

CITY OF SHORELINE

# RICHMOND BEACH ROAD RECHANNELIZATION: POST-PROJECT REPORT #1/3

May 2019





# TABLE OF CONTENTS

Executive Summary.....	1
Introduction .....	2
Project Overview.....	3
Project Background.....	5
Origin.....	5
Process .....	5
Implementation .....	8
Project Performance Measure: Safety.....	9
Collisions .....	9
Speeds.....	10
Emergency Response .....	11
Feedback .....	11
Future Grant Funded Safety Project .....	12
Project Performance Measure: Mobility .....	13
Project Corridor Volumes & Level of Service .....	13
Travel Time.....	15
Off Corridor Volumes.....	16
Report 1 Conclusions .....	18
Recommended Actions .....	21
Appendices.....	23

# EXECUTIVE SUMMARY

At this early point in project outcomes assessment, the corridor is generally performing as expected; average peak hour travel times are slightly below the anticipated increased delay, speeds are down on the hill segment west of 8<sup>th</sup> Ave NW, and corridor volumes are slightly higher than pre-project measures. It is too soon to assess safety, which will occur as part of report two of three in late summer of 2019 and again in summer 2021.

Three primary issues have been identified based on feedback received and are as follows:

- 1) Aggressive drivers at the westbound merge between Dayton Ave N and 3<sup>rd</sup> Ave NW
- 2) Intermittent lengthy vehicle queues during the PM peak hour in the westbound direction between 3<sup>rd</sup> Ave NW and Dayton Ave N
- 3) Driveway access challenges at Richmond Beach Coffee Company

At this time, staff recommends follow up action on issue 3 described above; to revise the Richmond Beach Coffee Company driveway and/or the intersection at 15<sup>th</sup> Ave NW for improved access to and from the driveway. The City will explore access options in coordination with the adjacent property stakeholders this summer with implementation targeted for fall 2020. A concept to resolve issues 1 and 2, queueing and the merge between Dayton Ave N and 3<sup>rd</sup> Ave NW, will be considered for future implementation.

Regarding cut through traffic, one local street (NW 204<sup>th</sup> Street between 15<sup>th</sup> Ave NW and 17<sup>th</sup> Ave NW) will be mailed information regarding potential follow up traffic calming actions as traffic volumes measured after the project's implementation were significantly higher than pre-project conditions.

More detailed information regarding project outcomes is provided throughout the report, and in the *Report 1 Conclusions* section of the report.

# INTRODUCTION

The purpose of this study is to evaluate whether the Richmond Beach Road Rechannelization project goals were met and to gauge project impacts as they relate to traffic operations, cut through traffic, and other factors. In addition to this first preliminary report, project outcomes will be evaluated 1 year after project implementation (summer 2019) and again 3 years after implementation (summer 2021). Each report will be published to the project webpage at:

[shorelinewa.gov/government/projects-initiatives/richmond-beach-road-rechannelization](https://shorelinewa.gov/government/projects-initiatives/richmond-beach-road-rechannelization)

# PROJECT OVERVIEW

In 2018, the City of Shoreline implemented a lane reduction rechannelization on the NW Richmond Beach Road/ NW 195<sup>th</sup> St/ NW 196<sup>th</sup> St corridor to address safety and mobility issues. The striping was changed from two lanes in each direction, to one lane in each direction, a center turn lane, and bike lanes in each direction as shown in Figure 1.

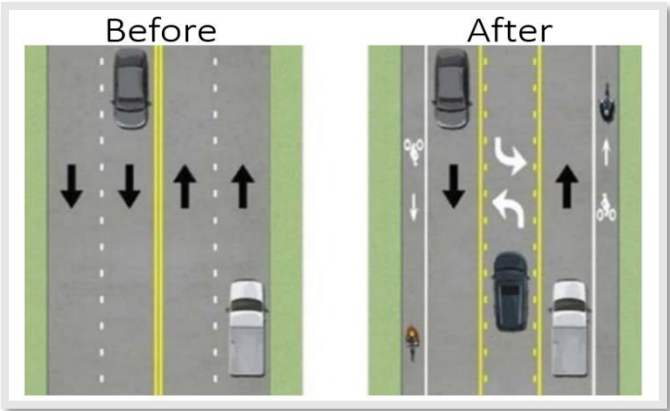


Figure 1 - Roadway Configuration Change

The project limits extended from 1<sup>st</sup> Avenue NW to 24<sup>th</sup> Avenue NW – a distance of approximately 1.7 miles (Figure 2).

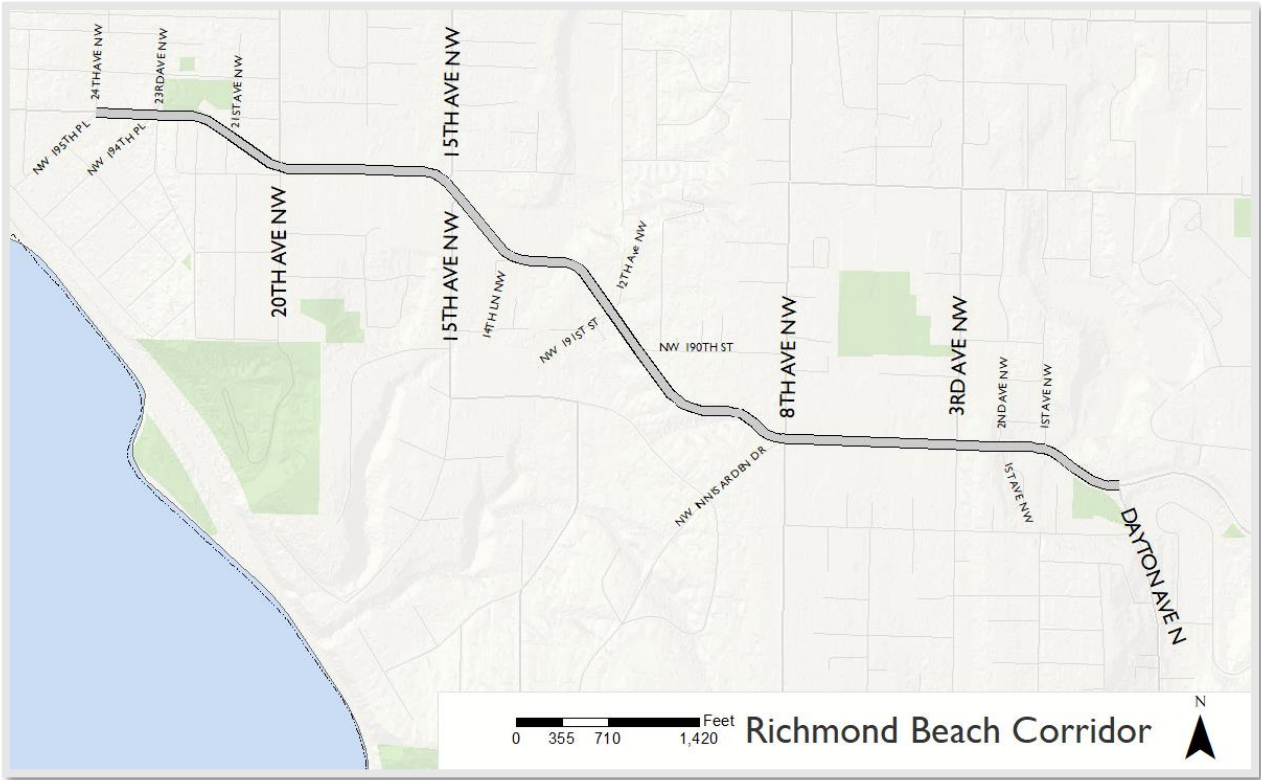


Figure 2 - Project Limits

The primary goal of the rechannelization project was to improve safety and comfort for people driving, walking, or biking by:

- ✚ decreasing non-motorized collisions
- ✚ decreasing injury collisions
- ✚ decreasing speeding behavior

The project schedule is shown in Figure 3 below. The project budget was \$313,592.

