



Planning Commission Meeting:

First Wednesday of every Month @ 7:00pm

Planning & Community Development Department

1812 Main Street  
Lake Stevens, WA 98258  
(425) 377-3235

[www.lakestevenswa.gov](http://www.lakestevenswa.gov)

Municipal Code

Available online:

[www.codepublishing.com/WA/LakeStevens/](http://www.codepublishing.com/WA/LakeStevens/)

\*Items attached

\*\*Items previously distributed

# Items to be distributed

## PLANNING COMMISSION AGENDA

Regular Meeting Date: 11.2.2016

**A. CALL TO ORDER: 7:00pm**

Pledge of Allegiance

**B. ROLL CALL**

**C. GUEST BUSINESS**

**D. ACTION ITEMS**

**E. PUBLIC HEARING:**

**1. 2016 Comprehensive Plan**

- A) School District
- B) HILD Property
- C) City Map Change
- D) City Text Amendments

**Public hearing presentation will follow the public hearing format listed below:**

**PUBLIC HEARING FORMAT**

**2. PC Chair Opens Public Hearing**

**3. Staff Presentation**

**4. Commission's questions for staff**

**5. Proponent's comments**

**6. Comments from the audience**

**7. Proponent rebuttal comments**

**8. Close public comments portion of hearing by motion**

**9. Re-open public comment portion of hearing for additional comments (optional)**

**10. Close Hearing by motion**

**11. COMMISSION ACTION BY MOTION—Recommendation to Council**

**A. Approve**

**B. Deny**

**C. Continue**

**F. DISCUSSION ITEMS**

**1. RV Amendment-Place**

**2. Temporary Downtown Height limits-Roth**

**G. COMMISSIONER REPORTS**

**H. PLANNING DIRECTOR'S REPORT-Downtown Subarea Debriefing**

**I. ADJOURN**

**SPECIAL NEEDS**

*The City of Lake Stevens strives to provide accessible opportunities for individuals with disabilities. Please contact Steve Edin, City of Lake Stevens ADA Coordinator, at (425) 377-3227 at least five business days prior to any City meeting or event if any accommodations are needed. For TDD users, please use the state's toll-free relay service.*

**PLANNING COMMISSION REGULAR MEETING MINUTES**

Community Center  
1808 Main Street, Lake Stevens  
Wednesday, October 5, 2016

CALL TO ORDER: 7:00 pm by Commissioner Matlack

MEMBERS PRESENT: Tom Matlack, Tracy Trout, Vicki Oslund, Jennifer Davis, Gary Petershagen

MEMBERS ABSENT: Linda Hoult, Janice Huxford

STAFF PRESENT: Planning and Community Development Director Russ Wright, Senior Planner Stacie Pratschner

OTHERS PRESENT: Sally Jo Sebring, Jennifer Taylor Knutsen and Julius Detrich

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**Excused Absence:** Commissioner Davis made a motion to excuse Commissioner Hoult and Commissioner Huxford, Commissioner Oslund 2<sup>nd</sup> the motion. Motion carried 5-0-0-2

**Action Items:**

1. *Approve September 7, 2016 Meeting Minutes.* Commissioner Petershagen made a motion to approve September 7, 2016 minutes, Commissioner Trout 2<sup>nd</sup>. Motion carried 6-0-0-2.

**Discussion Items:** Senior Planner Pratschner gave a briefing on the Comprehensive Plan Updates. This addressed several options for rezoning on 20<sup>th</sup> St SE. There were comments from the public addressing concerns and support for the proposed amendments. After discussion, the Planning Commission made their recommendation regarding the SW Quad. The other two amendments passed as presented.

**Commissioner Reports:** None

**Planning Director Report:** New IBC/IFC Amendments have been updated and the City planning to leave in all appendices that are currently in the code, Wireless facilities code, micro-cell facilities are an upcoming form of wireless access. By 2020 we will be switching to 5G wireless and this is the beginning of switching over. The City has joined a consortium to help guide the process. Subarea Plan update- Director Wright is going to Portland to meet with our consultants to narrow down the options for Downtown Subarea vision. There will be another public meeting Thursday, October 27 at the Community Center to share some options.

**Adjourn:** Commissioner Davis made a motion to adjourn, Commissioner Trout 2<sup>nd</sup>. Motion carried 5-0-0-2. Meeting adjourned at 8:29 p.m.

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Tom Matlack, Chair

Jennie Fenrich, Clerk, Planning & Community Development

DRAFT



**Type VI Decision  
Area-wide Rezone**  
**City of Lake Stevens Planning and Community  
Development**

October 27, 2016

The Lake Stevens School District (Lake Drive) Rezone LUA2015-0119-M1

**A. PROJECT DESCRIPTION AND REQUEST**

The applicant, the Lake Stevens School District #4 (the District), has applied for a comprehensive plan designation change and concurrent rezone of two (2) parcels comprising approximately 38 acres located on the west side of Lake Drive and north of 28<sup>th</sup> Street NE. The project proponent has submitted a project narrative, completed environmental checklist, vicinity maps and a docket request packet demonstrating how the proposal meets the criteria of both Municipal Code (Title 14) and the Comprehensive Plan in support of their application for the map changes. The District proposes to change the land use designation on the two subject parcels from Medium Density Residential to Public/Semi-Public, with a concurrent rezone from High Urban Residential to Public/Semi-Public (**Exhibit 1**).

As a result of increasing enrollment in the District, the District is proposing to construct a new elementary school and early learning center on the project site. The early learning center will eventually house 150 students with 30 employees, and the elementary school will eventually house 700 students and 50 employees.

**B. GENERAL INFORMATION**

1. Date of Application: December 15, 2015
2. Property Location: 9105 and 9203 29<sup>th</sup> Street SE, Lake Stevens, WA
3. Assessor Parcel Numbers (APNs): 29050100401000 and 29050100401400
4. Total Area of Project: Approximately 38 acres
5. Applicant/Owner: Robb Stanton with the Lake Stevens School District #4
6. Contact: Camie Anderson with the Shockey Planning Group, Inc.
7. Comprehensive plan land use designation, zoning designation and existing uses of the site and surrounding area:

## The School District (Lake Drive) Rezone

AREA	LAND USE DESIGNATION	ZONING	EXISTING USE
Project Site	Medium Density Residential	High Urban Residential	Vacant
North	Medium Density Residential	High Urban Residential	Residential
South	Medium Density Residential	Suburban Residential	Residential
East	Medium Density Residential	Suburban Residential	Residential
West	General Industrial / Commercial	General Industrial Dev. Agreement / Commercial District	Vacant

## C. ANALYSIS<sup>1</sup>

### 1. Application Process

- a. The applicant requested a rezone in concurrence with requested changes to the Comprehensive Plan as part of the 2016 Docket. Area wide rezones are Type VI applications subject to Planning Commission recommendation and City Council approval pursuant to Chapter 14.16B LSCM, Part VI.<sup>2</sup>
- b. A written analysis was provided as part of the docket review (**Exhibit 2**).

**CONCLUSION: The application meets the procedural requirements for Type VI applications established in Title 14 of the LSCM.**

### 2. Notices, Community Outreach and Public Comment<sup>3</sup>

- a. Planning Commission Notice of Docket Hearing for March 2, 2016 (**Exhibit 3a**);
- b. City Council Notice of Docket Hearing for March 22, 2016 (**Exhibit 3b**);
- c. Notice of Application & SEPA Determination, July 27, 2016 (**Exhibit 3c**); and
- d. Planning Commission Public Hearing Notice for November 2, 2016 (**Exhibit 3d**).
- e. No public comment has been received concerning the rezone and land use map amendment request as of the writing of this staff report.

**CONCLUSION: The city has met the noticing requirements for Type VI applications established in Chapter 14.16B LSCM, Part VI.**

### 3. Comprehensive Plan, Zoning, and Uses:

- a. The existing and proposed comprehensive plan designations in the study area are identified in Section B and illustrated in **Exhibit 1** as are adjacent land use designations. The District has provided a detailed Description of Request document

<sup>1</sup> Project analysis is based on review of current materials applicable to the project.

<sup>2</sup> The rezone application is an area-wide rezone because the proposed changes involve different property owners and changes to more than one land use designation. The rezone is a Type VI application being reviewed in concurrence with the comprehensive plan map amendment and will include a public hearing in front of the Planning Commission who will recommend approval to the City Council. Final approval will be by ordinance following a Public Hearing

<sup>3</sup> Public notice includes a combination of posting, publication and mailing pursuant to the requirements of Lake Stevens Municipal Code 14.16A.225 and LSCM 14.16B.630.

demonstrating that the requests meets the requirements of municipal code and the goals and policies of the Comprehensive Plan (**Exhibit 4**).

b. **Zoning Analysis** – The proposed rezone will meet the intent of the Public/Semi-Public zoning district as described below:

LSMC 14.36.034 states the following: “A Public/Semi-Public district is hereby established to accommodate public and semi-public uses such as schools, government services and facilities, public utilities, community facilities, parks, etc., on publicly-owned land.”

### **Applicable Comprehensive Plan Goals and Policies**

LAND USE GOAL 1.1 Provide for a consistent review and revision of the comprehensive plan.

LAND USE GOAL 2.1 Provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens.

LAND USE GOAL 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses.

LAND USE GOAL 2.3 Encourage the continued planning of local growth centers to develop a balanced and sustainable community that provides a focus for employment, public and residential development.

POLICY 2.2.4 Allow the Public/Semi-Public land use designation, which is intended for use on all land that is publicly owned. It allows public buildings and services, recreational uses, utilities and transportation facilities. This designation may also allow a limited range of commercial uses.

POLICY 7.1.2 Coordinate with local and regional service providers including the Lake Stevens School District, Lake Stevens Fire, Sno-Isle Library, etc. to ensure public services are adequately maintained and distributed to support the community's needs and that each agency's planning documents are consistent.

Rezone criteria: Rezone Criteria is found in LSMC 14.16C.090. The following section addresses how the proposal meets the specific criteria.

- c. The rezone if approved will be consistent with Comprehensive Land Use Map as amended.
- d. The rezone is consistent with the Growth Management Act as the city can establish its local zoning and has met public notice requirements.
- e. The proposed rezone advances identified goals and policies of the Comprehensive Plan. At the time of development, any application will need to meet state and local regulations in effect and ensure concurrency standards are met.
- f. The Lake Stevens School District has experienced steady upward growth in enrollment for the past four decades and has a need for additional classroom spaces. The request is consistent with the District's Capital Facilities Plan which itself is an adopted element of the City's Comprehensive Plan.
- g. The site contains adequate area to develop and the District has received construction plan and building permit approvals from the city.
- h. The proposal will not be materially detrimental to adjacent land uses as conditioned.

## The School District (Lake Drive) Rezone

- i. As conditioned and in accordance with municipal standards there will be adequate infrastructure to develop the site under the proposed zoning.
- j. Environmental impacts can be mitigated.
- k. The proposal complies with municipal standards for a rezone application.
- l. The project is not located within a designated subarea and thus is not subject to the additional criteria listed.

**CONCLUSION: The proposal as conditioned meets the rezone standards.**

### 4. Environmental Review:

- a. The site is heavily vegetated and contains 27 wetlands that vary by category and quality. No streams are located on the site; however, two jurisdictional ditches have been identified. The District has received approved permits from the Army Corp of Engineers and the Department of Ecology for wetland fill activities on 17 of the wetlands. A wetland / buffer mitigation strategy has been reviewed and approved by the city pursuant to a conditional use permit and construction plan approval for the site. The District acted as SEPA lead for this portion of the development and issued a Mitigated Determination of Non-Significance on March 10, 2016 (**Exhibit 5**). The SEPA was not appealed.
- b. Shoreline Designation and Shoreline Uses: the properties are not located with the shoreline boundaries of Lake Stevens.
- c. Flood Zones: the properties are not located within the 100-year flood zone.
- d. The city issued a SEPA DNS on July 22, 2016 (**Exhibit 6**). The SEPA was not appealed.
- e. The city issued a SEPA addendum to the 2005 Comprehensive Plan on August 31, 2016 that stands as the environmental review for the combined analysis of the comprehensive plan change and proposed rezone (**Exhibit 7**).

**CONCLUSION: The proposal as conditioned meets the SEPA standards identified in Chapter 16.04 LSMC and will not create significant environmental impacts. Development near identified critical areas will be subject to Chapter 14.88 LSMC.**

### 5. Traffic Impacts

- a. A traffic report was submitted by the applicant pursuant to their application for construction plan approval on the project site (**Exhibit 8**). A new road, named 29<sup>th</sup> Street NE will be constructed to facilitate access to the new school and early learning center. Frontage improvements will be constructed adjacent to portions of Lake Drive. Impact fees paid to the city will total more than \$300,000.

**CONCLUSION: The proposal meets the Traffic Impact standards of municipal code.**

## D. CONDITIONS

The requested rezone (LUA2015-0119: **M1**) is consistent with rezone criteria, applicable Comprehensive Plan Goals and Policies, permit processing procedures and all other applicable municipal code requirements, subject to conditions noted below:

- 1. **Exhibit 1** depicts the areas to be rezoned to Public/Semi-Public.

2. All future development must comply with all federal, state and local regulations in effect at the time of application.

## **E. STAFF RECOMMENDATION**

Staff recommends that the Planning Commission forward a **RECOMMENDATION OF APPROVAL, SUBJECT TO THE CONDITIONS IN SECTION D**, to City Council.

CITY OF LAKE STEVENS, DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

### **Recommendation Completed by**



October 27, 2016

Stacie Pratschner, *Senior Planner*

Date

## **F. EXHIBITS**

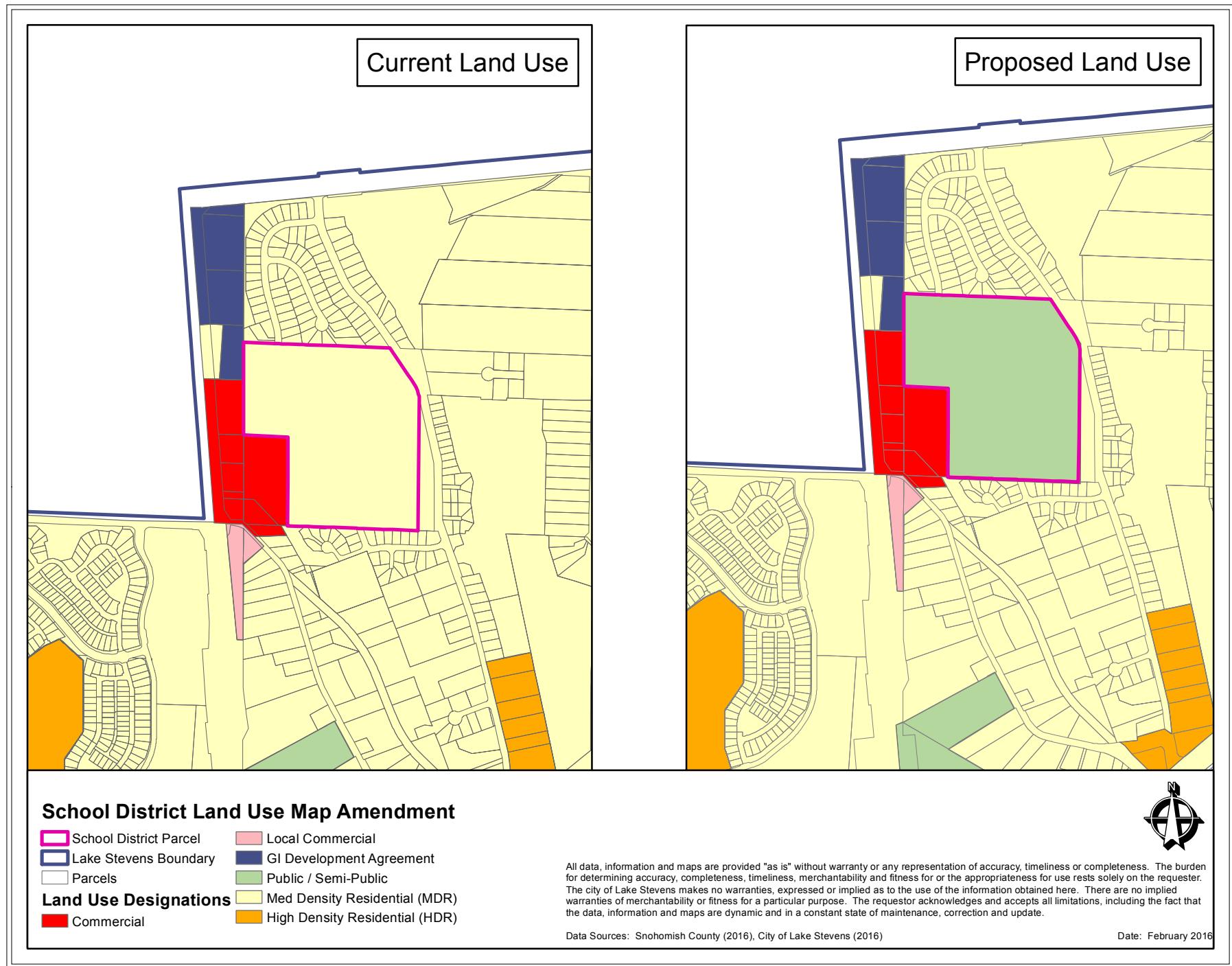
1. Rezone Map
2. 2016 Comprehensive Plan Docket Ratification Staff Summary (M-1), dated March 2, 2016
3. Notices
  - a. Planning Commission Notice of Docket Hearing for March 2, 2016
  - b. City Council Notice of Docket Hearing for March 22, 2016
  - c. Notice of Application & SEPA Determination, dated July 27, 2016
  - d. Planning Commission Public Hearing Notice for November 2, 2016
4. Description of Request narrative, received on December 15, 2015
5. SEPA MDNS, issued on March 10, 2016
6. SEPA DNS, issued on July 22, 2016
7. SEPA Addendum #9 To the City of Lake Stevens Integrated 2005 Comprehensive Plan and FEIS
8. Traffic Report

**APPEALS:** The action of the City Council on a Type VI proposal may be appealed together with any SEPA threshold determination by filing a petition with the Growth Management Hearings Board pursuant to the requirements set forth in RCW 36.70A.290. The petition must be filed within the 60-day time period set forth in RCW 36.70A.290(2). The appeal period shall commence upon the City Council's final decision and not upon expiration of the reconsideration period. Judicial appeal is to Snohomish County Superior Court.

### **Distributed to the Following Parties:**

Camie Anderson  
Robb Stanton





## Exhibit 2



# 2016 Comprehensive Plan Docket Ratification

## M-1 - Staff Summary

Lake Stevens City Council & Planning Commission

City Council Hearing Date: March 22, 2016  
Planning Commission Hearing Date: March 2, 2016

**SUBJECT:** Agency-initiated map amendment

<b>Summary</b>	
<b>Location in Comprehensive Plan:</b> Chapter 2 Land Use Element – Figure 2.3 Land Use Map and associated text.	
<b>Proposed Change(s):</b> Agency-initiated request (LUA2015-0119) to change the land use designation, for two undeveloped parcels off Lake Drive, from Medium Density Residential to Public / Semi-Public and associated text amendments to the Land Use Element, as illustrated on the attached map. If docketed, the city will evaluate a concurrent rezone application.	
<b>Applicant:</b> Lake Stevens School District	<b>Property Location(s):</b> 9105 / 9203 29 <sup>th</sup> Street NE (approximately 38 acres)
<b>Existing Land Use Designation</b>	<b>Proposed Land Use Designation</b>
Medium-Density Residential	Public / Semi-Public
<b>Existing Zoning District</b>	<b>Proposed Zoning District</b>
High Urban Residential	Public / Semi-Public

**ANALYSIS:** Annual amendments shall not include significant policy changes inconsistent with the adopted Comprehensive Plan Element Visions and must meet the identified criteria included in Revisions and Amendments to the Comprehensive Plan Section H.

<b>Ratification Review – Decision Criteria</b>	Yes	No
1. Is the proposed amendment appropriate to the Comprehensive Plan rather than implementation as a development regulation or program? <b>Discussion:</b> the proposed land use map change is not designed to implement a development regulation or program.	X	
2. Is the proposed amendment legal? Does the proposed amendment meet existing state and local laws? <b>Discussion:</b> the proposed minor land use map change will be reviewed against the current Comprehensive Plan and applicable state laws related to process and environmental review.	X	
3. Is it practical to consider the proposed amendment? Reapplications for reclassification of property reviewed as part of a previous proposal are prohibited, unless the applicant establishes there has been a substantial change of circumstances and support a plan or regulation change at this time. <b>Discussion:</b> the land use designation for the subject properties has not been considered since the area was annexed into the city in 2006.	X	

4. Does the City have the resources, including staff and budget, necessary to review the proposed amendment? <b>Discussion:</b> the Growth Management Act and the city's Comprehensive Plan set a process to review annual amendments to the Comprehensive Plan. By extension, this is a Planning and Community Development function. The applicant has submitted required review fees. The applicant will provide any special studies deemed necessary to continue review at their expense.	X	
5. Does the proposed amendment correct an inconsistency within or make a clarification to a provision of the Plan? <b>OR</b>		X
6. All of the following: a. The proposed amendment demonstrates a strong potential to serve the public interest by implementing specifically identified goals of the Comprehensive Plan? <b>AND</b> <b>Discussion:</b> the proposed minor land use map change meets the following selected goals and policies of the current Comprehensive Plan's Land Use and Public Services Elements. <ul style="list-style-type: none"><li>• Goal 2.1 provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens;</li><li>• Goal 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses;</li><li>• Goal 2.14 design and build a healthy community to improve the quality of life for all people who live, work, learn, and play within the city;</li><li>• Goal 7.1 coordinate with city departments, special purpose districts, utility companies and other service providers to ensure the adequate distribution of public services and facilities throughout the city and consistency with the land use element; and</li><li>• Goal 7.4 provide adequate school facilities</li></ul>	X	
b. The public interest would best be served by considering the proposal in the current year, rather than delaying consideration to a later subarea plan review or plan amendment process. <b>Discussion:</b> the Comprehensive Plan sets a procedure for evaluating amendments annually. The city is not considering a subarea plan or other amendments for the property; therefore, there is not a need to postpone review of the request.	X	

Recommendation	Yes	No
Staff recommends City Council and the Planning Commission consider this proposal for inclusion in the 2016 Comprehensive Plan Docket.	X	
The Planning Commission recommends City Council consider this proposal for inclusion in the 2016 Comprehensive Plan Docket (see attached recommendation letter).	X	
The City Council accepts this proposal for inclusion in the 2016 Comprehensive Plan Docket.		



## NOTICE OF PUBLIC HEARING Lake Stevens Planning Commission

### **Comprehensive Plan Amendments – 2016 Docket Authorization**

The Lake Stevens Planning Commission will hold a hearing on proposed Comprehensive Plan amendments to recommend inclusion as part of the annual docket.

**Hearing Date & Time:** March 2 at 7 pm

**Location:** Lake Stevens Community Center (1808 Main Street, Lake Stevens WA 98258)

Citizen-initiated map amendments with concurrent rezone applications.

1. **LUA2015-0119 – School District Map Amendment** request to change the land use designation, for two undeveloped parcels off Lake Drive from Medium Density Residential to Public / Semi-Public and associated text amendments to the Land Use Element.
2. **LUA2016-0007 – Seattle Pacific Map Amendment** request to change the land use designation for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential and associated text amendments to the Land Use Element.

City staff recommends the Medium Density Residential designation or others be extended to nearby properties for consistency.

The city is also proposing text amendments to the Comprehensive Plan (**LUA2016-0029**) to add capital projects to the Parks and Capital Facilities Elements. Along with the specific defined text amendments, staff will also include standard administrative amendments. The city may add additional items to the 2016 docket, prior to the hearing.

Substantial changes to the proposed amendments may be made following the public hearing.

A complete list describing the proposed amendments is available at the Planning & Community Development Department and available on the city's website.

Public testimony on the proposed changes will be accepted at the hearing. Comments regarding the proposed amendments may be submitted orally or in writing during the hearing. Written comments prior to the hearing may be submitted to Lake Stevens Planning & Community Development PO Box 257, Lake Stevens, WA 98258.

## Exhibit 3b



# NOTICE OF PUBLIC HEARING

## Lake Stevens Planning Commission

### Comprehensive Plan Amendments – 2016 Docket Authorization

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## Exhibit 3c



# NOTICE OF APPLICATION & SEPA DETERMINATION

**Proposal:** Lake Stevens School District Comprehensive Plan Amendment and Rezone – LUA2015-0119

**Project Location:** 9105 and 9203 29<sup>th</sup> Street NE, Lake Stevens, WA 98258 / Assessor Parcel Numbers (APN's): 2905010040100 and 29050100401400

**Proponent:** Lake Stevens School District #4: Mr. Robb Stanton

**Lead Agency:** City of Lake Stevens

**Proposed Project Description:** The applicant, the Lake Stevens School District, has applied for a comprehensive plan designation change and concurrent rezone of two (2) parcels totaling approximately 38 acres located on the west side of Lake Drive and north of 28<sup>th</sup> Street NE. The proposal would change the land use designation from Medium Density Residential (MDR) to Public/Semi-Public (P/SP), and the zoning would change from High Urban Residential (HUR) to Public/Semi-Public (P/SP). A new elementary school and early learning center will be built on the site at the completion of the map amendment. A previous Mitigated Determination of Non-Significance (MDNS) threshold determination was issued pursuant to the District's approved Conditional Use Permit, case number LUA2016-0001. The city will review all site-specific impacts related to the land use and zoning changes at the time of development. The proponent has submitted a project narrative and environmental checklist in support of the proposed map changes. The city has issued a Determination of Non-Significance (DNS) pursuant to the submitted SEPA.

**Permits Required:** Comprehensive Plan Map Amendment and Rezone

**Date of Application:** December 15, 2015

**Completeness Date:** January 13, 2016

**Notice of Application &  
SEPA Determination Issued:** **July 27, 2016**

**Public Review and Comment Period:** Interested parties may view the project file at the Lake Stevens Permit Center (1812 Main Street) Monday-Friday 8 am to 5 pm. To receive further information or to submit written comments, please contact the Planning and Community Development Department.

**Email:** spratschner@lakestevenswa.gov

**Mailing address:** P.O. Box 257, Lake Stevens, WA 98258

Upon publication of the Notice of Application & issuance of the Determination on Non-Significance, there is a 14-day comment / appeal period. **The deadline for public comment & appeals is 5:00 PM, August 10, 2016.**

***It is the City's goal to comply with the American with Disabilities Act. The City offers its assistance to anyone with special needs, including the provision of TDD services.***

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**Distribution:** Applicant  
Posted at Permit Center, City Hall, Subject Property, City Website  
Property Owners within 300 feet of project site  
Everett Herald

## Exhibit 3d

**PROJECT NAME/ FILE NUMBER:** 2016 Comprehensive Plan Docket: Planning Commission Public Hearing

**HEARING DATE / TIME:** Wednesday, November 2, 2016 at 7:00 PM

**LOCATION:** Lake Stevens Community Center (next to City Hall)  
1808 Main Street  
Lake Stevens, WA 98258

**DOCKET DESCRIPTION:**

Under the Growth Management Act, the city of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year through an annual docket process. The 2016 Comprehensive Plan Docket includes two citizen-initiated map amendments, two city-initiated map amendments, city text amendments to the Land Use element, the Parks, Recreation and Open Space element, the Public Services and Utilities element and updates to the Appendices. Standards administrative updates and associated SEPA documents will also be incorporated into the Comprehensive Plan.

The Lake Stevens Planning Commission will conduct a public hearing and receive public testimony on November 2, 2016 at 7:00 PM to consider the docket items described above. If the 2016 Docket is recommended for approval, the Lake Stevens City Council will conduct a public hearing and first ordinance reading on December 13, 2016 at the Lake Stevens School District Educational Center (12309 22<sup>nd</sup> Street NE) at 7:00 PM. There will be a separate public noticing for the City Council hearing pursuant to Chapter 14.16B LSMC.

**PUBLIC REVIEW AND COMMENT:**

Interested parties may submit written comments before the hearing or testify in person. Comments can be submitted to City Hall, Attn: Stacie Pratschner, PO Box 257, Lake Stevens, WA 98258 or by email at [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov).

The project files, including the staff reports, site maps and supporting materials are available for review at the Permit Center, located behind City Hall, Monday-Thursday 9:00 am- 4:30 pm and Friday 9:00 am to 12:00 pm. Limited materials are available at: <http://www.ci.lake-stevens.wa.us/index.aspx?nid=380>.

***It is the City's goal to comply with the American with Disabilities Act. The City offers its assistance to anyone with special needs, including the provision of TDD services.***

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Distribution: Applicants and Parties of Record  
Posted at Permit Center, City Hall, Subject Properties and Published in the Everett Herald  
Mailed to property Owners within 300 feet of project sites  
City Website

## DESCRIPTION OF REQUEST

### REQUESTED ACTION

Amendment to the Comprehensive Plan and Zoning Map as part of the City's annual plan review (Docket) process.

The Requested Action is to:

1. Amend the Comprehensive Land Use Map Medium Density Residential (MDR) to Public/Semi-Public (P/SP) for 38 acres owned by the Lake Stevens School District.
2. Rezone the site from High Urban Residential (HUR) to Public/Semi-Public). This is a non-project rezone request.

### PROPERTY DESCRIPTION

The parcels affected by this request do not have an assigned address and are located on the west side of Lake Drive north of 28<sup>th</sup> St NE. The parcel is located in the southeast quarter of Section 01, Township 29 North, Range 05 East, W.M. (see *Attachment 1 – Parcel Map*). The County Assessor's parcel numbers are: 29050100401000 (35.25 Acres) and 29050100401400 (1.89 Acres).

The 38-acre site is currently undeveloped (vacant) land. Topography of the site slopes gently to the east, and steeper as the site approaches Lake Drive. There are 27 (plus one artificially created) wetlands on the site. The site is covered by deciduous and evergreen trees with an understory of primarily salmonberry.

### COMPREHENSIVE PLAN AND ZONING OVERVIEW

The site is surrounded by the Medium Density Residential with General Industrial and Commercial Comprehensive Plan Designations to the east. The surrounding zoning consists of High Urban Residential north of the site and Suburban Residential to the east and south, Urban Residential to the Southeast and Commercial District and General Industrial zoning classifications to the west. This is summarized in the following table.

	Existing Zoning	Proposed Zoning	Existing Plan Designation	Proposed Plan Designation
Site	HUR	P/SP	MDR	P/SP
North	HUR		MDR	
South	Southwest: SR Southeast: UR		MDR	
East	SR		MDR	
West	GI CD		GI, Commercial	

HUR - High Urban Residential  
P/SP - Public / Semi-Public  
SR - Suburban Residential  
UR - Urban Residential

MDR – Medium Density Residential  
CD - Commercial District  
GI - General Industrial

## **SUBMITTAL REQUIREMENTS**

### **1. APPLICATION**

The Application is attached as *Attachment 2*.

### **2. NARRATIVE STATEMENT**

See submittal letter and Item No. 6 below.

### **3. NON-PROJECT SEPA CHECKLIST**

The Non-Project SEPA checklist is included as *Attachment 3*.

### **4. SPECIAL STUDIES**

There were no special studies prepared for this application.

### **5. MAP OF SITE AND SURROUNDING AREA**

A Map of Site and Surrounding Area is included as *Attachment 4*.

### **6. EVALUATION CRITERIA G (2005 PLAN):**

**A. How is the proposed land use designation supported by or consistent with existing policies of various elements of the Comprehensive Plan? If it isn't, the development should demonstrate how the change is in the best long-term interest of the City.**

The proposed request is supported by and consistent with the existing policies of various elements of the Comprehensive Plan as addressed below:

#### **2035 Lake Stevens Vision**

**(Page I-11)**

*As the city contemplates the next 20 years, it must embrace its position as a unified growing city. Lake Stevens will be a vibrant sustainable community that provides a positive development atmosphere and maintains a strong community image with excellent schools and neighborhoods.*

The proposed request is consistent with the District's Capital Facilities Plan which has been adopted as part of the capital facilities element of the City's GMA Plan. The proposed design will achieve the Vision of locating excellent schools in stable neighborhoods. The Lake Drive site will improve access to those who will need the service and will provide recreational opportunities in the neighborhood and City.

## Chapter 2: Land Use Element

(Pages I-12 and LU-2)

*A Vision For Land Use – As Lake Stevens continues to grow in population and area, the city will strive to create balanced opportunities for residential growth, varied housing types, employment, commercial endeavors and public services for all people to live, work, learn and play throughout the community.*

The proposed request provides balance between residential growth with related increased need for public service for the students of the Lake Stevens School District to learn and play.

(Page LU-14)

*Medium Density Residential allows ... limited public/semi-public, community and recreational uses. This designation should be generally located in transitional areas between high density designations and rural areas where infrastructure is readily available.*

The above description of the current zone where the amendment is requested indicates that it allows limited public/semi-public community and recreational uses which indicates the use is generally compatible with the Comprehensive Plan Map and current zoning. The requested amendment would allow greater coordination between the City and the District as it obtains permits in a timely manner related to the type and pace of growth in Lake Stevens.

(Page LU-15)

*Public/Semi-Public – This category includes public buildings, public services, and transportation facilities to support operations of the city, the school district, fire district and miscellaneous other governmental functions. These services require land throughout the city.*

The above description of the requested zone characterizes what would better suit the District's objective of addressing an increasing demand for elementary schools in this attendance area and the level of coordination it needs with the City to provide adequate public services.

(Page LU-28)

*Goal 2.1 Provide sufficient land area to meet the projected needs for housing, employment and public facilities within the City of Lake Stevens.*

*Policy 2.1.4 Direct new growth to areas where infrastructure and services are available or planned to ensure growth occurs in a fiscally responsible manner to support a variety of land uses.*

*Policy 2.1.5 Coordinate land use decisions with capital improvement needs for public facilities including streets, sidewalks, lighting systems, traffic*

*signals, water, storm and sanitary sewer, parks and recreational facilities, cultural facilities and schools.*

**Policy 2.2.4** *Allow the Public/Semi-Public land use designation, which is intended for use on all land that is publicly owned. It allows public buildings and services, recreational uses, utilities, and transportation facilities. This designation may also allow a limited range of commercial uses.*

**Policy 2.3.4** *Maintain development regulations to promote compatibility between uses; retain desired neighborhood character; ensure adequate light, air and open space; protect and improve environmental quality; and manage potential impacts on public facilities and services.*

**Policy 2.14.1** *Encourage mixed land use and greater land density to shorten distances between homes, workplaces, schools and recreation so people can walk or bike more easily to them.*

The requested amendment in the City Comprehensive plan and zoning designation is based on objectives that are consistent with the above policies. There is a demonstrated pressing need for elementary schools in this area of Lake Stevens. Residential growth with the provision of adequate and timely school facilities requires coordination between the City and its school districts and will help to manage potential impacts on public facilities and services. Providing schools within neighborhoods allows for the type of mixed land use to shorten distances between home and school and recreation.

Current zoning (HUR) allows for schools; however a change to P/SP classification provides greater design latitude in line with the capacity and functional needs to be designed into the new facilities. Also, the District owns the site, another criteria for the P/SP zone.

### **Chapter 3: Housing Element** **(Page III-6)**

In the Housing section on Page 6 the Plan indicates that Lake Stevens household size is larger than the County and a greater percent of households in Lake Stevens have children (54%) than the County (32%). This indicates a greater needs for schools and suitable housing.

**Policy 3.2.2** *Support land uses and development regulations designed to increase housing opportunities for current and future residents, seniors, disabled, or other special-needs populations in proximity to shopping, health care, services, recreation facilities and public transportation.*

**Policy 3.5.1** *Promote residential development in areas that allows pedestrian access to commercial areas, employment, public transportation routes, schools and park or recreational areas.*

The requested amendment would serve to provide services to current and future residents and would promote pedestrian access to schools by locating a school in a residential area.

**Chapter 5: Parks, Recreation & Open Space Element** **(Page P-4)**

(schools) *“expand the variety of recreation areas available to the community.”*

**(Pages P-6, P-15, P-17)**

Parks & Recreation Facilities Maps show less school associated park/recreation facilities in the part of the city where this proposed amendment is requested.

**(Page P-37)**

*Goal 5.4 Maximize park facilities by leveraging, sharing and efficiently using resources.*

*Policy 5.4.1 Cooperatively plan for joint-use facilities, meeting and classrooms, athletic fields, and other facilities with the Lake Stevens School District, Lake Stevens Junior Athletic Association, Snohomish County Parks Department and other public or private providers of recreation services and facilities that are of mutual benefit to each agency and the users/participants in the city and its Urban Growth Area.*

*Policy 5.4.2 Create a comprehensive, balanced park, recreation and open space system that integrates city facilities and services with resources available from the Lake Stevens School District, Snohomish County and other state, federal and private park and recreational lands and facilities in a manner that will best serve and provide for area residents' interests.*

*Policy 5.4.3 Support continued cooperation between the city, non-profit organizations, the Lake Stevens School District and other agencies for continuation and development of recreation programming for youths, senior citizens and other segments of the population to avoid duplication, improve facility quality and availability, which reduces costs and represents area residents' interests through joint planning and development efforts.*

The request for the proposed amendment would be consistent with the above policies in that it would allow cooperative joint-use of facilities that would benefit the residents of the City. It would help create more comprehensive, balanced park and recreation uses in this area by integrating city and District facilities that are of mutual benefit to each agency and more importantly to the residents, families, and children.

**Chapter 7: Public Services and Utilities Element** **(Page PS-2)**

*A Vision for Public Utilities and Services – Lake Stevens will strive to provide excellent public utilities & services to meet the health and safety needs of the community in proportion to future population growth and will continue to coordinate with local service providers such as the Lake Stevens Sewer District, Lake Stevens Fire, and the Lake Stevens School District to ensure service continuity as the community grows.*

Current enrollment pressure in the district for elementary schools make it imperative to provide another school as soon as possible and seeks the City's cooperation through designation of its property to P/SP.

**Lake Stevens School District**

**(Page PS-11)**

*The Lake Stevens School District has experienced steady upward growth in enrollment for the past four decades. Student enrollment in the School District remained relatively constant between 1973 and 1985 (15%) and then grew significantly from 1985 through 2005 (approximately 120%). Between October 2008 and October 2013, student enrollment increased by seven percent. Overall, there was a two percent decline countywide during this period. The School District's October 2013 enrollment was 7,759 students, an increase of 1.6 percent over October of 2011. The School District has been, and is projected to continue to be, one of the fastest growing districts in Snohomish County, based on the Office of Financial Management population forecast. Population forecasts estimate the Lake Stevens UGA population will increase to 46,380 people in 2035. Likewise, the population within the Lake Stevens School District boundaries will rise from 41,238 in 2013 to over 61,000 in 2035.*

**(Page PS-18)**

**Goal 7.1** *Coordinate with City departments, special purpose districts, utility companies and other service providers to ensure the adequate distribution of public services and facilities throughout the City and consistency with the land use element.*

**Policy 7.1.2** *Coordinate with local and regional service providers including the Lake Stevens School District, Lake Stevens Fire, Sno-Isle Library, etc. to ensure public services are adequately maintained and distributed to support the community's needs and that each agency's' planning documents are consistent.*

The request for these amendments seeks to maintain consistency with the land use element and provision of public services needed due to residential growth in this area of the City.

**(Page PS-20)**

*Policy 7.4.1 Support the Lake Stevens School District to maintain its adopted level of service.*

*Policy 7.4.2 Coordinate land use density and intensity with the School District's capital budget in order to provide services within the city.*

*Policy 7.4.3 The city will adopt by reference the Lake Stevens School District Capital Facilities Plan. The City Council shall review the CFP every two years to ensure that it is consistent with the requirements of the GMA; the impact fee calculation is consistent with the city's adopted formula and the CFP has been adopted by the District's Board of Directors.*

With Ordinance 927 (February 23, 2015), the City has adopted the 2014-2019 Capital Facilities Plan for the Lake Stevens School District as a sub-element of its Comprehensive Plan. Table 6-3 of the School CFP shows the proposed school, including site acquisition, as part of its capital plan.

This request is consistent with the above goals which directly addresses maintaining the District's adopted level of service and its objective of coordinating with the City relative to residential density and intensity in order to provide educational services within the city in an area without a close elementary school.

**B. Does the proposed land use designation promote a more desirable land use pattern for the community? If so, a detailed description of the qualities of the proposed land use designation that will make the land use pattern for the community more desirable should be provided to enable the Planning Commission and City Council to find that the proposed land use designation is in the community's best interest.**

The proposed designation on this school-owned property is a more accurate depiction of what will happen to future land use patterns. Having the site designated for residential use could be misleading.

The proposed land use designation provides educational services close to the families that will need them. Siting land near to students reduces the impact on traffic and roads, thereby enhancing safety and reducing needed capital investments. Schools also provide open space "breaks" in an otherwise higher density urban setting. It will increase recreational opportunities and pedestrian and bicycle access to those neighbors in the immediate vicinity. In addition, future planned school facilities typically includes fields as well as other outdoor recreational spaces

**C. What impacts would the proposed change of land use designation have on the current use of other properties in the vicinity, and what measures should be taken to ensure compatibility with the uses of other properties in the vicinity?**

The proposed change of land use is a use which is allowed in the current zone with a conditional use. Schools are a typical and accepted use in or adjacent to residential areas. The request would help to better address access, car and bus drop-off, parking, outdoor play, and other non-residential uses to ensure compatibility with surrounding areas.

The primary reasons for the requested change is to

1. Let the community know that the District owns this property (not a developer).
2. Allow increases in height under the proposed zone without needing a height variance.

Landscape buffers are required for any conditional use under either the existing or proposed zone. In addition, the topography of the site lends itself to innovative development, further making it compatible with the surrounding residential developments.

#### **D. Comments received from affected property owners and residents.**

A community meeting was held on August 19, 2015 related to the District developing the Lake Drive property. While the meeting was not held specific to the proposed comprehensive plan amendment and rezone, it was related to District uses. Seven households attended and commented on the following issues:

- Wetlands
- Trees
- Speeders on Lake Drive.
- Lake Drive not striped.
- Lake Drive used for cut-through traffic.
- Proposed modifications to SR92 & Lake Drive – Pork chop (right-in/right-out).
- Desire to incorporate long on-site driveways and account for turn-a-rounds so there is no back-up of parent pick-up/drop-off onto neighborhood streets – long approaches.
- Lake Drive is a better entrance (has 35 feet of width). The residential streets are narrow (28 feet in width).
- Traffic calming.
- Work with the City on sidewalks. There are good sidewalks to the north and at 28<sup>th</sup> and development to the east. Further down 28<sup>th</sup>, there are no sidewalks.
- Access from Soper Hill.

- Animals noted on site:
  - Deer
  - Coyote
  - Rabbits
  - Ducks
  - Frogs
  - Heron
- Time for Alder trees to go.
- Provide enough parking for events.
- Leave screening on north and south – fill in gaps where necessary.

Comments from this public meeting were sent to all members of the project team to be considered as part of the planning and design of the future planned school development.

A second community meeting was held on December 2, 2015. At this meeting, the community was able to see the proposed development on the site and appreciated that the District had listened and addressed the concerns. The community does still, however, remain concerned about traffic in the area, both with and without the development of the Lake Drive property.

## **7. EVALUATION CRITERIA H (2015 PLAN)**

**The City shall use the following decision criteria in selecting proposals for future analysis and consideration. Proposals must meet subsections 1 through 4 below and either subsection 5 or 6 below:**

### **1. Is the proposed amendment appropriate to the Comprehensive Plan rather than implementation as a development regulation or program?**

Implementation as a development regulation or program would not help the Lake Stevens School District provide needed school facilities and services for this area whereas the amendment to the Comprehensive Plan and related rezone would. Schools are an allowed use in the HUR zone, but would likely necessitate a height or other variance to accommodate the design. A Plan amendment also provides assurance to the surrounding property owners that this site will be used for school related uses rather than another housing development.

### **2. Is the proposed amendment legal? Does the proposed amendment meet existing state and local laws?**

The proposed amendment is legal, and meets existing state and local laws. The Lake Stevens School District is the legal owner of the site. The site is undeveloped and has no zoning or other violations associated with it. Schools are permitted in the current zone and the District is seeking approval to develop it as needed in conjunction with its state

mandated purpose. The site will be developed consistent with all state and local laws and all required approvals will be obtained prior to construction. The site will be designed, constructed and operated consistent with all relevant legal requirements.

**3. Is it practical to consider the proposed amendment? Reapplications for reclassification of property reviewed as part of a previous proposal are prohibited unless the applicant establishes that there has been a substantial change of circumstances and support a plan or regulation change at this time.**

The property was purchased by the District in the late 1990's for development of a middle school. The District did entertain selling the property at one point. Development proposals were proposed in the mid-2000's for residential development of the site. However, the economic recession hit and those developers chose not to continue with the potential purchase of the site. No applications for reclassification of the site occurred with those proposals or since.

**4. Does the City have the resources, including staff and budget, necessary to review the proposed amendment?**

The City Comprehensive Plan specifies that there will be yearly consideration of changes needed and this requested amendment would be a part of this necessary review and is consistent with the reasons stated in the Comprehensive Plan for such a yearly review.

**5. Does the proposed amendment correct an inconsistency within or make a clarification to a provision of the Plan OR**

The proposed amendment is not to correct an inconsistency or make a clarification to the Plan. However, it does provide a clarification to the community surrounding the property that it will be used for educational purposes and not a subdivision.

**6. All of the following:**

**a. The proposed amendment demonstrates a strong potential to serve the public interest by implementing specifically identified goals and policies of the Comprehensive Plan; and**

The proposal demonstrates a strong potential to serve the public interest and would implement several goals and policies as identified above and addressed below in the rezone section.

**b. The public interest would be best served by considering the proposal in the current year, rather than delaying consideration to a later subarea plan review or plan amendment process.**

To ensure predictability of the surrounding community, a delay in the decision does not make sense. While the soon-to-be development of an elementary school and early learning center will likely be processed faster than the proposed amendment, it will assist in the future development of the balance of the site.

## **B. Rezones**

### **1) Non-project Rezones (LSMC 14.16C.090(g))**

#### **1. The amendment complies with the Comprehensive Plan Land Use Map, policies, and provisions and adopted subarea plans;**

The proposed Comprehensive Plan amendment and rezone would allow for consistency between the land use map designation and the zoning designation for the property which is the proposed site of a needed elementary school for this area. The requested amendment is proposed as part of the annual update to reflect the future development program by the Lake Stevens School District.

On Page 10 of the 2015 Comprehensive Plan Executive Summary population trends for Lake Stevens are characterized. Lake Stevens is experiencing one of the highest population increases and the percentage of family households are greater and younger than Snohomish County in general. On page 15 of this section, it states that Lake Stevens School District anticipates that the population within its boundary will grow significantly in the time frame of the Comprehensive Plan. On Page 7, the City's comprehensive plan states that the City has incorporated annual changes into the plan to keep pace with growth and respond to changing conditions and to address specific concerns including the adequacy of the adopted level of service standards. Below are explanations of how this request complies with policies in the City of Lake Stevens 2015 Comprehensive Plan.

See question 6.A which addresses how the proposed amendment and rezone are consistent with Comprehensive Plan Policies. The site of the proposed Comprehensive Plan amendment and rezone are not within an adopted subarea plan and are therefore not in conflict with those plans.

#### **2. The amendment is in compliance with the Growth Management Act;**

*The GMA directs local jurisdictions to consider specific planning goals (RCW 36.70A.020) to guide policy development and the implementation of development regulations:*

*1. Guide urban growth to areas where urban services can be adequately provided.*

*12. Ensure adequate public facilities and services necessary to support development.*

**(Page PS-3)**

*Following the Growth Management Act (GMA), local jurisdictions must plan for the public service and facility needs in their communities based on projected growth. Planning for public services and utility facilities is imperative to guarantee sufficient local amenities for current and future residents within a defined level of service.*

This request complies with the above goals as restated in the City of Lake Stevens 2015 Comprehensive Plan. The requested amendment will help the District to provide necessary school services and facilities in a timely manner, without the need for variance requests, related to residential growth in the City and its UGA within its defined and State mandated level of service.

The Growth Management Act mandates the City Comprehensive Planning be consistent with County and Regional policies as well.

**(Page P-3)**

*Regional Planning*

*The regional perspective for parks and recreation emphasizes identifying availability of lands and opportunities for parks and co-location of facilities, such as schools and parks, in support of its growth strategy including links between open space and neighborhoods.*

*Countywide Planning*

*The Snohomish County Countywide Goal for Public Services and Facilities states,*

*“Snohomish County and its cities will coordinate and strive to develop and provide adequate and efficient public facilities and services to ensure the health, safety, conservation of resources, and economic vitality of our communities.”*

The requested amendment complies and supports the above goals by helping the District to provide school and related recreational services and facilities to support City and UGA growth in a timely and efficient manner.

**3. The amendment serves to advance the public health, safety and welfare;**

The requested amendment would serve to advance health and safety by providing school related services and facilities in a residential area where no facilities are located thereby increasing safe access to these schools and increasing the recreational and health benefits of the area and better pedestrian

and bicycle access to these services and facilities. The future use of the site would advance the welfare of the children and families which it serves that are residents of Lake Stevens and its UGA and other residents as well.

**4. The amendment is warranted because of changed circumstances, a mistake, or because of a need for additional property in the zoning district;**

The amendment is warranted due to increased enrollment and the need of the district to use its property within the zoning district to meet the need for school facilities and services related to population growth in this area particularly in households with families with children. Many District facilities are located east of this area nearer to the historic traditional center of Lake Stevens. Growth has increased as newer centers of growth to the west of the City increasing the need for schools in this area. The District boundary encompasses area outside of the City of Lake Stevens, to the northwest within the City of Marysville. Significant residential growth is also occurring in this area known as "Whiskey Ridge". Several properties were looked at by the District in Whiskey Ridge, but a suitable property was not found.

**5. The subject property is suitable for development in general conformance with zoning standards under the proposed zoning district;**

The current zoning allows for school facilities but it is limited in height. The proposed zoning would allow the District to construct multi-story facilities in order to more efficiently utilize the site for various District uses without the need for height variances. In addition, the proposed P/SP zoning adds some predictability to the surrounding neighborhoods that the site is intended to be developed by the District and not by a future single family residential developer.

**6. The amendment will not be materially detrimental to uses or property in the immediate vicinity of the subject property;**

The proposed school facilities are permitted in the current zone so would presumably not be detrimental to uses or property in the immediate vicinity of the subject property and elementary schools are often located in residential locations. Schools have certain benefits to surrounding residential areas related to recreational opportunities and provision of school facilities close to families and children who need its services particularly and benefit from increased pedestrian and bicycle access. Properties to the west of the site are zoned for commercial and industrial uses. The District will work with the City as part of the Conditional Use and Environmental review process to ensure the elementary school development is compatible with surrounding uses under either the existing or proposed zoning.

**7. Adequate public facilities and services are likely to be available to serve the development allowed by the proposed zone;**

The proposed elementary school is located in an existing residential area with roads and facilities and services typical of suburban development. Conversations with the various purveyors as part of the current development design have not identified any deficiencies.

**8. The probable adverse environmental impacts of the types of development allowed by the proposed zone can be mitigated, taking into account all applicable regulations, or the unmitigated impacts are acceptable;**

The proposed school use is allowed in the current zone as a conditional use so would presumably not be detrimental to uses or property in the immediate vicinity of the subject property. Schools have certain benefits to surrounding residential areas related to recreational opportunities and provision of school facilities close to families and children who need its services particularly and benefit from increased pedestrian and bicycle access. Properties to the west of the site are zoned as commercial and industrial and should not have any adverse impacts. The District will work with the City in the Conditional Use and Environmental review process to ensure the elementary school development is compatible with surrounding uses.

**9. The amendment complies with all other applicable criteria and standards in this title; and**

The amendment complies with all other applicable criteria and standards in this title. In fact, the proposed amendment will reduce the number of variances from Lake Stevens Municipal Code once approved.

**10. If the proposal is located within an adopted subarea plan;**

**(i) The rezone is to a zoning designation allowed within the applicable subarea; and**

Not applicable--the property is not located in a Subarea plan.

**(ii) The rezone does not increase the established intensities adopted as part of the planned action ordinance or mitigates increased or additional impacts by supplementing, amending or addending the applicable planned action draft and final environmental impact statement.**

Not applicable the property is not located in a Subarea plan.

**MITIGATED DETERMINATION OF NON-SIGNIFICANCE**  
**Lake Stevens School District No. 4**  
**Lake Drive Property Elementary School & Early Learning Center**

**DESCRIPTION OF PROPOSAL:** The proposed action is approval of a Conditional Use Permit and associated permits for the construction of a new elementary school and early learning center. The elementary school would house approximately 700 students and 50 staff and would consist of approximately 76,000 square feet of building. Space for up to four future portables is also included. The early learning center would consist of approximately 22,000 square feet of building and house up to 300 students (150 students at a time, split days) and 20 staff. An area for a six classroom (7,500 SF) future expansion is also included.

Access to the site is proposed from a new road (29<sup>th</sup> Street NE) and will include a round-about at the Lake Drive intersection. The new public road will terminate to the southwest of the developed area until such time a neighboring developer constructs a new round-about that is necessary in order for their project to be constructed. The termination will include a temporary vehicular turnaround.

Accompanying site improvements would include clearing, grading and infrastructure space for staff parking, and parent/visitor parking with drop-off zones. There would be a total of 168 parking spaces on-site, including 10 ADA stalls. The proposal also includes the development of one multi-purpose field and several outdoor collaboration spaces and a play area for the early learning center. A covered play area for the elementary school will be attached to the west end of the building. Stormwater would be detained and treated in a pond proposed on the eastern portion of the site, adjacent to Lake Drive.

Necessary off-site improvements would be constructed to support the school, including frontage improvement for approximately 1,400 linear feet along the west side of Lake Drive. Water and sewer would be extended from existing lines in Lake Drive and 91st Drive NE to the north and 93rd Drive NE to the south as well as Lake Drive to the east.

Wetland fill is proposed in 17 wetlands due to the construction of the parking areas, stormwater facility, access road, and the frontage improvements. Mitigation is proposed to be the purchase of credits from a wetland mitigation bank. Approval is required from the U.S. Army Corps of Engineers, Washington State Department of Ecology, and the City of Lake Stevens before any wetlands can be filled. In addition, some buffer averaging is proposed for wetlands that are being retained.

The proposal would require a Conditional Use Permit (CUP), Height Variance, Building Permits, Grading Permit and other construction permits from the City of Lake Stevens. The proposal will also require a 404 Permit from the U.S. Army Corps of Engineers, a 401 Water Quality Certification from the Washington State Department of Ecology as well as a Forest Practices Permit from the Washington State Department of Natural Resources.

**PROPOSER:** Lake Stevens School District No. 4

**LOCATION OF PROPOSAL:** There is no physical address for the site; it is located west of Lake Drive between 28<sup>th</sup> Street NE and approximately 32<sup>nd</sup> Street SE, Lake Stevens, Washington. The Snohomish County tax parcel numbers for the site are 29050100401000 and 29050100401400

**LEAD AGENCY:** Lake Stevens School District No. 4

**Note:** Issuance of this threshold determination does not constitute approval of the permit. This proposal will be reviewed for compliance with all applicable City of Lake Stevens codes and regulations that regulate development activities.

The lead agency for this proposal has determined that the proposal does not have a probable significant adverse impact on the environment. An environmental impact statement (EIS) is not required under RCW 43.21C.030(2)(c). This determination assumes compliance with State law and City of Lake Stevens ordinances related to general environmental protection including, but not limited to access improvements, drainage and utilities. This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public upon request.

It is the policy of the District that, when undertaking an action involving the exercise of substantive SEPA authority, the District shall consider, as appropriate under the circumstances, the ramifications of such action as to one or more of the factors listed in Lake Stevens School District Policy 3100, 7.4, Substantive authority.

This Mitigated Determination of Non-Significance is issued with the following Conditions:

Water

1. Mitigation Banks shall be used to mitigate filling of all wetlands.

Historic and Cultural Preservation

2. A qualified archaeologist shall return to the site once initial vegetation has been removed. If determined by archaeologist, additional limited shovel scrapes/probes in the area where not accessible during initial investigation would occur if deemed appropriate by the U.S. Army Corps of Engineers. If this inspection/monitoring demonstrates that no temporally diagnostic and/or Native American cultural deposits or artifacts are located on the site, the contractor is permitted to proceed under an inadvertent discovery plan to lay out procedures in the unlikely event that such cultural resources are encountered during ground disturbing activity. However, if temporal diagnostic and/or Native American cultural deposits or artifacts are observed, formal consultation, conducted by the U.S. Army Corps of Engineers (with affected Tribes and other interested parties) as well as formal site evaluation and assessment of adverse effects may be required. This measure may be modified based on the issuance of the Joint Aquatic Resource Permit requirements/conditions.

Transportation

1. Access from 91<sup>st</sup> Drive NE is only for emergency vehicles and pedestrian access.
2. The City of Lake Stevens is requiring dedication of right-of-way and construction of the following improvements:
  - a. New 29<sup>th</sup> Street NE Roadway Connection – the roadway will be constructed according to City standards with pavement for two travel lanes (one in each direction), 8-foot parallel parking areas on both sides, a 9-foot wide shared walk/bicycle facility and 5-foot wide landscaping area on the north side. A future 9-foot wide shared walk/bicycle facility and 5-foot wide landscaping area on the south side would be constructed with any future development of the District's property on the south side of the new roadway connection.
  - b. Lake Drive Frontage – the roadway will be widened to provide an 8-foot parallel parking area and a 5-foot wide walkway on the west side of the street.
3. The City of Lake Stevens collects traffic impact fees for new development. The project is estimated to have a total fee of \$335,455, however, Lake Stevens Municipal Code states that if public benefit occurs in accordance with specific programs that the construction of those public benefits can be credited

against that fee. Based on preliminary cost estimates for the roadway, those costs may exceed the impact fee amount. If this is the case, no payment of fees to the City of Lake Stevens will occur.

4. Prior to the school opening, the District will define walk routes and determine needs for signage, pavement markings, school zone speed limits and/or crossing guard locations. The District will work with the City of Lake Stevens to implement measures that will occur within City right-of-way (including speed enforcement).
5. The District will coordinate with the City of Lake Stevens to determine if added traffic calming measures such as speed humps or additional traffic control, are needed along adjacent roadways to ensure compliance with speed limits.
6. The District and school administration will develop a neighborhood communication plan to inform nearby neighbors of events each year. The plan will be updated annually (or as events are scheduled) and should provide information about the dates, times and rough magnitude of attendance.
7. The District will ensure that large events are not held at both schools concurrently and that parking lots and pedestrian walkways at both sites are open and available for sharing during large events at both schools.
8. The District will require the selected contractor to develop a construction management plan that addresses traffic and pedestrian control during school construction. It shall define truck routes, lane closures, walkway closures and parking disruptions, as necessary. To the extent possible, the CMP will direct trucks along the shortest route to arterials and away from residential streets to avoid unnecessary conflicts with resident and pedestrian activity. The CMP may also include measures to keep adjacent streets clean on a daily basis at the truck exit points to reduce tracking dirt offsite. It will also include measures to monitor truck impacts to pavement on Lake Drive and repair any related damage that results from construction transportation activities. The CMP will also identify parking locations for the construction staff; construction employee parking will be contained on-site.

This Mitigated Determination of Non-Significance (MDNS) is issued under WAC 197-11-340(2). The lead agency will not act on this proposal for 14 days from the date below. Comments must be submitted to the Responsible Official, Lake Stevens School District No. 4, 12309 - 22<sup>nd</sup> Street NE, Lake Stevens, Washington 98258, and be received by March 24, 2016.

**RESPONSIBLE OFFICIAL:** Robb Stanton

**POSITION/TITLE:** Executive Director, Operations

**ADDRESS:** Lake Stevens School District No. 4  
12309 - 22<sup>nd</sup> Street NE  
Lake Stevens, Washington 98258  
Phone: (425) 335-1506

**SIGNATURE:** 

**DATE OF ISSUANCE:** March 10, 2016

**PUBLISHED:** March 10, 2016

There is no agency appeal of this determination.



## SEPA DETERMINATION OF NONSIGNIFICANCE

**Issuance Date:** July 22, 2016

**Project Name (No.):** Lake Stevens School District Comprehensive Plan Amendment and Rezone: Project No. LUA2015-0119 and Comprehensive Plan Docket 2016 Item No. M-1

**Proponent:** Lake Stevens School District #4

**Applicants:** Lake Stevens School District #4: Mr. Robb Stanton

**Description of Proposal:** The applicant has applied for a comprehensive plan designation change and concurrent rezone of two (2) parcels comprising approximately 38 acres located on the west side of Lake Drive and north of 28<sup>th</sup> Street NE. The project proponent has submitted a project narrative, completed environmental checklist, vicinity maps and a docket request packet demonstrating how the proposal meets the criteria of both Municipal Code (Title 14) and the Comprehensive Plan in support of their application for the map changes. The District proposes to change the land use designation on the two subject parcels from Medium Density Residential to Public/Semi-Public, with a concurrent rezone from High Urban Residential to Public/Semi-Public. The property directly to the north is zoned High Urban Residential and the properties to the south are zoned Suburban and Urban Residential. Properties west of the subject APN's are zoned Commercial District and General Industrial. A new elementary school and early learning center will be built on the site at the completion of the map amendment. A Mitigated Determination of Non-Significance threshold determination was issued pursuant to the School District's conditional use permit (CUP), permit number LUA2016-0001. The MDNS conditions include provisions for a suite of site-specific impacts, including but not limited to wetland mitigation, cultural resource management, roadway improvements, traffic analyses and a neighborhood communication plan. The applicant has also applied for commercial building permits (BLD2016-0378 and 0518) and construction plans (LUA2016-0092) for development of the new school and learning center on site.

**Project Location:** 9105 and 9203 29<sup>th</sup> Street NE, Lake Stevens, WA 98258 / Assessor Parcel Numbers (APN's): 2905010040100 and 29050100401400

**Contact Person:** Stacie Pratschner, Senior Planner

**Phone:** (425) 377-3219

**Threshold Determination:** The City of Lake Stevens, acting as lead agency for this proposal has determined that the proposed non-project map amendment and concurrent rezone does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This DNS is issued under 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date of issuance.

**SEPA Responsible Official:**

Russ Wright, Community Development Director

**Comments on the Threshold Determination:** Written comments should be sent to the address below by **August 5, 2016 (14 days from issuance)**. The Responsible Official may incorporate any substantial comments into the DNS. If the DNS is substantially modified, it will be reissued for further public review.

**Appeals:** You may appeal this determination of non-significance by submitting an appeal to the address below no later than 5:00 PM, **August 5, 2016 (14 days from issuance)**. The appeal must be in written form, contain a concise statement of the matter being appealed and the basic rationale for the appeal. A fee is required per the City's Fee Resolution. Please note that failure to file a timely and complete appeal shall constitute a waiver of all rights to an administrative appeal under City code. All comments or appeals are to be directed to City Hall, P.O. Box 257, Lake Stevens WA, 98258, Attn: Stacie Pratschner.

# **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

## **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Adoption of Four Map Amendments and Text Revisions to  
Chapter 2 Land Use Element, Chapter 5 Parks, Recreation  
and Open Space Element, Chapter 7 Public Services and  
Utilities Element, Chapter 9 Capital Facilities Element,  
Appendices and Covers, Footers, Dates, Executive Summary  
and Table of Contents  
with the 2016 Docket**



**Prepared in Compliance with**  
The Washington State Environmental Policy Act of 1971  
Chapter 43.21C Revised Code of Washington  
Chapter 197-11 Washington Administrative Code  
Lake Stevens Municipal Code Title 16

**Date of Issuance: August 30, 2016**

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

### **FACT SHEET**

#### **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

#### **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

##### **Proposed Non-Project Action:**

Under the Growth Management Act, the City of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The proposed non-project action consists of minor map and text amendments for the 2016 Docket including two proposed citizen map amendments that have undergone individual SEPA review, two proposed city map amendments and city text amendments to the Land Use Element, the Parks, Recreation and Open Space Element, the Public Services and Utilities element, Capital Facilities element and the Appendices. Standard administrative updates and SEPA documents will be incorporated into the plan. The GMA requirements contained in Chapter 36.70A RCW apply to this action.

Planning and Community Development has prepared this Addendum No. 9 to the City of Lake Stevens Integrated 2005 Comprehensive Plan and Final Environmental Impact Statement (FEIS) issued July 17, 2006 along with an adoption of existing environmental documents.

##### **Description of Proposal:**

The 2016 Docket contains four map amendments, text amendments and minor administrative amendments to the City of Lake Stevens Comprehensive Plan.

RCW 36.70A.130 allows amendments to the Comprehensive Plan once per year with some exceptions. The following actions comprises the City's annual changes to its Comprehensive Plan:

- **Title Page, Table of Contents and Introduction** - Update the dates on the title page, header and footers, the Executive Summary, the table of contents and introduction references as needed with final draft (**Exhibit 2**).
- **Chapter 2 – Land Use Element** – A city-initiated text amendment to update applicable Figures and Tables to reflect the adoption of the two citizen-initiated map amendments (LUA2015-0119 and LUA2016-0007) and two city-initiated map amendments (LUA2016-0017).
  - Text “redlines” to pages LU-10, LU-17, LU-18, LU-21, LU-24;
  - Updates to Figures 2.3 – City Land Use Map and 2.4 – Development Trends Map; and
  - Updates to Tables 2.2 – Employment Zoning in Lake Stevens UGA and 2.3 – Residential Zoning (**Exhibit 3**).
- LUA2015-0119 – A citizen-initiated map amendment to change the land use designation on two parcels totaling approximately 38 acres located at 9105 and 9203 29<sup>th</sup> Street NE, from

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

Medium-Density Residential to Public/Semi-Public (**Exhibit 3a**). The city issued a DNS on July 22, 2016 for LUA2015-0119 – no comments or appeals were received. The city hereby adopts this existing DNS (**Exhibit 3b**) by reference and incorporates it into Addendum No. 9.

- LUA2016-0007 – A citizen-initiated map amendment to change the land use designation on three parcels totaling approximately 15.5 acres located on the west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE, from Planned Business District to Medium Density Residential and accompanied with a city recommended expansion (see below) to the adjacent parcels to the east and west of the project area (**Exhibit 3c**). The city issued a DNS on July 20, 2016 for LUA2016-0007 – one written comment was received and no appeals were filed. The city hereby adopts this existing DNS (**Exhibit 3d**) by reference and incorporates it into Addendum No. 9.
- LUA2016-0007 (continued)- A city-initiated map amendment in concurrence with LUA2016-0007 to change the land use designation on four parcels totaling approximately 3.5 acres adjacent to the three parcels amending to the Planned Business District as described above (**Exhibit 3c**). Three parcels would change from Planned Business District to Medium Density Residential and one parcel would change from Planned Business District to General Industrial.
- LUA2016-0111 – A city-initiated map amendment to change the land use designation on 40 parcels totaling approximately 25 acres located south of 20<sup>th</sup> Street SE, north of South Lake Stevens Road and near SR-9, from Mixed Use, High Density Residential and Medium Density Residential to Commercial (**Exhibit 3e**). The city is also considering another option that would only rezone the Mixed Use parcels to Neighborhood Business while the remaining parcels in the study area would maintain their current zoning and land use designation.
- **Chapter 5 – Parks, Recreation and Open Space Element** - A city-initiated text amendment to add park projects(s) to the Capital Project List for improvements to Lundein Park and acquisition of park property in the northwestern portion of the city. The amendment will include text “redlines” to pages P-28 through P-33 (**Exhibit 4**).
- **Chapter 7 – Public Services and Utilities Element** – Update references on page PS-9 to incorporate the Lake Stevens Sewer Districts’ updated Sanitary Sewer Comprehensive Plan (2016) and update references on page PS-13 to incorporate the Lake Stevens School District No.4’s 2016-2021 Capital Facilities Plan (**Exhibit 5**).
- **Chapter 9 – Capital Facilities Element** - A city-initiated text amendment to add park and road projects to Table 9.1 Capital Facilities Program 2015 to 2035 and Table 9.2 - 6-year Capital Improvement Plan. The amendments will include the following additions:
  - Lundein Park;
  - Park Acquisition;
  - Cedar Road from 20th Street NE to 30th Street NE;
  - South Lake Stevens Road from South Davies to E. Lakeshore;
  - 20th Street SE Transit Alignment; and
  - Revisions to the Transportation Improvement Program 2017 to 2022 (**Exhibit 6**).

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

- **Appendices** – Updates to the following sections:
  - **Appendix A** – Add this document as “Addendum No. 9”;
  - **Appendix C** – Update to “2016 Lake Stevens Sewer District Comprehensive Plan”; and
  - **Appendix F** – Update to “2016-2021 Lake Stevens School District No. 4 Capital Facilities Plan” (**Exhibit 7**).

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

### Purpose of the FEIS Addendum:

This addendum and adoption of existing environmental documents is to add information relating to the 2016 Comprehensive Plan amendments. This addendum and adoption of existing environmental documents does not substantially change the analysis of alternatives considered in the City's Integrated 2005 Comprehensive Plan (July 2006) and FEIS (July 17, 2006). The City has considered the impacts of the proposed programmatic actions to the FEIS document. No additional significant impacts beyond those identified in the FEIS are expected to occur. To the extent that the existing environmental documents listed in this Addendum or other published documents have analyzed such changes, no additional programmatic action level environmental review will be required. This Addendum is issued in accordance with WAC 197-11-625 and WAC 197-11-630. Additional changes to the proposal may be considered during the public hearing process. The addendum and adoption of existing environmental documents satisfies the City of Lake Stevens' environmental review for the 2016 Comprehensive Plan Docket.

<b>Location of Proposal:</b>	City of Lake Stevens
<b>Proponent:</b>	City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258
<b>Lead Agency:</b>	(425) 377-3235
<b>Required Approvals:</b>	Adoption of 2016 Comprehensive Plan Docket map and text amendments granted by Lake Stevens City Council.
<b>Circulation:</b>	This addendum and adoption of existing environmental documents is being sent to SEPA review agencies and interested parties.
<b>Comment:</b>	No comment period is required for this addendum.
<b>Contact Person:</b>	Russell Wright, <i>Community Development Director</i> (425) 212-3315 or <a href="mailto:rwright@lakestevenswa.gov">rwright@lakestevenswa.gov</a>
<b>Date of Issuance:</b>	August 30, 2016
<b>Responsible Official:</b>	Signature:  Russell Wright, <i>Community Development Director</i>
<b>Public Hearing:</b>	Staff has held briefings with both City Council and the Planning Commission related to the analysis of each of the Docket items. The Lake Stevens Planning Commission and City Council will hold public hearings to receive final comments and testimony prior to adoption.

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

**Documents:** All of the application materials and staff documents are available at the Permit Center. Electronic copies may be requested.

### **Exhibit List:**

1. Commerce Coversheet
2. Administrative Amendments
3. Chapter 2 Amendments
  - a. School District Map
  - b. School District SEPA DNS
  - c. Hild Rezone Map
  - d. Hild Rezone SEPA DNS
  - e. City-Initiated Map
4. Chapter 5 Amendments
5. Chapter 7 Amendments
6. Chapter 9 Amendments
7. Appendices Amendments

# TRANSPORTATION TECHNICAL REPORT for the

## **New Lake Stevens Elementary School & Early Learning Center**

PREPARED FOR:  
Lake Stevens School District

January 6, 2016

**TRANSPORTATION TECHNICAL REPORT**  
for  
**New Lake Stevens Elementary  
School & Early Learning Center**

PREPARED FOR:  
Lake Stevens School District

PREPARED BY:

**heffron**  
**transportation, inc.**  
6544 NE 61st Street, Seattle WA 98115  
ph: (206) 523-3939 • fx: (206) 523-4949

**January 6, 2016**

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# 1. INTRODUCTION

This report presents the transportation impact analyses for the Lake Stevens School District's proposed new elementary school and Early Learning Center (ELC). The scope of analysis and approach were based on extensive past experience performing transportation impact analyses for projects throughout the Puget Sound area. This report documents the existing conditions in the site vicinity, presents estimates of project-related traffic, and evaluates the anticipated impacts to the surrounding transportation system including transit, safety, and non-motorized facilities. It also recommends measures to mitigate the potential transportation-related impacts.

## 1.1. Project Description

The Lake Stevens School District plans to construct two new schools—an elementary school and an ELC. The following sections describe the existing site and the proposed project.

### 1.1.1. Existing Site

The site is located in the City of Lake Stevens, bounded by commercial properties to the west, private residential properties to the south, Lake Drive to the east, and 91<sup>st</sup> Drive NE and private properties to the north. The project site location and vicinity are shown in Figure 1. The existing project site is currently undeveloped. There are existing residential developments located south, east, and north of the property.

### 1.1.2. Proposed Site Changes

As part of its effort to accommodate enrollment growth in the area, the Lake Stevens School District proposes to build a new elementary school with capacity for up to 550 students and an ELC with capacity for up to 100 pre-school children during the morning and afternoon sessions. The proposed new elementary school is expected to have about 50 employees; the ELC is expected to have 20 employees.

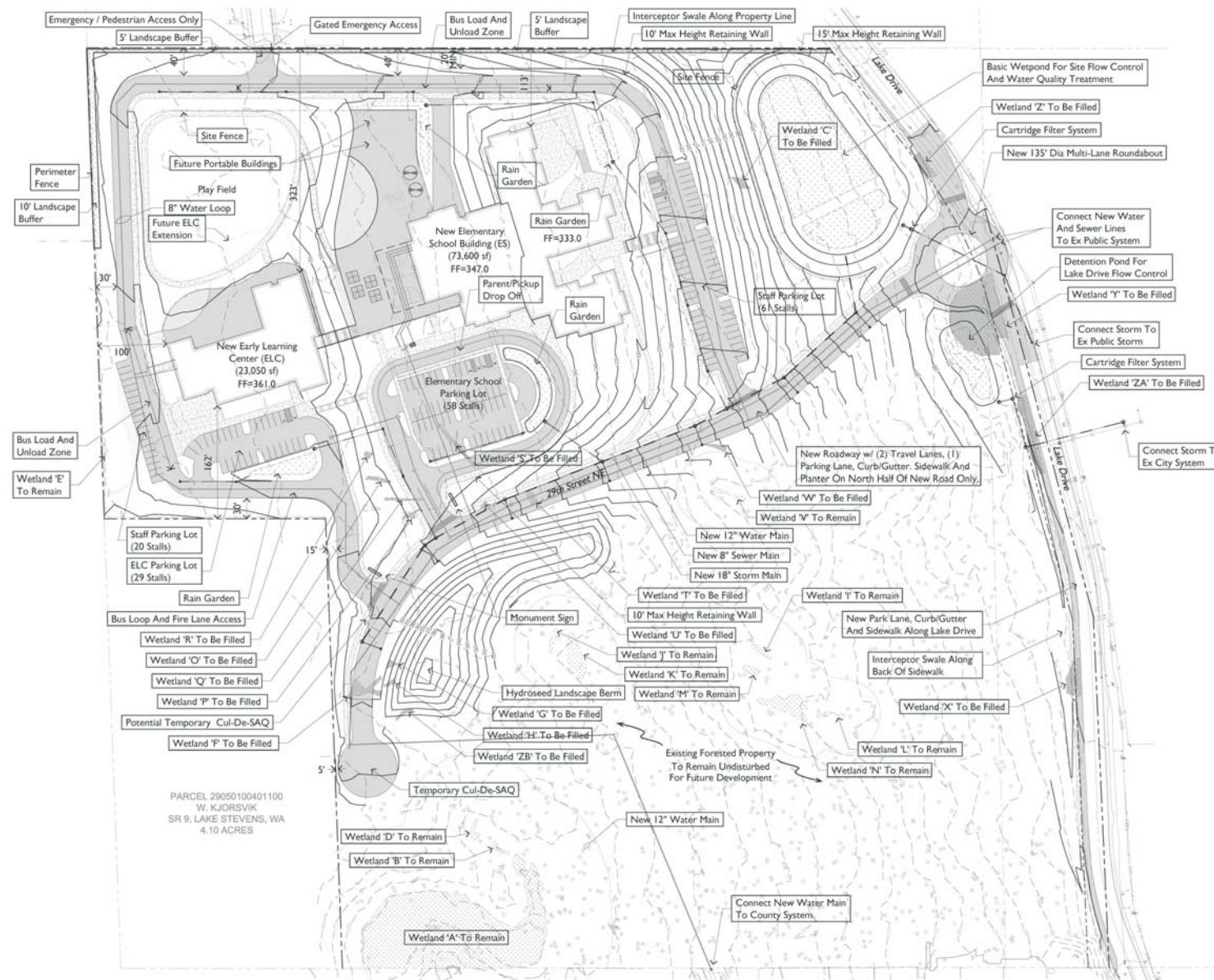
The proposed site plan is shown on Figure 2. As part of the site development, the project would construct a portion of a new roadway connection west of Lake Drive—anticipated to be named “29<sup>th</sup> Street NE.” The City of Lake Stevens (City) has planned a future connection of this roadway west to SR 9 at Soper Hill Road. At the new connection to Lake Drive, the intersection would be constructed as a roundabout. The connection to the southwest would occur as part of private development of parcels adjacent to the SR 9/Soper Hill Road intersection. Site access driveways for the new schools would connect to the new 29<sup>th</sup> Street NE. Most of the enrollment area for the new elementary school is anticipated to come from areas to the west of SR 9, west of the site; the ELC is expected to draw from the entire District. Construction of the new schools is planned to occur between the summer of 2016 and the fall of 2017. In the short term beginning in 2017, before the private development and final connection of the new 29<sup>th</sup> Street NE to SR 9, all school access is expected to occur to and from Lake Drive. In the longer term, after the connection is completed, most school-related trips are expected to access the site from the SR 9/Soper Hill Road intersection. Based on coordination between the Lake Stevens School District and the adjacent property owners, the 29<sup>th</sup> Street NE roadway connection is anticipated to be complete by 2019. Both conditions have been evaluated for this analysis—2017 for the year of opening and 2019 as the long-term condition.



**Lake Stevens School District**  
**New Elementary School &**  
**New Early Learning Center**

Figure 1  
Site Location and Vicinity Map

**heffron**  
transportation, inc.



## 2. BACKGROUND CONDITIONS

This section of the report presents the existing and future conditions without the proposed project. The impacts of the proposed project were evaluated against these base conditions. For the short-term conditions, year 2017 was selected as the future horizon year for the analyses, because this is the year the schools are scheduled to be completed and the site could be occupied with up to 550 elementary and 100 preschool students at a time. For the longer-term conditions, year 2019 was selected for the analyses, because this is the year the roadway connection to the southwest at the SR 9/Soper Hill Road intersection is expected to be completed. Without-project conditions for both scenarios assume the existing project site remains unoccupied. The following sections describe the existing roadway network, traffic volumes, traffic operations (in terms of levels of service), traffic safety, transit facilities, non-motorized facilities, parking, and construction transportation.

The selection of the study area intersections was developed based on the travel routes expected to be used by parents, buses, and staff to access and egress the site area and through coordination with City of Lake Stevens staff.<sup>1</sup> The following six off-site intersections were identified for analysis for both the morning and afternoon peak hours. The future Lake Drive / New 29<sup>th</sup> Street NE intersection is expected to be constructed as a roundabout. In addition to the off-site intersections, all planned site access driveways were also evaluated.

- SR 9 / SR 92 (signalized)
- SR 9 / Soper Hill Road (signalized)
- SR 9 / Lundein Parkway (signalized)
- Lake Drive / SR 92 (unsignalized)
- Lake Drive / Lundein Parkway (roundabout)
- Lake Drive / New 29<sup>th</sup> Street NE (future roundabout)

### 2.1. Roadway Network

As described previously, the school site is bounded by SR 9 and a private property to the west, Soper Hill Road and private properties to the south, Lake Drive to the east, and 91<sup>st</sup> Drive NE and private properties to the north. Characteristics of key roadways in the study area are described as follows.

**SR 9** is a two- to four-lane, north-south Highway of Statewide Significance (HSS) parallel to Interstate 5 (I-5) that provides access between the Snohomish County/King County line and the Arlington area. Near the site, there are two lanes in each direction with segments that are divided by a center concrete barrier. Approximately 3.6 miles of SR 9 are within the Lake Stevens city limits where it is a limited access roadway. The roadway has paved shoulders, with no curbs, gutters, or sidewalks. There is no on-street parking on either side of the road. There are marked, pedestrian actuated crosswalks at the intersections with SR 92 (crossing the north and east legs), Soper Hill Road (crossing the east, south, and west legs), and Lundein Parkway (crossing all four legs). All three intersections are controlled by traffic signals and the speed limit is 55 mph. The roadway is one of four designated truck routes within Lake Stevens.

**SR 92 (Granite Falls Highway)** is a two-lane, east-west regional connector highway that provides access between SR 9 to the west and Granite Falls to the east. In the vicinity of the site, SR 92 is not access controlled and is under the jurisdiction of the City of Lake Stevens within the city limits. Near the site, there is one travel lane in each direction with turn lanes at SR 9 and Lake Drive. The roadway has paved shoulders but no curbs, gutters, or sidewalks. There is no on-street parking on either side of the road. The intersection with SR 9 is controlled by a traffic signal; the intersection with Lake Drive has stop-sign control for traffic on Lake Drive. The speed limit is 55 mph. The roadway is one of four designated truck routes within Lake Stevens.

<sup>1</sup> Personal communication, Mick Monken, Public Works Director, City of Lake Stevens, May 26, 2015.

**Soper Hill Road** is a two-lane, east-west road that provides access between Lake Drive to the east and Sunnyside Boulevard to the west. West of SR 9, Soper Hill Road is designated as a Minor Arterial<sup>2</sup> with curb, gutter, and sidewalk on the south side of the roadway, and a speed limit of 35 mph. East of SR 9, it is designated as a Collector with no curbs, gutters, or sidewalks, and a speed limit of 25 mph. The intersection with SR 9 is controlled by a traffic signal and the intersection with Lake Drive is stop-controlled for traffic approaching from the north and the west.

**Lundeen Parkway** is a two- to three-lane, east-west Minor Arterial that provides access between Machias Road to the east and SR 204 to the west. West of SR 9 there are marked bicycle lanes in each direction and curb, gutter, and sidewalk on the south side of the roadway. There are curbs, gutters, and sidewalks at the roundabout intersection with Lake Drive/Soper Hill Road. There is no on-street parking on either side of the road. The intersection with SR 9 is controlled by a traffic signal. The speed limit is 35 mph.

**Lake Drive** is a two-lane, north-south Collector that provides access between SR 92 to the north and Lundeen Parkway to the south. North of the site, Lake Drive has curbs, gutters, and sidewalks on both sides. From the northern side of the project site to just south of 28<sup>th</sup> Street NE, there is only curb, gutter, and sidewalk on the east side of the roadway. The south third of the road has no curbs, gutters, or sidewalks. There is intermittent on-street parking on both sides of the road. There are marked crosswalks at the intersection with Lundeen Parkway (crossing all legs). The Lake Drive approach to SR 92 is stop-controlled; the intersection with Soper Hill Road is stop-controlled for traffic approaching from the north and the west. The Lake Drive intersection with Lundeen Parkway is controlled by a roundabout. The speed limit is 25 mph. Lake Drive was restriped in 2015 to define travel lanes and parking areas as a traffic calming measure.

Based on community comments at public meetings hosted by the Lake Stevens School District, there is still concern about travel speeds on Lake Drive between SR 92 and Lundeen Parkway, despite the recent traffic calming re-channelization project. The City of Lake Stevens has indicated that it is continuing to monitor speeds and compliance on this roadway segment.

The City of Lake Stevens' *Transportation Improvement Program (2016-2021)*<sup>3</sup> was reviewed to determine what improvements may be made near the project site. One project—re-channelization at the SR 92/Lake Drive intersection—was identified. The new intersection configuration would prohibit left turns to or from Lake Drive. Although the exact timing of this project is not known, it assumed to be in place for the all future analyses.

## 2.2. Traffic Volumes

### 2.2.1. Existing Conditions

To evaluate the potential traffic conditions near the site during the morning arrival and afternoon dismissal times for the new schools, new peak period turning movement traffic counts were performed at the identified study-area intersections.

The start and dismissal times for the new schools is not known at this time; however, the Lake Stevens School District indicated the start and dismissal times for the existing Hillcrest Elementary school would likely be representative. Classes at Hillcrest Elementary begin at 9:20 A.M. and end at 3:35 P.M. The

<sup>2</sup> City of Lake Stevens, 2015 – 2035 Comprehensive Plan, Figure 8.2 Roadway Classifications, September 22, 2015.

<sup>3</sup> City of Lake Stevens, Adopted June 2015

existing ELC at the Hillcrest site has separate morning and afternoon programs, similar to what is planned for the new facility. The morning session begins at 9:30 A.M. and the afternoon session ends at 3:50 P.M. As will be described later in this report, the combined traffic from the two schools is expected to result in peak hours occurring from 8:30 to 9:30 A.M., and from 3:30 to 4:30 P.M. To capture the existing traffic conditions during these hours, peak period traffic counts were performed from 6:30 to 9:30 A.M. and from 3:00 to 6:00 P.M. The counts were performed on two days—three intersections were counted on Thursday, June 11, 2015 and two were counted on Thursday, September 17, 2015. During these periods, the highest hourly volumes in both the morning and the afternoon varied by location. Hourly volumes during the expected peak hours of the new schools were used for this analysis. The existing morning and afternoon traffic volumes are shown on Figure 3 and Figure 4, respectively.

