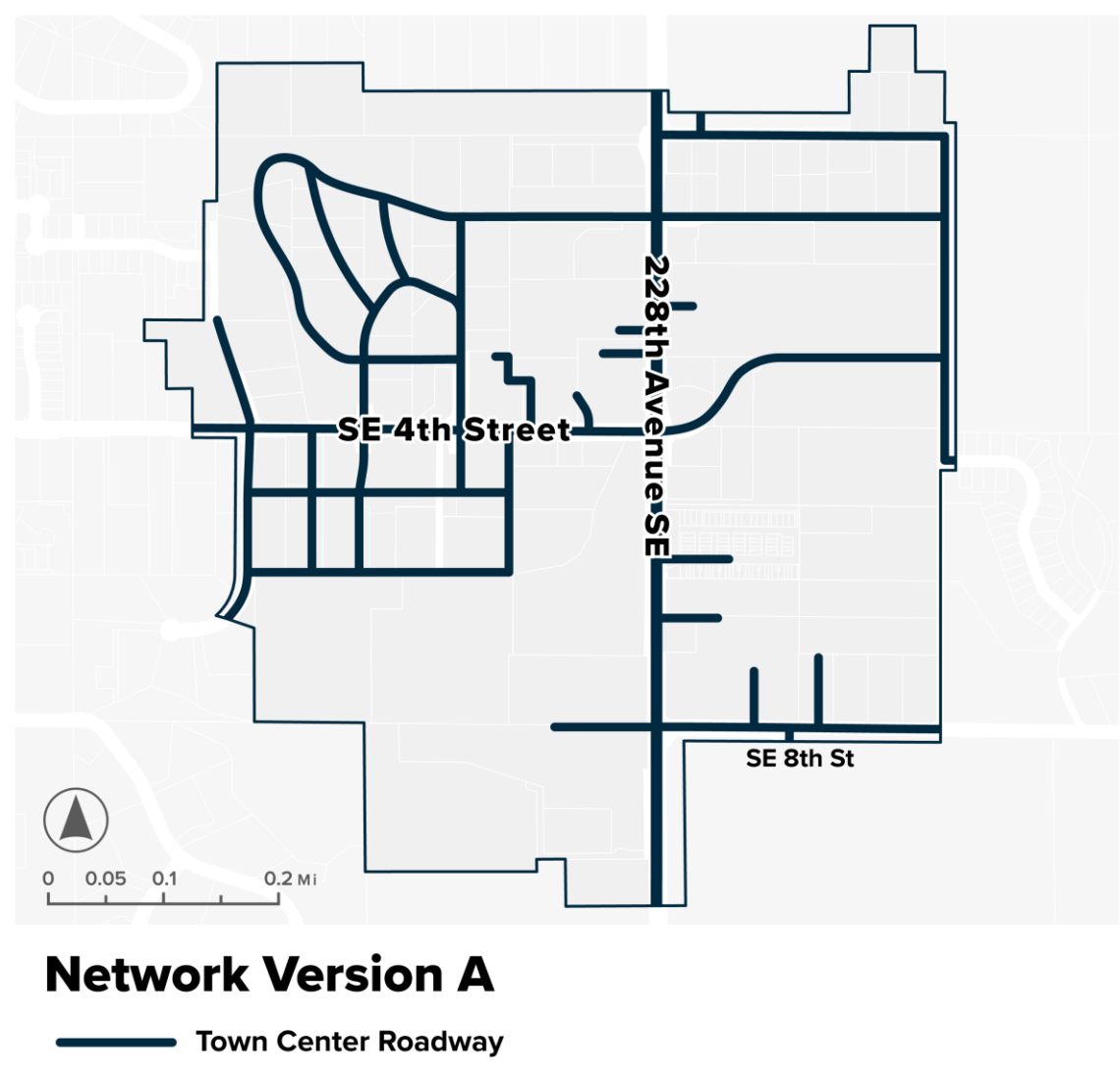
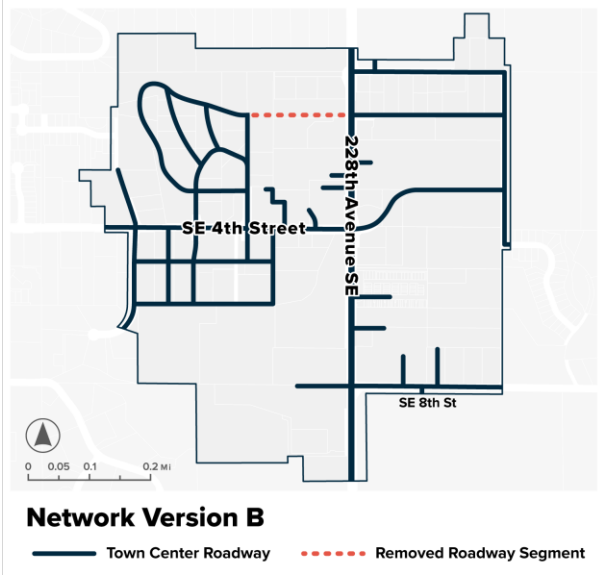
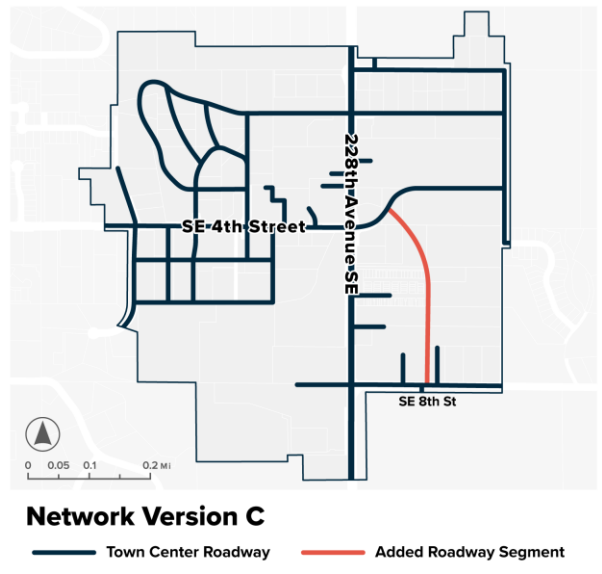
Transportation