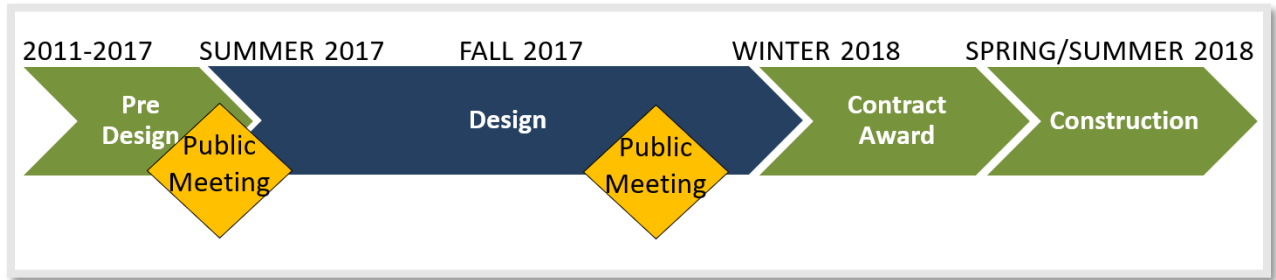


Figure 3 - Project Schedule

# PROJECT BACKGROUND

## Origin

The project corridor has a history of vehicle, pedestrian, and bicycle collisions, and includes two of the City's high collision locations from the [2016 Annual Traffic Report](#). The collision history and resulting 2016 Annual Traffic Report recommendations informed programming the project into the City's Capital Improvement Plan (CIP). Based on existing roadway characteristics, traffic data, and numerous case studies performed across the country, the City concluded that a rechannelization would be responsive to identified safety concerns without significant negative impacts.

## Process

The project design began in June 2016 and was completed by Shoreline staff. During the design phase, two project open houses were conducted; the first was held June 22, 2017 and the second was held October 12, 2017. Both meetings utilized the same format; an example of the open house agenda is shown below:

- ✚ 6:05-6:25 Staff Presentation
- ✚ 6:25-7:15 Open House Circulation & Feedback Opportunity
- ✚ Fill out question cards for group Q&A by 6:45
- ✚ 7:15-7:45 Reconvene for group Q&A
- ✚ 7:45-8:00 Wrap up

Question cards were available during the open house circulation time for people to fill out for a post-circulation wrap-up with staff. This format allowed staff to fairly and equitably answer some of the main themes in a group setting without having the conversation become sidetracked by the most vocal attendees. An example of the question cards is shown in Figure 4. This format worked very well in consideration of some of the very emotional sentiments surrounding the project concept.



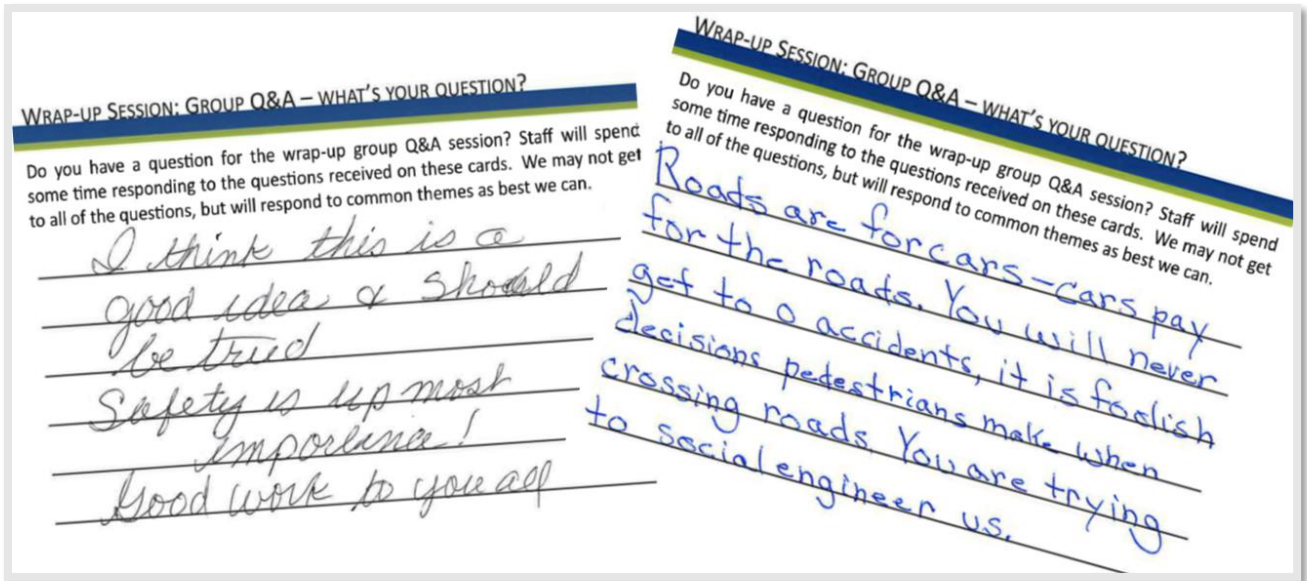


Figure 4 - Example question cards

Statistics for the June 22, 2017 meeting are as follows:

- ✚ 104 people signed in, staff estimated 120 people in attendance
- ✚ 70 Q&A comment cards were filled out and turned in
- ✚ 38 more detailed questionnaires were filled out

Statistics for the October 12, 2017 meeting are shown below:

- ✚ 69 people signed in, staff estimated approximately 80 people in attendance
- ✚ 56 Q&A comment cards were filled out and turned in
- ✚ 19 more detailed questionnaires were filled out



Figure 5 - Photos from 10/12 Open House

A virtual online open house ran from June 28 – August 4, 2017, with additional comments received. The project was highlighted in the Summer 2017, April 2018, and Summer 2018 Currents newsletter. In addition, direct mailers were sent to 618 residents. Some commonly received questions and concerns are listed below. A comprehensive and routinely updated Frequently Asked Questions (FAQ) document addressed these themes; the latest version of this FAQ is provided in Appendix A.

- ✚ Why is this project happening?
- ✚ How will all the vehicles on the corridor fit into fewer lanes?
- ✚ How will this affect my commute?
- ✚ What about future growth?
- ✚ Are cars going to get stuck behind buses when they stop?
- ✚ What happens when a large truck is going slow uphill?
- ✚ How will the City address cut through as a result of diversion?
- ✚ Does the City really expect people to use this as a bike route?
- ✚ How will this project improve safety?
- ✚ Where has this worked on other similar streets?
- ✚ Will emergency response times increase?

Staff estimates 180 unique contacts about this project. The feedback ranged from highly supportive to highly oppositional, with the majority of feedback on the oppositional side of the spectrum. An example of some comments received are shown in Figure 6 below.

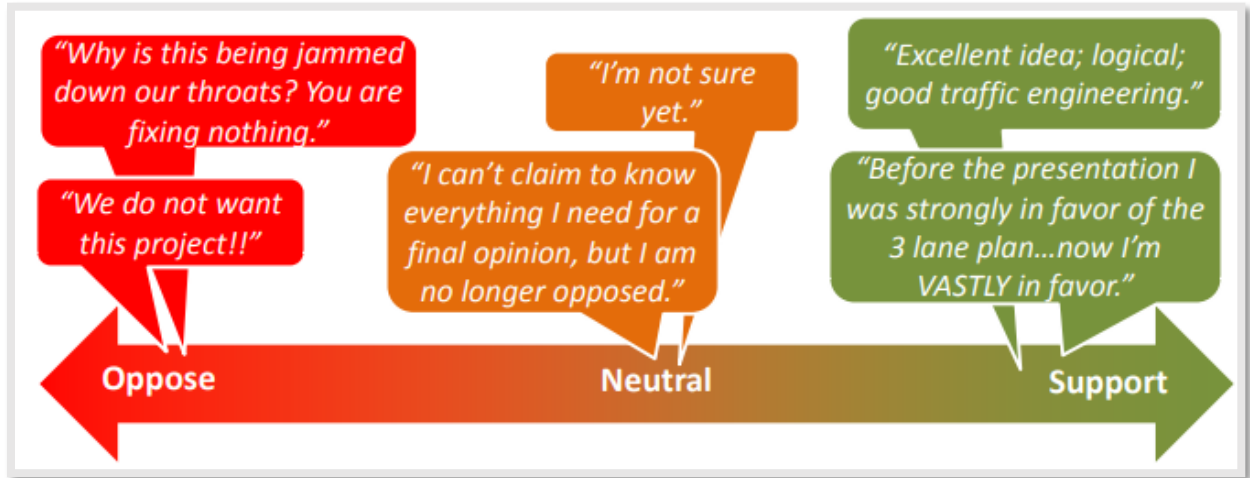


Figure 6 - Example of comments received

All open house materials are provided and published online at:

<http://www.shorelinewa.gov/government/projects-initiatives/richmond-beach-road-rechannelization>

## Implementation

The project took approximately two months to complete and cost a total of \$313,592. The project was deemed substantially complete (available for public use) July 2, 2018.

