route 520 (SR 520), and State Route 202 (SR 202), run near or adjacent to Sammamish, providing the primary means of access into and out of the city. Improvements on these facilities will highly impact traffic conditions in Sammamish and in turn, conditions on the highways will be impacted by transportation conditions and improvements in Sammamish.

I-90 is a limited-access freeway that consists of three lanes in each direction and runs east-west, approximately one mile south of the southern Sammamish city limits. From just west of Issaquah to Seattle, I-90 also has an HOV lane in each direction. I-90 serves as the primary east-west freeway for regional travel within and beyond western Washington. To the west, it provides direct connection to the Cities of Bellevue, Mercer Island, and Seattle. To

the east, it serves as the major east-west freeway across the State of Washington, connecting to Spokane at the eastern state border, and running beyond to the eastern coast of the United States.

SR 520 is a limited access freeway that consists primarily of two to three lanes in each direction and runs east west between the Cities of Redmond, Bellevue and Seattle. There are HOV lanes present along various stretches of this highway, but these lanes are not continuous.

SR 202, which runs adjacent to the northern Sammamish city limits, connects to SR 520 west of the city. SR 202 (also called Redmond-Fall City Road in the area adjacent to Sammamish) consists of one lane in each direction, widening to two lanes in each direction west of Sahalee Way. SR 520/SR 202 is the primary east-west highway alternative to I-90. This highway corridor provides direct connection to the Cities of Redmond, Bellevue, Kirkland, and Seattle to the west, and to the Cities of Snoqualmie and North Bend to the east.

Both I-90 and SR 520 connect directly to Interstate 405 (I-405) and Interstate 5 (I-5) to the west, which are the primary north-south freeways within the region.

Highways of Statewide Significance

In 1998, Highways of Statewide Significance (HSS) legislation was passed by the Washington State Legislature and codified as RCW 47.06.140. Highways of Statewide Significance are those facilities deemed to provide and support transportation functions that promote and maintain significant statewide travel and economic linkages. The legislation emphasizes that these significant facilities should be planned from a statewide perspective (WSDOT 2004). Thus, level-of-service requirements for HSS highways are established by WSDOT, not by local standards.

Adjacent to the City of Sammamish, I-90 carries the HSS designation (Washington State Transportation Commission 2004) and thus is controlled by State level-of-service requirements. Additionally, SR 520 is also identified as an HSS.

Roadway Inventory

Roadway Functional Classification and Inventory

Transportation roadway systems consist of a hierarchy of streets that provide the dual functions of access to land and development, and

through movement for travelers. Streets are classified based upon the relative degree to which they provide these functions. Land use policies and street standards typically vary according to the street function. For example, most jurisdictions designate minimum right-of-way requirements, stopping and entering sight distances, roadway width, design speed, design traffic volumes, access control, and sidewalk requirements in accordance with an adopted classification system. These requirements are usually codified in the jurisdiction's municipal code and/or adopted as street standards.

Based on state law, cities and counties are required to adopt a street classification system that is consistent with state and federal guidelines. In the State of Washington, these requirements are codified in RCW 35.78.010 and RCW 47.26.090. Each local jurisdiction is responsible for defining its transportation system into the following functional classifications: freeway, principal arterial, minor arterial, and collector. All other roadways are assumed to be local access streets.

Background Figure T-1 shows the existing classification of roadways for the City of Sammamish. The classifications are summarized as follows:

- **Freeways/Interstates** are multi-lane, high-speed, high-capacity roadways intended exclusively for motorized traffic. All access is controlled by interchanges and bridges separate road crossings. While I-90 to the south and SR 520 to the northwest are classified as freeways, no roadways of this designation exist within the city limits.
- **Principal Arterials** are roadways connecting between major community centers and facilities, and are often constructed with limited direct access to abutting land uses. Principal arterials serve high-volume corridors, carrying the greatest portion of through or long-distance traffic within a city. The selected routes should provide an integrated system for complete circulation of traffic, including ties to the major rural highways entering the urban area. There is an estimated 11 miles of principal arterial roads in the city. The following is a list of roadways currently designated as principal arterials in the City of Sammamish:
 - Sahalee Way NE, between 228th Ave NE and the north city limits;
 - 228th Ave, between SE 43rd Way and Sahalee Way NE;
 - SE 43rd Way, between the south city limits and 228th Ave SE;
 - SE Issaquah-Pine Lake Rd, between SE Issaquah-Fall City Rd and 228th Ave SE;

- SE Issaquah-Fall City Rd, between Issaquah-Pine Lake Rd SE and SE Duthie Hill Rd; and
 - SE Duthie Hill Rd, between Issaquah-Fall City Rd and the east city limits.
- **Minor Arterials** are roadways connecting centers and facilities within the community and serving some through traffic, while providing a greater level of access to abutting properties. Minor arterials connect with other arterial and collector roads extending into the urban area, and serve less concentrated traffic-generating areas, such as neighborhood shopping centers and schools. These roads also serve as boundaries to neighborhoods and collect traffic from collector streets. Although the predominant function of minor arterial streets is the movement of through traffic, they also provide for considerable local traffic with origins or destinations at points along the corridor. The following is a list of roadways currently designated as minor arterials in the City of Sammamish:
 - E Lake Sammamish Pkwy, between the south city limits and the north city limits;
 - NE Inglewood Hill Rd, between E Lake Sammamish Pkwy and 228th Ave NE;
 - NE 8th St, between 228th Ave NE and 244th Ave NE;
 - SE 8th St, between 228th Ave SE and 244th Ave SE;
 - 244th Ave NE, between NE 8th St and the north city limits;
 - 244th Ave SE, between SE 8th St and NE 8th St; and
 - SE 32nd Way/SE Issaquah Beaver Lk Rd, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd/ SE Duthie Hill Rd.
 - **Collectors** are roadways that connect two or more neighborhoods or commercial areas, while also providing a high degree of property access within a localized area. These roadways “collect” traffic from local neighborhoods and carry it to the arterial roadways. Additionally, collectors provide direct access to services and residential areas, local parks, churches and areas with similar uses of the land. Collectors may be separated into principal and minor designations according and the degree of travel between areas and the expected traffic volumes. The following is a list of roadways currently designated as collectors in the City of Sammamish:
 - NE 37th Way/205th PI NE/211th Way NE/NE 16th St, between Sahalee Way NE and 216th Ave NE;
 - 216th Ave NE, between NE 16th St and NE Inglewood Hill Rd;
 - Louis Thomson Rd, between 212th Ave SE and East Lake Sammamish Pkwy NE;

- 216th Ave NE, between NE Inglewood Hill Rd and NE 16th St;
- 212th Ave, between E Lk Sammamish Pkwy NE and Louis Thomson Rd;
- SE 8th St, between 212th Ave SE and 218th Ave SE;
- 218th Ave SE, between SE 8th St and SE 4th St;
- SE 4th St, between 218th Ave SE and 228th Ave SE;
- 248th Ave SE, between SE 24th St and SE 14th St;
- E Main Dr, between 244th Ave SE and the east city limits;
- SE 20th St, between 212th Ave SE and 228th Ave SE;
- SE 24th Way/SE 24th St, between E Lk Sammamish Pkwy SE and 212th Ave SE;
- SE 24th St, between 228th Ave SE and 248th Ave SE;
- Trossachs Boulevard SE, between SE Duthie Hill Rd and the north city limits;
- SE Windsor Blvd/248th Ave SE, between SE 8th St and SE 24th St;
- South Pine Lake Route (SE 32nd St/216th Ave SE/SE 28th St/222nd PI SE/SE 30th St), between 212th Ave SE and 228th Ave SE;
- 244th Ave SE, between SE 24th St and SE 32nd St;
- SE Klahanie Blvd/Klahanie Dr SE, between Issaquah-Pine Lake Rd SE and SE Issaquah-Fall City Rd; and
- 256th Ave SE, between SE Issaquah-Beaver Lake Rd and SE Klahanie Blvd.

Background Table T-1 provides a comparison of the City of Sammamish arterial and collector roadway miles to Federal Highway Administration (FHWA) guidelines (FHWA 1989), which must be followed to qualify the City of Sammamish streets for State and Federal grant programs.

The topography and development patterns within the City of Sammamish limit opportunities to add Principal or Minor Arterial routes. Some additional Collector mileage could be added and the totals would still remain within the FHWA guidelines.

*Background Table T-1
 Miles of Roadway by Functional Classification*

FUNCTIONAL CLASSIFICATION	EXISTING MILES OF ROADWAY IN SAMMAMISH ¹	TYPICAL RANGE OF PERCENTAGE OF TOTAL ROADWAY ²	TYPICAL RANGE OF MILES BASED UPON FHWA GUIDELINES
Freeway & Principal Arterial	14.0	5%–10%	10-20
Minor Arterial	16.0	10%–15%	20-32
Collector	20.0	5%–10%	10-20
Local Access	157.0	—	135-167
TOTAL	207.0	—	207

1. Source: City of Sammamish 2017
 2. Source: FHWA 1989

Traffic Signal and Roundabout Intersection Inventory

An inventory of the signalized and roundabout (RAB) intersections inside and nearby Sammamish was conducted by the City of Sammamish. The locations of the thirty-five existing signalized, five intersections with flashing beacons and six RAB intersections, are illustrated in Background Figure T-2. These are the intersections that most directly affect City of Sammamish residents' travel patterns.

Freight Routes

*See Volume I,
Transportation
Element Policy T.1.6
on page 87.*

Freight destined to and from Sammamish is associated primarily with retail oriented commercial developments in the city. There are no significant industrial, manufacturing, or import/export freight generators in the city. Limited through freight associated with FedEx sorting facilities in Issaquah to the south and UPS sorting facilities in Redmond to the north travel through the city. Freight traffic uses two corridors. Through freight typically uses East Lake Sammamish Parkway and local freight traffic uses Sahalee Way/228th Ave. Background Figure T-3 shows these routes.

Roadway Design Standards

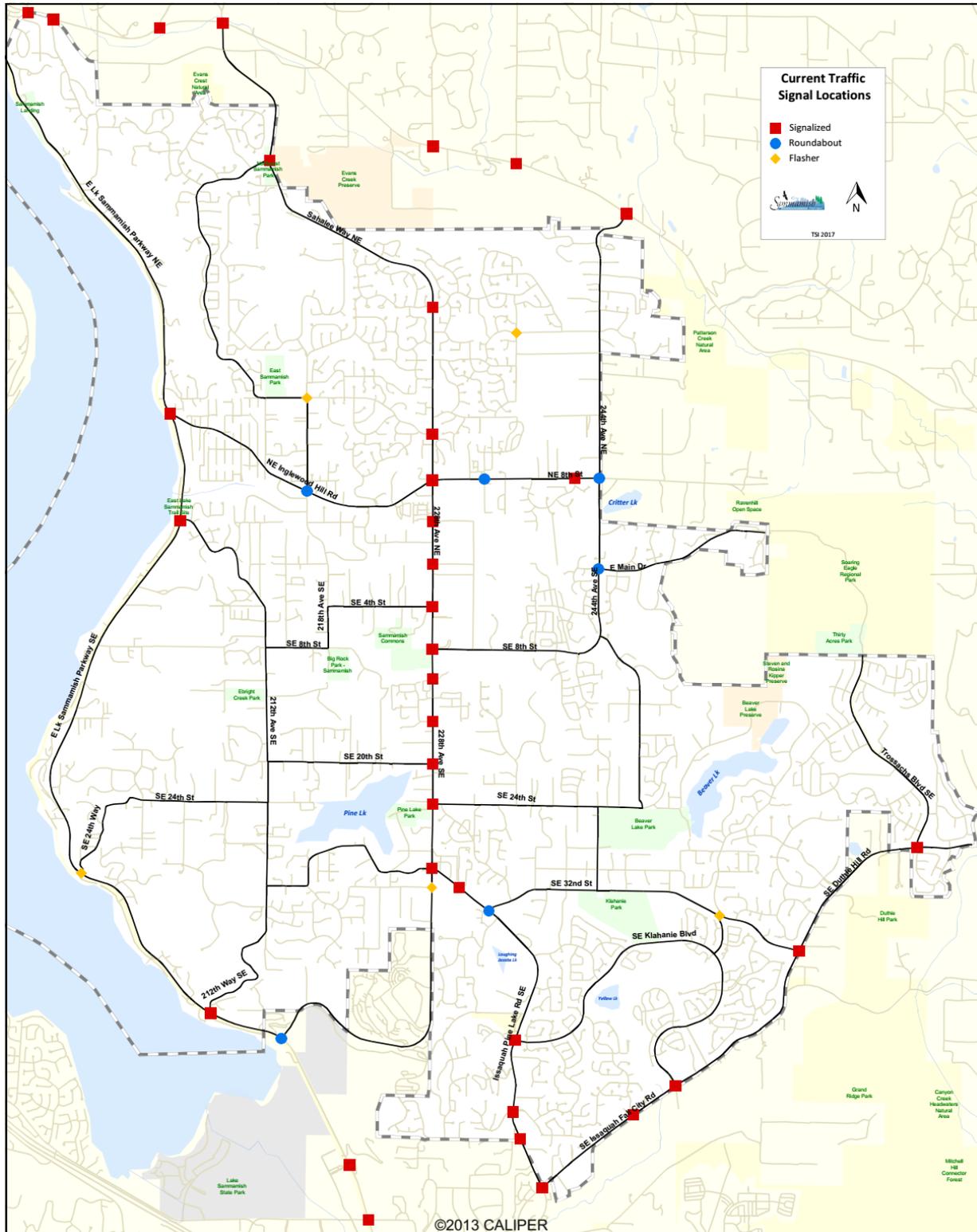
*See Volume I,
Transportation
Element Policy T.3.4
on page 90.*

The City has adopted standards for development of City streets, as documented in the 2016 Public Works Standards (December 31, 2016). As the city reconstructs roadways to improve vehicular capacity and safety, they will become more urban in nature. The Goals, Objectives and Policies of the Transportation Element relate street design to the desires of the local community, and advise that design be at a scale commensurate with the function that the street serves. Guidelines are therefore important to provide designers with essential elements of street design as desired by the community.

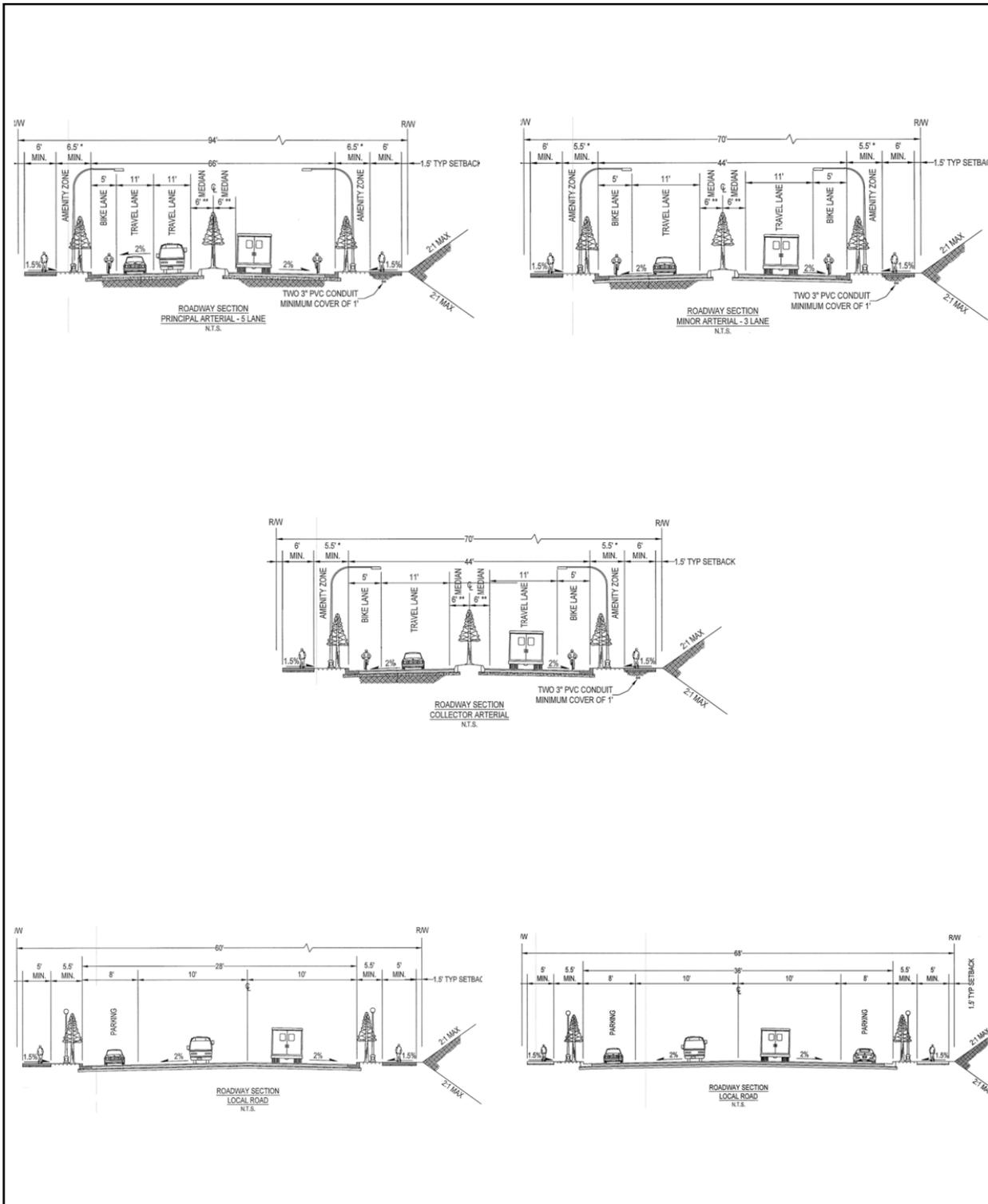
Background Figure T-4 illustrates typical street sections for Arterial and Collector Street design. This design is consistent with most municipalities' urban roadway design standards. In this illustration, the vertical curbs provide access control and the overall character suggests a "city" driving behavior with lower travel speeds.

In June 2008, the City of Sammamish adopted the Sammamish Town Center Plan. The Town Center Plan established policy direction that amends the previous Comprehensive Plan. The Town Center provides a central area for the increased residential and commercial densities. Transportation improvements associated with the Town Center are intended to provide safe, efficient and attractive connections to central uses and amenities, minimize

Background Figure T-2
Current Traffic Signal Locations



Background Figure T-4
 Current Roadway Design Standards



2016 Public Works Standards
 Street Cross-Sections

Source: City of Sammamish 2016 Public Works Standards

congestion impacts within the Town Center and surrounding areas, and promote alternative travel modes. To support the Town Center Plan improvement concepts including roadway cross-sections specific to roadways supporting the Town Center were developed. Background Figure T-5 and Background Figure T-6 illustrate the conceptual Sammamish Town Center street cross-sections (Sammamish Town Center Plan June 2008).