Transportation

Issaquah Traffic Modeling Results Referenced In Public Comment

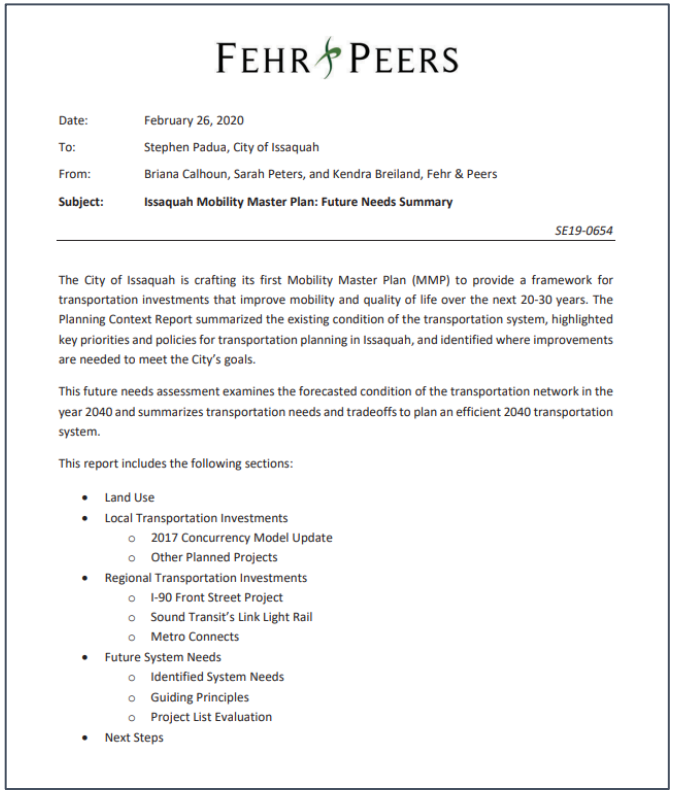
- Based on 2017 Data
- Behavior/Patterns Different
- Network Improvements Implemented
- Not comparable to Sammamish TMP (2023 Data)