- ✚ Advertisement date: December 28, 2017
- ✚ Bid date: January 25, 2018
- ✚ Construction start: April 25, 2018
- ✚ Construction end: July 2, 2018
- ✚ Total cost: \$313,592

# PROJECT PERFORMANCE MEASURE: SAFETY

The following section provides an overview of safety related data such as collision history, speeds, and emergency response times for pre- and post-project conditions. There is insufficient data to report on post-project collisions at this time – as planned, collision data comparisons will be updated for Report 2, approximately 1 year following the project completion date, in late summer/early fall 2019 and again for report 3, approximately 3 years following the project completion date, in summer 2021.

## COLLISIONS

From January 1, 2010 through December 31, 2017 from just west of Dayton to 24<sup>th</sup> Ave NW there were a total of 164 collisions. Out of this total, 24 were injury collisions (including one fatality), 12 involved pedestrians, and 3 involved bicyclists. The table below summarizes collision data from just west of Dayton Ave N to 24<sup>th</sup> Ave NW. Note that maps presented at public open houses included collision data at Dayton Ave N, originally the east end of the scope of the project, however after traffic analysis, the scope of the project moved to west of Dayton Ave N. A map and details for each collision represented in Table 1 are provided as Appendices B & C respectively.

**Table 1 - Collision totals and types by year**

	Total	Injury	Pedestrian	Bicyclist
2010	15	3	1	0
2011	29	4	2	0
2012	17	1	0	0
2013	13	1	3	0
2014	22	4	2	1
2015	25	4	1	2
2016	20	3	0	0
2017	23	4	3	0
Sum	164	24	12	3
Avg/year	20.5	3	1.5	.375

## SPEEDS

As part of the project scoping and outreach, speed data was collected and reported for the segment of hill between 8<sup>th</sup> Ave NW and 15<sup>th</sup> Ave NW, taken at approximately NW 190<sup>th</sup> Street. Speeding greatly increases the risk of collision frequency and severity and is a major factor in the outcome of pedestrian collision survivability as shown in Figure 7 below. Prior to the project, data collected west of 8th Ave NW showed that 55% of drivers were exceeding 35 mph, and that about 350 drivers per day were exceeding 45 mph.

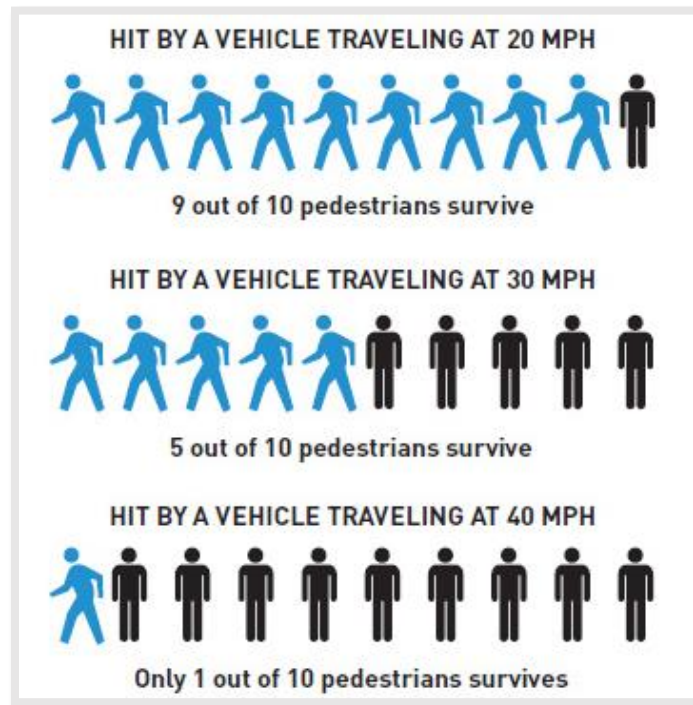


Figure 7 - Pedestrian collision & speed

Source: Seattle VisionZero Plan

Following project implementation, vehicle speeds have decreased, however additional enforcement measures will be necessary to bring 85<sup>th</sup> percentile speeds down to the 30 mph speed limit. The before versus after comparison of vehicle speeds is shown in Table 2 below, with more detailed speed data provided in Appendix D.

Table 2 - Vehicle Speeds Before & After Project

	Before	After
85th Percentile* (MPH)	40	37
Average Speed (MPH)	36	33
% of drivers > 45 mph	3.17%	0.89%

\*The speed at which 85% of drivers are traveling at or below.

Most notably, the top end speeders have decreased significantly. Prior to the project, approximately 350 vehicles per day exceeded 45 mph. After the project, this number has been cut to just over 80 per day.

## EMERGENCY RESPONSE

Before and after emergency response travel time data was provided by Shoreline Fire Department, based on Aid Car 64 Travel Times to NW 195<sup>th</sup> Street and 15<sup>th</sup> Ave NW from Station 64 (on N 185<sup>th</sup> Street near Fremont Ave). There were a total of 138 data points prior to the rechannelization and 57 data points after the rechannelization. As shown in the Table 3, emergency response travel times have increased by an average of 9 seconds.

Table 3 - Emergency Response Time Comparison

Before Rechannelization	4 minutes 27 seconds
After Rechannelization	4 minutes 36 seconds
Difference	9 seconds
% Change	3.4% increase

Additional context for Emergency Response travel times is provided in the Shoreline Fire Department 2019-2024 6-Year Capital Improvement Annual Update. This report includes 2014 through 2018 Aid Car 64 travel time data. The resulting trendline shows an increase of approximately 7.5 seconds per year for Aid Car 64 travel time. In addition, the report states, *“Growth in the City and increasing call volumes will continue to negatively impact unit reliability, which will lead to diminished service capacity. This will result in steadily increasing total incident response times unless additional resources can be funded and deployed. Resources necessary to maintain levels of service concurrently with growth within SFD through 2037 have been identified in the adopted 2018 – 2037 Capital Facilities and Equipment Master Plan.”*

## FEEDBACK

The City has received a variety of feedback following project implementation. Feedback has largely been positive with three primary exceptions as outlined below:

- 1) Many people have expressed concerns about driver behavior at the westbound merge point between Dayton Ave N and 3<sup>rd</sup> Ave NW.
- 2) An intermittent queue that develops at times during the peak hour westbound between 3<sup>rd</sup> Ave NW and Dayton Ave N can further complicate the merge point and can result in poor operations, longer delays, and undesirable behaviors for drivers turning from Dayton Ave N to Richmond Beach Road westbound.

- 3) While the City has received positive feedback from drivers using the newly reconfigured 15<sup>th</sup> Ave NW intersection, those that frequent the Richmond Beach Coffee Company and the residents sharing the driveway now face challenges when entering and exiting.

Please see the *Conclusions* section for follow up recommendations regarding these highlighted issues. Specific examples of both negative and positive feedback are provided below.

“I WAS UNCERTAIN HOW THE RECENT CHANGES IN THE RE-LINING OF RICHMOND BEACH ROAD MIGHT IMPACT TRAFFIC. THERE HAS BEEN NO NEGATIVE IMPACT AS FAR AS I HAVE EXPERIENCED. LOCAL RESIDENTS SEEM TO HAVE ADJUSTED AND TRAFFIC FLOWS WELL. THE 4-WAY STOPS ARE LESS CONFUSING AND SEEM SAFER.”

“I HAVE A FAMILY MEMBER WHO COMMUTES BY BICYCLE, AND HAVING THE BIKE LANE HOPEFULLY WILL KEEP HIM SAFER.”

“THE INTERSECTION OF 15TH NW AND RICHMOND ROAD IS NOW CONFUSING IN A WAY IT WASN'T BEFORE THE CHANGES. THE STOP SIGN FOR 15TH NW AND RICHMOND BEACH ROAD (IN FRONT OF THE CHURCH) HAS BEEN MOVED BACK. THIS MAKES IT CHALLENGING TO SEE WHO IS ON THE LEFT AT THE STOP SIGN IN FRONT OF THE COFFEE SHOP.”

“I WANT TO THANK YOU FOR THE CHANGES THAT HAVE BEEN MADE TO THE ROADS IN THE RICHMOND BEACH NEIGHBORHOOD OVER THE PAST FEW MONTHS. MY FAMILY AND I FEEL SIGNIFICANTLY SAFER AND FEEL THE WALKABILITY HAS GREATLY IMPROVED AS A RESULT...”