Traffic Level-of-Service Analysis

*See Volume I,
Transportation
Element Policy T.1.3
on page 86.*

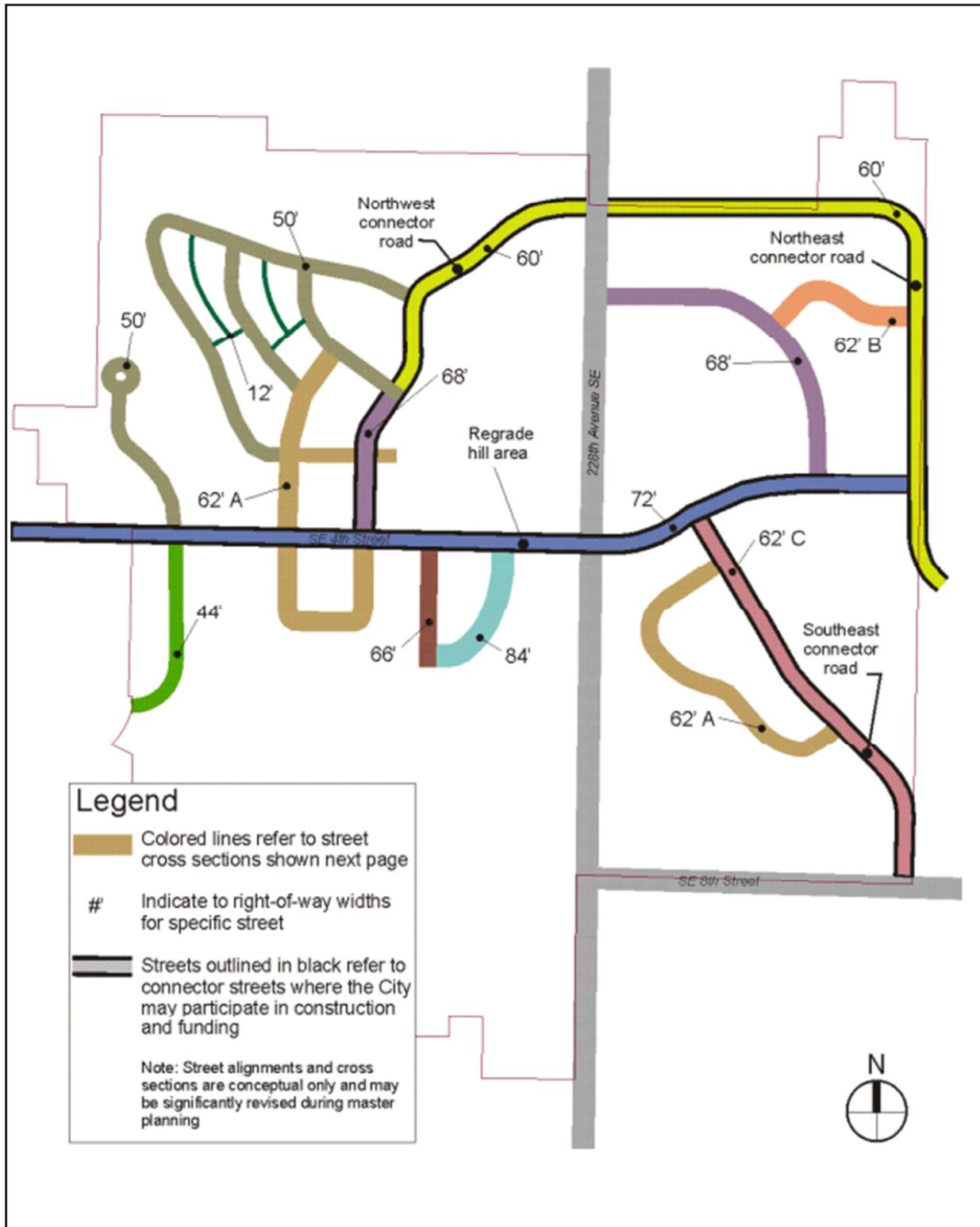
Level-of-Service (LOS) is the primary measurement used to determine the operating condition of a roadway segment or intersection. In general, LOS is determined by comparing traffic volumes (counted or modeled) to the carrying capacity of the intersection or roadway segment. The following section describes the traffic volumes that were collected, the approaches used for LOS analysis, and the results of the analyses under existing conditions.

Average Weekday Daily Traffic

Daily traffic counts were collected by the City of Sammamish in 2016 at 78 locations throughout the city. Average weekday daily traffic (AWDT) counts were calculated by averaging the daily traffic counts of Tuesday, Wednesday, and Thursday during a typical week. Locations and volumes for existing AWDTs are listed in Background Table T-2 and illustrated in Background Figure T-7.

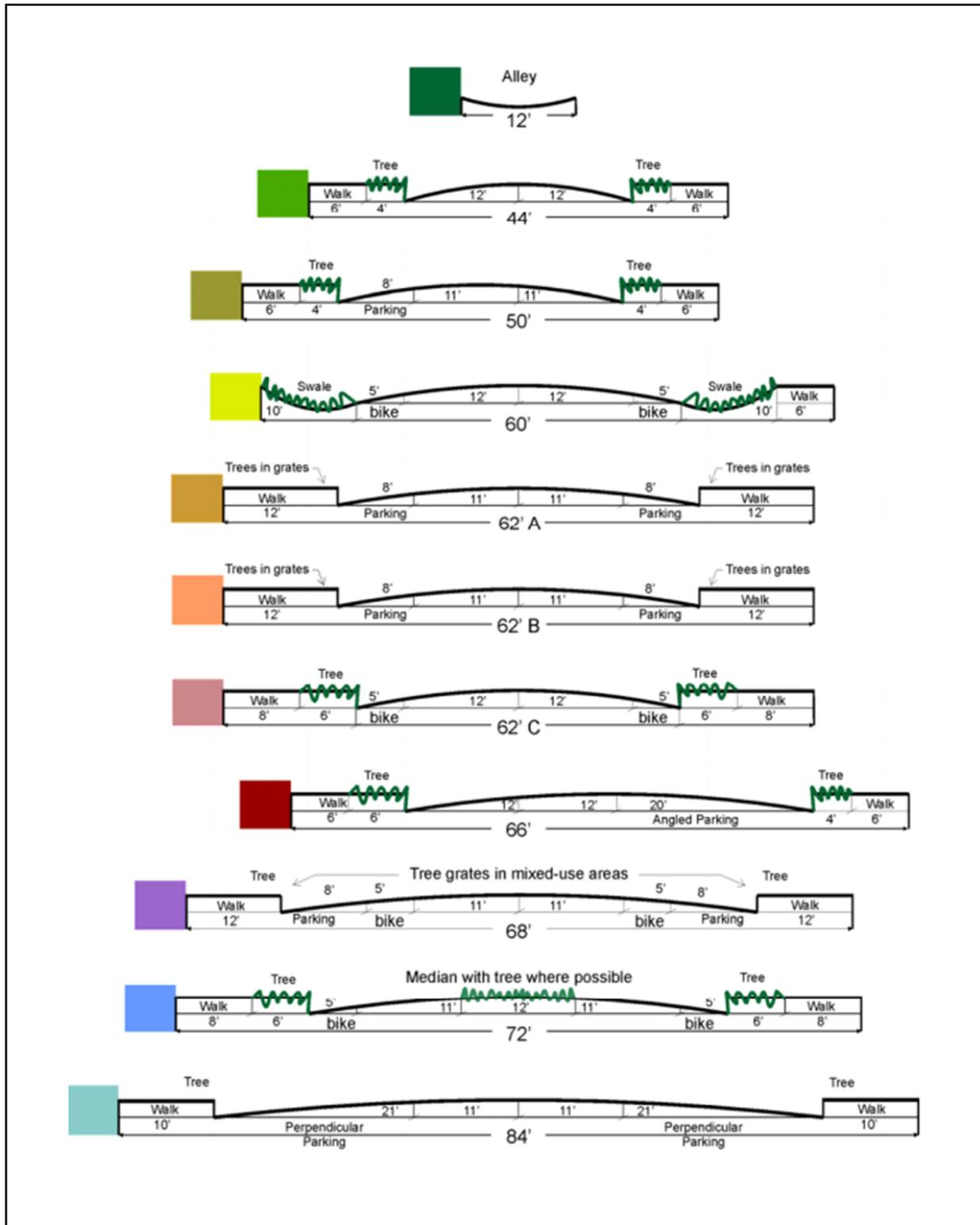
The highest traffic volumes shown occur near the high schools and City Hall.

Background Figure T-5
Sammamish Town Center Plan Roadway Locations



Sammamish Town Center Plan
Roadway Locations

Background Figure T-6
 Sammamish Town Center Plan Roadway Standards



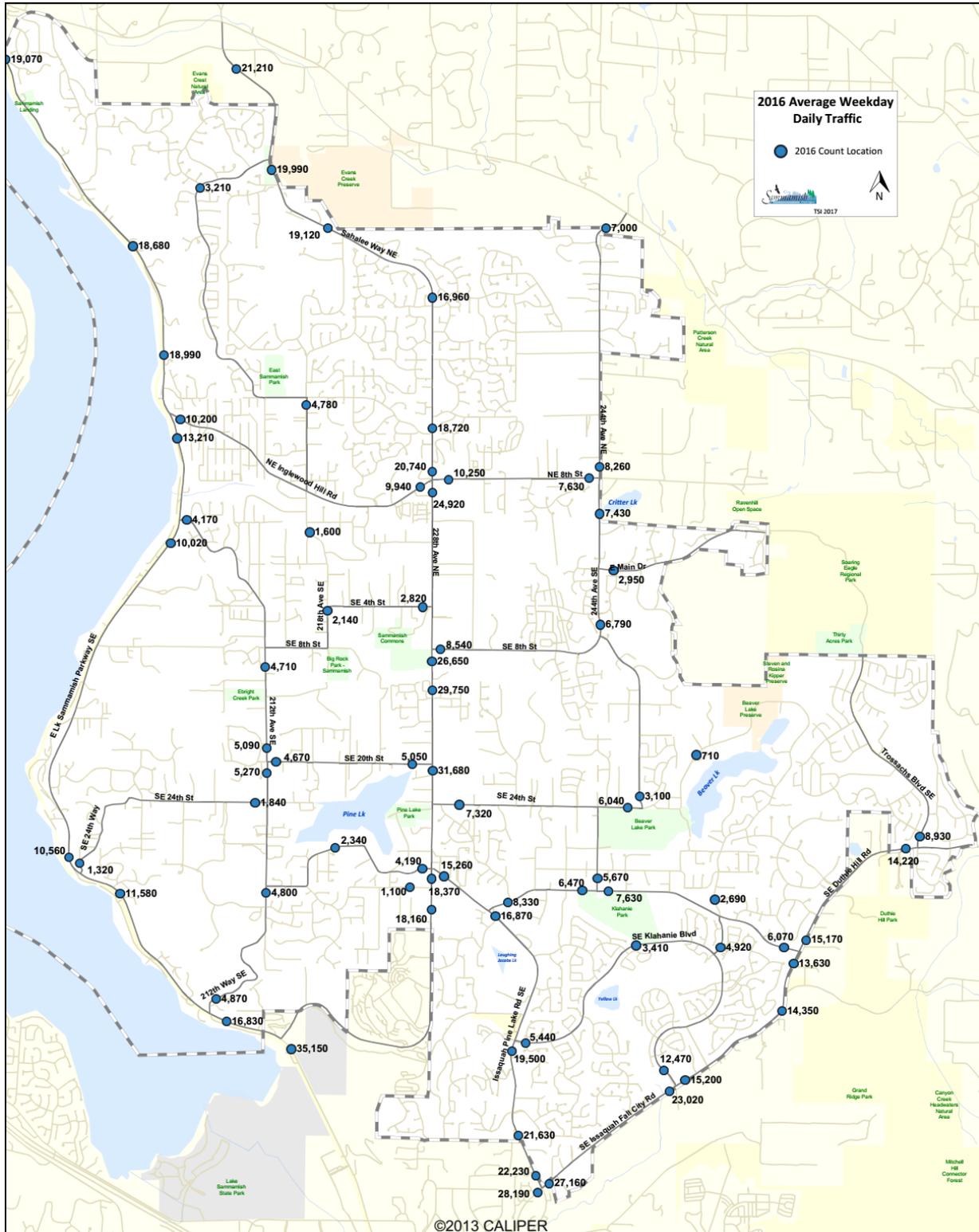
Sammamish Town Center Plan
 Street Cross-Sections

Background Table T-2
2016 Average Weekday Daily Traffic (AWDT)

SITE #	LOCATION	2016 AWDT
1	E Lake Sammamish Pkwy NE, s/o 187 th Ave NE	19,070
2	Sahalee Way SE, s/o NE 50 th St	21,210
3	244 th Ave NE, s/o SR-202	7,000
4	E Lake Sammamish Pkwy SE, s/o Louis Thompson Rd	10,020
5	212 th Ave SE, s/o SE 8 th St	4,710
6	228 th Ave SE, s/o SE 10 th St	29,750
7	E Lake Sammamish Pkwy, s/o 212 th Ave SE	16,830
8	228 th Ave SE, s/o SE 32 nd St	18,160
9	Issaquah-Pine Lake Rd, e/o 228 th Ave SE	15,260
10	244 th Ave SE, n/o SE 32 nd St	5,670
11	Beaver Lake Dr SE, n/o Issaquah-Beaver Lake Rd	2,690
12	SE Duthie Hill Rd, n/o Issaquah-Beaver Lake Rd	15,170
13	E Lake Sammamish Pkwy, s/o SE 43 rd St	35,150
14	Issaquah-Fall City Rd, sw/o Issaquah-Pine Lake Rd	28,190
15	Issaquah-Pine Lake Rd, s/o Klahanie Blvd	19,500
16	Trossachs Blvd SE, n/o SE Duthie Hill Rd	8,930
17	E Lake Sammamish Pkwy, s/o Inglewood Hill Rd	13,210
18	E Lake Sammamish Pkwy, n/o NE 18 th Pl	18,990
19	E Lake Sammamish Pkwy, s/o SE 32 nd St	11,580
20	Inglewood Hill Rd, e/o E Lake Sammamish Pkwy	10,200
21	NE 8 th St, e/o 228 th Ave NE	10,250
22	228 th Ave NE, n/o NE 8 th St	20,740
23	228 th Ave NE, s/o NE 8 th St	24,920
24	228 th Ave SE, s/o SE 8 th St	26,650
25	212 th Ave SE, s/o SE 20 th St	5,270
26	228 th Ave SE, s/o Issaquah-Pine Lake Rd	18,370
27	SE 20 th St, w/o 228 th Ave SE	5,050
28	SE 28 th St, e/o 218 th Ave SE (S Pine Lake Rte)	2,340
29	SE 8 th St, e/o 228 th Ave SE	8,540
30	SE 24 th St, e/o Audubon Park Dr	7,320
31	244 th Ave SE, n/o SE Windsor Blvd	6,790
32	E Main Dr, e/o 244 th Ave SE	2,950
33	244 th Ave NE, n/o NE 8 th St	8,260
34	NE 8 th St, w/o 244 th Ave NE	7,630
35	S Pine Lake Rte (Iss-Pine Lk Rd), w/o 228 th Ave SE	4,190
36	W Beaver Lake Dr SE, s/o SE 18 th Pl	710
37	205 th Pl NE, s/o NE 37 th Way	3,210
38	SE 4 th St, w/o 228 th Ave SE	2,820
39	248 th Ave SE, n/o SE 24 th St	3,100
40	244 th Ave NE, n/o NE 3 rd Way (on bridge)	7,430
41	216 th Ave NE, s/o NE 16 th St	4,780

42	217th Ave NE, s/o NE 4th St	1,600
43	218th Ave SE, s/o SE 4th St	2,140
44	Louis Thompson Rd, e/o E Lake Sammamish Pkwy	4,170
45	212th Way SE, e/o E Lake Sammamish Pkwy	4,870
46	SE 32nd St, w/o 228th Ave SE	1,100
47	SE 32nd St, w/o 244th Ave SE	6,470
48	Issaquah-Beaver Lake Rd, w/o SE Duthie Hill Rd	6,070
49	SE 32nd St, e/o 244th Ave SE	7,630
50	SE Duthie Hill Rd, s/o SR-202	7,530
51	E Lake Sammamish Pkwy, s/o NE 30th St	18,680
52	E Lake Sammamish Pkwy SE, n/o SE 24th Way	10,560
53	SE 24th Way, e/o E Lake Sammamish Pkwy	1,320
54	212th Ave SE, n/o SE 20th St	5,090
55	212th Ave SE, s/o SE 32nd St	4,800
56	SE 20th St, e/o 212th Ave SE	4,670
57	Sahalee Way NE, n/o NE 25th St	16,960
58	228th Ave NE, n/o NE 12th Pl	18,720
59	228th Ave SE, s/o SE 20th St	31,680
60	Issaquah-Pine Lake Rd, s/o SE 32nd Way	16,870
61	Issaquah-Pine Lake Rd, n/o SE 48th St	21,630
62	SE 32nd Way, e/o Issaquah-Pine Lake Rd	8,330
63	SE Klahanie Blvd, e/o Issaquah-Pine Lake Rd	5,440
64	SE 24th St, w/o 244th Ave SE	6,040
65	Issaquah-Fall City Rd, ne/o Issaquah-Pine Lake Rd	27,160
66	Issaquah-Fall City Rd, w/o Klahanie Dr SE	23,020
67	Issaquah-Fall City Rd, e/o Klahanie Dr SE	15,200
68	Klahanie Dr SE, n/o Issaquah-Fall City Rd	12,470
69	SE Klahanie Blvd, ne/o SE 37th St	3,410
70	Issaquah-Fall City Rd, s/o SE Duthie Hill Rd	14,350
71	SE Duthie Hill Rd, s/o Issaquah-Beaver Lake Rd	13,630
72	SE Duthie Hill Rd, w/o Trossachs Blvd SE	14,220
73	Sahalee Way NE, s/o NE 37th Way	19,990
74	Sahalee Way NE, s/o 217th Pl NE	19,120
10b	SE 24th St, w/o 212th Ave SE	1,840
16b	NE Inglewood Hill Rd, w/o 228th Ave NE	9,940
50b	Issaquah-Pine Lake Rd, n/o Issaquah-Fall City Rd	22,230
56b	256th Ave SE, n/o SE Klahanie Blvd	4,920

Background Figure T-7
2016 Average Weekday Daily Traffic

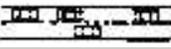
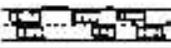
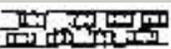
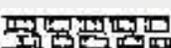


Roadway Level of Service Analysis

The Highway Capacity Manual (HCM 2010) is the recognized source for the techniques used to measure transportation facility performance. Using the HCM procedures, the quality of traffic operation is graded into one of six levels-of-service: A, B, C, D, E, or F. Background Table T-3 summarizes the characteristic traffic flow for the varying levels-of-service. As the table shows, LOS A and B represent the best traffic operation. LOS C and D represent intermediate operation and LOS E and F represent high levels of traffic congestion.

See Volume I,
 Transportation
 Element Policy T.1.3
 on page 86.

Background Table T-3
 Characteristic Traffic Flow for Level-of-Service Measures

LEVEL-OF-SERVICE	CHARACTERISTIC TRAFFIC FLOW
A	 Free flow, low volumes and no delays
B	 Stable flow, speeds restricted by travel conditions, minor delays,
C	 Stable flow, speeds and maneuverability closely controlled due to higher volumes.
D	 Stable flow, speeds and maneuverability closely controlled due to higher volumes.
E	 Unstable flow, low speeds, considerable delay, volume at or near capacity, freedom to maneuver is extremely difficult.
F	 Forced flow, very low speeds, volumes exceed capacity, long delays with stop-and-go traffic.

Source: HCM 1997.

Intersection Level of Service Criteria

Level of service for intersections is determined by the average control delay experienced by vehicles at the intersection. For signalized intersections LOS is based on average delay for the entire intersection. Background Table T-4 summarizes the LOS criteria for signalized and RAB controlled intersections.

Roundabouts (RAB's) are generally circular intersections characterized by yield control on entry and counterclockwise circulation around a central island. Level of service for RABs is determined by the control delay at the intersection's worst (i.e. highest delay) approach.

For two-way stop-controlled (TWSC) intersections, LOS is based on the control delay for each minor-street movement (or shared movements) and for left turn movements from the major street.

All-way stop-controlled (AWSC) intersections require drivers on all approaches to stop before proceeding into the intersection. Level of service for AWSC intersections is determined by the average computed or measured delay for all movements.

*See Volume I, Transportation Element Policy
T.1.4 on page 87.*

*Background Table T-4
Level-of-Service Criteria for Signalized and Roundabout Intersections*

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	= 10
B	> 10–20
C	> 20–35
D	> 35–55
E	> 55–80
F	> 80

Source: HCM 2010.

The LOS criteria for unsignalized intersections (TWSC and AWSC) have different threshold values than those for signalized and RAB controlled intersections, primarily because drivers expect different levels of performance from distinct types of transportation facilities. In general, stop-controlled intersections are expected to carry lower volumes of traffic than signalized and RAB controlled intersections. Thus for the same LOS, a lower level of delay is acceptable at stop-controlled intersections than it is for signalized and RAB controlled intersections. Background Table T-5 summarizes the LOS thresholds for both TWSC and AWSC intersections.

*Background Table T-5
Level-of-Service Criteria for Stop-Controlled Intersections*

LEVEL-OF-SERVICE (LOS)	AVERAGE DELAY PER VEHICLE (SECONDS/VEHICLE)
A	= 10
B	> 10–15
C	> 15–25
D	> 25–35
E	> 35–50
F	> 50

Source: HCM 2010.

Intersection Level of Service Standards

Level of service standards are used to evaluate the transportation impacts of long-term growth and concurrency. In order to monitor concurrency, the city must adopt standards by which the minimum acceptable roadway operating conditions are determined and deficiencies may be identified. The intersection LOS standards adopted in this Transportation Element are LOS D or E for intersections that include Principal Arterials and LOS C for intersections that include Minor Arterial or Collector roadways. For intersections of roadways with different functional classifications, the higher classification (and thus the lower standard) applies. Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right-turn lanes, double left-turn lanes and additional through lanes. These improvements improve LOS for vehicles, but result in very long crosswalks and increase potential for pedestrian-vehicle conflicts at free right-turns.