### 2.2.2. Forecast Year-of-Opening (2017) Conditions

The new schools are expected to be opened and occupied in the fall of 2017. To estimate year 2017 background traffic for the study area intersections, a compound annual growth rate was applied to existing traffic volumes. Based on guidance from the City of Lake Stevens' staff, a 2% compound annual growth rate<sup>4</sup> was applied. This growth rate was applied to account for potential new growth that may occur in the area. As described previously, all future analysis completed for this report assumes left turns at the SR 92/Lake Drive intersection are prohibited. Existing left-turning traffic from SR 92 onto Lake Drive was assumed to travel south to Lundein Parkway and then west to access Lake Drive. Left-turning traffic from Lake Drive onto SR 92 was assumed to travel south on Lake Drive and west on Lundein Parkway to access SR 9. The 2017-without-project morning and afternoon peak hour traffic volumes are shown on Figure 5 and Figure 6, respectively. (Note: analyses for 2019-without-project conditions are presented later in this report in section 4. *Long-Term Conditions Analysis*.)

## 2.3. Traffic Operations

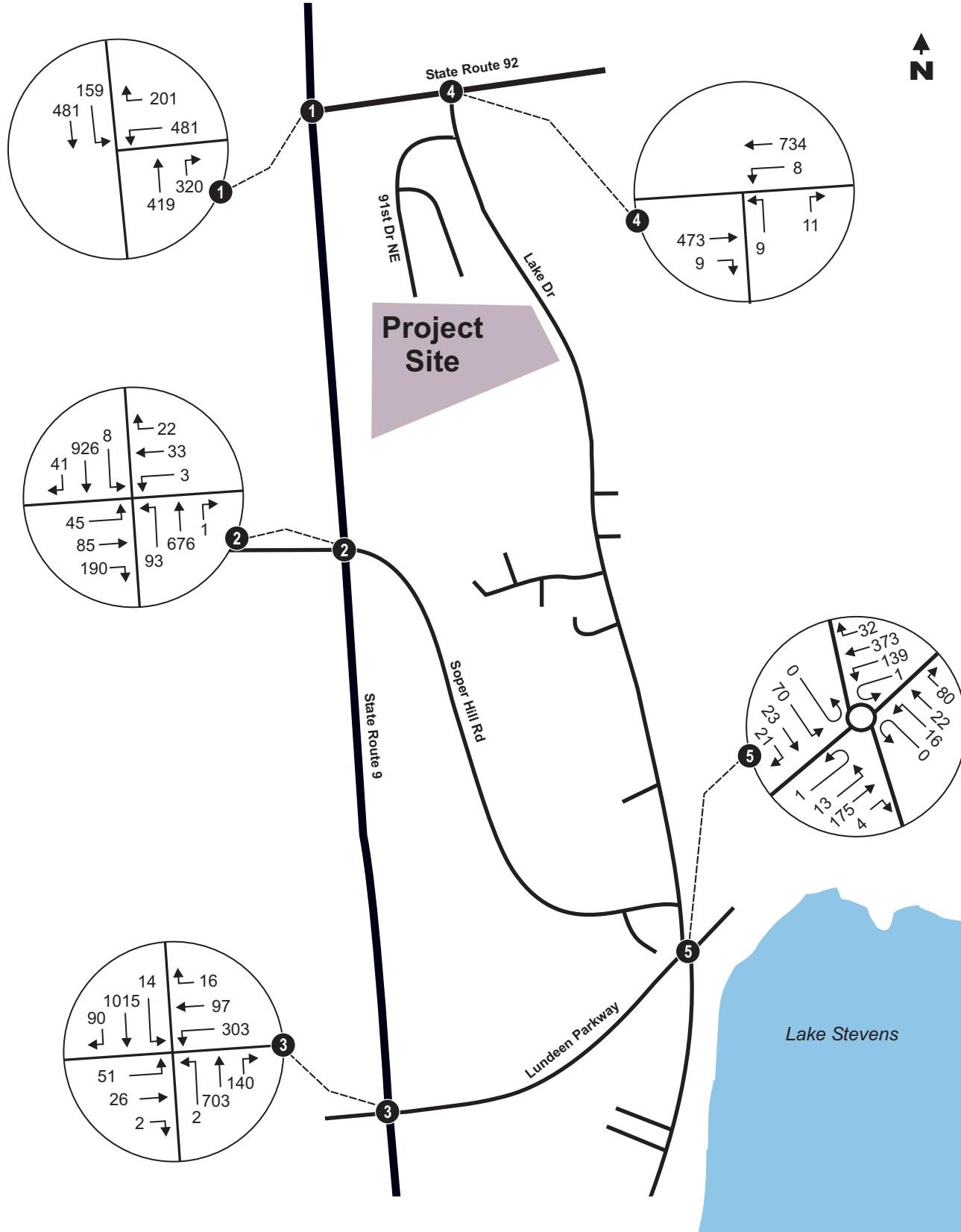
Traffic operations analyses were performed for the five existing study-area intersections. Traffic operations are evaluated using levels of service (LOS) with six letter designations, "A" through "F." LOS A is the best and represents good traffic operations with little or no delay to motorists. LOS F is the worst and indicates poor traffic operations with long delays. The level of service definitions and thresholds are provided in Appendix A. Under the City of Lake Stevens's standards, LOS E or better is acceptable on arterials and collectors and LOS C or better is acceptable on local roads.<sup>5</sup> WSDOT's LOS standard for SR 9 and SR 92 within the study area is LOS D.

Levels of service were determined using procedures in the *Highway Capacity Manual 2010*.<sup>6</sup> Delay calculations rely on equations that consider a number of variables. For example, delay at signalized intersections is determined based on a complex combination of variables including the quality of progression, cycle length, green ratio, and a volume-to-capacity ratio for the lane group or approach in question. Delay at unsignalized intersections is determined for vehicles that must stop or yield for oncoming traffic. That delay is related to the availability of gaps in the main street's traffic flow and the ability of a driver to enter or pass through those gaps. All level of service calculations were performed using the *Synchro 9.1* traffic operations analysis software. The software models reflect current intersection geometries and levels of service were reported using the *Synchro* module for signalized intersections and the *HCM 2010* module for unsignalized intersections. Signal timing information was provided by the Washington State Department of Transportation (WSDOT) and field verified by Heffron Transportation.

<sup>4</sup> City of Lake Stevens, Meeting Notes, 2015

<sup>5</sup> City of Lake Stevens, 2015 – 2035 Comprehensive Plan, September 22, 2015.

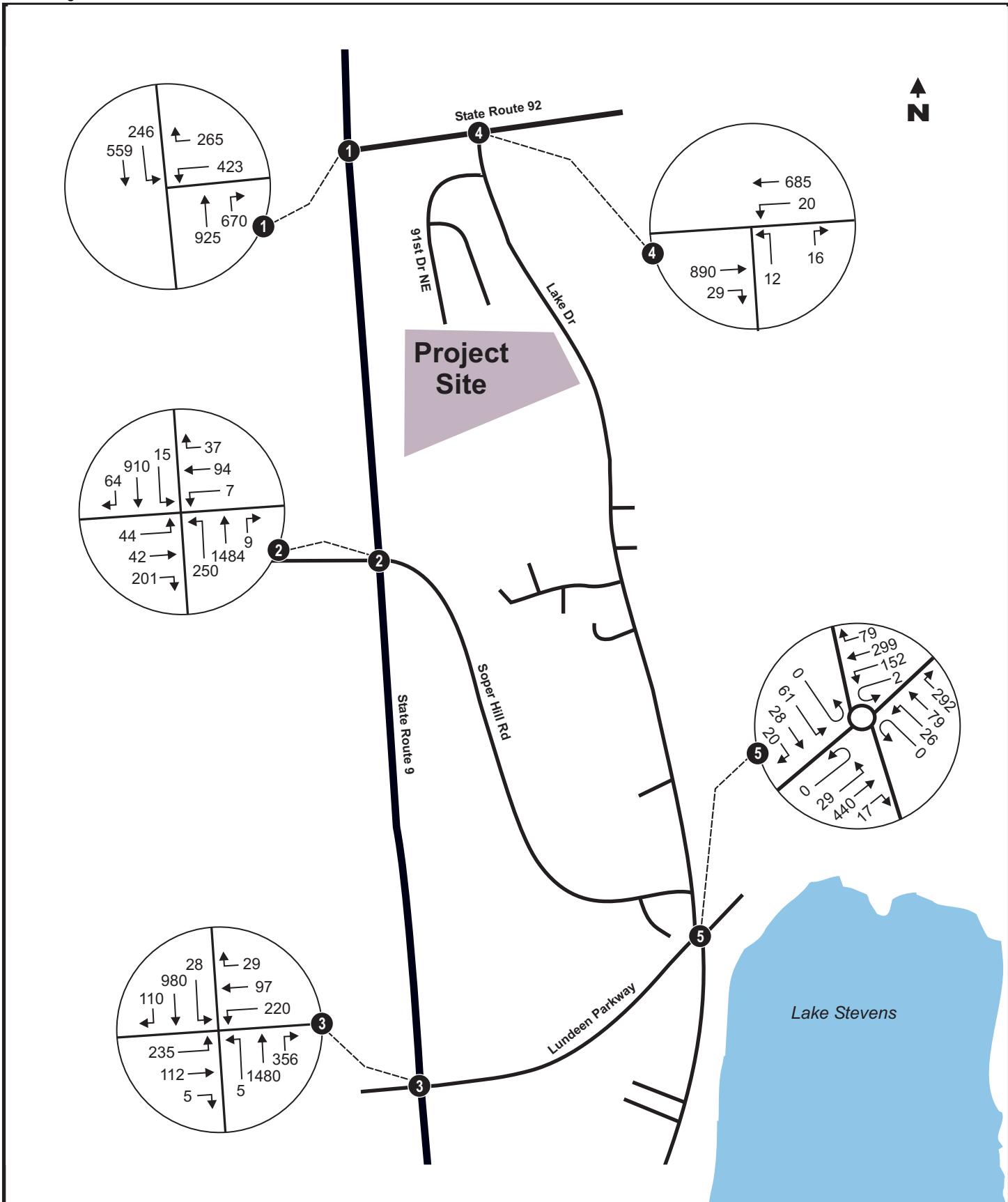
<sup>6</sup> HCM 2010, Transportation Research Board, 2010.



Lake Stevens School District  
New Elementary School &  
New Early Learning Center

Figure 3  
Existing (2015) Traffic Volumes  
Morning Peak Hour

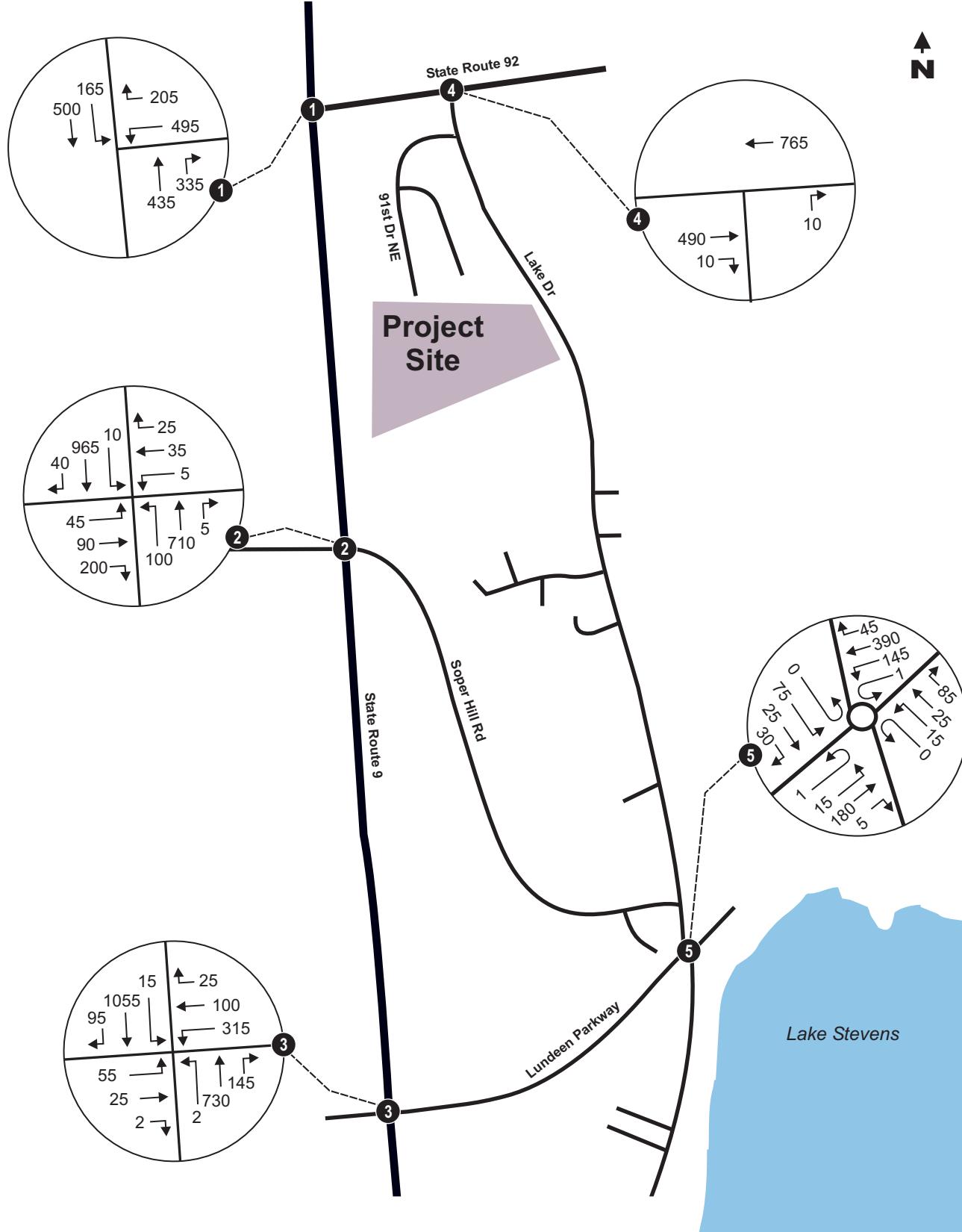
heffron  
transportation, inc.



Lake Stevens School District  
New Elementary School &  
New Early Learning Center

Figure 4  
Existing (2015) Traffic Volumes  
Afternoon Peak Hour

heffron  
transportation, inc.



Lake Stevens School District  
New Elementary School &  
New Early Learning Center

Figure 5  
Forecast 2017 Without-Project  
Traffic Volumes - Morning Peak Hour

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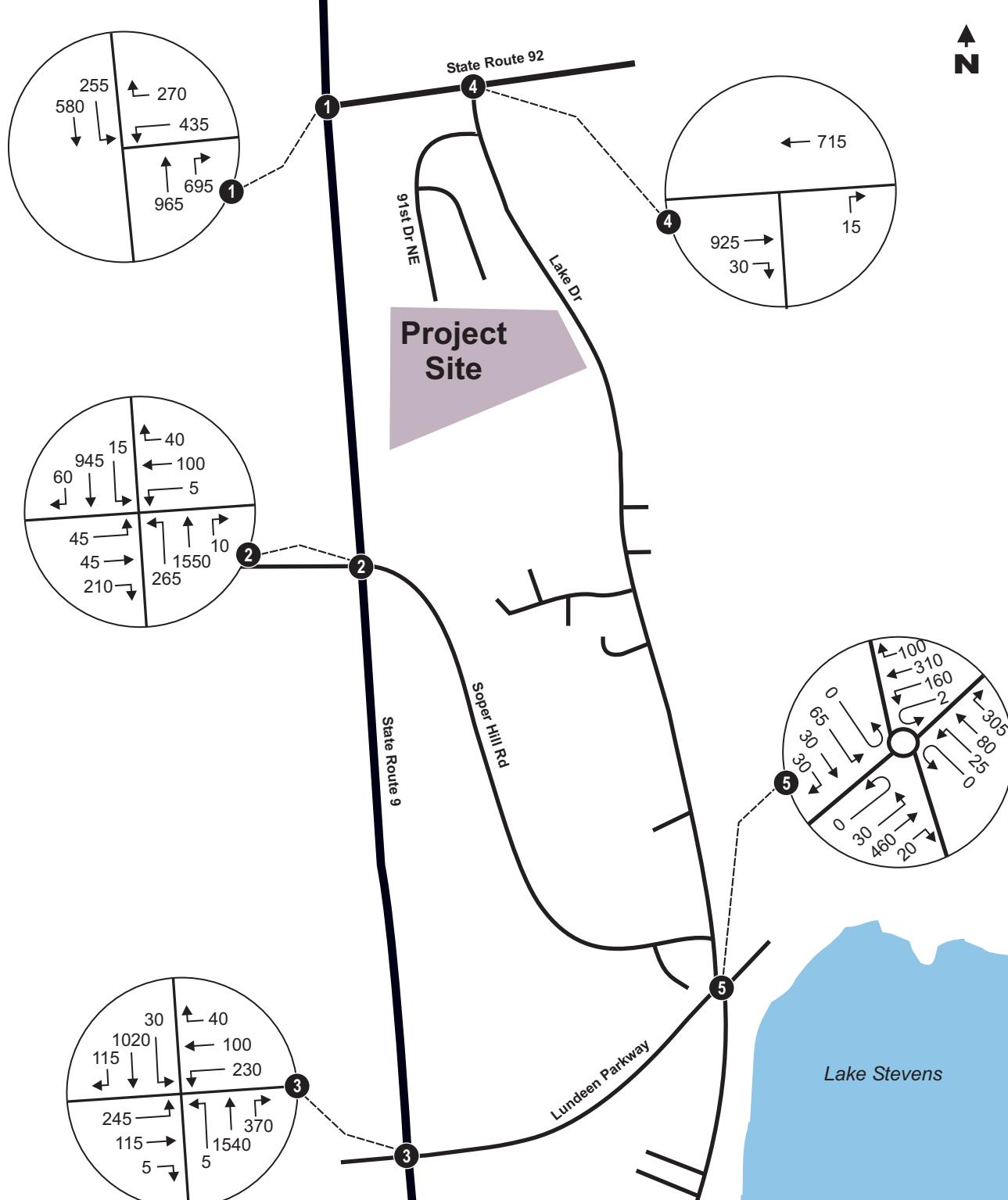


Table 1 summarizes existing (2015) and forecast 2017 levels of service without the proposed project for both the morning and afternoon peak hour conditions. As shown, the growth in background traffic is expected to add some delay to the study-area intersections, but all study area intersections would operate at or better than the City's and WSDOT's level of service standards in 2017 without the project. The level-of-service calculation sheets are included in Appendix C.

Table 1. Level of Service Summary – Existing (2015) and 2017-Without-Project Conditions

Intersections / Traffic Control	Morning Peak Hour (8:30–9:30 A.M.)				Afternoon Peak Hour (3:30-4:30 P.M.)			
	Existing (2015)		2017 w/o project		Existing (2015)		2017 w/o project	
	LOS <sup>1</sup>	Delay <sup>2</sup>	LOS	Delay	LOS	Delay	LOS	Delay
SR 9 / SR 92	B	19.7	C	20.4	C	31.2	C	33.8
SR 9 / Soper Hill Road	B	15.9	B	16.6	B	19.3	C	20.1
SR 9 / Lundein Parkway	B	15.7	B	15.9	C	24.3	C	26.2
Stop Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR 92 / Lake Drive (overall)	A	0.5	A	0.1	A	0.9	A	0.2
Northbound Turns	C	21.4	B	12.2	E	36.1	C	17.9
Westbound Left Turns	A	8.7	n/a <sup>3</sup>		B	10.2	n/a <sup>3</sup>	
Roundabout Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lundein Parkway / Lake Drive	A	9.3	B	10.0	C	16.3	C	18.4

Source: Heffron Transportation, Inc., December 2015.

1. LOS = Level of service.

2. Delay = Average seconds of delay per vehicle.

3. n/a = Not applicable; reflects plans by City of Lake Stevens and WSDOT to prohibit left turns to and from SR 92.

## 2.4. Traffic Safety

Collision data for the intersections and roadway segments surrounding the project site were obtained from WSDOT between January 1, 2012 and September 6, 2015 and are summarized in Table 2. As noted, two collisions involved fatalities—one on SR 9 south of Lundein Parkway and one on SR 92 at the Lake Drive intersection. Both records list driver inattention as contributing circumstances.

The intersections with the highest recorded collision rates are SR 9 / SR 92 and Lake Drive/Lundein Parkway, with average rates of 0.71 and 0.81 collisions per million entering vehicles (MEV), respectively. The average rates at the other study area intersections are below 0.7 per MEV. Typically, collision rates higher than 1.0 per MEV are considered to indicate potential safety issues. Therefore, these historical collision data do not indicate unusual safety conditions at study area intersections.

For the roadway segments, the collision rates are shown in terms of million vehicle miles (MVM) traveled. The highest rate occurred on Lake Drive between SR 92 and Lundein Parkway (1.11 per MVM); however, the number of collisions (5) and background traffic volumes are very low. Also, of the five collisions, four involved parked cars and one involved a collision with a roadside embankment. According to the WSDOT's 2013 Washington State Collision Data Summary, average collision rates on roadways in Snohomish County are over 2.1 per MVM. All other roadway segments had lower rates.

Table 2. Collision Summary (January 1, 2012 through September 6, 2015)

Intersection	Head-On	Rear-End	Side-Swipe	Right Turn	Left Turn	Right Angle	Ped / Cycle	Other <sup>a</sup>	Total for 3.7 Years	Avg./ Year	Acc./ MEV
SR 9 / SR 92	1	24	3	0	0	0	0	3	31	8.4	0.71
SR 9 / Soper Hill Road	0	24	0	1	3	1	0	3	32	8.7	0.69
SR 9 / Lundeen Parkway	0	15	2	3	1	3	0	4	28	7.6	0.52
Lake Drive / SR 92	2 <sup>b</sup>	9	0	0	0	0	0	0	11	3.0	0.47
Lake Drive / Lundeen Parkway	0	6	4	0	0	3	1	7	21	5.7	0.81
Roadway Segment	Head On	Rear-End	Side-Swipe	Right Turn	Left Turn	Right Angle	Ped / Cycle	Other <sup>a</sup>	Total for 3.7 Years	Avg./ Year	Acc./ MVM
SR 9 between SR 92 and Soper Hill Road	0	9	0	0	0	0	0	2	11	3.0	0.69
SR 9 between Soper Hill Rd & Lundeen Pkwy	0	6	2	0	0	0	0	5	13	3.5	0.53
SR 9 between Lundeen Pkwy and Milepost 16.33	0	3 <sup>b</sup>	0	0	0	0	0	2	5	1.4	0.74
SR 92 between SR 9 and Lake Drive	0	2	0	0	0	0	0	2	4	1.1	0.73
Lundeen Parkway between SR 9 and Lake Drive	0	0	0	0	0	0	0	1	1	0.3	0.18
Lake Drive between SR 92 and Lundeen Parkway	0	0	0	0	0	0	0	5	5	1.4	1.11

Source: Washington State Department of Transportation, December 2015.

a. Other collisions included vehicle hitting a parked vehicle or object, improper movement, defective vehicle, deer in the roadway, and overturned vehicles.

b. Include fatality collision. One on December 18, 2014 at SR 92/Lake Drive and one on April 19, 2015. Both records list driver inattention as contributing circumstances.

## 2.5. Transit Facilities and Service

Community Transit provides bus service near the project site. The closest bus stops are located at the Lundeen Parkway/ SR 9 intersection, about 0.6 mile to the south of the site. These stops are served by Route 280, which provides daily service between Everett and Granite Falls. On weekdays, the route operates from about 5:00 A.M. to 10:00 P.M. with headways (time between consecutive buses) of 30 minutes during peak periods and 60 minutes during off-peak periods. On Saturdays the route operates from about 7:00 A.M. to 9:00 P.M. with headways of 60 minutes; on Sundays the route operates from about 8:00 A.M. to 8:00 P.M. with 120 minute headways.

## 2.6. Non-Motorized Transportation Facilities

As described in the *Roadway Network* section, the sidewalk network is intermittent near the project site. There are no sidewalks on SR 9 or SR 92, and Lundeen Parkway and Soper Hill Road have sidewalks only to the west of SR 9. There is sidewalk along at least one side of the northern two-thirds of Lake Drive, but there are no sidewalks along the southern third of the roadway. Marked crosswalks with pedestrian-

actuated signals are present at all major crossings of SR 9 near the site, at SR 92 (north and east legs), Soper Hill Road (east, south, and west legs), and Lundeen Parkway (all legs). Marked crosswalks are present at the Lundeen Parkway/Lake Drive roundabout (all legs).

## 3. YEAR-OF-OPENING CONDITIONS ANALYSIS

This section of the report describes the conditions that would exist with the new schools operating at their planned enrollment capacities. The vehicle trip estimates associated with both schools were added to the 2017-without-project traffic volume forecasts to reflect year-of-opening conditions. Level of service analyses were performed to determine the proposed project's impact on traffic operations in the study area. The following sections describe the methodology used to determine the project's impacts.

### 3.1. Roadway Network

A portion of the new 29<sup>th</sup> Street NE roadway will be constructed between Lake Drive and the privately-owned parcel to the southwest of the project site. The new roadway will be dedicated as a public street and owned by the City of Lake Stevens. Site driveways for the proposed schools would connect to this new street. The intersection of the new 29<sup>th</sup> Street NE and Lake Drive is planned as a roundabout. For year-of-opening conditions, the west end of the new roadway would be constructed for the future connection to the west (at the time of development of the Kjorsvik property). The City is currently reviewing preliminary grading permit applications for the parcel to the southwest of the site to develop the land. This development would be required to build the final connection to the SR 9/Soper Hill Road intersection. As described previously, the year-of-opening analysis for the new schools assumes that the access road would not be connected in 2017, and all school access would occur to and from Lake Drive. In the longer-term (anticipated by 2019), most school-related traffic would use the new connection to the west, as evaluated in Chapter 4 Long-Term Conditions Analysis of this report.

An emergency-only access driveway is planned at the south terminus of the 91<sup>st</sup> Drive NE cul-de-sac. The access road would likely feature bollards so passenger traffic cannot utilize the access to the school. Additionally, frontage improvements on the west side of Lake Drive and both sides of the new roadway connection are expected to include curb, gutter, sidewalk, and landscaping.

### 3.2. Traffic Volumes

The proposed project would generate new vehicular, pedestrian, and bicycle activity on the surrounding transportation network. The new schools are expected to have enrollment capacities of 550 elementary school students and 100 ELC students during each of the morning and afternoon sessions. The following describes the assumptions used to determine the traffic anticipated from the proposed project.

#### 3.2.1. School Trip Generation

Trip generation estimates for the proposed elementary school were determined using rates published by the Institute of Transportation Engineers in its *Trip Generation Manual*.<sup>7</sup> After examining rates based on proposed enrollment capacity, building floor area, and expected staffing, the rates based on building floor area were selected. These result in the highest (worst-case) estimates of peak period traffic generation. The *Trip Generation Manual* does not include rates that are applicable to the proposed ELC. Therefore, trip

<sup>7</sup> ITE, 9th Edition, 2012.

estimates for this project component were developed based on the anticipated enrollment level (100 students on site at a time for the morning and afternoon half-day programs) and current transportation patterns at the District's existing ELC, located at 9317-4<sup>th</sup> Street SE in Lake Stevens. The ELC draws students district-wide and offers door-to-door bus transportation. Data from the District's transportation department indicate that roughly 73% of ELC students arrive on buses; the remaining students are assumed to be transported by parents in automobiles. These characteristics, combined with the planned staffing level of 20 employees, were used to estimate morning and afternoon peak hour trip generation. Although the start and dismissal times of the two programs may be staggered, this analysis assumes arrival and departure trips from both schools would occur in the same peak hours. Table 3 presents the estimated AM and PM peak hour trips generated by the project.

Table 3. Lake Stevens Schools Project – Trip Generation Estimates

Proposed Facility	Enrollment	Morning Peak Hour (8:30 to 9:30 A.M.)			Afternoon Peak Hour (3:30 to 4:30 P.M.)		
		In	Out	Total	In	Out	Total
Elementary School	550 students	220	170	390	105	130	235
Early Learning Center	100 students <sup>a</sup>	45	35	80	35	35	70
Total Combined for Site	650 students	265	205	470	140	165	305

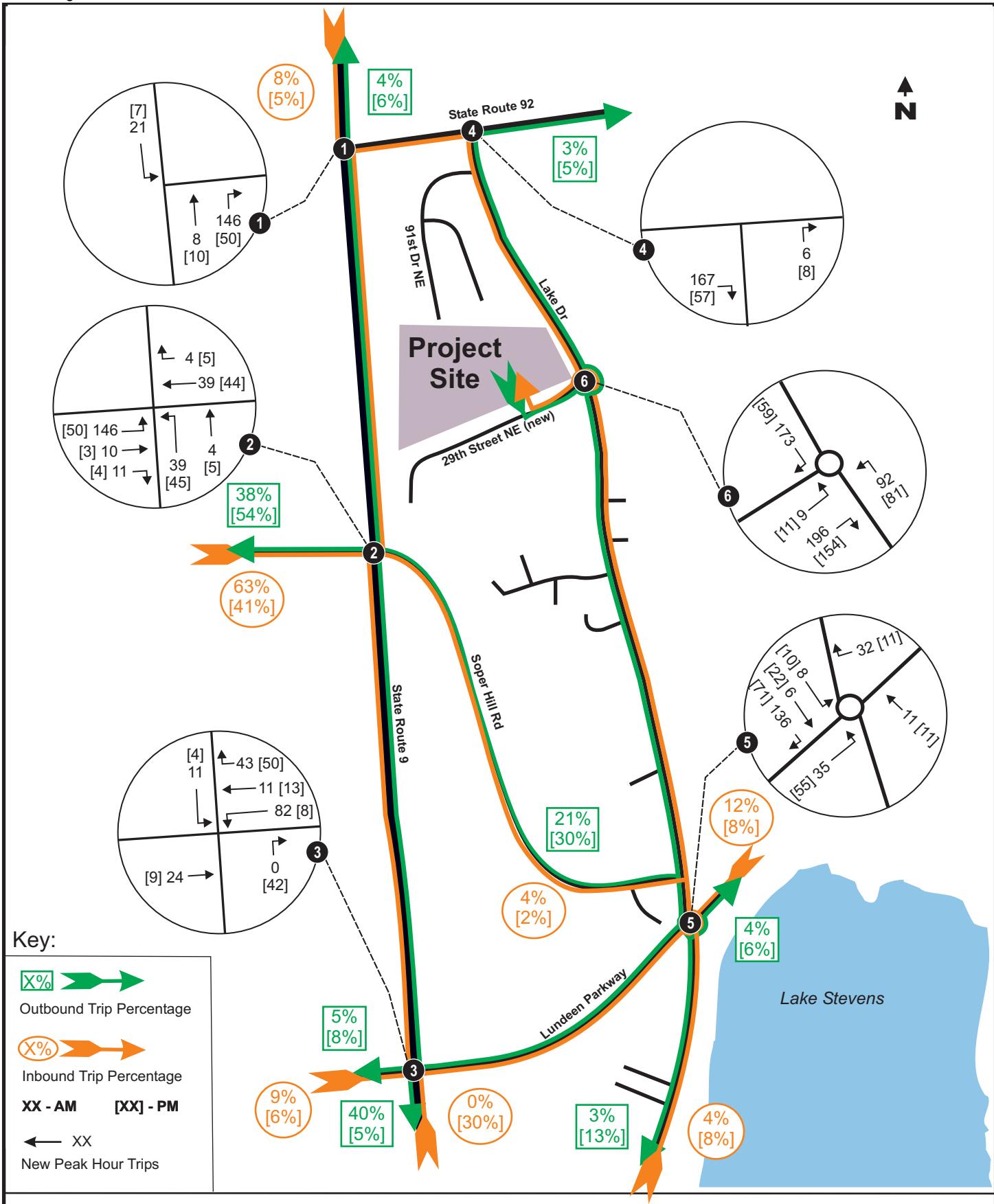
Source: Heffron Transportation, Inc., December 2015.

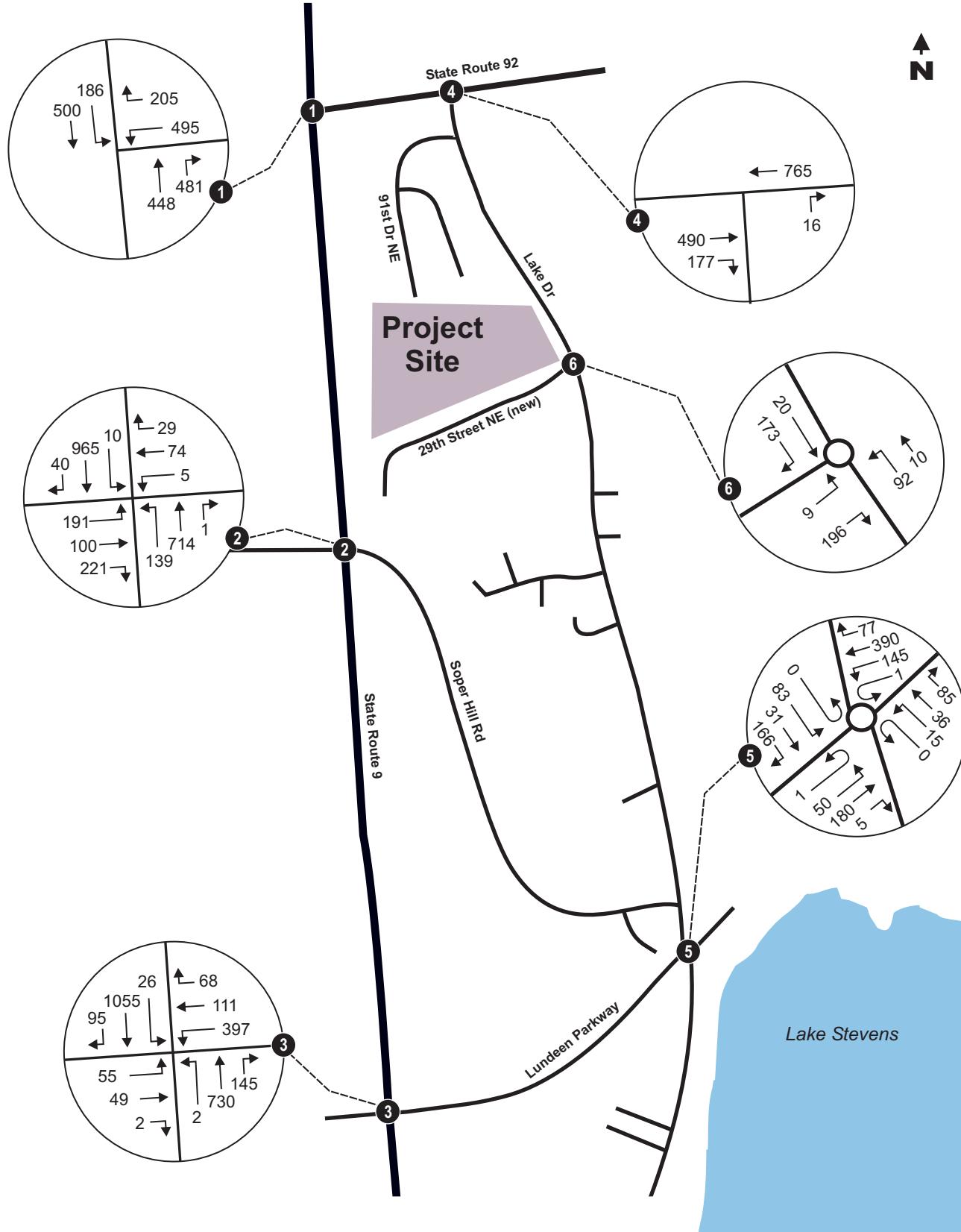
a. Total planned enrollment is 200 students, however only 100 students will be present on the site at a time

### 3.2.2. Trip Distribution & Assignment

The traffic estimates presented in Table 3 for the two schools were assigned to the local roadway network. The distribution patterns for morning and afternoon peak hour trips were estimated based on the anticipated draw area for students in both schools, and the typical peak period traffic patterns. Most of the morning and afternoon peak hour trips are expected to consist of parent vehicles (for student drop off and pick up) and school buses. Some trips also would be generated by teachers and staff.

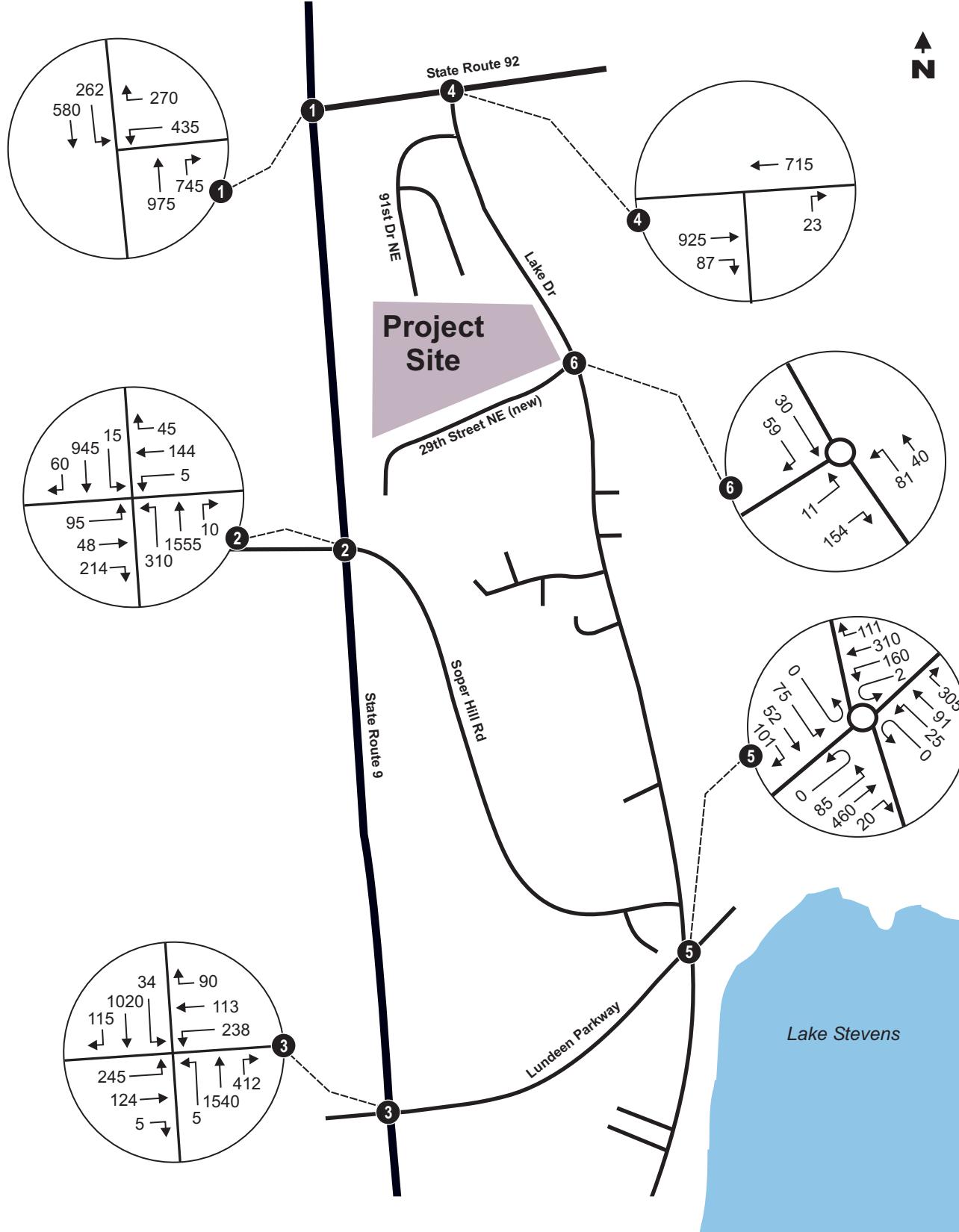
For year-of-opening conditions, all school-related traffic would approach the site using Lake Drive to access the newly built 29<sup>th</sup> Street NE and site driveways. The estimated project traffic distribution patterns and assignments of new trips are shown on Figure 7. The new peak hour school trips were added to the forecast 2017 without-project traffic volumes to represent future year-of-opening conditions with the two schools on the site. The forecast 2017 with-project morning and afternoon peak hour traffic volumes are shown on Figure 8 and Figure 9, respectively.





Lake Stevens School District  
New Elementary School &  
New Early Learning Center

Figure 8  
Forecast 2017 With-Project  
Traffic Volumes - Morning Peak Hour



### 3.3. Traffic Operations

Intersection levels of service for future with-project conditions were determined using the same methodology described previously for existing and future without-project conditions. The potential increases in school bus trips as well as the peaking characteristics of school traffic (peak school drop-off and pick-up activity primarily occurs during about 25 minutes of each analysis hour) have been accounted for in the operations analyses of the study area intersections.

Levels of service for the off-site study area intersections were calculated using the 2017-with-project traffic volumes. Table 4 shows the results of the analysis; levels of service for 2017-without-project conditions are shown for comparison. As shown, the additional traffic that would be generated by new schools would add some delay to study area intersections and turning movements during both the morning and afternoon peak hours, but all study-area intersections are expected to operate at LOS D or better and all of the study-area intersections are expected to meet LOS standards established by the City of Lake Stevens and WSDOT with the project. The level-of-service calculation sheets are included in Appendix C.

Table 4. Year-of-Opening Level of Service Summary – 2017-Without- and With-Project

Intersections / Traffic Control	Morning Peak Hour (8:30–9:30 A.M.)				Afternoon Peak Hour (3:30-4:30 P.M.)			
	2017 w/o project		2017 w/ project		2017 w/o project		2017 w/ project	
	LOS <sup>1</sup>	Delay <sup>2</sup>	LOS	Delay	LOS	Delay	LOS	Delay
SR 9 / SR 92	C	20.4	C	20.8	C	33.8	D	35.0
SR 9 / Soper Hill Road	B	16.6	C	26.3	C	20.1	C	24.9
SR 9 / Lundein Parkway	B	15.9	B	18.9	C	26.2	C	26.8
Stop Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR 92 / Lake Drive (overall)	A	0.1	A	0.2	A	0.2	A	0.3
Northbound Turns	B	12.2	B	12.6	C	17.9	C	18.6
Westbound Left Turns	n/a <sup>3</sup>		n/a <sup>3</sup>		n/a <sup>3</sup>		n/a <sup>3</sup>	
Roundabout Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lundein Parkway / Lake Drive	B	10.0	C	15.6	C	18.4	C	25.0
Lake Drive / New 29 <sup>th</sup> Street NE	n/a <sup>4</sup>		A	8.3	n/a <sup>4</sup>		A	7.3

Source: Heffron Transportation, Inc., December 2015.

1. LOS = Level of service.

2. Delay = Average seconds of delay per vehicle.

3. n/a = Not applicable; reflects plans by City of Lake Stevens and WSDOT to prohibit left turns to and from SR 92.

4. n/a = Not applicable; new access roadway would not be constructed without school project.

### 3.4. Site Access

#### 3.4.1. Driveway Operations

Separate on-site parking lots and on-site load/unload zones are proposed for each school. The site would be served by a total of three access driveways on the newly constructed roadway east of Lake Drive. The westernmost driveway would serve all trips destined to and from the ELC as well as all inbound school bus trips for both schools. The central access driveway would serve parent-vehicle and visitor trips for the new elementary school and the easternmost access driveway would serve all elementary school staff trips and all

existing school bus trips from both schools. Traffic operations analyses of the site access driveways indicate that all three driveways would operate at LOS A overall during both peak hours; turns to and from the driveways are projected to operate at LOS D or better. It is noted that the analyses assume both schools have concurrent start and dismissal times and that all traffic generated by each school would occur simultaneously. However, it is likely that the start times will be staggered and operations would be better than reported for this analysis.

### 3.4.2. On-Site Load/Unload

For parent-vehicle load/unload activities at the elementary school, the proposed site plan includes an on-site, curb-side load/unload zone surrounding the primary visitor parking lot. The load/unload zone is about 660 feet long and has room to accommodate about 33 vehicles simultaneously. During the morning arrival period, student drop-off requires very little time per vehicle (one to two minutes) and the majority of trips are spread out over the 10 to 15 minutes before the school start time (resulting in 10 to 20 vehicles per minute unloading during that time). As a result, the load/unload zone is expected to easily accommodate the volume of parent-vehicle drop-off activity on site.

During the afternoon, parents typically begin to arrive beginning about 10 to 15 minutes before dismissal and wait for students to exit the building. During this period, parents are expected to queue along the load/unload zone, use available parking stalls in the main parking lot (about 50 to 58 are likely to be available since the staff lot with 61 spaces should be able to accommodate all staff vehicles). In total, the on-site areas could accommodate up to 91 vehicles, which would represent nearly 98% of the total volume of arriving parent vehicles forecast for the entire afternoon peak hour. The District has coordinated with the City of Lake Stevens to include a parking lane on the north side of the new 29<sup>th</sup> Street NE roadway connection that would serve the school. This lane could be used as additional queue space for parents, if desired or necessary. There would be room for an additional 20 vehicles directly in front of the school, east of the elementary school's main access driveway.

Based on these analyses and the proposed school design, the on-site school-bus and passenger-car load/unload spaces are expected to be sufficient for the expected typical daily demand with little or no queue overspill to 29<sup>th</sup> Street NE. It is recognized that some variation will occur, since weather, student activity levels, and other factors can cause fluctuations in parent-vehicle load/unload activity.

As described, most students attending the ELC are expected to arrive at and depart the site in buses. However, some may be dropped off and picked up by parents. This activity is expected to occur within the on-site parking lot where 29 visitor parking spaces would be provided for this activity. These spaces are expected to accommodate the demand.

## 3.5. Parking Demand and Supply

The proposed elementary and ELC project would construct a total of 168 parking spaces including 49 at the ELC (20 spaces in the west staff lot and 29 visitor spaces in the main lot) and 119 at the elementary school (with 58 spaces in visitor lot and 61 spaces in the staff parking lot). In addition to the 168 on-site parking spaces proposed, the elementary school site would also include a parent-vehicle load/unload area with about 660-feet of curb-side load/unload space (room for about 33 vehicles) and the school-bus access loop and load/unload areas on the north side of the elementary school and west side of the ELC. The parent-vehicle load/unload area could be made available for event parking in the evenings or on weekends, bringing the total on-site parking capacity for evening and weekend events to about 200 spaces. The proposed new 29<sup>th</sup> Street NE roadway connection would be constructed with a parallel parking lane on the north side, which could provide 35 to 40 additional spaces for occasional event parking off site.

The City of Lake Stevens' parking requirements are outlined in Lake Stevens Municipal Code (LSMC) section 14.72.010 and specifically in Table 14.72.I. For elementary schools, the City requires 1.75 spaces for each classroom. The elementary school would have 26 general classrooms, one music room, and two special-education classrooms for a total of 29 classrooms; the ELC would have 10 classrooms. Based on City-code requirements, the elementary school would require a minimum of 51 parking spaces; the ELC would require a minimum of 18 parking spaces. The proposed 168 spaces (49 at the ELC and 119 at the elementary school) would exceed the minimum code requirements.

Peak period parking demand for the schools was estimated in two ways. First, rates based on projected staffing levels developed by Heffron Transportation for other elementary school throughout the region were applied. A midday parking demand rate of 1.23 vehicles per employee was derived and accounts for employees, parent volunteers, and other visitors that may be on-site midday. Using this rate, the two new schools with a projected total of 70 employees (50 at the elementary school and 20 at the ELC) would generate demand of 86 vehicles during the school day (peak demand typically occurs mid-morning).

A second method of estimating peak parking demand applies rates published in *Parking Generation*.<sup>8</sup> This reference indicates that the peak period parking demand rate for elementary schools is 0.17 vehicles per student (no rates based on employees or building area are available). Based on this rate, the proposed two schools with total on-site enrollment capacity of 650 students (550 at the elementary school and 100 at the ELC) would have a peak period parking demand of 111 vehicles. The proposed parking supply would be more than the minimum code requirement and would meet the estimated peak demand using both rates developed by Heffron Transportation at other northwest elementary schools and nationally published rates from the Institute of Transportation Engineers.

The new elementary school would have a gymnasium and commons area that could be used for events. Elementary schools typically host a few large events per year—such as music concerts, drama productions, and curriculum night. During large events, it is likely that all on-site parking, including the load/unload area would be filled. The planned parking on the north side of the new 29<sup>th</sup> Street NE roadway connection would also be available for overflow parking.

### 3.6. Traffic Safety

The collision data provided for the study area did not indicate any collision patterns that are anticipated to be adversely impacted by the proposed project. It is noted that the segment of Lake Drive south of the school site is relatively narrow with on-street parking and no pedestrian facilities. As a result pedestrians often walk within the travel way on this segment. The community concerns related to speed on this roadway suggest additional traffic calming measures should be considered for implementation prior to school opening. The installation of the new roundabout at the Lake Drive intersection with the new 29<sup>th</sup> Street NE roadway connection will likely serve to further calm traffic on Lake Drive. In addition, the implementation and enforcement of school-zone speed limits should also contribute to reduced speeds. Other measures that could be considered include speed humps, photo-enforced radar speed control, and/or additional physical measures such as chicanes or planters.

The Lake Stevens School District will continue to work with the City of Lake Stevens on measures to ensure traffic calming and safe walk routes for children attending the schools. With these measures, the project is not expected to result in adverse safety impacts.

<sup>8</sup> Institute of Transportation Engineers [ITE], 4<sup>th</sup> Edition, 2010

### 3.7. Transit

The nearest bus stops are located on SR 9 at Lundein Parkway and are located about 0.6 mile away from the site, and no new transit trips are likely to be generated by the project. Therefore, the project is not expected to result in adverse impacts to transit facilities or operations.

### 3.8. Non-Motorized Transportation Facilities

Some non-motorized trips are expected to be generated by the new schools. A number of students who live near the project site may choose to walk or bike to and from the site. In addition, community activities at the site (including recreational use and meetings) are likely to generate pedestrian and bicycle trips. The project proposal includes substantial improvements to pedestrian facilities and access along its site frontage, including a shared non-motorized facility along the north side of the new 29<sup>th</sup> Street NE roadway connection and sidewalk along the west side of its Lake Drive frontage. Overall, the project is expected to enhance the non-motorized facilities in the site area and accommodate the increased pedestrian activity that would result.

Prior to the school opening, the District should define walk routes and determine needs for signage, pavement markings, school zone speed limits, and/or crossing guard locations, and should work with the City of Lake Stevens to implement the measures that would occur within the City right-of-way (including speed enforcement). As part of that review, it would be appropriate to coordinate with the City to determine if added traffic calming measures, such as speed humps or additional traffic control, are needed ensure compliance with speed limits.

### 3.9. Short-term Impacts from Construction

Construction of the new buildings is planned to start in summer 2016 and last about 14 months until about September 2017 with the new schools planned to be complete for occupancy by fall of 2017. Construction would require approximately 135,700 cubic yards (cy) of excavation and 42,900 cy of fill. Approximately 28,400 cy of the excavated material may be re-used on the site. Total import and export for earthwork is estimated at 103,100 cy. The earthwork elements of construction are expected to last about six months. Assuming an average of 20-cubic yards per truck (truck/trailer combination), the import and export would generate about 5,155 truckloads (5,155 trucks in and 5,155 trucks out). During this activity, earthwork transport would correspond to about 43 truckloads per day and an average of five per hour (five in and five out) during a typical eight-hour construction work day. Truck trips associated with project construction are expected to access the site using Lake Drive and the newly constructed 29<sup>th</sup> Street NE. This volume of truck traffic would be noticeable to local residents that regularly use Lake Drive; however, the volume of truck traffic is not expected to result in adverse impacts to traffic operations.

The construction of the project would also generate employee and equipment trips to and from the site. It is anticipated that construction workers would arrive at the construction site before the AM peak traffic period on local area streets and depart the site prior to the PM peak period; construction work shifts for schools are usually from 7:00 A.M. to 3:30 P.M., with workers arriving between 6:30 and 6:45 A.M. The number of workers at the project site at any one time would vary depending upon the construction element being implemented. Parking for construction personnel would be provided within the site.

## 4. LONG-TERM CONDITIONS ANALYSIS

As described previously, the project would construct the eastern portion of the new 29<sup>th</sup> Street NE connection, to the west of Lake Drive. The future connection of this roadway west to SR 9 at Soper Hill Road would occur as part of private development of the Kjorsvik parcels adjacent to the SR 9/Soper Hill Road intersection. Since this is the planned ultimate configuration of the roadway network that would serve the project site, it has been evaluated as the long-term condition. Based on coordination between the Lake Stevens School District and the adjacent property owners, the 29<sup>th</sup> Street NE roadway connection is anticipated to be complete by 2019. Therefore, 2019 was selected as the analysis year for the long-term condition. This section focuses on the long-term operational school-related impacts at the study-area intersections, site access, and safety conditions; parking and load/unload activities are expected to be identical to the 2017 year-of-opening conditions previously evaluated.

### 4.1. Long-Term Roadway Network

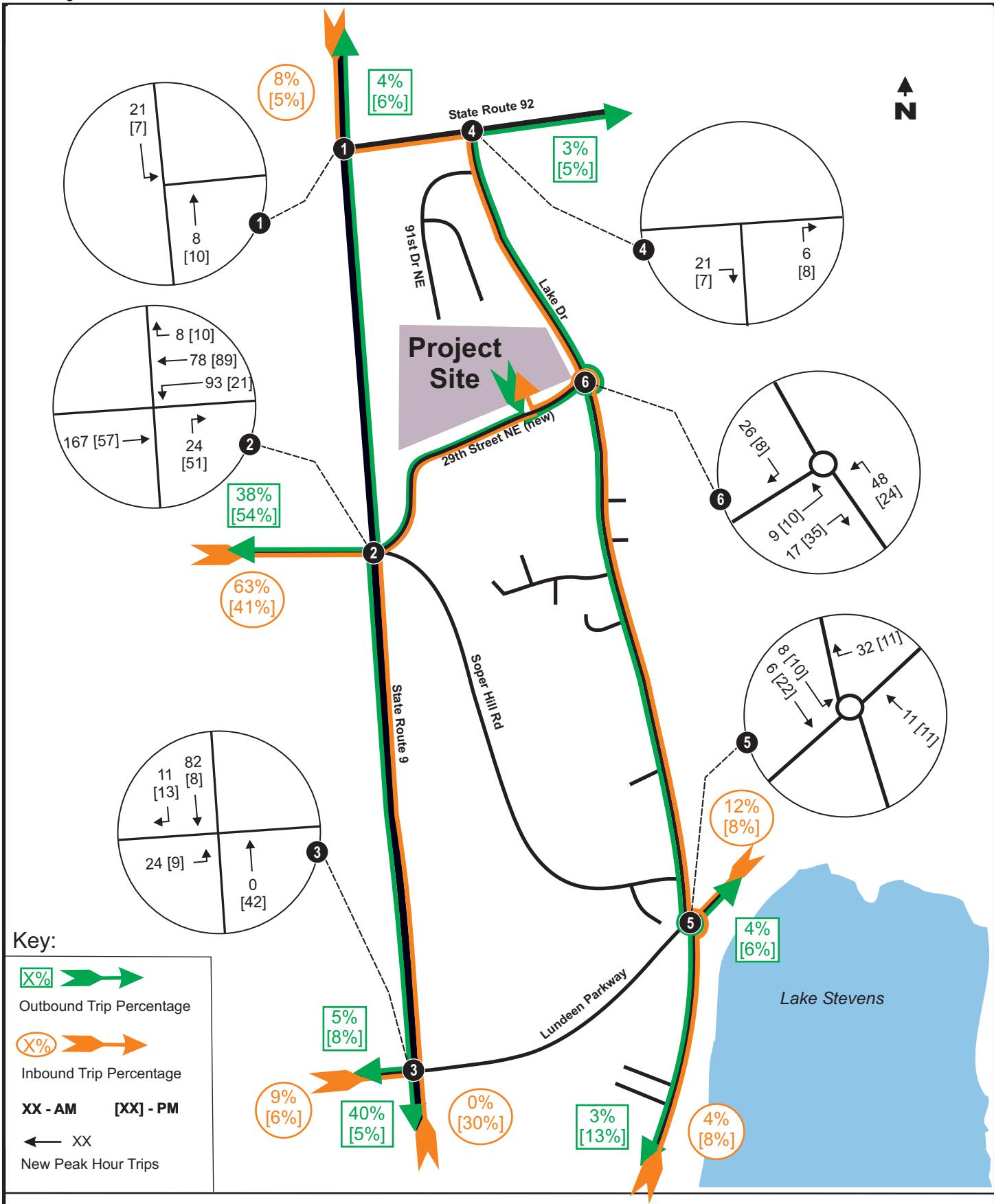
The new 29<sup>th</sup> Street NE roadway connection southwest of the new schools to the SR 9/Soper Hill Road intersection would be completed concurrent with the development of the 11-acre Kjorsvik parcels located just northeast of the intersection. Preliminary planning by the City of Lake Stevens has indicated that access changes at the future Soper Hill Road intersection with the new 29<sup>th</sup> Street NE roadway connection are expected. The City anticipates that Soper Hill Road may either be designated as one-way northbound or access could be limited to northbound only at that intersection. Therefore, forecasts for 2019 were developed to account for this planned change.

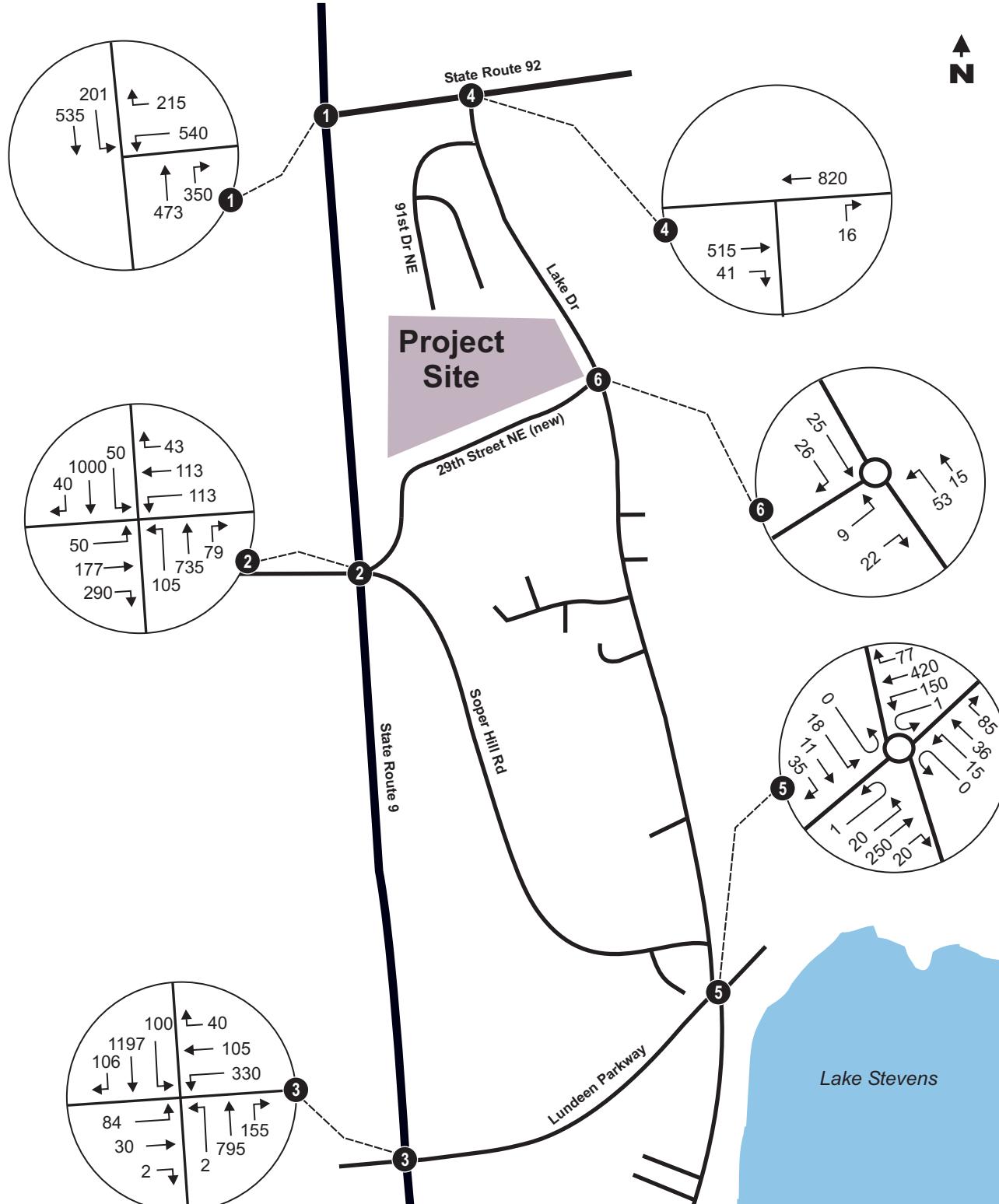
Other than the roadway extension of the new 29<sup>th</sup> Street NE southwest to the Soper Hill Road intersection with SR 9, the access changes for Soper Hill Road, and the left-turn restriction at SR 92/Lake Drive (described previously), no other roadway network changes are assumed for this long-term analysis. Intersection channelization and signal operations at the SR 9/Soper Hill Road intersection were assumed to remain unchanged. Since channelization and signal operations changes could be required to accommodate the development of the Kjorsvik properties, this reflects a worst-case condition to evaluate the potential school-related impacts.

### 4.2. Forecast Long-Term (2019) Traffic Volumes

To estimate year 2019 traffic volumes in the site vicinity, the 2% compound annual growth rate described previously was applied for two additional years. In addition, although the size and type of all development that may be constructed on the Kjorsvik property is currently unknown (there is a current proposal for a new ARCO fuel station on part of the site), traffic estimates were developed to reflect potential use of these parcels and “pipeline” development traffic in the study area. Trip estimates for three development scenarios—a retail shopping center, a medical/dental office building, and an automobile sales and service facility—were developed based on the estimated developable area of the site.<sup>9</sup> The averages of trip estimates for the three scenarios (150 morning peak hour trips, and 325 afternoon peak hour trips) were added to reflect 2019 without project conditions. Traffic estimates for the two schools were re-assigned assuming the connection of 29<sup>th</sup> Street NE to the SR 9/Soper Hill Road intersection. With the new roadway connection, it is expected that roughly 75% of all school traffic will arrive and depart the site to and from the southwest using the new connection to the SR 9/Soper Hill Road intersection. The project traffic distributions and assignments of peak hour school trips are shown on Figure 10. The re-assigned project trip assignments were added to the forecast 2019-without-project forecasts to represent 2019 conditions with the two schools. The resulting forecasts are shown on Figure 11 and Figure 12, respectively.

<sup>9</sup> Source: Shockey Planning Group, estimated range of land development types and sizes, December 2015.

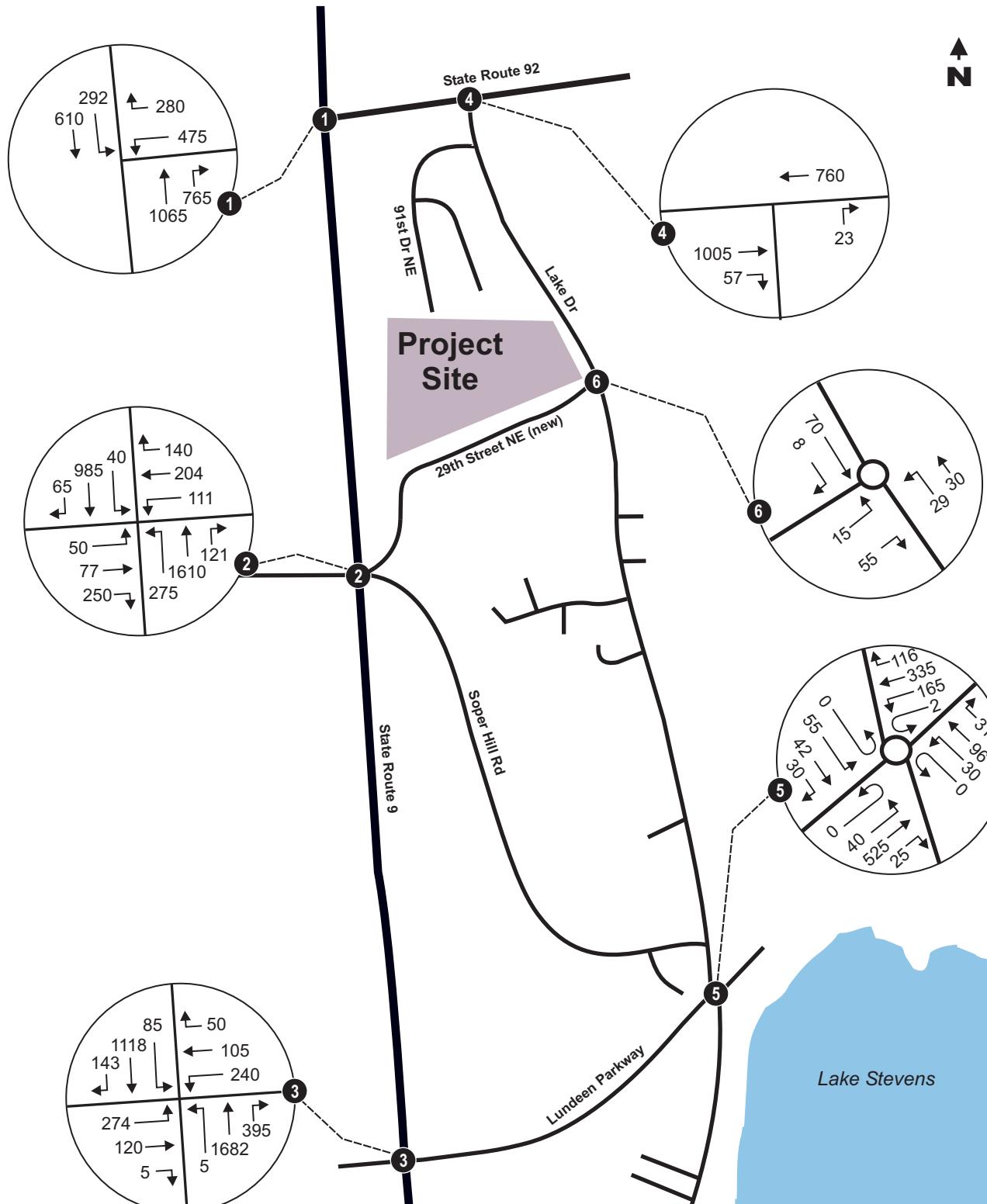




Lake Stevens School District  
New Elementary School &  
New Early Learning Center

Figure 11  
Forecast 2019 With-Project  
Traffic Volumes - Morning Peak Hour

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transportation, inc.



## 4.3. Long-Term Traffic Operations

Intersection levels of service for long-term conditions were determined using the same methodology described previously. Table 5 shows the results of the analysis; levels of service for 2019-without-project conditions are shown for comparison. As shown, the additional traffic that would be generated by new schools would add some delay to study area intersections and turning movements during both the morning and afternoon peak hours. All study-area intersections are still expected to operate at LOS D or better. As would be expected, the largest increases in delay are projected at the SR 9/Soper Hill Road intersection; however, it would still operate at LOS D or better. With the project, all of the study-area intersections are expected to meet LOS standards established by the City of Lake Stevens and WSDOT.

Table 5. Long-Term Level of Service Summary – 2019-Without- and With-Project

Intersections / Traffic Control	Morning Peak Hour (8:30–9:30 A.M.)				Afternoon Peak Hour (3:30-4:30 P.M.)			
	2019 w/o project		2019 w/ project		2019 w/o project		2019 w/ project	
	LOS <sup>1</sup>	Delay <sup>2</sup>	LOS	Delay	LOS	Delay	LOS	Delay
SR 9 / SR 92	C	22.3	C	23.0	D	45.4	D	47.1
SR 9 / Soper Hill Road	C	20.6	C	30.8	D	36.7	D	50.5
SR 9 / Lundein Parkway	C	22.6	C	23.4	C	34.8	D	35.6
Stop Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
SR 92 / Lake Drive (overall)	A	0.1	A	0.2	A	0.2	A	0.3
Northbound Turns	B	12.5	B	12.9	C	19.6	C	20.3
Westbound Left Turns	n/a <sup>3</sup>		n/a <sup>3</sup>		n/a <sup>3</sup>		n/a <sup>3</sup>	
Roundabout Controlled	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Lundein Parkway / Lake Drive	B	10.5	B	11.5	C	23.8	D	26.9
Lake Drive / New 29 <sup>th</sup> Street NE	n/a <sup>4</sup>		A	4.5	n/a <sup>4</sup>		A	4.8

Source: Heffron Transportation, Inc., December 2015.

1. LOS = Level of service.

2. Delay = Average seconds of delay per vehicle.

3. n/a = Not applicable; reflects plans by City of Lake Stevens and WSDOT to prohibit left turns to and from SR 92.

4. n/a = Not applicable; new access roadway would not be constructed without school project.

It is acknowledged that with the development of the Kjorsvik property and the connection of the new roadway to the SR 9/Soper Hill Road intersection, WSDOT and/or the City of Lake Stevens may require channelization or signal operational changes to accommodate the increases in traffic and changes to local travel patterns. For example, the east and west approaches may need to be widened and reconfigured to accommodate separate left-turn, through, and right-turn lanes. With the signal modifications that could also be required for these types of changes, the intersection is expected to operate at LOS C during morning and afternoon peak hours.

## 4.4. Long-Term Site Access

Traffic operations analyses of the site access driveways with the long-term condition and about 75% of school traffic destined to and from the southwest, indicate that all three driveways would operate at LOS A overall during both peak hours; turns to and from the driveways are projected to operate at LOS B or better with this long-term condition.

## 4.5. Long-Term Traffic Safety

With the long-term configuration of the new 29<sup>th</sup> Street NE roadway connection, the volume of school-related traffic using Lake Drive would be substantially reduced and safety conditions would be further improved. The project is not expected to result in any adverse safety impacts in the long-term.

# 5. MITIGATION AND RECOMMENDATIONS

As outlined in the City of Lake Stevens Municipal Code: “*Any new development activity shall mitigate the development’s impacts on the City’s street system either by payment of an amount calculated pursuant to Section 14.112.080, or by dedication of land pursuant to Section 14.112.090, by construction of off-site street system capacity improvements pursuant to Section 14.112.090, or as otherwise provided in Section 14.112.070.*” The following outlines the mitigation requirements for the proposed project.

## 5.1. Right-of-Way Dedication, Roadway Construction, and Improvements

The City of Lake Stevens will require dedication of right-of-way and construction of the following improvements.

**New 29<sup>th</sup> Street NE Roadway Connection** – The roadway would be constructed according to City standards with 30-feet of pavement for two travel lanes (one in each direction), and one 8-foot parallel parking lane, a 6-foot wide limited use sidewalk, and a 4.5-foot wide landscape area on the north side. A future a 6-foot wide limited use sidewalk and a 4.5-foot wide landscape area on the south side would be constructed with any future development of the District’s property on the south side of the new roadway connection.

**Lake Drive Frontage** – The roadway would be widened to provide an 8-foot parallel parking lane and a 5-foot wide sidewalk on the west side of the street.

## 5.2. Traffic Impact Fees

The City of Lake Stevens collects traffic impact fees for new development. Based on the *Traffic Impact Fee Determination Worksheet* (included in Appendix B), the proposed project with a total of 95,000-sf of new building area (75,000-sf elementary school and 20,000-sf ELC) would have a total fee of \$335,455. However, Lake Stevens Municipal Code Section 14.112.080(d) states:

*(d) The City Council shall have the authority to adjust the amount of the impact fees pursuant to RCW 82.02.060(2) to reflect other public benefits resulting from proposed development or redevelopment in accordance with specific programs as determined and adopted by the City Council. Public benefits and/or broad public purposes for adjustments primarily include the economic development goals*

*identified in the City's Comprehensive Plan related to job creation and growth of new retail sales tax receipts. The City Council shall identify the public funding source other than impact fees collected to compensate for any reductions in impact fees pursuant to this provision.*

The dedication of right-of-way and construction of the new 29<sup>th</sup> Street NE roadway connection east of Lake Drive would provide substantial public benefits consistent with the City's economic development goals. The new connection would enhance east-west mobility and the development viability of the vacant property to the southwest at the SR 9/Soper Hill Road intersection, which would contribute to job creation and growth of retail sales. Therefore, it is reasonable that the costs of right-of-way and/or the construction costs of the new 29<sup>th</sup> Street NE roadway connection be credited against the traffic impact fee amount. Based on the preliminary cost estimates for the roadway connection, those costs would far exceed the impact fee amount due. Therefore, no impact fees should be required for the proposed school project.

### 5.3. Operational Recommendations

The following recommendations relate to operational measures that should be implemented by the Lake Stevens School District to minimize the traffic and parking impacts of the proposed schools.

- A. Prior to the school opening, the District should define walk routes and determine needs for signage, pavement markings, school zone speed limits, and/or crossing guard locations. The District should work with the City of Lake Stevens to implement those measures that would occur within the City right-of-way (including speed enforcement).
- B. The District should coordinate with the City of Lake Stevens to determine if added traffic calming measures, such as speed humps or additional traffic control, are needed along adjacent roadways to ensure compliance with speed limits.
- C. The District and school administration should develop a neighborhood communication plan to inform nearby neighbors of events each year. The plan should be updated annually (or as events are scheduled) and should provide information about the dates, times, and rough magnitude of attendance. The communication would be intended to allow neighbors to plan for the occasional increases in evening or weekend traffic volumes that would occur with large events.
- D. The District should ensure that large events are not held at both schools concurrently and that parking lots and pedestrian walkways at both sites are open and available for sharing during large events at both schools.
- E. The District will require the selected contractor to develop a construction management plan (CMP) that addresses traffic and pedestrian control during school construction. It will define truck routes, lane closures, walkway closures, and parking disruptions, as necessary. To the extent possible, the CMP will direct trucks along the shortest route to arterials and away from residential streets to avoid unnecessary conflicts with resident and pedestrian activity. The CMP may also include measures to keep adjacent streets clean on a daily basis at the truck exit points (such as street sweeping or on-site truck wheel cleaning) to reduce tracking dirt offsite. It should also include measures to monitor truck impacts to pavement on Lake Drive and repair any truck-related damage that results from construction transportation activities. The CMP should also identify parking locations for the construction staff; construction employee parking should be contained on-site.

## APPENDIX A

### Level of Service Definitions

Levels of service (LOS) are qualitative descriptions of traffic operating conditions. These levels of service are designated with letters ranging from LOS A, which is indicative of good operating conditions with little or no delay, to LOS F, which is indicative of stop-and-go conditions with frequent and lengthy delays. Levels of service for this analysis were developed using procedures presented in the *Highway Capacity Manual* (Transportation Research Board, 2010).

Level of service for signalized intersections is defined in terms of delay. Delay can be a cause of driver discomfort, frustration, inefficient fuel consumption, and lost travel time. Specifically, level of service criteria are stated in terms of the average delay per vehicle in seconds. Delay is a complex measure and is dependent on a number of variables including: the quality of progression, cycle length, green ratio, and a volume-to-capacity ratio for the lane group or approach in question. Table A-1 shows the level of service criteria for signalized intersections from the *Highway Capacity Manual*.

Table A-1. Level of Service Criteria

Level of Service	Average Delay Per Vehicle	General Description
A	Less than 10.0 Seconds	Free flow
B	10.1 to 20.0 seconds	Stable flow (slight delays)
C	20.1 to 35.0 seconds	Stable flow (acceptable delays)
D	35.1 to 55.0 seconds	Approaching unstable flow (tolerable delay—occasionally wait through more than one signal cycle before proceeding.)
E	55.1 to 80.0 seconds	Unstable flow (approaching intolerable delay)
F	Greater than 80.0 seconds	Forced flow (jammed)

Source: *Transportation Research Board, Highway Capacity Manual, 2010*.

For unsignalized two-way-stop-controlled, all-way-stop-controlled, and roundabout intersections, level of service is based on the average delay per vehicle. The level of service for a two-way, stop-controlled intersection is determined by the computed or measured control delay and is defined for each minor movement. Delay is related to the availability of gaps in the main street's traffic flow, and the ability of a driver to enter or pass through those gaps. The delay at an all-way, stop-sign (AWSC) controlled intersection is based on saturation headways, departure headways, and service times. Delay at roundabouts is based on entry flow rates and flow rate capacity. Table A-2 shows the level of service criteria for unsignalized intersections from the *Highway Capacity Manual*.

Table A-2. Level of Service Criteria for Unsignalized Intersections

Level of Service	Average Delay (seconds per vehicle)
A	Less than 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

Source: *Transportation Research Board, Highway Capacity Manual, 2010*.

## APPENDIX B

# Traffic Impact Fee Determination Worksheet

## City of Lake Stevens - Traffic Impact Fee Determination Worksheet

Name of Development: Lake Stevens School District's New Elementary & Early Learning Center

Date Prepared: Nov. 12, 2015 Prepared by: T. McBryan, PE - Heffron Transp.

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### Base Impact Fee Calculation

1. Land use: Elementary School (75,000 sf) & Early Learning Center (20,000 sf) (1)

2. PM Peak Hour Trip Number from latest edition of ITE Trip Generation Manual

Code: <span style="border: 1px solid black; padding: 2px;">520</span>	Average Trip Generation Rate 1.21 trips / 1,000 sf	$1.21 \times 95 = 115$ trips <span style="border: 1px solid black; padding: 2px;">(2)</span>
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3. Pass-by Trip reduction

Percentage from Table T-1 <span style="border: 1px solid black; padding: 2px;">0 %</span>	percentage x (2) <span style="border: 1px solid black; padding: 2px;">0 trips</span> <span style="border: 1px solid black; padding: 2px;">(3)</span>
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4. Total new Peak Hour Trips

$(2) - (3)$ <span style="border: 1px solid black; padding: 2px;">115 trips</span> <span style="border: 1px solid black; padding: 2px;">(4)</span>
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5. Traffic Impact Zone (TIZ) Per Trip Fee: see Figure 1 for map of TIZ

TIZ 1 = \$2,039	TIZ 2 & TIZ 3 = \$2,917	Per Trip Fee: <span style="border: 1px solid black; padding: 2px;">\$2,917</span> <span style="border: 1px solid black; padding: 2px;">(5)</span>
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### 6. Calculated Base Impact Fee

$(4) \times (5)$ <span style="border: 1px solid black; padding: 2px;">\$335,455</span> <span style="border: 1px solid black; padding: 2px;">(6)</span>
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**Offsite System Improvements** – Credits for offsite transportation improvements may be given when the improvements are portions of a project identified in the City's Capital Facility Plan used in the determination of the Traffic Impact Fee "per trip fee." City staff can provide a list of the system projects. The determination of a credit is based on City approved costs estimates provided by the Developer's site engineer. A credit for offsite system improvements cannot be greater than the Calculated Base Impact Fee.

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### State Environmental Policy Act (SEPA) – excerpt from City Municipal Code

#### 14.112.070 Relationship to the State Environmental Policy Act (SEPA).

This chapter establishes minimum impact fees, applied to all developments. These fees are presumed to mitigate traffic demand on the capacity of the city street system. However, each development shall be reviewed and be subject to the substantive authority of SEPA for potential adverse traffic impacts on the street system not mitigated by this fee.