“WHILE THE RE-CANNELIZATION OF RICHMOND BEACH ROAD HAS BEEN AN OVERALL AWESOME SUCCESS, IT SEEMS A BIT NUTTY THAT RBR DROPS TO 1 LANE WESTBOUND PRIOR TO 3RD AVENUE. I'VE SEEN LOTS OF BAD BEHAVIOR AT THIS MERGE POINT, AND LOTS OF SLOW DOWNS MAINLY BY FOLKS WAITING TO TURN NORTH ON 3RD AVE. I WOULD SUPPORT A CHANGE TO THE RE-CANNELIZATION THAT MOVED IT START AT 3RD AVE AND WEST OF THERE.”

#### FUTURE GRANT FUNDED SAFETY PROJECT

The City was recently awarded \$487,000 in grant funding to add a midblock pedestrian crossing between 3<sup>rd</sup> Ave NW and 8<sup>th</sup> Ave NW which will include pedestrian activated flashing beacons, a pedestrian refuge area, accessible curb ramps and other safety features. This work is planned for construction in 2021; staff will be working closely with adjacent properties on location of the new crossing and will engage the community during the design process.

# PROJECT PERFORMANCE MEASURE: MOBILITY

Thorough traffic analysis was conducted prior to project implementation to accurately anticipate increases in travel time delays associated with the project, measure impacts to side streets as a result of diversion, and ensure the corridor still operates within the City’s adopted traffic level of service standards. These considerations are discussed in more detail in the respective sections below.

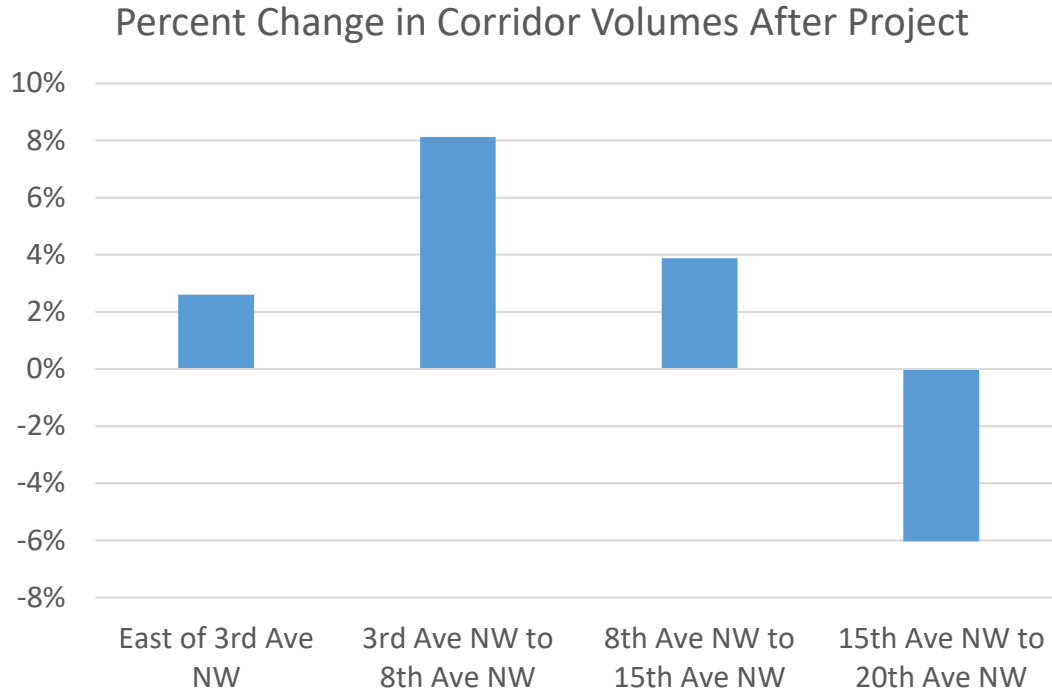
## Project Corridor Volumes & Level of Service

### *Annual Average Daily Traffic (AADT)*

Table 4 provides a comparison of the project corridor Average Weekday Daily Traffic (AWDT) volumes for before versus after project completion. As shown, the on-corridor volumes have generally risen between 2-8%, with the one exception being west of 15<sup>th</sup> Ave NW. This is likely due to the seasonal difference in before versus after data for this location; Richmond Beach Saltwater Park is a major destination in the Spring and Summer; the before data was collected in May 2017, and the after data was collected in December 2018. More detailed data for the information presented in these tables is provided as Appendix E. The increase in traffic volumes on the corridor in the most heavily traveled segments provides one indication that the project has not resulted in significant diversion to side streets, and that the new roadway configuration adequately processes corridor traffic, including some growth over pre-project volumes.



Table 4 – Corridor Traffic Volume Comparison



	East of 3rd Ave NW	3rd Ave NW to 8th Ave NW	8th Ave NW to 15th Ave NW	15th Ave NW to 20th Ave NW
Before	16167	13994	10272	8597
After	16588	15131	10670	8078

*Level of Service (LOS)*

The City of Shoreline Municipal Code requires intersections to operate at an average Level of Service (LOS) of D or better. Associated delay ranges for LOS values are shown in Appendix F. Table 5 represents the intersection LOS before and after the project. All calculations were performed utilizing Synchro 10 traffic modeling software, in accordance with the Highway Capacity Manual methodology.

Table 5 - Intersection Level of Service

Intersection	PM LOS - Before	AM LOS - Before	PM LOS - After	AM LOS - After
3 <sup>rd</sup> Ave NW	B	B	C	C
8 <sup>th</sup> Ave NW	D	D	D	C
15 <sup>th</sup> Ave NW	B	A	C	C
20 <sup>th</sup> Ave NW	B	A	C	A

In addition to intersection LOS, the City maintains a supplemental LOS; a Volume-to-Capacity ratio (V/C) of .90 or better, except that one segment may exceed the .90 standard if the adjacent

intersection operates at a LOS D or better. The associated thresholds for this measure are also shown in Appendix F. As shown in Table 6, most of the corridor segments meet the standard, with one exception between 3<sup>rd</sup> Ave NW and Dayton Ave N. The volumes shown in Table 6 are taken from turning movement counts, provided in Appendix G, and roadway capacity assumptions are provided in Appendix H.

Table 6 - PM Peak Hour V/C Ratio LOS

Segment	PM Peak Volume Westbound (veh/hour)	Resulting V/C Ratio
Dayton to 3 <sup>rd</sup>	990	1.03
3 <sup>rd</sup> to 8 <sup>th</sup>	790	.82
8 <sup>th</sup> to 15 <sup>th</sup>	559	.58
15 <sup>th</sup> to 20 <sup>th</sup>	477	.50

If the segment west of 3<sup>rd</sup> exceeds .90 in the future, a mitigation project will be needed to address the LOS failure. Follow up actions as described in the *Report 1 Conclusions* section could provide additional capacity to address traffic demand in the future.

## Travel Time

Synchro traffic models were used to anticipate travel time delays and were validated and adjusted using a comparison of actual travel times conducted in the field. The models were calibrated within a 10 second difference in comparison to actual.

Following the project, added travel time delays have been less than projected with just 45 seconds of additional delay during the PM peak hour on average, and 18 seconds of additional delay during the AM peak hour on average. All data in Tables 7 and 8 represent the **average** delays modeled or actual measured delays for the associated peak, not the worst case or best-case scenario. Assumptions are provided in Appendix H, and the more detailed modeled and actual travel time results are provided in Appendix I.

Table 7 - AM Peak (Eastbound) Travel Time Comparisons

	Calculated Travel Time - Projected (min:sec)	Field Tested Travel Time – Actual (min:sec)	Calculated vs Field Tested Difference (:sec)
Before	4:03	3:54	(:09)
After	4:45	4:12	(:33)
Difference	0:42	0:18	-

**Table 8 - PM Peak (Westbound) Travel Time Comparisons**

	Calculated Travel Time - Projected (min:sec)	Field Tested Travel Time – Actual (min:sec)	Calculated vs Field Tested Difference (:sec)
Before	4:37	4:30	(:07)
After	5:25	5:15	(:10)
Difference	0:48	0:45	-

## Off Corridor Volumes

During the project design and outreach process, many residents expressed concerns regarding “cut through traffic”; traffic that would use other streets to avoid increase in delay on the corridor as a result of the project. Through the public open house process, as well as online, in-person, call-in, and written feedback, staff received the location requests shown in Table 9 which shows before and after traffic volumes to gauge cut through traffic resulting from the project. The locations shown in boxes are discussed in more detail following the table. Detailed before and after traffic count data for the results presented in the table below are provide in Appendices J and K respectively.