The LOS for intersections with Principal Arterials should be LOS D, when LOS D can be attained with a maximum of three approach lanes per direction (for example, a typical intersection of two five-lane roadways). The LOS for intersections with principal arterials may be reduced to LOS E, up to 80 seconds average delay, for intersections that require more than three approach lanes in any direction.

Intersection LOS is calculated using the standard analysis procedures described in this section for the PM peak hour. Intersections with LOS below the defined standards will be considered deficient.

PM Peak-Hour Intersection Level of Service

Level of service analysis was performed for existing PM peak-hour conditions at 48 intersections within and adjacent to the Sammamish city limits. Background Table T-6 summarizes the intersection locations, the existing traffic control for each intersection, and the calculated LOS, based upon 2016 traffic counts for the PM peak hour. The intersection LOS is also illustrated in Background Figure T-8. The results shown in the table represent LOS based upon average delay for all traffic movements at signalized and AWSC intersections. At TWSC intersections, the LOS is based on the average delay for the worse minor stop controlled approach or left turn movement from the major road. Thus, at TWSC intersections there may be significantly longer delays for certain directions of traffic movements than the composite LOS measure shows. At roundabouts, the LOS is based on the control delay at the worst approach.

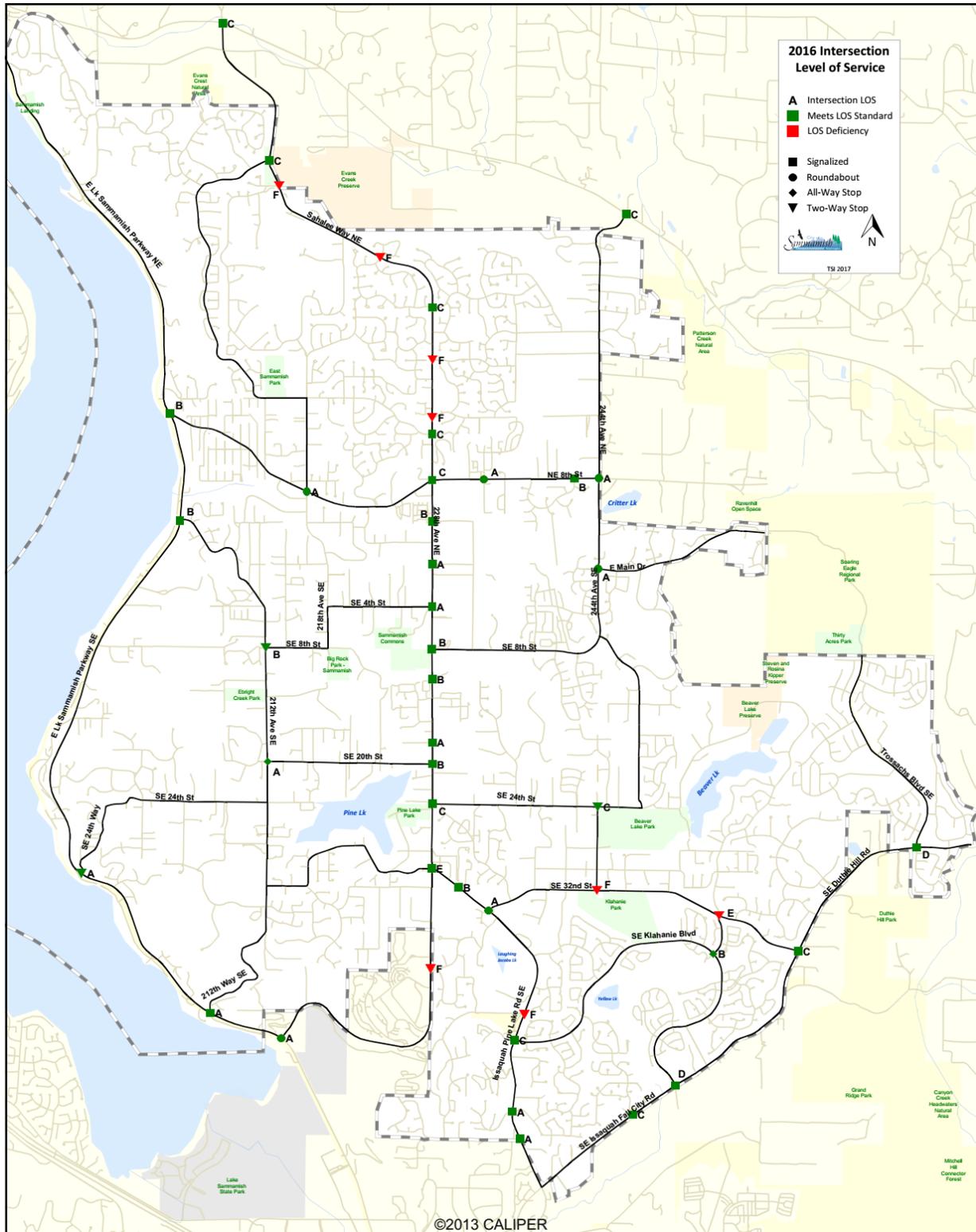
Background Table T-6
2016 Intersection LOS—PM Peak Hour

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
1	Issaquah-Pine Lk Rd & SE 48th St	D	Signal	7.9	A
2	228th Ave NE & NE 12th Pl	D	Signal	22.4	C
3	Klahanie Dr SE & SE Issaquah-Fall City Rd	D	Signal	39	D
4	244th Ave SE & SE 24th St	C	TWSC	19.8	C
5	SE 32nd Way & 244th Ave SE	C	TWSC	52.3	F*
6	Issaquah-Pine Lk Rd SE & SE 32nd Way	D	RAB	5.5	A
7	228th Ave SE & SE 40th St	D	TWSC	87	F*
8	SE Klahanie Blvd & 256th Ave SE	C	AWSC	11.4	B
9	SE Issaquah-Fall City Rd & Pacific Cascade MS/247 th Pl SE	D	Signal	33.1	C
10	Sahalee Way & NE 36th Ln	D	TWSC	670.8	F*
11	242nd Ave NE & NE 8th St	C	Signal	11.6	B
12	228th Ave SE & SE 8th St	D	Signal	18.7	B
13	228th Ave NE & NE 19th Dr	D	TWSC	61.3	F*
14	216th Ave NE & NE Inglewood Hill Rd	C	RAB	6.6	A
15	228th Ave NE & NE Inglewood Hill Rd/NE 8th St	D	Signal	32.3	C
16	228th Ave NE & NE 4th St	D	Signal	15.6	B
17	228th Ave SE & SE 4th St	D	Signal	8.6	A
18	212th Ave SE & SE 8th St	C	TWSC	11.1	B
19	228th Ave SE & SE 16th St	D	Signal	7.4	A
20	E Lk Sammamish Pkwy & 212th Way SE	C	Signal	7.5	A
21	E Lk Sammamish Pkwy & SE 24th Way	C	TWSC	17.9	A
22	212th Ave SE & SE 20th St	C	AWSC	10.7	A
23	E Lk Sammamish Pkwy & Louis Thompson Rd	C	Signal	12.3	B
24	E Lk Sammamish Pkwy & NE Inglewood Hill Rd	C	Signal	13.1	B
25	Sahalee Way NE & NE 37th Way	D	Signal	24.9	C
26	NE 8th St & 244th Ave NE	C	RAB	4.2	A
27	228th Ave SE & SE 20th St	D	Signal	12.0	B
28	228th Ave SE & SE 24th St	D	Signal	32.8	C
29	228th Ave SE & Issaquah-Pine Lk Rd SE	E	Signal	79.6	E
30	Issaquah-Pine Lk Rd SE & SE Klahanie Blvd	D	Signal	22.9	C
31	Duthie Hill Rd & Issaquah-Beaver Lk Rd	D	Signal	21.5	C
32	256th Ave SE/E Beaver Lake Dr SE & Issaquah-Beaver Lk Rd	C	TWSC	36.1	E*
33	228th Ave NE & NE 14th St	D	TWSC	290.3	F*
34	228th Ave NE & NE 25th St	D	Signal	20.8	C
35	Issaquah Pine Lake Rd & SE 42nd St	D	TWSC	306.4	F*
36	Issaquah-Pine Lk Rd & 231st Ln SE	D	Signal	11.3	B
37	Sahalee Way NE & NE 28 th Pl	D	TWSC	74.9	F*
38	Issaquah-Pine Lk Rd & SE 47th Way/238 th Way NE	D	Signal	6.3	A
39	233rd Ave NE & NE 8th St	C	RAB	2.9	A
40	228th Ave SE & E. Main St	D	Signal	4.8	A

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
41	244th Ave NE & E Main Dr	C	RAB	4.8	A
42	Duthie Hill Rd & Trossachs Blvd SE	D	Signal	35.1	D
43	228th Ave SE & SE 10th Ave/Skyline HS	D	Signal	14	B
100	E Lk Sammamish Pkwy & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	118.7	F*
101	E Lk Sammamish Pkwy & SE 43rd Way ⁵	D	RAB	4.5	A
102	Sahalee Way NE & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	27.8	C
103	244th Ave NE & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	20.9	C
104	Duthie Hill Rd & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	10.3	B

1. LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D. Intersections that include Minor Arterials or Collectors have a standard of LOS C.
2. Intersection Control: Signal=signalized; TWSC=two-way stop-controlled; AWSC=all-way stop-controlled; RAB = roundabout
3. Delay is measured in seconds per vehicle. At Signal and AWSC intersections, it represents average delay for the intersection. For TWSC intersections, it represents average delay for the worst minor approach movements or major street left turn movements. For RABs, it represents the worst approach. Analysis is based on 2016 traffic counts.
4. LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2010). (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.
5. Intersection is outside of the city limits.

Background Figure T-8
 2016 Intersection Level of Service



In year 2016, the table shows that 39 of the 48 study intersections satisfy their defined LOS standard. Of the nine intersections which operated below minimum LOS standards in 2016, eight are located within city limits. Each of the eight City intersections which fail operate with two-way stop control.

Outside the city limits, the intersection of East Lake Sammamish Parkway and Redmond-Fall City Road (SR 202) operated at LOS F in 2016. This indicates that collaboration with the City of Redmond, [the Washington State Department of Transportation \(WSDOT\)](#) and King County should be maintained.

Roadway Segment Average Weekday Daily Traffic (AWDT) Thresholds

The City has expressed concerns not only for the amount of delay experienced along roadways, but for safety, access and urban amenities. Definition of LOS thresholds that include shoulder widths, left-turn lanes, bicycle lanes, curb and gutter, and sidewalks addresses some of these concerns. Adequate shoulders increase safety by providing refuge for disabled vehicles, additional width outside of the traffic flow for walking or bicycling, or a buffer between the traffic flow and sidewalks. Left-turn pockets provide safer waiting space for left turning vehicles, and allow following vehicles to avoid delay. Curbs, gutters, and sidewalks or other similar facilities improve safety by providing access control and safer locations for walking. As traffic volumes increase on the primarily rural roads of the City of Sammamish, urban amenities such as these become more important.

The typical roadway segment LOS measures used by traffic engineers, and for most Comprehensive Plans, are determined by HCM procedures that calculate operational efficiency of the roadway. Rural two-lane roadway LOS is described by average travel speeds and the average percentage of time spent following other vehicles. As the average travel speed declines or the average following time increases, the LOS declines. These measures help define deficiencies that may be used to guide the design of road improvements. Typical improvements might include roadway alignments, widening shoulders, and providing passing zones.

Using these HCM procedures, features such as left-turn lanes, curb and gutter, sidewalks and other similar facilities have little to no impact on the defined roadway LOS.

State law prescribes that LOS shall be measured, but does not describe or define the means. Though many communities rely on the HCM procedures, others have defined LOS through use of travel time, average congestion, or level of improvement. Most of the roadways within the City of Sammamish originated as rural roads. Many have been improved using rural road design standards to carry higher traffic volumes, but are inconsistent with the character and desires of an urban community.

To address these issues, the City set forth to describe a policy that relates roadway capacity to existing characteristics, and future desired improvements. Through this evaluation, they established thresholds for acceptable traffic volumes for a range of existing conditions, described as follows.

The LOS standards developed by the City for roadway segments are based on the allowable AWDT volumes, as a function of each roadway's characteristics. The 73 segments defined for segment analyses are shown in Background Figure T-9. The AWDT thresholds for each of these roadway segments, based upon their existing roadway characteristics, are defined in Background Table T-7.

After adoption of the Comprehensive Plan, these thresholds will be adopted by ordinance by the City Council. The table also shows the 2012 AWDT volumes for each of the segments. Note that LOS is reported for those roadway segments where traffic volumes were collected. Based upon the existing volumes and the policy-defined thresholds summarized in Background Table T-7 two roadway corridors and three road segments have volumes that exceed their thresholds, and thus would be considered deficient under existing conditions.

To arrive at the segment thresholds, the City reviewed current HCM measures for capacity, as they related to various roadway features. The adequacy of traffic conditions and design features of existing City of Sammamish roadways was also assessed. Design features included shoulder width, sidewalks, left-turn lanes, and access control. For each functional classification of roadway, base capacities were derived from standard per-lane capacities, as defined in the HCM, *Road Diets Fixing the Big Roads* (By Dan Burden and Peter Lagerway, Walkable Communities, Inc. March 1999). The City arrived at a base capacity value of 1,220 vehicles

per hour for a two-lane Arterial roadway with 10-foot lane widths, and without shoulders or walkways. This value was converted to an AWDT volume of 12,850 vehicles per day. The base capacity of a two-lane Collector roadway without shoulders or walkways was determined to be 9,020 AWDT. A Four-lane roadway base capacity was determined in a similar means and established at 25,950 vehicles per day for Arterial roadways and 18,100 vehicles per day for Collector roadways.

The provision of non-motorized facilities on arterial roadways is a key element of the city's roadway segment LOS methodology. The roadway segment allowable AWDT volume thresholds are based upon providing facilities for all users and recognizes that if sidewalks or bike lanes are absent; vehicle capacity is reduced and non-motorized capacity and safety are affected. While non-motorized demand and capacity are not explicitly measured; allowable vehicle volumes are constrained until facilities for all modes are present. This has the effect of prioritizing multi-modal projects on all classifications of roadways, and encourages provision of non-motorized facilities to increase capacity rather than additional travel lanes.

These base (or minimum) capacities would be applied to roadways with 10-foot wide lanes, and no curb and gutter, shoulders, medians, turn lanes, sidewalks or bicycle lanes. Additional capacity was determined for each of the design features, based upon guidelines in the HCM. These capacity enhancement values are added to the base capacity incrementally for each of the features that the roadway includes.

The base and incremental capacities used to determine the AWDT thresholds are summarized in Background Table T-8. Maximum capacity would be assigned to a roadway with a fully developed cross section: 12-foot lanes, or bike lanes, curb and gutter, center median or left-turn lane, sidewalk or other similar facilities.

*See Volume I,
Transportation
Element Policy T.2.12
on page 88.*

Background Table T-7
AWDT Concurrency Thresholds and 2016 Volumes for Roadway Segments

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2016 EXISTING	
			AWDT	Fails?
C1 East Lk Sammamish Parkway North Corridor		25,370	18,938	
1 E Lk Sammamish Pkwy, City limits-196th Ave (Weber Pt)	Minor Arterial	25,370	19,068	
2 E Lk Sammamish Pkwy, 196th Ave NE-NE 28th Pl	Minor Arterial	25,370	18,679	
3 E Lk Sammamish Pkwy, NE 28th Pl-NE Inglewood Hill Rd	Minor Arterial	25,370	18,988	
C2 East Lk Sammamish Parkway Central Corridor		18,767	10,958	
4 E Lk Sammamish Pkwy, Inglewood Hill Rd-Louis Thompson	Minor Arterial	19,110	13,212	
5 E Lk Sammamish Pkwy, Louis Thompson Rd NE-SE 8th St	Minor Arterial	18,675	10,022	
6 E Lk Sammamish Pkwy, SE 8th St-SE 24th Way	Minor Arterial	18,675	10,562	
C3 East Lk Sammamish Parkway South Corridor		18,905	12,661	
7 E Lk Sammamish Pkwy, SE 24th Way-212th Ave SE	Minor Arterial	18,965	11,583	
8 E Lk Sammamish Pkwy, 212th Ave SE-City Limit	Minor Arterial	18,675	16,834	
C4 Louis Thompson Road-212th Corridor		12,005	4,743	
11 Louis Thompson Rd, E Lk Sammamish Pkwy-SE 8th St	Collector Arterial	11,070	4,170	
12 212th Ave SE, SE 8th St-SE 20th St	Collector Arterial	11,685	4,904	
13A 212th Ave SE, SE 20th St-SE 32nd St	Collector Arterial	11,788	5,271	
13B 212th Ave SE, SE 32nd St - 212th Way SE	Collector Arterial	11,788	4,799	
14 212th Way SE, SE 32nd St-E Lk Sammamish Pkwy	Collector Arterial	13,900	4,868	
C5 Sahalee Way-228th Avenue North Corridor		20,611	18,916	
21A Sahalee Way/228th Ave NE, City Limit-NE 37th Way	Principal Arterial	23,750	21,210	
21B Sahalee Way/228th Ave NE, NE 37th Way-NE 36th St	Principal Arterial	18,965	19,994	X
21C Sahalee Way/228th Ave NE, NE 36th St - 223rd Ave NE	Principal Arterial	18,965	19,116	X
22 Sahalee Way/228th Ave NE, 223rd Ave NE - NE 25th Way	Principal Arterial	18,965	16,961	
23 228th Ave, NE 25th Way-NE 12th Pl	Principal Arterial	22,300	18,718	
C6 228th Avenue Central Corridor		33,921	26,297	
24A(1) 228th Ave, NE 12th Pl-NE 8th St/Inglewood Hill Rd	Principal Arterial	25,799	20,743	
24A(2) 228th Ave, NE 8th St/Inglewood Hill Rd - Main St	Principal Arterial	34,950	24,915	
24B 228th Ave, Main St - SE 8th St	Principal Arterial	35,180	25,940	
25A 228th Ave, SE 8th St - SE 10th St	Principal Arterial	35,180	26,653	
25B 228th Ave, SE 10th St - SE 20th St	Principal Arterial	35,180	29,749	
C7 228th Avenue South Corridor		25,488	23,551	
26 228th Ave, SE 20th St-Issaquah Pine Lake Rd SE	Principal Arterial	35,295	31,677	
27 228th Ave, Issaquah Pine Lake Rd SE-SE 43rd Way	Principal Arterial	18,985	18,162	

continued on following page

Background Table T-7

AWDT Concurrency Thresholds and 2016 Volumes for Roadway Segments (cont.)

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2016 EXISTING	
			AWDT	Fails?
C8 Issaquah-Pine Lake Road Corridor		21,284	17,585	
32 Issaquah-Pine Lk Rd, 228th Ave SE–SE 32nd Way	Principal Arterial	27,580	15,257	
33 Issaquah-Pine Lk Rd, SE 32nd Way–SE Klahanie Blvd	Principal Arterial	17,950	16,872	
34A Issaquah-Pine Lk Rd, SE Klahanie Blvd–SE 46th St	Principal Arterial	23,636	19,496	
34B Issaquah-Pine Lk Rd, SE 46 th St – SE 48 th St	Principal Arterial	18,965	21,629	X
C9 224th Avenue North Corridor		19,124	7,450	
35 244th Ave NE, NE 30 th PI – NE 20 th St	Minor Arterial	16,330	7,000	
36 244th Ave NE, NE 20 th St–NE 8 th St	Minor Arterial	19,245	8,259	
37A 244th Ave NE, NE 8 th St–E Main St	Minor Arterial	21,550	7,428	
37B 244 th Ave NE/SE, E Main St – SE 8 th St	Minor Arterial	20,730	6,793	
C9A Windsor Boulevard – 248th Avenue Corridor		11,759	2,660	
38 248 th Ave SE, SE 24 th St – SE 14 th St	Collector Arterial	11,742	3,097	
52A SE Windsor Blvd, SE 14 th St – 700 ft n/o SE 14 th St	Collector Arterial	10,260	2,231	
52B SE Windsor Blvd, 700ft n/o SE 14 th St – SE 8 th St	Collector Arterial	12,300	2,081	
C10 244th Avenue South Corridor		10,555	5,673	
39 244th Avenue, SE 24 th St–SE 32nd Way	Minor Arterial	10,555	5,673	
C11 Issaquah-Fall City – Duthie Hill Rd Corridor		18,009	17,483	
47 SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – SE Issaquah-Fall City Rd	Principal Arterial	17,600	13,629	
48 Issaquah-Fall City Rd, SE Duthie Hill Rd – Klahanie Dr SE	Principal Arterial	18,180	14,775	
49 Issaquah-Fall City Rd, Klahanie Dr – 240 th Ave SE	Principal Arterial	17,950	23,022	X
C12 NE Inglewood Hill Rd Corridor		17,724	10,077	
15 NE Inglewood Hill Rd, E Lk Samm Pkwy- 216 th Ave	Minor Arterial	17,950	10,195	
16 NE Inglewood Hill Rd, 216 th Ave NE – 228 th Ave NE	Minor Arterial	17,457	9,938	
C13 NE 8th Street Corridor		20,291	8,768	
28A NE 8 th St, 228 th Ave NE – 235 th Ave NE	Minor Arterial	21,822	10,249	
28B NE 8 th St, 235 th Ave NE – 244 th Ave NE	Minor Arterial	19,110	7,625	
C14 SE 32nd – Issaquah-Beaver Lake Corridor		18,220	6,953	
40A SE 32 nd Way, Issaquah-Pine Lk Rd – 235 th PI SE	Minor Arterial	19,308	8,329	
40B SE 32 nd Way, 235 th PI SE – 244 th Ave SE	Minor Arterial	18,240	6,470	
41 SE 32nd St, 244th Ave SE – E Beaver Lk Dr SE	Minor Arterial	17,370	7,634	
42 Issaquah-Beaver Lk Rd, Beaver Lk Dr – Duthie Hill Rd	Minor Arterial	19,110	6,073	

continued on following page

Background Table T-7

AWDT Concurrency Thresholds and 2016 Volumes for Roadway Segments (cont.)