Table A-1. 2040 Level of Service Results

N-S Road	E-W Road	Control	LOS	Delay	Total Entering Volume	V/C
Issaquah-Pine Lake Road SE/Highlands Drive NE	SE Issaquah-Fall City Road	Signalized	**F**	100	5770	1.13
E Lake Sammamish Pkwy SE	SE 43rd Way	Roundabout	**A**	9	3450	0.79

Source: Data from the Concurrency Model Update, 2017.

Source: https://www.issaquahwa.gov/DocumentCenter/View/7364/MAP_Appendicies?bidId=



FEHR & PEERS

Date: February 26, 2020

To: Stephen Padua, City of Issaquah

From: Briana Calhoun, Sarah Peters, and Kendra Breiland, Fehr & Peers

Subject: Issaquah Mobility Master Plan: Future Needs Summary

SE19-0654

The City of Issaquah is crafting its first Mobility Master Plan (MMP) to provide a framework for transportation investments that improve mobility and quality of life over the next 20-30 years. The Planning Context Report summarized the existing condition of the transportation system, highlighted key priorities and policies for transportation planning in Issaquah, and identified where improvements are needed to meet the City's goals.

This future needs assessment examines the forecasted condition of the transportation network in the year 2040 and summarizes transportation needs and tradeoffs to plan an efficient 2040 transportation system.

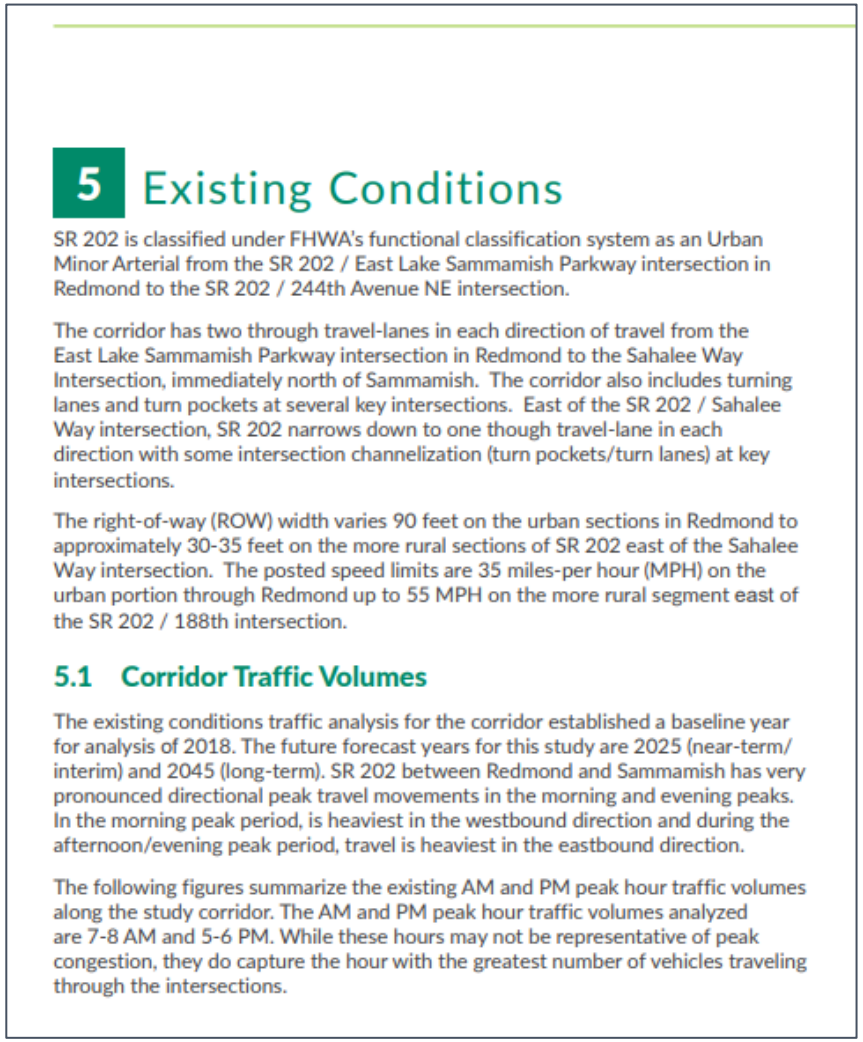
This report includes the following sections:

- Land Use
- Local Transportation Investments
  - 2017 Concurrency Model Update
  - Other Planned Projects
- Regional Transportation Investments
  - I-90 Front Street Project
  - Sound Transit's Link Light Rail
  - Metro Connects
- Future System Needs
  - Identified System Needs
  - Guiding Principles
  - Project List Evaluation
- Next Steps

Transportation

WSDOT SR 202 Traffic Modeling Results Referenced In Public Comment

- Based on 2018 Data
- Behavior/Patterns Different
- Network Improvements Implemented
- Not comparable to Sammamish TMP (2023 Data)



5 Existing Conditions

SR 202 is classified under FHWA's functional classification system as an Urban Minor Arterial from the SR 202 / East Lake Sammamish Parkway intersection in Redmond to the SR 202 / 244th Avenue NE intersection.

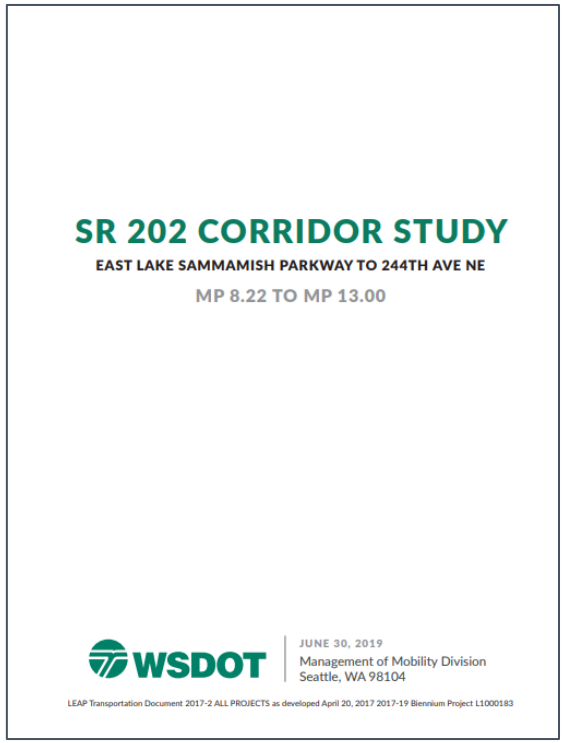
The corridor has two through travel-lanes in each direction of travel from the East Lake Sammamish Parkway intersection in Redmond to the Sahalee Way Intersection, immediately north of Sammamish. The corridor also includes turning lanes and turn pockets at several key intersections. East of the SR 202 / Sahalee Way intersection, SR 202 narrows down to one though travel-lane in each direction with some intersection channelization (turn pockets/turn lanes) at key intersections.

The right-of-way (ROW) width varies 90 feet on the urban sections in Redmond to approximately 30-35 feet on the more rural sections of SR 202 east of the Sahalee Way intersection. The posted speed limits are 35 miles-per hour (MPH) on the urban portion through Redmond up to 55 MPH on the more rural segment east of the SR 202 / 188th intersection.