**Table 9 - Off Corridor Volume Comparison**

<i>Location</i>	<i>Street Classification</i>	<i>Increase or Decrease</i>	<i>Difference in average cars daily</i>	<i>% Change</i>
<i>NW 185th St west of Dayton Ave N</i>	Local Street	+	201	17%
<i>15th Ave NW north of NW 195<sup>th</sup> St</i>	Collector Arterial	+	209	12%
<i>NW 204th St west of 15<sup>th</sup> Ave NW</i>	Local Street	+	95	11%
<i>15th Ave NW south of NW Rich Beach Rd</i>	Collector Arterial	+	122	10%
<i>NW 190th St east of NW Rich Beach Rd</i>	Local Street	+	93	7%
<i>NW 201st St west of 12<sup>th</sup> Ave NW</i>	Local Street	+	27	6%
<i>NW 188th St east of 15<sup>th</sup> Ave NW</i>	Collector Arterial	+	81	6%
<i>8th Avenue NW south of NW Rich Beach Rd</i>	Collector Arterial	+	206	5%
<i>3rd Ave NW south of NW Rich Beach Rd</i>	Local Street	+	93	5%
<i>20th Ave NW north of NW 196<sup>th</sup> St</i>	Collector Arterial	+	79	2%
<i>NW 195th St west of 3<sup>rd</sup> Ave NW</i>	Collector Arterial	-	35	2%
<i>3rd Ave NW north of NW Rich Beach Rd</i>	Collector Arterial	-	21	0%
<i>8<sup>th</sup> Ave NW north of NW Rich Beach Rd</i>	Collector Arterial	-	-247	-4%
<i>NW Innis Arden Dr west of 8th Ave NW</i>	Local Street	-	-148	-10%
<i>NW 185th St west of 3rd Ave NW</i>	Local Street	-	-238	-21%

*NW 185<sup>th</sup> Street west of Dayton Ave N, and NE 185<sup>th</sup> Street west of 3<sup>rd</sup> Ave NW*

Locations shown in red text (NW 185<sup>th</sup> Street west of Dayton Ave N, and NE 185<sup>th</sup> Street west of 3<sup>rd</sup> Ave NW) were unable to be adequately counted due to the tube counters being vandalized. This happened on at least 3 occasions and was caught on video. As such, only 1-2 days of counts were able to be collected for either location. Additional data will be obtained using different methods in after report 2 in an attempt to provide a more accurate before-after comparison.

*15<sup>th</sup> Ave NW north of NW 195<sup>th</sup> Street*

After data shows a maximum hourly traffic increase of 32 vehicles, with an average hourly traffic increase of only 9 vehicles, which is within an acceptable range for this arterial street.

*NW 204<sup>th</sup> Street west of 15<sup>th</sup> Ave NW*

This street may be eligible for follow up action. A postcard will be mailed to residents on this residential segment inviting them to participate in any follow up traffic calming measures if interested.

*15<sup>th</sup> Ave NW south of NW Richmond Beach Road*

After data shows a maximum hourly traffic increase of 38 vehicles (for the noon hour), with an average hourly traffic increase of only 5 vehicles, which is within an acceptable range for this arterial street.

*NW Innis Arden Dr west of 8<sup>th</sup> Ave NW, and 8<sup>th</sup> Ave NW north of Richmond Beach Road*

Additional data will be collected for these locations since they appear significantly lower than would be expected.

# REPORT 1 CONCLUSIONS

## *Speed*

In evaluating the speeds on the hill west of 8<sup>th</sup> Ave NW, speed reduction has occurred, aligning the 85<sup>th</sup> percentile speed closer to the posted speed, which was an anticipated positive outcome. In addition, before the project approximately 350 vehicles per day exceeded 45 mph. After the project, this number has been cut to just over 80 per day.

## *Emergency Response*

The before versus after average emergency response travel time has increased by 9 seconds. This may be in part due to increased traffic volumes on the corridor as a result of regional growth and is relatively consistent with the average annual increase in emergency response times since 2014.

## *Travel Time*

Travel times are well within the anticipated threshold that staff had anticipated. Project-added delay for both AM and PM peak are under a minute on **average** as predicted.

## *Cut Through Traffic*

Some of the side streets that were studied did show an increase in comparison to pre-project volumes. The on-corridor traffic data collection also found that traffic volumes have increased, in some cases more than 8%. This may indicate that the uptick in side street volumes may be more linked to overall traffic volume growth in this area, however some follow up actions may still be warranted.

Information will be mailed to residents on one local street, NW 204<sup>th</sup> Street from 15<sup>th</sup> Ave NW to 17<sup>th</sup> Ave NW, as there was a volume increase of 11% and the street may otherwise meet thresholds for traffic calming devices.

Additional data will need to be gathered for at least two streets due to collection device vandalism and will be reported on subsequently, and at least two other streets will be further reviewed since the decrease in volumes appeared much lower than anticipated.

## *Other issues*

Three primary issues have been identified through post-project review and feedback received from residents.

### **1) Westbound merge point between Dayton Ave N and 3<sup>rd</sup> Ave NW**

A few drivers have written in explaining concern over the right lane merge given the fact that it occurs on a horizontal curve, and due to aggressive driving. The merge would be eliminated if the follow up actions outlined in Issue 2 below are implemented.



Figure 8 – Westbound merge between Dayton Ave N and 3<sup>rd</sup> Ave NW

## 2) Long, intermittent PM peak queue westbound between 3<sup>rd</sup> Ave NW and Dayton Ave N

Westbound queues can develop back to Dayton Ave N, impacting traffic flow and operations at the intersection of Dayton Ave N and Richmond Beach Road. This queue typically clears within one signal cycle at 3<sup>rd</sup> Ave NW and the average delay during the PM peak period continues to fall within the expected and acceptable range. The intermittent queue occurs due to a few different factors. One primary factor is buses stopped to load passengers northbound on 3<sup>rd</sup> Ave NW which restricts drivers from turning to northbound 3<sup>rd</sup> Ave NW. If more than 2-3 cars are turning right, this results in the total blockage of westbound traffic on Richmond Beach Road. The other reason for the queue development is a combination of very high westbound traffic (the highest 15-minute peak traffic interval), in addition to conflicting pedestrian movements, which again would prohibit drivers from turning right onto 3<sup>rd</sup> Ave NW, again blocking westbound traffic.



Figure 9 – Traffic Queues westbound at 3<sup>rd</sup> Ave NW

Both issues could be resolved by restriping the westbound approach to 3<sup>rd</sup> Ave NW to carry a second, right turn only lane to 3<sup>rd</sup> Ave NW as shown in the following figure. In doing this, neither the pedestrian movement nor buses would block the westbound through movement. This option could result in some safety tradeoffs, as the permissive phase for the eastbound left turn would be subject to conflict with another lane as was the case prior to the restripe.

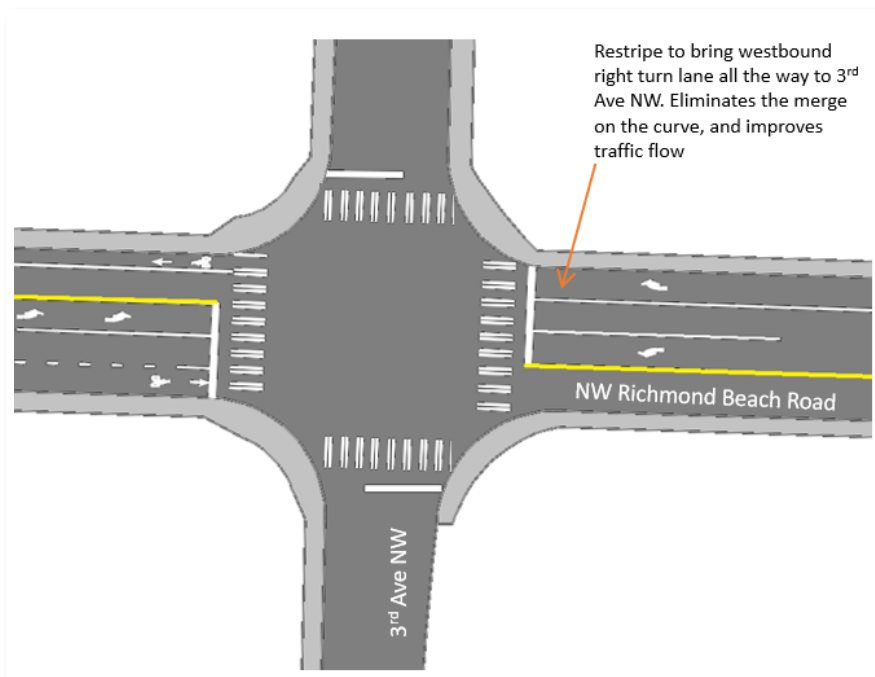


Figure 10 – Future option for improving westbound traffic flow at 3<sup>rd</sup> Ave NW

### 3) Driveway to/from Richmond Beach Coffee Co & Residents at 1440 NW Richmond Beach Rd

The business, patrons of the business, and residents of 1440 NW Richmond Beach Road have communicated that the new configuration makes entering the property from the eastbound direction and leaving the property very difficult due to the proximity to the newly configured intersection at 15<sup>th</sup> Ave NW. Of particular challenge is access to the westbound left turn pocket at 15<sup>th</sup> Ave NW or turning left to eastbound Richmond Beach Rd.