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2016 EXISTING	
			AWDT	Fails?
C15 Duthie Hill Rd Corridor		17,050	14,885	
43 SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – 266 th Ave SE (“notch”)	Principal Arterial	16,790	15,169	
44 SE Duthie Hill Rd, 266 th Ave SE (“notch”) – Trossachs Blvd SE	Principal Arterial	17,660	14,219	
C16 SE 4th Street Corridor		10,970	2,817	
18A SE 4 th St, 218 th Ave SE – 224 th Ave SE	Collector Arterial	10,970	2,817	
18B SE 4 th St, 224 th Ave SE – 228 th Ave SE	Collector Arterial	10,970	2,817	
C17 SE 8th Street Corridor		20,730	8,536	
29 SE 8 th St, 228 th Ave SE – 244 th Ave SE	Minor Arterial	20,730	8,536	
C18 SE 20th Street		10,150	4,863	
19 SE 20 th St, 212 th Ave SE – 219 th PI SE	Collector Arterial	10,150	4,666	
20 SE 20 th St, 219 th PI SE – 228 th Ave SE	Collector Arterial	10,150	5,045	
C19 SE 24th Street West Corridor		11,093	1,590	
9 SE 24 th St, E Lk Samm Pkwy – 200 th Ave SE	Collector Arterial	12,417	1,323	
10 SE 24 th St, 200 th Ave SE – 212 th Ave SE	Collector Arterial	9,840	1,842	
C20 SE 24th Street East Corridor		11,429	6,246	
30 SE 24 th St, 228 th Ave SE – 244 th Ave SE	Collector Arterial	11,585	6,680	
31 SE 24 th St, 244 th Ave SE – W Beaver Lk Dr SE	Collector Arterial	10,970	4,970	
C21 Klahanie Corridor		19,949	7,728	
53 SE Klahanie Blvd, Issaquah Pine Lk Rd – 245 th PI SE	Collector Arterial	13,430	5,444	
54 SE Klahanie Blvd, 245 th PI SE – 256 th Ave SE	Collector Arterial	13,430	3,408	
55 Klahanie Dr SE, 256 th Ave SE – Issaquah-Fall City Rd	Collector Arterial	29,160	12,468	
C22 South Pine Lake Route Corridor		12,444	2,720	
58 SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 212 th Ave SE – 224 th Ave SE	Collector Arterial	11,480	2,337	
59 SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 224 th Ave SE, 228 th Ave SE	Collector Arterial	16,150	4,193	
C23 218th Ave SE and SE 8th St Corridor		8,455	2,140	
17A 218 th Ave SE/SE 8 th St, 212 th Ave SE – 218 th Ave SE	Collector Arterial	8,455	2,140	
17B 218 th Ave SE/SE 8 th St, SE 8 th St – SE 4 th St	Collector Arterial	8,455	2,140	
45 Trossachs Blvd SE, SE 9 th St – SE Duthie Hill Rd	Collector Arterial	12,042	8,927	
50 Issaquah-Pine Lk Rd, SE 48 th St–Issaquah-Fall City Rd	Principal Arterial	20,268	22,231	X
51 Issaquah-Fall City Rd, Issaquah-Pine Lk Rd – 245 th PI	Principal Arterial	32,388	25,718	
56 256 th Ave SE, Klahanie Blvd – Issaquah-Beaver Lk Rd	Collector Arterial	14,200	4,919	
57 E Main Dr, 244 th Ave SE – eastern terminus	Collector Arterial	12,300	2,951	
60 NE 37 th Way/205 th Ave NE/NE 16 th St, Sahalee Way – 216 th Ave NE	Collector Arterial	12,132	3,209	
61 216 th Ave NE, NE 16 th St – NE Inglewood Hill Rd	Collector Arterial	12,300	4,780	

Background Table T-8

Background Assumptions for Concurrency AWDT Threshold Definitions

TWO-LANE ROADWAY		TWO-DIRECTIONAL CAPACITY (VEHICLES PER DAY)		
		<i>Principal or Minor Arterial</i>	<i>Collector</i>	<i>Neighborhood Collector</i>
Base Capacity		12,850	9,020	2,850
Lane Width	10 feet	0	0	0
	11 feet	1,620	1,130	320
	12 feet	3,240	2,260	640
Striped Bike Lane/ Shoulder width¹	8 feet max.	580	410	120
Median	None	0	0	0
	Median	4,640	3,240	920
	Left-Turn Lane or Physically Constrained	4,640	3,240	920
Walkway/Bikeway²	None	0	0	0
	Sidewalk or Bike Way	1,160	810	230
	Both or Multi-Use Path	1,620	1,130	320
Regional Trail width³	12 feet max.	580	0	0
MAXIMUM CAPACITY		25,370	17,800	5,100
FOUR-LANE ROADWAY		TWO-DIRECTIONAL CAPACITY (VEHICLES PER DAY)		
		<i>Principal or Minor Arterial</i>	<i>Collector</i>	<i>Neighborhood Collector</i>
Base Capacity		25,920	18,100	5,180
Lane Width	10 feet	0	0	0
	11 feet	3,240	2,260	640
	12 feet	6,480	4,540	1,300
Striped Bike Lane/ Shoulder width¹	8 feet max.	580	410	120
Median	None	0	0	0
	Median	4,630	3,240	930
	Left-Turn Lane or Physically Constrained	4,630	3,240	930
Walkway/Bikeway²	None	0	0	0
	Sidewalk or Bike Way	1,160	810	230
	Both or Multi-Use Path	1,620	1,130	320
MAXIMUM CAPACITY		41,670	29,160	8,370

1. To qualify as a bike lane, the pavement must be marked as such, and have a minimum width of 5 feet.
2. For the purpose of these calculations, a bikeway is defined as a bicycle facility that is physically separated from the roadway. Walkway and bikeway values only apply if the roadway has shoulders of less than 4-foot width.
3. In order to realize the capacity benefits, the "regional trips" must be parallel and in close proximity to the City's arterial. The measured portion of the trail must be paved.

Collision Analysis

Collision statistics were compiled between 2012 and 2016 by the WSDOT Transportation Data Office for the City of Sammamish. During this five year period, there were a total of 1,170 collisions reported. Background Table T–9 summarizes the collisions by type and Background Figure T–10 shows the location and type of collisions within the city.

See Volume I,
 Transportation Element
 Policy T.3.9–Policy
 T.3.11 on page 91.

The 228th Avenue corridor shows a high number of collisions likely due to high volumes, vehicle speeds and inexperienced drivers, the latter related to the various schools along the corridor. In addition, the 228th Avenue corridor provides access to the city’s major commercial and institutional areas.

Collisions on the East Lake Sammamish Parkway corridor were concentrated at NE Inglewood Hill Road, a major access point to and from the city’s existing major commercial area.

Topography and weather conditions likely play a role in a portion of the collisions reported.

There were 37 total pedestrian and bicycle-related collisions reported, or 7.4 per year. These collisions were spread throughout the city. Goals to reduce collisions, particularly pedestrian and bicycle-related collisions should be addressed.

*Background Table T–9
 Collision Summary-(2012-2016)*

COLLISION TYPE	TOTAL COLLISIONS	COLLISIONS PER YEAR
Rear-End	481	96.2
Parked Vehicle/Fixed Object	255	51.0
Right-Angle/Broadside	70	14.0
Sideswipe/Lane Change	94	18.8
Approach Turn	130	26.0
Other	34	6.8
Pedestrian/Bicycle	37	7.4
Backing	28	5.6
Head-On	16	3.2
Not Designated	25	5.0
TOTAL	1,170	234.0

Traffic Calming

As population and employment in the Sammamish region continue to grow, City streets are experiencing increased traffic pressure. City policy can accommodate growth in a way that can protect neighborhoods from unsafe impacts of traffic through the following measures:

- Develop standards to improve the function, safety, and appearance of the City street system;
- Develop facilities for pedestrians and bicyclists as alternative travel modes to the automobile;
- Protect the quality of life in residential neighborhoods by limiting vehicular traffic and monitoring traffic volumes on collector streets;
- Encourage improvements in vehicular and pedestrian traffic circulation within the City;
- Maintain a consistent LOS on the arterial system that mitigates impacts of new growth and is adequate to serve adjoining land uses; and
- Maintain the public street system to promote safety, comfort of travel, and cost-effective use of public funds.

Traffic calming programs serve to deter through-traffic on local residential streets, protect neighborhoods from vehicular traffic moving at excessive speeds, and discourage parking unrelated to residential activities.

Presently, traffic calming devices within the City of Sammamish are located primarily along:

- NE 14th Drive from 228th Avenue NE to 220th Avenue NE;
- NE 19th Drive from 228th Avenue NE to 236th Avenue NE;
- NE 25th Way from 228th Avenue NE to 239th Avenue NE;
- 217th Avenue NE from Inglewood Hill Road to Main Street;
- SE 32nd Street from 228th Avenue SE to 220th Avenue SE;
- NE 14th Street from 228th Avenue NE to 235th Avenue NE;
- Audubon Park Drive from SE 24th Street to SE 32nd Street;
- 205th Place NE from NE 31st Street to NE 37th Way;
- SE 30th Street from 244th Avenue SE to 252nd Avenue SE;
- 230th Way SE from SE 42nd Street to SE 48th Street;
- SE Windsor Blvd from 244th Avenue SE to Windsor Drive SE;
- NE 20th Way from 216th Avenue NE to NE 25th Way; and
- Sahalee Way NE at NE 28th Place.
- 248th Avenue SE at SE 17th Place

Traffic calming features include digital speed boards, traffic circles, chokers, raised tables at crosswalks, chicanes, roadway narrowing, raised intersections, medians and curb bulb-outs.

Current Six-Year Transportation Improvement Program (TIP)

Background Table T–10 summarizes the list of projects that make up the current Six-Year Transportation Improvement Program (TIP), 2017-2022. Funding for some of these projects is secured, while funding for other projects is not. Detailed evaluation of future conditions should assume completion only of financially committed projects.

Existing Non-Motorized Conditions

*See Volume I,
Transportation
Element Policy T.2.12
on page 88.*

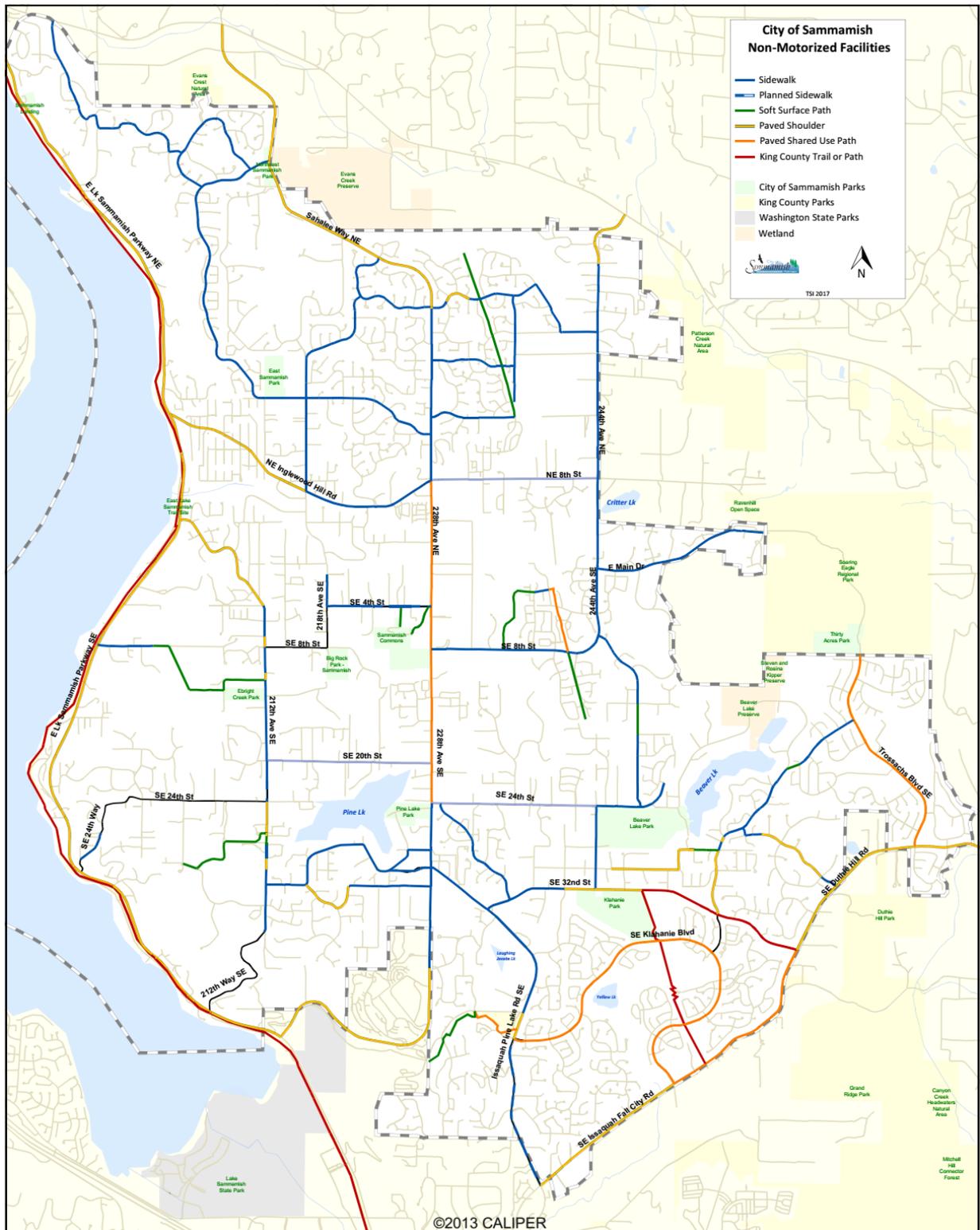
An inventory of existing non-motorized facilities, including sidewalks and walkways was undertaken to identify any system gaps. Roughly 50% of the city's local roads have sidewalks and most of the primary and minor arterials includes sidewalks, paved shoulders or shared use paths. Background Figure T–11 illustrates existing non-motorized facilities and includes the locations of the public open spaces and parks.

Background Table T-10
2017-2022 Six Year Transportation Improvement Program (TIP)

TIP #	PROJECT TITLE ¹	Total Project	PROJECT EXPENDITURE (X \$1,000) ²					
			2017	2018	2019	2020	2021	2022
TR-01	SE 4th St—218th Ave SE to 228th Ave SE ^{C,CP}	15.035		9.446	5.000	—	—	—
TR-02	Issaquah-Pine Lake Rd—Klahanie Blvd to SE 32nd ^{C,CP}	12.677	—	—	—	1.000	1.500	4.500
TR-03	Issaquah-Pine Lake Rd—SE 48th to Klahanie Blvd ^{C,CP}	19.524	—	---	----	----	----	---
TR-04	East Lake Sammamish Pkwy SE/SE 24th St Intersection ^{C,CP}	3.615	—	—	—	—	—	—
TR-06	228th Ave SE—SE 32nd St to Issaquah-Pine Lake Rd ^{CP}	0.098	---	—	—	—	—	—
TR-07	Issaquah-Fall City Rd—SE 48th St to Klahanie Dr SE ^{CP}	22.593	4.400	12.892	4.101	---	—	—
TR-08	Issaquah-Fall City Rd—Klahanie Dr SE to Issaquah-Beaver Lk Rd ^{CP}	14.436	—	1.100	2.000	5.718	5.718	--
TR-10	212 th Avenue SE Gap Project—SE 24 th Street to Crossings Subdivision ^{CP,NM}	0.574	0.108					
TR-18	SE 8 th Street/218 th Avenue SE—212 th Avenue SE to SE 4 th Street	13.419		0.150				
TR-19	Intelligent Transportation System (ITS)	3.153		0.317	1.885			
TR-20	SE 14 th Street Extension—Lawson Park Plat to 248 th Avenue SE	0.204		0.167				
TR-25	212 th Way (Snake Hill) Improvement	6.508	5.692					
TR-34	228 th Avenue SE/SE 8 th Street Intersection	4.589	0.850	0.750	2.989			
TR-42	218 th Avenue SE/216 th Avenue NE—Se 4 th Street to Inglewood Hill Road NE Analysis	6.150		0.150				
TR-A	Public Works Trust Fund Loan Repayment (228th Avenue) ^{CP}	10.546	0.547	0.544	0.541	0.539	0.536	--
TR-B	Non-motorized Transportation Projects ^{CP,NM}	4.500	0.750	0.750	0.750	0.750	0.750	0.750
TR-C	Sidewalk Projects ^{NM,P}	0.960	0.160	0.160	0.160	0.160	0.160	0.160
TR-D	Intersection and Safety Improvements ^P	1.200	0.200	0.200	0.200	0.200	0.200	0.200
TR-E	Neighborhood CIP ^P	0.600	0.100	0.100	0.100	0.100	0.100	0.100
TR-F	Street Light Program	0.090	0.015	0.015	0.015	0.015	0.015	0.015
TR-G	School Zone Safety Program	0.300	0.050	0.050	0.050	0.050	0.050	0.050
TR-H	Capital Contingency Reserve Placeholder	3.000	0.500	0.500	0.500	0.500	0.500	0.500
TOTAL EXPENDITURES		93.866	6.159	18.203	23.742	17.410	14.508	10.146

1. Project Type: C = Concurrency Project; CP = Capital Project; NM = Non-Motorized Project; P = City Program.
2. All project costs are in 2013 dollars.

Background Figure T-11
City of Samamish Existing Non-Motorized Facilities



Existing Transit Service

Transit Service

King County Metro and Sound Transit provide transit service to the City of Sammamish. Four transit routes currently serve the City, with service as summarized in Background Table T–11.

*Background Table T–11
Existing Transit Service for the City of Sammamish*

ROUTE #	ROUTE DESCRIPTION	SERVICE	AVERAGE HEADWAY (MINUTES)	
			Peak	Midday
216 ¹	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Bear Creek P&R	Weekday AM and PM peak hours	30	—
219 ¹	Downtown Seattle to Issaquah Highlands P&R, to South Sammamish P&R and to Redmond	Weekday AM and PM peak hours	30–40	—
269 ¹	Issaquah TC to Issaquah Highlands P&R, to Bear Creek P&R and to Overlake P&R	Weekday AM and PM peak hours	20–30	—
554 ^{2,3}	NE Redmond-Fall City Road at 185th Ave NE to South Sammamish P&R, to Issaquah TC, to North Mercer Island and to downtown Seattle	Weekday Saturday	60–120 60–120	60–120 60–120

1. King County Metro Transit Route.
2. Sound Transit Route; this route make infrequent trips to the City Sammamish.

The Microsoft Connector bus provides transit service to and from Microsoft’s Redmond campus for Microsoft employees. The Connector operates weekdays, stopping at the [future Central Washington University/former Mars Hill Church site located at 120 228th Avenue NE, just north of the intersection of 228th Avenue NE and East Main Street](#), between 7:00 and 9:00 AM and between 5:00 and 7:00 PM.