## APPENDIX C

### Level of Service Calculation Sheets

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Existing (2015) School AM Peak Hour  
Lanes, Volumes, Timings**

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	481	201	419	320	159	481
Future Volume (vph)	481	201	419	320	159	481
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	1455	1610	1369	3303	3406
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	1455	1610	1369	3303	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		216		170		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	11%	11%	18%	18%	6%	6%
Adj. Flow (vph)	517	216	451	344	171	517
Shared Lane Traffic (%)						
Lane Group Flow (vph)	517	216	451	344	171	517
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	50.0	50.0	50.0	50.0	20.0	70.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	45.0	45.0	43.5	45.0	14.5	63.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	23.7	23.7	30.1	60.7	9.7	45.7
Actuated g/C Ratio	0.29	0.29	0.37	0.74	0.12	0.56
v/c Ratio	0.56	0.38	0.76	0.32	0.44	0.27
Control Delay	28.3	5.9	32.8	2.4	40.9	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr**  
**3: SR 9 & SR 92**

**Existing (2015) School AM Peak Hour**  
**Lanes, Volumes, Timings**



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	28.3	5.9	32.8	2.4	40.9	10.1
LOS	C	A	C	A	D	B
Approach Delay	21.7		19.6			17.7
Approach LOS	C		B			B
Queue Length 50th (ft)	111	0	194	19	42	66
Queue Length 95th (ft)	202	53	379	47	92	120
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	1842	939	908	1326	621	2705
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.28	0.23	0.50	0.26	0.28	0.19

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 81.5

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 19.7

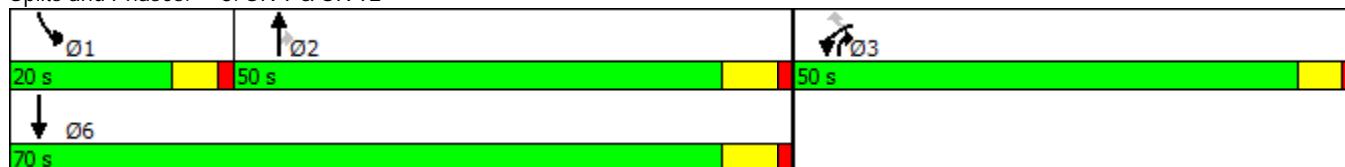
Intersection LOS: B

Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Existing (2015) School AM Peak Hour  
Lanes, Volumes, Timings**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	85	190	3	33	22	93	676	1	8	926	41
Future Volume (vph)	45	85	190	3	33	22	93	676	1	8	926	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.949							0.850
Flt Protected		0.983			0.998		0.950			0.950		
Satd. Flow (prot)	0	1813	1568	0	1636	0	2968	3059	0	1671	3343	1495
Flt Permitted		0.860			0.982		0.950			0.950		
Satd. Flow (perm)	0	1586	1568	0	1610	0	2968	3059	0	1671	3343	1495
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					23							69
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	10%	10%	10%	18%	18%	18%	8%	8%	8%
Adj. Flow (vph)	48	90	202	3	35	23	99	719	1	9	985	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	138	202	0	61	0	99	720	0	9	985	44
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	55.0		20.0	55.0	55.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		16.7%	45.8%		16.7%	45.8%	45.8%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	48.5		14.9	48.5	48.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0		0.0			0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5		5.5			5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		11.3	23.8		11.3		7.2	40.9		5.2	30.0	30.0
Actuated g/C Ratio		0.17	0.36		0.17		0.11	0.62		0.08	0.45	0.45
v/c Ratio		0.51	0.36		0.21		0.31	0.38		0.07	0.65	0.06
Control Delay		34.7	19.4		20.5		33.9	8.1		36.2	16.6	1.6
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Existing (2015) School AM Peak Hour  
Lanes, Volumes, Timings**

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		34.7	19.4		20.5		33.9	8.1		36.2	16.6	1.6
LOS		C	B		C		C	A		D	B	A
Approach Delay		25.6			20.5			11.2			16.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)		50	57		13		19	58		3	149	0
Queue Length 95th (ft)		124	138		51		51	163		20	258	9
Internal Link Dist (ft)		400			150			3141			2180	
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)	986	975		1009			696	2333		392	2550	1156
Starvation Cap Reductn	0	0		0			0	0		0	0	0
Spillback Cap Reductn	0	0		0			0	0		0	0	0
Storage Cap Reductn	0	0		0			0	0		0	0	0
Reduced v/c Ratio	0.14	0.21		0.06			0.14	0.31		0.02	0.39	0.04

**Intersection Summary**

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 66.4

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.65

Intersection Signal Delay: 15.9

Intersection LOS: B

Intersection Capacity Utilization 56.8%

ICU Level of Service B

Analysis Period (min) 15

**Splits and Phases: 7: SR 9 & Soper Hill Road**



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Existing (2015) School AM Peak Hour  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	51	26	2	303	97	16	2	703	140	14	1015	90
Future Volume (vph)	51	26	2	303	97	16	2	703	140	14	1015	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00		0.98	1.00		0.98
Fr <sub>t</sub>		0.990				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3436	0	3400	1845	1568	1597	3195	1429	1719	3438	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3436	0	3400	1845	1568	1596	3195	1398	1718	3438	1502
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		2				132			173			173
Link Speed (mph)	35			35			55			55		
Link Distance (ft)	346			353			991			3221		
Travel Time (s)	6.7			6.9			12.3			39.9		
Confl. Peds. (#/hr)						2			1	1		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	13%	13%	13%	5%	5%	5%
Adj. Flow (vph)	53	27	2	316	101	17	2	732	146	15	1057	94
Shared Lane Traffic (%)												
Lane Group Flow (vph)	53	29	0	316	101	17	2	732	146	15	1057	94
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	
Switch Phase												6
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	10.0	40.0		20.0	40.0	40.0	10.0	50.0	50.0	10.0	50.0	50.0
Total Split (%)	8.3%	33.3%		16.7%	33.3%	33.3%	8.3%	41.7%	41.7%	8.3%	41.7%	41.7%
Maximum Green (s)	4.5	34.5		14.5	34.5	34.5	4.5	43.5	43.5	4.5	43.5	43.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5	4.5
Recall Mode	None	None		None	None	None	Min	Min	None	Min	Min	
Walk Time (s)	7.0			7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	25.0			25.0	25.0		25.0	25.0		25.0	25.0	
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	
Act Effct Green (s)	4.9	6.0		13.5	12.1	12.1	4.9	32.3	32.3	4.9	32.3	32.3
Actuated g/C Ratio	0.08	0.09		0.21	0.19	0.19	0.08	0.50	0.50	0.08	0.50	0.50
v/c Ratio	0.21	0.09		0.44	0.29	0.04	0.02	0.45	0.18	0.11	0.61	0.11

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Existing (2015) School AM Peak Hour  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	37.4	33.7		27.9	29.7	0.2	38.0	12.6	2.2	39.2	14.5	0.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.4	33.7		27.9	29.7	0.2	38.0	12.6	2.2	39.2	14.5	0.3
LOS	D	C		C	C	A	D	B	A	D	B	A
Approach Delay		36.1							10.9			13.7
Approach LOS		D				C			B			B
Queue Length 50th (ft)	10	5		48	37	0	1	86	0	6	139	0
Queue Length 95th (ft)	34	22		132	99	0	9	198	22	29	306	1
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100			900	300	430
Base Capacity (vph)	258	2118		888	1360	1190	122	2316	1061	131	2492	1136
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.01		0.36	0.07	0.01	0.02	0.32	0.14	0.11	0.42	0.08

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 64

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.61

Intersection Signal Delay: 15.7

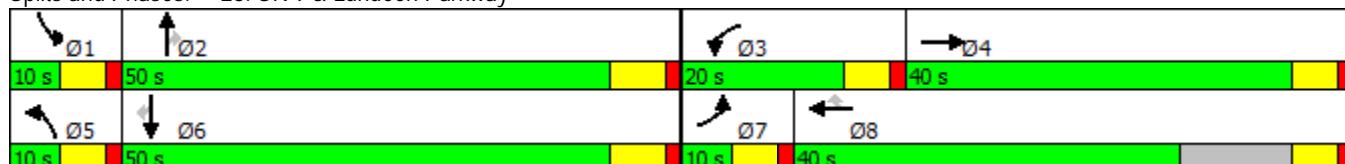
Intersection LOS: B

Intersection Capacity Utilization 53.4%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Existing (2015) School AM Peak Hour  
 HCM 2010 Roundabout**

**Intersection**

Intersection Delay, s/veh 9.3  
 Intersection LOS A

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	135	168	224	568
Demand Flow Rate, veh/h	140	177	241	585
Vehicles Circulating, veh/h	345	571	294	62
Vehicles Exiting, veh/h	190	76	454	423
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.5	9.6	7.9	10.4
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	140	177	241	585
Cap Entry Lane, veh/h	800	638	842	1062
Entry HV Adj Factor	0.966	0.951	0.928	0.971
Flow Entry, veh/h	135	168	224	568
Cap Entry, veh/h	773	607	782	1032
V/C Ratio	0.175	0.277	0.286	0.551
Control Delay, s/veh	6.5	9.6	7.9	10.4
LOS	A	A	A	B
95th %tile Queue, veh	1	1	1	3

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Existing (2015) School AM Peak Hour**  
**HCM 2010 TWSC**

**Intersection**

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	473	9	8	734	9	11
Future Vol, veh/h	473	9	8	734	9	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	90	90	71	71
Heavy Vehicles, %	21	21	10	10	10	10
Mvmt Flow	544	10	9	816	13	15

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	544	0	1377
Stage 1	-	-	-	-	544
Stage 2	-	-	-	-	833
Critical Hdwy	-	-	4.2	-	6.5
Critical Hdwy Stg 1	-	-	-	-	5.5
Critical Hdwy Stg 2	-	-	-	-	5.5
Follow-up Hdwy	-	-	2.29	-	3.59
Pot Cap-1 Maneuver	-	-	986	-	153
Stage 1	-	-	-	-	566
Stage 2	-	-	-	-	413
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	986	-	150
Mov Cap-2 Maneuver	-	-	-	-	150
Stage 1	-	-	-	-	566
Stage 2	-	-	-	-	406

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	247	-	-	986	-
HCM Lane V/C Ratio	0.114	-	-	0.009	-
HCM Control Delay (s)	21.4	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.4	-	-	0	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Existing (2015) School PM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	423	265	925	670	246	559
Future Volume (vph)	423	265	925	670	246	559
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3213	1482	1792	1524	3467	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3213	1482	1792	1524	3467	3574
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		239		15		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	6%	6%	1%	1%
Adj. Flow (vph)	441	276	964	698	256	582
Shared Lane Traffic (%)						
Lane Group Flow (vph)	441	276	964	698	256	582
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	7.0	5.0	3.0	7.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	37.0	37.0	86.0	37.0	17.0	103.0
Total Split (%)	26.4%	26.4%	61.4%	26.4%	12.1%	73.6%
Maximum Green (s)	32.0	32.0	79.5	32.0	11.5	96.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	28.0	28.0	74.8	109.4	11.6	92.0
Actuated g/C Ratio	0.21	0.21	0.57	0.83	0.09	0.70
v/c Ratio	0.64	0.55	0.95	0.55	0.84	0.23
Control Delay	52.6	13.1	45.4	5.1	84.3	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Existing (2015) School PM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	52.6	13.1	45.4	5.1	84.3	7.7
LOS	D	B	D	A	F	A
Approach Delay	37.4		28.5			31.1
Approach LOS	D		C			C
Queue Length 50th (ft)	186	27	776	139	120	92
Queue Length 95th (ft)	244	115	#1119	196	#202	120
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	790	544	1095	1319	306	2651
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.56	0.51	0.88	0.53	0.84	0.22

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 131.6

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 31.2

Intersection LOS: C

Intersection Capacity Utilization 81.9%

ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road

Existing (2015) School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	44	42	201	7	94	37	250	1484	9	15	910	64
Future Volume (vph)	44	42	201	7	94	37	250	1484	9	15	910	64
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.964			0.999				0.850
Flt Protected		0.975			0.998		0.950			0.950		
Satd. Flow (prot)	0	1816	1583	0	1724	0	3335	3435	0	1703	3406	1524
Flt Permitted		0.727			0.984		0.950			0.950		
Satd. Flow (perm)	0	1354	1583	0	1700	0	3335	3435	0	1703	3406	1524
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					13				1			65
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	45	43	205	7	96	38	255	1514	9	15	929	65
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	205	0	141	0	255	1523	0	15	929	65
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	75.0		20.0	75.0	75.0
Total Split (%)	32.1%	32.1%		32.1%	32.1%		14.3%	53.6%		14.3%	53.6%	53.6%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	68.5		14.9	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		14.0	31.5		14.0		12.0	51.7		5.7	37.7	37.7
Actuated g/C Ratio		0.17	0.38		0.17		0.15	0.63		0.07	0.46	0.46
v/c Ratio		0.38	0.34		0.47		0.53	0.70		0.13	0.60	0.09
Control Delay		41.0	23.4		37.8		41.1	13.4		49.1	17.7	3.5
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Existing (2015) School PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		41.0	23.4		37.8		41.1	13.4		49.1	17.7	3.5
LOS		D	C		D		D	B		D	B	A
Approach Delay		28.7			37.8			17.4				17.2
Approach LOS		C			D			B				B
Queue Length 50th (ft)		34	59		51		53	187		6	164	0
Queue Length 95th (ft)		108	174		147		136	483		33	277	21
Internal Link Dist (ft)		400			150			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		708	832		895		657	2884		336	2860	1290
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.12	0.25		0.16		0.39	0.53		0.04	0.32	0.05

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 82.2

Natural Cycle: 120

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 19.3

Intersection LOS: B

Intersection Capacity Utilization 75.7%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Existing (2015) School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	235	112	5	220	97	29	5	1480	356	28	980	110
Future Volume (vph)	235	112	5	220	97	29	5	1480	356	28	980	110
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr <sub>t</sub>			0.994			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	3484	0	3433	1863	1583	1719	3438	1538	1703	3406	1524
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3400	3484	0	3433	1863	1583	1719	3438	1538	1703	3406	1524
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		3				113				379		117
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		346			353			991			3221	
Travel Time (s)		6.7			6.9			12.3			39.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	250	119	5	234	103	31	5	1574	379	30	1043	117
Shared Lane Traffic (%)												
Lane Group Flow (vph)	250	124	0	234	103	31	5	1574	379	30	1043	117
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2		6	
Detector Phase	7	4		3	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	17.0	38.0		17.0	38.0	38.0	10.0	75.0	75.0	10.0	75.0	75.0
Total Split (%)	12.1%	27.1%		12.1%	27.1%	27.1%	7.1%	53.6%	53.6%	7.1%	53.6%	53.6%
Maximum Green (s)	11.5	32.5		11.5	32.5	32.5	4.5	68.5	68.5	4.5	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		25.0			25.0	25.0		25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	0
Act Effct Green (s)	11.5	11.4		11.2	11.1	11.1	4.6	64.8	64.8	4.6	68.5	68.5
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.10	0.04	0.59	0.59	0.04	0.62	0.62
v/c Ratio	0.71	0.34		0.67	0.55	0.12	0.07	0.78	0.36	0.43	0.50	0.12
Control Delay	62.5	49.8		60.8	61.2	0.9	59.0	22.2	2.3	75.3	13.2	2.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Existing (2015) School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	62.5	49.8		60.8	61.2	0.9	59.0	22.2	2.3	75.3	13.2	2.4
LOS	E	D		E	E	A	E	C	A	E	B	A
Approach Delay		58.3			55.9			18.4			13.7	
Approach LOS		E			E			B			B	
Queue Length 50th (ft)	97	46		91	77	0	4	471	0	23	189	0
Queue Length 95th (ft)	#164	77		#147	135	0	18	625	44	#66	330	27
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100		900	300		430
Base Capacity (vph)	359	1043		363	556	552	71	2166	1109	70	2259	1050
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.12		0.64	0.19	0.06	0.07	0.73	0.34	0.43	0.46	0.11

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 110.7

Natural Cycle: 125

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.78

Intersection Signal Delay: 24.3

Intersection LOS: C

Intersection Capacity Utilization 66.4%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Existing (2015) School PM Peak**  
 HCM 2010 Roundabout

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**Intersection**

Intersection Delay, s/veh 16.3  
 Intersection LOS C

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	468	129	522	591
Demand Flow Rate, veh/h	478	129	527	603
Vehicles Circulating, veh/h	583	545	279	158
Vehicles Exiting, veh/h	223	216	395	903
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	25.5	7.8	13.9	13.0
Approach LOS	D	A	B	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	478	129	527	603
Cap Entry Lane, veh/h	631	655	855	965
Entry HV Adj Factor	0.979	1.000	0.991	0.981
Flow Entry, veh/h	468	129	522	591
Cap Entry, veh/h	618	655	847	946
V/C Ratio	0.758	0.197	0.616	0.625
Control Delay, s/veh	25.5	7.8	13.9	13.0
LOS	D	A	B	B
95th %tile Queue, veh	7	1	4	5

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Existing (2015) School PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	890	29	20	685	12	16
Future Vol, veh/h	890	29	20	685	12	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	92	92	78	78
Heavy Vehicles, %	5	5	9	9	11	11
Mvmt Flow	927	30	22	745	15	21

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	927	0	1715 927
Stage 1	-	-	-	-	927
Stage 2	-	-	-	-	788
Critical Hdwy	-	-	4.19	-	6.51 6.31
Critical Hdwy Stg 1	-	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	-	5.51
Follow-up Hdwy	-	-	2.281	-	3.599 3.399
Pot Cap-1 Maneuver	-	-	709	-	94 313
Stage 1	-	-	-	-	371
Stage 2	-	-	-	-	433
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	709	-	89 313
Mov Cap-2 Maneuver	-	-	-	-	89
Stage 1	-	-	-	-	371
Stage 2	-	-	-	-	410

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	36.1
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	151	-	-	709	-
HCM Lane V/C Ratio	0.238	-	-	0.031	-
HCM Control Delay (s)	36.1	-	-	10.2	0
HCM Lane LOS	E	-	-	B	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2017 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	495	205	435	335	165	500
Future Volume (vph)	495	205	435	335	165	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	1455	1610	1369	3303	3406
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	1455	1610	1369	3303	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		220		159		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	11%	11%	18%	18%	6%	6%
Adj. Flow (vph)	532	220	468	360	177	538
Shared Lane Traffic (%)						
Lane Group Flow (vph)	532	220	468	360	177	538
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	50.0	50.0	50.0	50.0	20.0	70.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	45.0	45.0	43.5	45.0	14.5	63.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	24.8	24.8	31.8	63.4	10.0	47.5
Actuated g/C Ratio	0.29	0.29	0.38	0.75	0.12	0.56
v/c Ratio	0.58	0.38	0.77	0.34	0.45	0.28
Control Delay	29.2	5.8	34.1	2.6	42.4	10.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr**  
**3: SR 9 & SR 92**

**Forecast 2017 Without Project AM Peak**  
**Lanes, Volumes, Timings**



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	29.2	5.8	34.1	2.6	42.4	10.4
LOS	C	A	C	A	D	B
Approach Delay	22.3		20.4			18.3
Approach LOS	C		C			B
Queue Length 50th (ft)	121	0	210	24	45	71
Queue Length 95th (ft)	209	53	410	54	96	130
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	1774	914	875	1319	598	2626
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.24	0.53	0.27	0.30	0.20

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 84.4

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.77

Intersection Signal Delay: 20.4

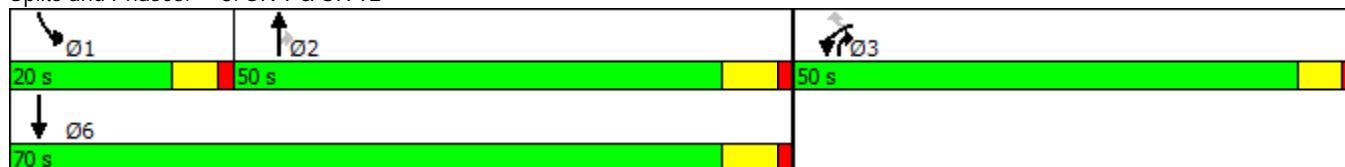
Intersection LOS: C

Intersection Capacity Utilization 55.9%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	90	200	5	35	25	100	710	5	10	965	40
Future Volume (vph)	45	90	200	5	35	25	100	710	5	10	965	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.947			0.999				0.850
Flt Protected		0.984			0.996		0.950			0.950		
Satd. Flow (prot)	0	1815	1568	0	1629	0	2968	3056	0	1671	3343	1495
Flt Permitted		0.862			0.973		0.950			0.950		
Satd. Flow (perm)	0	1590	1568	0	1592	0	2968	3056	0	1671	3343	1495
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					27				1			69
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	10%	10%	10%	18%	18%	18%	8%	8%	8%
Adj. Flow (vph)	48	96	213	5	37	27	106	755	5	11	1027	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	144	213	0	69	0	106	760	0	11	1027	43
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	55.0		20.0	55.0	55.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		16.7%	45.8%		16.7%	45.8%	45.8%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	48.5		14.9	48.5	48.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		11.9	24.7		11.9		7.4	43.1		5.3	32.0	32.0
Actuated g/C Ratio		0.17	0.36		0.17		0.11	0.62		0.08	0.46	0.46
v/c Ratio		0.53	0.38		0.23		0.33	0.40		0.09	0.67	0.06
Control Delay		36.3	20.7		21.2		35.9	8.4		38.5	17.1	1.5
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		36.3	20.7		21.2		35.9	8.4		38.5	17.1	1.5
LOS		D	C		C		D	A		D	B	A
Approach Delay		27.0			21.2			11.7				16.7
Approach LOS		C			C			B				B
Queue Length 50th (ft)		54	63		15		21	65		4	162	0
Queue Length 95th (ft)		135	153		57		56	182		24	284	9
Internal Link Dist (ft)		400			150			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		950	937		962		669	2280		376	2454	1115
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.15	0.23		0.07		0.16	0.33		0.03	0.42	0.04

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 69.3

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.67

Intersection Signal Delay: 16.6

Intersection LOS: B

Intersection Capacity Utilization 58.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 Without Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑↑	↑↑	↑↑	↑↑
Traffic Volume (vph)	55	25	2	315	100	25	2	730	145	15	1055	95
Future Volume (vph)	55	25	2	315	100	25	2	730	145	15	1055	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00		0.98	1.00		0.98
Fr <sub>t</sub>		0.989				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3433	0	3400	1845	1568	1597	3195	1429	1719	3438	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3433	0	3400	1845	1568	1596	3195	1398	1718	3438	1502
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		2				132			173			173
Link Speed (mph)	35			35			55			55		
Link Distance (ft)	346			353			991			3221		
Travel Time (s)	6.7			6.9			12.3			39.9		
Confl. Peds. (#/hr)						2			1	1		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	13%	13%	13%	5%	5%	5%
Adj. Flow (vph)	57	26	2	328	104	26	2	760	151	16	1099	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	28	0	328	104	26	2	760	151	16	1099	99
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	10.0	40.0		20.0	40.0	40.0	10.0	50.0	50.0	10.0	50.0	50.0
Total Split (%)	8.3%	33.3%		16.7%	33.3%	33.3%	8.3%	41.7%	41.7%	8.3%	41.7%	41.7%
Maximum Green (s)	4.5	34.5		14.5	34.5	34.5	4.5	43.5	43.5	4.5	43.5	43.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)	7.0			7.0	7.0			7.0	7.0		7.0	7.0
Flash Dont Walk (s)	25.0			25.0	25.0			25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0			0	0		0	0
Act Effct Green (s)	4.9	6.0		13.8	12.3	12.3	4.9	33.3	33.3	4.9	33.3	33.3
Actuated g/C Ratio	0.08	0.09		0.21	0.19	0.19	0.08	0.51	0.51	0.08	0.51	0.51
v/c Ratio	0.23	0.09		0.46	0.30	0.06	0.02	0.47	0.19	0.12	0.63	0.12

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 Without Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	38.1	34.2		28.4	30.2	0.3	38.5	12.7	2.3	39.9	14.8	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.1	34.2		28.4	30.2	0.3	38.5	12.7	2.3	39.9	14.8	0.4
LOS	D	C		C	C	A	D	B	A	D	B	A
Approach Delay		36.8				27.2			11.0			13.9
Approach LOS			D			C			B			B
Queue Length 50th (ft)	10	4		50	37	0	1	91	0	6	147	0
Queue Length 95th (ft)	37	21		137	101	0	9	207	24	30	324	2
Internal Link Dist (ft)			266			273			911			3141
Turn Bay Length (ft)	215			320			70	100		900	300	
Base Capacity (vph)	252	1974		869	1342	1176	119	2286	1049	128	2460	1124
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.01		0.38	0.08	0.02	0.02	0.33	0.14	0.13	0.45	0.09

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 65.2

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 15.9

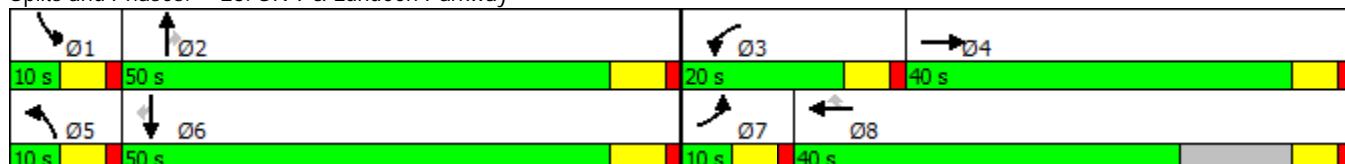
Intersection LOS: B

Intersection Capacity Utilization 54.8%

ICU Level of Service A

Analysis Period (min) 15

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2017 Without Project AM Peak**  
 HCM 2010 Roundabout

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Intersection

Intersection Delay, s/veh 10.0  
 Intersection LOS B

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	144	191	233	605
Demand Flow Rate, veh/h	149	201	251	623
Vehicles Circulating, veh/h	361	594	311	67
Vehicles Exiting, veh/h	201	96	483	443
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.8	10.5	8.2	11.4
Approach LOS	A	B	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	149	201	251	623
Cap Entry Lane, veh/h	788	624	828	1057
Entry HV Adj Factor	0.967	0.951	0.929	0.971
Flow Entry, veh/h	144	191	233	605
Cap Entry, veh/h	762	593	769	1026
V/C Ratio	0.189	0.322	0.303	0.590
Control Delay, s/veh	6.8	10.5	8.2	11.4
LOS	A	B	A	B
95th %tile Queue, veh	1	1	1	4

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2017 Without Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	490	10	0	765	0	10
Future Vol, veh/h	490	10	0	765	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	90	90	71	71
Heavy Vehicles, %	21	21	10	10	10	10
Mvmt Flow	563	11	0	850	0	14

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	563	0	1413
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	850
Critical Hdwy	-	-	4.2	-	6.5
Critical Hdwy Stg 1	-	-	-	-	5.5
Critical Hdwy Stg 2	-	-	-	-	5.5
Follow-up Hdwy	-	-	2.29	-	3.59
Pot Cap-1 Maneuver	-	-	970	-	146
Stage 1	-	-	-	-	554
Stage 2	-	-	-	-	406
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	970	-	146
Mov Cap-2 Maneuver	-	-	-	-	146
Stage 1	-	-	-	-	554
Stage 2	-	-	-	-	406

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	511	-	-	970	-
HCM Lane V/C Ratio	0.028	-	-	-	-
HCM Control Delay (s)	12.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2017 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	435	270	965	695	255	580
Future Volume (vph)	435	270	965	695	255	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3213	1482	1792	1524	3467	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3213	1482	1792	1524	3467	3574
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		229		13		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	6%	6%	1%	1%
Adj. Flow (vph)	453	281	1005	724	266	604
Shared Lane Traffic (%)						
Lane Group Flow (vph)	453	281	1005	724	266	604
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	7.0	5.0	3.0	7.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	37.0	37.0	86.0	37.0	17.0	103.0
Total Split (%)	26.4%	26.4%	61.4%	26.4%	12.1%	73.6%
Maximum Green (s)	32.0	32.0	79.5	32.0	11.5	96.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	28.7	28.7	79.0	114.2	11.5	96.0
Actuated g/C Ratio	0.21	0.21	0.58	0.84	0.08	0.70
v/c Ratio	0.67	0.57	0.97	0.57	0.91	0.24
Control Delay	54.7	15.2	49.6	5.2	95.7	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2017 Without Project School PM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	54.7	15.2	49.6	5.2	95.7	7.7
LOS	D	B	D	A	F	A
Approach Delay	39.6		31.0			34.6
Approach LOS	D		C			C
Queue Length 50th (ft)	192	38	860	150	125	98
Queue Length 95th (ft)	252	130	#1196	212	#213	125
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	755	523	1047	1316	293	2535
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.54	0.96	0.55	0.91	0.24

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 136.2

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 33.8

Intersection LOS: C

Intersection Capacity Utilization 84.6%

ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	45	210	5	100	40	265	1550	10	15	945	60
Future Volume (vph)	45	45	210	5	100	40	265	1550	10	15	945	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.963			0.999				0.850
Flt Protected		0.976			0.998		0.950			0.950		
Satd. Flow (prot)	0	1818	1583	0	1723	0	3335	3435	0	1703	3406	1524
Flt Permitted		0.662			0.989		0.950			0.950		
Satd. Flow (perm)	0	1233	1583	0	1707	0	3335	3435	0	1703	3406	1524
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					14				1			70
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	46	46	214	5	102	41	270	1582	10	15	964	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	214	0	148	0	270	1592	0	15	964	61
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	75.0		20.0	75.0	75.0
Total Split (%)	32.1%	32.1%		32.1%	32.1%		14.3%	53.6%		14.3%	53.6%	53.6%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	68.5		14.9	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		13.6	36.9		13.6		17.9	58.0		5.6	38.4	38.4
Actuated g/C Ratio		0.15	0.42		0.15		0.20	0.66		0.06	0.44	0.44
v/c Ratio		0.48	0.32		0.54		0.40	0.70		0.14	0.65	0.09
Control Delay		47.6	18.7		42.0		32.6	12.9		50.1	23.5	4.3
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		47.6	18.7		42.0		32.6	12.9		50.1	23.5	4.3
LOS		D	B		D		C	B		D	C	A
Approach Delay		27.4			42.0			15.8				22.8
Approach LOS		C			D			B				C
Queue Length 50th (ft)		45	74		66		64	207		8	201	0
Queue Length 95th (ft)		113	149		154		122	503		33	355	21
Internal Link Dist (ft)		400			150			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		582	1158		814		785	2748		303	2724	1233
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.16	0.18		0.18		0.34	0.58		0.05	0.35	0.05

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 87.9

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 20.1

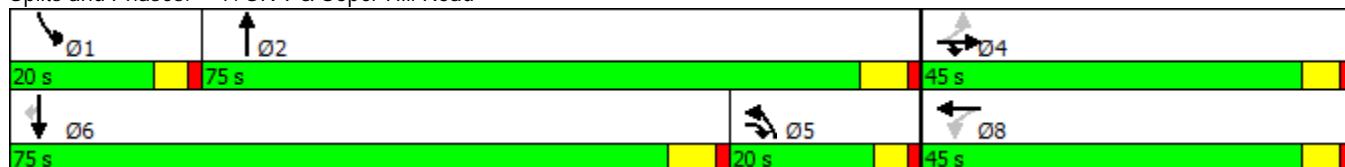
Intersection LOS: C

Intersection Capacity Utilization 78.2%

ICU Level of Service D

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 Without Project School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	245	115	5	230	100	40	5	1540	370	30	1020	115
Future Volume (vph)	245	115	5	230	100	40	5	1540	370	30	1020	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr <sub>t</sub>			0.994			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		3				113				394		122
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		346			353			991			3221	
Travel Time (s)		6.7			6.9			12.3			39.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	13%	13%	13%
Adj. Flow (vph)	261	122	5	245	106	43	5	1638	394	32	1085	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	261	127	0	245	106	43	5	1638	394	32	1085	122
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2		6	
Detector Phase	7	4		3	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	17.0	38.0		17.0	38.0	38.0	10.0	75.0	75.0	10.0	75.0	75.0
Total Split (%)	12.1%	27.1%		12.1%	27.1%	27.1%	7.1%	53.6%	53.6%	7.1%	53.6%	53.6%
Maximum Green (s)	11.5	32.5		11.5	32.5	32.5	4.5	68.5	68.5	4.5	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		25.0			25.0	25.0		25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	0
Act Effct Green (s)	11.6	11.8		11.3	11.5	11.5	4.5	66.6	66.6	4.5	72.4	72.4
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.10	0.04	0.58	0.58	0.04	0.63	0.63
v/c Ratio	0.76	0.35		0.73	0.57	0.17	0.07	0.82	0.37	0.51	0.54	0.13
Control Delay	67.0	50.9		65.3	63.2	1.4	59.2	24.5	2.3	84.6	13.9	2.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 Without Project School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	67.0	50.9		65.3	63.2	1.4	59.2	24.5	2.3	84.6	13.9	2.4
LOS	E	D		E	E	A	E	C	A	F	B	A
Approach Delay		61.8			57.8			20.3			14.6	
Approach LOS		E			E			C			B	
Queue Length 50th (ft)	102	47		95	79	0	4	506	0	25	207	0
Queue Length 95th (ft)	#176	78		#159	138	0	18	671	44	#75	363	27
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100		900	300		430
Base Capacity (vph)	343	996		346	531	532	68	2088	1091	63	2083	974
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.13		0.71	0.20	0.08	0.07	0.78	0.36	0.51	0.52	0.13

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 115

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 26.2

Intersection LOS: C

Intersection Capacity Utilization 68.3%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
14: Lundein Parkway & Lake Drive**

**Forecast 2017 Without Project School PM Peak**  
HCM 2010 Roundabout

Intersection

Intersection Delay, s/veh 18.4  
Intersection LOS C

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	482	146	549	635
Demand Flow Rate, veh/h	492	146	554	648
Vehicles Circulating, veh/h	610	565	295	158
Vehicles Exiting, veh/h	239	241	416	944
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	29.8	8.4	15.5	14.6
Approach LOS	D	A	C	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	492	146	554	648
Cap Entry Lane, veh/h	614	642	841	965
Entry HV Adj Factor	0.980	1.000	0.991	0.980
Flow Entry, veh/h	482	146	549	635
Cap Entry, veh/h	602	642	834	946
V/C Ratio	0.801	0.227	0.659	0.672
Control Delay, s/veh	29.8	8.4	15.5	14.6
LOS	D	A	C	B
95th %tile Queue, veh	8	1	5	5

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2017 Without Project School PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	925	30	0	715	0	15
Future Vol, veh/h	925	30	0	715	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	92	92	78	78
Heavy Vehicles, %	5	5	9	9	11	11
Mvmt Flow	964	31	0	777	0	19

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	964	0	1741
Stage 1	-	-	-	-	964
Stage 2	-	-	-	-	777
Critical Hdwy	-	-	4.19	-	6.51
Critical Hdwy Stg 1	-	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	-	5.51
Follow-up Hdwy	-	-	2.281	-	3.599
Pot Cap-1 Maneuver	-	-	687	-	91
Stage 1	-	-	-	-	356
Stage 2	-	-	-	-	438
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	687	-	91
Mov Cap-2 Maneuver	-	-	-	-	91
Stage 1	-	-	-	-	356
Stage 2	-	-	-	-	438

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	298	-	-	687	-
HCM Lane V/C Ratio	0.065	-	-	-	-
HCM Control Delay (s)	17.9	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2017 With Project AM Peak  
Lanes, Volumes, Timings**

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	495	205	448	481	186	500
Future Volume (vph)	495	205	448	481	186	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	1455	1610	1369	3303	3406
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	1455	1610	1369	3303	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		220		122		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	11%	11%	18%	18%	6%	6%
Adj. Flow (vph)	532	220	482	517	200	538
Shared Lane Traffic (%)						
Lane Group Flow (vph)	532	220	482	517	200	538
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	50.0	50.0	50.0	50.0	20.0	70.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	45.0	45.0	43.5	45.0	14.5	63.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	26.4	26.4	33.5	66.8	10.7	50.0
Actuated g/C Ratio	0.30	0.30	0.38	0.75	0.12	0.56
v/c Ratio	0.57	0.37	0.79	0.49	0.50	0.28
Control Delay	29.8	5.7	36.4	4.6	44.6	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2017 With Project AM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	29.8	5.7	36.4	4.6	44.6	10.9
LOS	C	A	D	A	D	B
Approach Delay	22.8		19.9			20.0
Approach LOS	C		B			C
Queue Length 50th (ft)	128	0	231	59	54	75
Queue Length 95th (ft)	210	53	443	126	108	135
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	1687	880	832	1298	569	2532
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.32	0.25	0.58	0.40	0.35	0.21

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 88.5

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 20.8

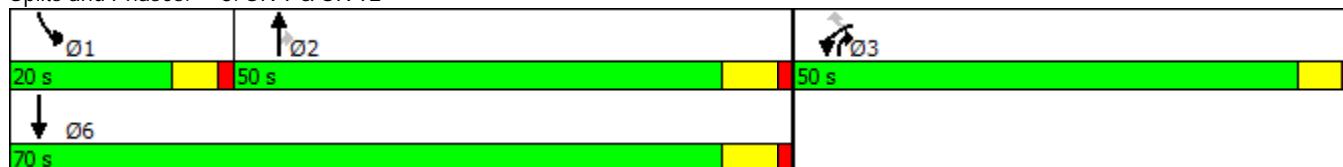
Intersection LOS: C

Intersection Capacity Utilization 57.2%

ICU Level of Service B

Analysis Period (min) 15

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 With Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑	↑		↑		↑↑	↑↑		↑	↑↑	↑
Traffic Volume (vph)	191	100	211	5	74	29	139	714	1	10	965	40
Future Volume (vph)	191	100	211	5	74	29	139	714	1	10	965	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.964							0.850
Flt Protected		0.968			0.998		0.950			0.950		
Satd. Flow (prot)	0	1786	1568	0	1662	0	2968	3059	0	1671	3343	1495
Flt Permitted		0.741			0.984		0.950			0.950		
Satd. Flow (perm)	0	1367	1568	0	1638	0	2968	3059	0	1671	3343	1495
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					17							69
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	10%	10%	10%	18%	18%	18%	8%	8%	8%
Adj. Flow (vph)	203	106	224	5	79	31	148	760	1	11	1027	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	309	224	0	115	0	148	761	0	11	1027	43
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8			5	2		1	6	6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	55.0		20.0	55.0	55.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		16.7%	45.8%		16.7%	45.8%	45.8%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	48.5		14.9	48.5	48.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		26.3	41.2		26.3		9.5	51.3		5.5	38.2	38.2
Actuated g/C Ratio		0.29	0.45		0.29		0.10	0.56		0.06	0.41	0.41
v/c Ratio		0.79	0.32		0.24		0.48	0.45		0.11	0.74	0.07
Control Delay		47.6	18.7		24.6		49.0	14.8		52.8	27.7	2.1
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 With Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		47.6	18.7		24.6		49.0	14.8		52.8	27.7	2.1
LOS		D	B		C		D	B		D	C	A
Approach Delay		35.5			24.6			20.4			26.9	
Approach LOS		D			C			C			C	
Queue Length 50th (ft)		165	82		43		43	122		6	257	0
Queue Length 95th (ft)		310	155		99		89	272		28	431	10
Internal Link Dist (ft)		400			150			3141			2180	
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		621	836		753		508	1863		286	1864	864
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.50	0.27		0.15		0.29	0.41		0.04	0.55	0.05

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 92.1

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 26.3

Intersection LOS: C

Intersection Capacity Utilization 67.4%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 With Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	55	49	2	397	111	68	2	730	145	26	1055	95
Future Volume (vph)	55	49	2	397	111	68	2	730	145	26	1055	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00		0.98	1.00		0.98
Fr		0.994				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3450	0	3400	1845	1568	1597	3195	1429	1719	3438	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3450	0	3400	1845	1568	1596	3195	1398	1718	3438	1502
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		2				132			173			173
Link Speed (mph)	35			35			55			55		
Link Distance (ft)	346			353			991			3221		
Travel Time (s)	6.7			6.9			12.3			39.9		
Confl. Peds. (#/hr)						2			1	1		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	13%	13%	13%	5%	5%	5%
Adj. Flow (vph)	57	51	2	414	116	71	2	760	151	27	1099	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	57	53	0	414	116	71	2	760	151	27	1099	99
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	10.0	40.0		20.0	40.0	40.0	10.0	50.0	50.0	10.0	50.0	50.0
Total Split (%)	8.3%	33.3%		16.7%	33.3%	33.3%	8.3%	41.7%	41.7%	8.3%	41.7%	41.7%
Maximum Green (s)	4.5	34.5		14.5	34.5	34.5	4.5	43.5	43.5	4.5	43.5	43.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5	4.5
Recall Mode	None	None		None	None	None	Min	Min	None	Min	Min	
Walk Time (s)	7.0			7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	25.0			25.0	25.0		25.0	25.0		25.0	25.0	
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	
Act Effct Green (s)	4.7	6.4		16.1	15.0	15.0	4.7	32.6	32.6	4.7	34.3	34.3
Actuated g/C Ratio	0.07	0.09		0.23	0.21	0.21	0.07	0.46	0.46	0.07	0.48	0.48
v/c Ratio	0.25	0.17		0.54	0.30	0.16	0.02	0.52	0.21	0.24	0.66	0.12

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 With Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	40.5	35.6		31.6	30.6	1.3	39.5	16.4	2.6	43.7	17.0	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.5	35.6		31.6	30.6	1.3	39.5	16.4	2.6	43.7	17.0	0.4
LOS	D	D		C	C	A	D	B	A	D	B	A
Approach Delay		38.1				27.8			14.2			16.3
Approach LOS		D				C			B			B
Queue Length 50th (ft)	12	11		89	44	0	1	117	0	12	190	0
Queue Length 95th (ft)	37	33		#188	110	4	8	211	24	43	331	2
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100			900	300	430
Base Capacity (vph)	224	1763		771	1216	1078	106	2058	962	114	2215	1029
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.03		0.54	0.10	0.07	0.02	0.37	0.16	0.24	0.50	0.10

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 71.1

Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.66

Intersection Signal Delay: 18.9

Intersection LOS: B

Intersection Capacity Utilization 57.2%

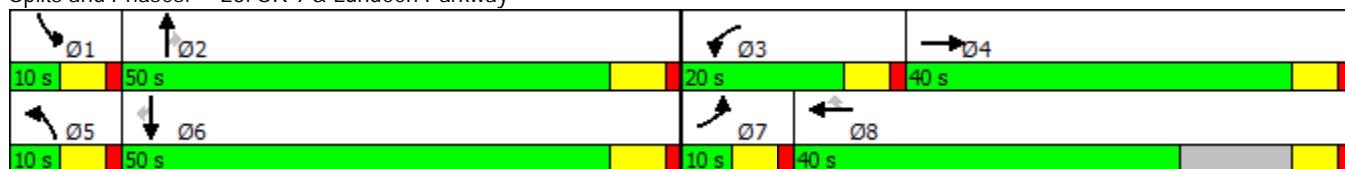
ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2017 With Project AM Peak**  
 HCM 2010 Roundabout

**Intersection**

Intersection Delay, s/veh 15.6  
 Intersection LOS C

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	156	412	274	638
Demand Flow Rate, veh/h	162	451	299	661
Vehicles Circulating, veh/h	428	594	340	128
Vehicles Exiting, veh/h	211	195	705	462
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.6	24.7	9.6	14.2
Approach LOS	A	C	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	162	451	299	661
Cap Entry Lane, veh/h	737	624	804	994
Entry HV Adj Factor	0.960	0.913	0.917	0.965
Flow Entry, veh/h	156	412	274	638
Cap Entry, veh/h	707	570	738	959
V/C Ratio	0.220	0.723	0.372	0.665
Control Delay, s/veh	7.6	24.7	9.6	14.2
LOS	A	C	A	B
95th %tile Queue, veh	1	6	2	5

**Lake Stevens Schools - Learning Ctr  
 24: Lake Dr & Access Road**

**Forecast 2017 With Project AM Peak  
 HCM 2010 Roundabout**

**Intersection**

Intersection Delay, s/veh 8.3  
 Intersection LOS A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	456	185	321
Demand Flow Rate, veh/h	502	196	369
Vehicles Circulating, veh/h	38	22	177
Vehicles Exiting, veh/h	508	518	41
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	9.0	5.1	9.1
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	502	196	369
Cap Entry Lane, veh/h	1088	1105	947
Entry HV Adj Factor	0.908	0.943	0.870
Flow Entry, veh/h	456	185	321
Cap Entry, veh/h	988	1043	824
V/C Ratio	0.461	0.177	0.390
Control Delay, s/veh	9.0	5.1	9.1
LOS	A	A	A
95th %tile Queue, veh	2	1	2

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2017 With Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	490	177	0	765	0	16
Future Vol, veh/h	490	177	0	765	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	90	90	71	71
Heavy Vehicles, %	15	15	7	7	7	19
Mvmt Flow	563	203	0	850	0	23

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	563	0	1413
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	850
Critical Hdwy	-	-	4.17	-	6.47
Critical Hdwy Stg 1	-	-	-	-	5.47
Critical Hdwy Stg 2	-	-	-	-	5.47
Follow-up Hdwy	-	-	2.263	-	3.563
Pot Cap-1 Maneuver	-	-	984	-	148
Stage 1	-	-	-	-	560
Stage 2	-	-	-	-	411
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	984	-	148
Mov Cap-2 Maneuver	-	-	-	-	148
Stage 1	-	-	-	-	560
Stage 2	-	-	-	-	411

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	495	-	-	984	-
HCM Lane V/C Ratio	0.046	-	-	-	-
HCM Control Delay (s)	12.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

**Lake Stevens Schools - Learning Ctr**  
**25: Access Road & Elem Staff/Bus Out Dwy**

**Forecast 2017 With Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	185		240	25	20
Future Vol, veh/h	0	185		240	25	20
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Free	Free		Free	Free	Stop
RT Channelized	-	None		-	None	-
Storage Length	-	-		-	-	0
Veh in Median Storage, #	-	0		0	-	0
Grade, %	-	0		0	-	0
Peak Hour Factor	45	45		45	45	30
Heavy Vehicles, %	1	1		8	8	100
Mvmt Flow	0	411		533	56	67

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	589	0	-	0	972	561
Stage 1	-	-	-	-	561	-
Stage 2	-	-	-	-	411	-
Critical Hdwy	4.11	-	-	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.209	-	-	-	4.4	3.3
Pot Cap-1 Maneuver	991	-	-	-	190	531
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	501	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	991	-	-	-	190	531
Mov Cap-2 Maneuver	-	-	-	-	190	-
Stage 1	-	-	-	-	417	-
Stage 2	-	-	-	-	501	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		33.9	
HCM LOS					D	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	991	-	-	-	190	
HCM Lane V/C Ratio	-	-	-	-	0.351	
HCM Control Delay (s)	0	-	-	-	33.9	
HCM Lane LOS	A	-	-	-	D	
HCM 95th %tile Q(veh)	0	-	-	-	1.5	

**Lake Stevens Schools - Learning Ctr**  
**26: Access Road & Elem Dwy**

**Forecast 2017 With Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 6.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	0	27		57	183	158	0
Future Vol, veh/h	0	27		57	183	158	0
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	45	45		45	45	45	45
Heavy Vehicles, %	1	1		8	8	1	1
Mvmt Flow	0	60		127	407	351	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	533	0	-	0	390	330
Stage 1	-	-	-	-	330	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1040	-	-	-	616	714
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1040	-	-	-	616	714
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	731	-
Stage 2	-	-	-	-	965	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		18.3	
HCM LOS					C	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1040	-	-	-	616
HCM Lane V/C Ratio	-	-	-	-	0.57
HCM Control Delay (s)	0	-	-	-	18.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	3.6

**Lake Stevens Schools - Learning Ctr  
27: Access Road & ELC/Bus In Dwy**

**Forecast 2017 With Project AM Peak**  
HCM 2010 TWSC

Intersection

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	0		57	27	0
Future Vol, veh/h	0	0		57	27	0
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	45	45	45	45	45	45
Heavy Vehicles, %	1	1	35	35	1	1
Mvmt Flow	0	0	0	127	60	0

Major/Minor	Major1	Major2	Minor2	
Conflicting Flow All	127	0	-	63
Stage 1	-	-	-	63
Stage 2	-	-	-	0
Critical Hdwy	4.11	-	-	6.41
Critical Hdwy Stg 1	-	-	-	5.41
Critical Hdwy Stg 2	-	-	-	5.41
Follow-up Hdwy	2.209	-	-	3.509
Pot Cap-1 Maneuver	1465	-	-	946
Stage 1	-	-	-	962
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1465	-	-	946
Mov Cap-2 Maneuver	-	-	-	946
Stage 1	-	-	-	962
Stage 2	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1465	-	-	-	946
HCM Lane V/C Ratio	-	-	-	-	0.063
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2017 With Project PM Peak  
Lanes, Volumes, Timings**

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	435	270	975	745	262	580
Future Volume (vph)	435	270	975	745	262	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3213	1482	1792	1524	3467	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3213	1482	1792	1524	3467	3574
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		227		11		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	6%	6%	1%	1%
Adj. Flow (vph)	453	281	1016	776	273	604
Shared Lane Traffic (%)						
Lane Group Flow (vph)	453	281	1016	776	273	604
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	7.0	5.0	3.0	7.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	37.0	37.0	86.0	37.0	17.0	103.0
Total Split (%)	26.4%	26.4%	61.4%	26.4%	12.1%	73.6%
Maximum Green (s)	32.0	32.0	79.5	32.0	11.5	96.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	29.2	29.2	79.6	115.3	11.5	96.6
Actuated g/C Ratio	0.21	0.21	0.58	0.84	0.08	0.70
v/c Ratio	0.66	0.57	0.98	0.61	0.94	0.24
Control Delay	54.6	15.4	52.2	5.8	102.1	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2017 With Project PM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	54.6	15.4	52.2	5.8	102.1	7.8
LOS	D	B	D	A	F	A
Approach Delay	39.6		32.1			37.2
Approach LOS	D		C			D
Queue Length 50th (ft)	192	40	889	173	129	99
Queue Length 95th (ft)	252	132	#1219	246	#221	125
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	749	519	1038	1312	290	2513
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.60	0.54	0.98	0.59	0.94	0.24

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 137.3

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 35.0

Intersection LOS: D

Intersection Capacity Utilization 85.4%

ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 With Project PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	48	214	5	144	45	310	1555	10	15	945	60
Future Volume (vph)	95	48	214	5	144	45	310	1555	10	15	945	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.969			0.999				0.850
Flt Protected		0.968			0.999		0.950			0.950		
Satd. Flow (prot)	0	1803	1583	0	1735	0	3335	3435	0	1703	3406	1524
Flt Permitted		0.520			0.992		0.950			0.950		
Satd. Flow (perm)	0	969	1583	0	1723	0	3335	3435	0	1703	3406	1524
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					11				1			70
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			657			3221			2260	
Travel Time (s)		9.4			17.9			39.9			28.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	97	49	218	5	147	46	316	1587	10	15	964	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	218	0	198	0	316	1597	0	15	964	61
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	75.0		20.0	75.0	75.0
Total Split (%)	32.1%	32.1%		32.1%	32.1%		14.3%	53.6%		14.3%	53.6%	53.6%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	68.5		14.9	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		18.9	41.9		18.9		17.7	59.3		5.7	40.0	40.0
Actuated g/C Ratio		0.20	0.44		0.20		0.19	0.63		0.06	0.42	0.42
v/c Ratio		0.76	0.31		0.56		0.51	0.74		0.15	0.67	0.09
Control Delay		63.5	19.0		41.0		39.7	17.1		54.9	25.9	4.3
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2017 With Project PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		63.5	19.0		41.0		39.7	17.1		54.9	25.9	4.3
LOS		E	B		D		D	B		D	C	A
Approach Delay		36.9			41.0			20.8			25.0	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)		80	76		97		82	258		8	231	0
Queue Length 95th (ft)		180	165		203		168	640		34	380	21
Internal Link Dist (ft)		400			577			3141			2180	
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		426	1066		765		690	2603		283	2580	1171
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.34	0.20		0.26		0.46	0.61		0.05	0.37	0.05

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 94.6

Natural Cycle: 130

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.76

Intersection Signal Delay: 24.9

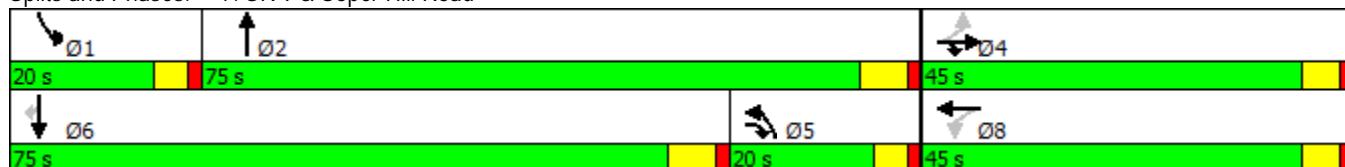
Intersection LOS: C

Intersection Capacity Utilization 83.8%

ICU Level of Service E

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 With Project PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	245	124	5	238	113	90	5	1540	412	34	1020	115
Future Volume (vph)	245	124	5	238	113	90	5	1540	412	34	1020	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr <sub>t</sub>			0.995			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	3487	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3400	3487	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2				113			438			122
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		346			353			991			3221	
Travel Time (s)		6.7			6.9			12.3			39.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	13%	13%	13%
Adj. Flow (vph)	261	132	5	253	120	96	5	1638	438	36	1085	122
Shared Lane Traffic (%)												
Lane Group Flow (vph)	261	137	0	253	120	96	5	1638	438	36	1085	122
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	17.0	38.0		17.0	38.0	38.0	10.0	75.0	75.0	10.0	75.0	75.0
Total Split (%)	12.1%	27.1%		12.1%	27.1%	27.1%	7.1%	53.6%	53.6%	7.1%	53.6%	53.6%
Maximum Green (s)	11.5	32.5		11.5	32.5	32.5	4.5	68.5	68.5	4.5	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		25.0			25.0	25.0		25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	0
Act Effct Green (s)	11.6	12.6		11.4	12.4	12.4	4.5	66.9	66.9	4.5	72.7	72.7
Actuated g/C Ratio	0.10	0.11		0.10	0.11	0.11	0.04	0.58	0.58	0.04	0.63	0.63
v/c Ratio	0.77	0.36		0.75	0.61	0.36	0.07	0.82	0.41	0.58	0.54	0.13
Control Delay	68.4	51.1		67.2	63.9	9.9	59.8	25.2	2.4	93.2	14.4	2.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2017 With Project PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	68.4	51.1		67.2	63.9	9.9	59.8	25.2	2.4	93.2	14.4	2.4
LOS	E	D		E	E	A	E	C	A	F	B	A
Approach Delay		62.4			54.6			20.5			15.5	
Approach LOS		E			D			C			B	
Queue Length 50th (ft)	103	52		100	90	0	4	516	0	28	213	0
Queue Length 95th (ft)	#179	84		#170	154	37	19	687	47	#86	373	28
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100		900	300		430
Base Capacity (vph)	339	985		342	525	528	68	2065	1101	62	2060	964
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.14		0.74	0.23	0.18	0.07	0.79	0.40	0.58	0.53	0.13

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 116.2

Natural Cycle: 135

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 26.8

Intersection LOS: C

Intersection Capacity Utilization 70.1%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2017 With Project PM Peak**  
 HCM 2010 Roundabout

Intersection

Intersection Delay, s/veh 25.0  
 Intersection LOS C

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	495	268	608	647
Demand Flow Rate, veh/h	506	291	618	664
Vehicles Circulating, veh/h	690	565	338	236
Vehicles Exiting, veh/h	266	335	518	960
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	43.3	13.3	21.6	18.8
Approach LOS	E	B	C	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	506	291	618	664
Cap Entry Lane, veh/h	567	642	806	892
Entry HV Adj Factor	0.978	0.920	0.984	0.975
Flow Entry, veh/h	495	268	608	647
Cap Entry, veh/h	554	591	793	870
V/C Ratio	0.893	0.453	0.767	0.744
Control Delay, s/veh	43.3	13.3	21.6	18.8
LOS	E	B	C	C
95th %tile Queue, veh	10	2	7	7

**Lake Stevens Schools - Learning Ctr  
 24: Lake Dr/Lake Drive & Access Road**

**Forecast 2017 With Project PM Peak  
 HCM 2010 Roundabout**

**Intersection**

Intersection Delay, s/veh 7.3  
 Intersection LOS A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	413	202	137
Demand Flow Rate, veh/h	462	218	151
Vehicles Circulating, veh/h	51	31	146
Vehicles Exiting, veh/h	246	482	103
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.7	5.4	5.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	462	218	151
Cap Entry Lane, veh/h	1074	1095	976
Entry HV Adj Factor	0.894	0.925	0.910
Flow Entry, veh/h	413	202	137
Cap Entry, veh/h	960	1013	888
V/C Ratio	0.430	0.199	0.155
Control Delay, s/veh	8.7	5.4	5.6
LOS	A	A	A
95th %tile Queue, veh	2	1	1

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2017 With Project PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	925	87	0	715	0	23
Future Vol, veh/h	925	87	0	715	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	92	92	78	78
Heavy Vehicles, %	5	5	11	11	4	13
Mvmt Flow	964	91	0	777	0	29

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	964	0	1741
Stage 1	-	-	-	-	964
Stage 2	-	-	-	-	777
Critical Hdwy	-	-	4.21	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.299	-	3.536
Pot Cap-1 Maneuver	-	-	679	-	94
Stage 1	-	-	-	-	367
Stage 2	-	-	-	-	450
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	679	-	94
Mov Cap-2 Maneuver	-	-	-	-	94
Stage 1	-	-	-	-	367
Stage 2	-	-	-	-	450

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	295	-	-	679	-
HCM Lane V/C Ratio	0.1	-	-	-	-
HCM Control Delay (s)	18.6	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

**Lake Stevens Schools - Learning Ctr**  
**25: Access Road & Elem Staff & Bus Out Dwy**

**Forecast 2017 With Project PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	125		140	0	40
Future Vol, veh/h	0	125		140	0	40
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Free	Free		Free	Free	Stop
RT Channelized	-	None		-	None	-
Storage Length	-	-		-	-	0
Veh in Median Storage, #	-	0		0	-	0
Grade, %	-	0		0	-	0
Peak Hour Factor	40	40		40	40	40
Heavy Vehicles, %	1	1		14	14	50
Mvmt Flow	0	313		350	0	100

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	350	0	-	0	663	350
Stage 1	-	-	-	-	350	-
Stage 2	-	-	-	-	313	-
Critical Hdwy	4.11	-	-	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.209	-	-	-	3.95	3.75
Pot Cap-1 Maneuver	1214	-	-	-	360	597
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1214	-	-	-	360	597
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	645	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		18.8	
HCM LOS					C	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1214	-	-	-	360	
HCM Lane V/C Ratio	-	-	-	-	0.278	
HCM Control Delay (s)	0	-	-	-	18.8	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	1.1	

**Lake Stevens Schools - Learning Ctr  
26: Access Road & Elem Dwy**

**Forecast 2017 With Project PM Peak**  
HCM 2010 TWSC

Intersection

Int Delay, s/veh 4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	0	27		47	93	98	0
Future Vol, veh/h	0	27		47	93	98	0
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	40	40		40	40	40	40
Heavy Vehicles, %	1	1		14	14	1	1
Mvmt Flow	0	68		118	233	245	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	350	0	-	0	302	234
Stage 1	-	-	-	-	234	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1214	-	-	-	692	808
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	957	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1214	-	-	-	692	808
Mov Cap-2 Maneuver	-	-	-	-	692	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	957	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		13	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1214	-	-	-	692
HCM Lane V/C Ratio	-	-	-	-	0.354
HCM Control Delay (s)	0	-	-	-	13
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	1.6

**Lake Stevens Schools - Learning Ctr  
27: Access Road & ELC & Bus In Dwy**

**Forecast 2017 With Project PM Peak**  
HCM 2010 TWSC

Intersection

Int Delay, s/veh 3.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Traffic Vol, veh/h	0	0		0	47	27
Future Vol, veh/h	0	0		0	47	27
Conflicting Peds, #/hr	0	0		0	0	0
Sign Control	Free	Free		Free	Free	Stop
RT Channelized	-	None		-	None	-
Storage Length	-	-		-	-	0
Veh in Median Storage, #	-	0		0	-	0
Grade, %	-	0		0	-	0
Peak Hour Factor	40	40		40	40	40
Heavy Vehicles, %	1	1		43	43	1
Mvmt Flow	0	0		0	118	68

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	118	0	-	0	59	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1476	-	-	-	950	1010
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1476	-	-	-	950	1010
Mov Cap-2 Maneuver	-	-	-	-	950	-
Stage 1	-	-	-	-	966	-
Stage 2	-	-	-	-	-	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		9.1	
HCM LOS					A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1476	-	-	-	950
HCM Lane V/C Ratio	-	-	-	-	0.071
HCM Control Delay (s)	0	-	-	-	9.1
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2019 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	540	215	465	350	180	535
Future Volume (vph)	540	215	465	350	180	535
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	1455	1610	1369	3303	3406
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	1455	1610	1369	3303	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		231		131		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	11%	11%	18%	18%	6%	6%
Adj. Flow (vph)	581	231	500	376	194	575
Shared Lane Traffic (%)						
Lane Group Flow (vph)	581	231	500	376	194	575
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	50.0	50.0	50.0	50.0	20.0	70.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	45.0	45.0	43.5	45.0	14.5	63.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	27.4	27.4	34.9	69.1	10.6	51.3
Actuated g/C Ratio	0.30	0.30	0.38	0.76	0.12	0.57
v/c Ratio	0.61	0.39	0.81	0.35	0.50	0.30
Control Delay	31.0	5.6	37.7	3.0	45.8	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2019 Without Project AM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	31.0	5.6	37.7	3.0	45.8	11.3
LOS	C	A	D	A	D	B
Approach Delay	23.8		22.8			20.0
Approach LOS	C		C			B
Queue Length 50th (ft)	151	0	246	31	56	83
Queue Length 95th (ft)	231	53	#506	68	107	149
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	1638	866	808	1294	552	2487
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.27	0.62	0.29	0.35	0.23

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 90.7

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 22.3

Intersection LOS: C

Intersection Capacity Utilization 59.2%

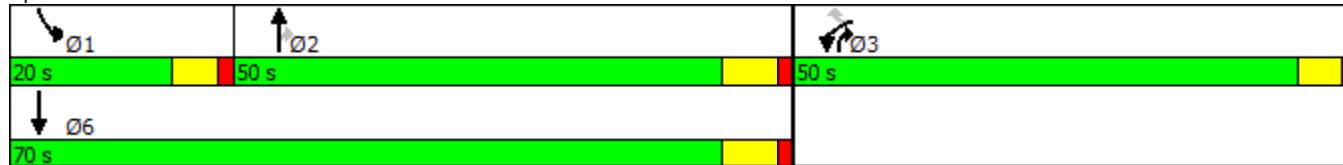
ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	10	290	20	35	35	105	735	55	50	1000	40
Future Volume (vph)	50	10	290	20	35	35	105	735	55	50	1000	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.947			0.989				0.850
Flt Protected		0.960			0.989		0.950			0.950		
Satd. Flow (prot)	0	1771	1568	0	1618	0	2968	3026	0	1671	3343	1495
Flt Permitted		0.764			0.930		0.950			0.950		
Satd. Flow (perm)	0	1409	1568	0	1521	0	2968	3026	0	1671	3343	1495
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					29				8			69
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	10%	10%	10%	18%	18%	18%	8%	8%	8%
Adj. Flow (vph)	53	11	309	21	37	37	112	782	59	53	1064	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	64	309	0	95	0	112	841	0	53	1064	43
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	55.0		20.0	55.0	55.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		16.7%	45.8%		16.7%	45.8%	45.8%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	48.5		14.9	48.5	48.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		16.6	29.8		16.6		7.9	41.2		7.3	35.2	35.2
Actuated g/C Ratio		0.21	0.38		0.21		0.10	0.53		0.09	0.45	0.45
v/c Ratio		0.21	0.51		0.27		0.37	0.52		0.34	0.70	0.06
Control Delay		29.5	23.1		22.8		41.2	15.7		44.5	20.5	1.8
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 Without Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		29.5	23.1		22.8		41.2	15.7		44.5	20.5	1.8
LOS		C	C		C		D	B		D	C	A
Approach Delay		24.2			22.8			18.7				20.9
Approach LOS		C			C			B				C
Queue Length 50th (ft)		25	111		26		26	145		24	199	0
Queue Length 95th (ft)		68	225		76		64	270		72	356	9
Internal Link Dist (ft)		400			150			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		754	868		828		599	1993		337	2198	1006
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.08	0.36		0.11		0.19	0.42		0.16	0.48	0.04

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 77.7

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.70

Intersection Signal Delay: 20.6

Intersection LOS: C

Intersection Capacity Utilization 65.3%

ICU Level of Service C

Analysis Period (min) 15

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 Without Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	60	30	2	330	105	40	2	795	155	100	1115	95
Future Volume (vph)	60	30	2	330	105	40	2	795	155	100	1115	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00		0.98	1.00		0.98
Fr <sub>t</sub>		0.991				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3440	0	3400	1845	1568	1597	3195	1429	1719	3438	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3440	0	3400	1845	1568	1596	3195	1398	1718	3438	1502
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		2				132			173			173
Link Speed (mph)	35			35			55			55		
Link Distance (ft)	346			353			991			3221		
Travel Time (s)	6.7			6.9			12.3			39.9		
Confl. Peds. (#/hr)						2			1	1		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	13%	13%	13%	5%	5%	5%
Adj. Flow (vph)	63	31	2	344	109	42	2	828	161	104	1161	99
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	33	0	344	109	42	2	828	161	104	1161	99
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	10.0	40.0		20.0	40.0	40.0	10.0	50.0	50.0	10.0	50.0	50.0
Total Split (%)	8.3%	33.3%		16.7%	33.3%	33.3%	8.3%	41.7%	41.7%	8.3%	41.7%	41.7%
Maximum Green (s)	4.5	34.5		14.5	34.5	34.5	4.5	43.5	43.5	4.5	43.5	43.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5	4.5
Recall Mode	None	None		None	None	None	Min	Min	None	Min	Min	
Walk Time (s)	7.0			7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	25.0			25.0	25.0		25.0	25.0		25.0	25.0	
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	
Act Effct Green (s)	4.7	5.9		14.5	13.1	13.1	4.7	29.3	29.3	4.7	38.2	38.2
Actuated g/C Ratio	0.06	0.08		0.20	0.18	0.18	0.06	0.40	0.40	0.06	0.52	0.52
v/c Ratio	0.29	0.12		0.51	0.33	0.11	0.02	0.64	0.24	0.95	0.65	0.11

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 Without Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	41.8	36.2		32.3	32.6	0.6	40.0	20.5	3.1	115.5	16.0	0.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	41.8	36.2		32.3	32.6	0.6	40.0	20.5	3.1	115.5	16.0	0.4
LOS	D	D		C	C	A	D	C	A	F	B	A
Approach Delay		39.9				29.6			17.7			22.4
Approach LOS			D			C			B			C
Queue Length 50th (ft)	15	7		77	45	0	1	168	0	~53	201	0
Queue Length 95th (ft)	39	24		144	105	0	9	231	28	#179	352	2
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100			900	300	
Base Capacity (vph)	217	1704		745	1178	1049	103	1994	937	110	2152	1004
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.02		0.46	0.09	0.04	0.02	0.42	0.17	0.95	0.54	0.10

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 73

Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.95

Intersection Signal Delay: 22.6

Intersection LOS: C

Intersection Capacity Utilization 64.8%

ICU Level of Service C

Analysis Period (min) 15

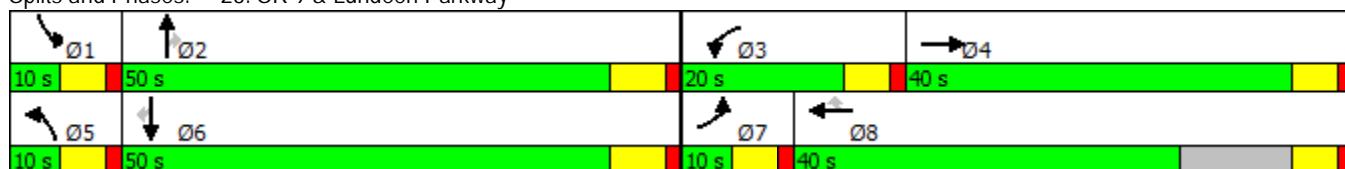
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2019 Without Project AM Peak**  
 HCM 2010 Roundabout

**Intersection**

Intersection Delay, s/veh 10.5  
 Intersection LOS B

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	144	73	338	642
Demand Flow Rate, veh/h	149	77	365	661
Vehicles Circulating, veh/h	357	632	185	74
Vehicles Exiting, veh/h	193	103	524	432
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	6.7	7.9	8.7	12.5
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	149	77	365	661
Cap Entry Lane, veh/h	791	601	939	1049
Entry HV Adj Factor	0.967	0.944	0.925	0.971
Flow Entry, veh/h	144	73	338	642
Cap Entry, veh/h	765	567	869	1019
V/C Ratio	0.188	0.128	0.389	0.630
Control Delay, s/veh	6.7	7.9	8.7	12.5
LOS	A	A	A	B
95th %tile Queue, veh	1	0	2	5

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2019 Without Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	515	20	0	820	0	10
Future Vol, veh/h	515	20	0	820	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	90	90	71	71
Heavy Vehicles, %	21	21	10	10	10	10
Mvmt Flow	592	23	0	911	0	14

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	592	0	1503
Stage 1	-	-	-	-	592
Stage 2	-	-	-	-	911
Critical Hdwy	-	-	4.2	-	6.5
Critical Hdwy Stg 1	-	-	-	-	5.5
Critical Hdwy Stg 2	-	-	-	-	5.5
Follow-up Hdwy	-	-	2.29	-	3.59
Pot Cap-1 Maneuver	-	-	946	-	128
Stage 1	-	-	-	-	537
Stage 2	-	-	-	-	379
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	946	-	128
Mov Cap-2 Maneuver	-	-	-	-	128
Stage 1	-	-	-	-	537
Stage 2	-	-	-	-	379

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	492	-	-	946	-
HCM Lane V/C Ratio	0.029	-	-	-	-
HCM Control Delay (s)	12.5	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2019 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	475	280	1055	765	285	610
Future Volume (vph)	475	280	1055	765	285	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3213	1482	1792	1524	3467	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3213	1482	1792	1524	3467	3574
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		210		7		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	6%	6%	1%	1%
Adj. Flow (vph)	495	292	1099	797	297	635
Shared Lane Traffic (%)						
Lane Group Flow (vph)	495	292	1099	797	297	635
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	7.0	5.0	3.0	7.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	37.0	37.0	86.0	37.0	17.0	103.0
Total Split (%)	26.4%	26.4%	61.4%	26.4%	12.1%	73.6%
Maximum Green (s)	32.0	32.0	79.5	32.0	11.5	96.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	30.1	30.1	79.6	116.2	11.5	96.6
Actuated g/C Ratio	0.22	0.22	0.58	0.84	0.08	0.70
v/c Ratio	0.71	0.60	1.07	0.62	1.03	0.25
Control Delay	56.1	19.5	76.8	6.1	121.9	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2019 Without Project School PM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	56.1	19.5	76.8	6.1	121.9	8.1
LOS	E	B	E	A	F	A
Approach Delay	42.5		47.1			44.4
Approach LOS	D		D			D
Queue Length 50th (ft)	213	62	~1115	184	-150	105
Queue Length 95th (ft)	276	164	#1378	262	#247	132
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	744	504	1031	1303	288	2497
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.58	1.07	0.61	1.03	0.25

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 138.2

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.07

Intersection Signal Delay: 45.4

Intersection LOS: D

Intersection Capacity Utilization 91.4%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	20	250	90	115	130	275	1610	70	40	985	65
Future Volume (vph)	50	20	250	90	115	130	275	1610	70	40	985	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.947			0.994				0.850
Flt Protected		0.965			0.987		0.950			0.950		
Satd. Flow (prot)	0	1798	1583	0	1675	0	3335	3417	0	1703	3406	1524
Flt Permitted		0.537			0.885		0.950			0.950		
Satd. Flow (perm)	0	1000	1583	0	1502	0	3335	3417	0	1703	3406	1524
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					23				4			70
Link Speed (mph)		35			25			55			55	
Link Distance (ft)		480			230			3221			2260	
Travel Time (s)		9.4			6.3			39.9			28.0	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	2%	2%	6%	6%	6%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	51	20	255	92	117	133	281	1643	71	41	1005	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	255	0	342	0	281	1714	0	41	1005	66
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	75.0		20.0	75.0	75.0
Total Split (%)	32.1%	32.1%		32.1%	32.1%		14.3%	53.6%		14.3%	53.6%	53.6%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	68.5		14.9	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		31.2	62.8		31.2		26.5	69.3		7.5	47.9	47.9
Actuated g/C Ratio		0.25	0.51		0.25		0.22	0.56		0.06	0.39	0.39
v/c Ratio		0.28	0.32		0.86		0.39	0.89		0.40	0.76	0.10
Control Delay		40.5	20.7		62.3		47.6	32.8		70.1	36.2	4.9
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 Without Project School PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		40.5	20.7		62.3		47.6	32.8		70.1	36.2	4.9
LOS		D	C		E		D	C		E	D	A
Approach Delay		25.0			62.3			34.9				35.6
Approach LOS		C			E			C				D
Queue Length 50th (ft)		46	117		249		102	645		33	368	0
Queue Length 95th (ft)		92	213		380		173	#964		75	430	26
Internal Link Dist (ft)		400			150			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		325	922		504		718	1929		209	1921	890
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.22	0.28		0.68		0.39	0.89		0.20	0.52	0.07

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 122.9

Natural Cycle: 140

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 36.7

Intersection LOS: D

Intersection Capacity Utilization 90.0%

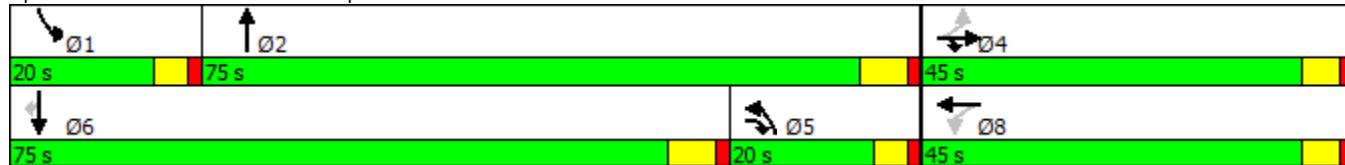
ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 Without Project School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	265	120	5	240	105	50	5	1640	395	85	1110	130
Future Volume (vph)	265	120	5	240	105	50	5	1640	395	85	1110	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr1			0.994			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		3				113				420		138
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		346			353			991			3221	
Travel Time (s)		6.7			6.9			12.3			39.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	13%	13%	13%
Adj. Flow (vph)	282	128	5	255	112	53	5	1745	420	90	1181	138
Shared Lane Traffic (%)												
Lane Group Flow (vph)	282	133	0	255	112	53	5	1745	420	90	1181	138
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8			2		6	
Detector Phase	7	4		3	8	8	5	2	2	1	6	
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	17.0	38.0		17.0	38.0	38.0	10.0	75.0	75.0	10.0	75.0	75.0
Total Split (%)	12.1%	27.1%		12.1%	27.1%	27.1%	7.1%	53.6%	53.6%	7.1%	53.6%	53.6%
Maximum Green (s)	11.5	32.5		11.5	32.5	32.5	4.5	68.5	68.5	4.5	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		25.0			25.0	25.0		25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	0
Act Effct Green (s)	11.5	12.0		11.5	12.0	12.0	4.5	68.6	68.6	4.5	76.7	76.7
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.10	0.04	0.57	0.57	0.04	0.64	0.64
v/c Ratio	0.86	0.38		0.78	0.60	0.20	0.08	0.88	0.39	1.50	0.58	0.14
Control Delay	78.6	51.9		69.9	65.0	1.8	59.8	28.8	2.4	335.1	14.7	2.3
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 Without Project School PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	78.6	51.9		69.9	65.0	1.8	59.8	28.8	2.4	335.1	14.7	2.3
LOS	E	D		E	E	A	E	C	A	F	B	A
Approach Delay		70.0			60.0			23.7			33.9	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	112	50		100	84	0	4	577	0	~96	240	0
Queue Length 95th (ft)	#198	82		#170	145	0	18	767	45	#214	418	29
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100		900	300		430
Base Capacity (vph)	327	949		330	506	512	65	1989	1069	60	2047	965
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.14		0.77	0.22	0.10	0.08	0.88	0.39	1.50	0.58	0.14

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 119.6

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.50

Intersection Signal Delay: 34.8

Intersection LOS: C

Intersection Capacity Utilization 82.3%

ICU Level of Service E

Analysis Period (min) 15

- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
14: Lundein Parkway & Lake Drive**

**Forecast 2019 Without Project School PM Peak**  
HCM 2010 Roundabout

**Intersection**

Intersection Delay, s/veh 23.8  
Intersection LOS C

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	506	112	635	674
Demand Flow Rate, veh/h	516	112	641	687
Vehicles Circulating, veh/h	669	604	266	181
Vehicles Exiting, veh/h	238	264	450	1004
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	42.4	8.0	18.8	17.2
Approach LOS	E	A	C	C

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	516	112	641	687
Cap Entry Lane, veh/h	579	618	866	943
Entry HV Adj Factor	0.981	1.000	0.991	0.980
Flow Entry, veh/h	506	112	635	674
Cap Entry, veh/h	568	618	858	924
V/C Ratio	0.892	0.181	0.740	0.729
Control Delay, s/veh	42.4	8.0	18.8	17.2
LOS	E	A	C	C
95th %tile Queue, veh	10	1	7	7

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2019 Without Project School PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1005	50	0	760	0	15
Future Vol, veh/h	1005	50	0	760	0	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	92	92	78	78
Heavy Vehicles, %	5	5	9	9	11	11
Mvmt Flow	1047	52	0	826	0	19

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	1047	0	1873
Stage 1	-	-	-	-	1047
Stage 2	-	-	-	-	826
Critical Hdwy	-	-	4.19	-	6.51
Critical Hdwy Stg 1	-	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	-	5.51
Follow-up Hdwy	-	-	2.281	-	3.599
Pot Cap-1 Maneuver	-	-	638	-	75
Stage 1	-	-	-	-	325
Stage 2	-	-	-	-	415
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	638	-	75
Mov Cap-2 Maneuver	-	-	-	-	75
Stage 1	-	-	-	-	325
Stage 2	-	-	-	-	415

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	266	-	-	638	-
HCM Lane V/C Ratio	0.072	-	-	-	-
HCM Control Delay (s)	19.6	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2019 With Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	540	215	473	350	201	535
Future Volume (vph)	540	215	473	350	201	535
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3155	1455	1610	1369	3303	3406
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3155	1455	1610	1369	3303	3406
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		231		102		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	11%	11%	18%	18%	6%	6%
Adj. Flow (vph)	581	231	509	376	216	575
Shared Lane Traffic (%)						
Lane Group Flow (vph)	581	231	509	376	216	575
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	3.0	5.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	50.0	50.0	50.0	50.0	20.0	70.0
Total Split (%)	41.7%	41.7%	41.7%	41.7%	16.7%	58.3%
Maximum Green (s)	45.0	45.0	43.5	45.0	14.5	63.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	27.6	27.6	35.9	70.3	11.2	52.8
Actuated g/C Ratio	0.30	0.30	0.39	0.76	0.12	0.57
v/c Ratio	0.62	0.39	0.81	0.35	0.54	0.30
Control Delay	31.8	5.6	38.5	3.4	46.7	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2019 With Project AM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	31.8	5.6	38.5	3.4	46.7	11.2
LOS	C	A	D	A	D	B
Approach Delay	24.3		23.6			20.9
Approach LOS	C		C			C
Queue Length 50th (ft)	157	0	257	38	64	83
Queue Length 95th (ft)	231	53	#522	76	118	149
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	1601	852	790	1287	540	2439
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.27	0.64	0.29	0.40	0.24

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 92.4

Natural Cycle: 95

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 60.2%

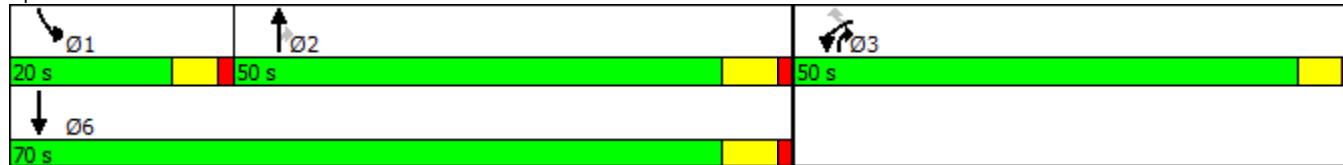
ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 With Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	177	290	113	113	43	105	735	79	50	1000	40
Future Volume (vph)	50	177	290	113	113	43	105	735	79	50	1000	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.978			0.985				0.850
Flt Protected		0.989			0.979		0.950			0.950		
Satd. Flow (prot)	0	1797	1568	0	1675	0	2968	3018	0	1671	3343	1495
Flt Permitted		0.868			0.636		0.950			0.950		
Satd. Flow (perm)	0	1577	1568	0	1088	0	2968	3018	0	1671	3343	1495
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9			11				69
Link Speed (mph)		35			25			55				55
Link Distance (ft)		480			230			3221				2260
Travel Time (s)		9.4			6.3			39.9				28.0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	5%	3%	4%	10%	17%	18%	18%	16%	8%	8%	8%
Adj. Flow (vph)	53	188	309	120	120	46	112	782	84	53	1064	43
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	241	309	0	286	0	112	866	0	53	1064	43
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	55.0		20.0	55.0	55.0
Total Split (%)	37.5%	37.5%		37.5%	37.5%		16.7%	45.8%		16.7%	45.8%	45.8%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	48.5		14.9	48.5	48.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		31.4	45.1		31.4		8.5	44.1		7.8	40.6	40.6
Actuated g/C Ratio		0.32	0.46		0.32		0.09	0.45		0.08	0.41	0.41
v/c Ratio		0.48	0.43		0.81		0.44	0.64		0.40	0.77	0.07
Control Delay		31.7	20.8		50.1		52.6	25.6		57.2	30.2	2.1
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 With Project AM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		31.7	20.8		50.1		52.6	25.6		57.2	30.2	2.1
LOS		C	C		D		D	C		E	C	A
Approach Delay		25.6			50.1			28.6			30.3	
Approach LOS		C			D			C			C	
Queue Length 50th (ft)		127	135		167		37	236		35	312	0
Queue Length 95th (ft)		218	219		#325		71	347		79	440	11
Internal Link Dist (ft)		400			150			3141			2180	
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		661	835		461		469	1561		264	1721	803
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.36	0.37		0.62		0.24	0.55		0.20	0.62	0.05

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 98.3

Natural Cycle: 100

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 30.8

Intersection LOS: C

Intersection Capacity Utilization 76.7%

ICU Level of Service D

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 With Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑↑	↑↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	84	30	2	330	105	40	2	795	155	100	1197	106
Future Volume (vph)	84	30	2	330	105	40	2	795	155	100	1197	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor							1.00		0.98	1.00		0.98
Fr <sub>t</sub>		0.991				0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3367	3440	0	3400	1845	1568	1597	3195	1429	1719	3438	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3367	3440	0	3400	1845	1568	1596	3195	1398	1718	3438	1502
Right Turn on Red			Yes			Yes			Yes		Yes	
Satd. Flow (RTOR)		2				132			173			173
Link Speed (mph)	35			35			55			55		
Link Distance (ft)	346			353			991			3221		
Travel Time (s)	6.7			6.9			12.3			39.9		
Confl. Peds. (#/hr)						2			1	1		2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	13%	13%	13%	5%	5%	5%
Adj. Flow (vph)	88	31	2	344	109	42	2	828	161	104	1247	110
Shared Lane Traffic (%)												
Lane Group Flow (vph)	88	33	0	344	109	42	2	828	161	104	1247	110
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	10.0	40.0		20.0	40.0	40.0	10.0	50.0	50.0	10.0	50.0	50.0
Total Split (%)	8.3%	33.3%		16.7%	33.3%	33.3%	8.3%	41.7%	41.7%	8.3%	41.7%	41.7%
Maximum Green (s)	4.5	34.5		14.5	34.5	34.5	4.5	43.5	43.5	4.5	43.5	43.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5	4.5
Recall Mode	None	None		None	None	None	Min	Min	None	Min	Min	
Walk Time (s)	7.0			7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	25.0			25.0	25.0		25.0	25.0		25.0	25.0	
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	
Act Effct Green (s)	4.6	5.8		14.2	13.0	13.0	4.6	34.3	34.3	4.6	42.8	42.8
Actuated g/C Ratio	0.06	0.07		0.18	0.17	0.17	0.06	0.44	0.44	0.06	0.55	0.55
v/c Ratio	0.44	0.13		0.55	0.35	0.11	0.02	0.59	0.23	1.03	0.66	0.12

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 With Project AM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay	46.3	36.8		34.4	33.9	0.6	40.5	19.0	2.9	140.8	16.0	0.8
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.3	36.8		34.4	33.9	0.6	40.5	19.0	2.9	140.8	16.0	0.8
LOS	D	D		C	C	A	D	B	A	F	B	A
Approach Delay		43.7				31.4			16.4			23.7
Approach LOS			D			C			B			C
Queue Length 50th (ft)	22	7		82	48	0	1	168	0	~60	224	0
Queue Length 95th (ft)	#51	24		144	105	0	9	231	28	#179	392	7
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100			900	300	
Base Capacity (vph)	200	1568		685	1084	975	94	1834	876	101	1980	938
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.02		0.50	0.10	0.04	0.02	0.45	0.18	1.03	0.63	0.12

Intersection Summary

Area Type: Other

Cycle Length: 120

Actuated Cycle Length: 77.4

Natural Cycle: 105

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 23.4

Intersection LOS: C

Intersection Capacity Utilization 67.1%

ICU Level of Service C

Analysis Period (min) 15

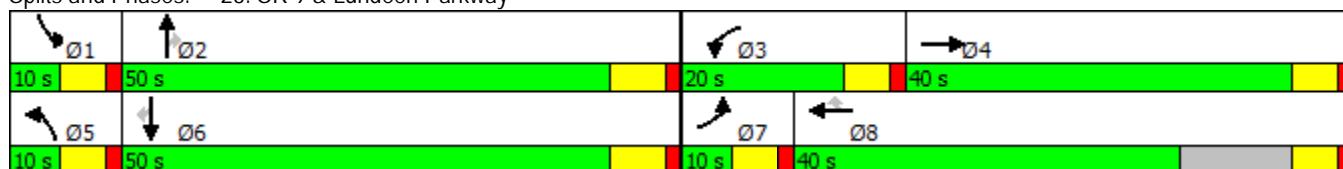
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2019 With Project AM Peak**  
 HCM 2010 Roundabout

**Intersection**

Intersection Delay, s/veh 11.5  
 Intersection LOS B

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	156	93	338	675
Demand Flow Rate, veh/h	162	104	365	699
Vehicles Circulating, veh/h	373	632	212	87
Vehicles Exiting, veh/h	204	154	524	448
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.1	8.9	9.1	14.1
Approach LOS	A	A	A	B

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	162	104	365	699
Cap Entry Lane, veh/h	778	601	914	1036
Entry HV Adj Factor	0.963	0.896	0.925	0.965
Flow Entry, veh/h	156	93	338	675
Cap Entry, veh/h	749	538	846	1000
V/C Ratio	0.208	0.173	0.399	0.675
Control Delay, s/veh	7.1	8.9	9.1	14.1
LOS	A	A	A	B
95th %tile Queue, veh	1	1	2	5

**Lake Stevens Schools - Learning Ctr  
 24: Lake Dr & Access Road**

**Forecast 2019 With Project AM Peak  
 HCM 2010 Roundabout**

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Intersection

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Intersection Delay, s/veh 4.5  
 Intersection LOS A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	78	123	85
Demand Flow Rate, veh/h	89	131	87
Vehicles Circulating, veh/h	43	26	102
Vehicles Exiting, veh/h	146	106	55
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	4.5	4.5	4.4
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	89	131	87
Cap Entry Lane, veh/h	1082	1101	1020
Entry HV Adj Factor	0.876	0.942	0.974
Flow Entry, veh/h	78	123	85
Cap Entry, veh/h	949	1037	994
V/C Ratio	0.082	0.119	0.085
Control Delay, s/veh	4.5	4.5	4.4
LOS	A	A	A
95th %tile Queue, veh	0	0	0

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2019 With Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	515	41	0	820	0	16
Future Vol, veh/h	515	41	0	820	0	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	87	87	90	90	71	71
Heavy Vehicles, %	15	15	7	7	7	19
Mvmt Flow	592	47	0	911	0	23

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	592	0	1503
Stage 1	-	-	-	-	592
Stage 2	-	-	-	-	911
Critical Hdwy	-	-	4.17	-	6.47
Critical Hdwy Stg 1	-	-	-	-	5.47
Critical Hdwy Stg 2	-	-	-	-	5.47
Follow-up Hdwy	-	-	2.263	-	3.563
Pot Cap-1 Maneuver	-	-	960	-	130
Stage 1	-	-	-	-	543
Stage 2	-	-	-	-	384
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	960	-	130
Mov Cap-2 Maneuver	-	-	-	-	130
Stage 1	-	-	-	-	543
Stage 2	-	-	-	-	384

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	476	-	-	960	-
HCM Lane V/C Ratio	0.047	-	-	-	-
HCM Control Delay (s)	12.9	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

**Lake Stevens Schools - Learning Ctr**  
**25: Access Road & Elem Staff /Bus Out Dwy**

**Forecast 2019 With Project AM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	27	26		69	10	5	15
Future Vol, veh/h	27	26		69	10	5	15
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	45	45		45	45	30	30
Heavy Vehicles, %	1	1		8	8	100	100
Mvmt Flow	60	58		153	22	17	50

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	176	0	-	0	342	164
Stage 1	-	-	-	-	164	-
Stage 2	-	-	-	-	178	-
Critical Hdwy	4.11	-	-	-	7.4	7.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.209	-	-	-	4.4	4.2
Pot Cap-1 Maneuver	1406	-	-	-	496	678
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	663	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1406	-	-	-	474	678
Mov Cap-2 Maneuver	-	-	-	-	474	-
Stage 1	-	-	-	-	675	-
Stage 2	-	-	-	-	634	-

Approach	EB		WB		SB	
HCM Control Delay, s	3.9		0		11.6	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1406	-	-	-	612
HCM Lane V/C Ratio	0.043	-	-	-	0.109
HCM Control Delay (s)	7.7	0	-	-	11.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