5.1 Corridor Traffic Volumes

The existing conditions traffic analysis for the corridor established a baseline year for analysis of 2018. The future forecast years for this study are 2025 (near-term/ interim) and 2045 (long-term). SR 202 between Redmond and Sammamish has very pronounced directional peak travel movements in the morning and evening peaks. In the morning peak period, is heaviest in the westbound direction and during the afternoon/evening peak period, travel is heaviest in the eastbound direction.

The following figures summarize the existing AM and PM peak hour traffic volumes along the study corridor. The AM and PM peak hour traffic volumes analyzed are 7-8 AM and 5-6 PM. While these hours may not be representative of peak congestion, they do capture the hour with the greatest number of vehicles traveling through the intersections.



SR 202 CORRIDOR STUDY

EAST LAKE SAMMAMISH PARKWAY TO 244TH AVE NE

MP 8.22 TO MP 13.00

WSDOT

JUNE 30, 2019

Management of Mobility Division
Seattle, WA 98104

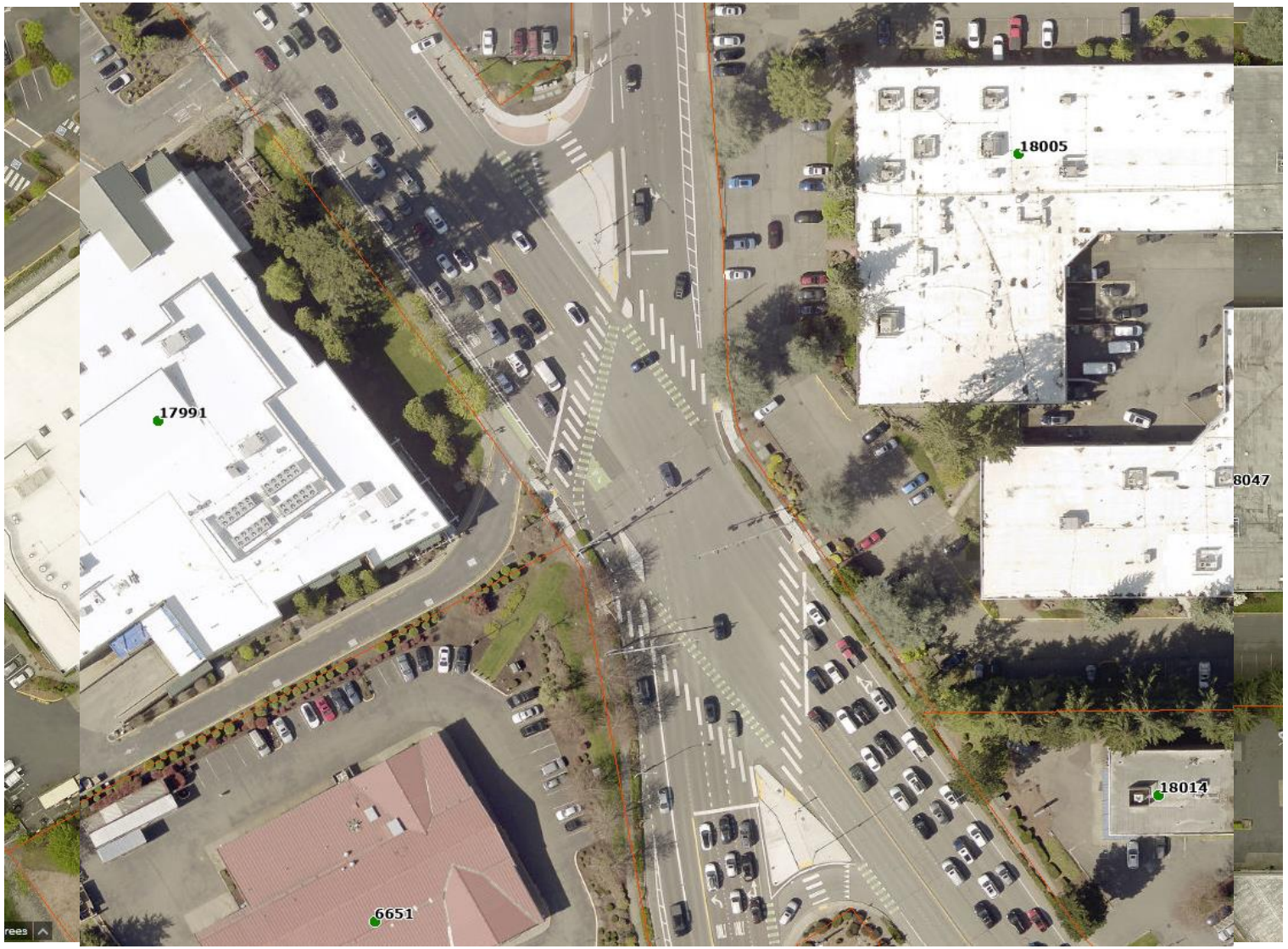
LEAP Transportation Document 2017-2 ALL PROJECTS as developed April 20, 2017 2017-19 Biennium Project L1000183