Park-and-Ride Facilities

Sammamish currently has two park-and-ride (P&R) facilities:

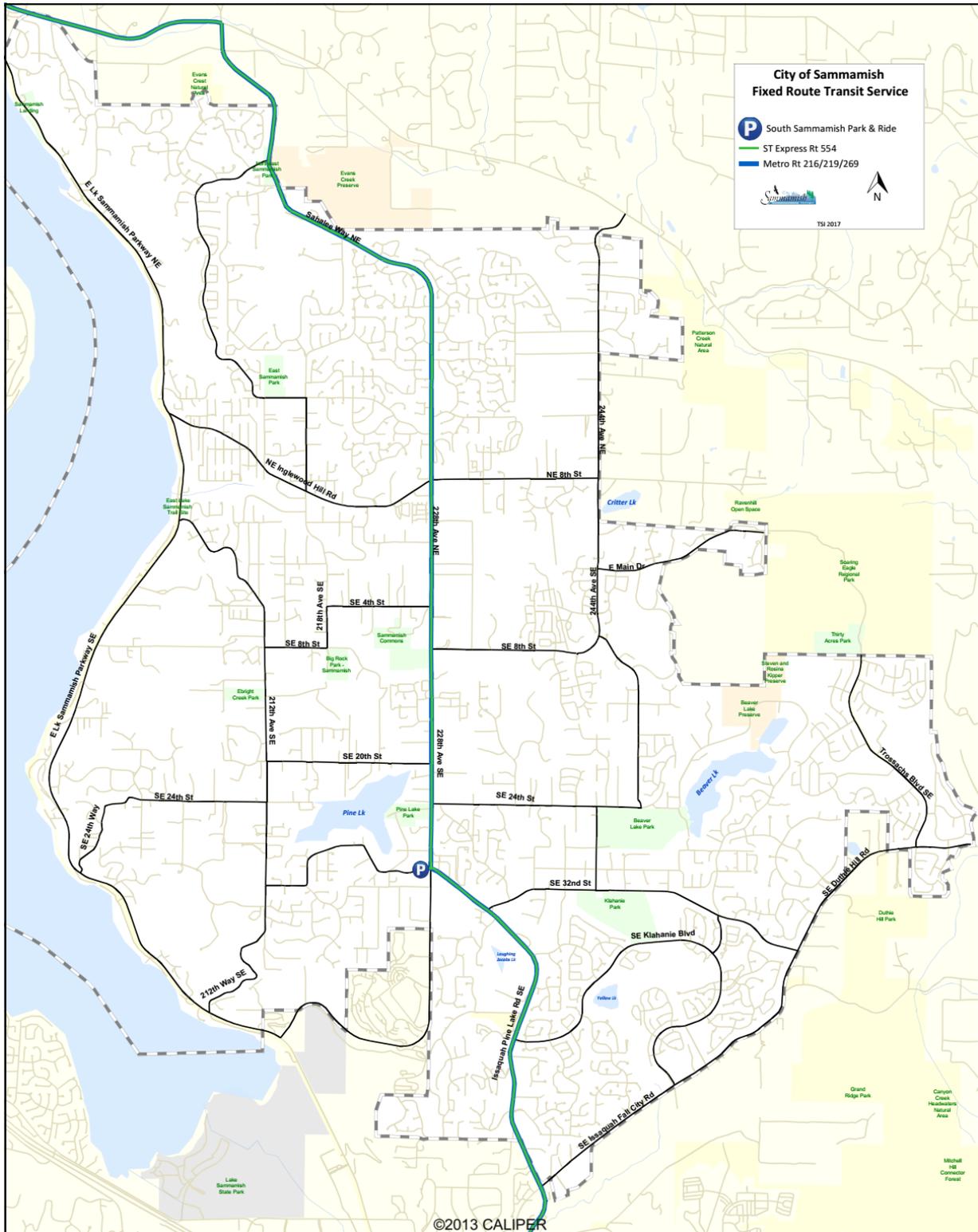
- Sammamish Hills Lutheran Church at SE 8th Street and 228th Avenue SE (54 spaces).
- South Sammamish P&R at Issaquah-Pine Lake Road SE and 228th Avenue SE (265 spaces).
- [Klahanie P&R at SE Klahanie Boulevard and 244th Place SE \(30 spaces\)](#).

Existing transit routes and P&R lots within the Sammamish city limits are shown in Background Figure T–12. Outside of the city limits, the nearest P&R lots are:

- Klahanie P&R at SE Klahanie Boulevard and 244th Place SE, King County (30spaces).
- Klahanie P&R at SE Klahanie Boulevard and SE Issaquah-Fall City Road (30 spaces).
- Tibbett’s Valley P&R at 12th NW and Newport Way, Issaquah (94 spaces).
- Issaquah Highlands P&R at Highlands Drive NE and NE High Street, Issaquah (1,010 spaces).
- Bear Creek P&R at NE Union Hill Road and 178th Place NE,

- Redmond (283 spaces).

Background Figure T-12
Existing Transit Service



Travel Demand Forecasts and Projected Needs

To evaluate future transportation needs, forecasts must be made of future travel demand. Developing traffic forecasts for existing streets based on future land use allows the adequacy of the street system to be evaluated.

Travel Forecasting Model

For the City of Sammamish Transportation Element, a transportation computer model was developed to analyze future travel demand and traffic patterns. The major steps of the modeling process are as follows:

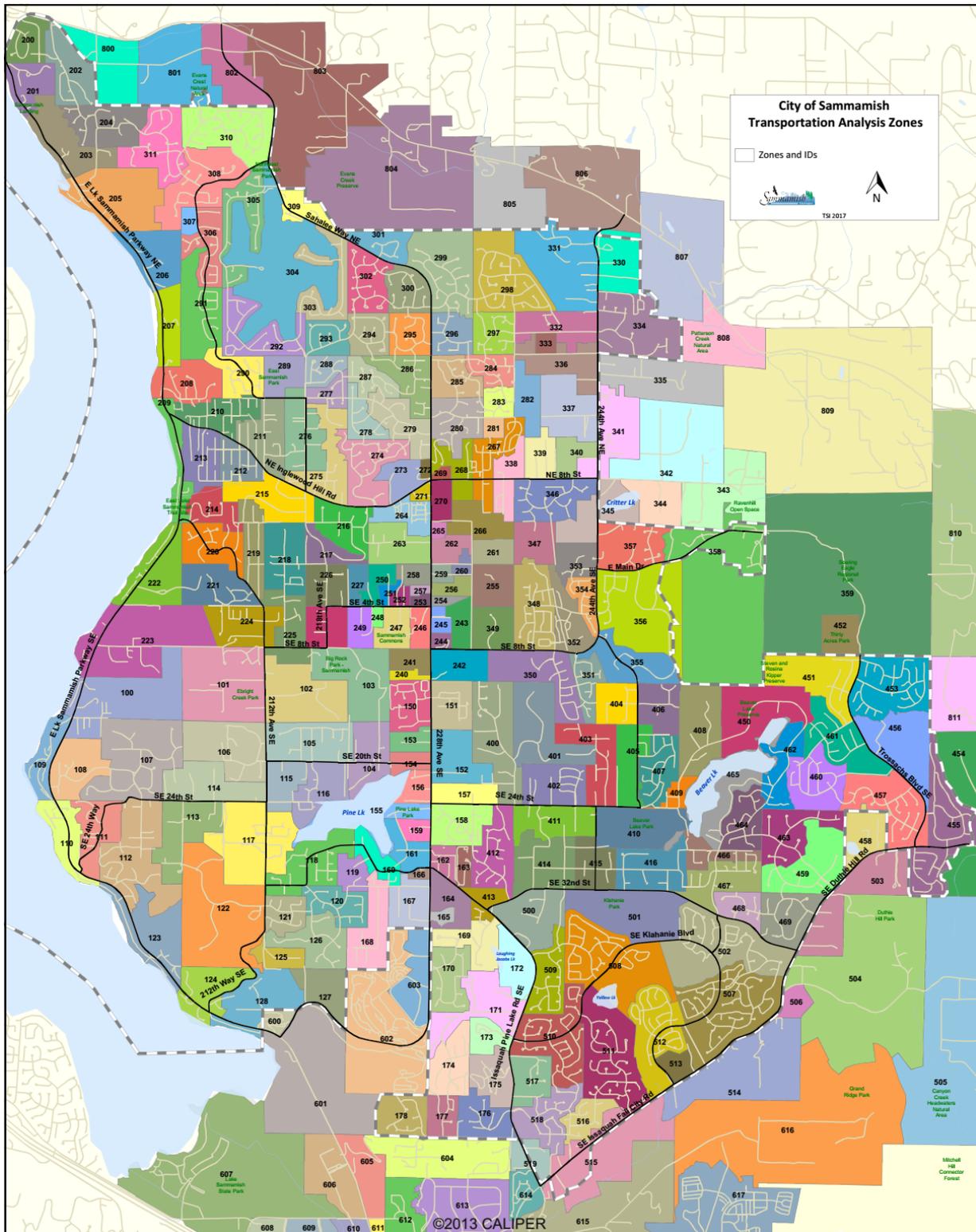
- Current Land Use Assessment;
- Trip Generation;
- Trip Distribution;
- Network Assignment;
- Model Calibration;
- Forecast of Future Land Use; and
- Model of Future Traffic Conditions.

These general steps of the modeling process are described in the following sections.

Current Land Use Assessment

The primary method of determining future travel demand is based on future land use patterns and community growth. The entire study area is divided into Transportation Analysis Zones (TAZs) that have similar land use characteristics. The TAZ boundaries that were established for the City of Sammamish travel-forecasting model are shown in Background Figure T-13. For each zone, land use characteristics of population and employment were estimated based on the City of Sammamish Comprehensive Land Use Plan. In order to establish an accurate base map of existing land use, consultants to the city began with the King County Assessor records, supplemental aerial photos, and field verification of a subset of lots. City staff compiled unit counts of multi-family dwellings and commercial building square feet based on King County records supplemented with some field review.

Background Figure T-13
Transportation Analysis Zones



Trip Generation

The trip generation step forecasts the total number of trips generated by and attracted to each TAZ. The trips were forecast using statistical data that take into account population and household characteristics, employment information, economic model output, and land-use information. Trips generated are categorized by their general purpose, which are:

- Home-based-work: any trip with home as one end and work as the other end
- Home-based-other: any non-work trip with home as one end
- Non-home-based: any trip that does not have home at either end

The trip generation model forecasts the total number of trips that are generated per household or non-residential unit during the analysis period for the trip categories under consideration.

Trip Distribution

The trip distribution step allocates the trip generation to a specific zonal origin and destination. This is accomplished through use of the gravity model, which distributes trips according to two basic assumptions: (1) more trips will be attracted to larger zones (the size of a zone is defined by the number of attractions estimated in the trip generation phase, not the geographical size), and (2) more trip interchanges will take place between zones that are closer together than the number that will take place between zones that are farther apart. The result is a trip matrix (for each of the trip purposes specified as input to the trip generation model) that estimates the percentage of trips taken from each zone to every other zone. These trips are often referred to as trip interchanges.

Network Assignment

The arterial street system is coded into the city's Traffic Model as a series of links that represent roadways and nodes that represent the intersection of those roadways. Each roadway link and intersection node is entered into the model with an assigned functional classification, and associated characteristics such as length, capacity, and speed. This information is then used to determine the optimum path between all the zones based on travel time and distance. The model then distributes the trips from each of the zones onto the street network.

The forecasted trips are assigned to the transportation network using an incremental assignment process where the total traffic is assigned to the network, one increment at a time. Vehicle travel paths reflect the best travel time between each origin and destination. After a portion of the vehicles is assigned, the zone-to-zone travel times with the additional traffic are recalculated. The next increment of traffic is assigned to the network, and the optimal paths are determined based upon the adjusted travel times. The zone-to-zone travel times are calculated again, reflecting the added traffic. The cycle of network assignment and travel time recalculation is repeated, until all vehicles have been assigned to the network. The result is a computerized road network with traffic volumes calculated for each segment of roadway, which takes into account the effects of increasing traffic congestion on the system.

Model Calibration

The 2016 calibrated VISUM travel demand model developed by DEA has a mean relative error of 1% and is a very good representation of the traffic generated by a known land uses (2016 occupied development). The calibration error does not directly relate to the accuracy of the forecast in that the land use assumptions are general, factors including fuel prices, social objectives, and other issues modify travel behaviors over time. In most cases, future forecasts should be considered with a broader margin of error. A range of plus or minus 10% is a very reasonable error to assume for a 20-year planning horizon. This potential error should be considered when evaluating the travel demand forecasts and level of service summaries. Forecast volumes have the potential to be 10% more or less in many cases.

Land Use Assumptions used in Travel Demand Forecasting

The land use assumptions used in the VISUM travel demand forecasting model are based upon the Land Use Element of the Comprehensive Plan, which in turn is based upon the PSRC residential and employment allocations for Sammamish. External land use assumptions were based upon PSRC forecasts for the jurisdictions around Sammamish, including the cities of Redmond, Issaquah and Bellevue to ensure that the forecast trip distribution for trips originating in or destined to the region outside the city are modeled correctly. Key elements of the land use forecast include infill single family residential development in vacant and underdeveloped land identified in the buildable lands analysis and the realization continued development of the Town Center, a mixed use subarea planned for 2,000 residential units, 600,000 square feet of commercial space

Future Traffic Conditions

Once future land use conditions were input, the model was run to forecast PM peak hour traffic conditions that are expected to result from the projected land use. The PM peak hour is modeled since it is the most congested time of day. However, since the segment analysis requires projected daily traffic volumes, the PM peak hour volumes are converted to AWDT volumes. The conversion to daily volumes was accomplished by applying a post-processing method, based primarily upon application of a peak-to-daily conversion factor. This factor was based upon segment-specific K-factors observed in 2016 citywide traffic counts.

2035 Committed Capital Improvement Projects (CIP)

Background Table T–12 lists the future improvements for which funding is secure; and thus, are assumed to be in place for analysis of future conditions.

*Background Table T–12
Committed Capital Improvement Projects (CIP)*

LOCATION	CIP IMPROVEMENT
SE 4th St–218th Ave SE to 228th Ave SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk
Issaquah-Pine Lake Rd–Klahanie Blvd to SE 32nd	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk
Issaquah-Pine Lake Rd–SE 48th to Klahanie Blvd	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk
East Lake Sammamish Pkwy SE/SE 24th St Intersection	Construct traffic signal, turn lanes, curb, gutter, and sidewalk
228th Ave SE–SE 32nd St to Issaquah-Pine Lake Road	Provide additional southbound through lane
Issaquah-Fall City Rd–SE 48th St to Klahanie Dr SE	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk
212th Ave SE Gap Project–SE 24th St to Crossings Subdivision	Provide non-motorized facilities

Level-of-Service Analysis for 2035 Land Use

Background Table T–13 summarizes the intersection LOS expected under the 2035 land use scenario if no additional transportation improvements are made beyond the committed CIP. The 2035 intersection LOS is illustrated in Background Figure T–14.

The committed improvements listed in Background Table T–13 address several existing deficiencies identified in the 2016 existing conditions analysis. However, the future 2035 analyses show that the increase in traffic resulting from additional development would cause increased congestion at other locations, if no additional

Background Table T-13

2035 Intersection LOS—PM Peak Hour—Committed Improvements Only

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
1	Issaquah-Pine Lk Rd & SE 48th St	D	Signal	8.1	A
2	228th Ave NE & NE 12th Pl	D	Signal	31.8	C
3	Klahanie Dr SE & SE Issaquah-Fall City Rd	D	Signal	18.6	B
4	244th Ave SE & SE 24th St	C	TWSC	91.5	F*
5	SE 32nd Way & 244th Ave SE	C	TWSC	293.4	F*
6	Issaquah-Pine Lk Rd SE & SE 32nd Way	D	RAB	16.2	B
7	228th Ave SE & SE 40th St	D	TWSC	1035.9	F*
8	SE Klahanie Blvd & 256th Ave SE	C	AWSC	18.2	C
9	SE Issaquah-Fall City Rd & Pacific Cascade MS/247 th Pl SE	D	Signal	19.5	B
10	Sahalee Way & NE 36th Ln	D	TWSC	6728	F*
11	242nd Ave NE & NE 8th St	C	Signal	14.7	B
12	228th Ave SE & SE 8th St	D	Signal	180.4	F*
13	228th Ave NE & NE 19th Dr	D	TWSC	201	F*
14	216th Ave NE & NE Inglewood Hill Rd	C	RAB	37	D*
15	228th Ave NE & NE Inglewood Hill Rd/NE 8th St	D	Signal	50.8	D
16	228th Ave NE & NE 4th St	D	Signal	52.8	D
17	228th Ave SE & SE 4th St	D	Signal	23.7	C
18	212th Ave SE & SE 8th St	C	TWSC	17.4	C
19	228th Ave SE & SE 16th St	D	Signal	20.5	A
20	E Lk Sammamish Pkwy & 212th Way SE	C	Signal	12.2	A
21	E Lk Sammamish Pkwy & SE 24th Way	C	TWSC	29.1	A
22	212th Ave SE & SE 20th St	C	AWSC	26.4	A
23	E Lk Sammamish Pkwy & Louis Thompson Rd	C	Signal	17.1	B
24	E Lk Sammamish Pkwy & NE Inglewood Hill Rd	C	Signal	20.1	C
25	Sahalee Way NE & NE 37th Way	D	Signal	59.9	E*
26	NE 8th St & 244th Ave NE	C	RAB	10.4	B
27	228th Ave SE & SE 20th St	D	Signal	17.9	B
28	228th Ave SE & SE 24th St	D	Signal	49.4	D
29	228th Ave SE & Issaquah-Pine Lk Rd SE	E	Signal	82.3	F*
30	Issaquah-Pine Lk Rd SE & SE Klahanie Blvd	D	Signal	95.6	F*
31	Duthie Hill Rd & Issaquah-Beaver Lk Rd	D	Signal	28.6	C
32	256th Ave SE/E Beaver Lake Dr SE & Issaquah-Beaver Lk Rd	C	TWSC	574.2	F*
33	228th Ave NE & NE 14th St	D	TWSC	9999	F*
34	228th Ave NE & NE 25th St	D	Signal	25.2	C
35	Issaquah Pine Lake Rd & SE 42nd St ⁵	D	Signal	14.7	B
36	Issaquah-Pine Lk Rd & 231st Ln SE	D	Signal	7.7	A
37	Sahalee Way NE & NE 28 th Pl	D	TWSC	518.4	F*
38	Issaquah-Pine Lk Rd & SE 47th Way/238 th Way NE	D	Signal	7.9	A
39	233rd Ave NE & NE 8th St	C	RAB	4.9	A
40	228th Ave SE & E. Main St	D	Signal	9.8	A
41	244th Ave NE & E Main Dr	C	RAB	4.9	A

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
42	Duthie Hill Rd & Trossachs Blvd SE	D	Signal	64.8	E*
43	228th Ave SE & SE 10th Ave/Skyline HS	D	Signal	30	C
100	E Lk Sammamish Pkwy & SR 202 (Redmond-Fall City Rd) ⁶	D	Signal	190.1	F*
101	E Lk Sammamish Pkwy & SE 43rd Way ⁶	D	RAB	10.6	B
102	Sahalee Way NE & SR 202 (Redmond-Fall City Rd) ⁶	D	Signal	113.2	F*
103	244th Ave NE & SR 202 (Redmond-Fall City Rd) ⁶	D	Signal	105.4	F*
104	Duthie Hill Rd & SR 202 (Redmond-Fall City Rd) ⁶	D	Signal	39.1	D

1. LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D. Intersections that include Minor Arterials or Collectors have a standard of LOS C.
2. Intersection Control: Signal=signalized; TWSC=two-way stop-controlled; AWSC=all-way stop-controlled; RAB=roundabout
3. Delay is measured in seconds per vehicle. At Signal and AWSC intersections, it represents average delay for the intersection. For TWSC intersections, it represents average delay for the worst minor approach movements or major street left turn movements. For RABs, it represents the worst approach. Analysis is based on 2016 traffic counts.
4. LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2010). (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.
5. After developer-funded signalization of Issaquah-Pine Lake Rd & SE 42nd St
6. Intersection is outside of the city limits.

improvements were made.

Seventeen intersections are forecasted to operate below minimum LOS standards by 2035. Fourteen of the failing intersections are located inside city limits. On Sahalee Way/228th Avenue, eight intersections are forecasted to operate below their respective minimum LOS standards.