**Lake Stevens Schools - Learning Ctr  
26: Access Road & Elem Dwy**

**Forecast 2019 With Project AM Peak**  
HCM 2010 TWSC

**Intersection**

Int Delay, s/veh 8.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	135	35		36	48	18	140
Future Vol, veh/h	135	35		36	48	18	140
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	45	45		45	45	45	45
Heavy Vehicles, %	1	1		29	29	1	1
Mvmt Flow	300	78		80	107	40	311

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	187	0	-	0	811	133
Stage 1	-	-	-	-	133	-
Stage 2	-	-	-	-	678	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1393	-	-	-	350	919
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	506	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1393	-	-	-	271	919
Mov Cap-2 Maneuver	-	-	-	-	271	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	392	-

Approach	EB		WB		SB	
HCM Control Delay, s	6.6		0		14.6	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1393	-	-	-	722	
HCM Lane V/C Ratio	0.215	-	-	-	0.486	
HCM Control Delay (s)	8.3	0	-	-	14.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.8	-	-	-	2.7	

**Lake Stevens Schools - Learning Ctr  
27: Access Road & ELC/Bus In Dwy**

**Forecast 2019 With Project AM Peak**  
HCM 2010 TWSC

Intersection

Int Delay, s/veh 1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	29	167		160	16	3	24
Future Vol, veh/h	29	167		160	16	3	24
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	45	45		45	45	45	45
Heavy Vehicles, %	6	6		14	14	1	1
Mvmt Flow	64	371		356	36	7	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	391	0	-	0	873	373
Stage 1	-	-	-	-	373	-
Stage 2	-	-	-	-	500	-
Critical Hdwy	4.16	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.254	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1146	-	-	-	322	675
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	611	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1146	-	-	-	299	675
Mov Cap-2 Maneuver	-	-	-	-	299	-
Stage 1	-	-	-	-	699	-
Stage 2	-	-	-	-	568	-

Approach	EB		WB		SB	
HCM Control Delay, s	1.2		0		11.8	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1146	-	-	-	592	
HCM Lane V/C Ratio	0.056	-	-	-	0.101	
HCM Control Delay (s)	8.3	0	-	-	11.8	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3	

**Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92**

**Forecast 2019 With Project PM Peak  
Lanes, Volumes, Timings**

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↑	↑	↑	↑	↑↑	↑↑
Traffic Volume (vph)	475	280	1065	765	292	610
Future Volume (vph)	475	280	1065	765	292	610
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	335	330		0	270	
Storage Lanes	2	0		1	2	
Taper Length (ft)	25				25	
Lane Util. Factor	0.97	1.00	1.00	1.00	0.97	0.95
Fr1		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3213	1482	1792	1524	3467	3574
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	3213	1482	1792	1524	3467	3574
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		209		6		
Link Speed (mph)	30		30			30
Link Distance (ft)	919		2260			426
Travel Time (s)	20.9		51.4			9.7
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	9%	9%	6%	6%	1%	1%
Adj. Flow (vph)	495	292	1109	797	304	635
Shared Lane Traffic (%)						
Lane Group Flow (vph)	495	292	1109	797	304	635
Turn Type	Prot	Perm	NA	pm+ov	Prot	NA
Protected Phases	3		2	3	1	6
Permitted Phases		3		2		
Detector Phase	3	3	2	3	1	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	7.0	5.0	3.0	7.0
Minimum Split (s)	37.0	37.0	48.5	37.0	9.5	24.5
Total Split (s)	37.0	37.0	86.0	37.0	17.0	103.0
Total Split (%)	26.4%	26.4%	61.4%	26.4%	12.1%	73.6%
Maximum Green (s)	32.0	32.0	79.5	32.0	11.5	96.5
Yellow Time (s)	4.0	4.0	5.0	4.0	4.0	5.0
All-Red Time (s)	1.0	1.0	1.5	1.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	6.5	5.0	5.5	6.5
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	4.0	4.0	4.5	4.0	2.5	4.5
Recall Mode	None	None	Min	None	None	Min
Walk Time (s)	7.0	7.0	7.0	7.0		
Flash Dont Walk (s)	25.0	25.0	35.0	25.0		
Pedestrian Calls (#/hr)	0	0	0	0		
Act Effct Green (s)	30.1	30.1	79.6	116.2	11.5	96.6
Actuated g/C Ratio	0.22	0.22	0.58	0.84	0.08	0.70
v/c Ratio	0.71	0.60	1.08	0.62	1.06	0.25
Control Delay	56.1	19.7	80.1	6.1	127.5	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
3: SR 9 & SR 92

Forecast 2019 With Project PM Peak  
Lanes, Volumes, Timings



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Total Delay	56.1	19.7	80.1	6.1	127.5	8.1
LOS	E	B	F	A	F	A
Approach Delay	42.6		49.1			46.8
Approach LOS	D		D			D
Queue Length 50th (ft)	213	63	~1134	184	-157	105
Queue Length 95th (ft)	276	165	#1397	263	#254	132
Internal Link Dist (ft)	839		2180			346
Turn Bay Length (ft)	335	330			270	
Base Capacity (vph)	744	503	1031	1303	288	2497
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.58	1.08	0.61	1.06	0.25

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 138.2

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 47.1

Intersection LOS: D

Intersection Capacity Utilization 92.1%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: SR 9 & SR 92



**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 With Project PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	50	77	250	111	204	140	275	1610	121	40	985	65
Future Volume (vph)	50	77	250	111	204	140	275	1610	121	40	985	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		165	0		0	355		0	160		370
Storage Lanes	0		1	0		0	2		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.97	0.95	0.95	1.00	0.95	1.00
Fr1			0.850		0.958			0.990				0.850
Flt Protected		0.981			0.988		0.950			0.950		
Satd. Flow (prot)	0	1734	1583	0	1672	0	3335	3404	0	1703	3406	1524
Flt Permitted		0.631			0.839		0.950			0.950		
Satd. Flow (perm)	0	1116	1583	0	1420	0	3335	3404	0	1703	3406	1524
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					16			8				70
Link Speed (mph)		35			25			55				55
Link Distance (ft)		480			333			3221				2260
Travel Time (s)		9.4			9.1			39.9				28.0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Heavy Vehicles (%)	2%	11%	2%	8%	7%	8%	5%	5%	5%	6%	6%	6%
Adj. Flow (vph)	51	79	255	113	208	143	281	1643	123	41	1005	66
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	130	255	0	464	0	281	1766	0	41	1005	66
Turn Type	Perm	NA	pt+ov	Perm	NA		Prot	NA		Prot	NA	Perm
Protected Phases		4	4 5		8		5	2		1	6	
Permitted Phases	4			8								6
Detector Phase	4	4	4 5	8	8		5	2		1	6	6
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	15.0		3.0	15.0	15.0
Minimum Split (s)	44.5	44.5		23.5	23.5		20.0	27.5		20.0	33.5	33.5
Total Split (s)	45.0	45.0		45.0	45.0		20.0	75.0		20.0	75.0	75.0
Total Split (%)	32.1%	32.1%		32.1%	32.1%		14.3%	53.6%		14.3%	53.6%	53.6%
Maximum Green (s)	39.5	39.5		39.5	39.5		14.9	68.5		14.9	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0		3.6	5.0		3.6	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5		1.5	1.5		1.5	1.5	1.5
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)		5.5			5.5		5.1	6.5		5.1	6.5	6.5
Lead/Lag							Lag	Lag		Lead	Lead	Lead
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	Yes
Vehicle Extension (s)	2.0	2.0		3.5	3.5		2.0	4.5		2.0	4.5	4.5
Recall Mode	None	None		None	None		None	Min		None	Min	Min
Walk Time (s)	7.0	7.0						7.0			7.0	7.0
Flash Dont Walk (s)	32.0	32.0						14.0			20.0	20.0
Pedestrian Calls (#/hr)	0	0						0			0	0
Act Effct Green (s)		39.6	68.4		39.6		23.7	68.6		7.6	50.4	50.4
Actuated g/C Ratio		0.30	0.52		0.30		0.18	0.52		0.06	0.39	0.39
v/c Ratio		0.39	0.31		1.05		0.47	0.99		0.42	0.77	0.10
Control Delay		41.4	20.7		100.7		52.7	49.6		73.0	38.9	4.8
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	0.0

**Lake Stevens Schools - Learning Ctr  
7: SR 9 & Soper Hill Road**

**Forecast 2019 With Project PM Peak**  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		41.4	20.7		100.7		52.7	49.6		73.0	38.9	4.8
LOS		D	C		F		D	D		E	D	A
Approach Delay		27.7			100.7			50.1				38.1
Approach LOS		C			F			D				D
Queue Length 50th (ft)		89	121		-432		111	-782		35	393	0
Queue Length 95th (ft)		156	213		#671		173	#1016		75	430	26
Internal Link Dist (ft)		400			253			3141				2180
Turn Bay Length (ft)			165				355			160		370
Base Capacity (vph)		337	827		440		603	1789		194	1786	832
Starvation Cap Reductn		0	0		0		0	0		0	0	0
Spillback Cap Reductn		0	0		0		0	0		0	0	0
Storage Cap Reductn		0	0		0		0	0		0	0	0
Reduced v/c Ratio		0.39	0.31		1.05		0.47	0.99		0.21	0.56	0.08

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 130.8

Natural Cycle: 150

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 50.5

Intersection LOS: D

Intersection Capacity Utilization 98.0%

ICU Level of Service F

Analysis Period (min) 15

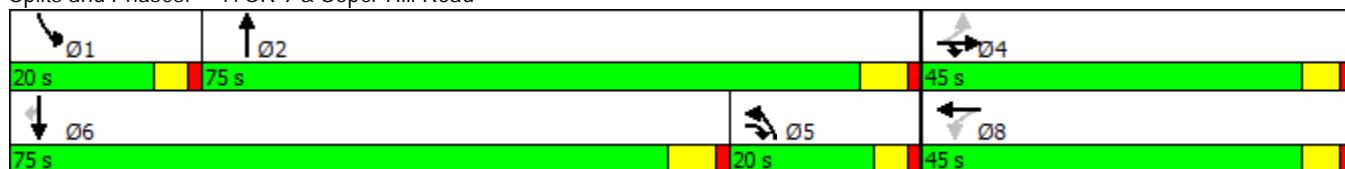
- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 7: SR 9 & Soper Hill Road



Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 With Project PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑↑	↑↑		↑↑	↑	↑	↑	↑↑	↑	↑	↑↑	↑
Traffic Volume (vph)	274	120	5	240	105	50	5	1682	395	85	1118	143
Future Volume (vph)	274	120	5	240	105	50	5	1682	395	85	1118	143
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	215		0	320		70	100		900	300		430
Storage Lanes	2		0	2		1	1		1	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr <sub>t</sub>			0.994			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3400	3484	0	3433	1863	1583	1736	3471	1553	1597	3195	1429
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)		3				113			420			152
Link Speed (mph)		35			35			55			55	
Link Distance (ft)		346			353			991			3221	
Travel Time (s)		6.7			6.9			12.3			39.9	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	4%	4%	4%	13%	13%	13%
Adj. Flow (vph)	291	128	5	255	112	53	5	1789	420	90	1189	152
Shared Lane Traffic (%)												
Lane Group Flow (vph)	291	133	0	255	112	53	5	1789	420	90	1189	152
Turn Type	Prot	NA		Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases					8				2			6
Detector Phase	7	4		3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	3.0	5.0		3.0	5.0	5.0	3.0	7.0	7.0	3.0	7.0	7.0
Minimum Split (s)	9.5	37.5		9.5	37.5	37.5	9.5	38.5	38.5	9.5	38.5	38.5
Total Split (s)	17.0	38.0		17.0	38.0	38.0	10.0	75.0	75.0	10.0	75.0	75.0
Total Split (%)	12.1%	27.1%		12.1%	27.1%	27.1%	7.1%	53.6%	53.6%	7.1%	53.6%	53.6%
Maximum Green (s)	11.5	32.5		11.5	32.5	32.5	4.5	68.5	68.5	4.5	68.5	68.5
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	5.0	5.0	4.0	5.0	5.0
All-Red Time (s)	1.5	1.5		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5		5.5	5.5	5.5	5.5	6.5	6.5	5.5	6.5	6.5
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	2.5	2.5		2.5	2.5	2.5	2.0	4.5	4.5	2.0	4.5	4.5
Recall Mode	None	None		None	None	None	None	Min	Min	None	Min	Min
Walk Time (s)		7.0			7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		25.0			25.0	25.0		25.0	25.0		25.0	25.0
Pedestrian Calls (#/hr)	0			0	0		0	0		0	0	0
Act Effct Green (s)	11.5	12.0		11.5	12.0	12.0	4.5	68.6	68.6	4.5	76.7	76.7
Actuated g/C Ratio	0.10	0.10		0.10	0.10	0.10	0.04	0.57	0.57	0.04	0.64	0.64
v/c Ratio	0.89	0.38		0.78	0.60	0.20	0.08	0.90	0.39	1.50	0.58	0.16
Control Delay	82.4	51.9		69.9	65.0	1.8	59.8	30.5	2.4	335.1	14.8	2.2
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Lake Stevens Schools - Learning Ctr  
23: SR 9 & Lundein Parkway

Forecast 2019 With Project PM Peak  
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	82.4	51.9		69.9	65.0	1.8	59.8	30.5	2.4	335.1	14.8	2.2
LOS	F	D		E	E	A	E	C	A	F	B	A
Approach Delay		72.8			60.0			25.2			33.6	
Approach LOS		E			E			C			C	
Queue Length 50th (ft)	115	50		100	84	0	4	607	0	~96	242	0
Queue Length 95th (ft)	#207	82		#170	145	0	18	#871	45	#214	423	31
Internal Link Dist (ft)		266			273			911			3141	
Turn Bay Length (ft)	215			320		70	100		900	300		430
Base Capacity (vph)	327	949		330	506	512	65	1989	1069	60	2047	970
Starvation Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.14		0.77	0.22	0.10	0.08	0.90	0.39	1.50	0.58	0.16

Intersection Summary

Area Type: Other

Cycle Length: 140

Actuated Cycle Length: 119.6

Natural Cycle: 145

Control Type: Actuated-Uncoordinated

Maximum v/c Ratio: 1.50

Intersection Signal Delay: 35.6

Intersection LOS: D

Intersection Capacity Utilization 83.7%

ICU Level of Service E

Analysis Period (min) 15

- Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 23: SR 9 & Lundein Parkway



**Lake Stevens Schools - Learning Ctr  
 14: Lundein Parkway & Lake Drive**

**Forecast 2019 With Project PM Peak  
 HCM 2010 Roundabout**

Intersection

Intersection Delay, s/veh 26.9  
 Intersection LOS D

Approach	NB	SB	NE	SW
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	519	149	635	686
Demand Flow Rate, veh/h	530	153	641	703
Vehicles Circulating, veh/h	684	604	307	195
Vehicles Exiting, veh/h	264	294	450	1019
Follow-Up Headway, s	3.186	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	49.6	9.2	21.3	18.9
Approach LOS	E	A	C	C

Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193	5.193
Entry Flow, veh/h	530	153	641	703
Cap Entry Lane, veh/h	570	618	831	930
Entry HV Adj Factor	0.979	0.971	0.991	0.975
Flow Entry, veh/h	519	149	635	686
Cap Entry, veh/h	558	600	824	907
V/C Ratio	0.930	0.248	0.771	0.756
Control Delay, s/veh	49.6	9.2	21.3	18.9
LOS	E	A	C	C
95th %tile Queue, veh	12	1	8	7

**Lake Stevens Schools - Learning Ctr  
 24: Lake Dr & Access Road**

**Forecast 2019 With Project PM Peak  
 HCM 2010 Roundabout**

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Intersection

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Intersection Delay, s/veh 4.8  
 Intersection LOS A

Approach	EB	NB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	176	98	120
Demand Flow Rate, veh/h	180	102	126
Vehicles Circulating, veh/h	113	39	50
Vehicles Exiting, veh/h	63	254	91
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	5.3	4.3	4.6
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LR	LT	TR
Assumed Moves	LR	LT	TR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	180	102	126
Cap Entry Lane, veh/h	1009	1087	1075
Entry HV Adj Factor	0.978	0.961	0.949
Flow Entry, veh/h	176	98	120
Cap Entry, veh/h	987	1044	1020
V/C Ratio	0.178	0.094	0.117
Control Delay, s/veh	5.3	4.3	4.6
LOS	A	A	A
95th %tile Queue, veh	1	0	0

**Lake Stevens Schools - Learning Ctr**  
**5: Lake Drive & SR 92**

**Forecast 2019 With Project PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	1005	57	0	760	0	23
Future Vol, veh/h	1005	57	0	760	0	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	92	92	78	78
Heavy Vehicles, %	5	5	11	11	4	13
Mvmt Flow	1047	59	0	826	0	29

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	1047	0	1873
Stage 1	-	-	-	-	1047
Stage 2	-	-	-	-	826
Critical Hdwy	-	-	4.21	-	6.44
Critical Hdwy Stg 1	-	-	-	-	5.44
Critical Hdwy Stg 2	-	-	-	-	5.44
Follow-up Hdwy	-	-	2.299	-	3.536
Pot Cap-1 Maneuver	-	-	631	-	78
Stage 1	-	-	-	-	335
Stage 2	-	-	-	-	427
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	631	-	78
Mov Cap-2 Maneuver	-	-	-	-	78
Stage 1	-	-	-	-	335
Stage 2	-	-	-	-	427

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	264	-	-	631	-
HCM Lane V/C Ratio	0.112	-	-	-	-
HCM Control Delay (s)	20.3	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

**Lake Stevens Schools - Learning Ctr**  
**25: Access Road & Elem Staff/Bus Out Dwy**

**Forecast 2019 With Project PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 3

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	0	59		37	0	11	29
Future Vol, veh/h	0	59		37	0	11	29
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	40	40		40	40	40	40
Heavy Vehicles, %	10	10		24	24	50	50
Mvmt Flow	0	148		93	0	28	73

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	93	0	-	0	241	93
Stage 1	-	-	-	-	93	-
Stage 2	-	-	-	-	148	-
Critical Hdwy	4.2	-	-	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.29	-	-	-	3.95	3.75
Pot Cap-1 Maneuver	1453	-	-	-	654	847
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	775	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1453	-	-	-	654	847
Mov Cap-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	775	-

Approach	EB		WB		SB	
HCM Control Delay, s	0		0		10.3	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1453	-	-	-	783
HCM Lane V/C Ratio	-	-	-	-	0.128
HCM Control Delay (s)	0	-	-	-	10.3
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.4

**Lake Stevens Schools - Learning Ctr**  
**26: Access Road & Elem Dwy**

**Forecast 2019 With Project PM Peak**  
**HCM 2010 TWSC**

Intersection

Int Delay, s/veh 7.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	75	32		48	18	27	71
Future Vol, veh/h	75	32		48	18	27	71
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	40	40		40	40	40	40
Heavy Vehicles, %	1	1		33	33	1	1
Mvmt Flow	188	80		120	45	68	178

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	165	0	-	0	598	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	455	-
Critical Hdwy	4.11	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.209	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1419	-	-	-	467	907
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	641	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1419	-	-	-	402	907
Mov Cap-2 Maneuver	-	-	-	-	402	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	552	-

Approach	EB		WB		SB	
HCM Control Delay, s	5.6		0		13.4	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1419	-	-	-	674	
HCM Lane V/C Ratio	0.132	-	-	-	0.364	
HCM Control Delay (s)	7.9	0	-	-	13.4	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.5	-	-	-	1.7	

**Lake Stevens Schools - Learning Ctr  
27: Access Road & ELC/Bus In Dwy**

**Forecast 2019 With Project PM Peak**  
HCM 2010 TWSC

Intersection

Int Delay, s/veh 2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	33	100		105	14	7	20
Future Vol, veh/h	33	100		105	14	7	20
Conflicting Peds, #/hr	0	0		0	0	0	0
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	40	40		40	40	40	40
Heavy Vehicles, %	11	11		13	13	1	1
Mvmt Flow	83	250		263	35	18	50

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	298	0	-	0	695	280
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	415	-
Critical Hdwy	4.21	-	-	-	6.41	6.21
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.299	-	-	-	3.509	3.309
Pot Cap-1 Maneuver	1214	-	-	-	410	761
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	669	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1214	-	-	-	378	761
Mov Cap-2 Maneuver	-	-	-	-	378	-
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	616	-

Approach	EB		WB		SB	
HCM Control Delay, s	2		0		11.7	
HCM LOS					B	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1214	-	-	-	603	
HCM Lane V/C Ratio	0.068	-	-	-	0.112	
HCM Control Delay (s)	8.2	0	-	-	11.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0.2	-	-	-	0.4	



**Type VI Decision  
Area-wide Rezone  
Planning and Community Development**

November 2, 2016

Hild (AKA The Refuge) Rezone

LUA2016-0007-M2/M3

**A. PROJECT DESCRIPTION AND REQUEST**

The applicant, Seattle Pacific Homes, has requested a comprehensive plan land use designation change and concurrent rezone on three parcels totaling approximately 15.5 acres located on the west side of 127th Drive NE between SR-92 and 36th Street NE. from Planned Business District to Medium Density Residential. The proposal would change the land use designation from Planned Business District (PBD) to Medium Density Residential (MDR), and the zoning would change from Planned Business District (PBD) to High Urban Residential (HUR). The city is recommending that this proposed land use and zoning change be extended to the PBD-zoned parcels adjacent to the eastern and western boundaries of the project area, comprising approximately an additional 3.5 acres and that an isolated 0.44 acre parcel east of 127<sup>th</sup> Ave SE currently zoned PBD be rezoned to General Industrial (GI) (Map – **Exhibit 1**).

**B. GENERAL INFORMATION**

1. Date of Application: January 28, 2016
2. Property Location: 127<sup>th</sup> Dr NE and 36<sup>th</sup> St NE
3. Total Area of Project: Approximately 19.5 acres (study area)
4. Applicant / Contact: Melissa Place, City of Lake Stevens
5. Comprehensive plan land use designation, zoning designation and existing uses of the site and surrounding area:

AREA	LAND USE DESIGNATION	ZONING	EXISTING USE
Project Site	Planned Business District	Planned Business District	Undeveloped, and residential
North of Site	SR-92	N/A	State highway
South of Site	Medium Density Residential	Suburban Residential	Residential
East of Site	Public/Semi-Public and Right-of-way	Public/Semi-Public	Centennial Trail Access/Parking and Old Hartford Road
West of Site	Public/Semi-Public	Public/Semi-Public	Undeveloped

## Hild (AKA The Refuge) Rezone

### C. ANALYSIS<sup>1</sup>

#### 1. Application Process

- a. The applicant requested a rezone, concurrently with requested changes to the Comprehensive Plan, as part of the 2016 Docket. Area wide rezones are Type VI applications subject to Planning Commission recommendation and City Council approval, per Chapter 14.16B LSMC, Part VI.<sup>2</sup>
- b. A written analysis was provided as part of the docket review (**Exhibit 2**).

**CONCLUSION: The application meets the procedural requirements for Type VI applications established in Title 14 of the LSMC.**

#### 2. Notices (Exhibits 3a – 3e)<sup>3</sup>

- a. PC Notice of Docket Hearing for March 2, 2016
- b. CC Notice of Docket Hearing for March 22, 2016
- c. Letter to Affected Parties: June 17, 2016
- d. Notice of Application & SEPA Determination: July 20, 2016
- e. Notice of Public Hearing: October 19, 2016
- f. One public comment was received concerning the potential traffic at the site. City staff responded to the comment in a letter (**Exhibit 4**). In general, the potential traffic generated by residential zoning would likely be reduced from that anticipated under the current zoning of Planned Business District.

**CONCLUSION: The city has met the noticing requirements for Type VI applications established in Chapter 14.16B LSMC, Part VI.**

#### 3. Comprehensive Plan, Zoning, and Uses:

- a. The existing and proposed comprehensive plan designations and zoning districts in the study area are identified in Section B, as are adjacent zoning districts and associated uses.
- b. Zoning Analysis – the proposed rezone would meet the intent of the high urban residential zoning district as described below.

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LSMC 14.36.010(d) states, "The High Urban Residential (HUR-12) district is designed to accommodate single-family detached or attached residential uses at medium densities in areas served by public water and sewer facilities. Some types of two-family residences are allowed in these districts on larger lots."

#### c. Applicable Comprehensive Plan Goals

LAND USE GOAL 1.1 Provide for a consistent review and revision of the comprehensive plan.

<sup>1</sup> Project analysis is based on review of current materials applicable to the project.

<sup>2</sup> The rezone application is an area-wide rezone because the proposed changes involve different property owners and changes to more than one land use designation. The rezone is a Type VI application being reviewed concurrently with the comprehensive plan map amendment and include a public hearing in front of the Planning Commission who will recommend approval to the City Council. Final approval will be by ordinance following a Public Hearing

<sup>3</sup> Public notice includes a combination of posting, publication and mailing pursuant to the requirements of Lake Stevens Municipal Code 14.16A.225 and LSMC 14.16B.630.

## Hild (AKA The Refuge) Rezone

LAND USE GOAL 2.1 Provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens.

LAND USE GOAL 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses.

LAND USE GOAL 3.1 Provide fair and equal access to a range of housing types and choices to meet the existing and projected housing needs of all Lake Stevens residents regardless of income level or demographic status.

LAND USE GOAL 3.2 Increase the opportunity for all residents and special needs populations to have access to affordable, safe, and sanitary housing.

4. **Rezone criteria:** Rezone Criteria is found in LSMC 14.16C.090. The following section addresses how the proposal meets the specific criteria.
  - a. The rezone if approved will be consistent with Comprehensive Land Use Map as amended.
  - b. The rezone is consistent with the Growth Management Act as the city can establish its local zoning and has met public notice requirements.
  - c. The proposed rezone advances identified goals and policies of the Comprehensive Plan. At the time of development, any application will need to meet state and local regulations in effect and ensure concurrency standards are met.
  - d. This proposal will help provide additional opportunities for residential development.
  - e. The site contains adequate area to develop in conformance with the zoning standards. At the time of development, any application will need to meet state and local regulations in effect and ensure concurrency standards are met.
  - f. The proposal will not be materially detrimental to adjacent land uses as conditioned.
  - g. As conditioned and in accordance with municipal standards there will be adequate infrastructure to develop the site under the proposed zoning.
  - h. Environmental impacts can be mitigated.
  - i. The proposal complies with municipal standards for a rezone application.
  - j. The project is not located within a designated subarea and thus is not subject to the additional criteria listed.

### **CONCLUSION: The proposal as conditioned meets the rezone standards.**

5. **Environmental Review:**
  - a. There are identified critical areas within the study area – future development will need to verify the presence of critical areas and will need to meet state and local regulations in effect at the time of development; and
  - b. Shoreline Designation and Shoreline Uses: the properties are not located with the shoreline boundaries of Lake Stevens.
  - c. Flood Zones: the properties are not located within the 100-year flood zone.
  - d. The city has issued a SEPA DNS on July 20, 2016 for the proposed rezone (**Exhibit 5**). No appeals were received.

Hild (AKA The Refuge) Rezone

**CONCLUSION: The proposal as conditioned meets the SEPA standards identified in Chapter 16.04 LSMC and will not create significant environmental impacts. Development near identified critical areas will be subject to Chapter 14.88 LSMC.**

**6. Traffic Impacts**

- a. The applicant provided a traffic impact analysis and traffic memorandum for the rezone (**Exhibit 6**).
- b. The staff analysis (**Exhibit 4**) suggests the revised proposal will actually result in reduced traffic impacts, as the development intensity for residential uses would be reduced from that under the current zoning of Planned Business District.
- c. Actual traffic impacts would be reviewed at the time of development.

**CONCLUSION: The proposal as conditioned meets the Traffic Impact standards at the time of development.**

**D. CONDITIONS**

The requested rezone (LUA2016-0007-M2/M3) is consistent with rezone criteria, applicable Comprehensive Plan Goals and Policies, permit processing procedures, and all other applicable municipal code requirements, subject to conditions noted below:

1. **Exhibit 1** depicts the areas to be rezoned to High Urban Residential and General Industrial, contingent on the Planning Commission and City Council approving the concurrent Comprehensive Land Use Map Amendment.
2. All future development must comply with state and local regulations in effect at the time of application.

**E. STAFF RECOMMENDATION**

Staff recommends that the Planning Commission forward a **RECOMMENDATION OF APPROVAL, SUBJECT TO THE CONDITIONS IN SECTION D**, to City Council.

CITY OF LAKE STEVENS, DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

**Recommendation Completed by**



Melissa Place, Senior Planner

October 27, 2016

Date

**F. EXHIBITS**

1. Rezone Map
2. Docket Review Analysis
3. Notices
  - a. PC Notice of Docket Hearing for March 2, 2016
  - b. CC Notice of Docket Hearing for March 22, 2016

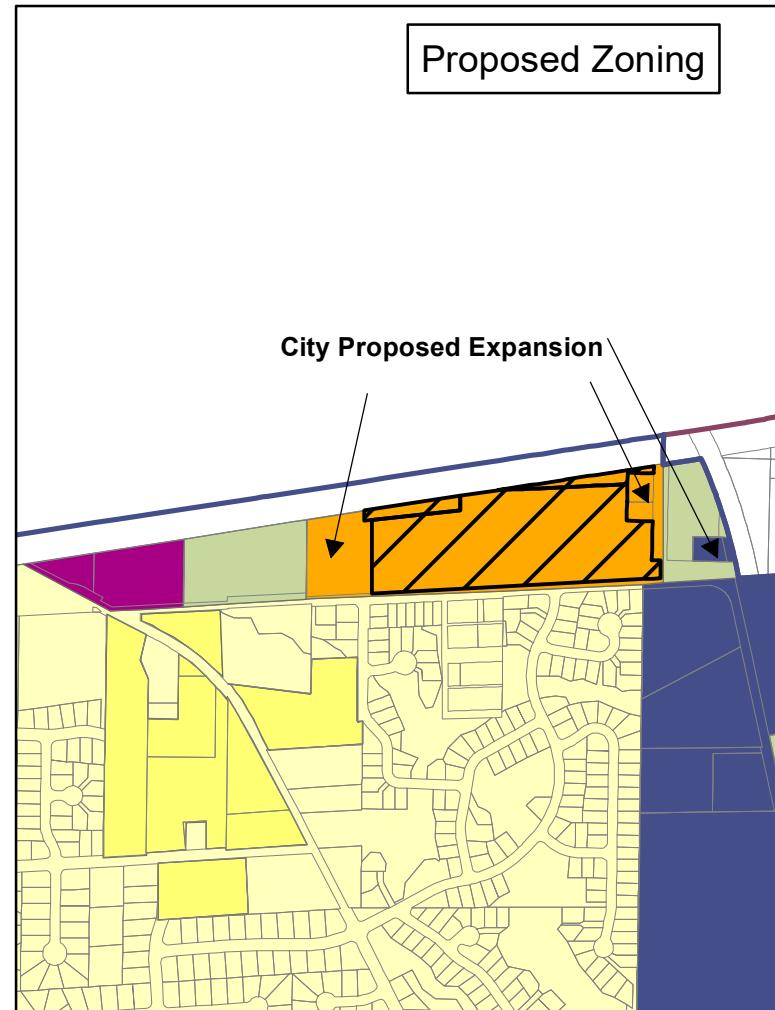
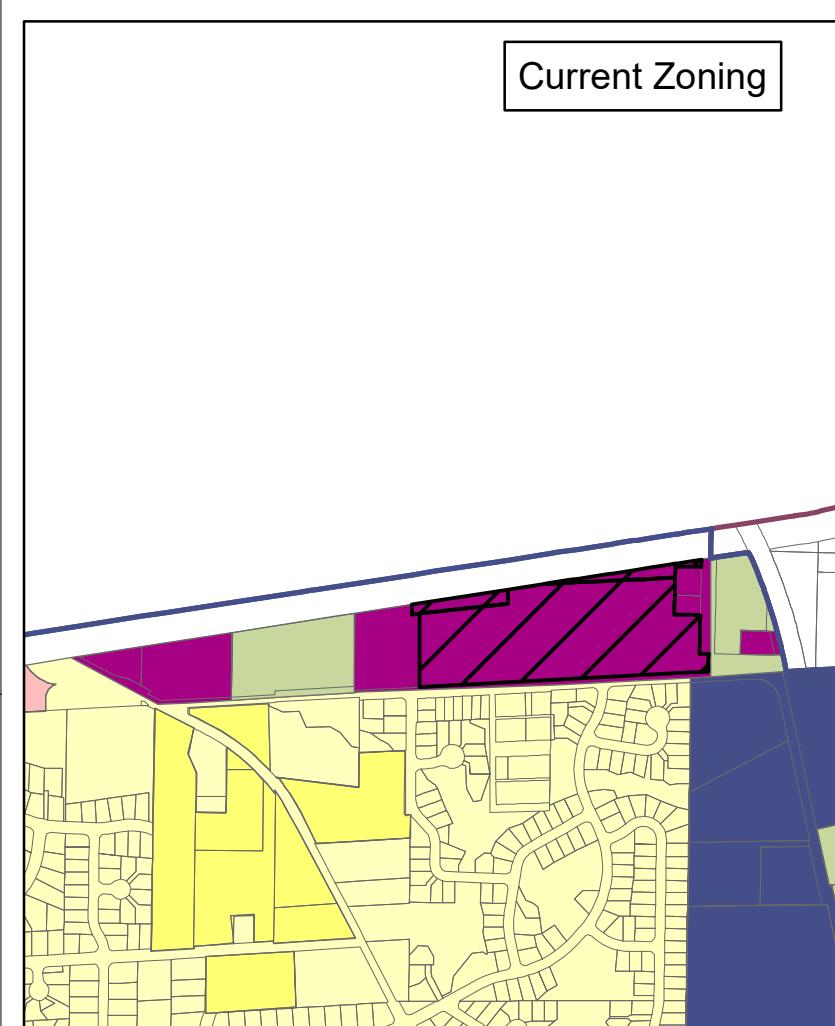
Hild (AKA The Refuge) Rezone

- c. Letter to Affected Parties: June 17, 2016
- d. Notice of Application & SEPA Determination: July 20, 2016
- e. Notice of Public Hearing: October 19, 2016
4. Public Comment and Response
5. SEPA DNS
6. Traffic Report and Traffic Memorandum

**APPEALS:** The action of the City Council on a Type VI proposal may be appealed together with any SEPA threshold determination by filing a petition with the Growth Management Hearings Board pursuant to the requirements set forth in RCW 36.70A.290. The petition must be filed within the 60-day time period set forth in RCW 36.70A.290(2). The appeal period shall commence upon the City Council's final decision and not upon expiration of the reconsideration period. Judicial appeal is to Snohomish County Superior Court.

Distributed to the Following Parties:

- Darin Huseby, Seattle Pacific Homes
- Brian Kalab, Insight Engineering
- David and Lori Bottieri



### Seattle Pacific Zoning Map Amendment

Lake Stevens Boundary  
 Unincorporated UGA  
 Parcels  
 Seattle Pacific Parcels

#### City Zones

- Suburban Residential (SR)
- Urban Residential (UR)
- Local Business (LB)
- Planned Business District (PBD)
- High Urban Residential (HUR)
- General Industrial (GI)
- Public / Semi-Public (P/PS)

All data, information and maps are provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The city of Lake Stevens makes no warranties, expressed or implied as to the use of the information obtained here. There are no implied warranties of merchantability or fitness for a particular purpose. The requestor acknowledges and accepts all limitations, including the fact that the data, information and maps are dynamic and in a constant state of maintenance, correction and update.

Data Sources: Snohomish County (2016), City of Lake Stevens (2016)



Date: June 2016



**2016 Comprehensive Plan**  
**Docket Ratification**  
**M-2 - Staff Summary**  
**Lake Stevens City Council & Planning Commission**

City Council Hearing Date: March 22, 2016  
 Planning Commission Hearing Date: March 2, 2016

**SUBJECT:** Citizen-initiated map amendment

<b>Summary</b>	
<b>Location in Comprehensive Plan:</b> Chapter 2 Land Use Element – Figure 2.3 Land Use Map and associated text.	
<b>Proposed Change(s):</b> Citizen request LUA2016-0007 to change the land use designation, for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential and associated text amendments to the Land Use Element.	
<b>Applicant:</b> Seattle Pacific Homes	<b>Property Location(s):</b> SR-92 and 127 <sup>th</sup> Ave NE (approximately 15 acres)
<b>Existing Land Use Designation</b>	<b>Proposed Land Use Designation</b>
Planned Business District	Medium Density Residential
<b>Existing Zoning District</b>	<b>Proposed Zoning District</b>
Planned Business District	High Urban Residential

**ANALYSIS:** Annual amendments shall not include significant policy changes inconsistent with the adopted Comprehensive Plan Element Visions and must meet the identified criteria included in Revisions and Amendments to the Comprehensive Plan Section H.

<b>Ratification Review – Decision Criteria</b>	<b>Yes</b>	<b>No</b>
1. Is the proposed amendment appropriate to the Comprehensive Plan rather than implementation as a development regulation or program?  <b>Discussion:</b> the proposed minor land use map change is not designed to implement a development regulation or program.	X	
2. Is the proposed amendment legal? Does the proposed amendment meet existing state and local laws?  <b>Discussion:</b> the proposed minor land use map change will be reviewed against the current Comprehensive Plan and applicable state laws related to process and environmental review.	X	
3. Is it practical to consider the proposed amendment? Reapplications for reclassification of property reviewed as part of a previous proposal are prohibited, unless the applicant establishes there has been a substantial change of circumstances and support a plan or regulation change at this time.  <b>Discussion:</b> the land use designation for the subject properties has not been considered previously.	X	

4. Does the City have the resources, including staff and budget, necessary to review the proposed amendment?  <b>Discussion:</b> the Growth Management Act and the city's Comprehensive Plan set a process to review annual amendments to the Comprehensive Plan. By extension, this is a Planning and Community Development function. The applicant has submitted required review fees. The applicant will provide any special studies deemed necessary to continue review at their expense.	X	
5. Does the proposed amendment correct an inconsistency within or make a clarification to a provision of the Plan? <b>OR</b>		X
6. All of the following:  a. The proposed amendment demonstrates a strong potential to serve the public interest by implementing specifically identified goals of the Comprehensive Plan? <b>AND</b>  <b>Discussion:</b> the proposed minor land use map change meets the following selected goals and policies of the current Comprehensive Plan's Land Use and Housing Elements. <ul style="list-style-type: none"><li>• Goal 2.1 provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens;</li><li>• Goal 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses;</li><li>• Goal 2.14 design and build a healthy community to improve the quality of life for all people who live, work, learn, and play within the city; and</li><li>• Goal 3.1 provide fair and equal access to a range of housing types and choices to meet the existing and projected housing needs of all Lake Stevens residents regardless of income level or demographic status.</li></ul>	X	
b. The public interest would best be served by considering the proposal in the current year, rather than delaying consideration to a later subarea plan review or plan amendment process.  <b>Discussion:</b> the Comprehensive Plan sets a procedure for evaluating minor amendments annually. The city is not considering a subarea plan or other amendments for the property; therefore, there is not a need to postpone review of the request.	X	

Recommendation	Yes	No
Staff recommends City Council and the Planning Commission consider this proposal for inclusion in the 2016 Comprehensive Plan Docket.	X	
The Planning Commission recommends City Council consider this proposal for inclusion in the 2016 Comprehensive Plan Docket (see attached recommendation letter).		
The City Council accepts this proposal for inclusion in the 2016 Comprehensive Plan Docket.		



**2016 Comprehensive Plan  
Docket Ratification  
M-3 - Staff Summary**  
Lake Stevens City Council & Planning Commission

City Council Hearing Date: March 22, 2016  
Planning Commission Hearing Date: March 2, 2016

**SUBJECT:** City-initiated map amendment

<b>Summary</b>	
<b>Location in Comprehensive Plan:</b> Chapter 2 Land Use Element – Figure 2.3 Land Use Map and associated text.	
<b>Proposed Change(s):</b> City expansion of LUA2016-0007 to change the land use designation, for two partially developed parcels off SR-92, from Planned Business District to Medium Density Residential for consistency with adjacent parcels and associated text amendments to the Land Use Element.	
City may also consider adding the 3-acre parcel to the west and isolated 0.44-acre parcel east of 127th Ave SE after consulting with land owners.	
<b>Applicant:</b> Seattle Pacific Homes	<b>Property Location(s):</b> SR-92 and 127 <sup>th</sup> Ave NE
<b>Existing Land Use Designation</b>	<b>Proposed Land Use Designation</b>
Planned Business District	Medium Density Residential – 3-acre parcel General Industrial or Public/Semi-Public – 0.44-acre parcel
<b>Existing Zoning District</b>	<b>Proposed Zoning District</b>
Planned Business District	High Urban Residential – 3-acre parcel General Industrial or Public/Semi-Public – 0.44-acre parcel

**ANALYSIS:** Annual amendments shall not include significant policy changes inconsistent with the adopted Comprehensive Plan Element Visions and must meet the identified criteria included in Revisions and Amendments to the Comprehensive Plan Section H.

<b>Ratification Review – Decision Criteria</b>	<b>Yes</b>	<b>No</b>
1. Is the proposed amendment appropriate to the Comprehensive Plan rather than implementation as a development regulation or program? <b>Discussion:</b> the proposed minor land use map change is not designed to implement a development regulation or program.	X	

<p>2. Is the proposed amendment legal? Does the proposed amendment meet existing state and local laws?</p> <p><b>Discussion:</b> the proposed minor land use map change will be reviewed against the current Comprehensive Plan and applicable state laws related to process and environmental review.</p>	X	
<p>3. Is it practical to consider the proposed amendment? Reapplications for reclassification of property reviewed as part of a previous proposal are prohibited, unless the applicant establishes there has been a substantial change of circumstances and support a plan or regulation change at this time.</p> <p><b>Discussion:</b> the land use designation for the subject properties has not been considered previously.</p>	X	
<p>4. Does the City have the resources, including staff and budget, necessary to review the proposed amendment?</p> <p><b>Discussion:</b> the Growth Management Act and the city's Comprehensive Plan set a process to review annual amendments to the Comprehensive Plan. By extension, this is a Planning and Community Development function. The applicant has submitted required review fees. The applicant will provide any special studies deemed necessary to continue review at their expense.</p>	X	
<p>5. Does the proposed amendment correct an inconsistency within or make a clarification to a provision of the Plan? <b>OR</b></p>		X
<p>6. All of the following:</p> <p>a. The proposed amendment demonstrates a strong potential to serve the public interest by implementing specifically identified goals of the Comprehensive Plan? <b>AND</b></p> <p><b>Discussion:</b> the proposed minor land use map change meets the following selected goals and policies of the current Comprehensive Plan's Land Use and Housing Elements.</p> <ul style="list-style-type: none"> <li>• Goal 2.1 provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens;</li> <li>• Goal 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses;</li> <li>• Goal 2.10 ensure that land uses optimize economic benefit and the enjoyment and protection of natural resources while minimizing the threat to health, safety and welfare;</li> <li>• Goal 2.14 design and build a healthy community to improve the quality of life for all people who live, work, learn, and play within the city; and</li> <li>• Goal 3.1 provide fair and equal access to a range of housing types and choices to meet the existing and projected housing needs of all Lake Stevens residents regardless of income level or demographic status.</li> </ul>	X	

b. The public interest would best be served by considering the proposal in the current year, rather than delaying consideration to a later subarea plan review or plan amendment process.  <b>Discussion:</b> the Comprehensive Plan sets a procedure for evaluating minor amendments annually. The city is not considering a subarea plan or other amendments for the property; therefore, there is not a need to postpone review of the request to ensure consistent land use designations in the area.	X	
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Recommendation	Yes	No
Staff recommends City Council and the Planning Commission consider this proposal for inclusion in the 2016 Comprehensive Plan Docket.	X	
The Planning Commission recommends City Council consider this proposal for inclusion in the 2016 Comprehensive Plan Docket (see attached recommendation letter).		
The City Council accepts this proposal for inclusion in the 2016 Comprehensive Plan Docket.		



## NOTICE OF PUBLIC HEARING

### Lake Stevens Planning Commission

#### **Comprehensive Plan Amendments – 2016 Docket Authorization**

The Lake Stevens Planning Commission will hold a hearing on proposed Comprehensive Plan amendments to recommend inclusion as part of the annual docket.

**Hearing Date & Time:** March 2 at 7 pm

**Location:** Lake Stevens Community Center (1808 Main Street, Lake Stevens WA 98258)

Citizen-initiated map amendments with concurrent rezone applications.

1. **LUA2015-0119 – School District Map Amendment** request to change the land use designation, for two undeveloped parcels off Lake Drive from Medium Density Residential to Public / Semi-Public and associated text amendments to the Land Use Element.
2. **LUA2016-0007 – Seattle Pacific Map Amendment** request to change the land use designation for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential and associated text amendments to the Land Use Element.

City staff recommends the Medium Density Residential designation or others be extended to nearby properties for consistency.

The city is also proposing text amendments to the Comprehensive Plan (**LUA2016-0029**) to add capital projects to the Parks and Capital Facilities Elements. Along with the specific defined text amendments, staff will also include standard administrative amendments. The city may add additional items to the 2016 docket, prior to the hearing.

Substantial changes to the proposed amendments may be made following the public hearing.

A complete list describing the proposed amendments is available at the Planning & Community Development Department and available on the city's website.

Public testimony on the proposed changes will be accepted at the hearing. Comments regarding the proposed amendments may be submitted orally or in writing during the hearing. Written comments prior to the hearing may be submitted to Lake Stevens Planning & Community Development PO Box 257, Lake Stevens, WA 98258.



## NOTICE OF PUBLIC HEARING

### Lake Stevens City Council

#### **Comprehensive Plan Amendments – 2016 Docket Authorization**

The Lake Stevens City Council will hold a hearing on proposed Comprehensive Plan amendments for inclusion as part of the annual docket.

**Hearing Date & Time:** March 22 at 7 pm

**Location:** School District Educational Center (12309 22nd Street NE, Lake Stevens)

**Description:** Citizen-initiated map amendments with concurrent rezone applications.

1. **LUA2015-0119 – School District Map Amendment** request to change the land use designation, for two undeveloped parcels off Lake Drive from Medium Density Residential to Public / Semi-Public and associated text amendments to the Land Use Element.
2. **LUA2016-0007 – Seattle Pacific Map Amendment** request to change the land use designation for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential and associated text amendments to the Land Use Element.  
City staff recommends the Medium Density Residential designation or others be extended to nearby properties for consistency.
3. **LUA2016-0029 – City-initiated amendments** to add capital projects to the Parks and Capital Facilities Elements and proposed map amendments to properties located within the 20<sup>th</sup> Street SE Corridor subarea. Along with the specific defined text amendments, staff will also include standard administrative amendments. The city may add additional items to the 2016 docket, prior to the hearing.

Substantial changes to the proposed amendments may be made following the public hearing.

A complete list describing the proposed amendments is available at the Planning & Community Development Department and available on the city's website.

Public testimony on the proposed changes will be accepted at the hearing. Comments regarding the proposed amendments may be submitted orally or in writing during the hearing. Written comments prior to the hearing may be submitted to Lake Stevens Planning & Community Development PO Box 257, Lake Stevens, WA 98258.

## EXHIBIT 3c



**Planning & Community Development**  
1812 Main Street  
P.O. Box 257  
Lake Stevens, WA 98258

June 17, 2016

**RE: 2016 Comprehensive Plan Docket Item# M-2/M-3: Applicant-Initiated Map Amendment & Rezone**

Dear Property Owner:

The purpose of this letter is to let you know that Lake Stevens Planning and Community Development is analyzing an applicant-initiated proposal from Seattle Pacific Homes to rezone and amend the land use designation of approximately three parcels of approximately 15.5 acres located west of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE (**Exhibit 1**). The proposal would change the land use designation from Planned Business District (PBD) to Medium Density Residential (MDR), and the zoning would change from Planned Business District (PBD) to High Urban Residential (HUR). The city is recommending that this proposed land use and zoning change be extended to the PBD-zoned parcels adjacent to the eastern and western boundaries of the project area, comprising approximately an additional 3.5 acres. You are being contacted because your property will be directly affected by this action.

These proposed changes would help facilitate the city's housing stock to meet the city achieve its goal of providing a range of housing choices for current and projected housing needs. Zoning standards would be applied at the time of new development or redevelopment. Existing businesses or residential uses, not permitted under the new residential zoning, may remain in place and would be considered non-conforming uses subject to the city's regulations.

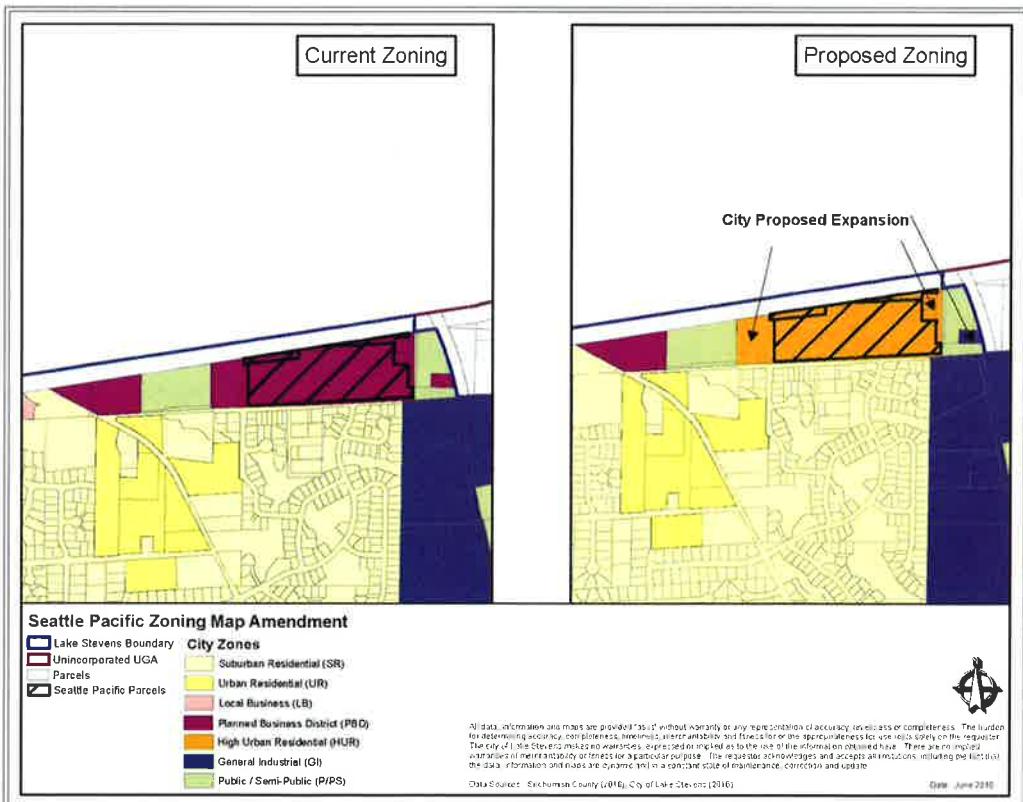
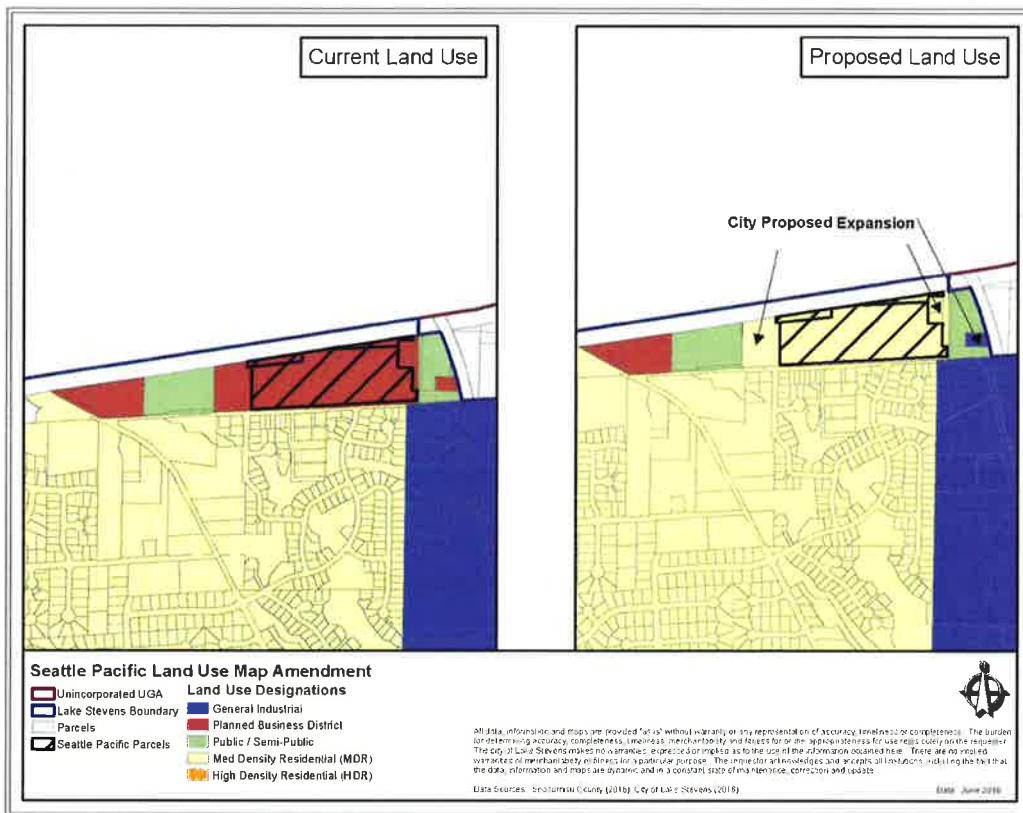
The city will hold a public hearing on the land-use amendment before the Planning Commission. The Planning Commission makes a recommendation to the City Council who may also hold a public hearing on the matter before taking final action. The public hearing on the concurrent rezone may be held before the Planning Commission or City Council. You will receive notification of the public hearing(s) once a date has been determined.

Your feedback is important as the city moves forward with this amendment. Please submit any comments to City Hall, Attn: Melissa Place, PO Box 257, Lake Stevens, WA 98258 or by email at [mplace@lakestevenswa.gov](mailto:mplace@lakestevenswa.gov). If you have any questions, please feel free to contact me.

Sincerely,

Melissa Place  
Associate Planner

## EXHIBIT 1:





## NOTICE OF APPLICATION & SEPA DETERMINATION

**Proposal:** Hild (AKA The Refuge) Comprehensive Plan Amendment and Rezone – LUA2016-0007 and LUA2016-0008

**Project Location:** The west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE, Lake Stevens, WA 98258

**Proponent:** Brian Kalab on behalf of Seattle Pacific Homes

**Lead Agency:** City of Lake Stevens

**Proposed Project Description:** The applicant, Seattle Pacific Homes, has applied for a comprehensive plan designation change and concurrent rezone for three parcels of approximately 15.5 acres located west of 127th Drive NE between Highway SR-92 and 36th Street NE. The proposal would change the land use designation from Planned Business District (PBD) to Medium Density Residential (MDR), and the zoning would change from Planned Business District (PBD) to High Urban Residential (HUR). The city is recommending that this proposed land use and zoning change be extended to the PBD-zoned parcels adjacent to the eastern and western boundaries of the project area, comprising approximately an additional 3.5 acres. The city will review all site-specific impacts related to the land use and zoning changes at the time of development. The proponent has submitted a project narrative, environmental checklist and traffic report in support of the proposed map changes. The city has issued a Determination of Non-Significance.

**Permits Required:** Comprehensive Plan Map Amendment / Rezone

**Date of Application:** January 28, 2016

**Completeness Date:** January 28, 2016

**Notice of Application & SEPA Determination Issued:** July 20, 2016

**Public Review and Comment Period:** Interested parties may view the project file at the Lake Stevens Permit Center (1812 Main Street) Monday-Friday 8 am to 5 pm. To receive further information or to submit written comments, please contact the Planning and Community Development Department.

**Email:** mplace@lakestevenswa.gov

**Mailing address:** P.O. Box 257, Lake Stevens, WA 98258

Upon publication of the Notice of Application & issuance of the Determination on Non-Significance, there is a 14-day comment / appeal period. **The deadline for public comment & appeals is 5:00 PM, August 3, 2016.**

***It is the City's goal to comply with the American with Disabilities Act. The City offers its assistance to anyone with special needs, including the provision of TDD services.***

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**Distribution:** Applicant  
 Posted at Permit Center, City Hall, Subject Property, City Website  
 Property Owners within 300 feet of project site  
 Everett Herald



**CITY OF LAKE STEVENS  
NOTICE OF PUBLIC HEARING  
2016 Comprehensive Plan Docket**

**PROJECT NAME/ FILE NUMBER:** 2016 Comprehensive Plan Docket: Planning Commission Public Hearing

**HEARING DATE / TIME:** Wednesday, November 2, 2016 at 7:00 PM

**LOCATION:** Lake Stevens Community Center (next to City Hall)  
1808 Main Street  
Lake Stevens, WA 98258

**DOCKET DESCRIPTION:**

Under the Growth Management Act, the city of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year through an annual docket process. The 2016 Comprehensive Plan Docket includes two citizen-initiated map amendments, two city-initiated map amendments, city text amendments to the Land Use element, the Parks, Recreation and Open Space element, the Public Services and Utilities element and updates to the Appendices. Standards administrative updates and associated SEPA documents will also be incorporated into the Comprehensive Plan.

The Lake Stevens Planning Commission will conduct a public hearing and receive public testimony on November 2, 2016 at 7:00 PM to consider the docket items described above. If the 2016 Docket is recommended for approval, the Lake Stevens City Council will conduct a public hearing and first ordinance reading on December 13, 2016 at the Lake Stevens School District Educational Center (12309 22<sup>nd</sup> Street NE) at 7:00 PM. There will be a separate public noticing for the City Council hearing pursuant to Chapter 14.16B LSMC.

**PUBLIC REVIEW AND COMMENT:**

Interested parties may submit written comments before the hearing or testify in person. Comments can be submitted to City Hall, Attn: Stacie Pratschner, PO Box 257, Lake Stevens, WA 98258 or by email at [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov).

The project files, including the staff reports, site maps and supporting materials are available for review at the Permit Center, located behind City Hall, Monday-Thursday 9:00 am- 4:30 pm and Friday 9:00 am to 12:00 pm. Limited materials are available at: <http://www.ci.lake-stevens.wa.us/index.aspx?nid=380>.

***It is the City's goal to comply with the American with Disabilities Act. The City offers its assistance to anyone with special needs, including the provision of TDD services.***

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Distribution: Applicants and Parties of Record  
Posted at Permit Center, City Hall, Subject Properties and Published in the Everett Herald  
Mailed to property Owners within 300 feet of project sites  
City Website

**Subject: Project #LUA2016-007 and LUA2016-008 rezoning request.**

We reside at 12739 35<sup>th</sup> PL NE so would be directly impacted by subject rezoning from Business to Residential. If said rezoning takes place then no doubt any future development would place additional noise and traffic congestion on 36<sup>th</sup> Street, which already negatively impacts our property. It has come to our attention that 36<sup>th</sup> Street not only handles traffic with-in our Stevens Wood development and other adjacent housing but also handles a significant amount of traffic generated from Old Hartford Road and points East. We believe this is due to lack of a left turning option at 127<sup>th</sup> and SR92 which forces traffic outside our immediate area to use 36<sup>th</sup> Street to access SR92 westbound via Grade Road. At certain times of the day, generally during heavy morning and evening commuting traffic, it is already hazardous when attempting to transition from Grade Road to SR92 westbound. Rezoning would only make this traffic flow situation worst.

Additionally, the proposed 2022 Round About at Grade Road and SR92 provides 6 years of traffic congestion before a workable solution is available. The city needs to address the current traffic issues with immediate resolution before additional rezoning and building occurs.

Also the preliminary plans submitted for this project seem to indicate high density housing units would be constructed further negatively impacting both noise and traffic congestion on 36<sup>th</sup> Street, Grade Road and SR92 intersection. For these reasons, we respectfully oppose rezoning this area.

David and Lori Bottieri



Good afternoon Mr. & Mrs. Bottieri,

In response to your letter to Melissa Place dated August 1, 2016 I would like to take a moment to respond to your concerns regarding the potential rezone of the property at 127<sup>th</sup> Drive NE & 36<sup>th</sup> Street NE. To first clarify, this has been initiated by the applicant in an attempt to rezone the associated property from a commercial district to a residential district. In response to specific portions of your letter please see below:

1. ***If said rezoning takes place then no doubt any future development would place additional noise and traffic congestion on 36<sup>th</sup> Street, which already negatively impacts our property.***

While it is true that development of the subject property would cause additional noise and traffic on 36<sup>th</sup> Street NE, the potential noise and traffic would likely be reduced from that anticipated under the current zoning of Planned Business District should this rezone be approved. Based on the traffic study conducted for the Centennial Retail Center, an approved use under the current zoning, in April 2007 the number of additional trips produced by that property would be 378 new trips during the PM peak hour. If this zoning is changed to residential, even high-density residential, the number of additional trips produced during the PM peak hour would be 70 new trips. Using a generalized scaling method, one can assume that daily traffic is increased by ten times the peak hour which puts new daily trips under the current zoning at 3780 trips per day and only 700 trips per day with the proposed zoning.

2. ***It has come to our attention that 36<sup>th</sup> Street not only handles traffic with-in our Stevens Wood development and other adjacent housing but also handles a significant amount of traffic generated from Old Hartford Road and points East.***

The City of Lake Stevens classifies 36<sup>th</sup> Street NE as a collector road. According to the Lake Stevens Municipal Code a collector road is defined as a roadway designed for movement within a community including connecting neighborhoods with smaller community centers. Collectors also provide connections to minor and major arterials. Based on this definition, it is assumed that 36<sup>th</sup> Street NE will be used to move a higher number of vehicles and persons from point A to point B as opposed to a local access road such as Catherine Drive or 35<sup>th</sup> Place NE. 36<sup>th</sup> Street NE currently connects most of the residences and businesses in the northeast portion of the city with the only major arterial (Grade Road) as well as to the industrial center along 131<sup>st</sup> Avenue NE (Old Hartford Road).

3. ***We believe this is due to lack of a left turning option at 127<sup>th</sup> and SR92 which forces traffic outside our immediate area to use 36<sup>th</sup> Street to access SR92 westbound via Grade Road. At certain times of the day, generally during heavy morning and evening commuting traffic, it is already hazardous when attempting to transition from Grade Road to SR92 westbound. Rezoning would only make this traffic flow situation worst.***

The City has approached, and continues to approach, the Washington Department of Transportation (WSDOT) to address the traffic at those intersections. It is the City's understanding that WSDOT does plan to replace at least one of these intersections with a roundabout similar to those at SR-92 & Callow Road and SR-92 & 113<sup>th</sup> Avenue NE in the future. Development of any kind will affect both intersections and the developer would need to mitigate those impacts in some fashion or another during the plat or construction phase, but residential development would likely have far lower traffic impacts versus commercial development in the short and long term.

If you have any other questions or concerns please feel free to approach either Melissa or myself and we'll do our best to answer your questions or address your concerns.

Thank you,



Adam Emerson, E.I.T.  
Civil Engineer  
City of Lake Stevens

**From:** [Adam Emerson](#)  
**To:** [Lori Bottieri](#)  
**Cc:** [Kathleen Pugh](#); [Melissa Place](#)  
**Subject:** Re: Project #LUA2016-0007 & LUA2016-0008  
**Date:** Wednesday, July 27, 2016 8:51:11 AM

---

Good morning Ms. Bottieri,

Please see the below responses to your questions.

127th/SR-92: Currently, WSDOT had no immediate plans to eliminate the right-in/right-out at this intersection. Long term it is expected that WSDOT will construct a roundabout similar to that at 99th or 113th but that has not yet been scheduled.

Grade Road: The city has finally received all the relevant State and Federal permits to begin the repairs on Grade Road. We have executed an emergency contract with Marshbank Construction and they are set to begin on repairs within the next couple of weeks per my last update. We anticipate the work to be completed and open to traffic this year.

36th Street Bridge: This is a temporary lane closure that was deemed necessary because of damage to one of the piers. This damage was uncovered during our annual bridge inspections. We have a solution and have received State permits to complete the work. Marshbank will also be doing this work but it will be done after Grade Road. We expect this road to be open to two way traffic before winter.

Bus/truck traffic: Catherine Drive only has excess bus and truck traffic because it is the primary detour for Grade Road. Once the Grade and 36th projects are completed normal traffic operations should resume which will remove the vast majority of trucks and buses from that road.

If you have any other questions please feel free to get in touch with me.

Thank you,

Adam Emerson, E.I.T.  
Civil Engineer  
City of Lake Stevens  
(425) 377-3222  
aemerson@lakestevenswa.gov

> On Jul 27, 2016, at 8:30 AM, Melissa Place <[mplace@lakestevenswa.gov](mailto:mplace@lakestevenswa.gov)> wrote:

>

> Hi Lori, you are correct in that the proposed rezone area is between the streets you stated below - I have also attached a map that shows the areas under consideration. The applications under consideration are for a comprehensive plan map amendment and rezone, there is no formal application for development at this time. That said, the City conducted a pre-application meeting with the applicant in April regarding a proposed subdivision for 69 lots on 15.5 acres (see attached layout map). A preliminary plat application cannot be submitted until the comp plan amendment and rezone are approved.

>

> I have copied Adam Emerson with our Public Works Department to respond to your questions regarding traffic/roads as per your email below.

>

> Thank you, Melissa

>

> Melissa Place, Senior Planner

> City of Lake Stevens | Planning & Community Development

> 1812 Main Street | PO Box 257

> Lake Stevens, WA 98258-0257  
> 425.377.3229 | [mplace@lakestevenswa.gov](mailto:mplace@lakestevenswa.gov)  
>  
>  
> -----Original Message-----  
> From: Lori Bottieri [<mailto:lori.bottieri@cox.net>]  
> Sent: Tuesday, July 26, 2016 2:47 PM  
> To: Melissa Place <[mplace@lakestevenswa.gov](mailto:mplace@lakestevenswa.gov)>  
> Subject: Project #LUA2016-0007 & LUA2016-0008  
>  
> Hi Melissa,  
>  
> I reviewed the files in the planning office on Monday.  
>  
> Can you please clarify for me - the traffic impact report map - the proposed rezone area is between SR92 and 36th, Grade Rd. and 127th?  
> The rezoned proposed development is for single family homes to be built and approximately 70 homes on 15.5 acres?  
>  
> What is the city's plan for changing 127th/SR92 from a right turn only to a 4-way access? What information do you have regarding the Grade Rd closure and the 36th Rd narrowing to one lane? Will Catherine road continue to flow bus, truck and delivery traffic through the neighborhood?  
>  
> I appreciate your time and help with these questions.  
>  
> Thank You,  
> Lori Bottieri  
> 949-285-6807  
>  
> <Maps.pdf>  
> <Refuge layout 3-25-16.pdf>



## DETERMINATION OF NON-SIGNIFICANCE

**Proposal: Hild (AKA The Refuge) Comprehensive Plan Amendment and Rezone – LUA2016-0007 and LUA2016-0008**

**Description of Proposal:** The applicant, Seattle Pacific Homes, has applied for a comprehensive plan designation change and concurrent rezone for three parcels of approximately 15.5 acres located west of 127th Drive NE between Highway SR-92 and 36th Street NE. The proposal would change the land use designation from Planned Business District (PBD) to Medium Density Residential (MDR), and the zoning would change from Planned Business District (PBD) to High Urban Residential (HUR). The city is recommending that this proposed land use and zoning change be extended to the PBD-zoned parcels adjacent to the eastern and western boundaries of the project area, comprising approximately an additional 3.5 acres. The city will review all site-specific impacts related to the land use and zoning changes at the time of development. The proponent has submitted a project narrative, environmental checklist and traffic report in support of the proposed map changes.

**Project Location:** The west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE, Lake Stevens, WA 98258

**Proponent:** Brian Kalab on behalf of Seattle Pacific Homes

**Lead Agency:** City of Lake Stevens

**Threshold Determination:** The City of Lake Stevens, acting as lead agency for this proposal has determined that it does not have a probable significant adverse impact on the environment. An environmental impact statement is not required under RCW 43.21C.030(2)(c). This decision was made after review of a completed environmental checklist and other information on file with the lead agency. This information is available to the public on request. This DNS is issued under WAC 197-11-340(2); the lead agency will not act on this proposal for 14 days from the date of issuance.

**Issuance Date:** July 20, 2016

**SEPA Responsible Official:**

Russell Wright, Community Development Director

**Contact Person:** Melissa Place, Senior Planner

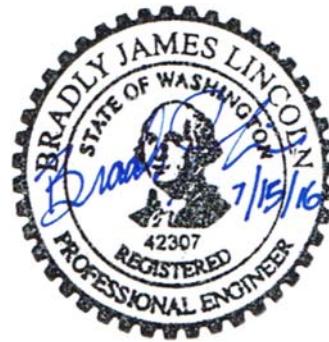
**Phone:** 425-377-3229

**Comments on the Threshold Determination:** Interested parties may comment on this Threshold Determination, by submitting written comments to the Responsible Official at the address below by **August 3, 2016**. The Responsible Official may incorporate any substantial comments into the DNS. If the DNS is substantially modified, it will be reissued for further public review.

**Appeals:** Parties of Record may appeal this Determination of Non-Significance by submitting an appeal to City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258, Attn: Planning and Community Development, no later than 5:00 PM, **August 3, 2016**. The appeal must be in writing, contain a concise statement of the matter being appealed and the basic rationale for the appeal. A fee is required per the City's Fee Resolution. Please note that failure to file a timely and complete appeal shall constitute a waiver of all rights to an administrative appeal under City code.

**MEMORANDUM**

To: Melissa Place, City of Lake Stevens  
From: Brad Lincoln  
Project: Hild Property, AKA: The Refuge, GTC #16-013  
Subject: Comment Response  
Date: July 15, 2016



This memorandum addresses comments from City of Lake Stevens staff. The initial traffic impact analysis (TIA) was completed by GTC in a report dated January 2016. There are two comments regarding the traffic analysis, both of which are addressed below.

**1. SR-92 at 127<sup>th</sup> Drive NE****Comment**

The City of Lake Stevens commented regarding through and left-turning vehicles on the north and south legs of SR-92 at 127<sup>th</sup> Drive NE. The intersection is currently restricted on these two legs, which would preclude these movements. The City of Lake Stevens staff questioned whether or not the intersection was modeled correctly for the analysis.

**Response**

The movements shown to be performing the restricted movements are based on the existing count data collected at the intersection. The existing data showed that there were drivers not following the restrictions at the intersection and making illegal movements. These movements would have been right-turn movements if the restrictions were followed by the drivers.

The trips generated by the Hild Property were distributed and assigned to the surrounding street system based on the restrictions at the intersection of SR-92 at 127<sup>th</sup> Avenue NE. Trips destined to the west along SR-92 were assigned to the intersections of 36<sup>th</sup> Street NE at Grade Road and SR-92 at Grade Road, they were not assigned to the intersection of SR-92 at 127<sup>th</sup> Avenue NE.

The analysis shows that the intersection of SR-92 at 127<sup>th</sup> Avenue NE currently operates at an acceptable level and is anticipated to remain at an acceptable level. Reassigning the 5 existing PM peak-hour trips that do not obey the restrictions is not anticipated to significantly affect the operations of any of the study intersections in the site vicinity. The analysis for the intersection of SR-92 at 127<sup>th</sup> Avenue NE has therefore not been revised from what was presented in the January 2016 TIA.

## 2. Grade Road Analysis

### Comment

The City of Lake Stevens staff requested that the intersections of 36<sup>th</sup> Street NE at Grade Road and SR-92 at Grade Road be analyzed, in addition to the intersections that were analyzed as part of the January 2016 TIA.

### Response

The intersections of 36<sup>th</sup> Street NE at Grade Road and SR-92 at Grade Road have been analyzed using the same methodology utilized in the January 2016 TIA. Existing PM peak-hour volumes at the two intersections were collected in July 2016 by the independent count firm of Traffic Data Gathering (TDG). The 2022 baseline traffic volumes have been calculated by applying a 2% annually compounding growth rate to the 2016 existing volumes. The 2022 future with development volumes were calculated by adding the development's trips to the 2022 baseline volumes. The existing counts and traffic volume calculations are included in the attachments of this memorandum.

The intersection of SR-92 at Grade Road is on the City of Lake Stevens 6-year TIP to be improved to a roundabout. This intersection has therefore been modeled as a roundabout for the 2022 baseline and 2022 future with development conditions. The analysis presented in the January 2016 TIA will not change based on the comments from City of Lake Stevens staff, but have been presented in the following table based on the January 2016 TIA. The level of service results are summarized in Table 4, based on the January 2016 TIA.

**Table 4: PM Peak-Hour LOS Summary**

Intersection	Existing Conditions		2022 Baseline Conditions		2022 Future with Development Conditions	
	LOS	Delay	LOS	Delay	LOS	Delay
1. SR-92 at 127 <sup>th</sup> Drive NE	C	18.5 sec	C	20.2 sec	C	20.3 sec
2. E Driveway at 127 <sup>th</sup> Drive NE	---	---	---	---	A	9.1 sec
3. 36 <sup>th</sup> Street NE at 127 <sup>th</sup> Drive NE	A	9.2 sec	A	9.3 sec	A	9.4 sec
4. 36 <sup>th</sup> Street NE at S Driveway/Catherine Drive	A	9.3 sec	A	9.4 sec	A	9.7 sec
5. 36 <sup>th</sup> Street NE at Grade Road	A	8.9 sec	A	8.9 sec	A	9.0 sec
4. SR-92 at Grade Road	F	80.0 sec	A <sup>1</sup>	5.3 sec 0.82 v/c	A <sup>1</sup>	5.6 sec 0.84 v/c

The analysis shows that all of the study intersections are anticipated to operate at acceptable levels of service with the Hild Development and the planned improvements.

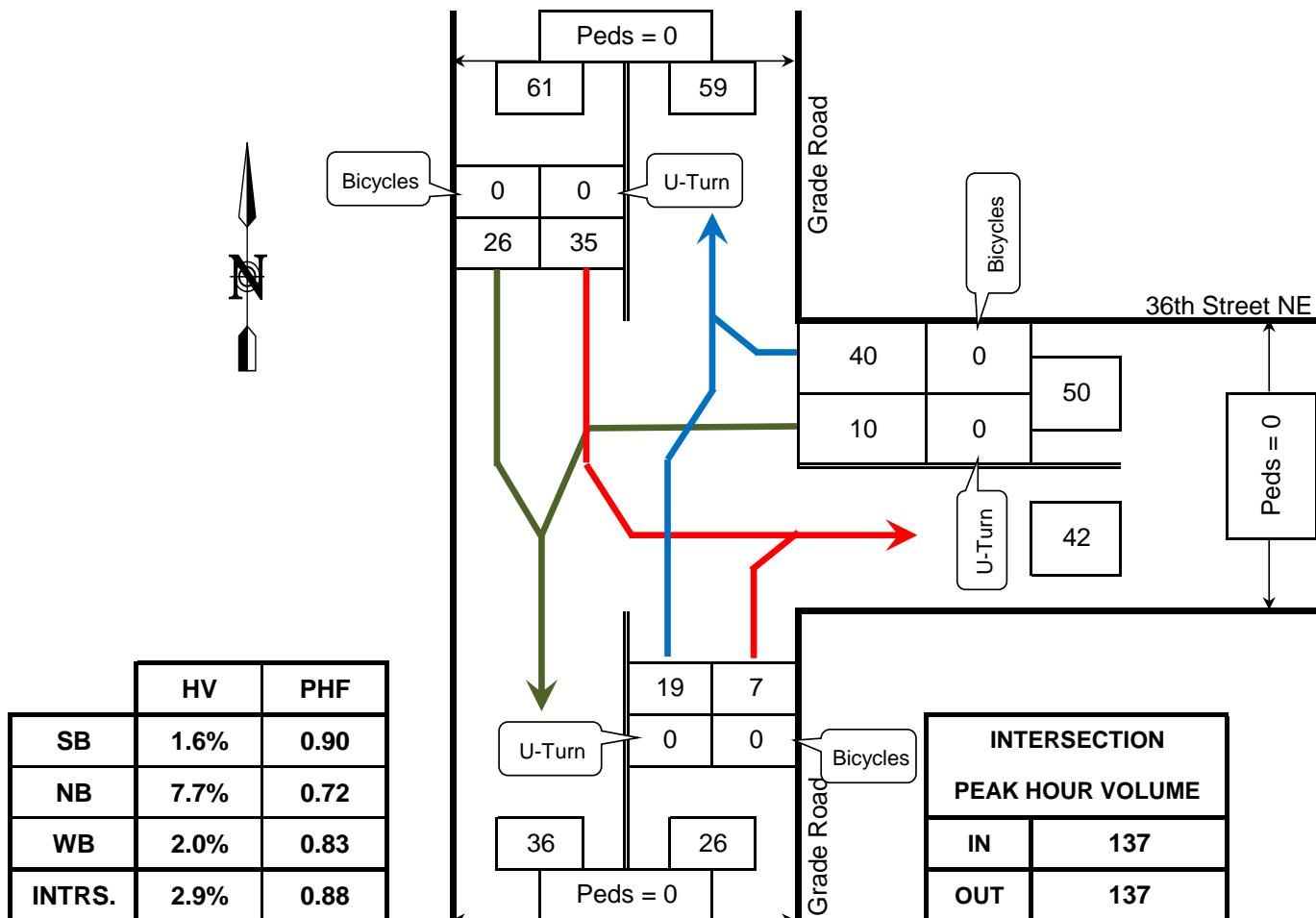
<sup>1</sup> Includes roundabout improvement.