Source: https://wsdot.wa.gov/sites/default/files/2021-03/SR202-report-CorridorStudy-Final%20Report%20%282019%29.pdf

Transportation

Network Improvements Example

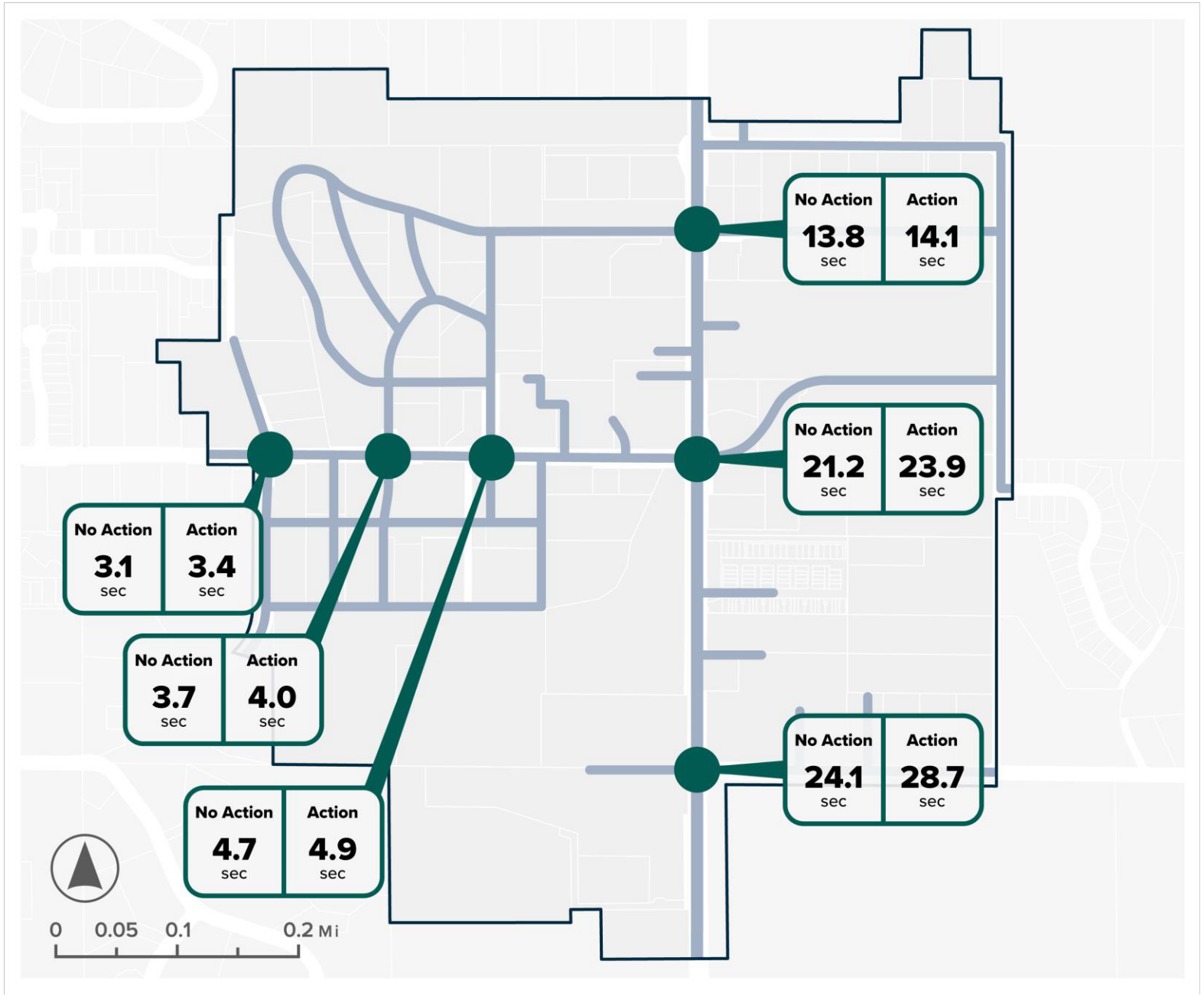
2019>2023



Transportation

Traffic Modeling Results

- No LOS failures for any intersections in Town Center under Action Alt.
  - 212th and 8th fails under both Action and No Action Alts.
- Modeling included additional pipeline development without LOS failures



Transportation Planning: Travel Demand Models

- Often referred to as the travel demand forecast model
- Used in comprehensive plan development and long-range planning efforts
- A tool utilized to predict future travel patterns and traffic volumes
- Inputs include land use, existing travel patterns, transportation network
- Baseline model, reflecting existing traffic conditions, is developed which is the foundation for future travel demand modeling
- Often utilized in long-range planning efforts
  - Corridor Studies/Plans
  - Subarea Plans
- Utilized in conjunction with operational analysis
- Different than traffic operational analysis tools

Sammamish Travel Demand Model

- Developed in 2023 - 2024 for Transportation Master Plan & Comprehensive Plan by City's Traffic Engineering Team, several transportation and traffic engineering consulting firms
- Follows and applies state and national industry standards and best practices
- Meticulously updated, calibrated, and validated:
  - Calibrated incorporating:
    - Baseline land use
    - Street network (intersection geometry and control, road characteristics)
    - Actual trip generation rates surveyed from 23 developments in addition to rates included in the Institute of Transportation Engineers Trip Generation Manual
    - Traffic counts