Outside of the city limits, three signalized intersections are projected to operate at LOS F. Continued coordination with Issaquah, Redmond, ~~and~~ King County and WSDOT will be necessary.

Background Table T–14 summarizes the concurrency status for each of the 73 roadway segments, under the 2035 land use with only committed improvements, based upon the policy-defined AWDT thresholds previously described. Measuring the forecasted volumes against the policy-defined roadway segment concurrency thresholds and considering only the committed improvements documented above, one road corridor and eleven road segments will fail under the future land use scenario with the committed improvements only.

Travel Demand Forecast Accuracy–Implications to LOS Results

The LOS failures indicated in the 2035 forecast are generally less than 10% over the volume-to-capacity (v/c) thresholds assumed for the 2035 network. Given the accuracy of the forecast these failures could be worse than anticipated or may not materialize at all. The magnitude of the LOS failures (generally less than 10%) predicted for 2035 suggest the need for ongoing monitoring to determine if the LOS forecast is reasonably accurate or if future conditions are better or worse than projected. The city's concurrency management system is designed to monitor the cumulative impacts of growth and will provide an early warning of potential future problems.

Background Table T-14
AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—
Committed Improvements Only

SEGMENT	ROAD FUNCTIONAL		CONCURRENCY THRESHOLD	2035 PROJECTED	
	CLASSIFICATION			AWDT	Fails?
C1 East Lk Sammamish Parkway North Corridor			25,370	23,551	
1 E Lk Sammamish Pkwy, City limits-196th Ave (Weber Pt)	Minor Arterial		25,370	24,085	
2 E Lk Sammamish Pkwy, 196th Ave NE-NE 28th Pl	Minor Arterial		25,370	23,355	
3 E Lk Sammamish Pkwy, NE 28th Pl-NE Inglewood Hill Rd	Minor Arterial		25,370	23,098	
C2 East Lk Sammamish Parkway Central Corridor			18,766	11,607	
4 E Lk Sammamish Pkwy, Inglewood Hill Rd-Louis Thompson	Minor Arterial		19,110	14,730	
5 E Lk Sammamish Pkwy, Louis Thompson Rd NE-SE 8th St	Minor Arterial		18,675	10,921	
6 E Lk Sammamish Pkwy, SE 8th St-SE 24th Way	Minor Arterial		18,675	10,696	
C3 East Lk Sammamish Parkway South Corridor			18,905	13,787	
7 E Lk Sammamish Pkwy, SE 24th Way-212th Ave SE	Minor Arterial		18,965	12,520	
8 E Lk Sammamish Pkwy, 212th Ave SE-City Limit	Minor Arterial		18,675	18,624	
C4 Louis Thompson Road-212th Corridor			11,474	6,709	
11 Louis Thompson Rd, E Lk Sammamish Pkwy-SE 8th St	Collector Arterial		11,070	5,407	
12 212th Ave SE, SE 8th St-SE 20th St	Collector Arterial		11,685	7,896	
13A 212th Ave SE, SE 20th St-SE 32nd St	Collector Arterial		11,788	7,456	
13B 212th Ave SE, SE 32 nd St - 212 th Way SE	Collector Arterial		11,788	6,791	
14 212th Way SE, SE 32nd St-E Lk Sammamish Pkwy	Collector Arterial		11,425	6,716	
C5 Sahalee Way-228th Avenue North Corridor			20,611	19,834	
21A Sahalee Way/228th Ave NE, City Limit-NE 37 th Way	Principal Arterial		23,750	22,690	X
21B Sahalee Way/228th Ave NE, NE 37 th Way-NE 36 th St	Principal Arterial		18,965	19,643	X
21C Sahalee Way/228th Ave NE, NE 36 th St - 223 rd Ave NE	Principal Arterial		18,965	19,611	X
22 Sahalee Way/228th Ave NE, 223 rd Ave NE - NE 25 th Way	Principal Arterial		18,965	17,680	
23 228th Ave, NE 25th Way-NE 12th Pl	Principal Arterial		22,300	20,212	
C6 228th Avenue Central Corridor			33,927	32,867	
24A(1) 228 th Ave, NE 12th Pl-NE 8 th St/Inglewood Hill Rd	Principal Arterial		25,799	20,963	
24A(2) 228 th Ave, NE 8 th St/Inglewood Hill Rd - Main St	Principal Arterial		34,950	32,689	
24B 228 th Ave, Main St - SE 8 th St	Principal Arterial		35,180	30,061	
25A 228 th Ave, SE 8 th St - SE 10 th St	Principal Arterial		35,180	36,390	X
25B 228 th Ave, SE 10 th St - SE 20 th St	Principal Arterial		35,180	38,954	X
C7 228th Avenue South Corridor			25,489	25,748	X
26 228th Ave, SE 20th St-Issaquah Pine Lake Rd SE	Principal Arterial		35,295	33,011	
27 228th Ave, Issaquah Pine Lake Rd SE-SE 43rd Way	Principal Arterial		18,985	20,931	X

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Background Table T-14

AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—Committed Improvements Only (cont.)

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2035 PROJECTED	
			AWDT	Fails?
C8 Issaquah-Pine Lake Road Corridor		23,142	21,328	
32 Issaquah-Pine Lk Rd, 228th Ave SE–SE 32nd Way	Principal Arterial	27,580	20,351	
33 Issaquah-Pine Lk Rd, SE 32nd Way–SE Klahanie Blvd	Principal Arterial	21,890	19,751	
34A Issaquah-Pine Lk Rd, SE Klahanie Blvd–SE 46th St	Principal Arterial	23,636	23,956	X
34B Issaquah-Pine Lk Rd, SE 46 th St – SE 48 th St	Principal Arterial	18,965	25,168	X
C9 224th Avenue North Corridor		19,120	12,215	
35 244th Ave NE, NE 30 th PI – NE 20 th St	Minor Arterial	16,330	11,812	
36 244th Ave NE, NE 20 th St–NE 8 th St	Minor Arterial	19,245	15,760	
37A 244th Ave NE, NE 8 th St–E Main St	Minor Arterial	21,550	10,224	
37B 244 th Ave NE/SE, E Main St – SE 8 th St	Minor Arterial	20,730	9,044	
C9A Windsor Boulevard – 248th Avenue Corridor		11,756	5,080	
38 248 th Ave SE, SE 24 th St – SE 14 th St	Collector Arterial	11,742	5,428	
52A SE Windsor Blvd, SE 14 th St – 700 ft n/o SE 14 th St	Collector Arterial	10,260	4,742	
52B SE Windsor Blvd, 700ft n/o SE 14 th St – SE 8 th St	Collector Arterial	12,300	4,624	
C10 244th Avenue South Corridor		10,555	9,205	
39 244th Avenue, SE 24 th St–SE 32nd Way	Minor Arterial	10,555	9,205	
C11 Issaquah-Fall City – Duthie Hill Rd Corridor		25,175	21,550	
47 SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – SE Issaquah-Fall City Rd	Principal Arterial	21,890	14,526	
48 Issaquah-Fall City Rd, SE Duthie Hill Rd – Klahanie Dr SE	Principal Arterial	18,180	19,740	X
49 Issaquah-Fall City Rd, Klahanie Dr – 240 th Ave SE	Principal Arterial	36,570	27,218	
C12 NE Inglewood Hill Rd Corridor		16,717	13,491	
15 NE Inglewood Hill Rd, E Lk Samm Pkwy- 216 th Ave	Minor Arterial	16,090	14,440	
16 NE Inglewood Hill Rd, 216 th Ave NE – 228 th Ave NE	Minor Arterial	17,457	12,370	
C13 NE 8th Street Corridor		20,296	13,456	
28A NE 8 th St, 228 th Ave NE – 235 th Ave NE	Minor Arterial	19,110	13,700	
28B NE 8 th St, 235 th Ave NE – 244 th Ave NE	Minor Arterial	21,822	13,142	
C14 SE 32nd -- Issaquah-Beaver Lake Corridor		18,219	10,100	
40A SE 32 nd Way, Issaquah-Pine Lk Rd – 235 th PI SE	Minor Arterial	19,308	10,031	
40B SE 32 nd Way, 235 th PI SE – 244 th Ave SE	Minor Arterial	18,240	8,465	
41 SE 32nd St, 244th Ave SE – E Beaver Lk Dr SE	Minor Arterial	17,370	12,134	
42 Issaquah-Beaver Lk Rd, Beaver Lk Dr – Duthie Hill Rd	Minor Arterial	19,110	8,819	

continued on following page

Background Table T-14

AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—Committed Improvements Only (cont.)

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2035 PROJECTED	
			AWDT	Fails?
C15 Duthie Hill Rd Corridor		17,054	16,738	
43 SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – 266 th Ave SE (“notch”)	Principal Arterial	16,790	16,650	
44 SE Duthie Hill Rd, 266 th Ave SE (“notch”) – Trossachs Blvd SE	Principal Arterial	17,660	16,940	
C16 SE 4th Street Corridor		22,010	9,226	
18A SE 4 th St, 218 th Ave SE – 224 th Ave SE	Collector Arterial	22,010	10,385	
18B SE 4 th St, 224 th Ave SE – 228 th Ave SE	Collector Arterial	22,010	7,467	
C17 SE 8th Street Corridor		20,730	12,316	
29 SE 8 th St, 228 th Ave SE – 244 th Ave SE	Minor Arterial	20,730	12,316	
C18 SE 20th Street		10,150	6,499	
19 SE 20 th St, 212 th Ave SE – 219 th PI SE	Collector Arterial	10,150	6,812	
20 SE 20 th St, 219 th PI SE – 228 th Ave SE	Collector Arterial	10,150	6,212	
C19 SE 24th Street West Corridor		11,089	1,923	
9 SE 24 th St, E Lk Samm Pkwy – 200 th Ave SE	Collector Arterial	12,417	1,641	
10 SE 24 th St, 200 th Ave SE – 212 th Ave SE	Collector Arterial	9,840	2,189	
C20 SE 24th Street East Corridor		11,428	10,383	
30 SE 24 th St, 228 th Ave SE – 244 th Ave SE	Collector Arterial	11,585	11,780	X
31 SE 24 th St, 244 th Ave SE – W Beaver Lk Dr SE	Collector Arterial	10,970	6,308	
C21 Klahanie Corridor		19,947	7,776	
53 SE Klahanie Blvd, Issaquah Pine Lk Rd – 245 th PI SE	Collector Arterial	13,430	6,705	
54 SE Klahanie Blvd, 245 th PI SE – 256 th Ave SE	Collector Arterial	13,430	2,832	
55 Klahanie Dr SE, 256 th Ave SE – Issaquah-Fall City Rd	Collector Arterial	29,160	12,177	
C22 South Pine Lake Route Corridor		12,442	3,561	
58 SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 212 th Ave SE – 224 th Ave SE	Collector Arterial	11,480	3,294	
59 SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 224 th Ave SE, 228 th Ave SE	Collector Arterial	16,150	4,592	
C23 218th Ave SE and SE 8th St Corridor		8,455	6,113	
17A 218 th Ave SE/SE 8 th St, 212 th Ave SE – 218 th Ave SE	Collector Arterial	8,455	6,040	
17B 218 th Ave SE/SE 8 th St, SE 8 th St – SE 4 th St	Collector Arterial	8,455	6,222	
45 Trossachs Blvd SE, SE 9 th St – SE Duthie Hill Rd	Collector Arterial	12,042	10,642	
50 Issaquah-Pine Lk Rd, SE 48 th St–Issaquah-Fall City Rd	Principal Arterial	20,268	29,546	X
51 Issaquah-Fall City Rd, Issaquah-Pine Lk Rd – 245 th PI	Principal Arterial	32,388	29,996	
56 256 th Ave SE, Klahanie Blvd – Issaquah-Beaver Lk Rd	Collector Arterial	14,200	6,888	
57 E Main Dr, 244 th Ave SE – eastern terminus	Collector Arterial	12,300	2,060	
60 NE 37 th Way/205 th Ave NE/NE 16 th St, Sahalee Way – 216 th Ave NE	Collector Arterial	12,132	4,796	
61 216 th Ave NE, NE 16 th St – NE Inglewood Hill Rd	Collector Arterial	12,300	5,804	

Recommended Plan

Based upon evaluation of existing conditions, travel demand forecast and evaluation of future conditions that result from the 2035 land use forecast, and the concurrency standards and priorities stated by the city, the Recommended Plan contains the following elements:

- Recommended Transportation Improvements
- Functional Classification Assessment
- Connectivity Assessment
- Roadway Design Guidelines
- Traffic Calming Program
- Transportation Demand Management
- Transit Service and Facilities
- Non-Motorized Facilities

Recommended Transportation Improvements

Based upon the analysis of 2016 and 2035 level of service, a list of recommended improvement projects was developed for the 2035 planning horizon. The list of improvement projects is summarized in Background Table T-15.

Planning level estimates were prepared for each of the projects under consideration. The cost estimates (in current dollars) are included in the City of Sammamish Capital Facilities Plan.

*Background Table T-15
 Summary of Recommended Transportation Improvements*

PROJECT #	2015-2035 TIP PRIORITY #	LOCATION	IMPROVEMENT	CONCURRENCY PROJECT?	PROJECT COST (X \$1,000) ¹
1		E Lk Sammamish Pkwy SE, 212th Ave SE-South City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	10,935
2	3	Issaquah-Pine Lk Rd SE, SE 48th St-SE Klahanie Blvd	Widen to 5 lanes with bike lanes, curb, gutter and sidewalk	X	21,315
3	2	Issaquah-Pine Lk Rd SE, SE Klahanie Blvd-SE 32nd Way	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	21,651
4	1	SE 4th St, 218th Ave SE to 228th Ave SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	18,981
5		Sahalee Way NE, NE 25 th Way-North City Limits	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	16,801

continued on following page

Background Table T-15

Summary of Recommended Transportation Improvements (cont.)

PROJECT #	2015-2035 TIP PRIORITY #	LOCATION	IMPROVEMENT	CONCURRENCY PROJECT?	PROJECT COST (X \$1,000) ¹
7	4	E Lk Sammamish Pkwy SE at SE 24th St Intersection	Construct traffic signal, turn lanes, curb, gutter, and sidewalk		13,716
8		SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd—"notch"	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	X	13,230
9		SE Duthie Hill Rd, West side of "notch" to Trossachs Blvd SE	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk on west side, 8-foot shoulder on east side	X	13,230
10	8	228th Ave	Public Works Trust Fund Loan Repayment (remaining loan balance)	X	3,808
11		Issaquah-Pine Lake Rd SE, SE Issaquah-Fall City Rd-SE 48th St	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	X	7,882
12	7	SE Issaquah-Fall City Rd, SE 48th St-Klahanie Dr SE	Widen to 5 lanes with bike lanes, curb, gutter, and sidewalk	X	17,321
13		SE Issaquah-Fall City Rd, Klahanie Dr SE-SE Issaquah-Beaver Lk Rd	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	15,917
14		SE Belvedere Way, E Beaver Lk Rd-263rd Pl SE	New roadway connection, extend SE Belvedere Way to E Beaver Lk Dr SE		761
15		New Roadway Connection to E Beaver-Lk Dr SE at 266th Way SE	Extend 266th Way SE to E Beaver Lk Dr SE and widen E Beaver Lk Dr SE, 266th Way SE to Beaver Lk Way SE		8,498
16		212th Way SE (Snake Hill), E Lk Sammamish Pkwy SE-212th Ave SE	Improve 2 lanes with left-turn pockets, curb, gutter, and sidewalk		13,738
17		SE 8th St/218th Ave SE, 212th Ave SE-SE 4th St	Widen to 3 lanes with bike lanes, curb, gutter, and sidewalk	X	10,117
18	11	Sidewalk Projects	Various sidewalk projects, includes gap projects, extensions, safety improvements		5,000
19	10	Transit Program	Provide funding for capital project matching funds and/or provide for additional transit service.		10,000
20	13	Neighborhood CIP	Various capital improvement including safety improvements, gap projects, bike routes, pedestrian safety enhancements, and school zone safety improvements.		2,000
21		Street Lighting Program	Provide street lighting at high priority locations with significant safety issues that can be addressed through better street lighting		400
22	12	Intersection Improvements	Various intersection and other spot improvement as needed, including channelization, signing, safety improvements, signalization, or other control devices.		5,000
TOTAL EXPENDITURES					237,071

X Indicates that project addresses an identified deficiency.

1. All project costs are in 2014 dollars.

2035 Level of Service Analysis with Recommended Improvements

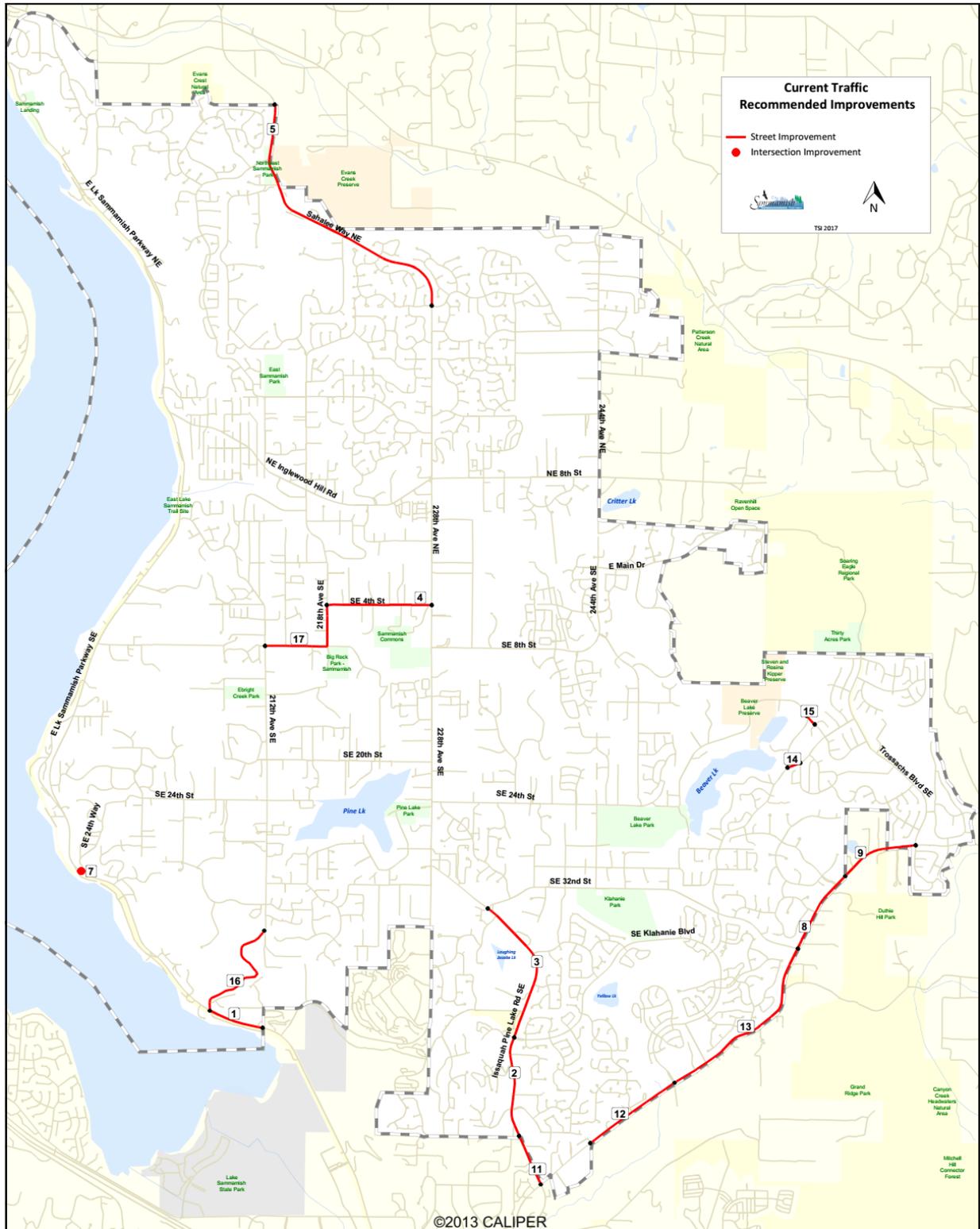
The recommended projects included in the long-range plan are illustrated in Background Figure T–15. This list was developed after review of concurrency requirements.

Background Table T–16 summarizes the expected levels-of-service at the 48 designated major intersections with the recommended long range transportation improvements in place. Analysis shows that 47 of the 48 intersections are expected to operate at an LOS at or better than the intersection concurrency thresholds. The intersection LOS for the 2035 land use is illustrated in Background Figure T–16.