## **Turning Movement and Level of Service Calculations**



### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:00 PM TO 5:00 PM



HV = Heavy Vehicles

PHF = Peak Hour Factor

### 36th Street NE @ Grade Road

**Lake Stevens, WA**

COUNTED BY: CN

DATE OF COUNT: Thu. 7/14/16

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

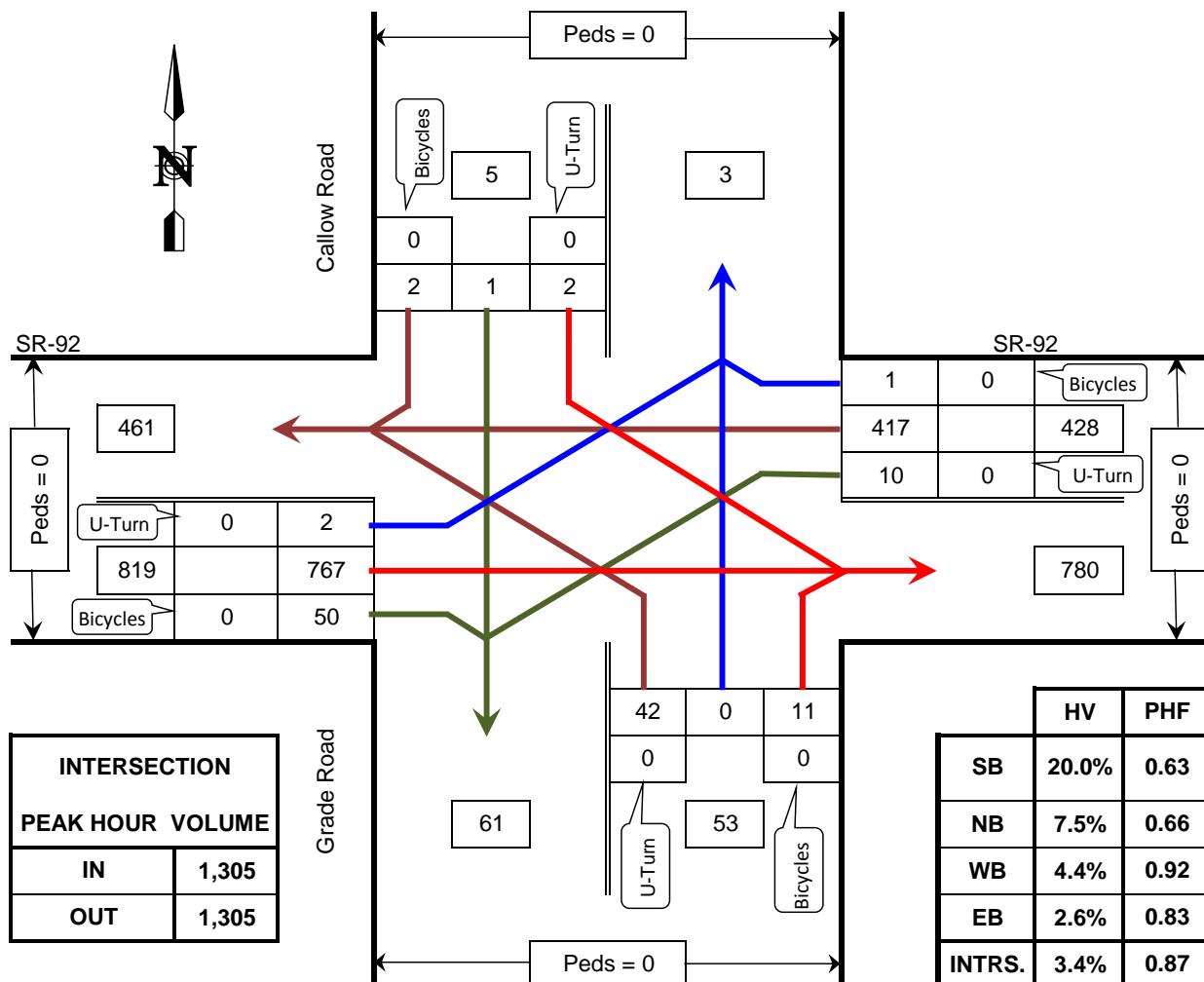
REDUCTION DATE: Fri. 7/15/16

WEATHER: Sunny

**DTG TRAFFIC DATA GATHERING**

**TURNING MOVEMENTS DIAGRAM**

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



COUNTED BY: JH DATE OF COUNT: Thu. 7/14/16  
 REDUCED BY: CN TIME OF COUNT: 4:00 PM - 6:00 PM  
 REDUCTION DATE: Fri. 7/15/16 WEATHER: Sunny

5 36th St @ Grade Rd

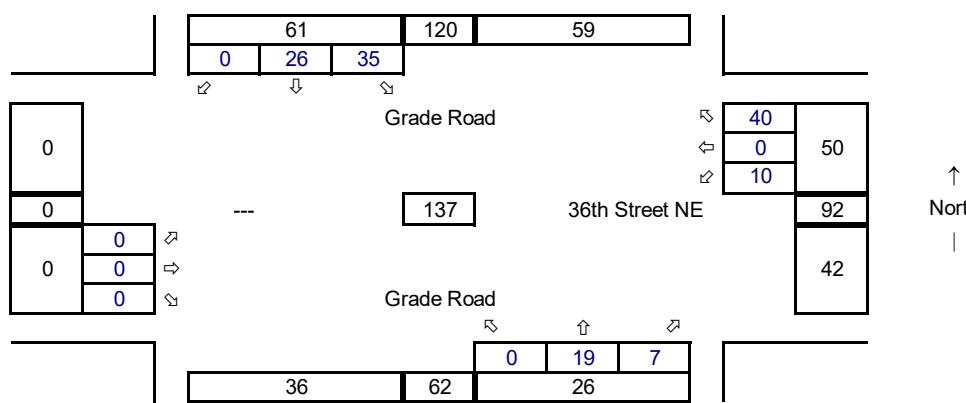
Synchro ID: 5

**Existing**

Average Weekday  
PM Peak Hour

Year: 7/14/16

Data Source: TDG



**Future without Project**

Average Weekday  
PM Peak Hour

Year: 2022

Growth Rate = 2.0%

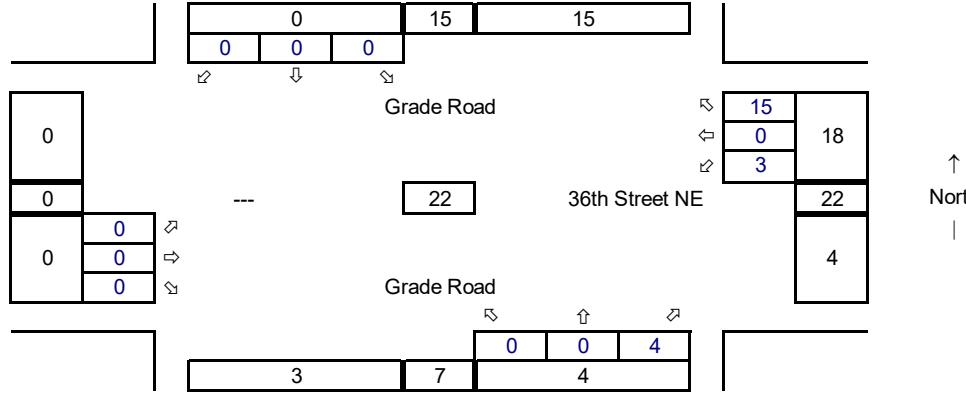
Years of Growth = 6

Total Growth = 1.1262



**Total Project Trips**

Average Weekday  
PM Peak Hour



**Future with Project**

Average Weekday  
PM Peak Hour



6 SR-92 @ Grade Rd

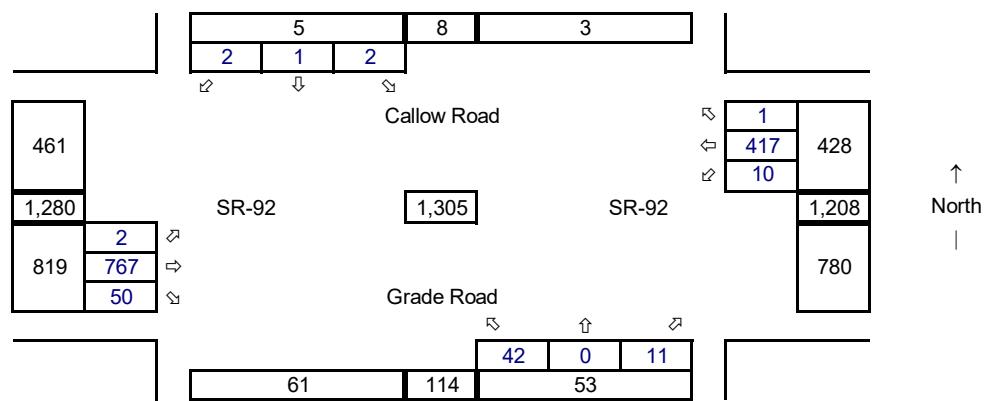
Synchro ID: 4

**Existing**

Average Weekday  
PM Peak Hour

Year: 7/14/16

Data Source: TDG



**Future without Project**

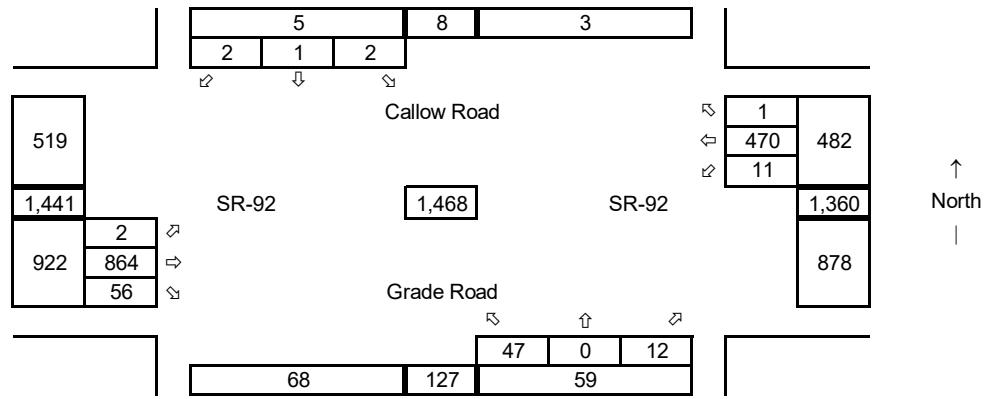
Average Weekday  
PM Peak Hour

Year: 2022

Growth Rate = 2.0%

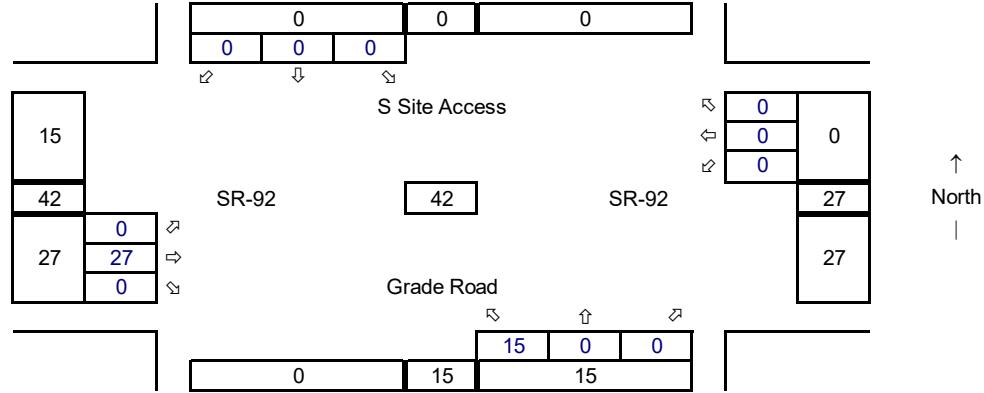
Years of Growth = 6

Total Growth = 1.1262



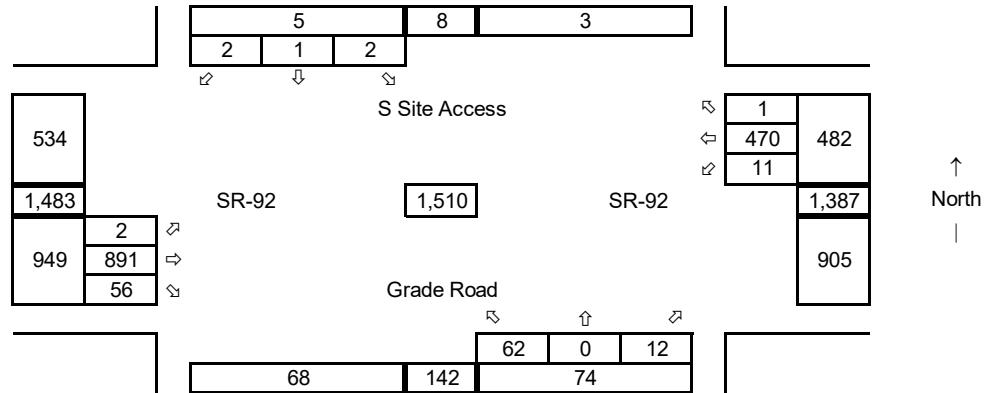
**Total Project Trips**

Average Weekday  
PM Peak Hour



**Future with Project**

Average Weekday  
PM Peak Hour



HCM 2010 TWSC

5: Grade Road & 36th Street NE

The Refuge

Intersection

Int Delay, s/veh 5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		B			↑
Traffic Vol, veh/h	10	40	19	7	35	26
Future Vol, veh/h	10	40	19	7	35	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	72	72	90	90
Heavy Vehicles, %	2	2	8	8	2	2
Mvmt Flow	12	48	26	10	39	29

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	138	31	0 0 36 0
Stage 1	31	-	-
Stage 2	107	-	-
Critical Hdwy	6.42	6.22	- 4.12 -
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	- 2.218 -
Pot Cap-1 Maneuver	855	1043	- 1575 -
Stage 1	992	-	-
Stage 2	917	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	834	1043	- 1575 -
Mov Cap-2 Maneuver	834	-	-
Stage 1	992	-	-
Stage 2	894	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	993	1575	-
HCM Lane V/C Ratio	-	-	0.061	0.025	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-

HCM 2010 TWSC

6: Grade Road & SR-92

The Refuge

Intersection

Int Delay, s/veh 4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↖			↖		↖			↖		↖
Traffic Vol, veh/h	2	767	50	10	417	1	42	0	11	2	1	2
Future Vol, veh/h	2	767	50	10	417	1	42	0	11	2	1	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	92	92	92	66	66	66	63	63	63
Heavy Vehicles, %	3	3	3	4	4	4	8	8	8	20	20	20
Mvmt Flow	2	924	60	11	453	1	64	0	17	3	2	3

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	454	0	0	984	0	0	1437	1435	954	1443	1465	454
Stage 1	-	-	-	-	-	-	959	959	-	476	476	-
Stage 2	-	-	-	-	-	-	478	476	-	967	989	-
Critical Hdwy	4.13	-	-	4.14	-	-	7.18	6.58	6.28	7.3	6.7	6.4
Critical Hdwy Stg 1	-	-	-	-	-	-	6.18	5.58	-	6.3	5.7	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.18	5.58	-	6.3	5.7	-
Follow-up Hdwy	2.227	-	-	2.236	-	-	3.572	4.072	3.372	3.68	4.18	3.48
Pot Cap-1 Maneuver	1101	-	-	694	-	-	108	130	306	100	117	570
Stage 1	-	-	-	-	-	-	301	328	-	537	528	-
Stage 2	-	-	-	-	-	-	557	547	-	284	303	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1101	-	-	694	-	-	104	127	306	93	114	570
Mov Cap-2 Maneuver	-	-	-	-	-	-	104	127	-	93	114	-
Stage 1	-	-	-	-	-	-	300	327	-	535	517	-
Stage 2	-	-	-	-	-	-	541	536	-	267	302	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	0	0.2			80			30.7		
HCM LOS					F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	121	1101	-	-	694	-	-	148
HCM Lane V/C Ratio	0.664	0.002	-	-	0.016	-	-	0.054
HCM Control Delay (s)	80	8.3	0	-	10.3	0	-	30.7
HCM Lane LOS	F	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	3.5	0	-	-	0	-	-	0.2

HCM 2010 TWSC

5: Grade Road & 36th Street NE

The Refuge

Intersection

Int Delay, s/veh 5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		B			↑
Traffic Vol, veh/h	11	45	21	8	39	29
Future Vol, veh/h	11	45	21	8	39	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	72	72	90	90
Heavy Vehicles, %	2	2	8	8	2	2
Mvmt Flow	13	54	29	11	43	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	154	35	0	0	40	0
Stage 1	35	-	-	-	-	-
Stage 2	119	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	838	1038	-	-	1570	-
Stage 1	987	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %		-	-	-	-	-
Mov Cap-1 Maneuver	815	1038	-	-	1570	-
Mov Cap-2 Maneuver	815	-	-	-	-	-
Stage 1	987	-	-	-	-	-
Stage 2	881	-	-	-	-	-

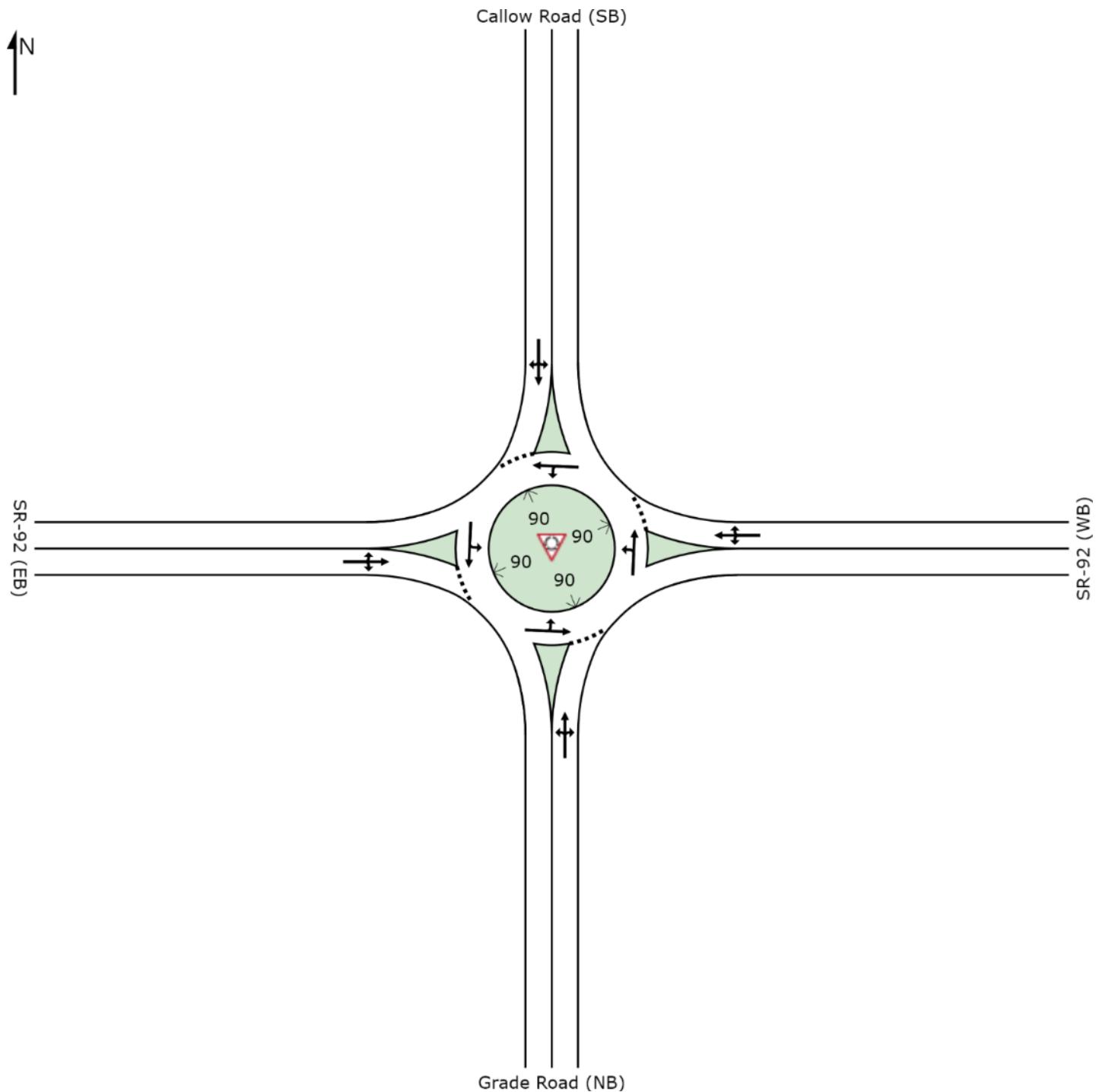
Approach	WB		NB		SB	
HCM Control Delay, s	8.9		0		4.2	
HCM LOS	A					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	985	1570	-	
HCM Lane V/C Ratio	-	-	0.068	0.028	-	
HCM Control Delay (s)	-	-	8.9	7.4	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

## SITE LAYOUT

### Site: 2022 Baseline Conditions - PM

#6 - SR-92 at Grade Road/Callow Road  
Roundabout



## MOVEMENT SUMMARY

### Site: 2022 Baseline Conditions - PM

#6 - SR-92 at Grade Road/Callow Road  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total veh/h	Deg. Satn HV %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Grade Road (NB)											
3	L2	71	8.0	0.195	19.8	LOS B	1.3	34.5	0.90	0.91	30.5
8	T1	2	8.0	0.195	14.1	LOS B	1.3	34.5	0.90	0.91	30.6
18	R2	18	8.0	0.195	14.1	LOS B	1.3	34.5	0.90	0.91	29.8
Approach		91	8.0	0.195	18.5	LOS B	1.3	34.5	0.90	0.91	30.3
East: SR-92 (WB)											
1	L2	12	4.0	0.419	10.2	LOS B	3.5	91.3	0.38	0.44	36.4
6	T1	511	4.0	0.419	4.6	LOS A	3.5	91.3	0.38	0.44	36.4
16	R2	1	4.0	0.419	4.6	LOS A	3.5	91.3	0.38	0.44	35.3
Approach		524	4.0	0.419	4.8	LOS A	3.5	91.3	0.38	0.44	36.4
North: Callow Road (SB)											
7	L2	3	20.0	0.012	13.8	LOS B	0.1	1.8	0.64	0.63	33.8
4	T1	2	20.0	0.012	8.1	LOS A	0.1	1.8	0.64	0.63	34.0
14	R2	3	20.0	0.012	8.1	LOS A	0.1	1.8	0.64	0.63	33.0
Approach		8	20.0	0.012	10.3	LOS B	0.1	1.8	0.64	0.63	33.5
West: SR-92 (EB)											
5	L2	2	3.0	0.816	10.0	LOS B	16.3	416.3	0.37	0.36	36.5
2	T1	1041	3.0	0.816	4.4	LOS A	16.3	416.3	0.37	0.36	36.5
12	R2	67	3.0	0.816	4.4	LOS A	16.3	416.3	0.37	0.36	35.5
Approach		1111	3.0	0.816	4.5	LOS A	16.3	416.3	0.37	0.36	36.5
All Vehicles		1734	3.6	0.816	5.3	LOS A	16.3	416.3	0.40	0.41	36.0

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

HCM 2010 TWSC

5: Grade Road & 36th Street NE

The Refuge

Intersection

Int Delay, s/veh 5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		B			↑
Traffic Vol, veh/h	14	60	21	12	39	29
Future Vol, veh/h	14	60	21	12	39	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	72	72	90	90
Heavy Vehicles, %	2	2	8	8	2	2
Mvmt Flow	17	72	29	17	43	32

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	157	38	0 0 46 0
Stage 1	38	-	-
Stage 2	119	-	-
Critical Hdwy	6.42	6.22	- 4.12 -
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	- 2.218 -
Pot Cap-1 Maneuver	834	1034	- 1562 -
Stage 1	984	-	-
Stage 2	906	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	811	1034	- 1562 -
Mov Cap-2 Maneuver	811	-	-
Stage 1	984	-	-
Stage 2	881	-	-

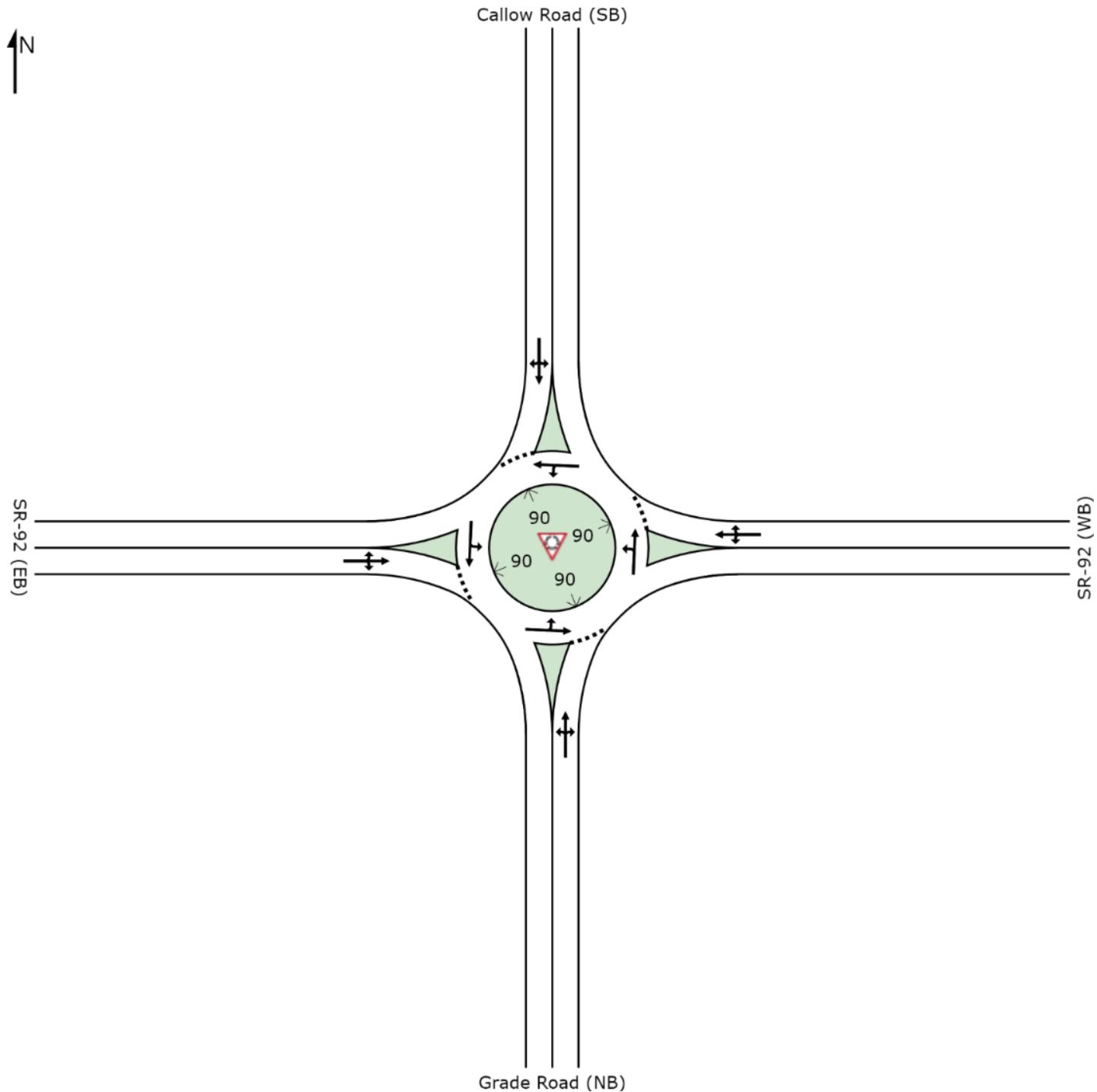
Approach	WB	NB	SB
HCM Control Delay, s	9	0	4.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	983	1562	-
HCM Lane V/C Ratio	-	-	0.091	0.028	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-

## SITE LAYOUT

### Site: 2022 Future Conditions w Dev - PM

#6 - SR-92 at Grade Road/Callow Road  
Roundabout



## MOVEMENT SUMMARY

### Site: 2022 Future Conditions w Dev - PM

#6 - SR-92 at Grade Road/Callow Road  
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Grade Road (NB)											
3	L2	94	8.0	0.261	20.8	LOS C	1.8	47.8	0.93	0.95	30.0
8	T1	2	8.0	0.261	15.2	LOS B	1.8	47.8	0.93	0.95	30.0
18	R2	18	8.0	0.261	15.1	LOS B	1.8	47.8	0.93	0.95	29.3
Approach		114	8.0	0.261	19.8	LOS B	1.8	47.8	0.93	0.95	29.9
East: SR-92 (WB)											
1	L2	12	4.0	0.430	10.4	LOS B	3.6	93.9	0.44	0.46	36.2
6	T1	511	4.0	0.430	4.8	LOS A	3.6	93.9	0.44	0.46	36.2
16	R2	1	4.0	0.430	4.8	LOS A	3.6	93.9	0.44	0.46	35.1
Approach		524	4.0	0.430	4.9	LOS A	3.6	93.9	0.44	0.46	36.2
North: Callow Road (SB)											
7	L2	3	20.0	0.012	14.0	LOS B	0.1	1.9	0.66	0.64	33.7
4	T1	2	20.0	0.012	8.3	LOS A	0.1	1.9	0.66	0.64	33.9
14	R2	3	20.0	0.012	8.3	LOS A	0.1	1.9	0.66	0.64	32.9
Approach		8	20.0	0.012	10.6	LOS B	0.1	1.9	0.66	0.64	33.4
West: SR-92 (EB)											
5	L2	2	3.0	0.840	10.1	LOS B	19.1	489.2	0.41	0.36	36.4
2	T1	1073	3.0	0.840	4.5	LOS A	19.1	489.2	0.41	0.36	36.4
12	R2	67	3.0	0.840	4.4	LOS A	19.1	489.2	0.41	0.36	35.3
Approach		1143	3.0	0.840	4.5	LOS A	19.1	489.2	0.41	0.36	36.3
All Vehicles		1789	3.7	0.840	5.6	LOS A	19.1	489.2	0.45	0.43	35.8

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: H:\2016\16-013\Comment Response\Sidra\SR-92 at Gradel Rd - PM.sip6



Gibson Traffic Consultants, Inc.  
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Everett, WA 98201  
425.339.8266

## **The Refuge Traffic Impact Analysis**

**Jurisdiction: City of Lake Stevens**

**January 2016**



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## 1. DEVELOPMENT IDENTIFICATION

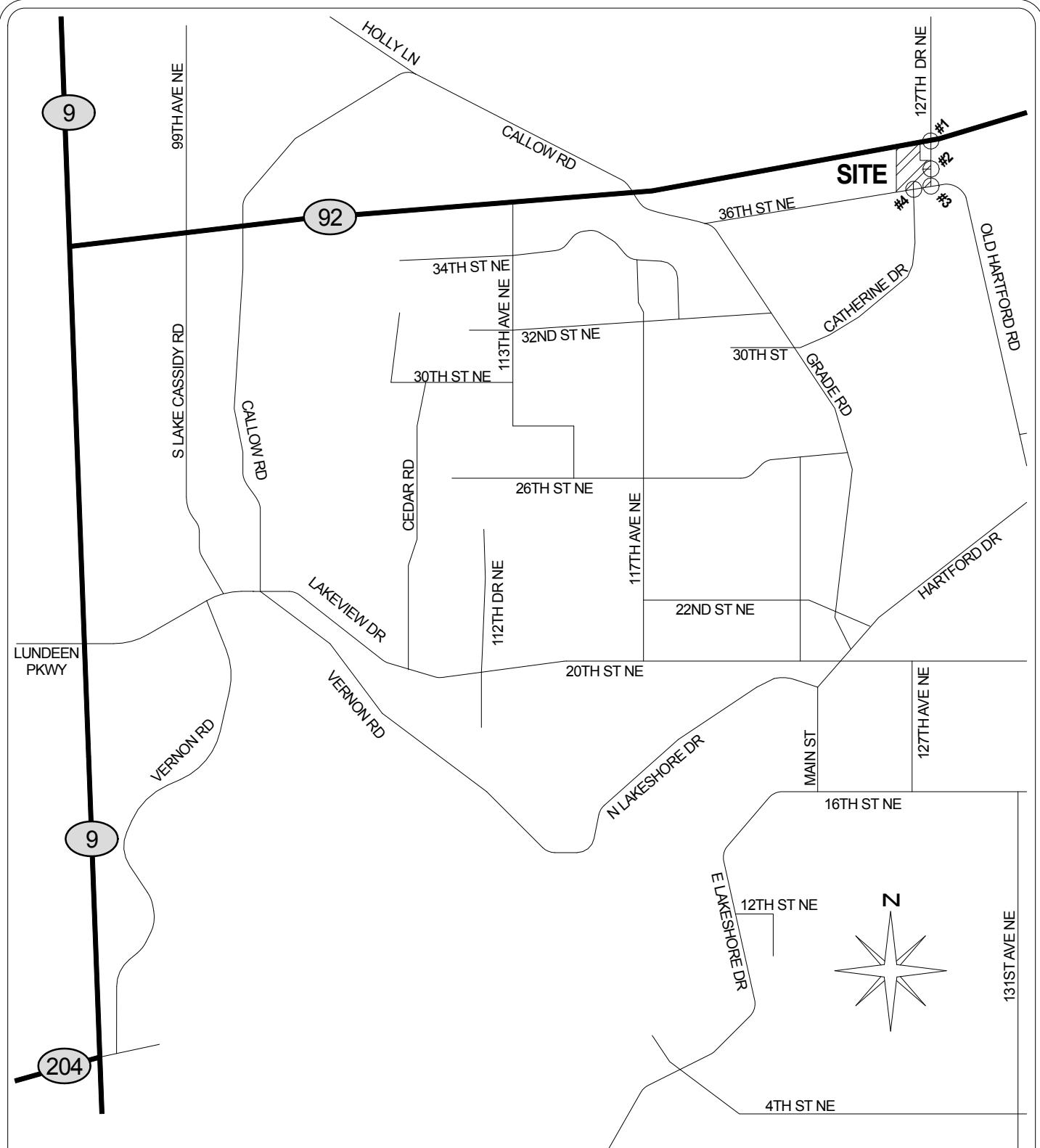
Gibson Traffic Consultants, Inc. (GTC) has been retained to provide a traffic impact analysis for the proposed The Refuge development to address the City of Lake Stevens traffic impacts. GTC is a professional traffic engineering consulting firm registered and licensed in the State of Washington. Brad Lincoln, responsible for this report and traffic analysis, is a licensed professional engineer (Civil) in the State of Washington and member of the Washington State section of ITE.

The Refuge development is a residential development that is proposed to consist of 70 single family dwellings. The site is located on the west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE. A site vicinity map has been included in Figure 1.

## 2. METHODOLOGY

Trip generation calculations for The Refuge development have been performed according to data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation, 9<sup>th</sup> Edition* (2012). The distribution of trips generated by the site is based on distributions for similar developments in the site vicinity.

The peak-hour level of service (LOS) analysis calculations were completed using the *Synchro 9.1, Build 903* software. This software applies the operational analysis methodology of the current *Highway Capacity Manual (HCM)*. Traffic congestion is generally measured in terms of level of service. In accordance with the 2010 HCM, road facilities and intersections are rated between LOS A and LOS F, with LOS A being free flow and LOS F being forced flow or over-capacity conditions. The level of service at two-way stop-controlled intersections is based on the average delay of the worst approach. The level of service at signalized and all-way stop-controlled intersections is based on the average delay for all approaches. Geometric characteristics and conflicting traffic movements are taken into consideration when determining level of service values. The level of service criteria is summarized in Table 1.



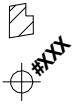
**GIBSON TRAFFIC CONSULTANTS**

**THE REFUGE**  
70 NEW SINGLE FAMILY  
DWELLINGS

**CITY OF LAKE STEVENS**

**TRAFFIC IMPACT STUDY**  
GTC # 16-013

**LEGEND**



PROJECT SITE

STUDY INTERSECTIONS

**FIGURE 1**

**SITE VICINITY MAP**

**Table 1: Level of Service Criteria for Intersections**

Level of <sup>1</sup> Service	Expected Delay	Intersection Control Delay (Seconds per Vehicle)	
		Unsignalized Intersections	Signalized Intersections
A	Little/No Delay	$\leq 10$	$\leq 10$
B	Short Delays	$>10$ and $\leq 15$	$>10$ and $\leq 20$
C	Average Delays	$>15$ and $\leq 25$	$>20$ and $\leq 35$
D	Long Delays	$>25$ and $\leq 35$	$>35$ and $\leq 55$
E	Very Long Delays	$>35$ and $\leq 50$	$>55$ and $\leq 80$
F	Extreme Delays <sup>2</sup>	$>50$	$>80$

### 3. TRIP GENERATION

Trip generation calculations were performed using trip generation data contained in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 9<sup>th</sup> Edition* (2012) for Land Use Code (LUC) 210, Single-Family Detached Housing.. The trip generation of the 70 new units of The Refuge development is summarized in Table 2.

**Table 2: Trip Generation Summary**

70 New Single-Family Residential Units	Average Daily Trips			AM Peak-Hour Trips			PM Peak-Hour Trips		
	Inbound	Outbound	Total	Inbound	Outbound	Total	Inbound	Outbound	Total
Generation Rate	9.52 trips per unit			0.75 trips per unit			1.00 trips per unit		
Splits	50%	50%	100%	25%	75%	100%	63%	37%	100%
Trips	333.20	333.20	666.40	13.13	39.37	52.50	44.10	25.90	70.00

The development is anticipated to generate 666 new average daily trips (ADT) with 53 AM peak-hour trips and 70 PM Peak-hour trips.

<sup>1</sup> Source: *Highway Capacity Manual* 2010.

LOS A: Free-flow traffic conditions, with minimal delay to stopped vehicles (no vehicle is delayed longer than one cycle at signalized intersection).

LOS B: Generally stable traffic flow conditions.

LOS C: Occasional back-ups may develop, but delay to vehicles is short term and still tolerable.

LOS D: During short periods of the peak hour, delays to approaching vehicles may be substantial but are tolerable during times of less demand (i.e. vehicles delayed one cycle or less at signal).

LOS E: Intersections operate at or near capacity, with long queues developing on all approaches and long delays.

LOS F: Jammed conditions on all approaches with excessively long delays and vehicles unable to move at times.

<sup>2</sup> When demand volume exceeds the capacity of the lane, extreme delays will be encountered with queuing which may cause severe congestion affecting other traffic movements in the intersection.

This same site was approved in 2009 for a commercial and gas station development. A comparison of the trip generation of the previously approved development and the proposed trip generation of The Refuge development is shown in Table 3.

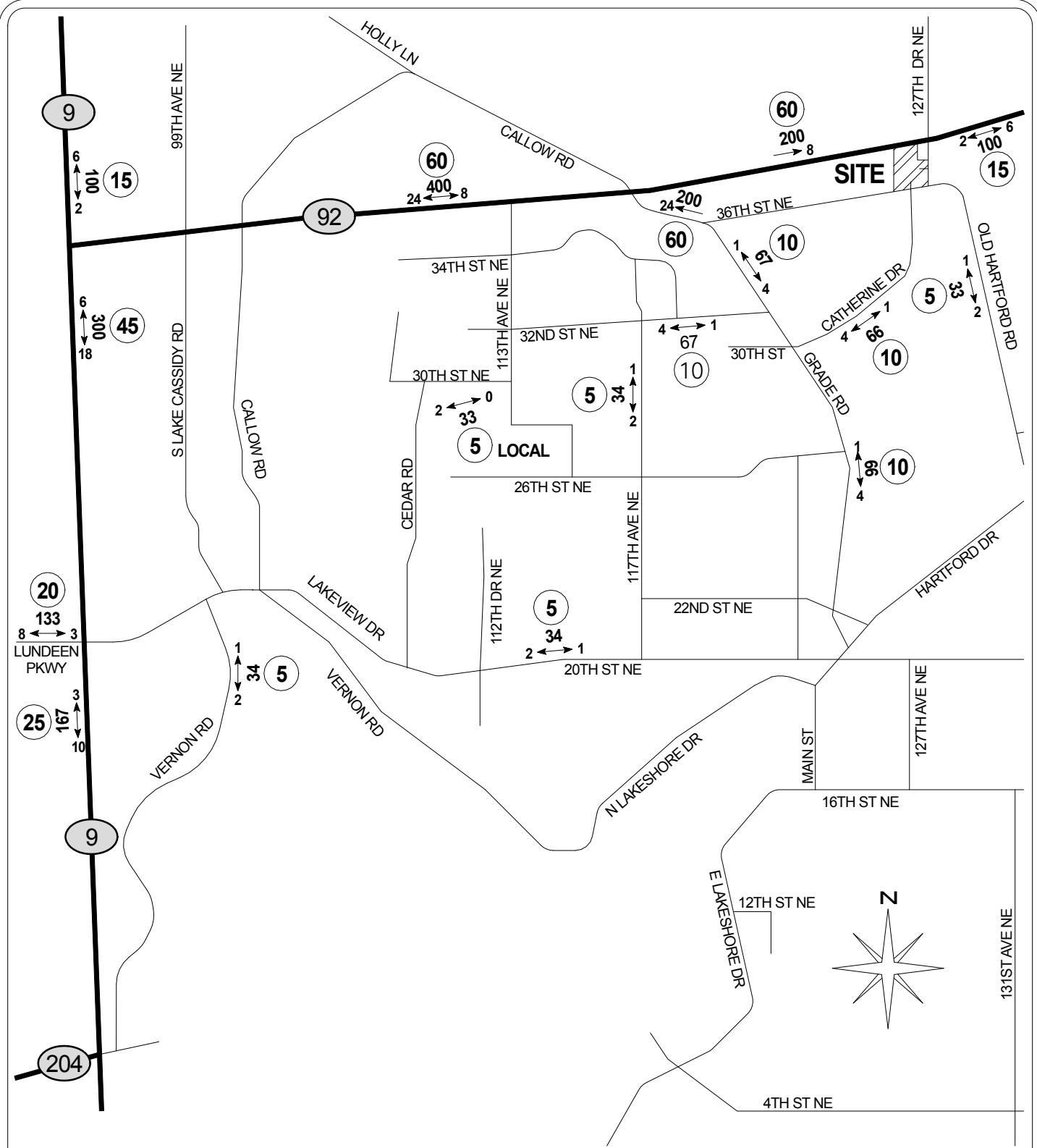
**Table 3: Trip Generation Comparison**

Land Use and Size	Average Daily Trips	PM Peak-Hour Trips
Proposed – The Refuge 70 single-family dwelling use	666	70
2009 Approval Commercial and Gas Station	4,158	378
<b>CHANGE IN TRIP GENERATION</b>	<b>-3,492</b>	<b>-308</b>

Table 3 shows that The Refuge will generate approximately 3,492 fewer daily trips and 308 fewer PM peak-hour trips. The report for the previously approved development is included in the attachments.

#### **4. TRIP DISTRIBUTION**

The trip distribution for the proposed The Refuge development is based on existing traffic patterns and approved distributions for developments in the site vicinity. The development is proposed to have two site accesses, one on 36<sup>th</sup> Street NE and one on 127<sup>th</sup> Drive NE. It is anticipated that 15% of the development's trips will travel to and from the east on SR-92. An estimated 25% of the development's trips will travel to and from the south along local roads, including Grade Road, Catherine Drive and Old Hartford Road. The remaining 60% of the development's trips will travel along SR-9, fifteen percent to and from the north and forty-five percent to and from the south. Detailed trip distributions for the AM and PM peak-hours are included in Figure 2 and Figure 3, respectively.



## GIBSON TRAFFIC CONSULTANTS

# TRAFFIC IMPACT STUDY

## GTC # 16-013

# THE REFUGE 70 NEW SINGLE FAMILY DWELLINGS

# CITY OF LAKE STEVENS

## LEGEND

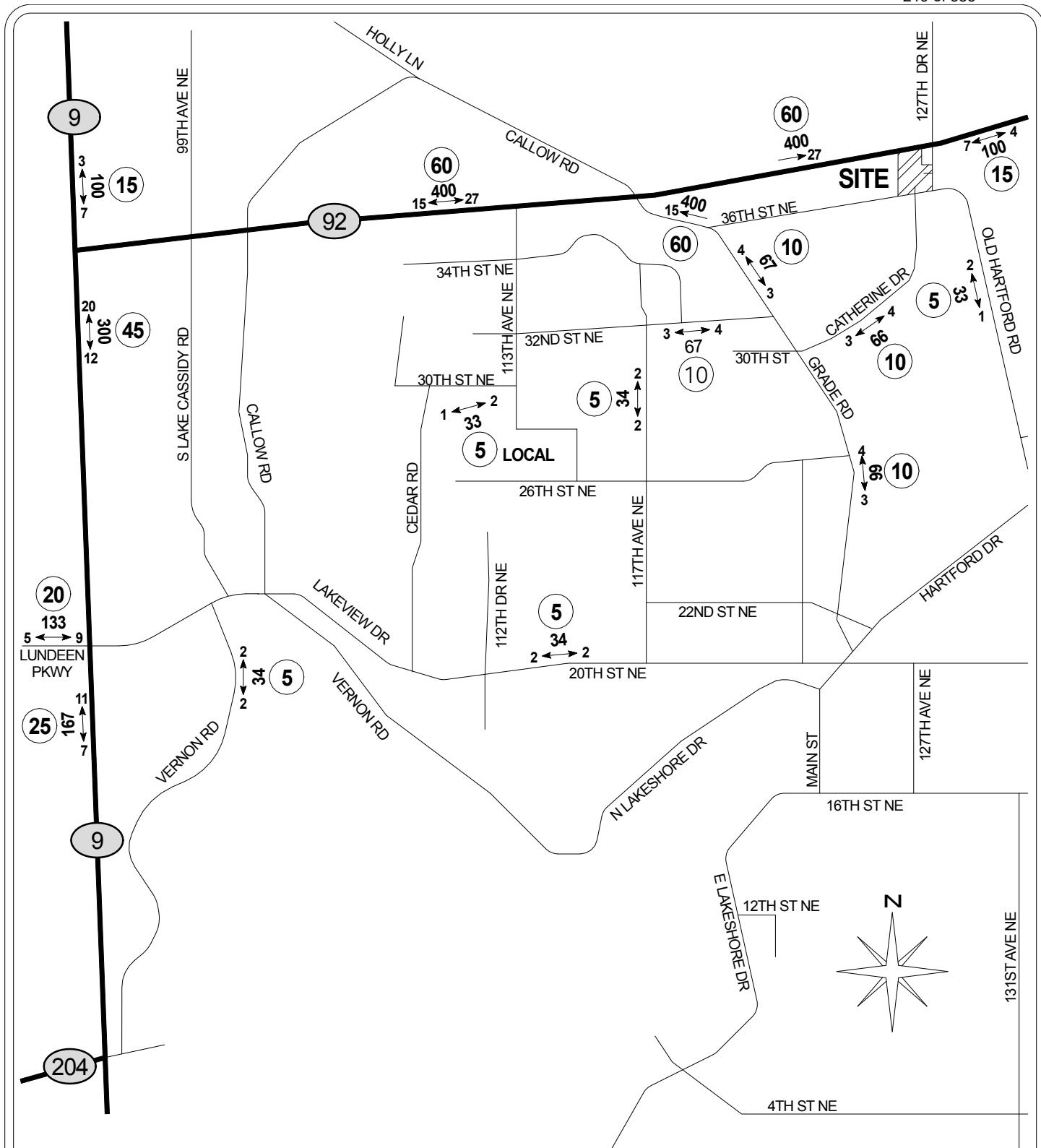
AWDT  
AM  $\longleftrightarrow$  PEAK  
**25**

## NEW SITE TRAFFIC (DAILY/PEAK HOUR)

## TRIP DISTRIBUTION %

## FIGURE 2

## AM PEAK-HOUR TRIP DISTRIBUTION



## 5. FUTURE INTERSECTION TURNING MOVEMENTS

The following intersections have been analyzed as part of this report, based on scoping discussions with City of Lake Stevens staff:

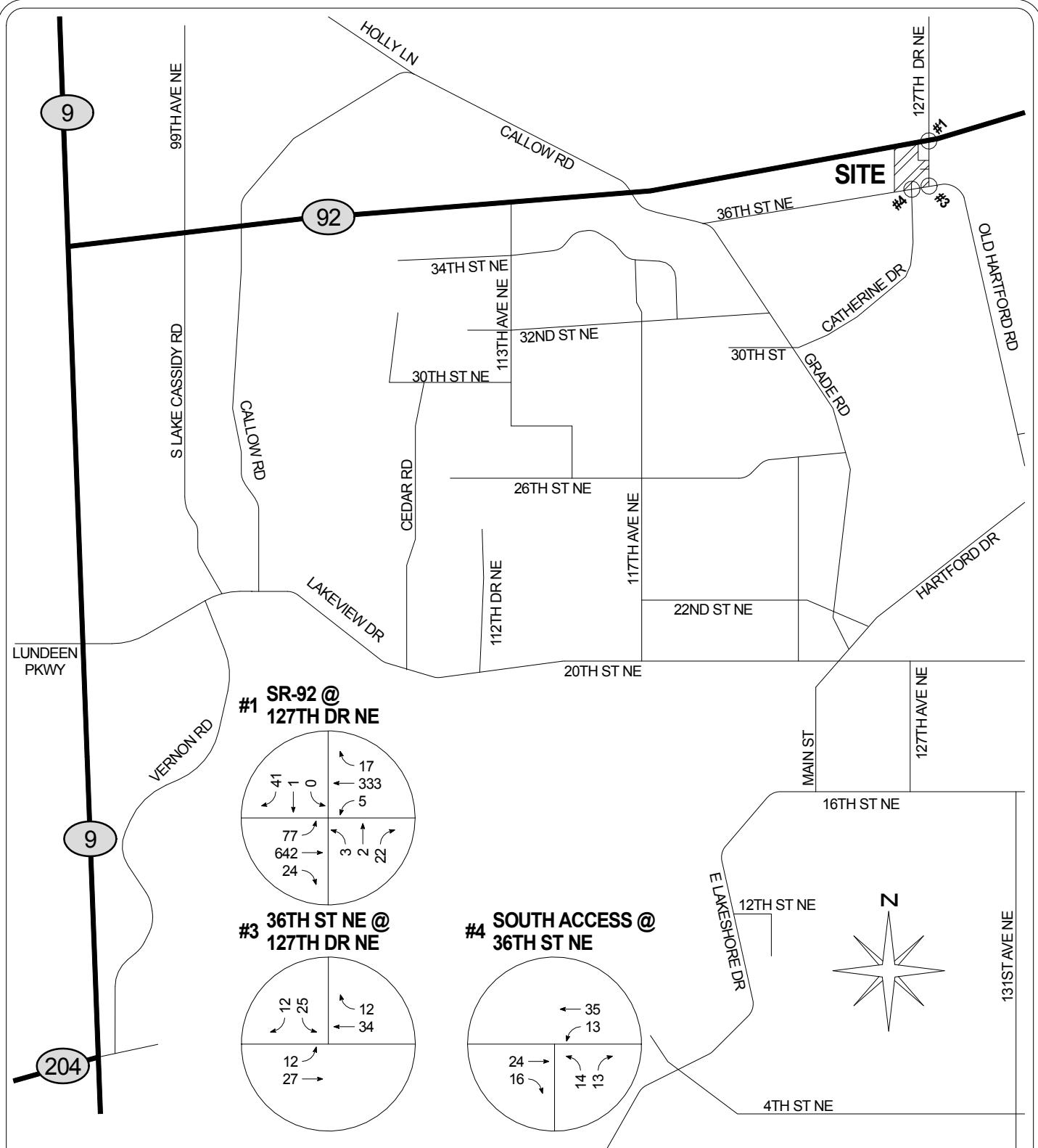
1. SR-92 at 127<sup>th</sup> Drive NE
2. East Driveway at 127<sup>th</sup> Drive NE
3. 36<sup>th</sup> Street NE at 127<sup>th</sup> Drive NE
4. 36<sup>th</sup> Street NE at South Driveway/Catherine Drive

It is important to note that the east driveway at 127<sup>th</sup> Drive NE is only analyzed for the 2022 future with development conditions since it will not exist until the development is constructed. Additionally, the intersection of 36<sup>th</sup> Street NE at the south driveway/Catherine Drive is currently a 3-leg intersection that will be converted to a 4-leg intersection under the 2022 future with development conditions.

A six-year forecast using a 2% annually-compounded growth rate was utilized at the site accesses and the intersection of 36<sup>th</sup> Street NE and 127<sup>th</sup> Drive NE for the PM peak-hour turning movement calculations based on previous analysis for similar developments within the City of Lake Stevens. A six-year forecast using a 1% annually-compounded growth rate was utilized for the intersection of SR-92 and 127<sup>th</sup> Drive NE for the PM peak-hour turning movement calculations based on the growth rate calculated using data from WSDOT's *2014 Annual Traffic Reports*. Turning movement calculations are included in the attachments. PM peak-hour turning movements at the study intersections for the existing conditions, 2022 baseline conditions and 2022 future with development conditions are shown in Figure 4, Figure 5, and Figure 6, respectively. The Level of Service for each of the intersections analyzed is summarized in Table 4.

**Table 4: PM Peak-Hour LOS Summary**

Intersection	Existing Conditions		2022 Baseline Conditions		2022 Future with Development Conditions	
	LOS	Delay	LOS	Delay	LOS	Delay
1. SR-92 at 127 <sup>th</sup> Drive NE	C	18.5 sec	C	20.2 sec	C	20.3 sec
2. E Driveway at 127 <sup>th</sup> Drive NE	---	---	---	---	A	9.1 sec
3. 36 <sup>th</sup> Street NE at 127 <sup>th</sup> Drive NE	A	9.2 sec	A	9.3 sec	A	9.4 sec
4. 36 <sup>th</sup> Drive Street NE at S Driveway/Catherine Drive	A	9.3 sec	A	9.4 sec	A	9.7 sec



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70 NEW SINGLE FAMILY  
DWELLINGS

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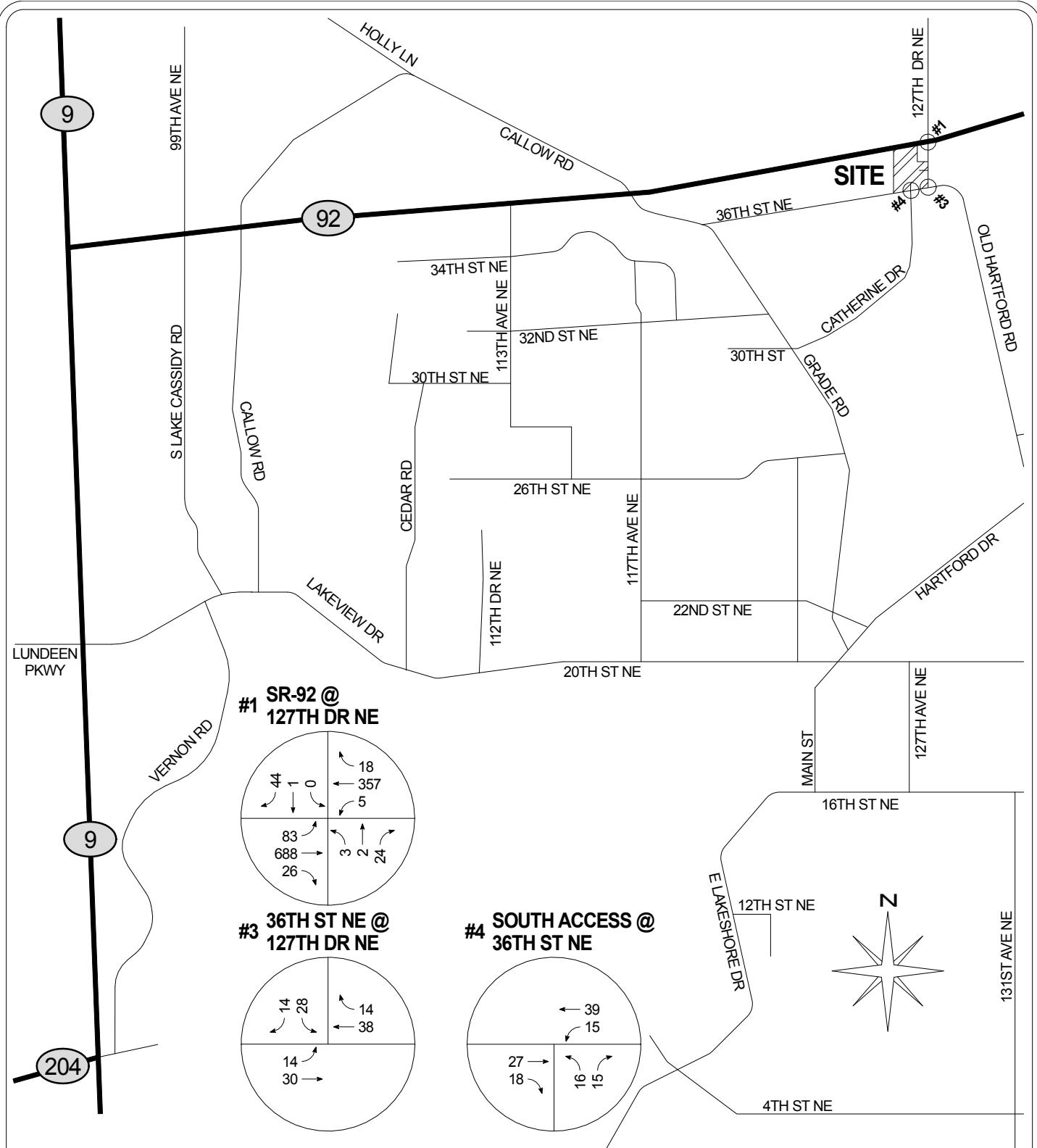
LEGEND

XX →

PM PEAK-HOUR  
TURNING MOVEMENT VOLUMES

TRAFFIC IMPACT STUDY  
GTC # 16-013

FIGURE 4  
EXISTING  
TURNING MOVEMENTS



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THE REFUGE  
70 NEW SINGLE FAMILY  
DWELLINGS

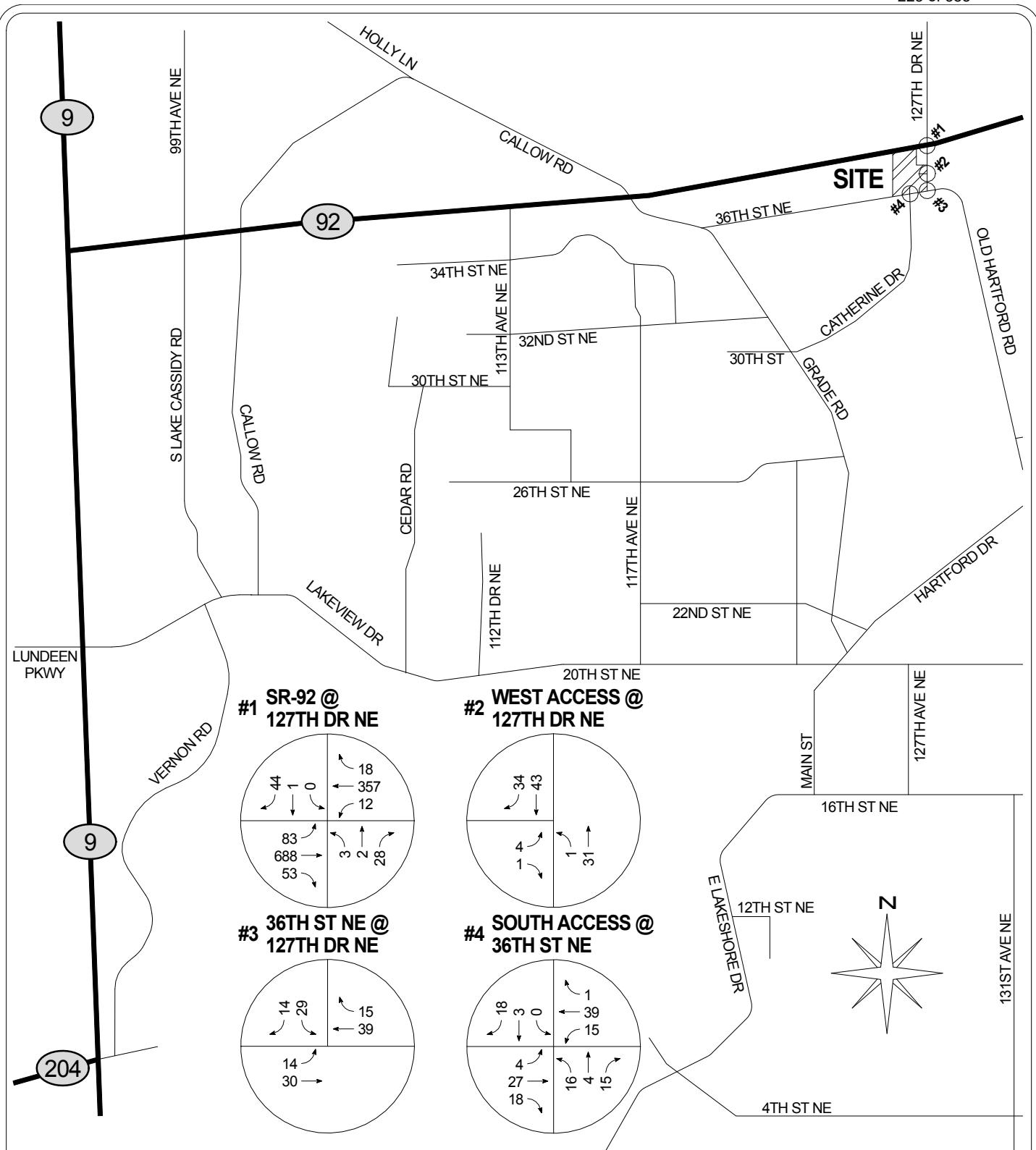
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PM PEAK-HOUR  
TURNING MOVEMENT VOLUMES

**FIGURE 5**  
**2022 BASELINE**  
**TURNING MOVEMENTS**



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**THE REFUGE**  
70 NEW SINGLE FAMILY  
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XX →

PM PEAK-HOUR  
TURNING MOVEMENT VOLUMES

**FIGURE 6**  
**2022 FUTURE WITH DEVELOPMENT**  
**TURNING MOVEMENTS**

## 6. ACCESS ANALYSIS

The Refuge development has two proposed full access points, one on 127<sup>th</sup> Drive NE and one on 36<sup>th</sup> Street NE. The posted speed limit along 127<sup>th</sup> Drive NE in the site vicinity is 35 mph and the posted speed limit along 36<sup>th</sup> Street NE along the site vicinity is 25 mph. The required sight distances have been evaluated based on AASHTO standards. The required stopping sight distance for a posted speed limit of 35 mph is 250 feet and the entering sight distance is 390 feet. The stopping sight distance for a posted speed limit of 25 mph is 155 feet and the entering sight distance is 280 feet. The access driveway on 127<sup>th</sup> Drive NE meets the stopping sight distance and there is clear sight distance through the adjacent intersections. The access driveway on 36<sup>th</sup> Street NE meets both the stopping sight distance and the entering sight distance. Both accesses will therefore have sufficient stopping and entering sight distances.

The queue lengths from the intersections adjacent to the sight accesses were analyzed to determine if the queue lengths would block the site accesses. The queue lengths from at the adjacent intersections were approximately 1 vehicle and the queues from the adjacent intersections should therefore not block the site accesses.

Additionally, channelization analysis was performed at the site accesses to determine if left or right-turn channelization is warranted. The analysis shows that left or right-turn channelization at the site accesses is not warranted.

## 7. TRAFFIC MITIGATION FEES

The Washington Growth Management Act and Revised Code of Washington 82.02.050(2) authorize local jurisdictions to establish proportionate share traffic mitigation fees in order to fund capital facilities, such as roads and intersections. The Refuge development is anticipated to generate 70 new PM peak-hour trips on streets within the City of Lake Stevens. Lake Stevens assesses a mitigation fee of \$2,039 per PM peak-hour trip. As a result, The Refuge development would have a City of Lake Stevens mitigation fee of \$172,730.00.

The City of Lake Stevens also has an understanding with WSDOT for the payment of traffic mitigation fees to WSDOT for impacts to WSDOT collection projects. According to WSDOT's Exhibit C, the development will impact one WSDOT project on SR-92 which has a proportionate share fee of \$22.37 per daily trips impacting the project location. The Refuge will be sending 400 ADT trips through the project location, resulting in a mitigation fee of \$8,948.00.

## 8. CONCLUSIONS

The 70 units of The Refuge development will generate 666 new average daily trips with 53 new AM peak-hour trips and 70 new PM peak-hour trips. The intersections analyzed as part of this report were found to operate at LOS C or better under the 2022 future with development conditions. The accesses will have adequate sight distance, will not warrant separate left or right-turn channelization and are not anticipated to be blocked by queues from adjacent intersections. The development is expected to have a total traffic mitigation fee of \$181,678 for impacts to City of Lake Stevens and WSDOT roadways.

## Previous Site TIAs

# EXHIBIT

## Centennial Retail Center Lake Stevens, Washington

### Traffic Impact Study

See updated report  
Dated July 10, 2009

April 2007

Prepared for:  
Nordic Marine Floats, LLC  
604 Cedar Ave  
Marysville, WA 98270

Prepared by:



Transportation Engineering NorthWest

Transportation Engineering/Operations ♦ Impact Studies ♦ Design Services ♦ Transportation Planning/Forecasting  
816 6<sup>th</sup> Street South ♦ Kirkland, WA 98033 ♦ Office & Mobile (206) 396-8286 ♦ Fax (425) 889-TENW(8369)

# EXHIBIT

RECEIVED

MAY 28 2010

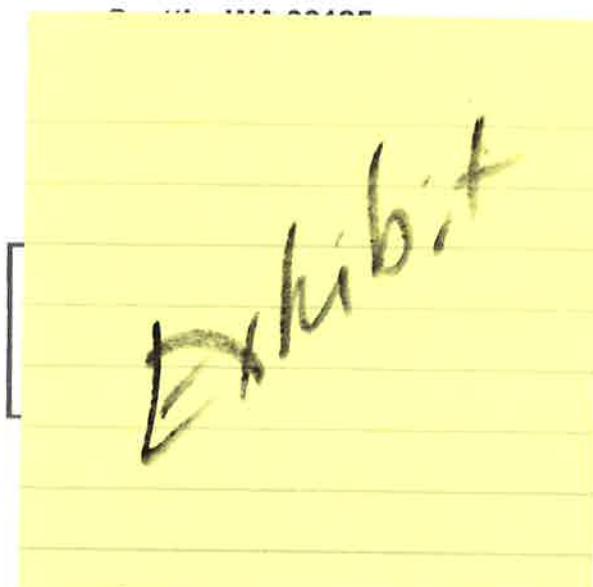
CITY OF LAKE STEVENS

## CENTENNIAL CENTER UPDATED TRAFFIC IMPACT ANALYSIS

### CITY OF LAKE STEVENS

Prepared for

Mr. Dan Eernisse  
LAVORO DEVELOPMENT, INC.  
2830 NE 110th Street



Fax: 425.522.4311

July 10, 2009



Figure 3 shows the Centennial Center current preliminary site plan consisting of the following facilities and approximate area.

<b>Label</b>	<b>Use</b>	<b>Area (sq. ft.)</b>
A	Daycare	4800
B	Retail Anchor	30000
C	Gas Station	10 fueling positions
D	Retail Anchor	15380
E	Medical/Dental	11300
F	Retail Shops	7360
G	Restaurant Pad	2740
H	Bank Pad	2500
J	Retail Pad	4000
<b>Total</b>		<b>78,880 sq. ft.</b>

The 78,880 sq. ft of total building area is approximately 12.7% greater than the 70,000 sq. ft. building area proposed in the original TIA. The gas station is a new addition to the site.

#### **TRIP GENERATION AND DISTRIBUTION**

A vehicle trip is defined as a single or one direction vehicle movement with either the origin or destination (exiting or entering) inside the study site. These trip generation values account for all site trips made by all vehicles for all purposes, including employee, visitor, customer, and service and delivery vehicle trips.

Table 1 shows the vehicular trips during an average weekday and during the PM street traffic peak hour for the proposal. The trip generation is calculated using the average trip rates or equations found in the Institute of Transportation Engineers (ITE) Trip Generation, Eighth Edition, 2008 (updated from the 2003 Seventh Edition) as shown in Table 1. The generic Shopping Center trip equation (land use code 820) was utilized since all the site land uses have not yet been identified in the preliminary plan. This is the same approach used in the 2007 TIA with the exception that a gas station has been added to the site and the trips generated by the gas station are added to the shopping center trips.

Mr. Dan Eernisse  
LAVORO DEVELOPMENT INC.  
Page 4



**TABLE 1**  
VEHICULAR TRIP GENERATION FOR SHOPPING CENTER PLUS GAS STATION  
CENTENNIAL CENTER

LAND USE BUILDINGS A,B,D,E,F,G,H	ITE CODE	QUANTITY	UNITS	AVERAGE DAILY TRIPS	PM PEAK HOUR		
					IN	OUT	TOTAL
RETAIL (SHOPPING CENTER)	820	78,880	1000 SQ FT	5820	266	276	542
MINUS INTERNAL TRIPS (0%)				EQUATION*	49%	51%	EQUATION**
SUBTOTAL (DRIVEWAY TRIPS)				0	0	0	0
MINUS PASS BY TRIPS(-42%)				5820.0	266	276	542
TOTAL (NEW TRIPS)		78,880		-2444	-112	-116	-228
				3376.0	154	160	314
<b>AREA C</b>							
GASOLINE SERVICE STATION	944	10	FUELING POSITIONS	1686 (rate=168.56)	70 50%	69 50%	139 (rate=13.87)
MINUS INTERNAL TRIPS (20%)				-337	-14	-14	-28
SUBTOTAL (DRIVEWAY TRIPS)				1349.0	56	55	111
MINUS PASS BY TRIPS(-42%)				-567	-24	-23	-47
TOTAL (NEW TRIPS)				782.0	32	32	64
<b>TOTAL</b>							
TOTAL (DRIVEWAY TRIPS)				7169	322	331	653
MINUS PASS BY TRIPS				-3011	-136	-139	-275
<b>TOTAL (NEW TRIPS)</b>				<b>4158</b>	<b>186</b>	<b>192</b>	<b>378</b>
TOTAL AREA (KSF)		78,880	1000 SQ FT				

\* Shopping Center Daily trips =  $\ln(T) = 0.65 \ln(X) + 5.83$  where T = number of Daily trips and X = 1000 sq. ft.  
 \*\* Shopping Center PM pk hour trips =  $\ln(T) = 0.67 \ln(X) + 3.37$  where T = number of PM peak hour trips and X = 1000 sq. ft.  
 SOURCE: ITE Trip Generation, 8th Edition, 2008

The equations and rates published for each land use in Trip Generation represent the total trips for each land use independently. Multiple land uses on the same site have an interaction of trip making that results in an "Internalization factor" that accounts for some patrons of the site using more than one retail outlet. Table 7.1 of the ITE Trip Generation Handbook identifies internal trip rate reductions for interaction between retail land uses. The internal trip rate reduction for retail-to-retail land uses is 20% in the PM peak hour and was applied only to the gas station generated trips since the Shopping Center equation already accounts for interaction between the different uses within the shopping center. Simply put, 20% of the trips to the gas station (28 PM peak hour trips) are from other buildings in the shopping center.

A reduction in site-generated trips was applied to account for pass-by trips. A pass-by trip is an existing trip on an adjacent street that is passing by the site, stops at the site and then resumes the trip. Retail and commercial land uses generally have the highest percentage of pass-by trips. Chapter 5 of the ITE Trip Generation Handbook was used to estimate the percentage of pass-by trips as shown in Figure 5.5 and Table 5.28 of the handbook. The pass-by rate for a 78,880 sq. ft. shopping center is 42% and the pass by rate for the gas station is also 42%. Pass-by trips generally are evident at the site driveways but do not add to existing through traffic street volumes. Since left turns will be prohibited at the SR 92 site access driveway, these left turning pass-by trips will be required to enter and exit the site at the 127<sup>th</sup> Ave. NE driveway and therefore will travel through the proposed roundabout. For this reason, pass-by trips

## Count Data

## WASHINGTON STATE DEPT OF TRANSPORTATION

Site Code : 09202383

PAGE: 1

LOCATION : SR 92

FILE: 09202383

JCT : 127TH DR NE

MILEPOST : 2.38

DATE: 3/31/15

## Movements by: Primary

Time Begin	From South			From West			From North			From East			Vehicle Total
	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	RT	THRU	LT	
4:00 PM	3	1	2	6	152	10	8	1	0	2	77	2	264
4:15	1	0	0	4	173	17	13	1	0	9	97	0	315
4:30	6	1	1	9	148	20	9	0	0	4	76	1	275
4:45	7	0	1	7	160	17	7	0	0	2	78	3	282
HR TOTAL	17	2	4	26	633	64	37	2	0	17	328	6	1136
5:00 PM	8	1	1	4	161	23	12	0	0	2	82	1	295
5:15	4	0	0	1	180	12	10	0	0	1	92	2	302
5:30	2	0	0	1	152	20	11	0	0	3	78	2	269
5:45	2	1	0	1	139	11	8	0	0	3	60	1	226
HR TOTAL	16	2	1	7	632	66	41	0	0	9	312	6	1092
DAY TOTAL	33	4	5	33	1265	130	78	2	0	26	640	12	2228

## PEAK PERIOD ANALYSIS FOR THE PERIOD: 4:00 PM - 6:00 PM

DIRECTION FROM	START PEAK HOUR	PEAK HR FACTOR	..... VOLUMES .....				.... PERCENTS ...		
			Right	Thru	Left	Total	Right	Thru	Left
South	4:30 PM	0.75	25	2	3	30	83	7	10
West	4:15 PM	0.96	24	642	77	743	3	86	10
North	4:15 PM	0.75	41	1	0	42	98	2	0
East	4:15 PM	0.84	17	333	5	355	5	94	1

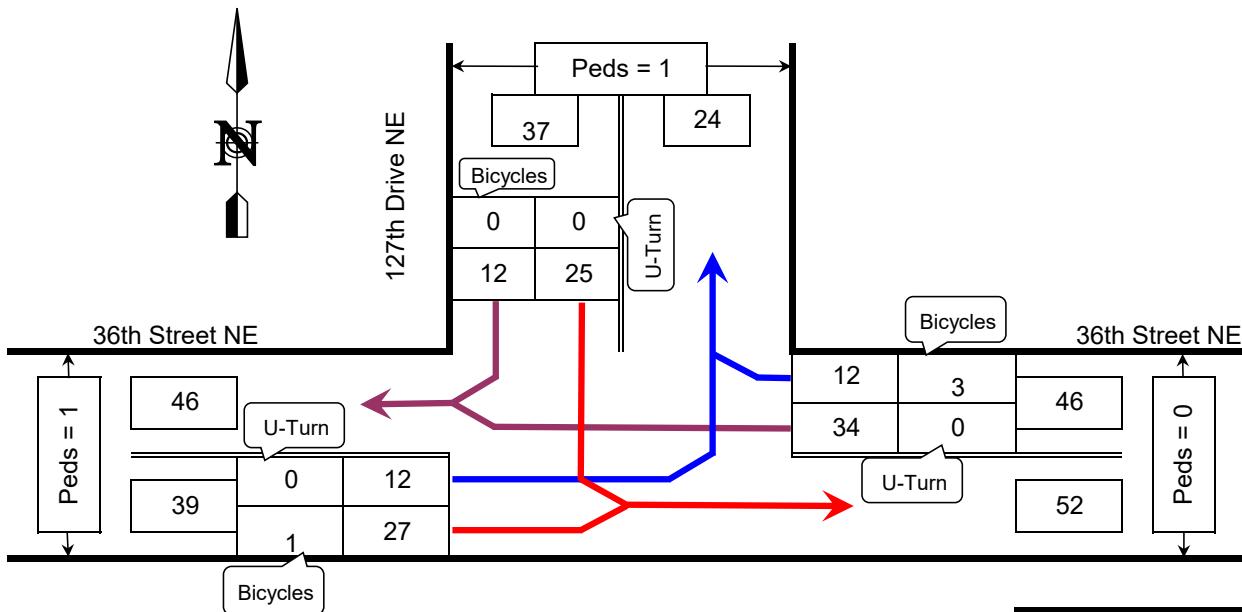
## Entire Intersection

South	4:15 PM	0.68	22	2	3	27	81	7	11
West		0.96	24	642	77	743	3	86	10
North		0.75	41	1	0	42	98	2	0
East		0.84	17	333	5	355	5	94	1



### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:00 PM TO 5:00 PM



INTERSECTION	
PEAK HOUR VOLUME	
IN	122
OUT	122

	HV	PHF
SB	5.4%	0.66
WB	0.0%	0.88
EB	2.6%	0.75
INTRS.	2.5%	0.87

HV = Heavy Vehicles  
PHF = Peak Hour Factor

36th Street NE @ 127th Drive NE

Lake Stevens, WA

COUNTED BY: CN

DATE OF COUNT: Mon. 1/25/16

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Mon. 1/25/16

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 36th Street NE @ 127th Drive NE  
Lake Stevens, WA

DATE OF COUNT: Mon. 1/25/16  
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: CN  
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 127th Drive NE						FROM SOUTH ON 36th Street NE						FROM EAST ON 36th Street NE						FROM WEST ON 36th Street NE						INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
04:30 PM	1	0	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
04:45 PM	0	0	0	0	10	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35
05:00 PM	0	0	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
05:15 PM	0	0	1	0	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
05:30 PM	0	0	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20
05:45 PM	0	0	0	0	4	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
06:00 PM	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
PEAK HOUR TOTALS	1	0	2	0	25	0	12	0	0	0	0	0	0	0	0	0	0	0	34	12	1	1	0	12	27
ALL MOVEMENTS					37		0											46				39			122
% HV		5.4%						#N/A									0.0%				2.6%			2.5%	
PEAK HOUR FACTOR		0.66						#N/A									0.88				0.75			0.87	

HV = Heavy Vehicle

PHF = Peak Hour Factor

REDUCED BY: CN

DATE OF REDUCTION: 1/25/2016

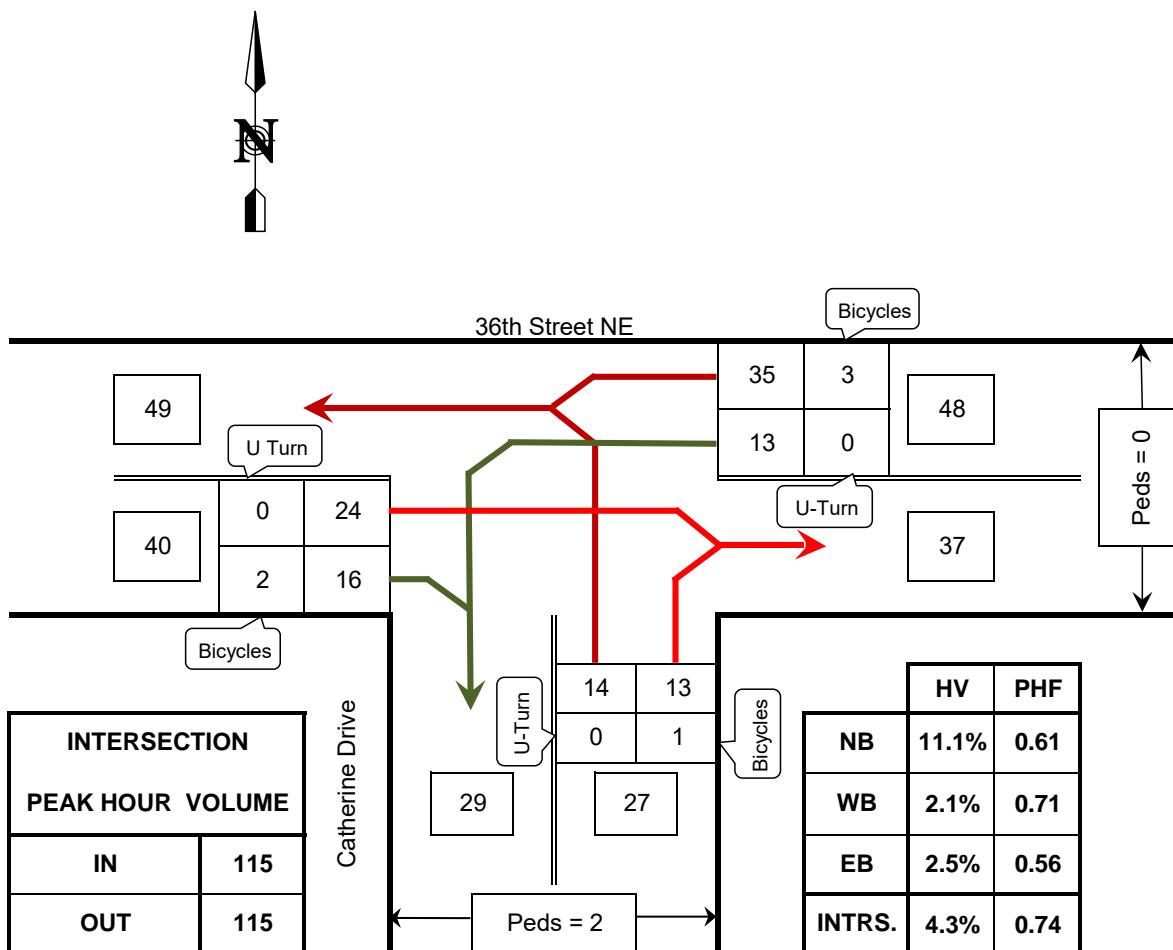
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON 127th Drive NE						FROM SOUTH ON 36th Street NE						FROM EAST ON 36th Street NE						FROM WEST ON 36th Street NE						INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	1	0	2	0	25	0	12	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	122
4:15 PM - 5:15 PM	1	0	3	0	31	0	11	0	0	0	0	0	0	0	0	0	0	0	31	12	1	1	0	7	23
4:30 PM - 5:30 PM	0	0	3	0	29	0	11	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	115
4:45 PM - 5:45 PM	0	0	3	0	23	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	110
5:00 PM - 6:00 PM	0	0	1	0	23	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	98



### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:00 PM TO 5:00 PM



HV = Heavy Vehicles  
PHF = Peak Hour Factor

36th Street NE @ Catherine Drive

Lake Stevens, WA

COUNTED BY: VT

DATE OF COUNT: Mon. 1/25/16

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Mon. 1/25/16

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: 36th Street NE @ Catherine Drive  
Lake Stevens, WA

DATE OF COUNT: Mon. 1/25/16  
TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT  
WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON						FROM SOUTH ON						FROM EAST ON						FROM WEST ON						INTERVAL TOTALS				
	Catherine Drive			36th Street NE			Catherine Drive			36th Street NE			Catherine Drive			36th Street NE			Catherine Drive			36th Street NE							
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HOUR TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ALL MOVEMENTS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% HV	#N/A		11.1%		27		2.1%		48		4.2%		40		5.6		40		4.2%		115		11.1%		11.1%				
PEAK HOUR FACTOR	#N/A		0.61		0.71		0.74		0.74		0.74		0.74		0.74		0.74		0.74		0.74		0.74		0.74				

REDUCED BY:

CN \_\_\_\_\_

HV = Heavy Vehicle

PHF = Peak Hour Factor

1/25/2016

DATE OF REDUCTION:

1/25/2016

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON						FROM SOUTH ON						FROM EAST ON						FROM WEST ON						INTERVAL TOTALS				
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	
2:00 PM - 3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM - 3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM - 3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM - 3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM - 4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM - 4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM - 4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM - 4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM - 5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## Turning Movements