Figure 11 – Driveway at Richmond Beach Coffee Company

These challenges could be addressed by relocating the driveway east to a position where left turners could access the two way left turn lane. In addition, curb ramp improvements to the corner at 15<sup>th</sup> Ave NW would allow for the crosswalk and stop bar to move west, better aligning the intersection and allowing more space for turns from the driveway.

### Recommended Actions

1. **At this time, staff recommends moving forward with revisions to the Richmond Beach Coffee Company driveway and/or intersection at 15<sup>th</sup> Ave NW.** The City will explore access options in coordination with the adjacent property stakeholders this summer with implementation targeted for fall 2020.
2. In addition, information will be mailed to residents along NW 204<sup>th</sup> between 15<sup>th</sup> Ave NW and 17<sup>th</sup> Ave NW regarding potential follow up actions for traffic calming.



3. The concept that restripes to allow for a westbound right turn only lane to 3<sup>rd</sup> Ave NW will be held for future consideration. Staff will continue to monitor safety outcomes in subsequent reports, as well as through the Annual Traffic Report.

For any additional questions or concerns, please contact Kendra Dedinsky, City Traffic Engineer at [kdedinsky@shorelinewa.gov](mailto:kdedinsky@shorelinewa.gov) or (206) 801-2431.

# APPENDICES

# RICHMOND BEACH ROAD RECHANNELIZATION - FAQs



## Frequently Asked Questions (FAQs)

October 2017 (Revision 3 - 10/11/17)

This project will rechannelize Richmond Beach Road/ NW 195th Street/ NW 196th Street from 24th Avenue NW to Dayton Avenue N from four lanes to one vehicle lane in each direction and a center turn lane. The primary goal of this project is to improve driver, pedestrian, and bicyclist safety and mobility. The rechannelization also provides the ability to implement on-street bicycle lanes as well as pedestrian refuge space for pedestrians crossing the street between controlled intersections. We have taken the frequently asked questions and grouped them into categories to assist the reader in quickly finding specific information. Taken together, these answers provide the broader context for the project as a whole.

### Table of Contents

Background .....	2
1 What is a rechannelization?.....	2
2 Why is the City proposing a rechannelization on Richmond Beach Road? .....	2
3 How did we get to this point?.....	3
4 What is the public’s role?     *Updated 8/31/17 to reflect project’s current status* .....	3
5 Didn’t the City fix the safety issues with the signal changes at 3 <sup>rd</sup> Avenue NW?     *New 8/31/17* .....	3
6 Will this project move forward? .....	4
Mobility .....	4
7 How will all of the vehicles on Richmond Beach Road fit into fewer lanes? .....	4
8 How will this affect my commute along Richmond Beach Road as a driver?     *Updated 10/11/17* .....	4
9 How can we trust the traffic analysis? .....	5
10 What about future growth?.....	5
11 Are cars going to get stuck behind buses when they stop?.....	5
12 What happens when a large truck is going slow uphill?.....	6
13 What happens when a delivery truck or garbage truck is stopped? .....	6
14 How will the City address cut through traffic as a result of diversion? .....	6
15 Does the City really expect people to use this as a bike route? .....	6
16 Is the City trying to turn Shoreline into another Seattle?.....	7
Safety .....	7
17 How will the rechannelization improve vehicle safety? .....	7
18 So I’m supposed to block the bike lane when pulling out of my driveway?     *New 8/31/17* .....	8
19 How will the rechannelization improve pedestrian safety? .....	9
20 How will the rechannelization improve bicycle safety? .....	9
21 Won’t this new configuration cause terrible head on collisions?     *New 8/31/17* .....	10
Miscellaneous .....	11
22 Why doesn’t the City just test the rechannelization east of 8 <sup>th</sup> Avenue NW?     *New 8/31/17* .....	11
23 Why can’t the City just widen the existing sidewalks? .....	12
24 How has this treatment worked on other streets? .....	12
25 What about Point Wells?     *Updated 8/31/17 to reflect project’s current status* .....	12
Next Steps .....	13

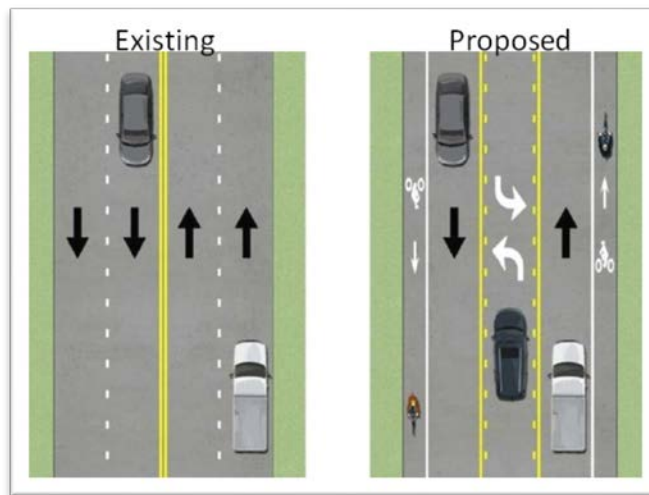
For more information please see our project website:

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## Background

### 1 What is a rechannelization?

A “rechannelization” is when the lane striping along a street is changed. In this case Richmond Beach Road would change from a street with two travel lanes in each direction (diagram - left) to a street with one travel lane in each direction, a two-way center-turn lane, and bike lanes in each direction (diagram - right). Rechannelizations address safety and mobility concerns for a relatively low construction cost because they do not involve paving, purchasing right-of-way, or other high-cost treatments. The Federal Highway Administration has deemed this rechannelization method a proven safety countermeasure for roads like Richmond Beach Road, **reducing collisions by 19-47%**.



### 2 Why is the City proposing a rechannelization on Richmond Beach Road?

The City is proposing to rechannelize Richmond Beach Road to improve driver, pedestrian, and bicyclist safety and mobility. The corridor has a history of vehicle, pedestrian, and bicycle collisions, and includes two of the City’s high collision locations from the [2016 Annual Traffic Report](#). Based on existing roadway characteristics, collision history, traffic data, and numerous case studies performed across the country, the City believes that a rechannelization would work well on Richmond Beach Road.

SAFETY	<ul style="list-style-type: none"> <li>From 2010-2016, there were <b>154 total collisions</b> in this corridor, west of Dayton Ave N to 24<sup>th</sup> Ave NW.</li> <li>Of these collisions, <b>20 were injury collisions, including 1 fatality</b>.</li> <li>10 of these collisions involved pedestrians, and 3 involved bicyclists.</li> <li>There is significant speeding in the corridor which increases the risk of collision frequency and severity.</li> <li>Traffic data west of 8<sup>th</sup> Ave NW shows that <b>55% of drivers are exceeding 35 mph</b>. That means most drivers are speeding more than 5 mph over the posted speed.*Updated 10/11/17</li> </ul>
TRAFFIC & MOBILITY	<ul style="list-style-type: none"> <li><b>Traffic volumes</b> on this corridor are supported by a 3 lane design, ranging from 2,800 vehicles per day west of 20<sup>th</sup> Ave NW to approximately 16,000 vehicles per day east of 3<sup>rd</sup> Ave NW.</li> <li>Studies have shown the proposed channelization to work well – reducing collisions while maintaining traffic delay level of service standards - on roadways with average daily traffic volumes up to 20,000 vehicles per day.</li> <li>Existing <b>sidewalks are narrow</b> with no buffer between cars and pedestrians.</li> <li>Protected <b>crossing opportunities</b> are limited, making access to bus stops and interaction between north and south neighborhoods very challenging. Most pedestrian collisions occur when trying to cross (more than 90%).</li> <li>The City’s 2011 Bicycle Master Plan includes on-street <b>bike lanes</b> for this street.</li> <li>Bicyclists currently use this roadway and collisions have occurred. Many bicyclists have expressed they would use the corridor if vehicle speeds were lower and dedicated bike lanes in place.</li> </ul>

For more information please see our project website:

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

Unique corridor characteristics and challenges which will be carefully considered:

- Uphill segment between 15<sup>th</sup> Ave NW and 8<sup>th</sup> Ave NW; slow moving vehicles & blockages.
- Bus Routes (4 maximum, per direction during the peak hours).
- Proposed Point Wells development in Snohomish County.
- Intersection and roadway geometry.