Outside of the city limits the intersection of East Lake Sammamish Parkway and Redmond-Fall City Road (SR 202) is forecasted to operate at LOS F.

Background Table T–17 summarizes the roadway segment concurrency status for the 2035 Land Use assumed in the Comprehensive Plan, with the recommended transportation improvements in place. The table includes widening of Sahalee Way NE from NE 25th Way to the north city limits to include a 3-lane section with bike lanes, curb, gutter, and sidewalks.-Table T-17 indicates that, with recommended improvements, three segments will operate with AWDT exceeding their respective volume thresholds.

Background Figure T-15
Recommended Transportation Improvements



Background Table T-16
2035 Intersection LOS—PM Peak Hour—With Recommended Improvements

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
1	Issaquah-Pine Lk Rd & SE 48th St	D	Signal	8.1	A
2	228th Ave NE & NE 12th Pl	D	Signal	31.8	C
3	Klahanie Dr SE & SE Issaquah-Fall City Rd	D	Signal	18.6	B
4	244th Ave SE & SE 24th St	C	TWSC	23.5	C
5	SE 32nd Way & 244th Ave SE	C	AWSC	19.4	C
6	Issaquah-Pine Lk Rd SE & SE 32nd Way	D	RAB	16.2	B
7	228th Ave SE & SE 40th St	D	Signal	41	D
8	SE Klahanie Blvd & 256th Ave SE	C	AWSC	18.2	C
9	SE Issaquah-Fall City Rd & Pacific Cascade MS/247 th Pl SE	D	Signal	19.5	B
10	Sahalee Way & NE 36th Ln	D	Signal	10.3	B
11	242nd Ave NE & NE 8th St	C	Signal	14.7	B
12	228th Ave SE & SE 8th St	D	Signal	54.7	D
13	228th Ave NE & NE 19th Dr	D	Signal	12	B
14	216th Ave NE & NE Inglewood Hill Rd	C	RAB	13.1	B
15	228th Ave NE & NE Inglewood Hill Rd/NE 8th St	D	Signal	50.8	D
16	228th Ave NE & NE 4th St	D	Signal	52.8	D
17	228th Ave SE & SE 4th St	D	Signal	23.7	C
18	212th Ave SE & SE 8th St	C	TWSC	17.4	C
19	228th Ave SE & SE 16th St	D	Signal	20.5	A
20	E Lk Sammamish Pkwy & 212th Way SE	C	Signal	12.2	A
21	E Lk Sammamish Pkwy & SE 24th Way	C	TWSC	29.1	A
22	212th Ave SE & SE 20th St	C	AWSC	26.4	A
23	E Lk Sammamish Pkwy & Louis Thompson Rd	C	Signal	17.1	B
24	E Lk Sammamish Pkwy & NE Inglewood Hill Rd	C	Signal	20.1	C
25	Sahalee Way NE & NE 37th Way	D	Signal	29.6	C
26	NE 8th St & 244th Ave NE	C	RAB	10.4	B
27	228th Ave SE & SE 20th St	D	Signal	17.9	B
28	228th Ave SE & SE 24th St	D	Signal	49.4	D
29	228th Ave SE & Issaquah-Pine Lk Rd SE	E	Signal	53.9	D
30	Issaquah-Pine Lk Rd SE & SE Klahanie Blvd	D	Signal	49.8	D
31	Duthie Hill Rd & Issaquah-Beaver Lk Rd	D	Signal	28.6	C
32	256th Ave SE/E Beaver Lake Dr SE & Issaquah-Beaver Lk Rd	C	Signal	26.4	C
33	228th Ave NE & NE 14th St	D	Signal	17.7	B
34	228th Ave NE & NE 25th St	D	Signal	25.2	C
35	Issaquah Pine Lake Rd & SE 42nd St	D	Signal	14.7	B
36	Issaquah-Pine Lk Rd & 231st Ln SE	D	Signal	7.7	A
37	Sahalee Way NE & NE 28 th Pl	D	Signal	18	B
38	Issaquah-Pine Lk Rd & SE 47th Way/238 th Way NE	D	Signal	7.9	A
39	233rd Ave NE & NE 8th St	C	RAB	4.9	A
40	228th Ave SE & E. Main St	D	Signal	9.8	A
41	244th Ave NE & E Main Dr	C	RAB	4.9	A

ID	INTERSECTION	LOS STANDARD ¹	TRAFFIC CONTROL ²	DELAY ³	LOS ⁴
42	Duthie Hill Rd & Trossachs Blvd SE	D	Signal	24.6	C
43	228th Ave SE & SE 10th Ave/Skyline HS	D	Signal	30	C
100	E Lk Sammamish Pkwy & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	190.1	F*
101	E Lk Sammamish Pkwy & SE 43rd Way ⁵	D	RAB	10.6	B
102	Sahalee Way NE & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	54.3	D
103	244th Ave NE & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	54.2	D
104	Duthie Hill Rd & SR 202 (Redmond-Fall City Rd) ⁵	D	Signal	39.1	D

1. LOS standards are based upon the functional classifications of the intersecting roadways. Intersections that include Principal Arterials have a standard of LOS D. Intersections that include Minor Arterials or Collectors have a standard of LOS C.
2. Intersection Control: Signal=signalized; TWSC=two-way stop-controlled; AWSC=all-way stop-controlled; RAB=roundabout
3. Delay is measured in seconds per vehicle. At Signal and AWSC intersections, it represents average delay for the intersection. For TWSC intersections, it represents average delay for the worst minor approach movements or major street left turn movements. For RABs, it represents the worst approach. Analysis is based on 2016 traffic counts.
4. LOS is the level-of-service based on the methodology outlined in the Highway Capacity Manual (HCM 2010). (*) Denotes an LOS below the defined standard, indicating that the intersection is considered deficient.
5. Intersection is outside of the city limits.

Background Table T-17
2035 Segment Concurrency Status—With Recommended Improvements

SEGMENT	ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2035 - PROJECTED	
			AWDT	Fails?
C1 East Lk Sammamish Parkway North Corridor		26,598	23,551	
1 E Lk Sammamish Pkwy, City limits-196th Ave (Weber Pt)	Minor Arterial	25,370	24,085	
2 E Lk Sammamish Pkwy, 196th Ave NE-NE 28th Pl	Minor Arterial	25,370	23,355	
3 E Lk Sammamish Pkwy, NE 28th Pl-NE Inglewood Hill Rd	Minor Arterial	28,970	23,098	
C2 East Lk Sammamish Parkway Central Corridor		18,766	11,607	
4 E Lk Sammamish Pkwy, Inglewood Hill Rd-Louis Thompson	Minor Arterial	19,110	14,730	
5 E Lk Sammamish Pkwy, Louis Thompson Rd NE-SE 8th St	Minor Arterial	18,675	10,921	
6 E Lk Sammamish Pkwy, SE 8th St-SE 24th Way	Minor Arterial	18,675	10,696	
C3 East Lk Sammamish Parkway South Corridor		19,597	13,787	
7 E Lk Sammamish Pkwy, SE 24th Way-212th Ave SE	Minor Arterial	18,965	12,520	
8 E Lk Sammamish Pkwy, 212th Ave SE-City Limit	Minor Arterial	22,010	18,624	
C4 Louis Thompson Road-212th Corridor		12,150	6,709	
11 Louis Thompson Rd, E Lk Sammamish Pkwy-SE 8th St	Collector Arterial	12,150	5,407	
12 212th Ave SE, SE 8th St-SE 20th St	Collector Arterial	12,150	7,896	
13A 212th Ave SE, SE 20th St-SE 32nd St	Collector Arterial	12,150	7,456	
13B 212th Ave SE, SE 32nd St - 212th Way SE	Collector Arterial	12,150	6,791	
14 212th Way SE, SE 32nd St-E Lk Sammamish Pkwy	Collector Arterial	12,150	6,716	
C5 Sahalee Way-228th Avenue North Corridor		23,913	19,834	
21A Sahalee Way/228th Ave NE, City Limit-NE 37th Way	Principal Arterial	24,605	22,690	
21B Sahalee Way/228th Ave NE, NE 37th Way-NE 36th St	Principal Arterial	24,605	19,643	
21C Sahalee Way/228th Ave NE, NE 36th St - 223rd Ave NE	Principal Arterial	24,605	19,611	
22 Sahalee Way/228th Ave NE, 223rd Ave NE - NE 25th Way	Principal Arterial	24,605	17,680	
23 228th Ave, NE 25th Way-NE 12th Pl	Principal Arterial	22,300	20,212	
C6 228th Avenue Central Corridor		33,927	32,867	
24A(1) 228th Ave, NE 12th Pl-NE 8th St/Inglewood Hill Rd	Principal Arterial	25,799	20,963	
24A(2) 228th Ave, NE 8th St/Inglewood Hill Rd - Main St	Principal Arterial	34,950	32,689	
24B 228th Ave, Main St - SE 8th St	Principal Arterial	35,180	30,061	
25A 228th Ave, SE 8th St - SE 10th St	Principal Arterial	35,180	36,390	X
25B 228th Ave, SE 10th St - SE 20th St	Principal Arterial	35,180	38,954	X
C7 228th Avenue South Corridor		27,308	25,748	
26 228th Ave, SE 20th St-Issaquah Pine Lake Rd SE	Principal Arterial	35,295	33,011	
27 228th Ave, Issaquah Pine Lake Rd SE-SE 43rd Way	Principal Arterial	22,010	20,931	

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Background Table T-17

AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segments—With Recommended Improvements (cont.)

SEGMENT		ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2035 PROJECTED AWDT	Fails?
C8	Issaquah-Pine Lake Road Corridor		28,652	21,328	
32	Issaquah-Pine Lk Rd, 228th Ave SE–SE 32nd Way	Principal Arterial	31,480	20,351	
33	Issaquah-Pine Lk Rd, SE 32nd Way–SE Klahanie Blvd	Principal Arterial	22,010	19,751	
34A	Issaquah-Pine Lk Rd, SE Klahanie Blvd–SE 46th St	Principal Arterial	36,690	23,956	
34B	Issaquah-Pine Lk Rd, SE 46 th St – SE 48 th St	Principal Arterial	36,690	25,168	
C9	224th Avenue North Corridor		22,010	12,215	
35	244th Ave NE, NE 30 th PI – NE 20 th St	Minor Arterial	22,010	11,812	
36	244th Ave NE, NE 20th St–NE 8th St	Minor Arterial	22,010	15,760	
37A	244th Ave NE, NE 8th St–E Main St	Minor Arterial	22,010	10,224	
37B	244 th Ave NE/SE, E Main St – SE 8 th St	Minor Arterial	22,010	9,044	
C9A	Windsor Boulevard – 248th Avenue Corridor		11,756	5,080	
38	248 th Ave SE, SE 24 th St – SE 14 th St	Collector Arterial	11,742	5,428	
52A	SE Windsor Blvd, SE 14 th St – 700 ft n/o SE 14 th St	Collector Arterial	10,260	4,742	
52B	SE Windsor Blvd, 700ft n/o SE 14 th St – SE 8 th St	Collector Arterial	12,300	4,624	
C10	244th Avenue South Corridor		15,630	9,205	
39	244th Avenue, SE 24th St–SE 32nd Way	Minor Arterial	15,630	9,205	
C11	Issaquah-Fall City – Duthie Hill Rd Corridor		27,078	21,550	
47	SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – SE Issaquah-Fall City Rd	Principal Arterial	21,890	14,526	
48	Issaquah-Fall City Rd, SE Duthie Hill Rd – Klahanie Dr SE	Principal Arterial	22,010	19,740	
49	Issaquah-Fall City Rd, Klahanie Dr – 240 th Ave SE	Principal Arterial	36,570	27,218	
C12	NE Inglewood Hill Rd Corridor		22,010	13,491	
15	NE Inglewood Hill Rd, E Lk Samm Pkwy- 216 th Ave	Minor Arterial	22,010	14,440	
16	NE Inglewood Hill Rd, 216 th Ave NE – 228 th Ave NE	Minor Arterial	22,010	12,370	
C13	NE 8th Street Corridor		20,296	13,456	
28A	NE 8 th St, 228 th Ave NE – 235 th Ave NE	Minor Arterial	19,110	13,700	
28B	NE 8 th St, 235 th Ave NE – 244 th Ave NE	Minor Arterial	21,822	13,142	
C14	SE 32nd – Issaquah-Beaver Lake Corridor		18,219	10,100	
40A	SE 32 nd Way, Issaquah-Pine Lk Rd – 235 th PI SE	Minor Arterial	19,308	10,031	
40B	SE 32 nd Way, 235 th PI SE – 244 th Ave SE	Minor Arterial	18,240	8,465	
41	SE 32nd St, 244th Ave SE – E Beaver Lk Dr SE	Minor Arterial	17,370	12,134	
42	Issaquah-Beaver Lk Rd, Beaver Lk Dr – Duthie Hill Rd	Minor Arterial	19,110	8,819	

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Background Table T-17

AWDT Concurrency Thresholds and 2035 Volumes for Roadway Segment—With Recommended Improvements (cont.)

SEGMENT		ROAD FUNCTIONAL CLASSIFICATION	CONCURRENCY THRESHOLD	2035 PROJECTE AWDT	Fails?
C15	Duthie Hill Rd Corridor		19,181	16,738	
43	SE Duthie Hill Rd, SE Issaquah-Beaver Lk Rd – 266 th Ave SE (“notch”)	Principal Arterial	17,950	16,650	
44	SE Duthie Hill Rd, 266 th Ave SE (“notch”) – Trossachs Blvd SE	Principal Arterial	22,010	16,940	
C16	SE 4th Street Corridor		22,010	9,226	
18A	SE 4 th St, 218 th Ave SE – 224 th Ave SE	Collector Arterial	22,010	10,385	
18B	SE 4 th St, 224 th Ave SE – 228 th Ave SE	Collector Arterial	22,010	7,467	
C17	SE 8th Street Corridor		22,010	12,316	
29	SE 8 th St, 228 th Ave SE – 244 th Ave SE	Minor Arterial	22,010	12,316	
C18	SE 20th Street		18,556	6,499	
19	SE 20 th St, 212 th Ave SE – 219 th PI SE	Collector Arterial	22,010	6,812	
20	SE 20 th St, 219 th PI SE – 228 th Ave SE	Collector Arterial	15,390	6,212	
C19	SE 24th Street West Corridor		11,089	1,923	
9	SE 24 th St, E Lk Samm Pkwy – 200 th Ave SE	Collector Arterial	12,417	1,641	
10	SE 24 th St, 200 th Ave SE – 212 th Ave SE	Collector Arterial	9,840	2,189	
C20	SE 24th Street East Corridor		18,238	10,383	
30	SE 24 th St, 228 th Ave SE – 244 th Ave SE	Collector Arterial	20,730	11,780	
31	SE 24 th St, 244 th Ave SE – W Beaver Lk Dr SE	Collector Arterial	10,970	6,308	
C21	Klahanie Corridor		19,947	7,776	
53	SE Klahanie Blvd, Issaquah Pine Lk Rd – 245 th PI SE	Collector Arterial	13,430	6,705	
54	SE Klahanie Blvd, 245 th PI SE – 256 th Ave SE	Collector Arterial	13,430	2,832	
55	Klahanie Dr SE, 256 th Ave SE – Issaquah-Fall City Rd	Collector Arterial	29,160	12,177	
C22	South Pine Lake Route Corridor		12,442	3,561	
58	SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 212 th Ave SE – 224 th Ave SE	Collector Arterial	11,480	3,294	
59	SE 32 nd St/216 th Ave SE/SE 28 th St/ 222 nd PI SE/ SE 30 th St, 224 th Ave SE, 228 th Ave SE	Collector Arterial	16,150	4,592	
C23	218th Ave SE and SE 8th St Corridor		9,420	6,113	
17A	218 th Ave SE/SE 8 th St, 212 th Ave SE – 218 th Ave SE	Collector Arterial	9,420	6,040	
17B	218 th Ave SE/SE 8 th St, SE 8 th St – SE 4 th St	Collector Arterial	9,420	6,222	
45	Trossachs Blvd SE, SE 9 th St – SE Duthie Hill Rd	Collector Arterial	22,010	10,642	
50	Issaquah-Pine Lk Rd, SE 48 th St–Issaquah-Fall City Rd	Principal Arterial	20,268	29,546	X
51	Issaquah-Fall City Rd, Issaquah-Pine Lk Rd – 245 th PI	Principal Arterial	32,388	29,996	
56	256 th Ave SE, Klahanie Blvd – Issaquah-Beaver Lk Rd	Collector Arterial	14,200	6,888	
57	E Main Dr, 244 th Ave SE – eastern terminus	Collector Arterial	12,300	2,060	
60	NE 37 th Way/205 th Ave NE/NE 16 th St, Sahalee Way – 216 th Ave NE	Collector Arterial	12,132	4,796	
61	216 th Ave NE, NE 16 th St – NE Inglewood Hill Rd	Collector Arterial	12,300	5,804	

Actions to Meet LOS Standards

The deficiency on Issaquah-Pine Lake Road in the city of Issaquah north of Issaquah-Fall City Road between Issaquah-Fall City Road and SE 48th Street may be mitigated by widening the 0.3 mile section to 4 lanes. Continued coordination with the city of Issaquah will be necessary to complete this recommended improvement.

The deficiencies on 228th Ave SE are a result of significant institutional uses in a concentrated area along 228th Ave SE including, Town Center to the south;³⁷ Sammamish City Hall;³⁷ the Community Center;³⁷ the King County Library;³⁷ Skyline, Eastlake and Eastside Catholic High School;³⁷ and two churches. On a positive note the institutional nature of these uses lend themselves to Transportation Demand Management (TDM) strategies that smaller individual uses may not be able to achieve.

Background Table T–16 identified the following intersection LOS deficiencies with the 2035 recommended improvements.

Within the city there are fifteen intersections forecast to operate below minimum LOS standards after committed intersection improvement projects are constructed. Monitoring programs are recommended at all key city intersections, including those projected to operate at failure to justify future improvement needs. Intersections that do not meet their LOS thresholds are outlined below along with recommended physical or strategic future improvement options:

- *244th Avenue SE & SE 24th Street* operates at LOS F – add a northbound right turn lane.
- *SE 32nd Way & 244th Ave SE* operates at LOS F – convert to all-way stop, add eastbound left-turn lane, and add westbound right-turn lane.
- *228th Avenue & SE 40th Street* operates at LOS F – signalize the intersection
- *Sahalee Way NE & NE 36th Lane* operates at LOS F – signalize the intersection
- *228th Avenue SE & SE 8th Street* operates at LOS F – widen and rechannelize the intersection to include northbound and westbound right turn lanes
- *228th Avenue NE & NE 19th Drive* will operate at LOS F – signalize the intersection.
- *216th Avenue NE & Inglewood Hill Road* will operate at LOS D with minimum LOS C – add eastbound to southbound slip lane
- *Sahalee Way NE & NE 37th Way* operates at LOS E – optimize signal timing
- *228th Avneue SE & Issaquah-Pine Lake Road* operates at LOS F – rechannelize the westbound approach and add a westbound right turn overlap phase.
- *Issaquah-Pine Lake Road & SE Klahanie Boulevard* operates at LOS F – optimize signal timing.
- *256th Avenue SE / E Beaver Lake Drive SE & Issaquah-Beaver Lake Road* operates at LOS F – Intersection improvements to include signal or RAB.
- *228th Avenue SE & NE 14th Street* operates at LOS F. Intersection improvements to include signal or RAB.
- *Issaquah-Pine Lake Road & SE 42nd Street* operates at LOS F – signalize the intersection
- *NE 28th Way/223rd Avenue NE & Sahalee Way NE* operates at LOS F – signalize
- *Duthie Hill Road & Trossachs Boulevard SE* operates at LOS E – optimize signal timing.

- Three intersections outside of the city limits operate below their LOS thresholds. Similar to intersections within the city limits, monitoring programs are also recommended and in addition the monitoring should be coordinated with adjacent agencies to facilitate long term improvement solutions, support enhanced transit service and consider community wide TDM education. Intersection outside of the city limits operating at LOS E or F include:
 - *Sahalee Way NE at NE Redmond-Fall City Road (SR202)* operates at LOS F.
 - *244th Avenue NE at NE Redmond-Fall City Road (SR202)* operates at LOS F.
 - *East Lake Sammamish Parkway at Redmond-Fall City Road (SR202)* operates at LOS F.