1 SR-92 @ 127th Dr

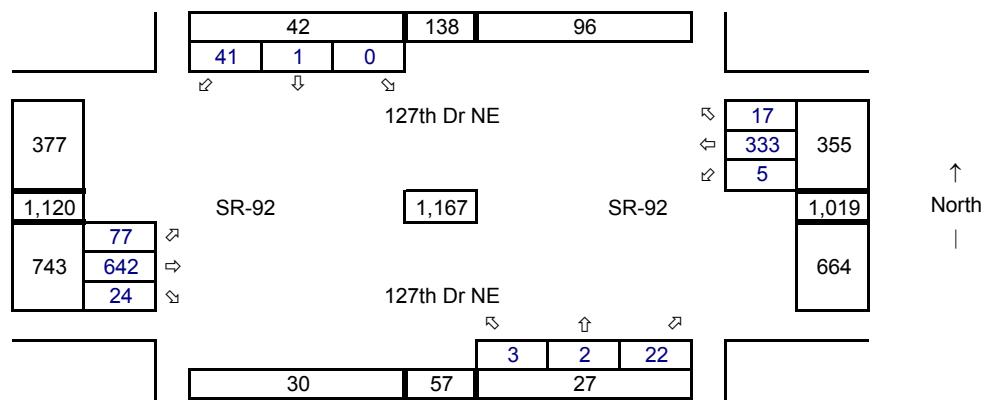
Synchro ID: 1

**Existing**

Average Weekday  
PM Peak Hour

Year: 3/31/15

Data Source: WSDOT



**Future without Project**

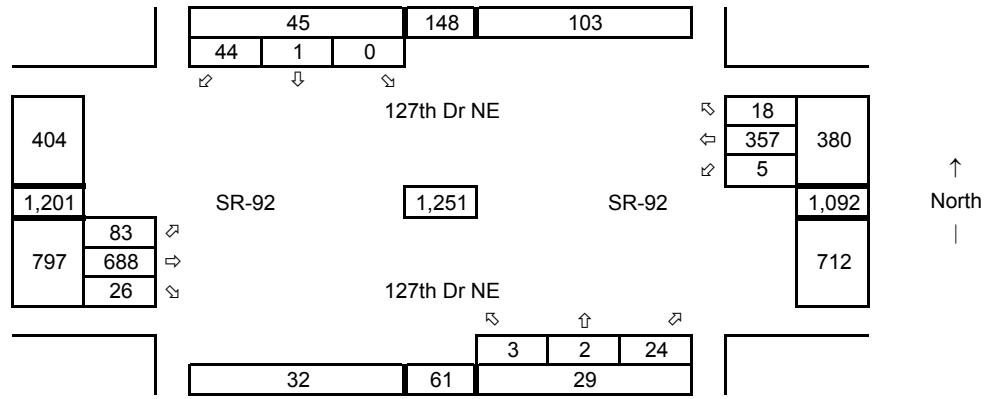
Average Weekday  
PM Peak Hour

Year: 2022

Growth Rate = 1.0%

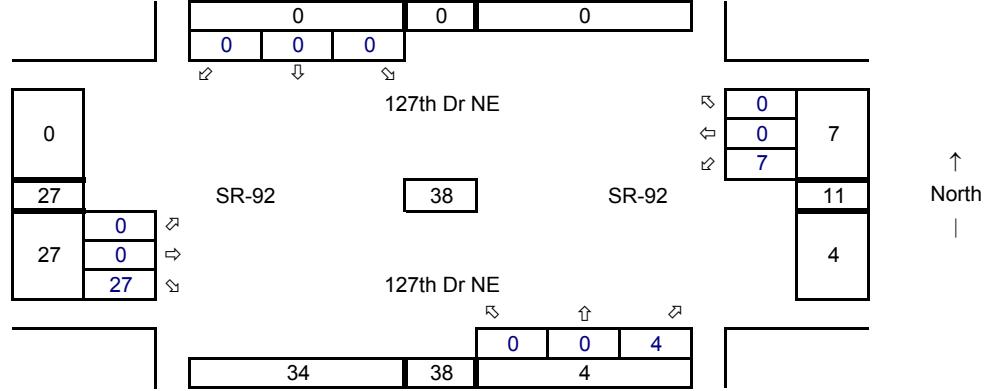
Years of Growth = 7

Total Growth = 1.0721



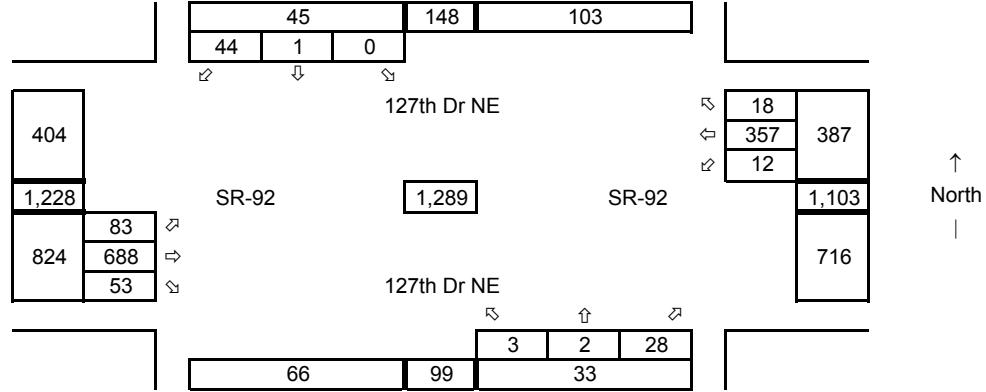
**Total Project Trips**

Average Weekday  
PM Peak Hour



**Future with Project**

Average Weekday  
PM Peak Hour



2 Dwy @ 127th Dr

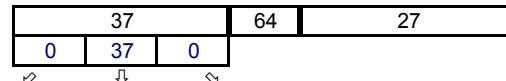
Synchro ID: 2

**Existing**

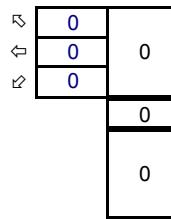
Average Weekday  
PM Peak Hour

Year: 6/6/15

Data Source: GTC

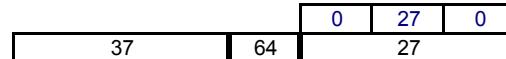


127th Dr NE



↑  
North

127th Dr NE



**Future without Project**

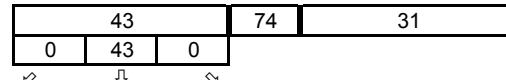
Average Weekday  
PM Peak Hour

Year: 2022

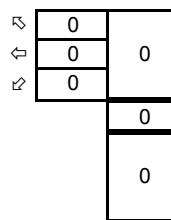
Growth Rate = 2.0%

Years of Growth = 7

Total Growth = 1.1487

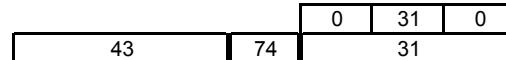


127th Dr NE



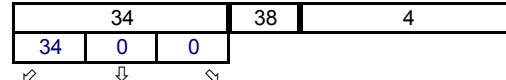
↑  
North

127th Dr NE

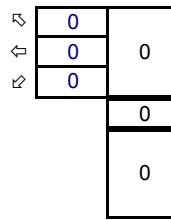


**Total Project Trips**

Average Weekday  
PM Peak Hour

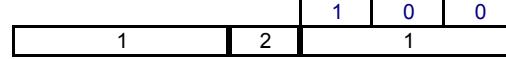


127th Dr NE



↑  
North

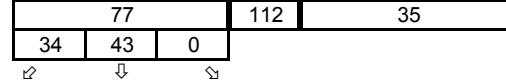
W Site Access



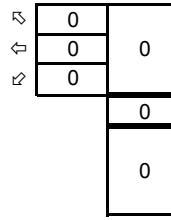
127th Dr NE

**Future with Project**

Average Weekday  
PM Peak Hour

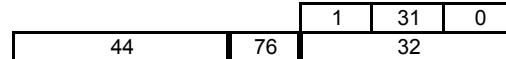


127th Dr NE



↑  
North

W Site Access



127th Dr NE

3 36th St @ 127th Dr

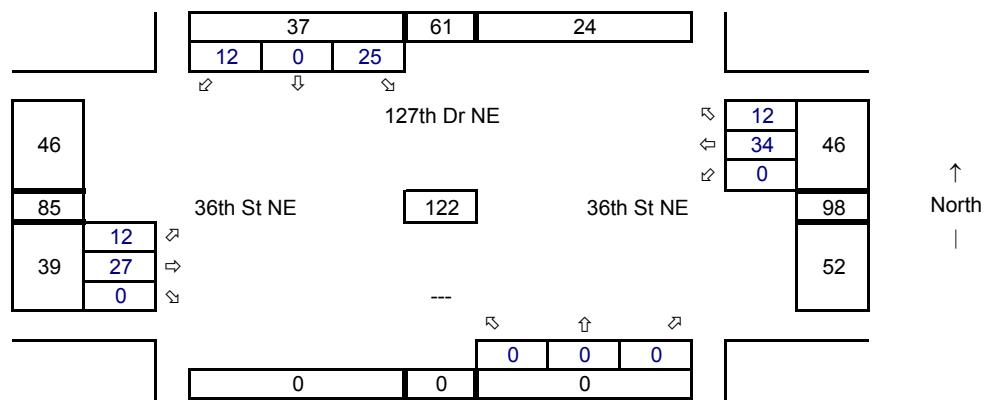
Synchro ID: 3

**Existing**

Average Weekday  
PM Peak Hour

Year: 1/25/16

Data Source: TDG



**Future without Project**

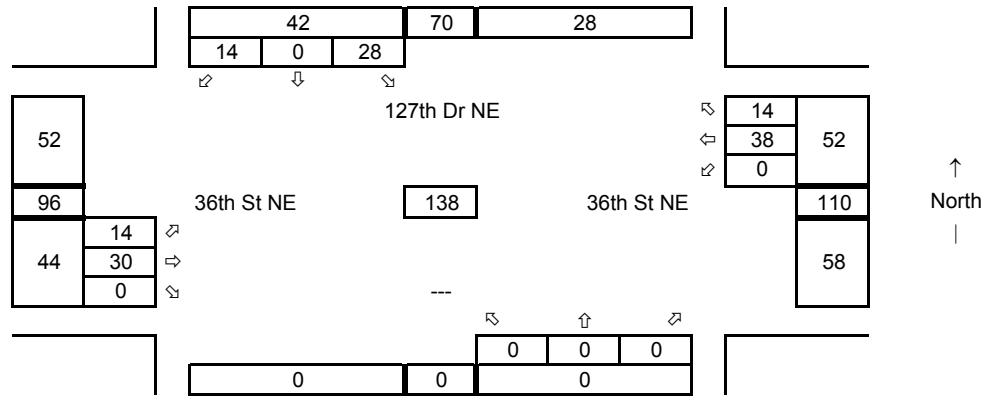
Average Weekday  
PM Peak Hour

Year: 2022

Growth Rate = 2.0%

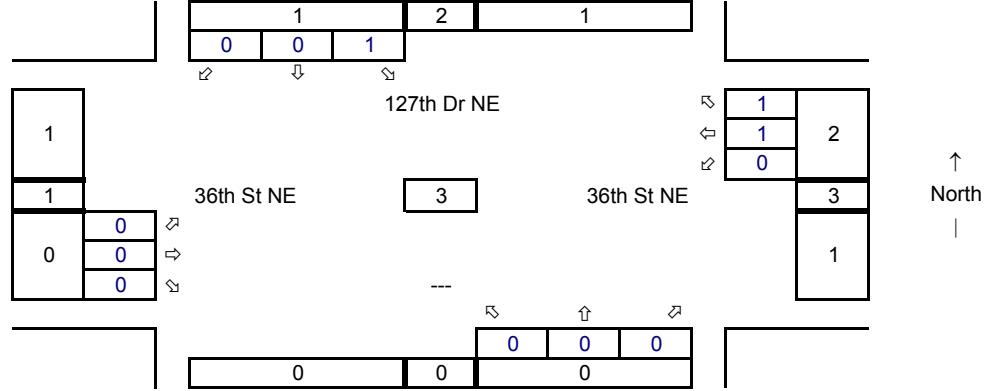
Years of Growth = 6

Total Growth = 1.1262



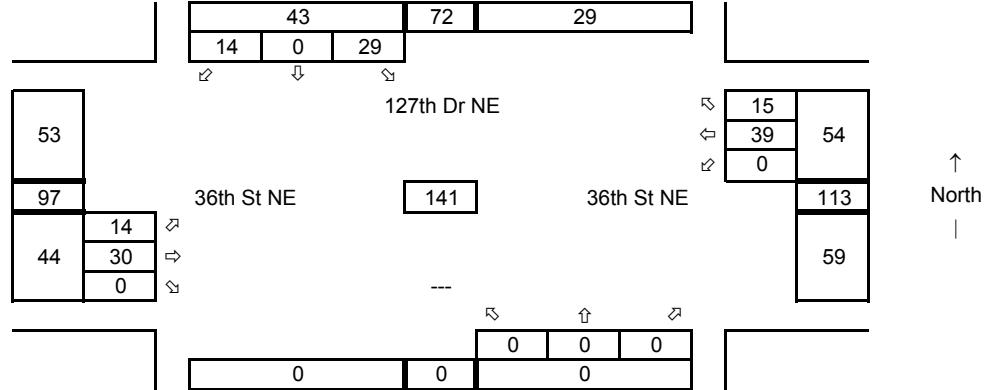
**Total Project Trips**

Average Weekday  
PM Peak Hour



**Future with Project**

Average Weekday  
PM Peak Hour



4 36th St @ Dwy\_Catherine Dr

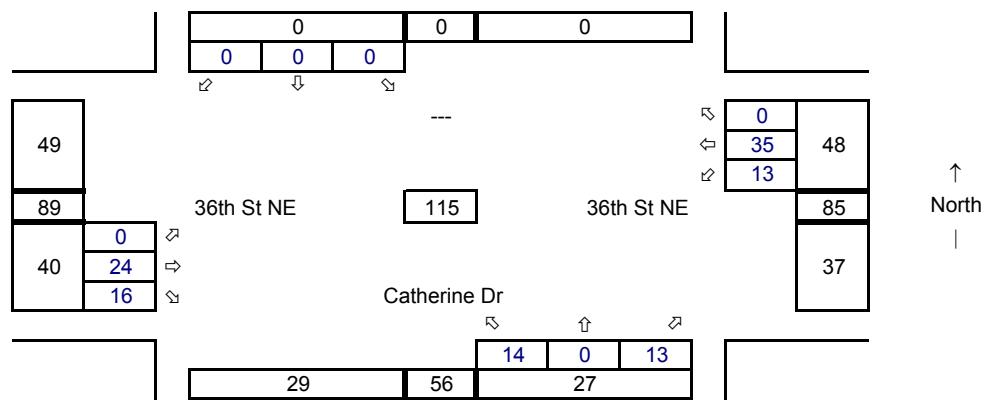
Synchro ID: 4

**Existing**

Average Weekday  
PM Peak Hour

Year: 1/25/16

Data Source: TDG



**Future without Project**

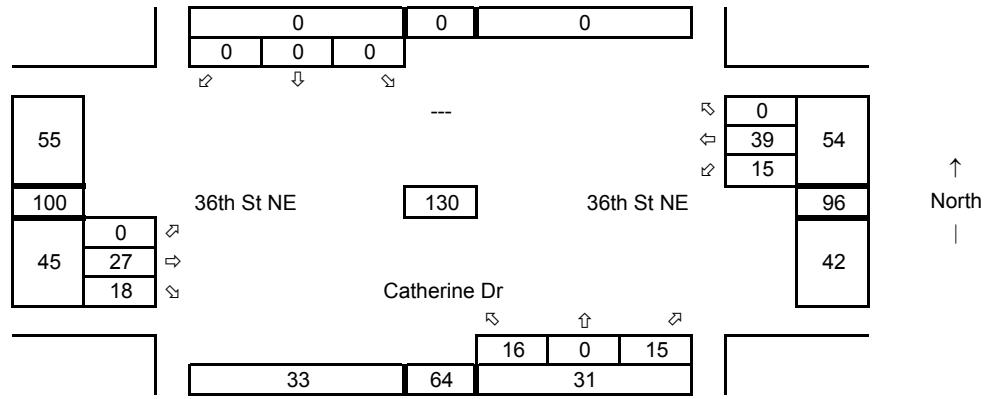
Average Weekday  
PM Peak Hour

Year: 2022

Growth Rate = 2.0%

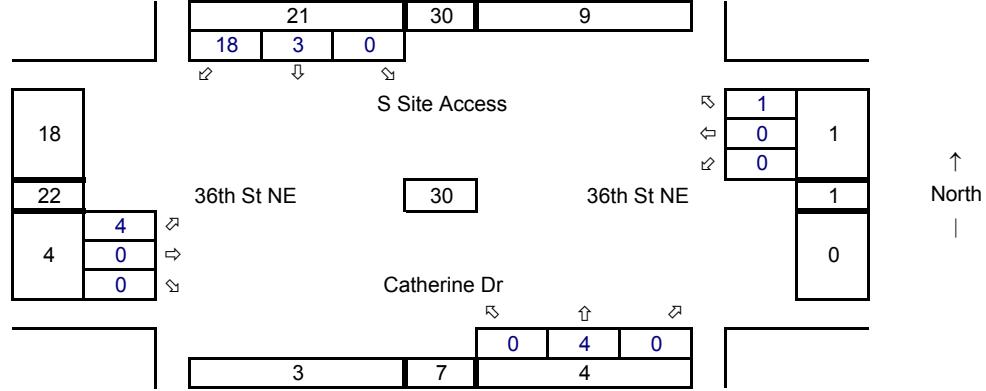
Years of Growth = 6

Total Growth = 1.1262



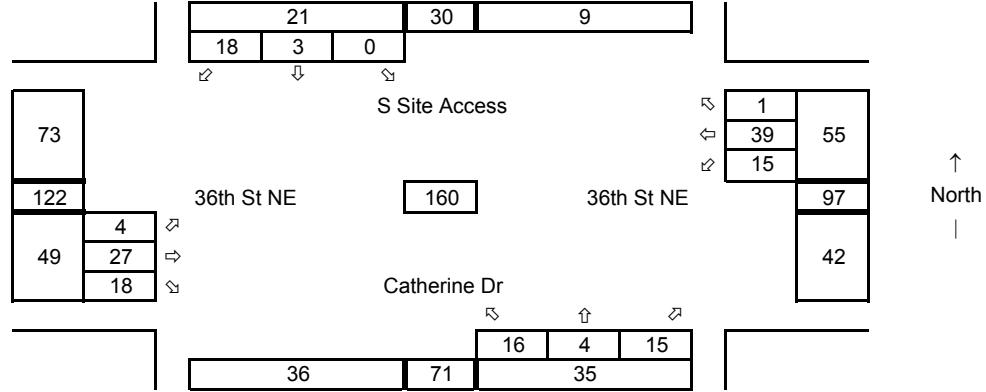
**Total Project Trips**

Average Weekday  
PM Peak Hour



**Future with Project**

Average Weekday  
PM Peak Hour



## Existing Level of Service Calculations

HCM 2010 TWSC  
1: 127th Drive NE & SR-92

The Refuge (#16-013)

Intersection

Int Delay, s/veh 1.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	77	642	24	5	333	17	3	2	22	0	1	41
Future Vol, veh/h	77	642	24	5	333	17	3	2	22	0	1	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	68	68	68	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	80	669	25	6	396	20	4	3	32	0	1	55

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	417	0	0	694	0	0	1288	1271	681	1277	1272	407
Stage 1	-	-	-	-	-	-	842	842	-	418	418	-
Stage 2	-	-	-	-	-	-	446	429	-	859	854	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1142	-	-	901	-	-	141	168	450	143	168	644
Stage 1	-	-	-	-	-	-	359	380	-	612	591	-
Stage 2	-	-	-	-	-	-	591	584	-	351	375	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1142	-	-	901	-	-	116	147	450	118	147	644
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	147	-	118	147	-
Stage 1	-	-	-	-	-	-	318	336	-	542	586	-
Stage 2	-	-	-	-	-	-	535	579	-	286	332	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	0.9	0.1			18.5			11.7		
HCM LOS					C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	306	1142	-	-	901	-	-	596
HCM Lane V/C Ratio	0.13	0.07	-	-	0.007	-	-	0.094
HCM Control Delay (s)	18.5	8.4	0	-	9	0	-	11.7
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0.2	-	-	0	-	-	0.3

HCM 2010 TWSC

3: 36th Street NE & 127th Drive NE

The Refuge (#16-013)

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	12	27		34	12	25	12
Future Vol, veh/h	12	27		34	12	25	12
Conflicting Peds, #/hr	1	0		0	0	0	1
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	75	75		88	88	66	66
Heavy Vehicles, %	3	3		0	0	5	5
Mvmt Flow	16	36		39	14	38	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	53	0	-	0	114	47
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	68	-
Critical Hdwy	4.13	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1546	-	-	-	875	1014
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	947	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1545	-	-	-	864	1012
Mov Cap-2 Maneuver	-	-	-	-	864	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	936	-

Approach	EB		WB		SB	
HCM Control Delay, s	2.3		0		9.2	
HCM LOS					A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1545	-	-	-	907	
HCM Lane V/C Ratio	0.01	-	-	-	0.062	
HCM Control Delay (s)	7.4	0	-	-	9.2	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Existing Conditions

Gibson Traffic Consultants, Inc. [SPF]

PM Peak-Hour

HCM 2010 TWSC

4: Catherine Drive & 36th Street NE

The Refuge (#16-013)

Intersection

Int Delay, s/veh 3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	24	16	13	35	14	13
Future Vol, veh/h	24	16	13	35	14	13
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	71	71	61	61
Heavy Vehicles, %	3	3	2	2	11	11
Mvmt Flow	43	29	18	49	23	21

Major/Minor	Major1	Major2	Minor1	
Conflicting Flow All	0	0	71	0
Stage 1	-	-	-	57
Stage 2	-	-	-	86
Critical Hdwy	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	5.51
Follow-up Hdwy	-	-	2.218	-
Pot Cap-1 Maneuver	-	-	1529	-
Stage 1	-	-	-	943
Stage 2	-	-	-	915
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	1526	-
Mov Cap-2 Maneuver	-	-	-	817
Stage 1	-	-	-	943
Stage 2	-	-	-	902

Approach	EB	WB	NB
HCM Control Delay, s	0	2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	888	-	-	1526	-
HCM Lane V/C Ratio	0.05	-	-	0.012	-
HCM Control Delay (s)	9.3	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Existing Conditions

Gibson Traffic Consultants, Inc. [SPF]

PM Peak-Hour

## 2022 Baseline Level of Service Calculations

HCM 2010 TWSC  
1: 127th Drive NE & SR-92

The Refuge (#16-013)

Intersection

Int Delay, s/veh 1.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	83	688	26	5	357	18	3	2	24	0	1	44
Future Vol, veh/h	83	688	26	5	357	18	3	2	24	0	1	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	68	68	68	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	717	27	6	425	21	4	3	35	0	1	59

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	446	0	0	744	0	0	1381	1361	730	1370	1365	436
Stage 1	-	-	-	-	-	-	903	903	-	448	448	-
Stage 2	-	-	-	-	-	-	478	458	-	922	917	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1114	-	-	864	-	-	121	148	422	124	147	620
Stage 1	-	-	-	-	-	-	332	356	-	590	573	-
Stage 2	-	-	-	-	-	-	568	567	-	324	351	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1114	-	-	864	-	-	97	127	422	100	126	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	97	127	-	100	126	-
Stage 1	-	-	-	-	-	-	288	309	-	512	568	-
Stage 2	-	-	-	-	-	-	508	562	-	255	305	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	0.9	0.1			20.2			12.1		
HCM LOS					C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	280	1114	-	-	864	-	-	570
HCM Lane V/C Ratio	0.152	0.078	-	-	0.007	-	-	0.105
HCM Control Delay (s)	20.2	8.5	0	-	9.2	0	-	12.1
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.5	0.3	-	-	0	-	-	0.4

HCM 2010 TWSC

3: 36th Street NE & 127th Drive NE

The Refuge (#16-013)

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	14	30		38	14	28	14
Future Vol, veh/h	14	30		38	14	28	14
Conflicting Peds, #/hr	1	0		0	0	0	1
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	75	75		88	88	66	66
Heavy Vehicles, %	3	3		0	0	5	5
Mvmt Flow	19	40		43	16	42	21

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	60	0	-	0	129	53
Stage 1	-	-	-	-	52	-
Stage 2	-	-	-	-	77	-
Critical Hdwy	4.13	-	-	-	6.45	6.25
Critical Hdwy Stg 1	-	-	-	-	5.45	-
Critical Hdwy Stg 2	-	-	-	-	5.45	-
Follow-up Hdwy	2.227	-	-	-	3.545	3.345
Pot Cap-1 Maneuver	1537	-	-	-	858	1006
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	1536	-	-	-	845	1004
Mov Cap-2 Maneuver	-	-	-	-	845	-
Stage 1	-	-	-	-	962	-
Stage 2	-	-	-	-	925	-

Approach	EB		WB		SB	
HCM Control Delay, s	2.3		0		9.3	
HCM LOS					A	

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1536	-	-	-	892	
HCM Lane V/C Ratio	0.012	-	-	-	0.071	
HCM Control Delay (s)	7.4	0	-	-	9.3	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

HCM 2010 TWSC

4: Catherine Drive & 36th Street NE

The Refuge (#16-013)

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Intersection

Int Delay, s/veh 3.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	27	18	15	39	16	15
Future Vol, veh/h	27	18	15	39	16	15
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	56	56	71	71	61	61
Heavy Vehicles, %	3	3	2	2	11	11
Mvmt Flow	48	32	21	55	26	25

Major/Minor	Major1	Major2		Minor1	
Conflicting Flow All	0	0	80	0	161
Stage 1	-	-	-	-	64
Stage 2	-	-	-	-	97
Critical Hdwy	-	-	4.12	-	6.51
Critical Hdwy Stg 1	-	-	-	-	5.51
Critical Hdwy Stg 2	-	-	-	-	5.51
Follow-up Hdwy	-	-	2.218	-	3.599
Pot Cap-1 Maneuver	-	-	1518	-	809
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	905
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1515	-	796
Mov Cap-2 Maneuver	-	-	-	-	796
Stage 1	-	-	-	-	936
Stage 2	-	-	-	-	891

Approach	EB	WB	NB
HCM Control Delay, s	0	2.1	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	872	-	-	1515	-
HCM Lane V/C Ratio	0.058	-	-	0.014	-
HCM Control Delay (s)	9.4	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

## **2022 Future with Development Level of Service Calculations**

HCM 2010 TWSC  
1: 127th Drive NE & SR-92

The Refuge (#16-013)

Intersection

Int Delay, s/veh 1.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	83	688	53	12	357	18	3	2	28	0	1	44
Future Vol, veh/h	83	688	53	12	357	18	3	2	28	0	1	44
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	84	84	84	68	68	68	75	75	75
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	86	717	55	14	425	21	4	3	41	0	1	59

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	446	0	0	772	0	0	1411	1392	744	1403	1409	436
Stage 1	-	-	-	-	-	-	917	917	-	464	464	-
Stage 2	-	-	-	-	-	-	494	475	-	939	945	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1114	-	-	843	-	-	116	142	415	117	139	620
Stage 1	-	-	-	-	-	-	326	351	-	578	564	-
Stage 2	-	-	-	-	-	-	557	557	-	317	340	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1114	-	-	843	-	-	92	120	415	91	117	620
Mov Cap-2 Maneuver	-	-	-	-	-	-	92	120	-	91	117	-
Stage 1	-	-	-	-	-	-	281	303	-	499	552	-
Stage 2	-	-	-	-	-	-	492	545	-	244	293	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	0.9	0.3			20.3			12.1		
HCM LOS					C			B		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	283	1114	-	-	843	-	-	566
HCM Lane V/C Ratio	0.171	0.078	-	-	0.017	-	-	0.106
HCM Control Delay (s)	20.3	8.5	0	-	9.3	0	-	12.1
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0.3	-	-	0.1	-	-	0.4

HCM 2010 TWSC

2: 127th Drive NE & E Access Driveway

The Refuge (#16-013)

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Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	4	1	1	31	43	34
Future Vol, veh/h	4	1	1	31	43	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	68	68	68	68
Heavy Vehicles, %	2	2	5	5	5	5
Mvmt Flow	4	1	1	46	63	50

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	137	88	113
Stage 1	88	-	-
Stage 2	49	-	-
Critical Hdwy	6.42	6.22	4.15
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	2.245
Pot Cap-1 Maneuver	856	970	1458
Stage 1	935	-	-
Stage 2	973	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	855	970	1458
Mov Cap-2 Maneuver	855	-	-
Stage 1	935	-	-
Stage 2	972	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.1	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1458	-	876	-	-
HCM Lane V/C Ratio	0.001	-	0.006	-	-
HCM Control Delay (s)	7.5	0	9.1	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

HCM 2010 TWSC

3: 36th Street NE & 127th Drive NE

The Refuge (#16-013)

Intersection

Int Delay, s/veh 4

Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Traffic Vol, veh/h	14	30		39	15	29	14
Future Vol, veh/h	14	30		39	15	29	14
Conflicting Peds, #/hr	1	0		0	0	0	1
Sign Control	Free	Free		Free	Free	Stop	Stop
RT Channelized	-	None		-	None	-	None
Storage Length	-	-		-	-	0	-
Veh in Median Storage, #	-	0		0	-	0	-
Grade, %	-	0		0	-	0	-
Peak Hour Factor	75	75		88	88	66	66
Heavy Vehicles, %	3	3		0	0	5	5
Mvmt Flow	19	40		44	17	44	21

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	62	0	
Stage 1	-	-	54
Stage 2	-	-	77
Critical Hdwy	4.13	-	
Critical Hdwy Stg 1	-	-	5.45
Critical Hdwy Stg 2	-	-	5.45
Follow-up Hdwy	2.227	-	
Pot Cap-1 Maneuver	1535	-	
Stage 1	-	-	961
Stage 2	-	-	938
Platoon blocked, %	-	-	
Mov Cap-1 Maneuver	1534	-	
Mov Cap-2 Maneuver	-	-	
Stage 1	-	-	960
Stage 2	-	-	925

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1534	-	-	-	889
HCM Lane V/C Ratio	0.012	-	-	-	0.073
HCM Control Delay (s)	7.4	0	-	-	9.4
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

HCM 2010 TWSC

4: Catherine Drive/S Access Driveway & 36th Street NE

The Refuge (#16-013)

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	4	27	18	15	39	1	16	4	15	0	3	18
Future Vol, veh/h	4	27	18	15	39	1	16	4	15	0	3	18
Conflicting Peds, #/hr	0	0	2	2	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	56	56	71	71	92	61	92	61	92	92	92
Heavy Vehicles, %	2	3	3	2	2	2	11	2	11	2	2	2
Mvmt Flow	4	48	32	21	55	1	26	4	25	0	3	20

Major/Minor	Major1	Major2			Minor1			Minor2				
Conflicting Flow All	56	0	0	80	0	0	182	171	66	185	187	57
Stage 1	-	-	-	-	-	-	73	73	-	98	98	-
Stage 2	-	-	-	-	-	-	109	98	-	87	89	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.21	6.52	6.31	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.21	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.21	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.599	4.018	3.399	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1518	-	-	760	722	973	776	708	1009
Stage 1	-	-	-	-	-	-	914	834	-	908	814	-
Stage 2	-	-	-	-	-	-	875	814	-	921	821	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1546	-	-	1515	-	-	732	710	971	742	696	1007
Mov Cap-2 Maneuver	-	-	-	-	-	-	732	710	-	742	696	-
Stage 1	-	-	-	-	-	-	911	831	-	905	803	-
Stage 2	-	-	-	-	-	-	841	803	-	889	819	-

Approach	EB	WB			NB			SB		
HCM Control Delay, s	0.4	2			9.7			8.9		
HCM LOS					A			A		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	820	1546	-	-	1515	-	-	947
HCM Lane V/C Ratio	0.067	0.003	-	-	0.014	-	-	0.024
HCM Control Delay (s)	9.7	7.3	0	-	7.4	0	-	8.9
HCM Lane LOS	A	A	A	-	A	A	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1

## **WSDOT Exhibit C**

COUNTY ID#	TSA	SR	MP1	MP2	Title/Description	Design/ Construction year	Total Cost (M)	Proportionate Share Per Development Generated ADT
								\$154.17
DOT-11	D	5	186.42	186.42	128th ST SW Interchange - Construct Loop Ramps / HOV Bypass	2009	\$41.00	\$308.80
DOT-01	A	5	205.85	205.85	172nd Street NE (SR 531) Interchange Improvements, SB loop ramp, bridge widening	2011	\$80.80	\$1,040.60
DOT-30	E	9	1.66	4.04	212th Street SE to 176th Street SE, Widen to 5 Lanes	2009	\$38.90	\$525.16
DOT-56	B	9	16.48	17.49	Lundeen Parkway to SR-92, Widen to 4 lanes & RT-LT lanes	2011	\$2.95	\$67.94
DOT-37	B	9	17.96	17.96	SR-9 at 60th Street NE add LT & RT lanes at Tee intersection	2010	\$17.13	\$394.94
DOT-22	A	9	18.88	19.46	SR 9/SR 528 Intersection improvements, Signal & Channelization.	2011	\$15.60	\$148.87
DOT-57	A	9	20.51	20.59	SR-9/84th St. SE, Intersection improvements, LT & RT lanes	2009	\$2.63	\$27.78
DOT-58	A	9	26.00	26.09	SR-9/SR-531/172nd St. NE intersection improvements, Roundabout	2011	\$3.34	\$22.37
DOT-33	B	92	1.46	1.46	SR-92 at 113th Avenue NE, Roundabout lanes to SR-92	2009	\$1.90	\$270.52
DOT-31	B	92	1.73	1.46	SR-92 at Calow/Grade Road, add turn	2009	\$1.07	\$10.18
DOT-46	C	203	22.36	22.38	SR-203 at North High Rock/Tualco Roads, Re-align cross streets for I/S and add LT & RT lanes on SR-203	2009		
DOT-36	C	203	23.01	23.01	Ben Howard Rd channelization, LT lanes on SR-203	2009		

WSDOT/COUNTY ILA

Amendment #4

PAGE 1 OF 2

COUNTY ID#	TSA	SR	MP1	MP2	Title/Description	Design/ Construction year	Total Cost (M)	Proportionate Share For Development Generated ADT
DOT-16	E	522	13.82	16.61	Paradise Lake Road I/C, Stage 3, new interchange	2010	\$27.95	\$359.99
DOT-17	E	522	16.80	20.41	Paradise Lake Road to Snohomish River, Bridge, Stage 2, widen to 4 lanes	2009	\$33.48	\$244.91
DOT-28	C	522	20.50	24.68	Snohomish River Bridge to SR 2, widen to 4 lanes	2010	\$171.98	\$1,117.87
DOT-19	F	524	5.87	9.50	24th Avenue SE to I-405, widen to 5 Lanes	2012	\$33.34	\$353.21
DOT-20	F	524	5.87	9.50	I-405 to Royal Ann Rd., widen to 5 Lanes	2011	\$71.06	\$752.83
DOT-60	E	524	6.79	6.79	Larch Way intersection, LT lanes, signal	2009	\$2.58	\$28.45
DOT-59	D	525	6.25	6.25	SR-525/88th St SW intersection improvements, NBRT, NBLT & SBLT	2011	\$3.70	\$123.33
DOT-49	A	530	17.30	17.30	SR-530 at Old 99, Roundabout	2011	\$8.00	\$415.00
DOT-62	A	530	19.71	19.71	211th Place NE, Intersection Roundabout	2011	\$6.10	\$281.28
DOT-52	A	531	1.95	2.25	SR-531/Jct. Freestad Rd. Intersection improvements, LT lanes	2011	\$1.55	\$58.15
DOT-05	A	531	7.00	8.59	43rd AV NE to 67th AV NE, Widen to 5 lanes (Arlington)	2014	\$20.78	\$200.50
DOT-53	A	532	5.25	5.90	270th St NW Vic. To 72nd Ave. NW, EB Climbing Lane, Intersection improvements & Signal	2009	\$19.00	\$221.25
DOT-54	A	532	6.45	9.79	64th Ave. NW to 12th Ave. NW, Climbing Lane & LT Lanes.	2010	\$22.40	\$268.95

WSDOT/COUNTY ILA  
Amendment #4

PAGE 2 OF 2



**Type VI Decision  
Area-wide Rezone**  
**City of Lake Stevens Planning and Community  
Development**

October 27, 2016

20<sup>th</sup> Street SE and SR-9 Rezone

LUA2016-0017-M4

**A. PROJECT DESCRIPTION AND REQUEST**

The City of Lake Stevens has requested a comprehensive plan map change and concurrent rezone to change the land use designation for approximately 40 parcels off 20th Street SE near SR-9, from Mixed Use, High Density Residential and Medium Density Residential, in the 20th Street SE Corridor Subarea, to Commercial with a concurrent rezone to Commercial District. The Planning Commission recommends that the 10 parcels adjacent to SR-9 and 20th Street SE, within the study area, receive a Commercial land use designation and a Neighborhood Commercial zoning designation. The remaining approximately 30 parcels, under the original study area, would maintain their current land use designations and zoning (Maps – **Exhibits 1a and 1b**).

**B. GENERAL INFORMATION**

1. Date of Application: January 29, 2016
2. Property Location: The southwest portion of the city of Lake Stevens directly east of SR-9, north of South Lake Stevens Road, south of 20<sup>th</sup> Street SE and west of 99<sup>th</sup> Avenue SE.
3. Total Area of Project: Approximately 25 acres (study area)
4. Applicant / Contact: Russ Wright, Community Development Director for the City of Lake Stevens
5. Comprehensive plan land use designation, zoning designation and existing uses of the site and surrounding area:

AREA	LAND USE DESIGNATION	ZONING	EXISTING USE
Project Site	Mixed Use, High Density Residential and Medium Density	Mixed Use Neighborhood, High Urban Residential, Urban Residential and Neighborhood Business	Undeveloped, residential and underdeveloped
North of Site	High Density Residential and Commercial	High Urban Residential and Neighborhood Business	Undeveloped, residential and underdeveloped
South of Site	High Density Residential	High Urban Residential	Undeveloped & underdeveloped
East of Site	High Density Residential and Commercial	Commercial District	Undeveloped
West of Site	SR-9 / Commercial District	High Urban Residential and Neighborhood Business	Undeveloped

## C. ANALYSIS<sup>1</sup>

### 1. Application Process

- a. The city of Lake Stevens requested a rezone in concurrence with requested changes to the Comprehensive Plan as part of the 2016 Docket. Area wide rezones are Type VI applications subject to Planning Commission recommendation and City Council approval pursuant to Chapter 14.16B LSMC, Part VI.<sup>2</sup>
- b. A written analysis was provided as part of the docket review (**Exhibit 2**).

**CONCLUSION: The application meets the procedural requirements for Type VI applications established in Title 14 of the LSMC.**

### 2. Notices, Community Outreach and Public Comment<sup>3</sup>

- a. Planning Commission Notice of Docket Hearing for March 2, 2016 (**Exhibit 3a**);
- b. City Council Notice of Docket Hearing for March 22, 2016 (**Exhibit 3b**);
- c. Outreach Letter to Affected Property Owners, dated June 23, 2016 (**Exhibit 3c**);
- d. Planning Commission Public Hearing Notice for November 2, 2016 (**Exhibit 3d**); and
- e. Public comments were received via email concerning the proposed map amendment and concurrent rezone. The community expressed concerns about how the rezone may compromise their ability to continue their current uses on their properties and that a land use modification may affect the value of property in the study area (**Exhibit 3e**). Staff responses to each email are included in the **Exhibit 3e**.

**CONCLUSION: The city has met the noticing requirements for Type VI applications established in Chapter 14.16B LSMC, Part VI.**

### 3. Comprehensive Plan, Zoning, and Uses:

- a. The existing and proposed comprehensive plan designations in the study area are identified in Section B and illustrated in **Exhibits 1a and 1b** (land use maps) as are adjacent land use designations.
- b. **Zoning Analysis** – The two proposed rezones would both meet the intent of either zoning district as described below, the critical difference being that the Commercial District would allow more intensive development in terms of building mass and scale and allow auxiliary residential uses.

LSMC 14.36.020(l) states the following: “The Neighborhood Business (NB) zone is designed to provide convenience goods, services, and opportunities for smaller scale shopping centers near neighborhoods that cater to pedestrians and commuters. This district should be located in areas with available public services, transportation accessibility to arterials and adequate traffic capacities”; whereas,

<sup>1</sup> Project analysis is based on review of current materials applicable to the project.

<sup>2</sup> The rezone application is an area-wide rezone because the proposed changes involve different property owners and changes to more than one land use designation. The rezone is a Type VI application being reviewed in concurrence with the comprehensive plan map amendment and will include a public hearing in front of the Planning Commission who will recommend approval to the City Council. Final approval will be by ordinance following a Public Hearing.

<sup>3</sup> Public notice includes a combination of posting, publication and mailing pursuant to the requirements of Lake Stevens Municipal Code 14.16A.225 and LSMC 14.16B.630.

LSMC 14.36.020(i) states the following, "The Commercial District (CD) [as originally proposed] is designed to accommodate the high intensity retail needs of the community and regional market by attracting a mix of large to small format retail stores and restaurants to create a vibrant and unified regional shopping center. Transportation accessibility, exposure to highways and arterials with adequate public services and traffic capacity characterize this district."

**c. Applicable Comprehensive Plan Goals**

LAND USE GOAL 1.1 Provide for a consistent review and revision of the comprehensive plan.

LAND USE GOAL 2.1 Provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens.

LAND USE GOAL 2.2 Achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses.

LAND USE GOAL 2.3 Encourage the continued planning of local growth centers to develop a balanced and sustainable community that provides a focus for employment, public and residential development.

ECONOMIC DEVELOPMENT GOAL 6.2 Manage commercial growth in centers.

ECONOMIC DEVELOPMENT GOAL 6.3 Enhance retail and personal services growth to address the community's needs and expand the city's retail sales tax base.

**4. Rezone criteria:** Rezone Criteria is found in LSMC 14.16C.090. The following section addresses how the proposal meets the specific criteria.

- a. The rezone if approved will be consistent with Comprehensive Land Use Map as amended.
- b. The rezone is consistent with the Growth Management Act as the city can establish its local zoning and has met public notice requirements.
- c. The proposed rezone advances identified goals and policies of the Comprehensive Plan. At the time of development, any application will need to meet state and local regulations in effect and ensure concurrency standards are met.
- d. The city has an imbalance of commercial lands to residential properties. Currently, less than 10 percent of the city is dedicated to commercial and industrial uses. This proposal will help provide additional opportunities for small to mid-sized commercial development.
- e. The site contains adequate area to develop and is configured at the intersection of two arterials. At the time of development, any application will need to meet state and local regulations in effect and ensure concurrency standards are met.
- f. The proposal will not be materially detrimental to adjacent land uses as conditioned.
- g. As conditioned and in accordance with municipal standards there will be adequate infrastructure to develop the site under the proposed zoning.
- h. Environmental impacts can be mitigated.
- i. The proposal complies with municipal standards for a rezone application.
- j. The project is located within a designated subarea.

**CONCLUSION: The proposal as conditioned meets the rezone standards.**

**5. Environmental Review:**

- a. There is an uncategorized wetland, unidentified steam and steep slopes located in the northwest corner of the study area and encompassing a large portion of Assessor Parcel Numbers (APN's) 00457000002601, 00457000002602 and 00457000002607. Prior to any development on or near these sites, a critical areas evaluation will be required pursuant to Chapter 14.88 LSMC.
- b. Shoreline Designation and Shoreline Uses: the properties are not located with the shoreline boundaries of Lake Stevens.
- c. Flood Zones: the properties are not located within the 100-year flood zone.
- d. The city issued a SEPA addendum to the 2005 Comprehensive Plan on August 31, 2016 that stands as the environmental review for the combined analysis of the comprehensive plan change and proposed rezone (**Exhibit 4**).
- e. The city issued a SEPA addendum to the 2012 Final Environmental Impact Statement (FEIS) for the 20<sup>th</sup> Street SE Corridor Subarea Plan on October 27, 2016 that is itself an element of the Lake Stevens Comprehensive Plan and describes the goals, policies and design guidelines for the subject Subarea (**Exhibit 5**).

**CONCLUSION: The proposal as conditioned meets the SEPA standards identified in Chapter 16.04 LSMC and will not create significant environmental impacts. Development near identified critical areas will be subject to Chapter 14.88 LSMC.**

**6. Traffic Impacts**

- a. ***Option 1: Modification of entire study area to a Commercial land use and zoning designation.*** The city considered changes to traffic amounts based on the following criteria:
  - The most intensive uses and highest permitted Floor-to-Area (FAR) ratio pursuant to Chapter 14.38 LSMC that would be allowed per the original proposal of Commercial land use and Commercial District zoning; and
  - Comparing this amount to the traffic that would be generated by ultimate build-out of the study area with the current zoning designations.

The traffic amount generated by both of the scenarios described above resulted in traffic potentially increasing by 80% with the proposed modification to Commercial. This increase would result in a quicker buildout of the limits of the Planned Action threshold for traffic as modeled in the subarea environmental impact statement but would not require a re-evaluation of the already-established thresholds.

- b. ***Option 2: Modification of the 10 parcels adjacent to SR-9 and 20<sup>th</sup> Street SE to a Commercial land use and Neighborhood Business zoning designation.*** The city considered changes to traffic amounts using the same methodology as Option 1. The staff analysis suggests that Planning Commission's proposal will result in lower traffic impacts, as the development intensity for both commercial and residential uses would be reduced. These findings are consistent with the traffic model prepared as part of the subarea environmental impact statement.

- c. Actual traffic impacts and any required road installation or improvements would be reviewed at the time of development. Any required updates to the Capital Improvement Plan would also be made at this time.

**CONCLUSION: The proposal as conditioned meets the Traffic Impact standards at the time of development.**

#### **D. CONDITIONS**

The requested rezone (LUA2016-0017-M4) is consistent with rezone criteria, applicable Comprehensive Plan Goals and Policies, the 2012 FEIS for the 20<sup>th</sup> Street SE Corridor Subarea, permit processing procedures and all other applicable municipal code requirements, subject to conditions noted below:

1. **Exhibit 1b** depicts the areas to be rezoned to Neighborhood Business, contingent on the Planning Commission and City Council approving the concurrent Comprehensive Land Use Map Amendment.
2. All future development must comply with all federal, state and local regulations in effect at the time of application.

#### **E. STAFF RECOMMENDATION**

Staff recommends that the Planning Commission forward a **RECOMMENDATION OF APPROVAL, SUBJECT TO THE CONDITIONS IN SECTION D**, to City Council.

CITY OF LAKE STEVENS, DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT

**Recommendation Completed by**



October 27, 2016

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Russell Wright, *Community Development Director*

Date

#### **F. EXHIBITS**

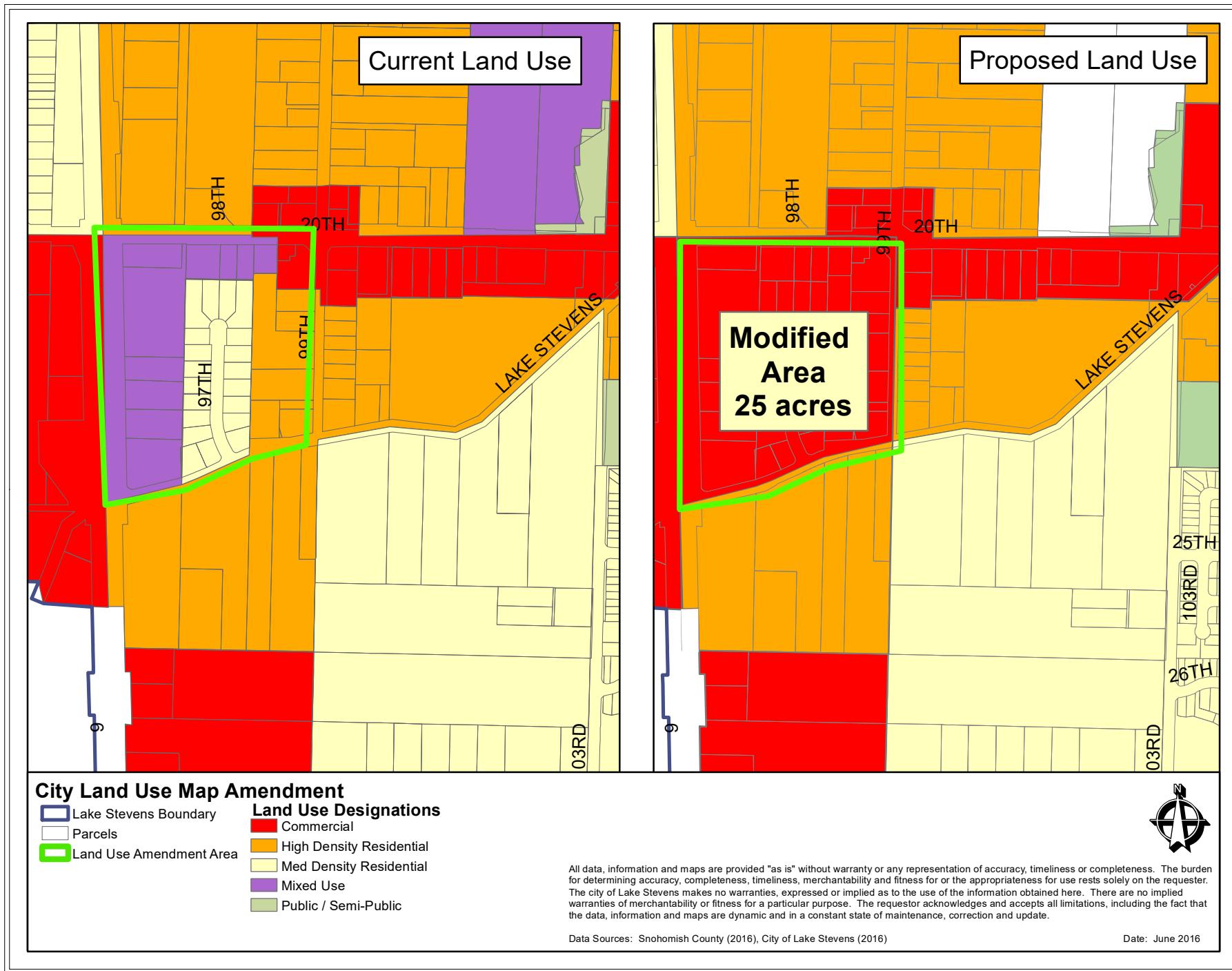
1. Maps
  - a. Map depicting current land use and Option 1 modification (city-initiated)
  - b. Map depicting current land use and Option 2 modification (Planning Commission recommendation)
2. 2016 Comprehensive Plan Docket Ratification Staff Summary (M-4), dated March 2, 2016
3. Notices, Community Outreach and Public Comment
  - a. Planning Commission Notice of Docket Hearing for March 2, 2016
  - b. City Council Notice of Docket Hearing for March 22, 2016
  - c. Outreach Letter to Affected Property Owners, dated June 23, 2016
  - d. Planning Commission Public Hearing Notice for November 2, 2016
  - e. Public Comments received via email

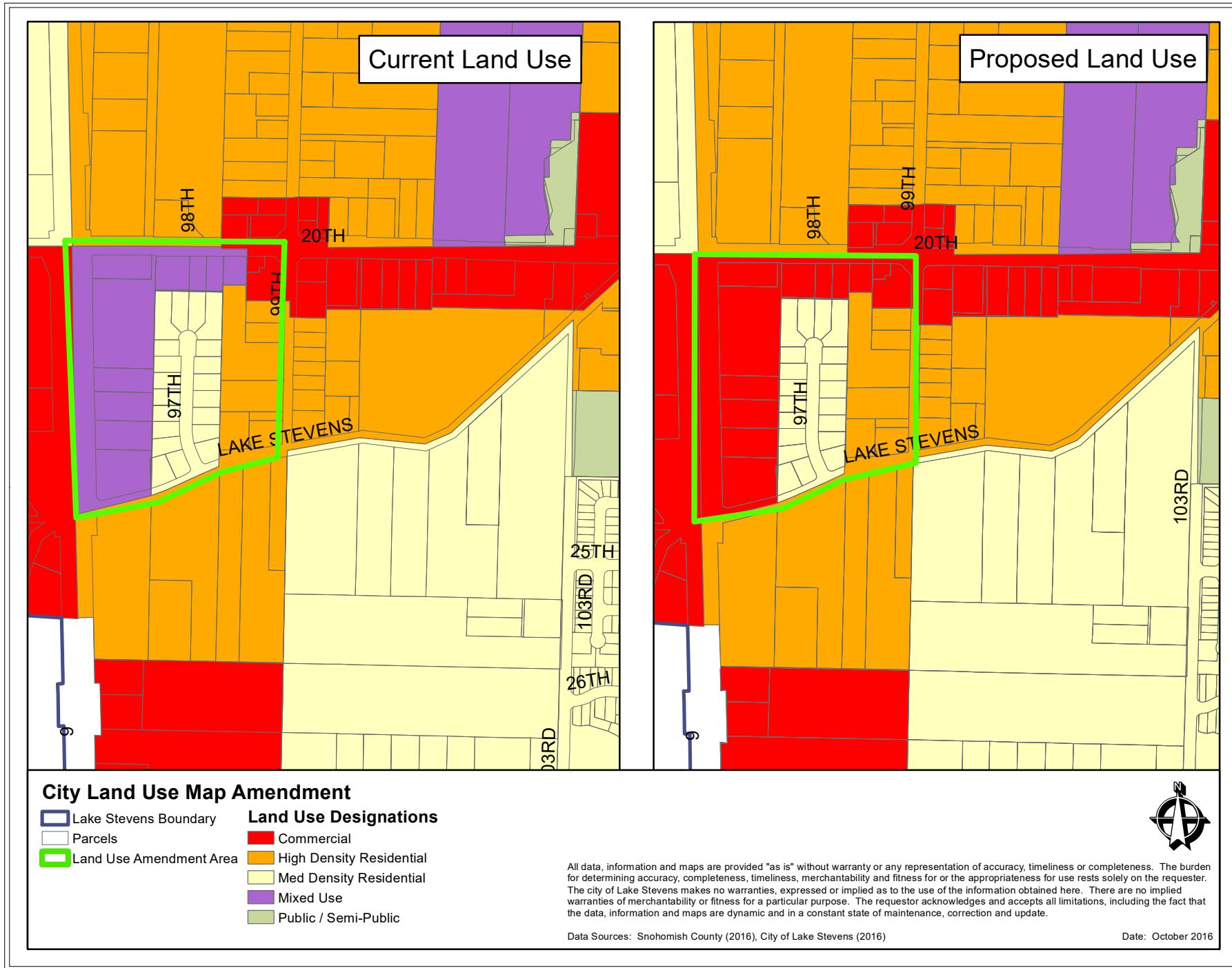
4. SEPA Addendum #9 To the City of Lake Stevens Integrated 2005 Comprehensive Plan and FEIS
5. SEPA Addendum #1 To the City of Lake Stevens 2012 FEIS for the 20<sup>th</sup> Street SE Corridor Subarea Plan

**APPEALS:** The action of the City Council on a Type VI proposal may be appealed together with any SEPA threshold determination by filing a petition with the Growth Management Hearings Board pursuant to the requirements set forth in RCW 36.70A.290. The petition must be filed within the 60-day time period set forth in RCW 36.70A.290(2). The appeal period shall commence upon the City Council's final decision and not upon expiration of the reconsideration period. Judicial appeal is to Snohomish County Superior Court.

**Distributed to the Following Parties:**

Julius Detrich  
Jenn Taylor Knutson  
Bryant Marsh  
Dana Nelson  
Dan Rike  
Sally Jo Sebring







**2016 Comprehensive Plan  
Docket Ratification  
M-4 - Staff Summary**  
Lake Stevens City Council & Planning Commission

City Council Hearing Date: March 22, 2016  
Planning Commission Hearing Date: March 2, 2016

**SUBJECT:** City-initiated map amendment

<b>Summary</b>	
<b>Location in Comprehensive Plan:</b> Chapter 2 Land Use Element – Figure 2.3 Land Use Map and associated text.	
<b>Proposed Change(s):</b> City-initiated request LUA2016-0017 to change the land use designation with a concurrent rezone, for parcels off 20th Street SE near SR-9, from Mixed Use, High Density Residential and Medium Density Residential in the 20th Street Subarea to Commercial and associated text amendments to the Land Use Element to expand retail and service opportunities in the area.	
<b>Applicant:</b> City of Lake Stevens	<b>Property Location(s):</b> Properties south of 20 <sup>th</sup> Street SE and existing Commercial designated property between SR-9 and 99 <sup>th</sup> Ave SE.
<b>Existing Land Use Designations</b>	<b>Proposed Land Use Designation</b>
Mixed Use, High Density Residential and Medium Density	Commercial – 36 acres
<b>Existing Zoning District</b>	<b>Proposed Zoning District</b>
Mixed Use Neighborhood, High Urban Residential, Urban Residential and Neighborhood Business to Commercial District.	Commercial District

**ANALYSIS:** Annual amendments shall not include significant policy changes inconsistent with the adopted Comprehensive Plan Element Visions and must meet the identified criteria included in Revisions and Amendments to the Comprehensive Plan Section H.

<b>Ratification Review – Decision Criteria</b>	<b>Yes</b>	<b>No</b>
1. Is the proposed amendment appropriate to the Comprehensive Plan rather than implementation as a development regulation or program? <b>Discussion:</b> the proposed minor land use map change is not designed to implement a development regulation or program.	X	

2. Is the proposed amendment legal? Does the proposed amendment meet existing state and local laws? <b>Discussion:</b> the proposed minor land use map change will be reviewed against the current Comprehensive Plan and applicable state laws related to process and environmental review.	X	
3. Is it practical to consider the proposed amendment? Reapplications for reclassification of property reviewed as part of a previous proposal are prohibited, unless the applicant establishes there has been a substantial change of circumstances and support a plan or regulation change at this time. <b>Discussion:</b> These designations were adopted in 2012 with the 20th Street SE Corridor Subarea Plan. There have been no developments proposed for these properties during that time. The proposed land use designations would provide a larger area, with a common land use designation, with the opportunity to assemble into a significant single development. As other proposals under review with this docket propose to reduce commercial capacity, this proposal will maintain a balance of buildable lands for residential and commercial development.	X	
4. Does the City have the resources, including staff and budget, necessary to review the proposed amendment? <b>Discussion:</b> the Growth Management Act and the city's Comprehensive Plan set a process to review annual amendments to the Comprehensive Plan. By extension, this is a Planning and Community Development function. The applicant has submitted required review fees. The applicant will provide any special studies deemed necessary to continue review at their expense.	X	
5. Does the proposed amendment correct an inconsistency within or make a clarification to a provision of the Plan? <b>OR</b>		X
6. All of the following: <ol style="list-style-type: none"><li>The proposed amendment demonstrates a strong potential to serve the public interest by implementing specifically identified goals of the Comprehensive Plan? <b>AND</b> <b>Discussion:</b> the proposed minor land use map change meets the following selected goals and policies of the current Comprehensive Plan's Land Use and Economic Development Elements.<ul style="list-style-type: none"><li>Goal 2.1 provide sufficient land area to meet the projected needs for housing, employment and public facilities within the city of Lake Stevens;</li><li>Goal 2.2 achieve a well-balanced and well-organized combination of residential, commercial, industrial, open space, recreation and public uses;</li><li>Goal 2.3 apply the comprehensive plan as a guide for community development implemented through the city's development regulations to ensure preferred community growth patterns are achieved;</li></ul></li></ol>	X	

<ul style="list-style-type: none"><li>• Goal 2.4 encourage the continued planning of local growth centers to develop a balanced and sustainable community that provides a focus for employment, public and residential development;</li><li>• Goal 2.10 ensure that land uses optimize economic benefit and the enjoyment and protection of natural resources while minimizing the threat to health, safety and welfare;</li><li>• Goal 2.14 design and build a healthy community to improve the quality of life for all people who live, work, learn, and play within the city; and</li><li>• Goal 6.2: manage commercial growth in centers;</li><li>• Goal 6.3: enhance retail and personal services growth to address the community's needs and expand the city's retail sales tax base; and</li><li>• Goal 6.4: support employment growth in the city.</li></ul>		
b. The public interest would best be served by considering the proposal in the current year, rather than delaying consideration to a later subarea plan review or plan amendment process. <b>Discussion:</b> the Comprehensive Plan sets a procedure for evaluating amendments annually. To maintain a balanced residential to commercial balance, there is not a need to postpone review of the request.	X	

Recommendation	Yes	No
Staff recommends City Council and the Planning Commission consider this proposal for inclusion in the 2016 Comprehensive Plan Docket.	X	
The Planning Commission recommends City Council consider this proposal for inclusion in the 2016 Comprehensive Plan Docket (see attached recommendation letter).	X	
The City Council accepts this proposal for inclusion in the 2016 Comprehensive Plan Docket.		



## NOTICE OF PUBLIC HEARING Lake Stevens Planning Commission

### **Comprehensive Plan Amendments – 2016 Docket Authorization**

The Lake Stevens Planning Commission will hold a hearing on proposed Comprehensive Plan amendments to recommend inclusion as part of the annual docket.

**Hearing Date & Time:** March 2 at 7 pm

**Location:** Lake Stevens Community Center (1808 Main Street, Lake Stevens WA 98258)

Citizen-initiated map amendments with concurrent rezone applications.

1. **LUA2015-0119 – School District Map Amendment** request to change the land use designation, for two undeveloped parcels off Lake Drive from Medium Density Residential to Public / Semi-Public and associated text amendments to the Land Use Element.
2. **LUA2016-0007 – Seattle Pacific Map Amendment** request to change the land use designation for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential and associated text amendments to the Land Use Element.

City staff recommends the Medium Density Residential designation or others be extended to nearby properties for consistency.

The city is also proposing text amendments to the Comprehensive Plan (**LUA2016-0029**) to add capital projects to the Parks and Capital Facilities Elements. Along with the specific defined text amendments, staff will also include standard administrative amendments. The city may add additional items to the 2016 docket, prior to the hearing.

Substantial changes to the proposed amendments may be made following the public hearing.

A complete list describing the proposed amendments is available at the Planning & Community Development Department and available on the city's website.

Public testimony on the proposed changes will be accepted at the hearing. Comments regarding the proposed amendments may be submitted orally or in writing during the hearing. Written comments prior to the hearing may be submitted to Lake Stevens Planning & Community Development PO Box 257, Lake Stevens, WA 98258.



## NOTICE OF PUBLIC HEARING Lake Stevens Planning Commission

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## Exhibit 3c



**Planning & Community Development**  
1812 Main Street  
P.O. Box 257  
Lake Stevens, WA 98258

June 23, 2016

**RE: 2016 Comprehensive Plan Docket Item # M-4: City-Initiated Map Amendment and Rezone**

Dear Property Owner:

The purpose of this letter is to let you know that the City of Lake Stevens Planning and Community Development Department is analyzing a city-initiated proposal to rezone and amend the land use designation of approximately 40 parcels totaling 25 acres located south of 20<sup>th</sup> Street SE and north of South Lake Stevens Road (**Exhibit 1**). You are being contacted because your property will be directly affected by this action and / or your property is in close proximity to the proposal. The city proposes the following two options to amend the land use designation and zoning of the subject parcels as part of the annual Comprehensive Plan review:

- **Option 1:** The subject parcels will rezone to Commercial (**Exhibit 1**); or
- **Option 2:** The 10 parcels currently zoned Mixed-Use Neighborhood will rezone to Neighborhood Business, and the remaining parcels within the study area will maintain their current zoning and land use designations (**Exhibit 2**).

This proposed change would help facilitate the city's growth strategy to expand retail and service opportunities and promote economic development within the 20<sup>th</sup> Street Subarea. The new zoning standards would be applied at the time of new development or redevelopment. Existing businesses or residential uses, not permitted under the new Commercial zoning, may remain in place and would be considered non-conforming uses subject to the city's regulations. The Commercial designation of these parcels will allow for the development of local and regional-scale retail, strengthening this important commercial corridor and activating the streetscape as more businesses choose to locate in Lake Stevens.

The city will hold a public hearing on the land use amendment before the Planning Commission. The Planning Commission makes a recommendation to the City Council, who may also hold a public hearing before taking final action. The public hearing on the concurrent rezone may be held before the Planning Commission or City Council. You will receive notification of the public hearing(s) one dates have been determined.

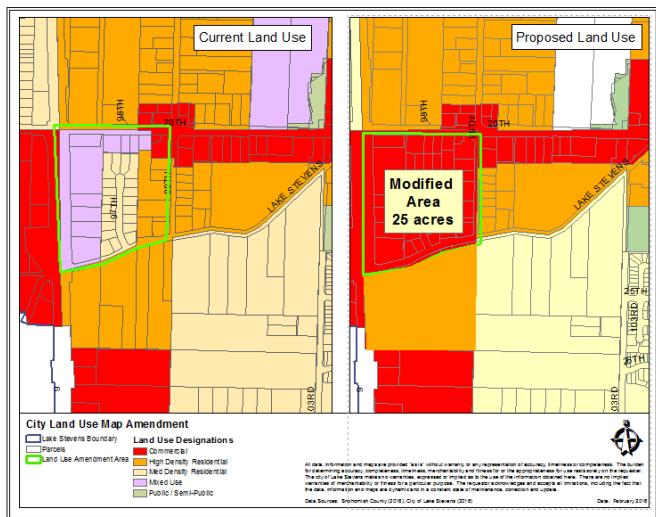
Your feedback is important as the city moves forward with this amendment. Please submit any comments to City Hall, Attn: Stacie Pratschner, PO Box 257, Lake Stevens, WA 98258 or by email at [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov). If you have any questions, please feel free to contact me.

Sincerely,

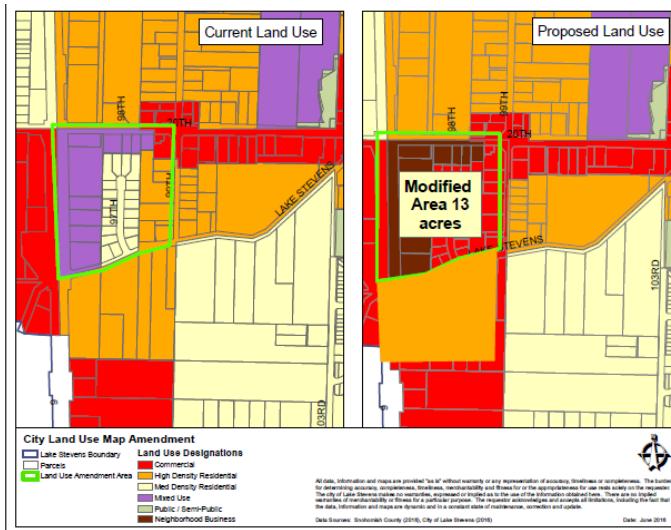


Stacie Pratschner, AICP  
Senior Planner

### Exhibit 1:



### Exhibit 2:



## Exhibit 3d

**PROJECT NAME/ FILE NUMBER:** 2016 Comprehensive Plan Docket: Planning Commission Public Hearing

**HEARING DATE / TIME:** Wednesday, November 2, 2016 at 7:00 PM

**LOCATION:** Lake Stevens Community Center (next to City Hall)  
1808 Main Street  
Lake Stevens, WA 98258

**DOCKET DESCRIPTION:**

Under the Growth Management Act, the city of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year through an annual docket process. The 2016 Comprehensive Plan Docket includes two citizen-initiated map amendments, two city-initiated map amendments, city text amendments to the Land Use element, the Parks, Recreation and Open Space element, the Public Services and Utilities element and updates to the Appendices. Standards administrative updates and associated SEPA documents will also be incorporated into the Comprehensive Plan.

The Lake Stevens Planning Commission will conduct a public hearing and receive public testimony on November 2, 2016 at 7:00 PM to consider the docket items described above. If the 2016 Docket is recommended for approval, the Lake Stevens City Council will conduct a public hearing and first ordinance reading on December 13, 2016 at the Lake Stevens School District Educational Center (12309 22<sup>nd</sup> Street NE) at 7:00 PM. There will be a separate public noticing for the City Council hearing pursuant to Chapter 14.16B LSMC.

**PUBLIC REVIEW AND COMMENT:**

Interested parties may submit written comments before the hearing or testify in person. Comments can be submitted to City Hall, Attn: Stacie Pratschner, PO Box 257, Lake Stevens, WA 98258 or by email at [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov).

The project files, including the staff reports, site maps and supporting materials are available for review at the Permit Center, located behind City Hall, Monday-Thursday 9:00 am- 4:30 pm and Friday 9:00 am to 12:00 pm. Limited materials are available at: <http://www.ci.lake-stevens.wa.us/index.aspx?nid=380>.

***It is the City's goal to comply with the American with Disabilities Act. The City offers its assistance to anyone with special needs, including the provision of TDD services.***

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Distribution: Applicants and Parties of Record  
Posted at Permit Center, City Hall, Subject Properties and Published in the Everett Herald  
Mailed to property Owners within 300 feet of project sites  
City Website

## Stacie Pratschner

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**From:** Stacie Pratschner  
**Sent:** Wednesday, October 12, 2016 5:28 PM  
**To:** Russell Wright  
**Subject:** RE: Proposed Rezone: 9706 20th St SE

Hi Dan,

Thank you for taking time to write to staff concerning your property and the proposed land use and zoning amendments adjacent to 20<sup>th</sup> Street SE and SR-9. At the last Planning Commission meeting, the board recommended that these properties be designated Neighborhood Business. I would recommend that you attend the public hearing and testify directly to the Planning Commission about your desire to maintain the Mixed Use designation. If the PC is interested in maintain this designation staff would recommend that it be carried down to the corner of 99<sup>th</sup> Ave SE to avoid spot zoning.

Per Russ's previous email, there will be a public hearing in front of the Planning Commission on November 2<sup>nd</sup> and then a public hearing in front of City Council on November 22<sup>nd</sup>. Please be prepared to testify and describe your request at these hearings. Your request may be considered for approval if you can demonstrate consistency with the Comprehensive Plan and compatibility with surrounding land uses.

I hope this information gives you a good start. The city will be sending out postcards with the specific time, dates and location of each of the hearings. Please don't hesitate to contact me with additional questions.

**Stacie Pratschner, AICP**  
*Senior Planner*

**City of Lake Stevens | Planning & Community Development**  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

**From:** Dan Rike [mailto:[daniel.rike@gmail.com](mailto:daniel.rike@gmail.com)]  
**Sent:** Tuesday, October 11, 2016 10:55 AM  
**To:** Russell Wright <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)>  
**Cc:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Re: Proposed Rezone: 9706 20th St SE

Thank you Russ,

Stacie, can you please advise on what the next steps would be or what is needed? I can also come in & meet with you if that is easier.

Thanks  
Dan

425-422-032

On Tue, Oct 11, 2016 at 9:09 AM, <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)> wrote:

Please coordinate with Stacie on next steps – public hearings will be held with the Planning Commission and City Council in November. I would recommend that you attend these hearing and be prepared to testify about your request.

Best regards,

Russ Wright, *Community Development Director*

**City of Lake Stevens | Planning & Community Development**

1812 Main Street | PO Box 257

Lake Stevens, WA 98258-0257

[425.212.3315](tel:425.212.3315) | [rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)

**From:** Dan Rike [mailto:[daniel.rike@gmail.com](mailto:daniel.rike@gmail.com)]  
**Sent:** Monday, October 10, 2016 5:29 PM  
**To:** Russell Wright <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)>; Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Proposed Rezone: 9706 20th St SE

Good afternoon Russ & Stacie,

I am the owner of 9706 20th St SE, this is located in an area that is on the docket for re-zoning. I purchased this land with the intention of building apartment/condos based on the zoning allowed for the property to be built out as such.

Page 19 of 37 275 of 385  
After much consulting with other developers, the highest & best use for this property is its current zoning. I would request that my property be excluded from any upcoming zoning changes, unless it will allow me to be grandfathered in to build it out under the current mixed use neighborhood zoning.

Changing it to 'Neighborhood Business' significantly reduces the value of the land & give the owners the lowest return. I am very strongly NOT in favor of & would like to oppose this option.

What do you need from me to see that I can retain my current zoning or have the current zoning be grandfathered in for future development.

Please advise,

--

Thank you,  
Daniel D. Rike

**425-422-0323 Cell**

--  
Thank you,  
Daniel D. Rike

**425-422-0323 Cell**

## Stacie Pratschner

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**From:** spratschner@lakestevenswa.gov  
**Sent:** Monday, August 8, 2016 4:44 PM  
**To:** marshb8@gmail.com  
**Subject:** RE: M4 rezone

Hi Bryant,

Thank you for your email. Staff is planning on providing a briefing to the Planning Commission on Wednesday, August 17th to discuss the results of our analysis for the proposed rezones (not a formal hearing at this point). All members of the public are welcome to attend the Planning Commission meetings. The city does anticipate taking the Docket to Council in September, though there is no firm date as of yet.

Thanks again and please don't hesitate to contact me with any questions.

Stacie Pratschner, AICP  
Senior Planner

City of Lake Stevens | Planning & Community Development  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | spratschner@lakestevenswa.gov

Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.

-----Original Message-----

From: Bryant Marsh [mailto:[marshb8@gmail.com](mailto:marshb8@gmail.com)]  
Sent: Monday, August 8, 2016 11:23 AM  
To: Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
Subject: M4 rezone

Was wondering if there had been any updates on the commercial rezoning of this area. You had previously mentioned a meeting in the fall and we were curious if that was still happening. Thanks again.

-Bryant

Sent from my iPhone

## Stacie Pratschner

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**From:** spratschner@lakestevenswa.gov  
**Sent:** Thursday, June 30, 2016 12:00 PM  
**To:** andrew.fredette@yahoo.com  
**Subject:** RE: Rezone proposal

Hello Mr. Fredette,

Thank you for contacting me concerning the city's proposed map amendment to your property and the surrounding properties between 20th Street SE and South Lake Stevens Road. The city is not yet in receipt of any development proposals for the property behind you, though if the rezone goes through it's a possibility that a developer may construct a commercial use there. All of the existing uses in the rezone area, including your home, will be able to continue as non-conforming uses pursuant to Chapter 14.32 LSMC. You will not be forced to change your home as a result of this rezone.

I hope this information meets your needs. Thank you again for contacting me and please let me know if additional questions come up.

Stacie Pratschner, AICP  
Senior Planner

City of Lake Stevens | Planning & Community Development  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | spratschner@lakestevenswa.gov

Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.

-----Original Message-----

From: Andrew.fredette [mailto:andrew.fredette@yahoo.com]  
Sent: Thursday, June 30, 2016 11:30 AM  
To: Stacie Pratschner <spratschner@lakestevenswa.gov>  
Subject: Rezone proposal

To whom it may concern,

I have a question about the letter I received today about the rezoning proposal, I live at at:

2220 97th Dr SE  
Lake Stevens WA 98258

My questions are:

- Is my neighbor that is the mixed use land connected to my back fence, is that property being sold to turned into a commercial development?
- Is my house at risk of becoming a commercial development?

Thank you  
Andrew Fredette  
425-760-5588

## Stacie Pratschner

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**From:** spratschner@lakestevenswa.gov  
**Sent:** Tuesday, June 28, 2016 8:57 AM  
**To:** marshb8@gmail.com  
**Subject:** RE: M-4 rezone

Good morning Bryant,

Thank you for your email, and though I can't give an exact timeline for redevelopment I can tell you that the city has been in receipt of more commercial development applications recently than we've received in the past (almost) two years I've worked here. Any existing uses in place at the time of the rezone (if it is approved) will be permitted to continue as non-conforming uses per Chapter 14.32 LSMC.

I hope that information helps, please let me know if additional questions come up!

**Stacie Pratschner, AICP**

*Senior Planner*

**City of Lake Stevens | Planning & Community Development**

1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

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**From:** Bryant Marsh [mailto:[marshb8@gmail.com](mailto:marshb8@gmail.com)]  
**Sent:** Tuesday, June 28, 2016 6:37 AM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Re: M-4 rezone

Thank you for getting back to me. My only other question is about how fast the commercial land will be developed on the corner of hwy 9 and s lake Stevens rd if the deal goes through. We have some house projects going so I don't want to over invest if it will be torn down in the next five years. I understand if you can't answer that, and appreciate your time. Thanks again.

-bryant

Sent from my iPhone

On Jun 27, 2016, at 4:37 PM, <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)> <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)> wrote:

Thank you for contacting me concerning the proposed rezone for the parcels south of 20<sup>th</sup> Street. If the city decides to move forward with the rezone, the map amendment would become official by late fall of this year.

Thanks again and don't hesitate to contact me with additional questions.

**Stacie Pratschner, AICP**

*Senior Planner*

**City of Lake Stevens | Planning & Community Development**

1812 Main Street | PO Box 257

Lake Stevens, WA 98258-0257

425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)

<image001.png>

*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

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**From:** Bryant Marsh [<mailto:marshb8@gmail.com>]  
**Sent:** Monday, June 27, 2016 3:48 PM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Fwd: M-4 rezone

Sent from my iPad

Begin forwarded message:

**From:** Bryant Marsh <[marshb8@gmail.com](mailto:marshb8@gmail.com)>  
**Date:** June 27, 2016 at 3:07:14 PM PDT  
**To:** <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** M-4 rezone

Stacie,

Our house is currently located in the area designated to be rezoned south of 20th street. We are in the process of refinancing and wondering how long it will be until this project could start. Thanks.

-Bryant

Sent from my iPhone

## Stacie Pratschner

---

**From:** spratschner@lakestevenswa.gov  
**Sent:** Monday, June 27, 2016 4:42 PM  
**To:** mymedman@comcast.net  
**Subject:** RE: Rezoning of land use

Hello Dana,

Thank you for your email concerning the city's proposed rezone of the subject parcels adjacent to 20<sup>th</sup> Street SE. You would not be forced to sell your property if the rezone were to take place. All existing uses (existing homes, businesses, etc.) in the study area will be able to continue as non-conforming uses per Chapter 14.32 LSMC.

Thank you again, and please don't hesitate to contact me if I can provide additional information.

**Stacie Pratschner, AICP**  
*Senior Planner*

**City of Lake Stevens | Planning & Community Development**  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

**From:** mymedman [mailto:[mymedman@comcast.net](mailto:mymedman@comcast.net)]  
**Sent:** Monday, June 27, 2016 3:57 PM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Rezoning of land use

My name is Dana Nelson and I currently live on 97th dr. SE, with commercial rezoning would I be forced to sell my home, I am 55 years old on a modest income, I don't fully understand the implications of this change.

Sent from my T-Mobile 4G LTE Device

# **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

## **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Adoption of Four Map Amendments and Text Revisions to  
Chapter 2 Land Use Element, Chapter 5 Parks, Recreation  
and Open Space Element, Chapter 7 Public Services and  
Utilities Element, Chapter 9 Capital Facilities Element,  
Appendices and Covers, Footers, Dates, Executive Summary  
and Table of Contents  
with the 2016 Docket**



**Prepared in Compliance with**  
The Washington State Environmental Policy Act of 1971  
Chapter 43.21C Revised Code of Washington  
Chapter 197-11 Washington Administrative Code  
Lake Stevens Municipal Code Title 16

**Date of Issuance: August 30, 2016**

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

### **FACT SHEET**

#### **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

#### **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

##### **Proposed Non-Project Action:**

Under the Growth Management Act, the City of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The proposed non-project action consists of minor map and text amendments for the 2016 Docket including two proposed citizen map amendments that have undergone individual SEPA review, two proposed city map amendments and city text amendments to the Land Use Element, the Parks, Recreation and Open Space Element, the Public Services and Utilities element, Capital Facilities element and the Appendices. Standard administrative updates and SEPA documents will be incorporated into the plan. The GMA requirements contained in Chapter 36.70A RCW apply to this action.

Planning and Community Development has prepared this Addendum No. 9 to the City of Lake Stevens Integrated 2005 Comprehensive Plan and Final Environmental Impact Statement (FEIS) issued July 17, 2006 along with an adoption of existing environmental documents.

##### **Description of Proposal:**

The 2016 Docket contains four map amendments, text amendments and minor administrative amendments to the City of Lake Stevens Comprehensive Plan.

RCW 36.70A.130 allows amendments to the Comprehensive Plan once per year with some exceptions. The following actions comprises the City's annual changes to its Comprehensive Plan:

- **Title Page, Table of Contents and Introduction** - Update the dates on the title page, header and footers, the Executive Summary, the table of contents and introduction references as needed with final draft (**Exhibit 2**).
- **Chapter 2 – Land Use Element** – A city-initiated text amendment to update applicable Figures and Tables to reflect the adoption of the two citizen-initiated map amendments (LUA2015-0119 and LUA2016-0007) and two city-initiated map amendments (LUA2016-0017).
  - Text “redlines” to pages LU-10, LU-17, LU-18, LU-21, LU-24;
  - Updates to Figures 2.3 – City Land Use Map and 2.4 – Development Trends Map; and
  - Updates to Tables 2.2 – Employment Zoning in Lake Stevens UGA and 2.3 – Residential Zoning (**Exhibit 3**).
- LUA2015-0119 – A citizen-initiated map amendment to change the land use designation on two parcels totaling approximately 38 acres located at 9105 and 9203 29<sup>th</sup> Street NE, from

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

Medium-Density Residential to Public/Semi-Public (**Exhibit 3a**). The city issued a DNS on July 22, 2016 for LUA2015-0119 – no comments or appeals were received. The city hereby adopts this existing DNS (**Exhibit 3b**) by reference and incorporates it into Addendum No. 9.

- LUA2016-0007 – A citizen-initiated map amendment to change the land use designation on three parcels totaling approximately 15.5 acres located on the west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE, from Planned Business District to Medium Density Residential and accompanied with a city recommended expansion (see below) to the adjacent parcels to the east and west of the project area (**Exhibit 3c**). The city issued a DNS on July 20, 2016 for LUA2016-0007 – one written comment was received and no appeals were filed. The city hereby adopts this existing DNS (**Exhibit 3d**) by reference and incorporates it into Addendum No. 9.
- LUA2016-0007 (continued)– A city-initiated map amendment in concurrence with LUA2016-0007 to change the land use designation on four parcels totaling approximately 3.5 acres adjacent to the three parcels amending to the Planned Business District as described above (**Exhibit 3c**). Three parcels would change from Planned Business District to Medium Density Residential and one parcel would change from Planned Business District to General Industrial.
- LUA2016-0111 – A city-initiated map amendment to change the land use designation on 40 parcels totaling approximately 25 acres located south of 20<sup>th</sup> Street SE, north of South Lake Stevens Road and near SR-9, from Mixed Use, High Density Residential and Medium Density Residential to Commercial (**Exhibit 3e**). The city is also considering another option that would only rezone the Mixed Use parcels to Neighborhood Business while the remaining parcels in the study area would maintain their current zoning and land use designation.
- **Chapter 5 – Parks, Recreation and Open Space Element** - A city-initiated text amendment to add park projects(s) to the Capital Project List for improvements to Lundein Park and acquisition of park property in the northwestern portion of the city. The amendment will include text “redlines” to pages P-28 through P-33 (**Exhibit 4**).
- **Chapter 7 – Public Services and Utilities Element** – Update references on page PS-9 to incorporate the Lake Stevens Sewer Districts’ updated Sanitary Sewer Comprehensive Plan (2016) and update references on page PS-13 to incorporate the Lake Stevens School District No.4’s 2016-2021 Capital Facilities Plan (**Exhibit 5**).
- **Chapter 9 – Capital Facilities Element** - A city-initiated text amendment to add park and road projects to Table 9.1 Capital Facilities Program 2015 to 2035 and Table 9.2 - 6-year Capital Improvement Plan. The amendments will include the following additions:
  - Lundein Park;
  - Park Acquisition;
  - Cedar Road from 20th Street NE to 30th Street NE;
  - South Lake Stevens Road from South Davies to E. Lakeshore;
  - 20th Street SE Transit Alignment; and
  - Revisions to the Transportation Improvement Program 2017 to 2022 (**Exhibit 6**).

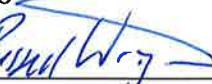
## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

- **Appendices** – Updates to the following sections:
  - **Appendix A** – Add this document as “Addendum No. 9”;
  - **Appendix C** – Update to “2016 Lake Stevens Sewer District Comprehensive Plan”; and
  - **Appendix F** – Update to “2016-2021 Lake Stevens School District No. 4 Capital Facilities Plan” (**Exhibit 7**).

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

### Purpose of the FEIS Addendum:

This addendum and adoption of existing environmental documents is to add information relating to the 2016 Comprehensive Plan amendments. This addendum and adoption of existing environmental documents does not substantially change the analysis of alternatives considered in the City's Integrated 2005 Comprehensive Plan (July 2006) and FEIS (July 17, 2006). The City has considered the impacts of the proposed programmatic actions to the FEIS document. No additional significant impacts beyond those identified in the FEIS are expected to occur. To the extent that the existing environmental documents listed in this Addendum or other published documents have analyzed such changes, no additional programmatic action level environmental review will be required. This Addendum is issued in accordance with WAC 197-11-625 and WAC 197-11-630. Additional changes to the proposal may be considered during the public hearing process. The addendum and adoption of existing environmental documents satisfies the City of Lake Stevens' environmental review for the 2016 Comprehensive Plan Docket.

<b>Location of Proposal:</b>	City of Lake Stevens
<b>Proponent:</b>	City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258
<b>Lead Agency:</b>	(425) 377-3235
<b>Required Approvals:</b>	Adoption of 2016 Comprehensive Plan Docket map and text amendments granted by Lake Stevens City Council.
<b>Circulation:</b>	This addendum and adoption of existing environmental documents is being sent to SEPA review agencies and interested parties.
<b>Comment:</b>	No comment period is required for this addendum.
<b>Contact Person:</b>	Russell Wright, <i>Community Development Director</i> (425) 212-3315 or <a href="mailto:rwright@lakestevenswa.gov">rwright@lakestevenswa.gov</a>
<b>Date of Issuance:</b>	August 30, 2016
<b>Responsible Official:</b>	Signature:  Russell Wright, <i>Community Development Director</i>
<b>Public Hearing:</b>	Staff has held briefings with both City Council and the Planning Commission related to the analysis of each of the Docket items. The Lake Stevens Planning Commission and City Council will hold public hearings to receive final comments and testimony prior to adoption.

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

**Documents:** All of the application materials and staff documents are available at the Permit Center. Electronic copies may be requested.

**Exhibit List:**

1. Commerce Coversheet
2. Administrative Amendments
3. Chapter 2 Amendments
  - a. School District Map
  - b. School District SEPA DNS
  - c. Hild Rezone Map
  - d. Hild Rezone SEPA DNS
  - e. City-Initiated Map
4. Chapter 5 Amendments
5. Chapter 7 Amendments
6. Chapter 9 Amendments
7. Appendices Amendments

# **ADDENDUM NO. 1 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

## **TO THE CITY OF LAKE STEVENS FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN**

**Adoption of a Potential Map Amendment and concurrent  
Rezone with the 2016 Comprehensive Plan Docket**



**Prepared in Compliance with**  
The Washington State Environmental Policy Act of 1971  
Chapter 43.21C Revised Code of Washington  
Chapter 197-11 Washington Administrative Code  
Lake Stevens Municipal Code Title 16

**Date of Issuance: October 27, 2016**

## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

### FACT SHEET

#### **ADDENDUM NO. 1 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN**

##### **Proposed Non-Project Action:**

Under the Growth Management Act, the City of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The proposed non-project action consists of minor map and text amendments for the 2016 Docket including two proposed citizen-initiated map amendments and rezones that have undergone individual SEPA review, two proposed city-initiated map amendments with concurrent rezones and city text amendments to the Land Use Element, the Parks, Recreation and Open Space Element, the Public Services and Utilities element, Capital Facilities element and the Appendices. Standard administrative updates and SEPA documents will be incorporated into the plan. The GMA requirements contained in Chapter 36.70A RCW apply to this action.

The city proposes a minor, area-wide map amendment and concurrent rezone for approximately 40 parcels off 20<sup>th</sup> Street SE near SR-9, from Mixed Use, High Density Residential and Medium Density Residential, in the 20<sup>th</sup> Street SE Corridor Subarea, to a Commercial land use designation with a concurrent rezone to the Commercial District (**Exhibit 1**). The City of Lake Stevens Planning Commission recommends that the 10 parcels adjacent to SR-9 and 20<sup>th</sup> Street SE, within the study area, receive a Commercial land use designation and a Neighborhood Commercial zoning designation (**Exhibit 2**). The remaining approximately 30 parcels under the original study area would maintain their current land use designation and zoning.

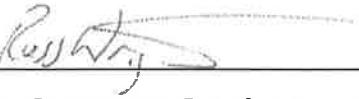
The 20<sup>th</sup> Street SE Corridor Subarea was the subject of a Final Environmental Impact Statement (FEIS) and subsequent adoption by Ordinance #875 (September 2012). The FEIS amended and became an element of the Lake Stevens Comprehensive Plan in 2012. The FEIS includes goals, policies, maps and design guidelines that are reflected in Chapter 14.38 of the Lake Stevens Municipal Code (LSMC). The city has determined that either proposed map amendment or concurrent rezone as described above will not significantly alter the analysis of alternatives considered in the FEIS for the 20<sup>th</sup> Street SE Subarea, including the planned action thresholds. Both of the land use/rezone alternatives discussed above would be consistent with the FEIS; the difference would be in the speed in which build-out occurs. No updates to the currently adopted FEIS are proposed.

Planning and Community Development has prepared this Addendum No. 1 to the City of Lake Stevens 2012 FEIS for the 20<sup>th</sup> Street SE Corridor Subarea Plan along with an adoption of existing environmental documents.

## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

### **Purpose of the FEIS Addendum:**

This addendum and adoption of existing environmental documents is to add information relating to the 2012 Final Environmental Impact Statement (FEIS) for the 2012 20<sup>th</sup> Street SE Corridor Subarea Plan. This addendum and adoption of existing environmental documents does not substantially change the analysis of alternatives considered in the City's 20<sup>th</sup> Street SE Corridor Subarea Plan FEIS or the adopting Ordinance #875 (September 2012). The City has considered the impacts of the proposed programmatic actions to the FEIS document. No additional significant impacts beyond those identified in the FEIS are expected to occur. To the extent that the existing environmental documents listed in this Addendum or other published documents have analyzed such changes, no additional programmatic action level environmental review will be required. This Addendum is issued in accordance with WAC 197-11-625 and WAC 197-11-630. Additional changes to the proposal may be considered during the public hearing process. The addendum and adoption of existing environmental documents satisfies the City of Lake Stevens' environmental review for the 2016 Comprehensive Plan Docket.

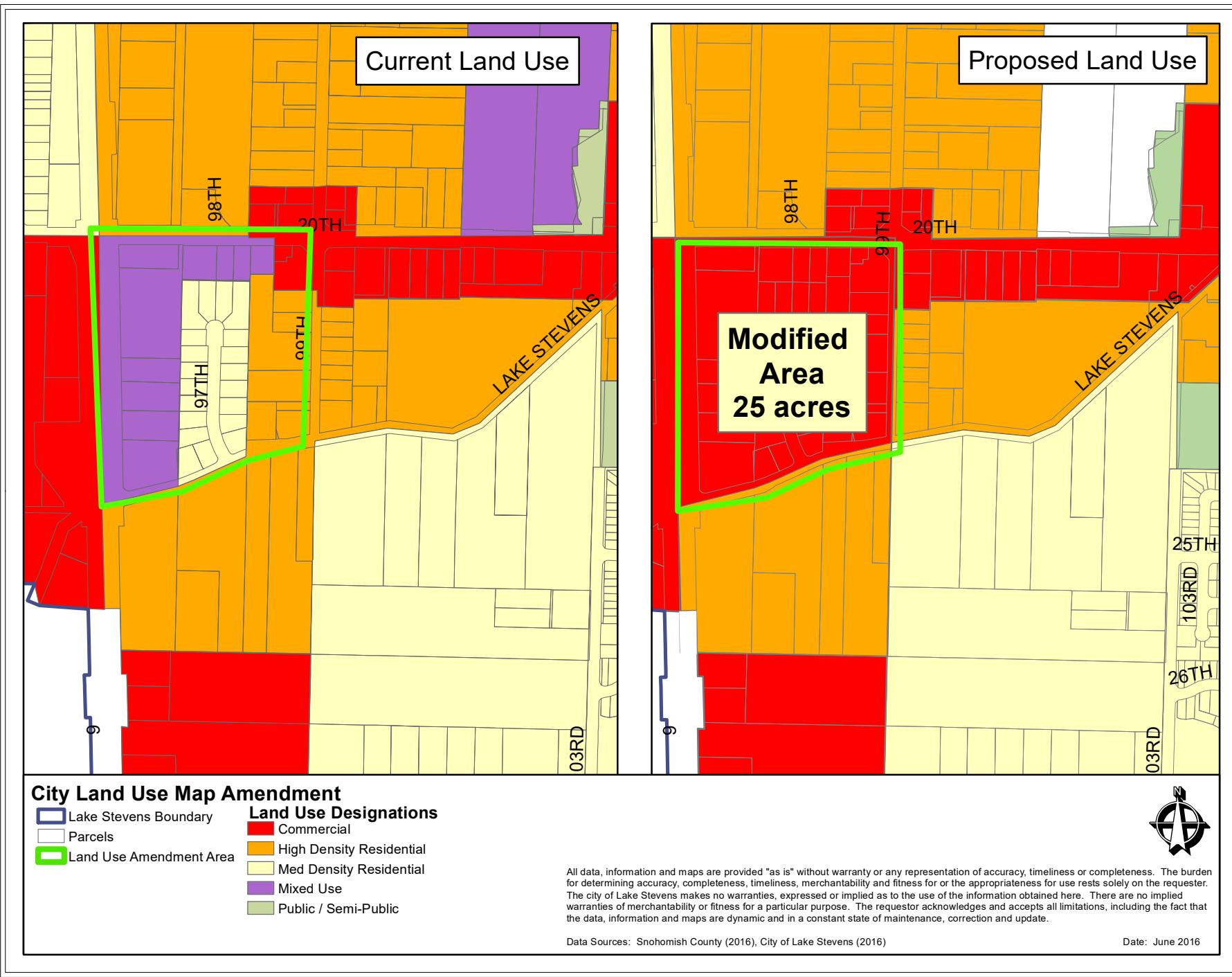
<b>Location of Proposal:</b>	City of Lake Stevens
<b>Proponent:</b>	City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258
<b>Lead Agency:</b>	(425) 377-3235
<b>Required Approvals:</b>	Adoption of 2016 Comprehensive Plan Docket map and text amendments granted by Lake Stevens City Council.
<b>Circulation:</b>	This addendum and adoption of existing environmental documents is being sent to SEPA review agencies and interested parties.
<b>Comment:</b>	No comment period is required for this addendum.
<b>Contact Person:</b>	Russell Wright, <i>Community Development Director</i> (425) 212-3315 or <a href="mailto:rwright@lakestevenswa.gov">rwright@lakestevenswa.gov</a>
<b>Date of Issuance:</b>	October 27, 2016
<b>Responsible Official:</b>	Signature:  Russell Wright, <i>Community Development Director</i>
<b>Public Hearing:</b>	Staff has held briefings with both City Council and the Planning Commission related to the analysis of each of the Docket items. The Lake Stevens Planning Commission and City Council will hold public hearings to receive final comments and testimony prior to adoption.