### 3 How did we get to this point?

- [2011 Transportation Master Plan \(TMP\)](#) – Slated bike lanes for the corridor.
- [Annual Traffic Report](#) – Has consistently identified the need for safety improvements based on collision patterns.
- [Capital Improvement Plan \(CIP\)](#) – Project concept was added to the 2016-2021 CIP, and adopted by Council.

### 4 What is the public's role?

**\*Updated 8/31/17 to reflect project's current status\***

To kick off the design phase, the City hosted a public meeting on June 22<sup>nd</sup> and had a public comment period which helped shape the design. An additional public meeting will be held on October 12<sup>th</sup> which will be an opportunity for the public to see how their comments and questions were incorporated into the project, and to have a chance to comment on the 60% design before the project is finalized.



### 5 Didn't the City fix the safety issues with the signal changes at 3<sup>rd</sup> Avenue NW?

**\*New 8/31/17\***

As described in the 2016 [Annual Traffic Report](#) the signal timing changes have helped in reducing some of the left turn collisions at the 3<sup>rd</sup> Avenue NW signal. Collision rates at this location are still high. In the 10 months following the signal timing changes there were a total of six collisions at this intersection, two of which were injury collisions. Before the signal timing changes there was, on average, 7.22 collisions per 10 month period (based on the table from page 25 of the Annual Traffic Report). This intersection would still be ranked 9<sup>th</sup> overall in the 2016 traffic report and would benefit from additional safety improvements. The proposed changes also significantly improve pedestrian safety at this intersection where since 2010, 4 non-motorized collisions have occurred. This is especially important given the intersection's proximity to Einstein Middle School, as there are many children who use it walking to and from school.

No new collisions have occurred as a result of the removal of the previously restricted 3<sup>rd</sup> Ave NW southbound right turn on red to Richmond Beach Road, which is better than we typically see for right turn on red movements at signalized intersections. Given this, we will not be restoring the right on red restriction at this time. Drivers who do not feel safe turning right on red can always continue to wait until they receive a green light.

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 6 Will this project move forward?

This project has been authorized and funded by the City Council. It is needed to address collision history on the corridor. Best practices and case studies throughout the country show this kind of 3 lane configuration is the best way to meet the safety improvement objectives for this corridor. However there are many design details which can vary for which we are soliciting comments. Based on input from the public, the City will develop a final design.

## Mobility

### 7 How will all of the vehicles on Richmond Beach Road fit into fewer lanes?

A 4 lane roadway often functions like 3 lane roadway as turning vehicles, bicycles, busses and delivery trucks block one of the travel lanes. Case studies show that 3 lane roadways can function quite well – reducing collisions while maintaining traffic delay level of service standards – at average daily traffic volumes of up to 20,000 vehicles. This corridor’s volumes are well below that. Thorough traffic analysis has been conducted and will continue to be refined as described in the following sections.

### 8 How will this affect my commute along Richmond Beach Road as a driver? \*Updated 10/11/17\*

The City has conducted preliminary PM peak (4-6 PM) traffic analysis. The existing and proposed travel times and speeds are shown below. Existing travel times were verified by actual travel time runs conducted in the field, calibrating the model to within 7 seconds of the real life average.

**PM PEAK - Westbound from West of Fremont Ave N to 23<sup>rd</sup> Ave NW**

	Existing	Proposed	Difference
<b>PM Peak Travel Time</b>	4 min 37 sec	5 min 25 sec	48 seconds
<b>Cumulative Intersection Delay</b>	85 seconds	100 seconds	15 seconds
<b>Average Travel Speed</b> (includes stoppages)	24 mph	21 mph	3 mph

The City has conducted preliminary AM peak (7-9 AM) traffic analysis. The existing and proposed travel times and speeds are shown below. Existing travel times were verified by actual travel time runs conducted in the field, calibrating the model to within 8 seconds of the real life average.

**AM PEAK - Eastbound from 23<sup>rd</sup> Ave NW to West of Dayton Ave N**

	Existing	Proposed	Difference
<b>AM Peak Travel Time</b>	4 min 03 sec	4 min 45 sec	42 seconds
<b>Cumulative Intersection Delay</b>	84 seconds	99 seconds	15 seconds
<b>Average Travel Speed</b> (includes stoppages)	23 mph	20 mph	3 mph

If you are turning onto Richmond Beach Road from a signalized side street, additional delays will also be a consideration. In some cases however, turning from the side street will become easier and less delayed which is a great benefit for locations with limited sight distance or challenging geometry. Staff has developed various intersection improvement concepts that would help to maximize efficiency and signals will be optimized to minimize stopping.

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 9 How can we trust the traffic analysis?

Technical staff has thoroughly analyzed the corridor with traffic modeling software but understands these models aren't perfect. In order to provide modeling that is as close to reality as possible, staff conducted weekday PM peak travel time runs in the field to check and calibrate the existing model and better understand driver behavior on the corridor. In doing so, the "Existing Configuration" model was calibrated within 7 seconds of the real life average travel time for the PM peak and within 8 seconds of the real life average travel time for the AM peak. The same considerations will be applied to the "Proposed Configuration" model in order to achieve the most accurate results possible, erring on the higher/conservative side in estimating delay. We will also conduct after studies to verify these estimates and ensure the roadway is operating as intended.

## 10 What about future growth?

City projects and private developments are subject to maximum travel delay standards, also known as Level of Service (LOS) standards or concurrency. These standards require the following:

1. A LOS D (Average of 35-55 seconds of delay per vehicle) at signalized intersections on arterial streets and at unsignalized intersecting arterials; and

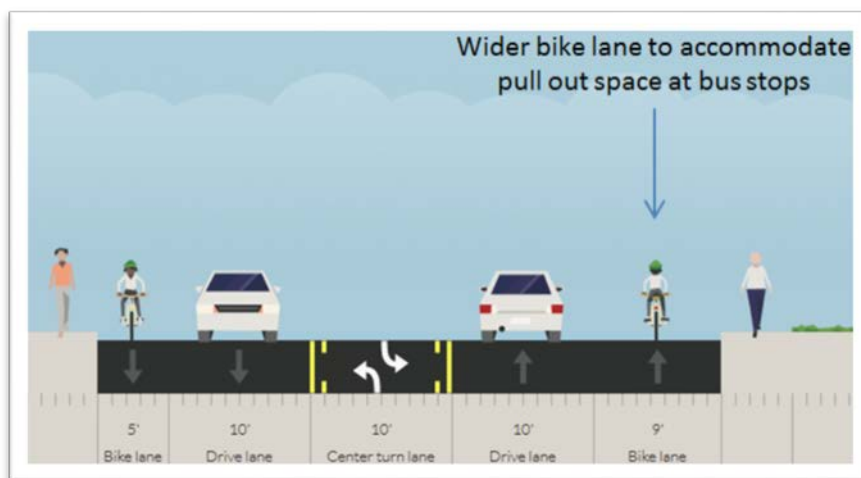
2. A volume to capacity (V/C) ratio of 0.90 or lower for principal and minor arterials.

The V/C ratio on one leg of an intersection may exceed 0.90 when the intersection operates at LOS D or better.

Based on traffic counts and modeling for the proposed configuration, the corridor and all intersections are anticipated to operate well within the bounds of these standards. Future development will have to provide traffic analysis showing added project related trips still fall within the Level of Service standards, or provide mitigation to meet standards. Otherwise, permits cannot be issued.

## 11 Are cars going to get stuck behind buses when they stop?

No. One alternative provides a wider bike lane at bus stops to accommodate a wider bus stop area that will allow buses to pull out of through traffic (see diagram). Staff are also working with King County Metro to identify potential bus stop removals and/or relocations. With a maximum of 4 buses per hour in either direction in the peak commuting hours, the frequency of buses is fairly low which makes their impact minimal. In addition, it is legal to go around a stopped bus.



For more information please see our project website:

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 12 What happens when a large truck is going slow uphill?

Law prohibits slow moving vehicles from holding up 5 or more following cars if they can pull off to let cars pass. The design alternative that provides wider space at bus stops so vehicles can pass also provides space for trucks to safely pull into if they are delaying following drivers. In addition, the City will work with the asphalt plant to determine a reasonable operating strategy when this project is implemented if slow moving vehicles prove to be problematic.