Background Table T–17 identified no road corridor capacity deficiencies with the 2035 recommended improvements. Three road segment capacity deficiencies are identified:

- 228th Avenue SE from SE 8th Street to SE 10th Street – through monitoring, determine the future AWDT volume impacts when the actual Town Center land uses are identified.
- 228th Avenue SE from SE 10th Street to SE 20th Street – through monitoring, determine the future AWDT volume impacts when the actual Town Center land uses are identified.
- Issaquah-Pine Lake Road from SE 48th Street to Issaquah-Fall City Road – through monitoring, determine the future AWDT volume impacts when the actual Town Center land uses are identified and also consider additional improvements in coordination with the city of Issaquah.

Flexibility in Roadway Design Guidelines

Essential functions of streets in Sammamish include vehicle mobility, pedestrian access, bicycle access, and aesthetics. City standards specify lane widths of 11 feet. Left-turn lanes increase capacity, reduce vehicular collisions, and improve access to adjacent property. Bicycle lanes should be provided along major traffic corridors, and when striped should be a minimum of 5 feet in width. Sidewalk widths should be a minimum of 6 feet. Landscaped medians are especially important to soften wide expanses of pavement, to provide a haven for crossing pedestrians, and to provide aesthetic treatment to streets.

[The city's roadway design standards can be found in the following document, 2016 Public Works Standards, adopted by the City Council in December, 2016.](#)

Often when designing streets, obstacles are encountered that require modification in design approach. Impediments might include topographic features that make road construction difficult or very expensive; inadequate available right-of-way to allow for all desired features; or environmentally sensitive areas that require modification to avoid adverse impacts. Additionally, funding or grant sources may require specific features or dimensions.

Traffic Calming Program

The City of Sammamish has a comprehensive traffic calming program in place with the Neighborhood Traffic Management Program (NTMP) described in the Existing Conditions section of this Transportation Element. Thus, it is recommended that the city continue the NTMP in its current form, as already adopted by City ordinance.

Transportation Demand Management

Transportation Demand Management (TDM) consists of strategies that seek to maximize the efficiency of the transportation system by reducing demand on the system. The results of successful TDM can include:

- Travelers switch from single-occupancy-vehicle (SOV) to HOV modes such as transit, vanpools or carpools,
- Travelers switch from driving to non-motorized modes such as bicycling or walking,
- Travelers change the time they make trips from more congested to less congested times of day,
- Travelers eliminate trips altogether through such means as compressed workweeks, consolidation of errands, or use of telecommunications.

Within the State of Washington, alternative transportation solutions are further necessitated by the objectives of the Commute Trip Reduction (CTR) Law. Passed in 1991 as a section of the Washington Clean Air Act (RCW 70.94), the CTR Law seeks to reduce workplace commute trips in the nine most populous counties in the state. This law requires that in designated high population counties, each city within the county adopt a commute trip reduction plan requiring private and public employers with 100 or more employees implement TDM programs. Programs provide various incentives or disincentives to encourage use of alternative transportation modes, other than the SOV. The purpose of CTR is to help maintain air quality in metropolitan areas by reducing congestion and air pollution.

The city can promote TDM through policy and/or investments that may include, but are not limited to, the following:

- Public Education related to the benefits of TDM and individual actions to reduce vehicle trips
- Commute Trip Reduction (CTR) Ordinances
- Voluntary Compliance with CTR requirements by the city
- Managed access to facilities and activity centers
- Transit-oriented and pedestrian-friendly design
- Parking management

Transit Service and Facilities

As supported by the Goals, Objectives and Policies of the Transportation Element, public transportation has long-range benefits for the community because it offers:

*See Volume I,
Transportation Element
Policy T.2.8–Policy
T.2.10 on page 88.*

*See Volume I,
Transportation Element
Policy T.2.15–Policy
T.2.22 on page 89.*

- Primary mobility for those who cannot drive, including many of our youth, seniors, and citizens with disabilities,
- Mobility options for people who choose not to drive, either to avoid congestion, save money, or support the environment,
- Preservation of the quality of our environment by conserving energy, supporting better air quality, and reducing congestion on our roadways.

Central to the success of a public transportation system is the development of a compatible land use plan. Low-density suburbs and strip development are not designed to accommodate public transportation services. Changing the land use or traditional transit services is difficult and special attention is required to increase the effectiveness of transit by controlling development; modifying the existing arterial street system; and modifying pedestrian facilities to bring passengers to the transit system.

The City of Sammamish can influence compatibility with public transportation by considering the following development issues:

- Pedestrian access and facilities,
- Amount, cost, and location of parking,
- Location of higher density residential developments,
- Location and design of commercial and employment activities,
- Location of transit facilities,
- Location of community activity centers,
- Design of building complexes and their surroundings.

228th Avenue provides the primary corridor to support activity centers and more transit-oriented development. New development, redevelopment, or in-fill development that occurs in major activity centers can be designed to incorporate features that are compatible with public transportation. These features include:

- Land use that creates densities to support transit,
- Facilities that are oriented toward transit service,
- Walking distances that are on a reasonable pedestrian scale,
- Site design that encourages transit riders.

Zoning provisions are the primary means of implementing transportation-related land use policy. In order to accomplish this, the zoning code for major activity centers can be reviewed to ensure transit friendly design in these areas. Some factors that may be considered are:

- Encourage public transportation-compatible in-fill development on areas near transit routes and stops,

- Support the development of park-and-ride lots along transit routes,
- Encourage pedestrian uses at street-level buildings to stimulate activity and interest,
- Support increased residential densities along transit routes,
- Support increased employment densities in activity centers.

*See Volume I,
Transportation Element
Policy T.2.8, Policy
T.2.9 and Policy T.2.10
on page 88.*

In addition, transit can be made more compatible with pedestrian travel by observing the following design guidelines:

- Provide sidewalks and safe crosswalks for access to the transit system,
- Include provisions for weather protection of the pedestrian,
- Eliminate barriers that discourage pedestrian access,
- Keep walking distances to a quarter-mile or less,
- Provide curb ramps and other facilities conforming to the Americans with Disabilities Act (ADA),
- Provide lighting to improve pedestrian safety and security,
- Provide design guidelines to foster and encourage pedestrian activity.

Special emphasis should be placed on the identification and public awareness of the transit system. Specific tasks could include improved signing, identification, and improved transit stops; route and schedule information provided at all transit stop sites; and shelters provided at some sites. Shelters provide a visual reminder of transit availability and provide an incentive for residents and visitors to use the transit system. Shelters can be installed only in locations with adequate public right-of-way and where appropriate pads can be constructed.

The success of the public transportation system is dependent on integrating key elements that comprise the overall plan. Integration of the transit system with streets, bicycle facilities, and pedestrian facilities is critical to transit's success.

Non-Motorized Plan

The Trails, Bikeways and Paths Plan is a comprehensive planning document for the City of Sammamish addressing a 20-year vision for development of recreational trails and non-motorized transportation facilities within the city. The dual focus on recreational trails and public right-of-way non-motorized facilities is an intentional effort to create a well-integrated system for pedestrians, bicyclists, equestrians, and other trail users in the city. The title of the plan is also a reflection of the desire for an

*See Volume I,
Transportation Element
Policy T.2.12 and Policy
T.2.13 on page 89.*

integrated system. “Trails, Bikeways and Paths” is a melding of terminologies to de-emphasize the differences between recreation-based and transportation-based facilities, and to underscore the common themes and the benefits of an integrated system.

A vital aspect of the plan and a key part of the message is that this vision is for an integrated system. It was decided early on to pursue a system that avoided the historical, but somewhat arbitrary, distinctions between a non-motorized and a trails plan. This more holistic approach will provide additional flexibility in implementing the overall vision to connect key destinations that in many instances may not be possible to connect using one type of route or the other. It will also provide opportunities for interdepartmental coordination and will bring a greater efficiency to the effort. The benefits far outweigh the inconveniences of developing the plan in such a manner. The resulting system will be greatly enhanced as a result of this integrated approach.

This vision has been developed through a concentrated community outreach effort and through consistent dialogue and involvement of a citizen advisory committee called the Trails, Bikeways and Paths (TBP) Subcommittee. This advisory committee was formed to assist in guiding the development of this plan and reports to the Parks and Recreation Commission regarding the progress of the plan. In addition, community input was gathered at multiple points during the planning process and through the review and adoption process by the City Council.

The development of a vision for the future required an extensive effort to document existing trail and non-motorized facilities to provide a current picture and identify gaps in the system. An existing conditions inventory was completed for all trail and non-motorized facilities in the city, including private trail systems. Documentation of private trail systems was done to provide an understanding of how a proposed public system could integrate with private neighborhood facilities. In addition, key challenges and obstacles were identified to assist in developing proposed system improvements.

Key survey data was collected from the public regarding use of trails, destinations, locations, intensity of use, etc.

This information, along with feedback from the TBP Subcommittee and guidance from state and regional policy on non-motorized facilities, provided the basis for the development of TBP goals and policies. Then, basic overall trail corridors were identified to provide for east/west and north/south connectivity through the city.

With consideration of state, regional, and local design standards a hierarchy of pathways and trail types, as well as bicycle facility types, was created to specifically address the needs and conditions on the Sammamish Plateau. Each facility type description includes detailed information on facility width, height clearances, appropriate location, and surfacing.

The pathway and trail facility types range from paved multi-use trails to primitive soft surface trails, and also include all of the standard sidewalk facilities along streets and roadways. The bicycle facility types are consistent with state and regional standards for signed and striped bike lanes, designated shared bike routes, and multi-use shared paths.

Next, the identified corridors and field conditions were taken into consideration in assigning the hierarchy of facility types to all of the proposed routes. Considerations in this process included existing right-of-way and obstacles, topography, community destinations, and types of potential users. This process resulted in a 20-year pathways and trail system plan and bicycle system plan.

The overall vision is a direct reflection of the community's desire to use trails, bikeways, and paths for travel and recreation purposes. Please see the City of Sammamish *Trails, Bikeways and Paths Master Plan*.

Concurrency

A Concurrency Management System (CMS) is a policy procedure designed to enable a City or County to determine whether adequate facilities are available to serve new development. The transportation element of the Growth Management Act (GMA) requires each City and County planning department to incorporate a Concurrency Management System into their comprehensive plan. In a Concurrency Management System, local jurisdictions must adopt and enforce ordinances that prohibit development approval if the development causes the LOS on a transportation facility to decline below the standard adopted in the Transportation Element of the Comprehensive Plan. Transportation improvements or strategies that accommodate the impacts of development can be made concurrent with the development. (State of Washington Growth Management Act, RCW 36.70A, 1990)

See Volume I,
Transportation Element
Policy T.1.1—Policy
T.13 on page 85.

The City of Sammamish Concurrency Management System must be adopted as ordinance, and will involve the following components.

Identification of facilities to be monitored

The City of Sammamish has identified both segments and intersections for concurrency monitoring. All intersections with functionally classified roadways within the city will be monitored. Additionally, all roadway segments, as identified in Background Figure T-9, will be monitored for concurrency.

Establishment of LOS standards

In order to monitor concurrency, the city must adopt standards by which deficiencies may be identified, which were presented earlier in this plan. While GMA requires that LOS standards be adopted for concurrency, it does not mandate how those standards should be defined. Thus, the city is free to adopt by ordinance whatever standards it deems appropriate. The LOS standards that will be used to evaluate the transportation impacts of long-term growth and concurrency are defined as follows:

- **Roadway intersections.** Intersection LOS is calculated using standard HCM analysis procedures and for the AM or PM peak hour, whichever is worse. For intersections, the city shall adopt a standard of LOS D for intersections that include principal arterials and LOS C for intersections that include minor arterial or collector roadways.

Attaining LOS D at major intersections with high approach volumes can result in large intersections with exclusive right-turn lanes, double left-turn lanes and additional through lanes. These improvements improve LOS for vehicles, but result in very long crosswalks and increased potential for pedestrian-vehicle conflicts at free right turns.

The LOS for intersections with principal arterials should be LOS D, when LOS D can be attained with maximum of three approach lanes per direction. For example, a typical intersection of two five-lane roadways. The LOS for intersections with principal arterials may be reduced to E for intersections that require more than three approach lanes in any direction.

- **Roadway segments.** Segment LOS is based on allowable AWDT on a roadway segment as a function of roadway characteristics, as described earlier in this Transportation Element. The AWDT thresholds for each of these roadway segments, based upon the roadway characteristics, are defined in Background Table T-7. These thresholds would be adopted as ordinance by the City Council.

- **Corridor LOS.** Roadway LOS will be based upon performance of key corridors.

Corridor LOS will be determined by averaging the incremental corridor segment volume over capacity (v/c) ratios within each adopted corridor. This has the effect of tolerating some congestion in a segment or more within a corridor while resulting in the ultimate completion of the corridor improvements. The average v/c of the segments comprising a corridor must be 1.00 or less for the corridor to be considered adequate. All corridors must pass the Corridor LOS standard for the transportation system to be considered adequate. Corridors comprised of one concurrency segment segments must have a v/c of 1.0 or less to be considered adequate.

The following corridors comprised of the concurrency segments shown on the Background Figure T–9 will be monitored:

- East Lake Sammamish Parkway North Corridor
Concurrency segments 1, 2, and 3
- East Lake Sammamish Parkway Central Corridor
Concurrency segments 4, 5, and 6
- East Lake Sammamish Parkway South Corridor
Concurrency segments 7 and 8
- Louis Thompson Road – 212th Corridor
Concurrency segments 11, 12, 13A, 13B, and 14
- Sahalee Way—228th Avenue North Corridor
Concurrency segments 21A, 21B, 21C, 22, and 23
- 228th Avenue Central Corridor
Concurrency segments 24A(1), 24A(2), 24B, 25A, 25B
- 228th Avenue South Corridor
Concurrency segments 26 and 27
- Issaquah-Pine Lake Road Corridor
Concurrency segments 32, 33, 34A, and 34B
- 244th Avenue North Corridor
Concurrency segments 35, 36, 37A, and 37B
- Windsor Boulevard – 248th Avenue Corridor
Concurrency segments 38, 52A, 52B
- 244th Avenue South Corridor
Concurrency segment 39
- Issaquah-Fall City – Duthie Hill Road Corridor
Concurrency segments 47, 48, and 49
- NE Inglewood Hill Road Corridor
Concurrency segments 15 and 16
- NE 8th Street Corridor
Concurrency segments 28A and 28B
- SE 32nd Way—Issaquah Beaver-Lake Road Corridor
Concurrency segments 40A, 40B, 41, and 42

*See Volume I,
Transportation
Element Policy T.3.3
on page 90.*

- SE Duthie Hill Road – Trossachs Boulevard Corridor
Concurrency segments 43 and 44
- SE 4th Street Corridor
Concurrency segments 18A and 18B
- SE 8th Street Corridor
Concurrency segments 29
- SE 20th Street Corridor
Concurrency segments 19 and 20
- SE 24th Street West Corridor
Concurrency segments 9 and 10
- SE 24th Street East Corridor
Concurrency segments 30 and 31
- Klahanie Corridor
Concurrency segments 53, 54, and 55
- South Pine Lake Route Corridor
Concurrency segments 58 and 59
- 218th Avenue SE / SE 8th Street Corridor
Concurrency segments 17A and 17B

Monitoring

On a continuing basis, monitor and evaluate the adequacy of the concurrency policies and established LOS standards as new development occurs and as traffic levels grow. Analyze external influences on the Concurrency Management System. Make periodic adjustments to LOS standards as part of the annual Comprehensive Plan amendment process, based on the on-going evaluation.

Mitigation Fee System

The City has adopted a transportation impact fee.

Financing

*See Volume I,
Transportation Element
Policy T.3.12–Policy
T.3.21 on page 92.*

The Growth Management Act requires that the transportation-related provisions of comprehensive plans address the financing of the local transportation system. The multiyear financing plans serve as the basis for the six-year street, road, or transit program for cities, counties, and public transportation systems and should be coordinated with the state's six-year transportation improvement program.

Total revenue available to the City of Sammamish for concurrency projects over a 20-year period is estimated in Background Table T-18. The estimated revenue projection is \$237,000,000 (year 2015 dollars). The projected revenue presented in Background Table T-18 provides a revenue stream for the expenditures proposed for the next 20 years, based upon these preliminary estimates.

Background Table T-18
Transportation Capital Improvement Funding: 2015-2035

FUNDING SOURCE	AMOUNT (2015 DOLLARS)
Transportation Fund Revenue (REET)	25,000,000
Road Impact Fees (includes beginning fund balance)	35,000,000
Anticipated grants	15,000,000
Funding to be determined	162,000,000
TOTAL REVENUE	237,000,000

Contingency Plans in the Event of Revenue Shortfall

Some of the revenue forecasts are for revenues that are very secure, and highly reliable. However, other revenue forecasts are for sources that are volatile, and therefore difficult to predict with confidence, including grants, joint agency funding, the motor vehicle registration fee, general obligation bonds, and mitigation payments (which have not been enacted), and which fluctuate with the amount of new development.

In the event that revenues from one or more of these sources is not forthcoming, the city has several options: add new sources of revenue or increase the amount of revenue from existing sources; require developers to provide such facilities at their own expense; reduce the number of proposed projects; change the Land Use Element to reduce the travel demand generated by development; or change and/or lower the LOS standard.

See Volume I,
Transportation
Element Policy T.3.19
on page 92.

**CITY OF SAMMAMISH
WASHINGTON
ORDINANCE NO. O2017-**

**AN ORDINANCE OF THE CITY OF SAMMAMISH,
WASHINGTON, AMENDING THE TRANSPORTATION
ELEMENT OF THE SAMMAMISH COMPREHENSIVE PLAN**

WHEREAS, the City of Sammamish City Council adopted an updated Comprehensive Plan on October 13, 2015 by Ordinance O2015-396, in accordance with RCW 36.70A.130; and

WHEREAS, the Washington State Growth Management Act (GMA) requires internal consistency among comprehensive plan elements and applicable regional plans; and

WHEREAS, to assure that comprehensive plans remain relevant and up to date, the GMA requires each jurisdiction to establish procedures whereby amendments to the Plan are considered by the City Council (RCW 36.70A.130[2]), and limits adoption of these amendments to once each year unless an emergency exists; and

WHEREAS, the City of Sammamish has established a procedure for amending the Comprehensive Plan in Chapters 24.15 and 24.25 SMC, which limit adoption of amendments to the Comprehensive Plan to no more than once each year; and

WHEREAS, the City of Sammamish requires applications for amendment proposals to be submitted by September 30 of each year; and

WHEREAS, two Comprehensive Plan amendment applications were docketed on December 6, 2016 by Resolution R2016-709, including the proposal to amend the Transportation Element; and

WHEREAS, the Planning Commission considered the proposed amendment to the Transportation Element during a work session held on June 1, 2017; and

WHEREAS, on June 15, 2017, the Planning Commission held a public hearing on the proposed Comprehensive Plan amendment, considered public comment, and made a recommendation of approval to the City Council; and

WHEREAS, on May 12, 2017, the City submitted the proposed Comprehensive Plan amendment to the Transportation Element to the Washington State Department of Commerce in accordance with RCW 36.70A.106; and

WHEREAS, an environmental review of the proposed Comprehensive Plan amendment was conducted in accordance with the requirements of the State Environmental Policy Act (SEPA), including review of a complete SEPA checklist; and

WHEREAS, on June 15, 2017, a SEPA threshold determination of non-significance (DNS) was issued for the proposed Comprehensive Plan amendment and no appeals of the DNS were filed; and

WHEREAS, the City Council considered proposed amendments to the Transportation Element during a work session held on July 11, 2017; and

WHEREAS, on July 18, 2017, the City Council held a public hearing on the proposed Comprehensive Plan amendment in order to provide further opportunity for public comment and participation; and

WHEREAS, the City Council has assessed the cumulative effect of the docketed Comprehensive Plan amendment proposals, in accordance with RCW36.70A.130(2)(b);

WHEREAS, the City Council has determined that the proposed Comprehensive Plan amendment meets the City's goals and objectives in the Comprehensive Plan and complies with the criteria in SMC 24.15.040(2);

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF SAMMAMISH, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Transportation Element Amended. The Transportation Element of the Sammamish Comprehensive Plan is hereby amended as set forth in Attachment A.

Section 2. Severability. If any provision of this Ordinance or its application to any person or circumstance is held invalid, the remainder of the Ordinance or the application of the provision to other persons or circumstances is not affected.

Section 3. Effective Date. The Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 18th DAY OF JULY 2017.

CITY OF SAMMAMISH

Mayor Donald J. Gerend

ATTEST/AUTHENTICATED:

Melonie Anderson, City Clerk

Approved as to form:

Michael R. Kenyon, City Attorney

Filed with the City Clerk:

Passed by the City Council:

Ordinance No: O2017-