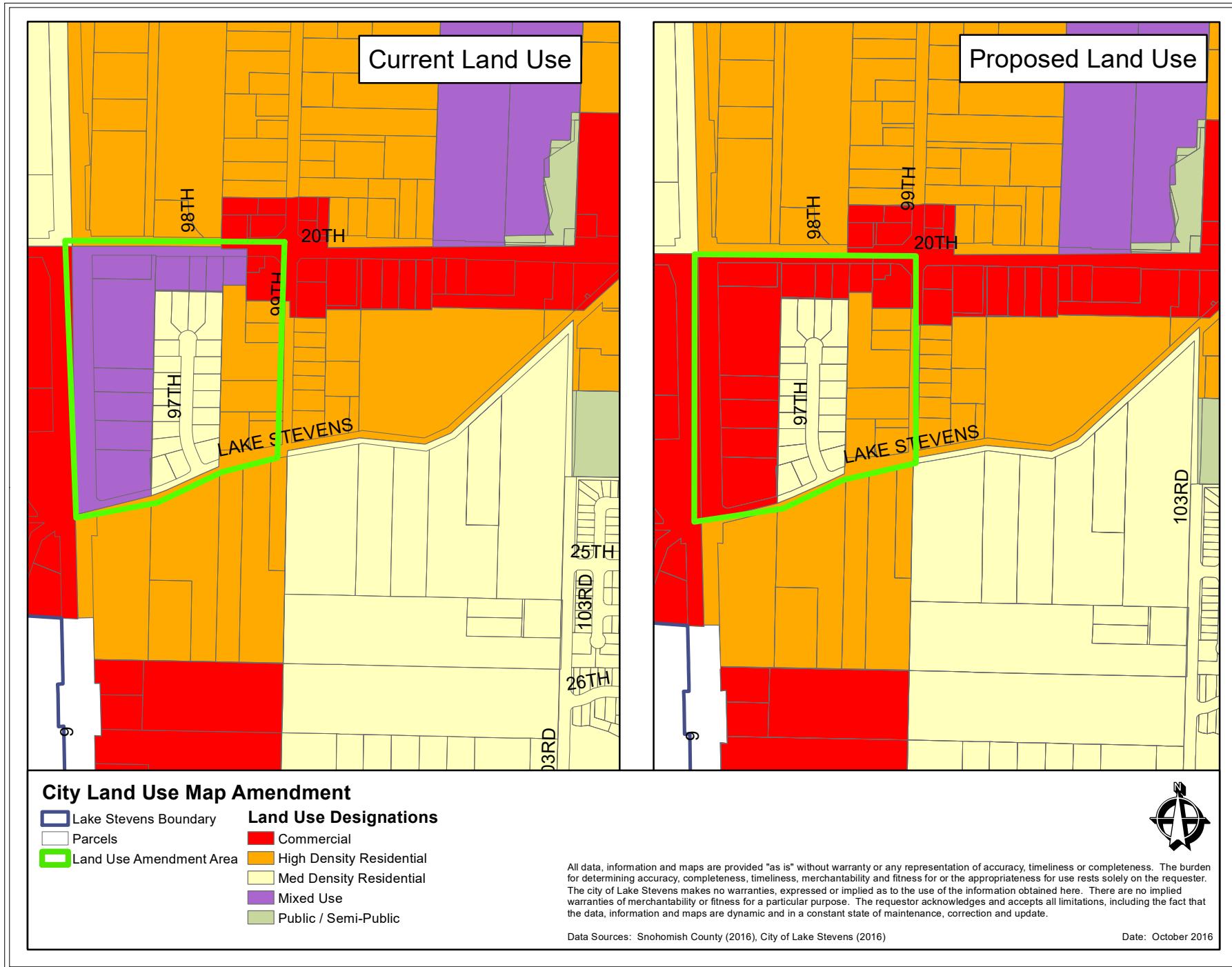
## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

**Documents:** All of the application materials and staff documents are available at the Permit Center. Electronic copies may be requested.

**Exhibits:**

1. **Map Option 1**
2. **Map Option 2**







Staff Report  
City of Lake Stevens  
Planning Commission

**Public Hearing: 2016 Comprehensive Plan Docket**  
**Date: November 2, 2016**

**Subject:** 2016 Comprehensive Plan Docket Public Hearing

**Contact Person/Department:** Melissa Place, Senior Planner and Stacie Pratschner, Senior Planner

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**ACTION REQUESTED:** Hold a public hearing on the 2016 Comprehensive Plan Docket and forward a recommendation to the City Council.

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**BACKGROUND/ HISTORY:**

Under the Growth Management Act, the City can amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The Planning Commission held a public hearing for recommendation to ratify the 2016 Docket on March 2, 2016 and City Council ratified the 2016 Docket on March 22, 2016. Staff presented analysis for each map and text proposal and described how each proposed amendment is consistent with the annual amendment review criteria on May 18, 2016. Subsequent briefings have been held with the Planning Commission to discuss the various docket items and provide additional analysis.

The proposed Comprehensive Plan amendments were sent to the Washington Department of Commerce on August 12, 2016 for the required 60-day review by State agencies; no comments have been received as of the writing of this staff report. Staff issued SEPA determinations for both LUA2015-0119 (M-1: The Lake Stevens School District) LUA2016-0007 (M-2/M-3: The Hild Property). SEPA Addendum #9 to the Comprehensive Plan was issued on August 31, 2016 and no agency comments have been received to date (**Exhibit 1a**). SEPA Addendum #1 to the FEIS for the 20<sup>th</sup> Street SE Corridor Subarea Plan was issued on October 27, 2016 and no agency comments have been received to date (**Exhibit 1b**).

The city has completed the following text amendments and other minor administrative amendments to the Comprehensive Plan (**Exhibit 2**):

1. **T-1** – The text amendments to **Chapter 5** – Staff has added new or revised park project descriptions including Lundein Park improvements and acquisition of park property in the northwestern portion of the city and other non-substantive updates. The amendment also includes text “redlines” to pages P-28 through P-33.
2. **T-2** – The text amendments to **Chapter 9** – Staff has added new or revised park and road projects to Table 9.1: Capital Facilities Program 2015 to 2035; and Table 9.2: 6-year Capital Improvement Plan. The amendments are shown in edit mode on the applicable pages in **Exhibit 2**.
3. **T-3 and T-4** – The text amendments to **Chapter 7** and the **Appendices** – Staff has completed text amendments to Chapter 7 and the associated Appendices to incorporate both the 2016 Lake Stevens Sewer Districts Sanitary Sewer Comprehensive Plan and the Lake Stevens School District

No.4's 2016-2021 Capital Facilities Plan. Standard administrative amendments to update the cover, Executive Summary, footnotes and Table of Contents have also been completed.

The city has received two citizen-initiated amendments and is proposing two city-initiated amendments to the land use map with concurrent rezone applications. Separate staff reports for each of the proposed rezones described below have been prepared pursuant to LSMC 14.16C.090. The following map amendments have triggered parallel updates to the text of **Chapter 2 the Land Use Element**, specifically to statistical tables.

1. **M-1** – The first request (LUA2015-0119) is to change the land use designation for two undeveloped School District parcels off Lake Drive, from Medium Density Residential to Public / Semi-Public. The city issued a SEPA DNS and has not received any comments from the public or outside agencies as of the writing of this staff report (**Exhibit 3**).
2. **M-2 / M-3** – The second request (LUA2016-0007) is to change the land use designation for three undeveloped parcels off SR-92, from Planned Business District to Medium Density Residential along with a city expansion of LUA2016-0007 to change the land use designation, for two partially developed parcels off SR-92, from Planned Business District to Medium Density Residential for consistency with adjacent parcels. The city is also considering adding the 3-acre parcel to the west and an isolated 0.44-acre parcel east of 127<sup>th</sup> Ave SE with a recommended land use and zoning for General Industrial. The city has issued a SEPA DNS and received one comment from the public concerning the potential traffic at the site (**Exhibit 4**).
3. **M-4** – The city had originally requested to change the land use designation for approximately 40 parcels off 20th Street SE near SR-9, from Mixed Use, High Density Residential and Medium Density Residential, in the 20th Street Subarea, to Commercial with a concurrent rezone to Commercial District. Staff analyzed the traffic and other land use concerns related to this proposal and alternate proposals, conducted public outreach with affected property owners, received input from the community and held several briefings with the Planning Commission. Ultimately, the Planning Commission recommends that the 10 parcels adjacent to SR-9 and 20<sup>th</sup> Street SE, within the study area, receive a Commercial land use designation and a Neighborhood Commercial zoning designation. The remaining approximately 30 parcels, under the original study area, would maintain their current land use designations and zoning (**Exhibit 5**). Staff has included written comments from the public for the Planning Commission's review (**Exhibit 6**). The city has issued a SEPA Addendum to the FEIS for the 20<sup>th</sup> Street SE Corridor Subarea Plan and no comments from the public or outside agencies have been received as of the writing of this staff report (**Exhibit 1b**).

The items on the ratified docket have been analyzed against the criteria to grant or deny comprehensive plan amendments. All Comprehensive Plan and code proposals meet requirements for granting the proposed amendments.

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**DISCUSSION:**

Staff will discuss how each proposed amendment meets the defined criteria.

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**RECOMMENDATION:**

Staff recommends that the Planning Commission forward a recommendation of approval to City Council for the following 2016 Docket items:

1. Text Amendments T-1 through T-5;
2. The Lake Stevens School District Comprehensive Plan Amendment and concurrent Rezone (Item M-1: LUA2015-0119);
3. The Hild Property and concurrent City-Initiated Comprehensive Plan Amendment and concurrent Rezone (Items M-2 and M-3: LUA2016-0007); and
4. The City-Initiated SW Quad Comprehensive Plan Amendment and concurrent Rezone.

**Note:** The Planning Commission can choose to take separate actions on each of the identified items. Staff will make final content edits and formatting changes to the documents to include recommendations of the Planning Commission, City Attorney and/or City Council.

Staff will prepare a letter of recommendation to the City Council for review and signature by the Commission Chair and Co-Chair.

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**ATTACHMENTS:**

1. SEPA
  - a. Addendum #9 (Provides detailed descriptions of the scope of each amendment)
  - b. Addendum #1 (References the city-initiated rezone)
2. 2016 Comprehensive Plan updates
3. M-1 Map
4. M-2/M-3 Map
5. M-4 Map
6. Comments concerning Item M-4

# **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

## **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

**Adoption of Four Map Amendments and Text Revisions to  
Chapter 2 Land Use Element, Chapter 5 Parks, Recreation  
and Open Space Element, Chapter 7 Public Services and  
Utilities Element, Chapter 9 Capital Facilities Element,  
Appendices and Covers, Footers, Dates, Executive Summary  
and Table of Contents  
with the 2016 Docket**



**Prepared in Compliance with**  
The Washington State Environmental Policy Act of 1971  
Chapter 43.21C Revised Code of Washington  
Chapter 197-11 Washington Administrative Code  
Lake Stevens Municipal Code Title 16

**Date of Issuance: August 30, 2016**

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

### **FACT SHEET**

#### **ADDENDUM NO. 9 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

#### **TO THE CITY OF LAKE STEVENS INTEGRATED 2005 COMPREHENSIVE PLAN AND FINAL ENVIRONMENTAL IMPACT STATEMENT**

##### **Proposed Non-Project Action:**

Under the Growth Management Act, the City of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The proposed non-project action consists of minor map and text amendments for the 2016 Docket including two proposed citizen map amendments that have undergone individual SEPA review, two proposed city map amendments and city text amendments to the Land Use Element, the Parks, Recreation and Open Space Element, the Public Services and Utilities element, Capital Facilities element and the Appendices. Standard administrative updates and SEPA documents will be incorporated into the plan. The GMA requirements contained in Chapter 36.70A RCW apply to this action.

Planning and Community Development has prepared this Addendum No. 9 to the City of Lake Stevens Integrated 2005 Comprehensive Plan and Final Environmental Impact Statement (FEIS) issued July 17, 2006 along with an adoption of existing environmental documents.

##### **Description of Proposal:**

The 2016 Docket contains four map amendments, text amendments and minor administrative amendments to the City of Lake Stevens Comprehensive Plan.

RCW 36.70A.130 allows amendments to the Comprehensive Plan once per year with some exceptions. The following actions comprises the City's annual changes to its Comprehensive Plan:

- **Title Page, Table of Contents and Introduction** - Update the dates on the title page, header and footers, the Executive Summary, the table of contents and introduction references as needed with final draft (**Exhibit 2**).
- **Chapter 2 – Land Use Element** – A city-initiated text amendment to update applicable Figures and Tables to reflect the adoption of the two citizen-initiated map amendments (LUA2015-0119 and LUA2016-0007) and two city-initiated map amendments (LUA2016-0017).
  - Text “redlines” to pages LU-10, LU-17, LU-18, LU-21, LU-24;
  - Updates to Figures 2.3 – City Land Use Map and 2.4 – Development Trends Map; and
  - Updates to Tables 2.2 – Employment Zoning in Lake Stevens UGA and 2.3 – Residential Zoning (**Exhibit 3**).
- LUA2015-0119 – A citizen-initiated map amendment to change the land use designation on two parcels totaling approximately 38 acres located at 9105 and 9203 29<sup>th</sup> Street NE, from

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

Medium-Density Residential to Public/Semi-Public (**Exhibit 3a**). The city issued a DNS on July 22, 2016 for LUA2015-0119 – no comments or appeals were received. The city hereby adopts this existing DNS (**Exhibit 3b**) by reference and incorporates it into Addendum No. 9.

- LUA2016-0007 – A citizen-initiated map amendment to change the land use designation on three parcels totaling approximately 15.5 acres located on the west side of 127<sup>th</sup> Drive NE between SR-92 and 36<sup>th</sup> Street NE, from Planned Business District to Medium Density Residential and accompanied with a city recommended expansion (see below) to the adjacent parcels to the east and west of the project area (**Exhibit 3c**). The city issued a DNS on July 20, 2016 for LUA2016-0007 – one written comment was received and no appeals were filed. The city hereby adopts this existing DNS (**Exhibit 3d**) by reference and incorporates it into Addendum No. 9.
- LUA2016-0007 (continued)- A city-initiated map amendment in concurrence with LUA2016-0007 to change the land use designation on four parcels totaling approximately 3.5 acres adjacent to the three parcels amending to the Planned Business District as described above (**Exhibit 3c**). Three parcels would change from Planned Business District to Medium Density Residential and one parcel would change from Planned Business District to General Industrial.
- LUA2016-0111 – A city-initiated map amendment to change the land use designation on 40 parcels totaling approximately 25 acres located south of 20<sup>th</sup> Street SE, north of South Lake Stevens Road and near SR-9, from Mixed Use, High Density Residential and Medium Density Residential to Commercial (**Exhibit 3e**). The city is also considering another option that would only rezone the Mixed Use parcels to Neighborhood Business while the remaining parcels in the study area would maintain their current zoning and land use designation.
- **Chapter 5 – Parks, Recreation and Open Space Element** - A city-initiated text amendment to add park projects(s) to the Capital Project List for improvements to Lundein Park and acquisition of park property in the northwestern portion of the city. The amendment will include text “redlines” to pages P-28 through P-33 (**Exhibit 4**).
- **Chapter 7 – Public Services and Utilities Element** – Update references on page PS-9 to incorporate the Lake Stevens Sewer Districts’ updated Sanitary Sewer Comprehensive Plan (2016) and update references on page PS-13 to incorporate the Lake Stevens School District No.4’s 2016-2021 Capital Facilities Plan (**Exhibit 5**).
- **Chapter 9 – Capital Facilities Element** - A city-initiated text amendment to add park and road projects to Table 9.1 Capital Facilities Program 2015 to 2035 and Table 9.2 - 6-year Capital Improvement Plan. The amendments will include the following additions:
  - Lundein Park;
  - Park Acquisition;
  - Cedar Road from 20th Street NE to 30th Street NE;
  - South Lake Stevens Road from South Davies to E. Lakeshore;
  - 20th Street SE Transit Alignment; and
  - Revisions to the Transportation Improvement Program 2017 to 2022 (**Exhibit 6**).

## **ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS**

- **Appendices** – Updates to the following sections:
  - **Appendix A** – Add this document as “Addendum No. 9”;
  - **Appendix C** – Update to “2016 Lake Stevens Sewer District Comprehensive Plan”; and
  - **Appendix F** – Update to “2016-2021 Lake Stevens School District No. 4 Capital Facilities Plan” (**Exhibit 7**).

## ADDENDUM #9 TO INTEGRATED 2005 COMPREHENSIVE PLAN & FEIS

### Purpose of the FEIS Addendum:

This addendum and adoption of existing environmental documents is to add information relating to the 2016 Comprehensive Plan amendments. This addendum and adoption of existing environmental documents does not substantially change the analysis of alternatives considered in the City's Integrated 2005 Comprehensive Plan (July 2006) and FEIS (July 17, 2006). The City has considered the impacts of the proposed programmatic actions to the FEIS document. No additional significant impacts beyond those identified in the FEIS are expected to occur. To the extent that the existing environmental documents listed in this Addendum or other published documents have analyzed such changes, no additional programmatic action level environmental review will be required. This Addendum is issued in accordance with WAC 197-11-625 and WAC 197-11-630. Additional changes to the proposal may be considered during the public hearing process. The addendum and adoption of existing environmental documents satisfies the City of Lake Stevens' environmental review for the 2016 Comprehensive Plan Docket.

<b>Location of Proposal:</b>	City of Lake Stevens
<b>Proponent:</b>	City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258
<b>Lead Agency:</b>	(425) 377-3235
<b>Required Approvals:</b>	Adoption of 2016 Comprehensive Plan Docket map and text amendments granted by Lake Stevens City Council.
<b>Circulation:</b>	This addendum and adoption of existing environmental documents is being sent to SEPA review agencies and interested parties.
<b>Comment:</b>	No comment period is required for this addendum.
<b>Contact Person:</b>	Russell Wright, <i>Community Development Director</i> (425) 212-3315 or <a href="mailto:rwright@lakestevenswa.gov">rwright@lakestevenswa.gov</a>
<b>Date of Issuance:</b>	August 30, 2016
<b>Responsible Official:</b>	Signature:  Russell Wright, <i>Community Development Director</i>
<b>Public Hearing:</b>	Staff has held briefings with both City Council and the Planning Commission related to the analysis of each of the Docket items. The Lake Stevens Planning Commission and City Council will hold public hearings to receive final comments and testimony prior to adoption.

# **ADDENDUM NO. 1 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS**

## **TO THE CITY OF LAKE STEVENS FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN**

**Adoption of a Potential Map Amendment and concurrent  
Rezone with the 2016 Comprehensive Plan Docket**



**Prepared in Compliance with**  
The Washington State Environmental Policy Act of 1971  
Chapter 43.21C Revised Code of Washington  
Chapter 197-11 Washington Administrative Code  
Lake Stevens Municipal Code Title 16

**Date of Issuance: October 27, 2016**

## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

### FACT SHEET

#### **ADDENDUM NO. 1 AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENTS TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN**

##### **Proposed Non-Project Action:**

Under the Growth Management Act, the City of Lake Stevens may amend its Comprehensive Plan and Future Land Use Map once per year, with a few exceptions, through an annual docket process. The proposed non-project action consists of minor map and text amendments for the 2016 Docket including two proposed citizen-initiated map amendments and rezones that have undergone individual SEPA review, two proposed city-initiated map amendments with concurrent rezones and city text amendments to the Land Use Element, the Parks, Recreation and Open Space Element, the Public Services and Utilities element, Capital Facilities element and the Appendices. Standard administrative updates and SEPA documents will be incorporated into the plan. The GMA requirements contained in Chapter 36.70A RCW apply to this action.

The city proposes a minor, area-wide map amendment and concurrent rezone for approximately 40 parcels off 20<sup>th</sup> Street SE near SR-9, from Mixed Use, High Density Residential and Medium Density Residential, in the 20<sup>th</sup> Street SE Corridor Subarea, to a Commercial land use designation with a concurrent rezone to the Commercial District (**Exhibit 1**). The City of Lake Stevens Planning Commission recommends that the 10 parcels adjacent to SR-9 and 20<sup>th</sup> Street SE, within the study area, receive a Commercial land use designation and a Neighborhood Commercial zoning designation (**Exhibit 2**). The remaining approximately 30 parcels under the original study area would maintain their current land use designation and zoning.

The 20<sup>th</sup> Street SE Corridor Subarea was the subject of a Final Environmental Impact Statement (FEIS) and subsequent adoption by Ordinance #875 (September 2012). The FEIS amended and became an element of the Lake Stevens Comprehensive Plan in 2012. The FEIS includes goals, policies, maps and design guidelines that are reflected in Chapter 14.38 of the Lake Stevens Municipal Code (LSMC). The city has determined that either proposed map amendment or concurrent rezone as described above will not significantly alter the analysis of alternatives considered in the FEIS for the 20<sup>th</sup> Street SE Subarea, including the planned action thresholds. Both of the land use/rezone alternatives discussed above would be consistent with the FEIS; the difference would be in the speed in which build-out occurs. No updates to the currently adopted FEIS are proposed.

Planning and Community Development has prepared this Addendum No. 1 to the City of Lake Stevens 2012 FEIS for the 20<sup>th</sup> Street SE Corridor Subarea Plan along with an adoption of existing environmental documents.

## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

### **Purpose of the FEIS Addendum:**

This addendum and adoption of existing environmental documents is to add information relating to the 2012 Final Environmental Impact Statement (FEIS) for the 2012 20<sup>th</sup> Street SE Corridor Subarea Plan. This addendum and adoption of existing environmental documents does not substantially change the analysis of alternatives considered in the City's 20<sup>th</sup> Street SE Corridor Subarea Plan FEIS or the adopting Ordinance #875 (September 2012). The City has considered the impacts of the proposed programmatic actions to the FEIS document. No additional significant impacts beyond those identified in the FEIS are expected to occur. To the extent that the existing environmental documents listed in this Addendum or other published documents have analyzed such changes, no additional programmatic action level environmental review will be required. This Addendum is issued in accordance with WAC 197-11-625 and WAC 197-11-630. Additional changes to the proposal may be considered during the public hearing process. The addendum and adoption of existing environmental documents satisfies the City of Lake Stevens' environmental review for the 2016 Comprehensive Plan Docket.

<b>Location of Proposal:</b>	City of Lake Stevens
<b>Proponent:</b>	City of Lake Stevens, P.O. Box 257, Lake Stevens, WA 98258
<b>Lead Agency:</b>	(425) 377-3235
<b>Required Approvals:</b>	Adoption of 2016 Comprehensive Plan Docket map and text amendments granted by Lake Stevens City Council.
<b>Circulation:</b>	This addendum and adoption of existing environmental documents is being sent to SEPA review agencies and interested parties.
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<b>Date of Issuance:</b>	October 27, 2016
<b>Responsible Official:</b>	Signature:  Russell Wright, <i>Community Development Director</i>
<b>Public Hearing:</b>	Staff has held briefings with both City Council and the Planning Commission related to the analysis of each of the Docket items. The Lake Stevens Planning Commission and City Council will hold public hearings to receive final comments and testimony prior to adoption.

## ADDENDUM #1 TO THE CITY OF LAKE STEVENS 2012 FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE 20<sup>th</sup> STREET SE CORRIDOR SUBAREA PLAN

**Documents:** All of the application materials and staff documents are available at the Permit Center. Electronic copies may be requested.

**Exhibits:**

1. **Map Option 1**
2. **Map Option 2**



# City of Lake Stevens 2015-2035 Comprehensive Plan



**City of Lake Stevens  
Ordinance XXX  
12/13/2016**

Therefore the Chapter further provides for updating, monitoring data and analyzing results as an on-going activity to ensure city resources are used for the best possible yield and in a responsible manner. The changes are supported in the Land Use Element and other Comprehensive Plan elements by directing retail and employment growth into the city's growth centers.

## Public Services and Utilities Element

**A Vision for Public Utilities and Services** – Lake Stevens will strive to provide excellent public utilities & services to meet the health and safety needs of the community in proportion to future population growth and will continue to coordinate with local service providers such as the Lake Stevens Sewer District, Lake Stevens Fire, and the Lake Stevens School District to ensure service continuity as the community grows.

This element provides a descriptive inventory of, and considers the general location and capacity of, all existing and proposed public utilities, facilities and services in the city of Lake Stevens in relation to levels of service for current and future residents and businesses. In the preparation of this element, city staff met with other departments, public agencies and special purpose districts (e.g., Lake Stevens School District, the Snohomish County Public Utilities District (PUD), Lake Stevens Sewer District, Lake Stevens Fire District and Lake Stevens Police Department) to identify the current status of facilities and services provided by these agencies to incorporate. Significant trends are highlighted below.

- The Lake Stevens Police Department continues to provide a variety of services including marine and road patrol, crime and accident investigation, traffic enforcement, crime prevention, School Resource Officer Program, concealed weapons permits, passports, records and evidence keeping and animal control.
- Within the city's stormwater system there are approximately 68 city-owned or operated facilities, 4,562 catch basins, 13.5 miles of road side ditches, 66.2 miles of pipe and 22,942 feet of culverts
- The sewer system includes a network of trunk and collector lines, a flow telemetry system, manholes, and pump/lift stations and a treatment plant operated by the Lake Stevens Sewer District.
  - Since the last update the new Sunnyside Treatment Plant and Southwest Interceptor have been completed, providing additional capacity for development.
  - The Sewer District has completed~~will complete~~ the 2016~~an~~ update to their Sanitary Sewer Comprehensive Plan in 2015
- Lake Stevens Fire serves an area of about 46 square miles with 3 stations and 1 administration building.
  - The Fire District performs fire code compliance activities, inspects commercial and public buildings for the city of Lake Stevens (381 in 2013) and reviews land use and building permits through the Fire Marshal's office.

- In 2013, Lake Stevens Fire responded to 4,659 calls.
- Over the past 5 years, the Fire District has experienced an annual increase in call volume of 1.5%.
- The Fire District plans to increase the daily staffing level to 14 firefighters by year 2017 and build a new station by 2022.
- The Lake Stevens School District covers approximately 37 square miles
  - ~~The District currently serves a student population of 8,392 with six elementary schools, two middle schools, one mid-high school, one high school and one homeschool partnership program (HomeLink). The District estimates the enrollment will total 9,114 students in 2021. The School District operates 6 elementary schools, 2 middle schools, 1 mid high school and 1 high school, along with alternative education programs.~~
  - ~~The District has projected permanent capacity shortfall by 2021 for K-5 of 1,106 students (with no improvements).~~
  - ~~Currently five of the six elementary schools are above their design capacity. Voters recently approved financing for a seventh school.~~
  - ~~The School District anticipates that the populations within its boundary will grow to 61,000 by 2035.~~
  - The city has adopted the most recent School District Capital Facilities Plan.
- The city coordinates with the Snohomish County Health District for public health services, specifically the review of septic systems and food service inspections.
- Waste Management Northwest, Incorporated and Republic Services provide solid waste services within the city under contract for a 3-year period.
- Puget Sound Energy provides natural gas service through a city franchise.
- The Public Utility District No. 1 of Snohomish County (PUD), serves the city of Lake Stevens
  - 80% of its power comes from the Bonneville Power Administration, with the remainder provided from a mix of renewable resources.
  - The PUD operates 3 distribution substations within the city and multiple transmission lines.
- The PUD also manages the city's water system, which includes 8 reservoirs and 330 miles of pipe.
  - The primary water supply to the Lake Stevens Water System comes from Spada Lake and is purchased from the city of Everett.
  - Former emergency wells, in the northeast corner of the city, have been converted to full-time use to supplement the water supply.

## Transportation

## **DOWNTOWN LAKE STEVENS**

Downtown Lake Stevens includes an area of more than 200 acres near 20<sup>th</sup> St NE, Main St and Hartford Drive NE, and consists of the historic town center adjacent to the northwestern tip of the lake, the Grade Road Planned Business District, and associated residential areas. This area has been characterized primarily by low-intensity commercial and residential development on small to medium-sized parcels.

The historic town center has several key attributes to support its revitalization including its lake front setting, strong projected population growth and the potential for higher density residential development. Development of an effective plan and an active marketing campaign for this area is a high priority for the city. In 2005, the city developed a conceptual plan for downtown Lake Stevens. In 2012, the city proposed a framework plan for the area that identified preferred land uses and potential infrastructure improvements to facilitate desired growth patterns. This framework will lead to a full subarea plan, scheduled for completion in 2016, to identify uses, development intensity, parking requirements, public improvements, program development, etc.

Downtown Lake Stevens will have some challenges, specifically access and infrastructure. Several road improvements are proposed to improve access throughout downtown and to the Hartford Industrial Center, and to the regional highway system. The city continues to work with utility providers to assess needed infrastructure improvements.

In 2007, the city purchased a 40-acre site off Grade Road that includes a collection of medium to large parcels, located directly north of Downtown Lake Stevens. It is one of the two areas in the city zoned Planned Business District (PBD). The Grade Road PBD Master Plan, prepared in 2006, proposes to establish the city's future Municipal Campus at this location. The plan also envisions complimentary residential and commercial uses. Wetlands and streams encumber parts of the Grade Road site. Portions of the area are prone to local flooding. Limited roadway frontage currently restricts access to the Grade Road site. At the same time, the potential for constructing new residential development at greater densities in this area is seen as a catalyst for downtown revitalization efforts.

## **LAKE STEVENS CENTER SUBAREA (FORMERLY FRONTIER VILLAGE GROWTH CENTER)**

Lake Stevens Center is comprised of approximately 360 acres of land centered on the State Route 9/State Route 204 intersection. In September 2012, the ~~803~~<sup>City</sup> Council adopted the Lake Stevens Center Subarea Plan to revitalize the center, emphasizing retail and office growth. The plan also amended the Land Use Map for many parcels within the subarea. Future residential development would be primarily high-density residential. The general land use pattern would consist of a commercial core, smaller commercial and mixed-use areas, a main street area, and transit-oriented development. The plan assumes future

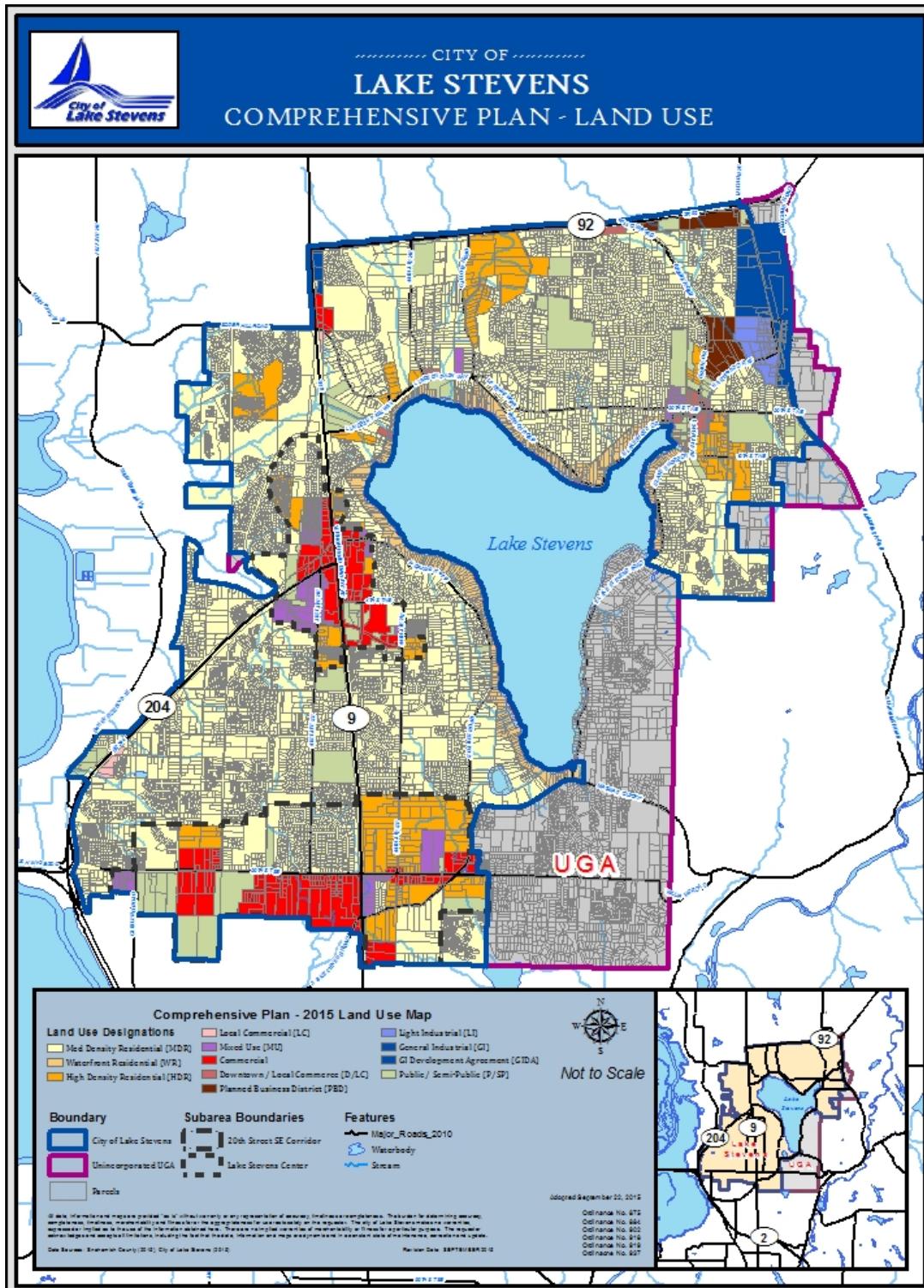


Figure 2.3 – City Land Use Map

\*Figure to be updated pending final city action

## Commercial/Industrial Zoning Districts

The city's zoning districts that allow employment uses primarily occur within growth centers and subareas. These zones vary in type of permitted uses and requirements for special or conditional use permits. Residential uses above and/or behind permitted non-residential uses are allowed in PBD, LB, CBD, MU, BD, CD, MS and MUN. There remains untapped capacity for new commercial development in the two Planned Business District zones, and in the Central Business District (CBD) and Mixed Use (MU) zones, where existing houses have not yet converted to commercial uses. Table 2.2 shows a summary of employment zones by acres within the city and its UGA, which is followed by a brief description of the various employment zoning districts.

**TABLE 2.2 - EMPLOYMENT ZONING IN LAKE STEVENS UGA**

EMPLOYMENT ZONE	ACRES	PERCENT OF CITY	PERCENT OF UNINCORPORATED UGA <sup>1</sup>
<u>General Industrial</u>	<u>94.39</u>	<u>1.64%</u>	<u>1.19%</u>
<u>General Industrial w/Development Agreement</u>	<u>7.02</u>	<u>0.12%</u>	<u>0.09%</u>
<u>Light Industrial</u>	<u>40.19</u>	<u>0.70%</u>	<u>0.51%</u>
<u>Central Business District</u>	<u>21.78</u>	<u>0.38%</u>	<u>0.27%</u>
<u>Planned Business District</u>	<u>43.83</u>	<u>0.76%</u>	<u>0.55%</u>
<u>Local Business</u>	<u>18.88</u>	<u>0.33%</u>	<u>0.24%</u>
<u>Mixed Use</u>	<u>14.98</u>	<u>0.26%</u>	<u>0.19%</u>
<u>Business District</u>	<u>104.07</u>	<u>1.81%</u>	<u>1.31%</u>
<u>Commercial District</u>	<u>196.96</u>	<u>3.42%</u>	<u>2.48%</u>
<u>Main Street District</u>	<u>32.78</u>	<u>0.57%</u>	<u>0.41%</u>
<u>Neighborhood Business</u>	<u>45.42</u>	<u>0.87%</u>	<u>0.63%</u>
<u>Mixed-Use Neighborhood</u>	<u>58.89</u>	<u>1.02%</u>	<u>0.74%</u>
<u>Heavy Industrial (Snohomish County Code)</u>	<u>62.35</u>	<u>1.08%</u>	<u>0.78%</u>
<u>Business Park (Snohomish County Code)</u>	<u>23.62</u>	<u>0.41%</u>	<u>0.30%</u>
<b>Total</b>	<b>781.96</b>	<b>13.58%</b>	<b>9.83%</b>
<u>General Industrial</u>	<u>93.85</u>	<u>1.63%</u>	<u>1.18%</u>
<u>General Industrial w/Development Agreement</u>	<u>7.02</u>	<u>0.12%</u>	<u>0.09%</u>
<u>Light Industrial</u>	<u>40.19</u>	<u>0.70%</u>	<u>0.51%</u>
<u>Central Business District</u>	<u>21.78</u>	<u>0.38%</u>	<u>0.27%</u>
<u>Planned Business District</u>	<u>64.75</u>	<u>1.12%</u>	<u>0.81%</u>

<sup>1</sup> Combined UGA (city and unincorporated UGA) total approximately 7,952 acres, city portion is 5,760 acres.

<b>Local Business</b>	<b>18.88</b>	<b>0.33%</b>	<b>0.24%</b>
<b>Mixed Use</b>	<b>14.98</b>	<b>0.26%</b>	<b>0.19%</b>
<b>Business District</b>	<b>104.11</b>	<b>1.81%</b>	<b>1.31%</b>
<b>Commercial District</b>	<b>196.96</b>	<b>3.42%</b>	<b>2.48%</b>
<b>Main Street District</b>	<b>32.78</b>	<b>0.57%</b>	<b>0.41%</b>
<b>Neighborhood Business</b>	<b>37.75</b>	<b>0.65%</b>	<b>0.47%</b>
<b>Mixed Use Neighborhood</b>	<b>71.27</b>	<b>1.24%</b>	<b>0.90%</b>
<b>Heavy Industrial (Snohomish County Code)</b>	<b>62.35</b>	<b>0%</b>	<b>0.90%</b>
<b>Business Park (Snohomish County Code)</b>	<b>23.62</b>	<b>0%</b>	<b>0.47%</b>
<b>TOTAL</b>	<b>790.06</b>	<b>12.23%</b>	<b>10.23%</b>

The three industrial zones – General Industrial (GI), Light Industrial (LI) and General Industrial with Development Agreement (GIDA), permit a range of uses including manufacturing, processing and equipment repair uses, as well as allowing indoor recreational uses, restaurants, storage, motor vehicle sales, and home occupations.

Other employment zones include Planned Business District (PBD), Local Business (LB), Central Business District (CBD), Mixed Use (MU), and Public/Semi-Public (P/SP). These zones allow a wide range of employment uses including sales and rental of goods, office, some manufacturing uses, and retail uses. The CBD zone allows two-family and multifamily residences.

New employment zones since adoption of the subarea plans include Business District (BD), Commercial District (CD), Neighborhood Business (NB), Main Street District (MS), and Mixed-Use Neighborhood (MUN). The BD zone is geared toward high-tech and other professional occupations. The CD zone allows the most intensive retail uses in the city, while the BD zone is geared toward retail needs of adjacent neighborhoods. The MS and MUN zones are mixed-use zones. With adoption of the Lake Stevens Center and 20th Street SE Corridor subarea plans, approximately 124 percent of the land within the city, or 10 percent of total UGA (city plus UGA) is zoned for commercial and employment uses.

Employment zones in the unincorporated UGA are found in the northeast portion of the city adjacent to the Hartford Industrial Center. It is assumed that similar city zoning would be applied once these areas are annexed into the city.

### Residential Zoning Districts

Table 2.3 shows a summary of residential zones by acres within the city and in the unincorporated UGA. Single-family zones include Suburban Residential, Urban Residential, and Waterfront Residential. The higher-density residential zones include High-Urban Residential, Multi-family Residential, and MF Development Agreement.

**TABLE 2.3 - RESIDENTIAL ZONING**

	<b>CITY ONLY</b>		<b>UNINCORPORATED UGA</b>	
	<b>Acres</b>	<b>Percent</b>	<b>Acres</b>	<b>Percent</b>
Higher-Density Zoning	<u>805.06791.63</u>	13. <u>9774</u> %	9.8	0.12%
Single-family Zoning	<u>3,733.363733.38</u>	64. <u>8282</u> %	1,165.7	14.65%

Approximately 14 percent of the city is zoned for higher-density residences while approximately 6~~45~~ percent is zoned for single-family residential uses. Areas zoned for higher-density residential development are found within designated growth centers, subareas and several areas outside of these centers, along SR 9 and Callow Road in the northern portion of the city. A smaller area zoned for multifamily residential uses occurs along Lundein Parkway, approximate to the northwest tip of the lake. Snohomish County zoning applies to unincorporated areas within the Lake Stevens UGA. Approximately 0.12 percent of the unincorporated UGA is zoned for multifamily residential uses while approximately 15 percent of the area is zoned for single-family residential.

## **BUILDABLE LANDS ANALYSIS / GROWTH TARGETS**

The annexation of lands through 2009 increased the amount of buildable land in the city. The city recognizes the importance of efficient planning and use of remaining lands to meet the population, employment, environmental and other objectives of growth management. The amount of land that is fully developable within the city limits is limited, with large portions of remaining land constrained by topography, critical areas and infrastructure needs. A vital community must find a balance between inevitable growth, a quality environment, good service to citizens and fiscal responsibility. The Land Use Plan is a key factor in developing this balance. Coordination between the Land Use Element and the Capital Facilities Element is essential to produce a Plan that can realistically be implemented. The Comprehensive Plan must ensure that infrastructure can support existing and new development.

Under the GMA, Snohomish County and its cities review and evaluate the adequacy of suitable residential, commercial and industrial land supplies inside the UGA for accommodating projected population and employment growth every five years. Regular updates to the buildable lands report ensure that communities continue to meet growth targets for the remaining portion of its current planning horizon.

Going into the 2007 buildable lands update, the Lake Stevens UGA had a population surplus and employment deficit of 264 jobs. These findings were generally consistent between Snohomish County's analysis and the city's independent analysis. The city's independent

Business District	104.11	47.53	1,167
General Industrial	93.85	2.18	15
	<b>City Totals</b>	<b>161.43</b>	<b>1,954</b>
	<b>Unincorporated UGA Employment</b>	<b>56.74</b>	<b>455</b>
	<b>Lake Stevens UGA Total</b>	<b>218.17</b>	<b>2,410</b>

## DEVELOPMENT TRENDS

A look at development trends inside city limits is helpful to understand how current zoning affects future development potential inside the city and shapes the city's growth strategy. A review of development trends also provides insight into growth potential outside city limits as the city contemplates annexation of unincorporated portions of the UGA. Figure 2.4 shows ~~residential~~ development activity in the city since 2012.

### Residential

The current population target for the Lake Stevens UGA is 46,380. Under current zoning the city and unincorporated UGA should have a surplus population of nearly 509 people based on the buildable lands report. Large portions of the city have developed within the past several decades resulting in a relatively new housing stock. Much of the development within recently annexed areas of the city occurred while these areas were part of unincorporated Snohomish County. The present-day land use pattern within the city and its surrounding UGA remains predominantly single-family residential:

- Approximately 64 percent of land within city (not including HUR zoning district), and
- 61 percent of the entire UGA is zoned for single-family use.

Multifamily residential zones are located near the perimeter of the downtown Central Business District, along Grade Road to the north, along 16th Street NE to the south, and in and around Lake Stevens Center.

- The city has designated nearly 800 acres for high-density single-family and multifamily residential land uses, most of which is High Urban Residential.

The city has also designated several commercial and mixed-use zones that allow multifamily development associated with the underlying commercial use.

Since 2006, Lake Stevens has experienced a steady stream of residential construction, as ~~reflected-anticipated~~ in the 2012 Buildable Lands Report.

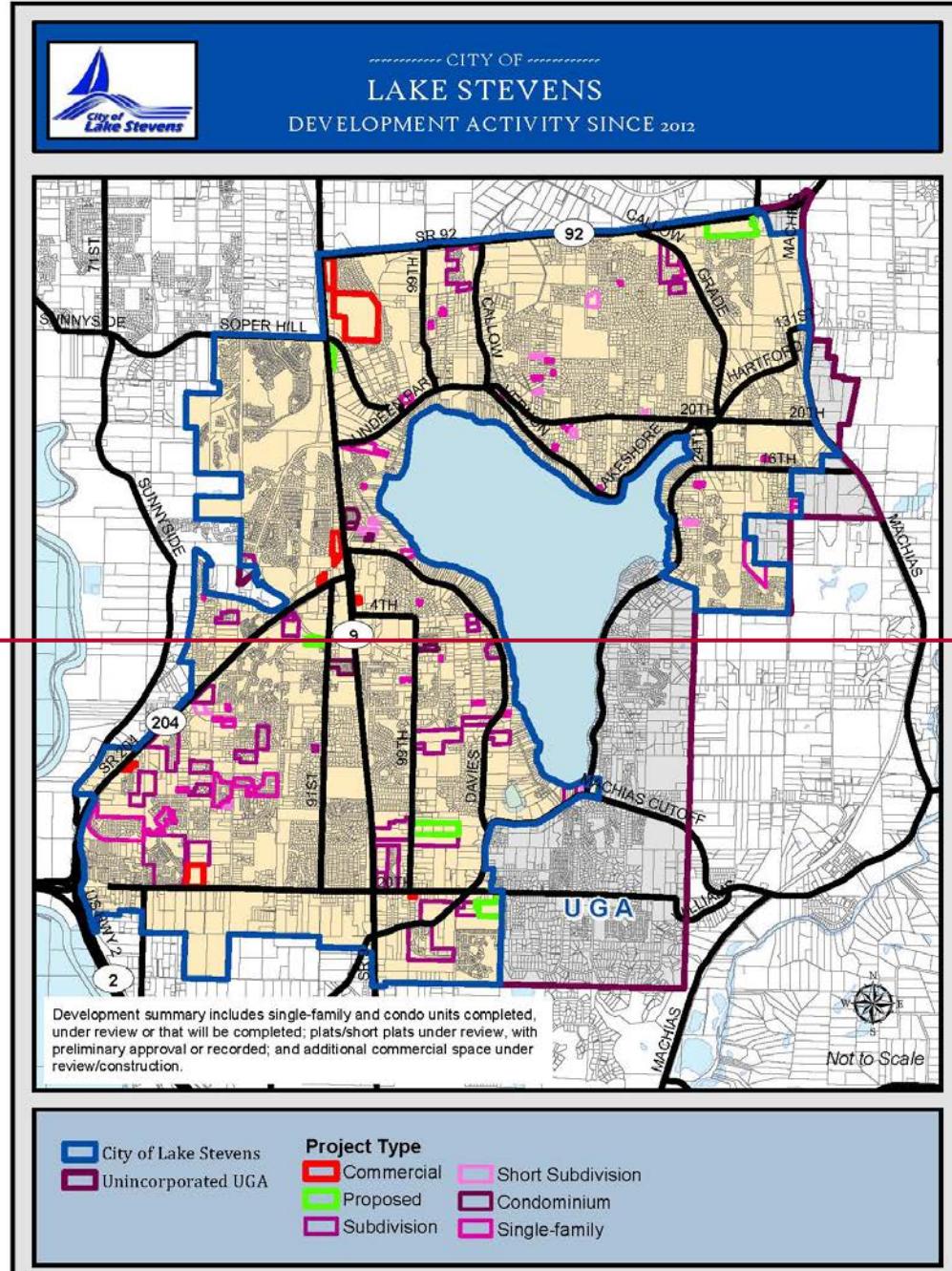
- ~~Between 2012 and mid-2016, approximately 739 new single-family dwellings were constructed. Almost half of these occurred in 2016 (320 single-family permits were issued). Between 2012 and early 2015 – 83 properties identified in the buildable~~

~~lands report have had a change in development status resulting in the construction/completion of over 600 new single-family dwellings.~~

- ~~Another 85–100 units should be completed by the end of 2015.~~
- ~~Approximately 450 new lots are pending through subdivision. Approximately 500 new lots are pending through subdivision.~~

These growth numbers equate to the city achieving ~~approximately over~~ 30 percent of its 2035 housing capacity. As the trend for steady residential construction continues approximately 200 acres of vacant land remains inside the city with another 900 acres of partially-used/redevelopable land available for infill development as of early 2015.

As mentioned, the buildable lands study did not assign a large amount of residential capacity to commercially zoned and mixed-use properties, which allow apartments above the ground floor. It is difficult to predict how many dwellings these zones would accommodate because of a lack of past development history in the city. The potential for accommodating additional dwellings in mixed-use projects is increasing as the city continues to become more urban and with the focus on growth centers through the adoption of distinct subarea plans.



**Figure 2.4 – Development Trends Map**

## Commercial

Lake Stevens has historically had one of the lowest job to household ratios compared to other Snohomish County cities. The city desired to increase the number of employment opportunities given the increasing size of its population and the need to maintain a sustainable and economically healthy community. The city continues to work to improve its house-to-employment ratio through the implementation of reasonable measures, development of subarea plans and its growth strategy. At present, the entire UGA has an employment growth target of 7,821 jobs by 2035. The 2012 BLR estimates a surplus of 1,373 jobs at build out based on a capacity of 7,988 jobs, which exceeds the growth target.

Commercial development has been modest in the city's commercially zoned districts. Downtown Lake Stevens and Lake Stevens Center continue to redevelop.

- ~~Between 2012 and mid-2016, the city has approved 43 new commercial/industrial projects, with roughly half of those approved in 2016. Between 2012 and mid-2015, the city has approved approximately 29,000 square feet of new commercial space with identified tenants.~~
- ~~The city has also approved a new elementary school and early learning center off of Soper Hill Road and a new shopping center in Lake Stevens Center. The city has also approved four new mixed-use building pads off 20<sup>th</sup> Street SE that will accommodate at least 47,000 square feet of ground floor commercial and residential uses.~~

There remains untapped capacity for new commercial development throughout the city, notably in the two Planned Business Districts, undeveloped or underdeveloped downtown properties, and properties located in the Lake Stevens Center and 20<sup>th</sup> Street SE Corridor.

## Industrial

The industrial zones remain largely underdeveloped. Much of the industrial activity has occurred on the individual sites or within existing buildings. New construction has been in the form of small additions or low-employment activities (e.g. self-storage, etc.).

- Since the 2012 Buildable Lands Report, the city has approved two industrial projects adding 13 buildings and approximately 108,000 square feet of storage space.
- At present, just over 68 acres of buildable industrial land remains. Most of this land is in the Hartford Road industrial area in the northeastern part of the city.
- ~~The city is reviewing a current industrial land segregation that will add additional industrial employment capacity in 2017.~~

The city added approximately 100 acres of employment-oriented zoning, as part of the subarea plans which remain available for development. For example, the new Business District is geared toward high-tech employment, manufacturing and professional offices and

**Cavalerio-Cavalerio Community Park** -

The park is located off 20<sup>th</sup> Street SE, in the southwestern part of the city. Because the park has a large undeveloped area and is located within the city of Lake Stevens, the city and Snohomish County are preparing to revise the master plan for this facility through a joint planning effort in the near future. Currently Cavalerio-Cavalerio has an off-leash dog area and undeveloped open space.



**Eagle Ridge Park** — City Council adopted the Eagle Ridge Park Master Plan in 2010. The plan includes a capital cost estimate and a schedule to implement the Master Plan in three phases over a 10-15 year period. The master plan includes details for park development and proposed amenities and recreational opportunities. The overall vision for the park is that of an 'outdoor classroom' with both passive and active recreational activities that embrace and enhance the natural beauty of this park. Eagle Ridge currently houses the Lake Stevens Senior Center, soft trails, and open spaces. This park is notable for its eagle habitat. The master plan for this park envisions picnic shelters; a community garden; amphitheater; interconnected trails and educational features such as an interpretive center, outdoor classrooms and interpretive signage. The plan promotes the use of Low Impact Development in design and construction.



**Lake Stevens Community Athletic Park**

LSC Park, east of the city limits, is a 43-acre Snohomish County park. This park provides the largest athletic complex near Lake Stevens with baseball/softball fields, soccer fields and basketball courts. LSC Park also includes a picnic shelter, playground, walking path, permanent restrooms and landscaping.



**Table 5.2 – Community Park Inventory**

FACILITY	LOCATION	OWNER	ACRES	PICNIC SHELTER/BENCHES	PLAYGROUND	TRAIL/PATHWAY	BASKETBALL	FOOTBALL/SOCCER FIELDS	SOFTBALL/BASEBALL	VIEW CORRIDOR	RESTROOMS	COMMUNITY CENTER	OPEN SPACE	LANDSCAPING	OTHER
Cavalo Community Park	2032 79th Ave SE	Snohomish County	32.93		X					X			X		X
Eagle Ridge	2424 Soper Hill Road	City of Lake Stevens	28.20		X					X		X	X		X
Lake Stevens Community Park	1601 North Machias Rd	Snohomish County	43.24	X	X	X	X	X	X		X		X	X	
<b>Total Acres</b>			<b>104.37</b>												

As shown in Table 5.2, Lake Stevens Community Park provides the widest variety of recreational and active amenities. However, once Eagle Ridge and [Cavalo-Cavelero](#) parks are completed, each park will diversify the overall profile for community-level parks and contribute a unique set of amenities.

### Capital Projects

An analysis of existing conditions and projected needs in the previous section highlighted the areas of concern and opportunities for Lake Stevens. The Capital Facilities Element contains a strategy for achievement of the city's goals in light of the existing conditions in the city and identified needs. Capital projects will be prioritized based on the survey result preferences, needs assessment, levels of service and relationship to economic development opportunities. The following list of different project types should be considered for inclusion in the Capital Facilities Element.

#### **Planning Project No.1 – Cavalero Community Park Master Plan Joint Planning**

**Total Cost:** \$10,000

**Start Date:** 2014

**Description:** Coordinate with Snohomish County on its planning efforts for Cavalero Community Park to ensure it provides city preferred recreation amenities. Park master planning to be completed in 2015. Development of initial phases to begin in 2016.

**Proposed Funding Sources:** State, Local Contributions, Impact fees

**Location:** 20<sup>th</sup> Street SE and 79<sup>th</sup> Ave SE

**Justification:** This project would meet the identified preference for developing community level parks.

#### **Planning Project No.12 – Wayfinding Plan**

**Total Cost:** \$20,000

**Target Start Date:** 2016-20175

**Description:** Produce a park wayfinding program in conjunction with economic development efforts to create a standard package for locating parks and recreational facilities and identifying amenities throughout the community.

**Proposed Funding Sources:** Impact fees

**Location:** Citywide

**Justification:** A wayfinding program would be crucial to providing a uniform image and highlighting existing and proposed site improvements to support economic development.

#### **Planning Project No.23 – Trails, Paths and Pedestrian Facilities Master Plan**

**Total Cost:** \$15,000

**Target Start Date:** 2015

**Description:** Master plan for trails, paths, and pedestrian facilities identifying appropriate connections and engineered details for various trail types with an emphasis on trail connections, the power line trail, and a path around the lake.

**Proposed Funding Sources:** Impact fees, Development

**Location:** Citywide

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

**Planning Project No.34 - Downtown Open Space Master Plan**

**Total Cost:** \$830,000

**Target Start Date:** 2017-20185

**Description:** Open space plan for various downtown open spaces including shoreline, wetland, and riparian areas. The plan would include environmental analysis, identify appropriate connections between areas, develop interpretive information and provide engineered details for boardwalks, viewing areas and signage.

**Proposed Funding Sources:** Impact fees, Grants

**Location:** Mill Cove Reserve, Grade Road Open Space, Wetlands between 16<sup>th</sup> Ave NE and 18<sup>th</sup> Ave NE

**Justification:** This project would meet the identified preference for balanced habitat protection and development of interpretive sites as an important component in the community parks, recreation and open space system.

**Acquisition Project No.1 - Lakeside Path Right-of-Way/Easement Acquisition**

**Total Cost:** \$1,610,066

**Phase 1** (Northern Section approximately 3,800 linear feet) - \$237,382

**Phase 2** (Eastern Section approximately 3,600 linear feet) - \$222,684

**Phase 3** (Western/Southern approximately 18,000 linear feet) - \$1,150,000

**Target Start Date:** 2015-2034

**Description:** Purchase rights-of-way/easements for walking paths around the lake.

**Proposed Funding Sources:** Local Contributions, Impact fees, Grants

**Location:** Road network around Lake Stevens

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

**Acquisition Project No.2 - Neighborhood Park Acquisition**

**Total Cost:** \$317,671

**Phase 1** (Southwest Lake Stevens between 5 – 10 acres) - \$158,835

**Phase 2** (Southeast Lake Stevens between 5 – 10 acres) - \$158,835

**Target Start Date:** 2019 - 2024

**Description:** Identify locations for and acquire lands for two neighborhood level parks in the southern part of the city. Acquisitions should include one park on each side of SR-9 to ensure equity of distribution.

**Proposed Funding Sources:** Impact fees

**Location:** Southern part of the city, near 20<sup>th</sup> Street SE

**Justification:** This project would meet the Level of Service standard for access and distribution of neighborhood level parks.

#### **Acquisition Project No.3 - Shoreline Acquisition**

**Total Cost:** \$1 – 1.5 million

**Target Start Date:** 20174-202219

**Description:** Identify locations for and acquire shoreline property that can provide a balance mix of water related activities around Lake Stevens.

**Proposed Funding Sources:** Impact fees, Grants

**Location:** Lake Stevens

**Justification:** This project would meet the identified preference for acquisition and development of additional shoreline properties as an important part of the community parks, recreation and open space system.

#### **Acquisition Project No.4 - Power Line Trail Right-of-Way/Easement Acquisition**

**Total Cost:** \$838,200

**Phase 1** (Northern Portion approximately 6,350 linear feet) – \$419,100

**Phase 2** (Southern Portion approximately 6,350 linear feet) – \$419,100

**Target Start Date:** 2020-2025

**Description:** Purchase rights-of-way/easements for multi-use trails in the power line corridor.

**Proposed Funding Sources:** Impact fees, Grants

**Location:** Power line corridor in the western part of Lake Stevens

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

#### **Acquisition Project No. 5 – Frontier Heights Park Acquisition**

**Total Cost:** \$190,000

**Target Start Date:** 2016-2017

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**Description:** Acquire Frontier Heights from a private Homeowners Association and renovate existing facilities to increase safety standards.

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**Proposed Funding Sources:** Grants, Impact Fees

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**Location:** Adjacent to Frontier Circle East and west of SR-9

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**Justification:** This facility would add a public neighborhood level park in western Lake Stevens.

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#### **Development Project No.1 – Complete Phases 1 and 2 of the Eagle Ridge Master Plan**

**Total Cost:** \$911,922

**Phase 1** – \$100,000~~80,712~~

**Phase 2** – \$271,205

**Phase 3** – \$540,717~~560,005~~

**Target Start Date:** 2015-2020

**Description:** Construct remaining improvements identified as Phase 1 improvements and then begin construction of Phase 2 and Phase 3 improvements identified in the Eagle Ridge Master Plan.

**Proposed Funding Sources:** Impact fees, Development

**Location:** Eagle Ridge Park

**Justification:** This project would meet the identified preference for developing community level parks.

#### **Development Project No.2 – Power Line Trail Construction**

**Total Cost:** \$1,341,660

**Phase 1** (Northern Segment construct approximately 6,350 linear feet) – \$699,960

**Phase 2** (Southern Segment construct approximately 6,350 linear feet) – \$641,700

**Target Start Date:** 2017-2018~~25-2034~~

**Description:** Construct multi-use trail along utility corridor.

**Proposed Funding Sources:** Impact fees

**Location:** Power line corridor in the western part of Lake Stevens

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

#### **Development Project No. 3 – Cavælero Community Park Master Plan Joint Planning**

**Total Cost:** \$2,175,000

**Start Date:** 2016

**Description:** Coordinate with Snohomish County on its planning efforts for Cavalero Community Park to ensure it provides city preferred recreation amenities. Park master planning to be completed in 2016. Development of initial phases to begin in 2017.

**Proposed Funding Sources:** State, Local Contributions, Impact fees

**Location:** 20<sup>th</sup> Street SE and 79<sup>th</sup> Ave SE

**Justification:** This project would meet the identified preference for developing community level parks.

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**Improvement Project No.1 - Hartford Road Walking Path/Trail Head**

**Total Cost:** \$41,173

**Target Start Date:** 2016-20174

**Description:** Improve the pedestrian pathway between Downtown Lake Stevens and the Centennial Trail along Hartford Drive NE and construct a new trailhead at the intersection of Hartford Road and 131<sup>st</sup> Ave NE.

**Proposed Funding Sources:** Mitigation, Grants

**Location:** Hartford Drive NE between 20<sup>th</sup> Street NE and 131<sup>st</sup> Ave NE

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

**Improvement Project No.2 - Catherine Creek and Centennial Woods Trail Improvements**

**Total Cost:** \$15,206

**Phase 1** (Catherine Creek approximately 4,460 linear feet) - \$11,097

**Phase 2** (Centennial Woods approximately 1,127 linear feet) - \$4,110

**Target Start Date:** 2020

**Description:** Improve existing soft trails at Catherine Creek and Centennial Woods.

**Proposed Funding Sources:** Impact fees, Local Contribution

**Location:** Catherine Creek and Centennial Woods Parks

**Justification:** This project would meet the identified preference for developing safe walking paths and multi-use trails throughout the community.

**Improvement Project No.3 - City Boat Launch Improvement**

**Total Cost:** \$527,000

**Target Start Date:** 20176

**Description:** Construction of a fully renovated boat launch along with development of associated amenities to modernize the site, improve public safety and enhance access for all users.

**Proposed Funding Sources:** Washington State Recreation and Conservation Office Grant and park mitigation

**Location:** Lake Stevens Town Center on the lake's North Cove off 17<sup>th</sup> Place NE

**Justification:** This project would meet the identified preference for improved boat launching facilities and increased site usability and safety for all boaters.

**Improvement Project No. 4 – Lundein Park Improvements**

**Total Cost:** \$234,959

**Target Start Date:** 2016-2017

**Description:** Establishing a civic office as a visitor center for the city and Chamber of Commerce, the removal of trees to improve visibility and safety, promote healthy growth of crowded planting beds and to remove hazardous / unhealthy trees. Earthwork will be performed to provide access to the approximate 1600 square foot Visitor Center including providing ADA compliant access and new parking spaces. Future phases will include improvements to the parking lot, removal of approximately additional hazardous / unhealthy trees, tree replacement and site restoration.

**Proposed Funding Sources:** Impact fees

**Location:** 10020 Lundein Parkway, Lake Stevens, WA 98258

**Justification:** This project would meet the identified preference for improving neighborhood level parks.

**Financing**

Parks and recreation facilities users do not necessarily recognize political boundaries; therefore, it is imperative that jurisdictions plan for and provide recreation facilities to meet the needs of the community jointly. Recognizing this fact also allows a more efficient system to be established using scarce tax dollars to provide for the recreational needs of regional populations. For example, it is more efficient to build a swimming pool between two jurisdictions where demand exists than to build two separate pools three blocks from each other simply because each city feels that tax dollars should be spent in individual communities. The city should continue to place emphasis on a balanced, cooperative approach to parks and recreation planning.

In accordance with the Revised Code of Washington Sections 82.02.050 and 82.02.060, the city is to provide a balance between impact fees and other sources of public funds to meet its capital project needs. Revenues from property taxes, user fees (if imposed), sales taxes,

real estate taxes, grants and other revenue sources need to be used to pay the proportionate share of the growth-generated capital facilities costs. Therefore, the city's commitment to improving the parks system is not solely reliant on impact fees.

#### Impact Fees

Once a LOS is adopted, impact fees may be assessed under GMA to ensure that levels of services are maintained as the population grows. It is required that impact fees be based on the LOS in place at the time of development. It is in the city's interest to ensure impact fees are current as allowed under GMA based upon the level of service established in this element. The amount that could be charged new development would be determined through a separate fee study.

#### General Revenues

Unlimited general obligation bonds may be submitted to voters for park and recreation purposes. These bonds require approval by at least 60% of the resident voters during an election that has a turnout of at least 40% of those who voted in the last state general election. The bond must be repaid from a special levy which is not governed by the six percent statutory limitation on the property tax growth rate.

#### Grants

While the city has been successful in obtaining grants for parks, the lack of match has proved to be a constraint on obtaining even more grants. With a larger community, it is anticipated that the city's resources could be better leveraged with more and larger grants.

#### Special Revenue Funds

*Conservation Futures:* By state law, counties can elect to levy up to \$0.065 per \$1,000 of assessed valuation for all county properties to acquire shoreline or other open space lands. In 1997, the city obtained conservation future funds to purchase about 21 acres of open space lands contained in three parks.

*Real Estate Excise Tax (REET):* State law allows counties the option of imposing excise taxes on the sale of real estate. The tax may be imposed up to \$0.25 per \$1,000 in sale value to be used to finance capital facility developments, including the acquisition and development of park and recreational facilities.

#### Foundations

As another source of revenue, ~~being explored, the establishment of could be fundraising through the Parks and Arts - a foundation is being explored.~~ The Parks Board and Arts Commission have agreed to look at developing a non-profit 501C Foundation that would

## CHAPTER 7: PUBLIC SERVICES AND UTILITIES ELEMENT

### A VISION FOR PUBLIC SERVICES AND UTILITIES

*Lake Stevens will strive to provide excellent public utilities and services to meet the health and safety needs of the community in proportion to future population growth, and will continue to coordinate with local service providers such as the Lake Stevens Sewer District, Lake Stevens Fire and the Lake Stevens School District to ensure service continuity as the community grows.*

### INTRODUCTION.

This element addresses public utilities and services available in the city of Lake Stevens. It specifically considers the general location, proposed location, and capacity of all existing and proposed utilities and public facilities, including public structures and utility lines. It also discusses levels of services for current and future residents and businesses. The discussion in this section relates to other elements including Parks, Transportation and Capital Financing.

Much of the planning for utilities in the Urban Growth Area (UGA) is the responsibility of various service providers and special purpose districts. The city and utility plans are often interrelated, as the utilities provide service to the city and activities in the city affect the demands upon the utilities.

The city cooperates with other cities and service providers in the joint delivery of utilities and services. The city is open to all opportunities to coordinate and cooperate with neighboring service providers.

The Planned Action EIS documents for the 20<sup>th</sup> Street SE Corridor and Lake Stevens Center subarea plans included updated information on utilities and public services and facilities. The city met with service and utility providers to determine the availability of service for future development within the subareas. The EIS documents provide details for each subarea plan including mitigation measures, if required.

## **PLANNING CONTEXT.**

### **State Planning**

Following the Growth Management Act (GMA), local jurisdictions must plan for the public service and facility needs in their communities based on projected growth. Planning for public services and utility facilities is imperative to guarantee sufficient local amenities for current and future residents within a defined level of service. Local public services and facilities range from municipal services, police, sewer and water infrastructure, schools, parks, etc. Regional services and facilities may include fire protection, telecommunications, transportation and electrical infrastructure. Communities must also incorporate policies to consider the location of essential public facilities such as education facilities, transportation facilities, correctional facilities, solid waste facilities and mental health/substance abuse facilities. Local jurisdictions must also develop a financing plan for public services and facilities, which is described in the Capital Facilities Plan.

The Washington Utilities and Transportation Commission (WUTC) regulate utilities and transportation. The WUTC is empowered to regulate utilities such as electrical, gas, irrigation, telecommunication and water companies. The WUTC has jurisdiction over rates and charges, services, facilities and practices of utilities. Any change in customer charges or service provision policy ~~iesy~~ requires WUTC approval. The WUTC also requires gas providers to demonstrate that existing ratepayers will not subsidize new customers.

### **Regional Planning**

The Puget Sound Regional Council (PSRC) Vision 2040 plan reiterates GMA goals and emphasizes providing adequate public services and facilities in a coordinated and cost-effective manner to support development. Vision 2040 also promotes a central theme of efficient use and conservation of resources and facilities across the region. In Lake Stevens, most utility providers are independent local or regional providers. The city will continue to coordinate with utility providers and special purpose districts for local and regional delivery of services and facilities.

### **Countywide Planning**

The Snohomish County Countywide Goal for Public Services and Facilities states,

**“Snohomish County and its cities will coordinate and strive to develop and provide adequate and efficient public facilities and services to ensure the health, safety, conservation of resources, and economic vitality of our communities.”**

The specific policies draw distinctions between services and facilities in urban and rural areas. Of note, the policies identify cities as the preferred urban service providers. As such, cities determine appropriate levels of service in incorporated areas or coordinate with the

county through interlocal agreements for unincorporated areas to address services and facilities. Countywide, the cities and county should coordinate together and with service providers to determine the location and extent of public services and facilities to support jobs and housing. The countywide goals also emphasize conservation of public services, resources and facilities. Countywide planning policies identify standards for establishing and mitigating local, regional, statewide, and federal essential public facilities. It also recommends the cities and county collaborate with public agencies and special districts to identify opportunities for the co-location of local essential public facilities.

#### Lake Stevens Planning

The city provides the majority of municipal services, including governance, administration, planning and community development, building permits, public works and projects, governmental financing, grant development and management, fire inspection, and police services. Planning and provision of other services and utilities in the UGA is the responsibility of special purpose districts and utility providers. Future staffing levels are directly related to the degree to which annexations occur. With the present size of the city, existing 2015 staffing levels are found generally to be adequate. When annexations occur, staffing levels will need to be re-evaluated.

Commented [SP1]: Should this be updated?

The city does not currently have a central municipal campus. Services are spread out at different locations in the downtown area including City Hall, the Permit Center, Public Works Maintenance and Equipment yard, Shop and Police Station. The city desires to create a centralized municipal campus in the future to combine many city services in one location.

The city cooperates with other cities and service providers in the joint planning and delivery of services within its UGA based on current and future growth projections, adopted levels of service and concurrency requirements. The Comprehensive Plan provides policy guidance on how utilities and services shall be planned and provided to ensure consistency between city and county planning documents. Services provided directly by special purpose districts include health, school, fire, power, judicial and library services. The Lake Stevens Fire (Fire District) provides fire protection services within the city and UGA.

The city asserts its interest to participate in the planning of rural areas outside of the UGA where future UGA expansions could occur. Utility and service planning requires that the city be involved in the planning and decision-making of these areas both to comment on future service impacts and to do its own service planning.

The following section provides specific descriptions of public services and utilities within the city and its UGA.

## INVENTORY AND DESCRIPTION OF PUBLIC SERVICES AND UTILITIES.

### Police Services

The Lake Stevens Police Department (Police Department) currently provides a variety of services to its citizens. These services include marine and road patrol, crime and accident investigation, traffic enforcement, crime prevention, the School Resource Officer Program, concealed weapons permits, passports, records and evidence keeping and animal control. The Police Department also contracts some of its services, including dispatch, jail, court services and vehicle maintenance. The Police Department currently responds to approximately 25,000 incidents annually. The average response time for the Police Department is three to four minutes for emergency calls and six to 10 minutes for all other calls.

### Stormwater

The city of Lake Stevens provides stormwater services for the entire city. The system consists of surface runoff from roadways, inlets, pipes and ditch conveyance, water quality devices, storm ponds and outfalls. Within the system are two lakes, Stitch Lake and Lake Stevens. The stormwater system covers an area of approximately 5,700 acres (8.9 square miles) and is broken into 18 basins. Within the stormwater system there are approximately 68 city-owned or operated facilities, 4,562 catch basins, 13.5 miles of roads side ditches, 66.2 miles of pipe and 22,942 feet of culverts.

The city has numerous older developments approved and constructed to rural standards. In some cases, stormwater detention/retention, water quality and conveyance and storm drainage facilities may not have been required at the time of construction. While new projects provide facilities to urban standards, the older developments continually affect neighborhoods, streets and the lakes by conveying runoff that is not channeled and not treated. As part of a citywide stormwater inventory, opportunities for regional stormwater treatment systems should be developed.

Some of the detention systems and ditches within subdivisions and commercial developments are privately owned and maintenance is the responsibility of the individual property owner/s, which is often under a homeowners' association or property management service. As the city approves new projects, they must meet the requirements of the Department of Ecology (DOE) stormwater manual and include maintenance provisions for the owner(s).

Lake Stevens is the largest stormwater feature in the city. The lake has multiple inflow areas and one outfall monitored by the city. A weir system located at the outfall of the lake controls the lake level. In 2010, the city adopted a Lake Level Management Plan to provide guidance and policy to perform this service.

**Commented [SP2]:** We need to update this section too to reflect the 2013 NPDES permits.

Between April and through September the city manages the level of the lake. This serves three purposes:

- 1) Maintain the lake at a level to sustain downstream channel flows for aquatic habitat;
- 2) Protect downstream channel/flood from flash surges during heavy rainfall events; and
- 3) Maintain recreational usage of the lake in the historical shallow areas on the northwest side of the lake.

In ~~August of 2012~~January of 2007, the Washington State Department of Ecology (DOE) issued two new "NPDES Phase II" municipal stormwater permits that affect Lake Stevens. These permits were issued under the authority delegated to Ecology to implement requirements of the Federal Clean Water Act. The stormwater permits cover municipal storm sewer systems that discharge to surface waters that are not part of a combined sewer system. The city is currently operating under the requirements of this permit. The city updates its Stormwater Management plan yearly per the requirement of its National Pollutant Discharge Elimination System (NPDES) permit. The NPDES program regulates discharges of water to ensure pollutants do not enter waters of the United States. The service area and drainage basins of the city are shown on Figure 7.1.

#### Sewer Service

In May of 2005, the city of Lake Stevens and the Lake Stevens Sewer District (Sewer District) entered into an interlocal agreement (ILA) entitled "Unified Sewer Services and Annexation Agreement." Under the ILA, the Sewer District provides, maintains and operates sewer facilities throughout its district boundaries. The ~~approximately 10.9 square mile~~ service area includes the current city limits, Lake Stevens UGA and a small area of overlap into the Marysville UGA. The entire boundary is shown in Figure 7.2. The agreement also lays the groundwork for the eventual assumption of the Sewer District and its facilities, by the city, which will occur no sooner than 20 years from the District's assumption of sewer responsibilities, unless both parties agree sooner to an amended schedule as part of continuing coordination between both agencies. The Sewer District will continue collecting and treating wastewater in the city and its UGA until this responsibility is transferred to the city per provisions of the ILA. ~~As of the end of 2014, the District provided sewer service to 11,026 residential connections with an estimated population of 34,47731,645 people. These connections are largely in the Lake Stevens UGA, with about 108 connections in plats either in the rural area or in the Marysville UGA. The District served an additional 162 commercial connections, representing approximately 854 equivalent residential units (ERUs).~~

**Commented [SP3]:** The total estimated population is the only number that has changed in the 2016 LSSC comp plan. ERU's, plat connections and commercial connections numbers remain the same.

The Lake Stevens Sewer District sewer system consists of a new wastewater treatment facility (~~the Sunnyside~~ WWTF, membrane bioreactor process, 2012), a former wastewater treatment plant site, 29 lift stations, over nine miles of force mains (4" to 19" diameter), over 112 miles of gravity sewer collection, trunk and interceptor pipes (6" to 36" diameter) and one gravity sewer dosing station. The collection system is a "separate" sewer system, designed to receive domestic, commercial and industrial pre-treated wastewater. The Sunnyside WWTF has a current permitted maximum month average daily flow capacity of 5.01 million gallons per day.

**Commented [SP4]:** These numbers are the same too.

The existing plant is in the process of decommissioning in phases, and the LSSD has initiated a project to remove much of the accumulated biosolids in the existing lagoon system. A future project will address final vacation of the site. with some work planned for 2015 (equipment and biosolids removal). The final disposition of the site is yet to be determined.

On October 24, 2016, the Lake Stevens Sewer District adopted a new Sanitary Sewer Comprehensive Plan. The 2016 Sanitary Sewer Comprehensive Plan for the Lake Stevens Sewer District presents the comprehensive planning needs for wastewater collection, transmission, treatment and discharge for the planning period 2016 through 2035. The 2016 Plan replaces both the District's 2007 Sanitary Sewer Comprehensive Plan and Amendment No. 1 to that plan (2010). In 2010, the Lake Stevens Sewer District adopted Amendment No. 1-2010 to the 2007 Sanitary Sewer Comprehensive Plan. The city has adopted these plans by reference into the city of Lake Stevens Comprehensive Plan. The District is preparing a 2015 Sanitary Sewer Comprehensive Plan, based on the current planning work by Snohomish County and the city of Lake Stevens. The 2015 Sewer Plan will consider capacity needs for the current service area and consider the potential sewer system needs if service were extended to the rural urban transition area around the Lake Stevens UGA. The sewer service and planning area is the Lake Stevens UGA and the two presently served plats referenced above. The 2016 Sewer Plan has also designated the rural-urban transition areas (RUTAs) around the geographic limits of the UGA as an Additional Study Area, in order to support an early estimate of the magnitude of potential future growth of the District's sewer service area. The main planning criteria is 70 gallons per capita per day of wastewater flow, and an average of 2.7087 persons per dwelling unit or ERU. Additional allowances are made for extraneous flows in the wastewater system due to inflow and infiltration. ERUs for commercial connections are determined based on water consumption of 900 cubic feet per month, per ERU.

Commented [SP5]: Referenced on page PS-8.

Commented [SP6]: To be updated.

Additionally, the city and the Sewer District coordinate on capital facilities planning to benefit the community and its economic development. During the environmental impact process for the 20th Street SE Corridor and Lake Stevens Center subarea plans in 2012, the city and Sewer District reviewed projects and capital improvements required for development of the two subareas over the next 20 years. The city and Sewer District continue to plan jointly for the city's Growth Centers, including the Downtown Lake Stevens.

This plan asserts a goal of eliminating all septic systems over time as the sewer system and the city limits expand. New developments, re-built structures, new industrial development in the Hartford Road and other non-residential areas would all be required to provide sewers to the extent the existing system is available or can be extended.

#### Lake Stevens Fire District

Lake Stevens Fire serves an area of about 46 square miles (Figure 7.3). To the city it provides fire prevention and suppression services, emergency medical services (EMS)

The conference center provides a venue for conferences, retreats, and meetings for local government. It is also available as a rental for the public.

Lake Stevens Fire is the seventh busiest fire department in Snohomish County. In 2013, Lake Stevens Fire responded to 4,659 calls. Over the past five years, the Fire District has experienced an average annual increase in call volume of 1.5 percent. The Fire District currently maintains a minimum on-duty staffing of 11 firefighters 24 hours a day-365 days a year.

Through strategic planning the fire department is on course to increase the daily staffing level to 14 firefighters by year 2017. Lake Stevens Fire plans to construct an additional fire station for the year 2022.

In 2013, the Washington Surveying and Rating Bureau completed its evaluation of the fire protection capabilities for the city of Lake Stevens. This evaluation resulted in an improved protection class rating from Protection Class 5 to Protection Class 4.

Annually the Fire District performs fire code compliance activities, inspects commercial and public buildings for the city of Lake Stevens (381 in 2013) and reviews land use and building permits through the Fire Marshal's office.

Lake Stevens Fire and the city will continue to partner together to meet the fire protection and emergency medical services needs of the community. The city has adopted by reference the Lake Stevens Fire Capital Facilities Plan.

#### Lake Stevens School District

The Lake Stevens School District covers approximately 37 square miles, encompassing all of the City of Lake Stevens as well as portions of unincorporated Snohomish County and a small portion of the City of Marysville. The District is located south of the Marysville School District and north of the Snohomish School District, roughly following the boundaries of the Urban Growth Area, as well as areas outside the UGA and a small portion of the city of Marysville (see Figure 7.4).

There is a current student population of 8,392 within the Lake Stevens School District served by there are six elementary schools grades K-5 (Mt. Pilchuck, Hillcrest, Sunnycrest, Glenwood, Highland and Skyline), two middle schools grades 6-7 (Lake Stevens and North Lake), one mid-high school grades 8-9 (Cavelero), one high school grades 10-12 (Lake Stevens) and one homeschool partnership program for grades K-12 an alternative K-12 school (HomeLink). The District also owns approximately 76 acres of vacant land.

The Lake Stevens School District has experienced steady upward growth in enrollment for the past four decades. Student enrollment in the School District remained relatively constant between 1973 and 1985 (15%) and then grew significantly from 1985 through 2005 (approximately 120%). Between October 2008 and October 20153, student enrollment increased by approximately 10.5%seven percent.

Overall, there was a two percent decline countywide during this period. The School District's October 2013 enrollment was 7,759 students, an increase of 1.6 percent over October of 2011. The School District has been, and is projected to continue to be, one of the fastest growing districts in Snohomish County, based on the Office of Financial Management population forecast. Population forecasts estimate the Lake Stevens UGA population will increase to 46,380 people in 2035. Likewise, the population within the Lake Stevens School District boundaries will rise from 43,000<sup>4</sup>,238 in 2015<sup>3</sup> to over 61,000 in 2035. Planned improvements in the Lake Stevens School District through the Year 2021 based on enrollment projections include the construction of a new elementary school and early learning center, the installation of additional portable classrooms at existing facilities and new site acquisitions and improvements.

The city has adopted by reference the current Lake Stevens School District No. 4 2016<sup>4</sup>-2021<sup>19</sup> Capital Facilities Plan. This Plan provides the basis for charging GMA-based impact fees as implemented in the city's Land Use Code. The District participates in the school impact mitigation fee program and issues an updated Capital Facilities Plan every two years. The city applies a discount to the calculated rate, as do most other cities in Snohomish County.

#### Snohomish School District

The Snohomish School District covers a small corner of the southeastern portion of the UGA, south of 4th Street NE and east of 115th Avenue SE, and serves residents south of the Lake Stevens School District. No Snohomish School District schools are currently located within the Lake Stevens UGA. The city will adopt the Snohomish School District's Capital Facilities Plan by reference into the Comprehensive Plan when the area served by the Snohomish School District is annexed into the city.

#### Snohomish County Health District

The city contracts with the Snohomish County Health District for public health services. The most common task the Health District performs in the Lake Stevens area is approving septic systems. Other responsibilities include food service inspections and issuing state permits for certain (potentially noxious) activities (e.g., septic sludge recycling, soil processing, etc.).

#### Solid Waste

Waste Management Northwest, Incorporated and Republic Services provide solid waste services within the city. Solid waste service is contracted out for a three-year period. Recycling is provided by East Snohomish County Association of Recycling Cities (ESCARC), contracting with Fiber International. ESCARC members are -Monroe, Snohomish, Lake Stevens, Sultan, Granite Falls and Gold Bar. These cities pool resources to provide the capital facilities for lower cost recycling. The city receives curbside service from Bill's Disposal service, which is a division of Fiber International.