  - Validated: Compared model's output traffic volume with actual traffic volume
  - Accuracy Measurement: the "goodness of fit" (how well a statistical model matches observed data)
    - Statistic of 0.98; acceptable values are at least 0.88

Transportation Planning – Travel Demand Model vs. Operational Analysis Tools

	Travel Demand Forecast Model	Traffic Operational Analysis Tools
Often Referred to As	• Future travel demand model • Travel demand forecast model	• Operational Analysis tools • LOS analysis Tools
Purpose	To forecast future travel patterns and evaluate the effects of growth, land use changes, and transportation projects on road network	To analyze the level of service at critical intersections
Focus	Long-term planning, particularly evaluating major infrastructure projects and land use changes.	System performance optimization; daily operations, monitor performance, and determine required mitigations to maintain acceptable LOS
Analysis Timeframe	20+ years.	Not specific to a year. The analysis is done based on input volume for a specific timeframe; existing analysis is based on traffic counts, future analysis is based on travel demand model volumes for specific future year.
Methodologies	Often utilized for an entire jurisdiction or region. Evaluation is looked at holistically and at an aggregate level (i.e. transportation analysis zones).	Often utilized to monitor current performance of critical intersections and support near-term projects. Evaluation or analysis is very granular – often at an individual intersection, driveway, or vehicle.
Tools	Visum (widely used nationally and internationally)	Synchro and Sidra (widely used and well-established operational analysis tools in the industry)
Examples	Sammamish Transportation Master Plan	Sammamish Transportation Master Plan