**TABLE 9.1 – CAPITAL FACILITIES PROGRAM, 2015-2035**

<b>TABLE 9.1 – CAPITAL FACILITIES PROGRAM, 2015-2035 <i>(Updated in 2016)</i></b> <b>TRANSPORTATION</b>								
ROAD	FROM	TO	COST	YEAR/S	Local	State/Fed	Mitigation	Dev Imp
<b>SR9/SR204/System (SR9/204, 91<sup>st</sup>/204, 4<sup>th</sup>/SR9</b>	North of SR204	South of 4 <sup>th</sup> and West of 91 <sup>st</sup>	\$69,0500	2015-2021		X		
<b>Frontier Village Internal Access Rd</b>	No Davies	4th St NE	\$6,265,000	>2021	X		X	X
<b>N Davies/Vernon - RAB</b>	Vernon Rd	-	\$150,000	>2021			X	X
<b>N Davies/FV - RAB</b>	north Frontier Village	-	\$150,000	>2021			X	X
<b>93rd Ave NE (new)</b>	Market	4th St NE	\$3,840,000	>2021	X	X	X	X
<b>93rd Ave NE (existing)</b>	Market	1st St SE	\$3,597,000	>2021	X	X	X	X
<b>91st Ave NE/4th NE - Intersection</b>	4th St NE	-	\$400,000	>2022	X	X	X	X
<b>91st Ave NE</b>	4th St NE	SR 204	\$751,500	>2021	X		X	X
<b>91st Ave NE</b>	SR 204	Vernon	\$351,000	2018-2019	X		X	X
<b>91st Ave NE - Intersection</b>	Vernon Rd	-	\$200,000	2018	X		X	X
<b>Frontier Circle E</b>	91st Ave NE	13th St NE	\$750,000	>2021	X		X	X
<b>4th St NE</b>	SR 9	93rd Ave NE (new)	\$315,000	>2021	X		X	X
<b>4th St NE</b>	93rd Ave NE (new)	94th Ave NE (Target)	\$522,000	>2021			X	X
<b>4th St NE</b>	94th Ave NE (Target)	99th Ave NE	\$864,000	>2021	X		X	X

<b>99th Ave NE</b>	Market	4th St NE	\$1,170,000	2019>2020	X		X	X
<b><u>4th St SE</u></b>	<b><u>91st Ave SE</u></b>	<b><u>SR-9</u></b>	<b><u>\$622,000</u></b>	<b><u>2017-2018</u></b>	<b><u>X</u></b>	<b><u>X</u></b>		
<b>4th St NE</b>	91st Ave NE	SR 204	\$7,578,460	>2021			X	X
<b>90th Ave NE shop center road</b>	4th Ave NE	Market	\$4,648,540	>2021			X	X
<b>13th St NE (SR 204)</b>	SR 9	93rd Ave NE (new)	\$195,500	>2021	X		X	X
<b>Vernon Road</b>	91st Ave NE	SR 9	\$935,000	2020	X		X	X
<b>Lundeen/Vernon - Intersection</b>	Vernon Rd	-	\$400,000	2021	X	X	X	X
<b>91st Ave NE</b>	4th St SE	Market	\$1,710,000	>2021	X	X	X	X
<b>94th Ave NE (Target)</b>	Market	4th St NE	\$2,937,000	>2021	X		X	X
<b>2nd St NE Connector (Target)</b>	94th Ave NE (Target)	99th Ave NE	\$191,000	>2021	X		X	X
<b>20th St SE</b>	83rd Ave SE	88th Ave SE	\$4,051,080	2015-2020	X	X	X	X
<b>20th St SE/83rd SE - Intersection</b>	83rd Ave SE	-	\$400,000	2015-2020	X	X	X	X
<b>20th St SE</b>	79th Ave SE	83rd Ave SE	\$2,864,400	2021-2026	X		X	X
<b>20th St SE/79th SE - Intersection</b>	79th Ave SE	-	\$300,000	>2021	X	X	X	X
<b>20th St SE</b>	73rd Ave SE	79th Ave SE	\$2,455,200	>2021	X	X	X	X
<b>20th St SE/73rd SE - Intersection</b>	73rd Ave SE	-	\$500,000	2015>2021			X	X
<b>20th St SE</b>	US 2	73rd Ave SE	\$2,557,500	>2021	X	X	X	X
<b>24th St SE/73rd SE - Intersection</b>	73rd Ave SE	-	\$800,000	2021-2022			X	X
<b>24th St SE</b>	73rd Ave SE	79th Ave SE	\$3,653,000	2021-2022			X	X

<b>24th St SE/79th SE - Intersection</b>	79th Ave SE	-	\$800,000	2021-2022			X	X
<b>24th St SE</b>	83rd Ave SE	87th Ave SE	\$5,278,000	>2021			X	X
<b>24th St SE/83rd SE - Intersection</b>	83rd Ave SE	-	\$800,000	>2021			X	X
<b>24th St SE</b>	SR 9	91st Ave SE	\$2,970,000	2016-2017			X	X
<b>24th St SE/SR 9 - Intersection</b>			\$3,500,000	>2021	X		X	X
<b>20th St SE/SR 9 - Intersection</b>			\$4,327,000	>2021	X		X	X
<b>91st Ave SE</b>	20th St SE	4th St SE	\$4,770,000	2019-2020	X	X	X	X
<b>91st Ave SE</b>	20th St SE	24th St SE	\$5,499,800	2019-2020			X	X
<b>99th Ave SE</b>	20th St SE	4th St SE	\$4,763,800	2021-2024	X	X	X	X
<b>99th Ave SE</b>	20th St SE	Lake Stevens Rd	\$5,507,800	2021-2024			X	X
<b>83rd Ave SE</b>	20th St SE	24th St SE	\$2,369,500	>2021			X	X
<b>79th Ave SE</b>	20th St SE	24th St SE	\$2,369,500	>2021			X	X
<b>24th St SE</b>	83rd Ave SE	79th Ave SE	\$1,728,300	>2021			X	X
<b>S Lake Stevens <u>Road</u></b>	SR 9	18th Street SE	\$7,382,000	>2021			X	X
<b>S. Lake Stevens Road</b>	<u>S. Davies Road</u>	<u>Stitch Road</u>	<u>\$430,000</u>	<u>2017</u>	X			
<b>City Campus Rd (26th NE)</b>	Intersection		\$4,105,221	>2021	X		X	X
<b>20th St NE</b>	Grade Rd	500' w of 123rd SE	\$1,500,257	>2021	X		X	X
<b>123rd Ave NE</b>	20th St NE	N Lakeshore Dr	\$1,263,630	>2021	X		X	X
<b>20th St NE &amp; Main Intersection</b>	Intersection		\$1,112,004	2021-2024	X	X	X	X

North Lakeshore Dr	123rd Ave NE	550 west of 123rd NE	\$788,739	>2021	X	X	X	X
North Lakeshore Dr	123rd Ave NE	Main St NE	\$282,920	>2021	X		X	X
123rd Ave NE	N Lakeshore Dr	18th St NE	\$4,040,621	>2021			X	X
Main Street	20th St NE	17th St NE	\$1,274,558	>2021	X		X	X
19th St NE	Main St	125th Ave NE	\$2,649,804	>2021			X	X
18th St NE	123rd Ave NE	Main St NE	\$1,287,281	>2021			X	X
18th St NE	Main St	125th Ave NE	\$428,820	>2021	X		X	X
123rd Ave NE	18th St NE	17th St NE	\$1,094,300	>2021	X		X	X
18th Pl NE	123rd Ave NE	Main St NE	\$808,375	>2021	X		X	X
17th Pl NE	123rd Ave NE	180 <sup>1</sup> west of 123rd NE	\$899,614	>2021	X		X	X
17th Pl NE	123rd Ave NE	Main St NE	\$938,474	>2021	X		X	X
Grade Road	20th St NE	SR 92	\$15,607,836	2021>2024	X	X	X	X
20th Street NE	east of Main St	Centennial Trail	\$1,284,475	>2021	X	X	X	X
SR 92 & Grade Rd RAB	Intersection		\$4,105,221	2020>2022	X	X	X	X
Lundein Pkwy Corridor Ped Imp	Vernon Rd	99 <sup>th</sup> Ave NE	\$900,000	>2021	X		X	
Hartford Rd & Drainage Imp	Catherine Creek Crossing		\$700,000	>2021	X	X	X	
20 <sup>th</sup> Street NE Widening	Main St	111 <sup>th</sup> Dr NE	\$1,668,000	>2021	X		X	
30 <sup>th</sup> Street NE non-motorized	113rd Ave NE	Cedar Rd NE	\$540,000	>2021	X	X	X	
Mitchell Ro/Manning Road	200ft W of 116 <sup>th</sup> Dr NE	600 ft. E of 116 <sup>th</sup> Dr NE	\$360,000	>2021	X		X	X
117 <sup>th</sup> Avenue NE	20 <sup>th</sup> St NE	150 ft. S of 28 <sup>th</sup> St NE	\$1,932,000	>2021	X		X	X

<b>116<sup>th</sup> Avenue NE</b>	<b>20<sup>th</sup> St NE</b>	<b>26<sup>th</sup> St NE</b>	<b>\$1,900,000</b>	<b>&gt;2021</b>	X		X	
<b>26<sup>th</sup> Street NE</b>	<b>115<sup>th</sup> Ave NE</b>	<b>117<sup>th</sup> Ave NE</b>	<b>\$280,000</b>	<b>&gt;2021</b>	X		X	
<b>Mitchell Dr/118<sup>th</sup> Ave NE</b>	<b>N. Lakeshore Dr</b>	<b>20<sup>th</sup> St NE</b>	<b>\$1,400,000</b>	<b>&gt;2021</b>	X		X	
<b>131<sup>st</sup> Avenue NE</b>	<b>20<sup>th</sup> St NE</b>	<b>Hartford Rd</b>	<b>\$1,489,000</b>	<b>&gt;2021</b>	X		X	
<b>22<sup>nd</sup> Street NE</b>	<b>117<sup>th</sup> Ave NE</b>	<b>123<sup>rd</sup> Ave NE</b>	<b>\$768,000</b>	<b>&gt;2021</b>	X		X	
<b>28<sup>th</sup> Street NE</b>	<b>Old Hartford Rd</b>	<b>N. Machias Rd</b>	<b>\$470,000</b>	<b>&gt;2021</b>	X		X	
<b>32<sup>nd</sup> Street NE</b>	<b>118<sup>th</sup> St NE</b>	<b>Grade Rd</b>	<b>\$545,000</b>	<b>&gt;2021</b>	X		X	X
<b>East Lakeshore Drive – non motorized</b>	<b>Main St</b>	<b>7<sup>th</sup> St NE</b>	<b>\$1,450,000</b>	<b>&gt;2021</b>	X	X	X	
<b>Old Hartford Road</b>	<b>36<sup>th</sup> St NE</b>	<b>Hartford Road</b>	<b>\$2,323,000</b>	<b>&gt;2021</b>	X		X	
<b>36<sup>th</sup> Street NE</b>	<b>Grade Road</b>	<b>Old Hartford Road</b>	<b>\$2,340,000</b>	<b>&gt;2021</b>	X		X	
<b>16<sup>th</sup> Street NE</b>	<b>Main St</b>	<b>134<sup>th</sup> Ave NE</b>	<b>\$1,737,000</b>	<b>&gt;2021</b>	X		X	
<b>SR 92 and 127<sup>th</sup> Ave NE RAB</b>	<b>Intersection</b>		<b>\$1,750,000</b>	<b>&gt;2021</b>		X		
<b>SR 92 and Lake Dr Rechannelization</b>	<b>Intersection</b>		<b>\$200,000</b>	<b>2016</b>		X		
<b>S. Davies Rd and S Lake Stevens Rd</b>	<b>Intersection</b>		<b>\$800,000</b>	<b>&gt;2021</b>	X		X	X
<b>Cedar Road</b>	<b>Forest Road</b>	<b>29<sup>th</sup> St NE</b>	<b>\$2,273,000</b>	<b>2017-2022</b>	X	X		
<b><u>City-Wide Mini-RAB Intersection Improvements.</u></b>	<b>Various</b>		<b>\$900,000</b>	<b>2017-2022</b>	X	X		
<b><u>Soper Hill Road Intersection Improvements</u></b>	<b><u>83<sup>rd</sup> Ave NE</u></b>	<b><u>Soper Hill Road</u></b>	<b><u>\$750,000</u></b>	<b><u>2017-2022</u></b>	X		X	X
<b><u>Soper Hill Road Intersection Improvements</u></b>	<b><u>87<sup>th</sup> Ave NE</u></b>	<b><u>Soper Hill Road</u></b>	<b><u>\$750,000</u></b>	<b><u>2017-2027</u></b>	X		X	X
<b>91<sup>st</sup> Street SE Pedestrian Improvements</b>	<b>8th Street NE</b>	<b>12 Street NE</b>	<b>\$610,000</b>	<b>2016-2018</b>		X	X	

	12 Street NE	20 <sup>th</sup> Street SE	\$1,100,000	2016				
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**TABLE 9.1 – CAPITAL IMPROVEMENTS, 2015 – 2035 (Updated in 2016)  
FACILITIES**

FACILITIES	FROM	TO	COST	YEAR/S	Local	State/Fed	Mitigation	Dev Imp
<u>City Hall/Civic Center</u>			<u>250,000,000</u>	<u>2018-2022</u>	X			
<u>Public Works Shop/Pole Building</u>			<u>\$80,000</u>	<u>2018</u>	X			
<u>Regional Stormwater Pond (20<sup>th</sup> St Area)</u>			<u>3,784,000</u>	<u>2018-2019</u>	X	X		X
<u>Regional Stormwater Pond (24<sup>th</sup> St Area)</u>			<u>23,500,784,000</u>	<u>2018-2019</u>	X	X		X

**Table 9-1 – Capital Facilities Program, 2015-2035 (Updated in 2016)  
PARKS\***

PROJECT	FROM	TO	COST	YEAR/S	Local	State/Fed	Mitigation	Dev Imp
<b>Planning</b>								
<u>Wayfinding Plan</u>			20,000	<u>2017-2018</u>			X	
<u>Trails, Paths and Pedestrian Facilities Master Plan</u>			15,000	<u>2015-2018</u>			X	X
<u>North Cove/Downtown Open Space Master Plan</u>			<u>80,000</u>	<u>2020-2016-2020+8</u>		X	X	
<b>Acquisition</b>								
<u>Lakeside Path Right-of-Way/Easement Acquisition (northern section)</u>			<u>237,382</u>	<u>&gt;2021</u>	X	X	X	
<u>Lakeside Path Right-of-Way/Easement Acquisition (eastern section)</u>			<u>222,684</u>	<u>237,382 &gt;2021 &gt;2021</u>	XX	XX	X	

<u>Path Right-of-Way/Easement Acquisition (northern section)</u>							
<u>Lakeside Path Right-of-Way/Easement Acquisition (southern portion)</u> <u>Lakeside Path Right-of-Way/Easement Acquisition (eastern section)</u>			<u>1.25 million</u> <u>222,684</u>	<u>&gt;2021</u>	<u>XX</u>	<u>XX</u>	
<u>Neighborhood Park Acquisition (near 20th Street SE)</u>			<u>317,671</u>	<u>2017&gt;2021</u>			<u>X</u>
Shoreline Acquisition			<u>+1.5 million</u>	<u>2017&gt;2021</u>	<u>X</u>	<u>X</u>	
Power Line Trail Right-of-Way/Easement Acquisition			<u>838,200</u>	<u>&gt;2021</u>	<u>X</u>	<u>X</u>	
<u>Frontier Heights Park Acquisition</u>			<u>\$190,000</u>	<u>2016-2017</u>	<u>X</u>		
<b>Development</b>							
<u>e</u>					<u>X</u>	<u>X</u>	
Complete Phase 1 of the Eagle Ridge Master Plan			<u>727,121,00,000</u>	2016-2018		<u>X</u>	<u>X</u>
Complete Phase 2 of the Eagle Ridge Master Plan			<u>271,205</u>	<u>&gt;2021 2018-2021</u>		<u>X</u>	<u>X</u>
Complete Phase 3 of the Eagle Ridge Master Plan			<u>540,60,007,175</u>	>2021		<u>X</u>	<u>X</u>
Power Line Trail Construction (northern segment)			<u>699,600</u>	>2021		<u>X</u>	
Power Line Trail Construction (southern segment)			<u>641,700</u>	>2021		<u>X</u>	
<u>Cavelero Community Park Phase 1 Development (Partnership with Snohomish County)</u>			<u>2.425 million</u>	<u>2016-2021</u>			
<b>Improvements</b>							
Hartford Road Walking Path/Trail Head			<u>41,173</u>	2016	<u>X</u>	<u>X</u>	

<b>Catherine Creek and Centennial Woods Trail Improvements</b>			15,206	2020	X		X	
<b>Boat Launch North Cove Park</b>			544,000	2017-2019		X	X	
<b><u>Lundein Park</u></b>			<u>234,959</u>	<u>2016-2017</u>				

**TABLE 9.2 – 2015-2020 6 YEAR CAPITAL IMPROVEMENT PLAN**

#	Projects	Total Project Costs	Schedule					
			2015	2016	2017	2018	2019	2020
<b>ROAD PROJECTS</b>								
R1	SR9/4 <sup>th</sup> NE Intersection	Incl. in R2	-	-	-	-	-	-
R2	SR9/SR204	\$ 69,500	\$ 500	\$ 2,000	\$ 3,000	\$ 8,000	\$ 9,000	\$ 30,000
R3	SR92 & Grade Rd RAB	\$ 4,106	-	-	-	-	-	\$ 1,436
R4	90 <sup>th</sup> Ave NE Connector	\$ 1,140	-	-	-	-	\$ 826	-
R5	91 <sup>st</sup> Ave NE (SR204 Vernon)	\$ 351	-	-	-	\$ 56	\$ 295	-
R6	SR92 & Lake Dr Re-channelization	\$ 200	-	-	-	\$ 200	-	-
R7	20 <sup>th</sup> St SE – Segment 1	\$ 4,981	-	\$ 625	\$ 885	-	\$ 1,389	\$ 2,084
R8	20 <sup>th</sup> St SE – Segment 2	\$ 3,971	-	-	-	-	-	\$ 100
R9	24 <sup>th</sup> St SE/79 <sup>th</sup> SE – Intersection	\$ 2,970	-	\$ 992	\$ 1,079	-	-	-
R10	91 <sup>st</sup> Ave SE (20 <sup>th</sup> St SE 4th St SE)	\$ 4,770	\$ 80	-	-	-	\$ 96	\$ 999
R11	91 <sup>st</sup> Ave SE (Market 4th St SE)	\$ 1,950	-	-	-	-	\$ 295	\$ 1,655
R12	99 <sup>th</sup> Ave NE (Market 4th St SE)	\$ 1,170	-	-	-	-	\$ 157	\$ 1,013
R13	20 <sup>th</sup> St NE & Main Intersection	\$ 1,112	-	-	-	-	-	\$ 12
R14	91 <sup>st</sup> Ave NE – Intersection	\$ 200	-	-	-	\$ 200	-	-
R15	North Davies Sidewalk	\$ 350	\$ 350	-	-	-	-	-
R16	Vernon Road (91 <sup>st</sup> Ave NE-SR9)	\$ 935	-	-	-	-	-	\$ 328
<b>CAPITAL ROAD PROJECT EXPENDITURES</b>		<b>\$ 97,706</b>	<b>\$ 930</b>	<b>\$ 3,617</b>	<b>\$ 5,864</b>	<b>\$ 8,456</b>	<b>\$ 12,058</b>	<b>\$ 37,627</b>

**REVENUE SOURCES**

-	Local (Mitigation, REET, Bonds, Loans)	\$ 9,491	\$ 430	\$ 938	\$ 1,661	\$ 264	\$ 1,774	\$ 4,424
-	Private Investment	-	-	\$ 200	\$ 400	\$ 100	\$ 400	\$ 800
-	Grants	-	-	\$ 479	\$ 803	\$ 92	\$ 884	\$ 2,403
-	Other Agencies	\$ 69,500	\$ 500	\$ 2,000	\$ 3,000	\$ 8,000	\$ 9,000	\$ 30,000
<b>CAPITAL ROAD PROJECT FUNDING</b>		<b>\$ 78,991</b>	<b>\$ 930</b>	<b>\$ 3,617</b>	<b>\$ 5,864</b>	<b>\$ 8,456</b>	<b>\$ 12,058</b>	<b>\$ 37,627</b>

**FACILITY PROJECTS**

F1	City Hall/Civic Center	\$ 20,000	-	\$ 1,000	\$ 19,000	-	-	-
<b>CAPITAL FACILITY PROJECT EXPENDITURES</b>		<b>\$ 20,000</b>	<b>\$ —</b>	<b>\$ 1,000</b>	<b>\$ 19,000</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>

**REVENUE SOURCES**

-	Local (Mitigation, REET, Bonds, Loans)	\$ 20,500	\$ 100	\$ 1,400	\$ 19,000	-	-	-
-	Private Investment	\$ 1,600	-	\$ 1,600	-	-	-	-
-	Grants	\$ —	-	-	-	-	-	-
-	Other Agencies	\$ (1,850)	\$ 150	\$ (2,000)	-	-	-	-
<b>CAPITAL FACILITIES PROJECT FUNDING</b>		<b>\$ 20,250</b>	<b>\$ 250</b>	<b>\$ 1,000</b>	<b>\$ 19,000</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ —</b>

**PARK PROJECTS**

P1	Cavalero Park Phase 1a	\$ 2,175	\$ 1,453	\$ 722	-	-	-	-
P2	Citywide Trail/Ped Facilities Master Plan	\$ 15	\$ 15	-	-	-	-	-
P3	Eagle Ridge Phase 1 Completion	\$ 80	-	\$ 40	\$ 40	-	-	-
P4	Boat Launch North Cove Park	\$ 544	-	\$ 544	-	-	-	-
P5	Hartford Road Walking Path	\$ 41	-	-	\$ 41	-	-	-

<b>CAPITAL PARK PROJECT EXPENDITURES</b>		\$ 2,855	\$ 1,468	\$ 1,306	\$ 81	\$	\$	\$
<b>REVENUE SOURCES</b>								
-	Local (Mitigation, REET, Bonds, Loans)	\$ 600	\$ 515	\$ 45	\$ 40	-	-	-
-	Private Investment	\$ 5	\$ 5			-	-	-
-	Grants	\$ 1,710	\$ 500	\$ 1,169	\$ 41	-	-	-
-	Other Agencies	\$ 540	\$ 448	92	-	-	-	-
<b>CAPITAL PARK PROJECT FUNDING</b>		\$ 2,855	\$ 1,468	\$ 1,306	\$ 81	\$	\$	\$

**TABLE 9.2: 2015 - 2020 6-YEAR CAPITAL IMPROVEMENT PLAN**  
**(Amount in Thousands)**

#	PROJECTS	TOTAL PROJECT COSTS	SCHEDULE					
			2015	2016	2017	2018	2019	2020
<b>ROAD PROJECTS</b>	-	-	-	-	-	-	-	-
R1	SR9/4th NE Intersection	Incl. in R2	-	-	-	-	-	-
R2	SR9/SR204*	\$ 69,500	\$ 500	\$ 2,000	\$ 3,000	\$ 8,000	\$ 9,000	\$ 30,000
R3	SR92 & Grade Rd RAB	\$ 4,106	-	-	-	-	-	\$ 1,436
R4	90th Ave NE Connector	\$ 1,140	-	-	-	-	\$ 826	-
R5	91st Ave NE (SR204-Vernon)	\$ 351	-	-	-	\$ 56	\$ 295	-
R6	SR92 & Lake Dr Re-channelization	\$ 200	-	-	-	\$ 200	-	-
R7	20th St SE - Segment 1	\$ 4,981	-	\$ 625	\$ 885	-	\$ 1,389	\$ 2,084
R8	20th St SE - Segment 2	\$ 3,971	-	-	-	-	-	\$ 100
R9	24th St SE/79th SE Intersection	\$ 2,970	-	\$ 992	\$ 1,979	-	-	-
R10	91st Ave SE (20th St SE 4th St SE)	\$ 4,770	\$ 80	-	-	-	\$ 96	\$ 999
R11	91st Ave SE (Market 4th St SE)	\$ 1,950	-	-	-	-	\$ 295	\$ 1,655
R12	99th Ave NE (Market 4th St SE)	\$ 1,170	-	-	-	-	\$ 157	\$ 1,013
R13	20th St NE & Main Intersection	\$ 1,112	-	-	-	-	-	\$ 12
R14	91st Ave NE - Intersection	\$ 200	-	-	-	\$ 200	-	-
R15	North Davies Sidewalk	\$ 350	\$ 350	-	-	-	-	-
R16	Vernon Road (91st Ave NE SR9)	\$ 935	-	-	-	-	-	\$ 328

<b>CAPITAL ROAD PROJECT EXPENDITURES</b>	-	\$ 97,706	\$ 930	\$ 3,617	\$ 5,864	\$ 8,456	\$ 12,058	\$ 37,627
<b>REVENUE SOURCES</b>	-	-	-	-	-	-	-	-
-	Local (Mitigation, REET, Bonds, Loans)	\$ 9,491	\$ 430	\$ 938	\$ 1,661	\$ 264	\$ 1,774	\$ 4,424
-	Private Investment	\$ 1,900	\$ -	\$ 200	\$ 400	\$ 100	\$ 400	\$ 800
-	Grants	\$ 4,661	\$ -	\$ 479	\$ 803	\$ 92	\$ 884	\$ 2,403
-	Other Agencies*	\$ 69,500	\$ 500	\$ 2,000	\$ 3,000	\$ 8,000	\$ 9,000	\$ 30,000
<b>CAPITAL ROAD PROJECT FUNDING</b>	-	\$ 85,552	\$ 930	\$ 3,617	\$ 5,864	\$ 8,456	\$ 12,058	\$ 37,627
-	-	-	-	-	-	-	-	-
<b>FACILITY PROJECTS</b>	-	-	-	-	-	-	-	-
FI	City Hall/Civic Center	\$ 20,000	-	\$ 1,000	\$ 19,000	-	-	-
<b>CAPITAL FACILITY PROJECT EXPENDITURES</b>	-	\$ 20,000	\$ -	\$ 1,000	\$ 19,000	\$ -	\$ -	\$ -
<b>REVENUE SOURCES</b>	-	-	-	-	-	-	-	-
-	Local (Mitigation, REET, Bonds, Loans)	\$ 20,000	-	\$ 1,000	\$ 19,000	-	-	-
-	Private Investment	\$ -	-	-	-	-	-	-
-	Grants	\$ -	-	-	-	-	-	-
-	Other Agencies	\$ -	-	\$ -	-	-	-	-
<b>CAPITAL FACILITIES PROJECT FUNDING</b>	-	\$ 20,000	-	\$ 1,000	\$ 19,000	\$ -	\$ -	\$ -
<b>PARK PROJECTS</b>	-	-	-	-	-	-	-	-
PI	Cavalcero Cavalcero Park Phase 1a	\$ 2,175	\$ 1,453	\$ 722	-	-	-	-

P2	Citywide Trail/Ped Facilities Master Plan	\$ 15	\$ 15	-	-	-	-	-
P3	Eagle Ridge Phase 1 Completion	\$ 80	-	\$ 40	\$ 40	-	-	-
P4	Boat Launch North Cove Park	\$ 544	-	\$ 544	-	-	-	-
P5	Hartford Road Walking Path	\$ 41	-	-	\$ 41	-	-	-
<b>CAPITAL PARK PROJECT EXPENDITURES</b>	-	<b>\$ 2,855</b>	<b>\$ 1,468</b>	<b>\$ 1,306</b>	<b>\$ 81</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
<b>REVENUE SOURCES</b>	-	-	-	-	-	-	-	-
-	Local (Mitigation, REET, Bonds, Loans)	\$ 600	\$ 515	\$ 45	\$ 40	-	-	-
-	Private Investment	\$ 5	\$ 5	-	-	-	-	-
-	Grants	\$ 1,710	\$ 500	\$ 1,169	\$ 41	-	-	-
-	Other Agencies	\$ 540	\$ 448	92	-	-	-	-
<b>TOTAL PROJECTS REVENUE SOURCES</b>	-	-	-	-	-	-	-	-
	<b>Total Local</b>	<b>\$ 30,091</b>	<b>\$ 945</b>	<b>\$ 1,983</b>	<b>\$ 20,701</b>	<b>\$ 264</b>	<b>\$ 1,774</b>	<b>\$ 4,424</b>
	<b>Total Private Investment</b>	<b>\$ 1,905</b>	<b>\$ 5</b>	<b>\$ 200</b>	<b>\$ 400</b>	<b>\$ 100</b>	<b>\$ 400</b>	<b>\$ 800</b>
	<b>Total Grants</b>	<b>\$ 6,371</b>	<b>\$ 500</b>	<b>\$ 1,648</b>	<b>\$ 844</b>	<b>\$ 92</b>	<b>\$ 884</b>	<b>\$ 2,403</b>
-	<b>Total Other Agencies</b>	<b>\$ 70,040</b>	<b>\$ 948</b>	<b>\$ 2,092</b>	<b>\$ 3,000</b>	<b>\$ 8,000</b>	<b>\$ 9,000</b>	<b>\$ 30,000</b>

Table 9.2 - 2017-2022 6-Year Capital Improvement Plan Summary

Proj ID #	PROJECT NAME	DESCRIPTION OF WORK (Road Projects Only)	YEAR/S	TOTAL PROJECT COST	2017	2018-2022	Beyond
<b>ROAD PROJECTS</b>							
1	SR 9/4th NE - Intersection - sub-project of 2(1)	Improve egress WB alignment right turn onto SR 9 and add a new right turn ingress for EB onto 4th St NE. Additional improvement is the construction of a new alignment N-S Village Way Road (93rd).	2017-2018	\$ 3,000,000	\$ -	\$ 3,000,000	\$ -
2	SR 9/SR 204 - System	System improvement that includes roundabouts at SR 9/SR 204 and SR 9/91st Ave NE, improvements to the SR 9/4th intersection. This is a safety, economical, local circulation, and capacity improvements.	2022	\$ 69,000,000	\$ 3,510,000	\$ 65,490,000	\$ -
3	SR 92 & Grade Rd RAB	Roundabout intersection improvement with gateway treatment	2017>2018	\$ 4,105,221	\$ -	\$ 4,105,221	\$ -
4	90th Ave NE Connector	Construction of a new roadway segment that would allow for right in-right out movement for SR 204. Roadway would be developer driven	2018	\$ 1,140,000	\$ -	\$ 1,140,000	\$ -
5	91st Ave NE	Upgrade roadway to create a pedestrian friendly downtown style streetscape	2016	\$ 351,000	\$ -	\$ 351,000	\$ -
6	SR 92 and Lake Dr Re-channelization	State driven safety project to reduce vehicle conflicts	2016	\$ 200,000	\$ -	\$ 200,000	\$ -
7	20th St SE - Segment 1	Widening of existing two lane to four lane, providing non-motorized travel area with pedestrian sidewalks and improved drainage and lighting.	2013>2018	\$ 4,980,567	\$ 624,160	\$ 4,356,407	\$ -
8	20th St SE - Segment 2	Widening of existing two lane to four lane, providing non-motorized travel area with pedestrian sidewalks and improved drainage and lighting.	2013>2018	\$ 3,970,366	\$ -	\$ 897,838	\$ 3,072,528
9	20th St SE - Segment 3	Widening of existing two lane to four lane, providing non-motorized travel area with pedestrian sidewalks and improved drainage and lighting.	2013>2018	\$ 2,770,169	\$ -	\$ 464,674	\$ 2,305,495
10	20th St SE - Segment 4	Widening of existing two lane to four lane, providing non-motorized travel area with pedestrian sidewalks and improved drainage and lighting.	2013>2018	\$ 2,599,205	\$ -	\$ 25,000	\$ 2,574,205
11	24th St SE/73rd SE - Intersection	Construction of a new intersection to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 800,000	\$ -	\$ 25,000	\$ 775,000
12	24th St SE	Construction of a new roadway segment to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 3,653,000	\$ -	\$ 365,300	\$ 3,287,700
13	24th St SE/79th SE - Intersection	Construction of a new intersection to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 800,000	\$ -	\$ 80,000	\$ 720,000
14	24th St SE	Construction of a new roadway segment to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 5,278,000	\$ -	\$ 2,555,100	\$ 2,722,900
15	24th St SE/83rd SE - Intersection	Construction of a new intersection to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 800,000	\$ -	\$ 682,000	\$ 118,000
16	24th St SE	Construction of a new roadway segment to provide internal vehicle and non-motorized circulation adjacent to 20th Street SE. Construction is developer driven.	2013>2018	\$ 2,970,000	\$ 991,600	\$ 1,978,400	\$ -

17	91st Ave NE/SR 204 - RTP	Widen southbound outside lane to provide for a dedicated right turn lane	2013-2015	\$ 337,000	\$ -	\$ 337,000	\$ -
18	91st Ave NE/SR 204 - RTP	Widen north bound outside lane to provide for a dedicated right turn lane	2013-2015	\$ 454,100	\$ -	\$ 454,100	\$ -
19	91st Ave SE	Widen to a three lane section with non-motorized improvements and pedestrian improvements that include sidewalk segments and curb separated walking paved shoulder areas along the east side of the roadway	2014>2018	\$ 4,770,000	\$ -	\$ 1,093,730	\$ 3,676,270
20	91st Ave SE	New connector roadway to 24th St SE	2014>2018	\$ 1,950,000	\$ -	\$ 1,950,000	\$ -
21	99th Ave NE	Enhance Streetscape with improvement with non-motorized enhancements and circulation improvements with a possible roundabout intersection at 4th NE	2015>2018	\$ 1,170,000	\$ -	\$ 1,170,000	\$ -
22	4th St NE	New internal connector and circulation roadway. Will require a new break in access on to SR 204. Intersection would be a right turn only.	2015>2018	\$ 7,578,460	\$ -	\$ 1,007,847	\$ 6,570,613
23	99th Ave SE	Widen to a three lane section with non-motorized improvements and pedestrian improvements that include sidewalk segments and curb separated walking paved shoulder areas along the east side of the roadway	2015>2018	\$ 4,763,800	\$ -	\$ 476,380	\$ 4,287,420
24	99th Ave SE	Widen to a three lane section with non-motorized improvements and pedestrian improvements that include sidewalk segments and curb separated walking paved shoulder areas along the east side of the roadway	2015>2018	\$ 5,507,800	\$ -	\$ 550,780	\$ 4,957,020
25	20th St NE & Main Intersection	Widening to provide turn pockets or possible roundabout improvements	2015>2018	\$ 1,112,004	\$ -	\$ 444,801	\$ 667,203
26	Grade Road	Widen to a three lane section with non-motorized improvements and pedestrian improvements that include sidewalk segments and curb separated walking paved shoulder areas along the west side of the roadway	2015>2018	\$ 15,607,836	\$ -	\$ 780,392	\$ 14,827,444
27	91st Ave NE - Intersection	Minor widening and possible mini-roundabout to improvement safety and circulation	2016>2018	\$ 200,000	\$ -	\$ 200,000	\$ -
28	Lundeen/Vernon - Intersection	Channelization enhancement to improvement safety and circulation. May restrict through movement for east-east crossing (Vernon)	2016>2018	\$ 400,000	\$ -	\$ 400,000	\$ -
29	Vernon Road	Minor widening to provide for turn movement and improved pedestrian movement	2017>2018	\$ 935,000	\$ -	\$ 327,250	\$ 607,750
30	116th Avenue NE	Construct vehicular, bicycle and pedestrian improvements to improve safety.	2017>2018	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -
31	117th Avenue NE	Construct vehicular, bicycle and pedestrian improvements to improve safety.	2017>2018	\$ 600,000	\$ -	\$ 600,000	\$ -
32	4th Street SE	Construct pedestrian improvements to improve safety around schools.	2017>2018	\$ 622,000	\$ 622,000	\$ -	\$ -
33	Cedar Road	Construct vehicular, bicycle and pedestrian improvements to improve safety.	2017>2018	\$ 2,273,000	\$ 643,000	\$ 1,630,000	\$ -
34	City-wide Mini-RAB Intersection Improvements	Construct mini-roundabouts at various locations to improve safety and traffic operation	2017>2018	\$ 900,000	\$ 150,000	\$ 750,000	\$ -
35	S. Lake Stevens Road	Construct pedestrian improvements to improve safety.	2017	\$ 430,000	\$ 430,000	\$ -	\$ -
	<b>TOTAL</b>			<b>\$157,028,528</b>	<b>\$6,972,777</b>	<b>\$98,888,220</b>	<b>\$51,169,548</b>
<b>FACILITY PROJECTS</b>							
1	City Hall/Civic Center		2018-2022	\$25,000,000		\$25,000,000	
2	Public Works Shop/Pole Building		2018	\$80,000		\$80,000	

3	Regional Stormwater Pond (20th St. between 83rd & 79th)		2018-2019	\$3,784,000	\$3,784,000	
4	Regional Stormwater Pond (24th St. Area)		2018	\$2,500,000	\$2,500,000	
	<b>TOTAL</b>			<b>\$28,864,000</b>		
<b>PARK PROJECTS</b>						
<i>Planning</i>						
1	Wayfinding Plan		2017-2018	\$20,000	\$20,000	
2	Trails, Paths and Pedestrian Facilities Master Plan		2015-2018	\$15,000	\$15,000	
3	North Cove/Downtown Open Space Master Plan		2015-2020	\$80,000	\$50,000	\$30,000
<i>Acquisition</i>						
1-1	Lakeside Path Right-of-Way/Easement Acquisition (northern section)		>2021	\$237,382	\$237,382	
1-2	Lakeside Path Right-of-Way/Easement Acquisition (eastern section)		>2021	\$222,684	\$222,684	
1-3	Lakeside Path Right-of-Way/Easement Acquisition (southern portion)		>2021	\$1,250,000	\$1,250,000	
2	Neighborhood Park Acquisition (near 20th Street SE)		2017-2021	\$317,671	\$317,671	
3	Shoreline Acquisition		2017-2021	\$1,500,000	\$1,500,000	
4	Power Line Trail Right-of-Way/Easement Acquisition		>2021	\$838,200	\$838,200	
5	Frontier Heights Park Acquisition		2016-2017	\$190,000	\$191,000	
<i>Development</i>						
1-1	Complete Phase 1 of the Eagle Ridge Master Plan		2016-2018	\$100,000	\$100,000	
1-2	Complete Phase 2 of the Eagle Ridge Master Plan		2018-2021	\$271,205	\$271,205	
1-3	Complete Phase 3 of the Eagle Ridge Master Plan		>2021	\$540,717	\$540,717	
2-1	Power Line Trail Construction (northern segment)		>2021	\$699,600	\$699,600	
2-2	Power Line Trail Construction (southern segment)		>2021	\$641,700	\$641,700	
3	Cavalero Community Park Development (Partnership with Snohomish County)		2016-2021	\$2,425,000	\$250,000	\$2,175,000
<i>Improvements</i>						
1	Hartford Road Walking Path/Trail Head		2016	\$41,173		
2	Catherine Creek and Centennial Woods Trail Improvements		2020	15,206	\$15,206	
3	Boat Launch North Cove Park (Budgeted by State Funds)		2017-2019	\$544,000		
4	Lundein Park		2016-2017	\$234,959	\$195,000	
	<b>TOTAL</b>			<b>\$10,169,291</b>		

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## **APPENDIX C**

**2007-2016 LAKE STEVENS SEWER DISTRICT**

**SANITARY SEWER COMPREHENSIVE PLAN ~~AMENDMENT NO. 1~~**

**ADOPTED BY CITY OF LAKE STEVENS ORDINANCE NO. 835**

PLAN CAN BE VIEWED OR PURCHASED AT  
LAKE STEVENS SEWER DISTRICT  
1106 VERNON ROAD, SUITE A, LAKE STEVENS, WA



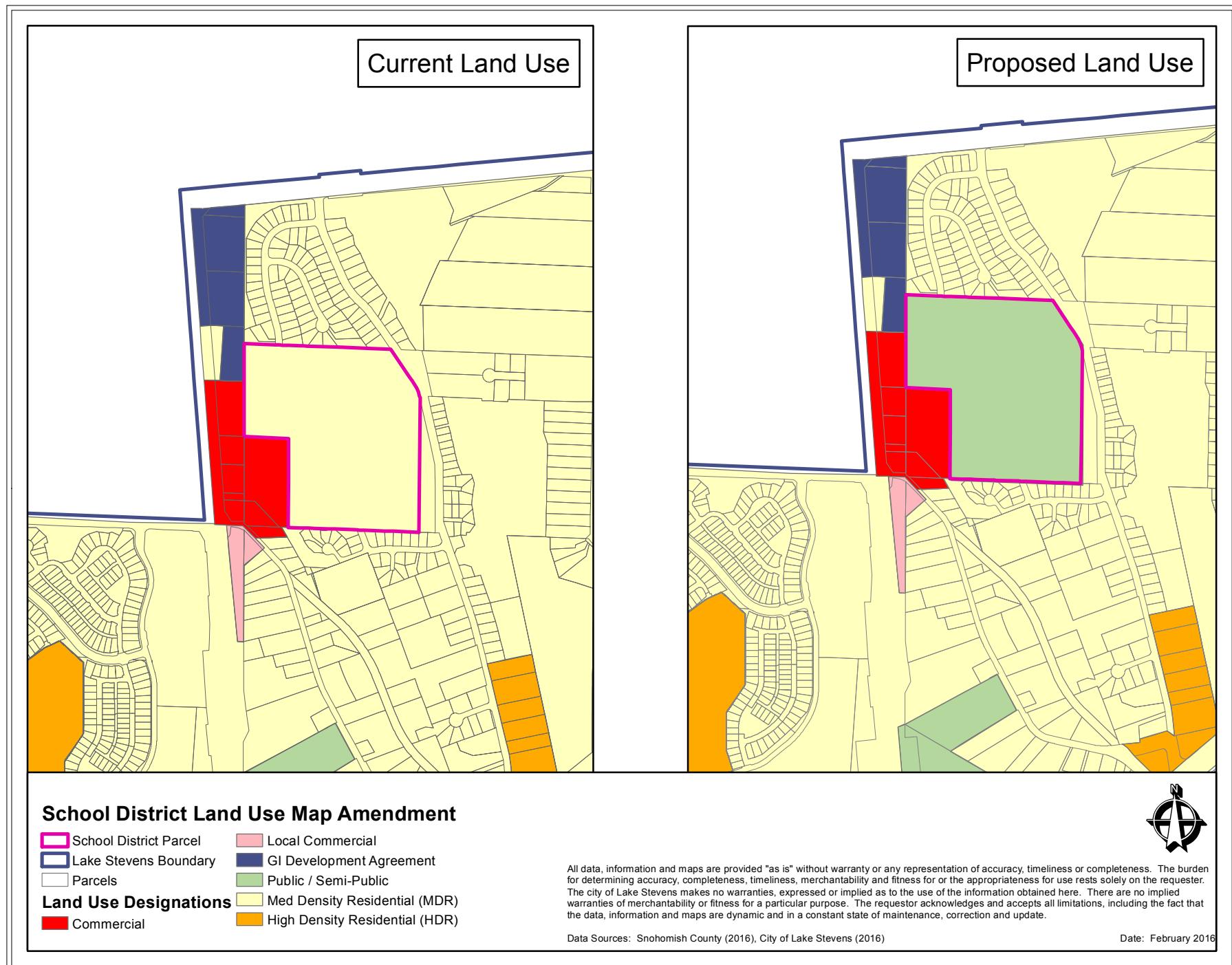
## **APPENDIX F**

20164-2019-2021 LAKE STEVENS SCHOOL DISTRICT NO. 4

### **CAPITAL FACILITIES PLAN**

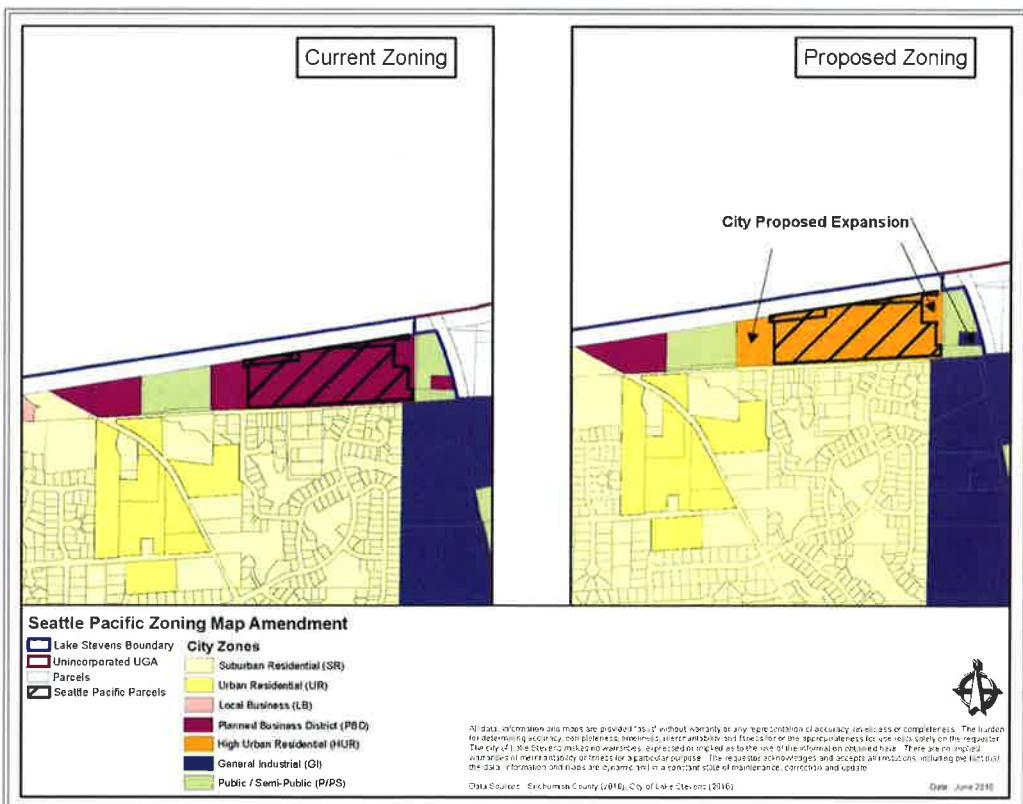
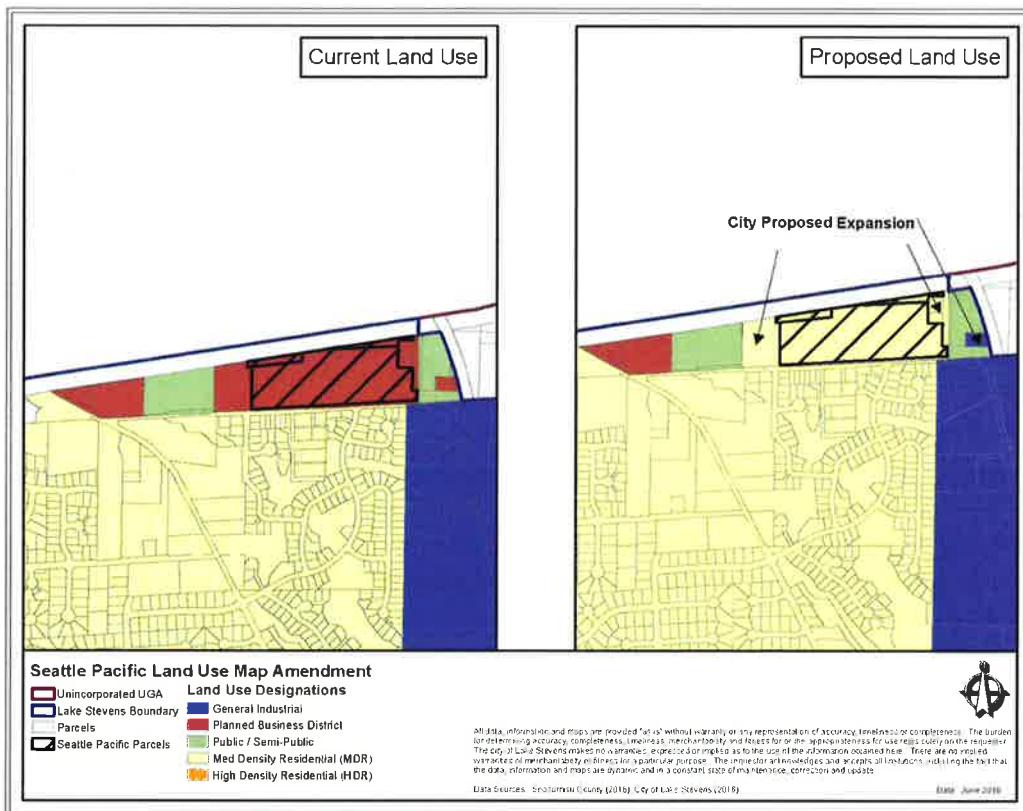
**ADOPTED BY CITY OF LAKE STEVENS ORDINANCE NO. 927**

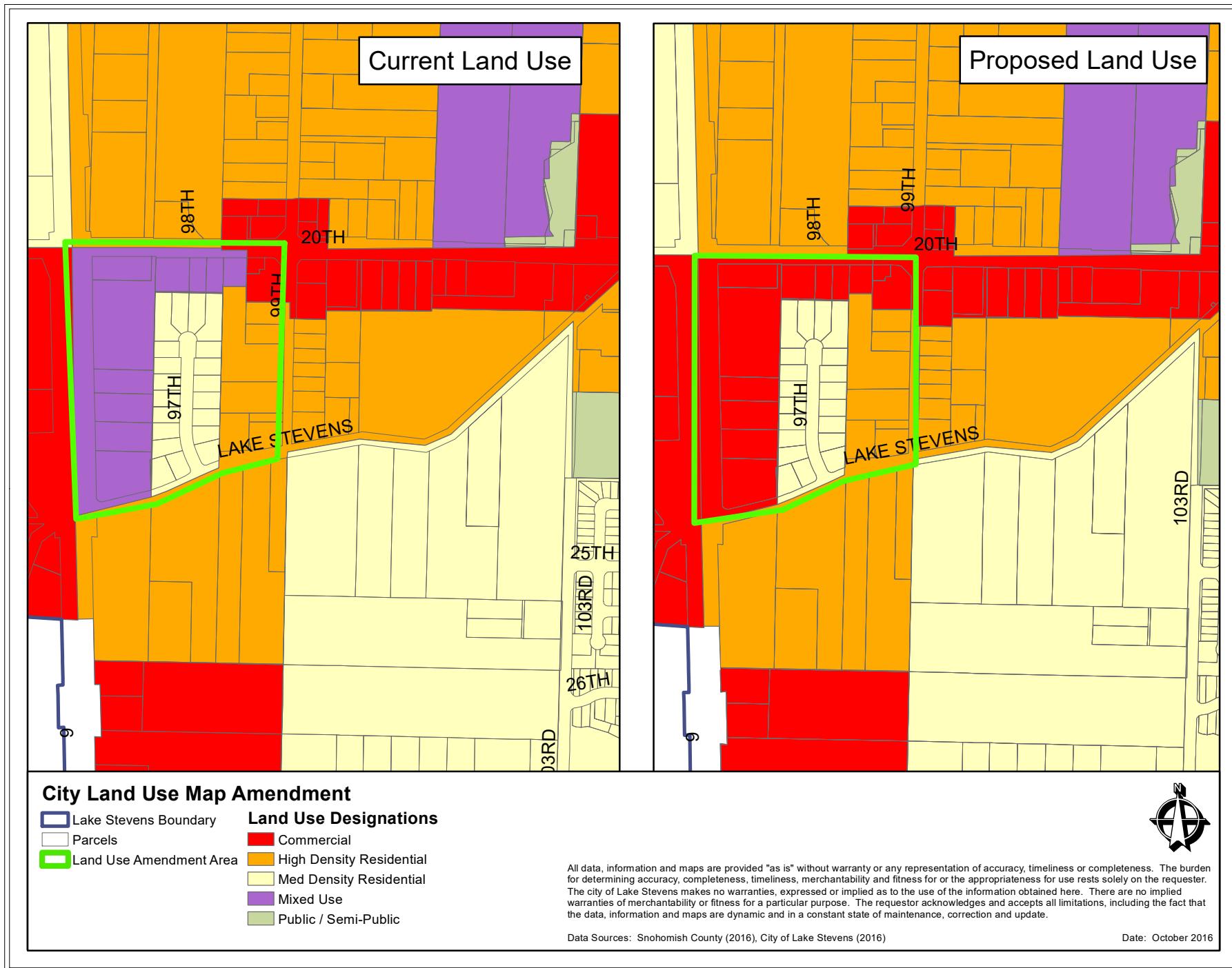
PLAN CAN BE VIEWED AT  
LAKE STEVENS SCHOOL DISTRICT  
12309 22<sup>ND</sup> ST NE, LAKE STEVENS, WA



## Exhibit 4

### EXHIBIT 1:





## Stacie Pratschner

---

**From:** Stacie Pratschner  
**Sent:** Wednesday, October 12, 2016 5:28 PM  
**To:** Russell Wright  
**Subject:** RE: Proposed Rezone: 9706 20th St SE

Hi Dan,

Thank you for taking time to write to staff concerning your property and the proposed land use and zoning amendments adjacent to 20<sup>th</sup> Street SE and SR-9. At the last Planning Commission meeting, the board recommended that these properties be designated Neighborhood Business. I would recommend that you attend the public hearing and testify directly to the Planning Commission about your desire to maintain the Mixed Use designation. If the PC is interested in maintain this designation staff would recommend that it be carried down to the corner of 99<sup>th</sup> Ave SE to avoid spot zoning.

Per Russ's previous email, there will be a public hearing in front of the Planning Commission on November 2<sup>nd</sup> and then a public hearing in front of City Council on November 22<sup>nd</sup>. Please be prepared to testify and describe your request at these hearings. Your request may be considered for approval if you can demonstrate consistency with the Comprehensive Plan and compatibility with surrounding land uses.

I hope this information gives you a good start. The city will be sending out postcards with the specific time, dates and location of each of the hearings. Please don't hesitate to contact me with additional questions.

**Stacie Pratschner, AICP**  
*Senior Planner*

**City of Lake Stevens | Planning & Community Development**  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

**From:** Dan Rike [mailto:[daniel.rike@gmail.com](mailto:daniel.rike@gmail.com)]  
**Sent:** Tuesday, October 11, 2016 10:55 AM  
**To:** Russell Wright <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)>  
**Cc:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Re: Proposed Rezone: 9706 20th St SE

Thank you Russ,

Stacie, can you please advise on what the next steps would be or what is needed? I can also come in & meet with you if that is easier.

Thanks  
Dan

425-422-032

On Tue, Oct 11, 2016 at 9:09 AM, <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)> wrote:

Please coordinate with Stacie on next steps – public hearings will be held with the Planning Commission and City Council in November. I would recommend that you attend these hearing and be prepared to testify about your request.

Best regards,

Russ Wright, *Community Development Director*

**City of Lake Stevens | Planning & Community Development**

1812 Main Street | PO Box 257

Lake Stevens, WA 98258-0257

[425.212.3315](tel:425.212.3315) | [rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)

**From:** Dan Rike [mailto:[daniel.rike@gmail.com](mailto:daniel.rike@gmail.com)]  
**Sent:** Monday, October 10, 2016 5:29 PM  
**To:** Russell Wright <[rwright@lakestevenswa.gov](mailto:rwright@lakestevenswa.gov)>; Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Proposed Rezone: 9706 20th St SE

Good afternoon Russ & Stacie,

I am the owner of 9706 20th St SE, this is located in an area that is on the docket for re-zoning. I purchased this land with the intention of building apartment/condos based on the zoning allowed for the property to be built out as such.

After much consulting with other developers, the highest & best use for this property is its current zoning. I would request that my property be excluded from any upcoming zoning changes, unless it will allow me to be grandfathered in to build it out under the current mixed use neighborhood zoning.

Changing it to 'Neighborhood Business' significantly reduces the value of the land & give the owners the lowest return. I am very strongly NOT in favor of & would like to oppose this option.

What do you need from me to see that I can retain my current zoning or have the current zoning be grandfathered in for future development.

Please advise,

--

Thank you,  
Daniel D. Rike

**425-422-0323 Cell**

--  
Thank you,  
Daniel D. Rike

**425-422-0323 Cell**

## Stacie Pratschner

---

**From:** spratschner@lakestevenswa.gov  
**Sent:** Monday, August 8, 2016 4:44 PM  
**To:** marshb8@gmail.com  
**Subject:** RE: M4 rezone

Hi Bryant,

Thank you for your email. Staff is planning on providing a briefing to the Planning Commission on Wednesday, August 17th to discuss the results of our analysis for the proposed rezones (not a formal hearing at this point). All members of the public are welcome to attend the Planning Commission meetings. The city does anticipate taking the Docket to Council in September, though there is no firm date as of yet.

Thanks again and please don't hesitate to contact me with any questions.

Stacie Pratschner, AICP  
Senior Planner

City of Lake Stevens | Planning & Community Development  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | spratschner@lakestevenswa.gov

Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.

-----Original Message-----

From: Bryant Marsh [mailto:[marshb8@gmail.com](mailto:marshb8@gmail.com)]  
Sent: Monday, August 8, 2016 11:23 AM  
To: Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
Subject: M4 rezone

Was wondering if there had been any updates on the commercial rezoning of this area. You had previously mentioned a meeting in the fall and we were curious if that was still happening. Thanks again.

-Bryant

Sent from my iPhone

## Stacie Pratschner

---

**From:** spratschner@lakestevenswa.gov  
**Sent:** Thursday, June 30, 2016 12:00 PM  
**To:** andrew.fredette@yahoo.com  
**Subject:** RE: Rezone proposal

Hello Mr. Fredette,

Thank you for contacting me concerning the city's proposed map amendment to your property and the surrounding properties between 20th Street SE and South Lake Stevens Road. The city is not yet in receipt of any development proposals for the property behind you, though if the rezone goes through it's a possibility that a developer may construct a commercial use there. All of the existing uses in the rezone area, including your home, will be able to continue as non-conforming uses pursuant to Chapter 14.32 LSMC. You will not be forced to change your home as a result of this rezone.

I hope this information meets your needs. Thank you again for contacting me and please let me know if additional questions come up.

Stacie Pratschner, AICP  
Senior Planner

City of Lake Stevens | Planning & Community Development  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | spratschner@lakestevenswa.gov

Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.

-----Original Message-----

From: Andrew.fredette [mailto:andrew.fredette@yahoo.com]  
Sent: Thursday, June 30, 2016 11:30 AM  
To: Stacie Pratschner <spratschner@lakestevenswa.gov>  
Subject: Rezone proposal

To whom it may concern,

I have a question about the letter I received today about the rezoning proposal, I live at at:

2220 97th Dr SE  
Lake Stevens WA 98258

My questions are:

- Is my neighbor that is the mixed use land connected to my back fence, is that property being sold to turned into a commercial development?
- Is my house at risk of becoming a commercial development?

Thank you  
Andrew Fredette  
425-760-5588

## Stacie Pratschner

---

**From:** spratschner@lakestevenswa.gov  
**Sent:** Tuesday, June 28, 2016 8:57 AM  
**To:** marshb8@gmail.com  
**Subject:** RE: M-4 rezone

Good morning Bryant,

Thank you for your email, and though I can't give an exact timeline for redevelopment I can tell you that the city has been in receipt of more commercial development applications recently than we've received in the past (almost) two years I've worked here. Any existing uses in place at the time of the rezone (if it is approved) will be permitted to continue as non-conforming uses per Chapter 14.32 LSMC.

I hope that information helps, please let me know if additional questions come up!

**Stacie Pratschner, AICP**

*Senior Planner*

**City of Lake Stevens | Planning & Community Development**

1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

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**From:** Bryant Marsh [mailto:[marshb8@gmail.com](mailto:marshb8@gmail.com)]  
**Sent:** Tuesday, June 28, 2016 6:37 AM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Re: M-4 rezone

Thank you for getting back to me. My only other question is about how fast the commercial land will be developed on the corner of hwy 9 and s lake Stevens rd if the deal goes through. We have some house projects going so I don't want to over invest if it will be torn down in the next five years. I understand if you can't answer that, and appreciate your time. Thanks again.

-bryant

Sent from my iPhone

On Jun 27, 2016, at 4:37 PM, <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)> <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)> wrote:

Thank you for contacting me concerning the proposed rezone for the parcels south of 20<sup>th</sup> Street. If the city decides to move forward with the rezone, the map amendment would become official by late fall of this year.

Thanks again and don't hesitate to contact me with additional questions.

**Stacie Pratschner, AICP**  
*Senior Planner*

**City of Lake Stevens | Planning & Community Development**  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)

<image001.png>

*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

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**From:** Bryant Marsh [<mailto:marshb8@gmail.com>]  
**Sent:** Monday, June 27, 2016 3:48 PM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Fwd: M-4 rezone

Sent from my iPad

Begin forwarded message:

**From:** Bryant Marsh <[marshb8@gmail.com](mailto:marshb8@gmail.com)>  
**Date:** June 27, 2016 at 3:07:14 PM PDT  
**To:** <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** M-4 rezone

Stacie,

Our house is currently located in the area designated to be rezoned south of 20th street. We are in the process of refinancing and wondering how long it will be until this project could start. Thanks.

-Bryant

Sent from my iPhone

## Stacie Pratschner

---

**From:** spratschner@lakestevenswa.gov  
**Sent:** Monday, June 27, 2016 4:42 PM  
**To:** mymedman@comcast.net  
**Subject:** RE: Rezoning of land use

Hello Dana,

Thank you for your email concerning the city's proposed rezone of the subject parcels adjacent to 20<sup>th</sup> Street SE. You would not be forced to sell your property if the rezone were to take place. All existing uses (existing homes, businesses, etc.) in the study area will be able to continue as non-conforming uses per Chapter 14.32 LSMC.

Thank you again, and please don't hesitate to contact me if I can provide additional information.

**Stacie Pratschner, AICP**  
*Senior Planner*

**City of Lake Stevens | Planning & Community Development**  
1812 Main Street | PO Box 257  
Lake Stevens, WA 98258-0257  
425.377.3219 | [spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)



*Please note that this email correspondence may be subject to the public disclosure requirements of RCW 42.56.070.*

**From:** mymedman [mailto:[mymedman@comcast.net](mailto:mymedman@comcast.net)]  
**Sent:** Monday, June 27, 2016 3:57 PM  
**To:** Stacie Pratschner <[spratschner@lakestevenswa.gov](mailto:spratschner@lakestevenswa.gov)>  
**Subject:** Rezoning of land use

My name is Dana Nelson and I currently live on 97th dr. SE, with commercial rezoning would I be forced to sell my home, I am 55 years old on a modest income, I don't fully understand the implications of this change.

Sent from my T-Mobile 4G LTE Device



Staff Report  
City of Lake Stevens Planning Commission

Planning Commission Briefing

Date: **November 2, 2016**

**Subject: Recreational Park Trailers and Recreational Vehicles (RV) Regulations**

Contact Person/Department: **Melissa Place**, Senior Planner / **Russ Wright**, Community Development Director

---

**SUMMARY:**

A scope, schedule, and draft code language for proposed amendments to the city of Lake Stevens development regulations to allow recreational park trailers and recreational vehicles as a housing option in manufactured/mobile home communities.

---

**ACTION REQUESTED OF PLANNING COMMISSION:**

This is an informational briefing and no action is requested at this time.

---

**BACKGROUND / DISCUSSION:**

The purpose of this briefing is to discuss a draft work plan (**Exhibit 1**), schedule (**Exhibit 2**), and draft code (**Exhibit 3**) and receive feedback on the proposed amendments to the city's regulations.

The proposed code amendments respond to a WCIA land use audit in 2015 of the Lake Stevens municipal code whereby the city's current land use regulations must comply with the latest WA State legislative enactments governing manufactured housing/recreational vehicles. Per RCW 35.21.684, cities and counties may not adopt an ordinance that has the effect, directly or indirectly, of preventing the entry or requiring the removal of a recreational vehicle used as a primary residence in manufactured/mobile home communities.

The city proposes a new chapter, Chapter 14.44.070 LSMC, named "Recreational Park Trailers and Recreational Vehicles (RV) Regulations" to provide a clear pathway for the placement of such vehicles within manufactured/mobile home communities. Staff also proposes amendments to Chapters 14.08 and 14.40 of the LSMC.

The city researched other jurisdictions and state law regarding the proposed amendments and sought input on the proposed language from the Building Official, Fire Marshal, and Public Works Department. The city is still determining what permitting would be required (if any) for the installation of such trailer or vehicle being used for residential purposes in order for the city to evaluate sanitary water, sewer, and other applicable services/building code requirements. The language in the draft code amendments reflects the comments on the proposal received by various departments/agencies. The amendments and language are subject to change based on additional input and coordination with Building Official, Fire Marshal, and Public Works Department.

Other needed changes may be revealed as staff completes the initial research and review process for the code amendments. Staff is proposing a two to three month process to review the code and draft revisions for the Planning Commission and the City Council to consider. Other tasks included in the scope of the project include SEPA notification and actions, various staff reports and briefings to the Planning Commission and City Council, WA Department of Commerce 60-day review, public notification and public hearings as needed.

### **Exhibits**

1. Work Plan
2. Draft Schedule
3. Draft Code Amendments



# Scope of Work

**Date:** October 12, 2016

**Subject:** **Recreational Park Trailers and Recreational Vehicles (RV) Regulations**

---

## Code Amendments

This scope of work is for the processing of code amendments to the City's regulations to allow recreational park trailers and recreational vehicles to be placed in manufactured/mobile home communities. The City is looking for ways to add alternative and more affordable housing options within city limits and allowing recreational parks trailers and recreational vehicles within manufactured/mobile home parks is one option the city can implement efficiently as it continues to explore other ways to provide affordable housing. The amendments are anticipated to occur to Section 14.44, 14.40, and 14.08 of the LSCM but may include other titles/chapters of the code as necessary. Staff will review all applicable sections of the LSCM and create a draft redline copy of the amendments for review.

## Schedule

The City has developed a preliminary schedule for processing the code amendments (see the attached). A land use code amendment is a Type VI review per LSCM 14.16C.075. A Type VI review requires a public hearing before the Planning Commission with a recommendation to City Council. The City Council will hold a public hearing before taking action. The code amendments also require a SEPA determination and a review by Commerce.

**City of Lake Stevens Recreational Park Trailers and Recreational Vehicles (RV) Regulations  
(LSMC Title 14) Code Revision Work Program**

ACTIVITY	Recreational Trailers/RVs Ordinance Draft Regulations			
	OCTOBER	NOVEMBER	DECEMBER	January
Draft Code Amendments	<b>10/12/16-11/4/16</b>			
Attorney Review			<b>12/13/2016-1/4/2016</b>	
Draft Ordinances		<b>11/28/2016-12/31/2016</b>		
Prepare & Issue SEPA (comment/appeal)		<b>11/4/2016</b>		
Commerce Review		<b>11/4/2016 – 1/4/2016 (Ask for expedited)</b>		
Publish Notice Planning Commission Public Hearing		<b>Notice Twice – 1<sup>st</sup> notice 10 Days Before Hearing</b>		
Planning Commission Review (B-briefing; PH-public hearing)		<b>11/2/2016 (B)</b>	<b>12/7/2016 (PH)</b>	
Publish Notice City Council Public Hearing			<b>Notice Twice - 10 Days Before Hearing</b>	
City Council Briefings & Workshops (B-briefing; PH-public hearing)			<b>12/13/2016 (B)</b>	
City Council Public Hearing, 1 <sup>st</sup> Reading				<b>1/10/2017 (PH) 1<sup>st</sup> AND FINAL Reading</b>
City Council Public Hearing, 2nd & Final Reading				<b>Optional</b>
Effective date				<b>Code Revisions Effective -5 Days After Publication</b>

Purpose: Update the code to allow recreational park trailers and recreational vehicles to be placed in manufactured/mobile home communities.

#### 14.08 Definitions

Mobile Home Park. A residential use in which more than one mobile ~~or home, manufactured home, recreational park trailer, or recreational vehicle~~ is located on a single lot.

Recreational Park Trailer. "Recreational park trailer" is a trailer-type unit that is primarily designed to provide temporary living quarters for recreational, camping or seasonal use that meets the following criteria:

- a) Built on a single chassis, mounted on wheels;
- b) Having a gross trailer area not exceeding 400 square feet (37.15 square meters) in the set-up mode; and
- a)c) Certified by the manufacturer as complying with ANSI A119.5.

**14.40.040 Permissible and Prohibited Uses.**

(a) The presumption established by this title is that all legitimate uses of land are addressed within the Table of Permissible Uses, and are either allowed or not allowed thereby. But because the list of permissible uses set forth at the end of this chapter cannot be all inclusive, those uses that are listed shall be interpreted liberally to include other uses that have similar impacts to the listed uses.

(b) Without limiting the generality of the foregoing provisions, the following uses are specifically prohibited in all districts:

(1) Any use that involves the manufacture, handling, sale, distribution, or storage of any highly combustible or explosive materials in violation of the City's fire prevention code.

(2) Stockyards, slaughterhouses, rendering plants.

(3) Use of a travel trailer, motor home, or other recreational vehicle as a permanent residence except those permitted in a manufactured/mobile home park as per 14.44.070. Recreational vehicles may be used as a temporary guest residence for up to two weeks without a permit, or up to three months within any one consecutive year upon approval by the Planning Director. Situations that do not comply with this subsection on the effective date of the ordinance codified in this title are required to conform within one year.

(4) Use of a motor vehicle parked on a lot as a structure in which, out of which, or from which any goods are sold or stored, any services are performed, or other business is conducted. This prohibition does not apply to temporary public services, such as bookmobiles, blood donation centers, public service information, etc., or temporary food vendors allowed pursuant to Sections [14.44.400](#) and [14.44.410](#) (situations that do not comply with this subsection on the effective date of the ordinance codified in this title are required to conform within 30 days).

(5) Repealed by Ord. 958.

(6) Sewage/septic sludge recycling except when approved as an essential public facility pursuant to Section [14.16C.060](#). (Ord. 958, Sec. 2, 2016; Ord. 903, Sec. 30, 2013; Ord. 894, Sec. 2, 2013; Ord. 811, Sec. 34, 2010; Ord. 676, Sec. 26, 2003; Ord. 468, 1995)

#### **14.40.070 Recreational Park Trailers and Recreational Vehicles (RV) Regulations**

Recreational park trailers and recreational vehicles as defined in WAC 296-150P-0020, WAC 296-150R-0020 and LSCM 14.08 shall be permitted in manufactured/mobile home parks. As allowed by state law the following additional standards shall apply when housing governed by this chapter is sited:

- a) Recreational park trailers and recreational vehicles may be installed within a manufactured home park if meeting the following requirements allowed by RCW 35A.21.312 and the other requirements listed below:
  - 1) A working smoke detector shall be installed
    - i. per NFPA 1192 Current Edition, Section 6.3 for recreational vehicles; or
    - ii. per ANSI A119.5 Current Edition, Section 3-3 for recreational park trailers;
  - 2) A working carbon monoxide (CO) alarm shall be installed
    - i. per NFPA 1192 Current Edition, Section 6.4.6 for recreational vehicles; or
    - ii. per ANSI A119.5 Current Edition, Section 3-5 for recreational park trailers;
  - 3) There shall be egress directly from the sleeping area consisting of a door, or an egress window with a minimum size of 24 x 17
    - i. per NFPA 1192 2008 Edition, Section 6.2 for recreational vehicles; or
    - ii. per ANSI A119.5 Current Edition Section 3-2 for recreational park trailers;
  - 4) A recreational vehicle or recreational park trailer electrical cord shall be protected within rigid conduit;
  - 5) The unit shall be connected to the water supply provided within the park, in accordance with the applicable plumbing provisions of the adopted uniform plumbing code, and all applicable fees shall be paid;
  - 6) The unit shall be connected to the sanitary sewer system provided within the park, in accordance with the plumbing provisions of the adopted uniform plumbing code, and all applicable fees will be paid;
  - 7) All steps, landings, stairways, decks, and balconies shall meet the requirements of the International Residential Code and shall be independently supported; and
  - 8) Recreational vehicles or recreational park trailers shall be equipped with an internal toilet and an internal shower; or the manufactured home park shall provide a common toilet and shower facility for the residents of the park; and
  - 9) The unit shall be placed on an impervious pad made of cement concrete or asphalt concrete; and
  - 10) Recreational park trailers and recreational vehicles may be required to install oil/water separators or advanced treatments for stormwater, to be evaluated and determined at the time of installation permit.
  - 11) If it is determined that the recreational park trailer or recreational vehicle constitutes a new dwelling unit in the manufactured/mobile home park, all applicable impacts fees (including traffic and parks) apply.
- b) Inspection required.

The city shall inspect the installation of each such recreational park trailer or recreational vehicle covered by an installation permit to determine that such installation complies with this chapter and any

other applicable local, state, and federal regulations and shall not permit the occupancy of such trailer or vehicle until such inspection and approval have been given.

c) Insignia required.

All such homes installed within the city shall contain the insignia of approval of the state of Washington or be exempt from said insignia, all pursuant to the standards of the state of Washington for the manufacture of such homes.



# Staff Report City of Lake Stevens Planning Commission

Planning Commission Briefing

Date: **November 2, 2016**

## Subject: **Temporary Downtown Height Limitations**

Contact Person/Department: **Dillon Roth**, Associate Planner / **Russ Wright**, Community Development Director

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### **SUMMARY:**

A scope, schedule, and draft code language for proposed amendments to the city of Lake Stevens development regulations to temporarily limit the heights of buildings in the Central Business District zone and the Mixed Use zone in downtown; south of 20th St NE and north of 16th St NE and west of 125th Ave NE. Heights are proposed to be limited until the Downtown Subarea Plan is complete. See map in **Exhibit 1** for applicable locations.

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### **ACTION REQUESTED OF PLANNING COMMISSION:**

This is an informational briefing and no action is requested at this time.

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### **BACKGROUND / DISCUSSION:**

The purpose of this briefing is to discuss a draft schedule (**Exhibit 2**), scope of work (**Exhibit 3**), and draft code (**Exhibit 4**) and receive feedback on the proposed amendments to the city's regulations.

The city of Lake Stevens has initiated a planning effort for Downtown Lake Stevens, which will include a subarea plan and planned action environmental impact statement (EIS). The subarea plan will include revised development regulations and design standards for commercial, mixed-use and multifamily construction. The Planned Action EIS will evaluate necessary infrastructure improvements for sewer, stormwater and streets to facilitate development in the downtown area.

Staff has proposed that building heights be limited to 45-feet in the downtown Central Business District on properties located east of Main Street between 16<sup>th</sup> St NE and 20<sup>th</sup> St NE and west of 125<sup>th</sup> Ave NE; limited to 35-feet on Central Business District zoned properties west of Main Street between 20<sup>th</sup> St NE and 16<sup>th</sup> St NE; and limited to 35-feet in the Mixed Use zones on properties located west of Main Street between 20<sup>th</sup> St NE and 16<sup>th</sup> St NE. These limitations are only temporary until the Downtown Lake Stevens Subarea Plan is complete. This restriction strikes a balance between allowing potential development and protecting views in the area. The height limits are based on a review of regional cities with town centers, including those located near lakes.

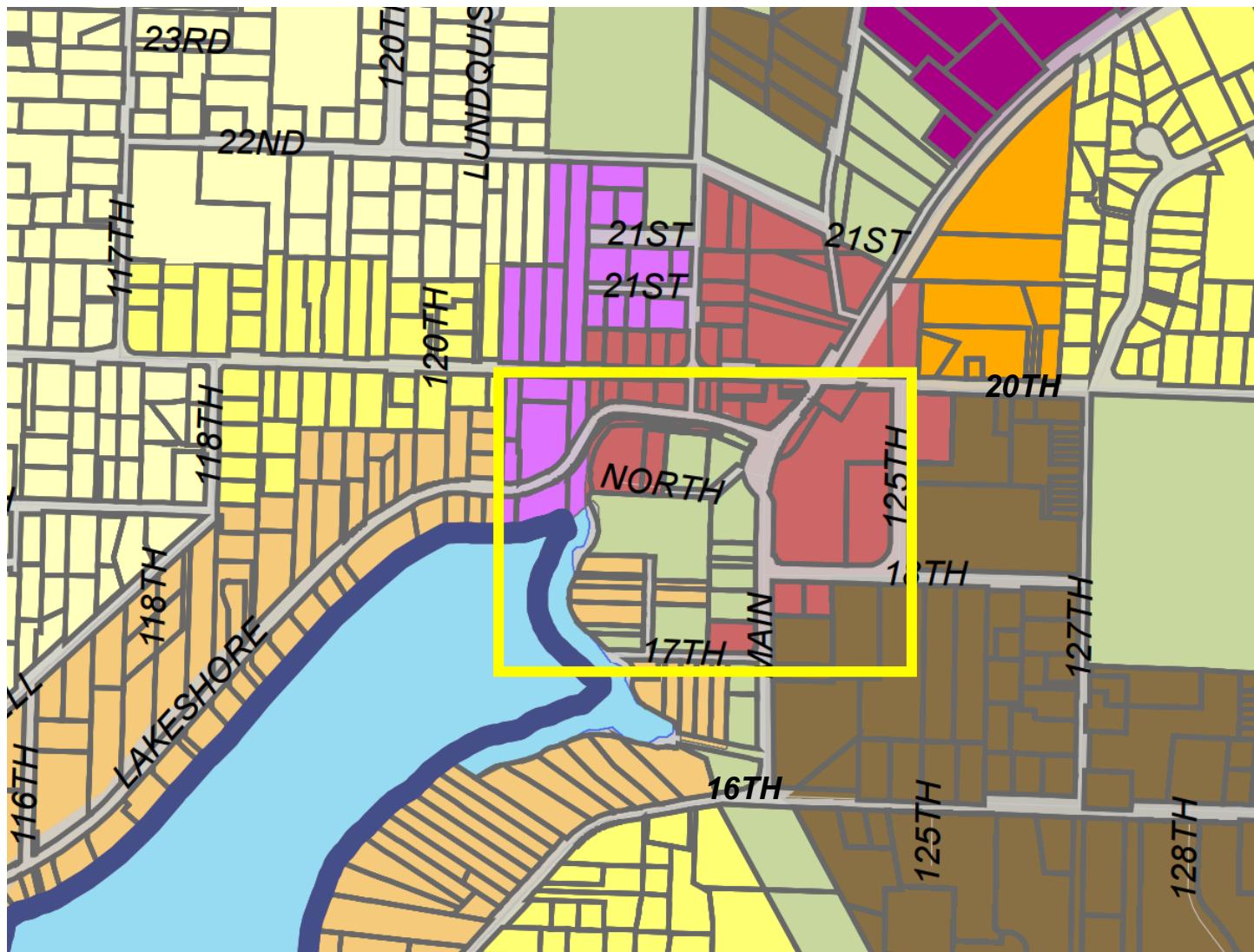
Staff is proposing a two month process to review the code and draft revisions for the Planning Commission and the City Council to consider. Other tasks included in the scope of the project include SEPA notification and actions, various staff reports and briefings to the Planning

Commission and City Council, WA Department of Commerce 60-day review, public notification and public hearings as needed.

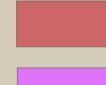
### **Exhibits**

1. Map of Applicable Locations
2. Draft Schedule
3. Scope of Work
4. Draft Code Amendments

# Location of Proposed Height Limitations



 Applicable Location: Central Business District zone and the Mixed Use zone in downtown south of 20th St NE and north of 16th St NE and west of 125th Ave NE

 Central Business District (CBD)  
 Mixed Use (MU)

## City of Lake Stevens Downtown Height Regulations (LSMC Title 14) Code Revision Work Program

ACTIVITY	Downtown Height Ordinance Draft Regulations			
	OCTOBER	NOVEMBER	DECEMBER	January
Draft Code Amendments	10/12/16- 10/21/16			
Draft Ordinances	10/21/2016- 11/10/2016			
Attorney Review		11/10/2016-12/7/2016		
Prepare & Issue SEPA (comment/appeal)	10/21/2016			
Commerce Review	10/21/2016 – 12/21/2016 (Ask for expedited)			
Publish Notice Planning Commission Public Hearing		Notice Twice – 1 <sup>st</sup> notice 10 Days Before Hearing		
Planning Commission Review (B-briefing; PH-public hearing)		11/2/2016 (B)	12/7/2016 (PH)	
Publish Notice City Council Public Hearing			Notice Twice - 10 Days Before Hearing	
City Council Briefings & Workshops (B-briefing; PH-public hearing)			12/13/2016 (B)	
City Council Public Hearing, 1 <sup>st</sup> Reading				1/10/2016 (PH) 1 <sup>st</sup> AND FINAL Reading
City Council Public Hearing, 2nd & Final Reading				
Effective date				Code Revisions Effective -5 Days After Publication

Purpose: Consideration of limiting heights in the downtown core until the Downtown Subarea Plan is complete for inclusion in the Lake Stevens Municipal Code.



# Scope of Work

**Date:** October 12, 2016

**Subject:** **City of Lake Stevens Downtown Height Regulations**

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## Background

The city of Lake Stevens has initiated a planning effort for Downtown Lake Stevens, which will include a subarea plan and planned action environmental impact statement (EIS). The subarea plan will include revised development regulations and design standards for commercial, mixed-use and multifamily construction. The Planned Action EIS will evaluate necessary infrastructure improvements for sewer, stormwater and streets to facilitate development in the downtown area.

On June 28, 2016, the City Council discussed implementing a moratorium that would temporarily prohibit the construction of new commercial, mixed-use and multifamily projects. A moratorium was discussed because the city's regulations and capital facilities plan do not fully address land use controls and infrastructure improvements in the downtown area. Ultimately, Council decided that they did not want to move forward with a moratorium at this time. As an interim measure, an idea was proposed that the Planning Commission review the allowed heights in Downtown Lake Stevens and make a recommendation if the city should enact temporary height restrictions until the subarea plan is completed.

Staff requested input from the Planning Commission at their August 17, 2016 meeting pursuant to a staff report that recommended capping the height in the downtown at 45 feet until after the subarea plan is completed after comparison of examples from other cities. At that meeting, the Planning Commission concurred with the staff recommendation for a proposed height limit of 45 feet and recommended that Council enact such regulations until the subarea plan is completed. On October 11, 2016, the City Council was briefed on the status of the proposed amendment.

## Code Amendments

Staff has proposed that building heights be limited to 45-feet in the downtown Central Business District and Mixed Use zones temporarily until the Downtown Lake Stevens Subarea Plan is complete. This restriction strikes a balance between allowing potential development and protecting views in the area. A forty-five foot height limit is based on a review of regional cities with town centers, including those located near lakes.

If any projects are received proposing to go higher than 45-feet a conditional use permit and view corridor analysis may be required. The code amendment may sunset in 12 months or at the adoption of new zoning standards developed with Downtown Lake Stevens Subarea Plan.

The amendments are anticipated to occur to Sections 14.48 of the LSMC but may include other titles/chapters of the code as necessary. Staff will review all applicable sections of the LSMC and create a draft redline copy of the amendments for review.

Schedule

The City has developed a preliminary schedule for processing the code amendments (see the attached). A land use code amendment is a Type VI review per LSMC 14.16C.075. A Type VI review requires a public hearing before the Planning Commission with a recommendation to City Council. The City Council will hold a public hearing before taking action. The code amendments also require a SEPA determination and a review by Commerce.

DRAFT

Table 14.48-I: Density and Dimensional Standards

Zone	Minimum Lot Size		Minimum Residential Densities (Minimum Square Feet per Dwelling Unit)	Minimum Lot Width (ft.)	Building Setback Requirements Minimum Distance, in feet, from: <sup>4</sup>								Height Limitation (ft.)			
	Standard Subdivision	Cluster Subdivision			Nonarterial Street Right-of-Way Line				Nonarterial Street Centerline <sup>1</sup>		Ultimate Arterial Street Right-of-Way Line		Lot Line, Tract or Easement <sup>3</sup>			
					Building	Freestanding Sign	Building	Freestanding Sign	Building	Freestanding Sign	Building	Freestanding Sign				
Waterfront Residential	9,600 ft <sup>2</sup>	7,500 ft <sup>2</sup>	9,600 ft <sup>2</sup>	50	25	12.5	55	42.5	25	12.5	5	35				
Suburban Residential <sup>2</sup>	5 acres/ 9,600 ft <sup>2</sup>	5 acres/ 7,500 ft <sup>2</sup>	5 acres/ 9,600 ft <sup>2</sup>	80	25	12.5	55	42.5	25	12.5	5	35				
Urban Residential <sup>2</sup>	5 acres/ 7,500 ft <sup>2</sup>	6,000 ft <sup>2</sup>	7,500 ft <sup>2</sup>	60	20	10	50	40	20	10	5	35				
High Urban Residential	3,600 ft <sup>2</sup>	N/A	3,600 ft <sup>2</sup>	40	15	5	45	35	20	5	5	35				
Multi-Family Residential	3,000 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	50	0	0	30	30	10	0	0	60				

Neighborhood Commercial	3,000 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	0	0	0	30	30	0	0	0	35
Mixed Use	3,000 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	0	0	0	30	30 ft <sup>2</sup>	0	0	0	60 <sup>5</sup>
Local Business	3,000 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	0	0	0	30	30	0	0	0	60
Central Business District	3,000 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	0	0	0	30	30	0	0	0	60 <sup>6</sup>
Planned Business District	0 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	0	0	0	30	30	0	0	0	40
Sub-Regional Commercial	0 ft <sup>2</sup>	N/A	0 ft <sup>2</sup>	10	0	0	30	30	0	0	0	85
Light Industrial	0 ft <sup>2</sup>	N/A	N/A	10	0	0	30	30	0	0	0	85
General Industrial	0 ft <sup>2</sup>	N/A	N/A	10	0	0	30	30	0	0	0	85
Public/Semi-Public	0 ft <sup>2</sup>	N/A	N/A	0	0	0	0	0	0	0	0	60

<sup>1</sup> See Section [14.48.040\(a\)\(1\)](#) for use of centerline.

<sup>2</sup> See Section [14.48.100](#) for use of five acres or square feet requirements.

<sup>3</sup> Eaves and other minor architectural features may project into the required setback up to 18 inches.

<sup>4</sup> If property is located on Lake Stevens or Catherine Creek or has wetlands, please refer to the required setbacks in the Shoreline Master Program and Chapter [14.88](#), Critical Areas.

<sup>5</sup> Properties located in the downtown core west of Main Street between 20<sup>th</sup> St NE and 16<sup>th</sup> St NE are limited to a maximum height of 35 feet. These regulations will be in effect for one year from the effective date of ordinance XX or until the city adopts new regulations as part of the downtown subarea plan.

<sup>6</sup> Properties located in the downtown core west of Main Street between 20<sup>th</sup> St NE and 16<sup>th</sup> St NE are limited to a maximum height of 35 feet. Properties located east of Main Street between 16<sup>th</sup> St NE and 20<sup>th</sup> St NE and west of 125<sup>th</sup> Ave NE are limited to a maximum height of 45 feet. These regulations will be in effect for one year from the effective date of ordinance XX or until the city adopts new regulation as part of the downtown subarea plan.

(Ord. 903, Sec. 38, 2013; Ord. 855, Sec. 22, 2011; Ord. 811, Sec. 55, 2010; Ord. 796, Sec. 9 (Exh. 1), 2009; Ord. 773, Sec. 3, 2008; Ord. 744, Sec. 3, 2007; Ord. 676, Sec. 47, 2003; Ord. 468, 1995)