Current traffic data as well as information from previous traffic studies show there are about 5-7 tanker trucks using the corridor staggered throughout the day. Buses and other large vehicles operate at or above the 30 mph speed limit uphill as verified by field studies. Due to the infrequent occurrence of tanker trucks on the corridor, staff was not able to measure their speed uphill but will capture this for design documentation in the future.

Considering that most drivers are traveling in excess of 35 mph, and nearly 10% of drivers are exceeding 45 mph on this hill segment, addressing a majority speeding problem remains the priority over potential infrequent truck delays. As a contingency plan, staff has developed a climbing lane alternative for the hill that could be implemented if slow moving vehicle delays prove to be a much greater impact than anticipated by traffic modeling.

## 13 What happens when a delivery truck or garbage truck is stopped?

**It is legal** to go around stopped vehicles or obstructions ([RCW 46.61.100\(1\)\(b\)](#)). This is how every other two lane roadway with no-pass striping operates, many with traffic volumes higher than segments of this corridor. It is illegal to pass another **moving** vehicle by utilizing the center turn lane space.

## 14 How will the City address cut through traffic as a result of diversion?

City staff does not expect to see significant diversion based on the traffic analysis results however, we would still like to hear your thoughts on routes you'd expect to see cut through traffic. Once we have this information, we can collect "Before" traffic data in advance of implementation for some of the primary identified routes, and monitor with follow up collection after project implementation. Based on this information, we can work with neighborhoods to implement traffic calming as part of our [Neighborhood Traffic Safety Program](#), where warranted.

## 15 Does the City really expect people to use this as a bike route?

- Region wide, biking is up 7.8% since 2011 as indicated by the Washington State Bicycle and Pedestrian Documentation Project.
- Traffic data and collision history confirms that bicyclists are currently using the roadway.
- The "If you build it, they will come" principle - providing facilities produces the effect of inviting more people to use them.
- Although topography is challenging, some riders will choose to use this corridor both to commute and for leisure when it is the most direct route. In addition, power assisted bikes are becoming popular, making the barrier of topography less of an issue.
- Alternate routes are still available for those who would prefer them, however topography is a consideration on those routes as well.
- The route will be more attractive for bicyclists with less vehicle speeding.

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)



## 16 Is the City trying to turn Shoreline into another Seattle?

No, the City's goal for this project is to responsibly and cost effectively improve safety, however this will not be done at the expense of the City's travel delay standards. The City of Seattle has implemented this 4 lane to 3 lane conversion on streets with traffic volumes exceeding 20,000 vehicles per day, which can be a tipping point for causing residual congestion. The heaviest trafficked corridor, between 3<sup>rd</sup> Ave NW and Dayton Ave NW, only carries about 16,000 vehicles per day which is below that rule of thumb tipping point.

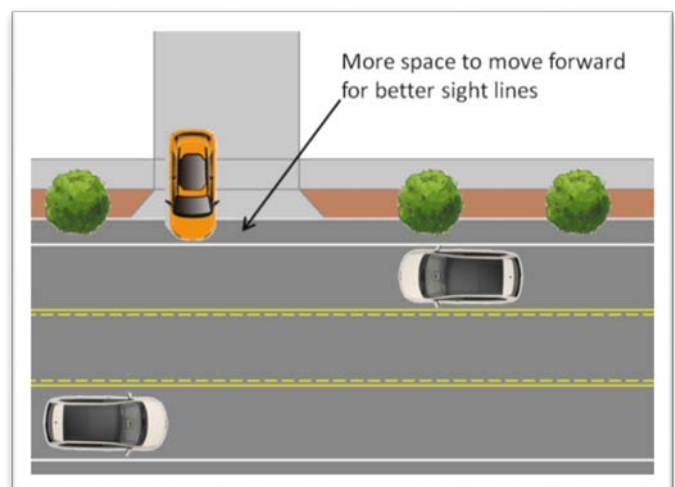
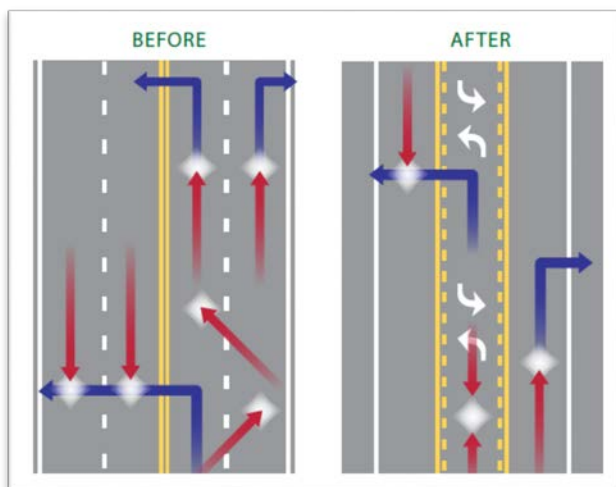
Another big difference between Shoreline and Seattle are our adopted travel delay standards, otherwise known as Level of Service or concurrency. Shoreline's standard is significantly more conservative than Seattle's standards meaning that we generally accept less travel delay than Seattle is comfortable with. The City of Shoreline requires roadways to meet adopted standards. This means that any large development must provide analysis to show that they will not exceed these standards. If the standards are exceeded, the development is required to provide mitigation for their added trips to meet those standards or it cannot proceed.

## Safety

The Federal Highway Administration (FHWA) has deemed this 4 lane to 3 lane conversion as a proven safety countermeasure for roadways with characteristics similar to Richmond Beach Road, aggregating case studies from around the country which show a collision reduction of 19 to 47 percent. Detailed below are the factors that contribute to this proven collision reduction strategy.

## 17 How will the rechannelization improve vehicle safety?

- ✓ Reduces speeding and high variability between vehicle speeds, a main cause of collisions.
- ✓ Reduces conflict points and provides dedicated left turn space (diagram - left).
- ✓ Creates a space for better sight distance when turning from a side street or driveway. Currently, many driveways and side streets along the corridor have limited sight distance. The added bike lane space allows more room for vehicles to creep forward for better views without conflicting with vehicle traffic (diagram - right).



For more information please see our project website:

[shorelinewa.gov/RBRechannelization](https://shorelinewa.gov/RBRechannelization)

## 18 So I'm supposed to block the bike lane when pulling out of my driveway?

**\*New 8/31/17\***

The yield task when entering the roadway remains the same. This is the same principle as pulling into the pedestrian/sidewalk space within a driveway when trying to gain a better view to enter a roadway. The hierarchy is as follows:

Stop before the pedestrian crossing zone (sidewalk, crosswalk, shoulder). If no pedestrians are present, pull forward and stop before the bike lane. If no bicyclists are present, pull forward into the bike lane space to gain adequate views of cross traffic and select an appropriate gap to enter.

This yielding hierarchy implies that you may have to do a two stage stop in locations with limited sight distance, as is shown in the below diagrams. It is still the responsibility of the vehicle entering the roadway to yield to the vehicles (including bicyclists) traveling along the main road.



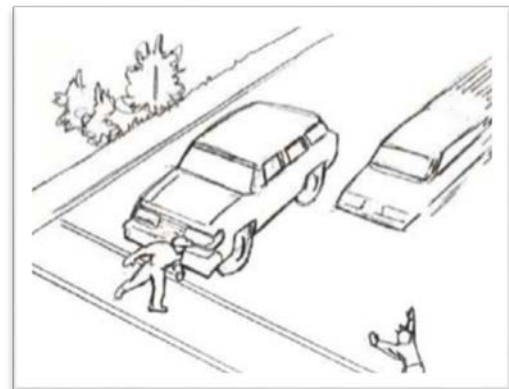
- Bike/vehicle on main road's line of sight
- Vehicle entering from driveway's sight triangle

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 19 How will the rechannelization improve pedestrian safety?

- ✓ Over 90% of pedestrian collisions occur when people cross the road, as opposed to while walking along the road. The rechannelization creates space for “Pedestrian Refuge” for safer crossings (see following diagram - left). In the absence of dedicated refuge space, there are still less lanes to cross which is safer.
- ✓ Eliminates the pedestrian “multi-lane threat” scenario - where one vehicle stops to allow a pedestrian to cross, but the adjacent lane fails to see the pedestrian and does not stop (see following diagram - right).
- ✓ Bike lane space adds 6 more feet between pedestrians and vehicle traffic.
- ✓ Discourages speeding, a main indicator in pedestrian crash survival, since the prudent driver sets the speed for the following platoon.

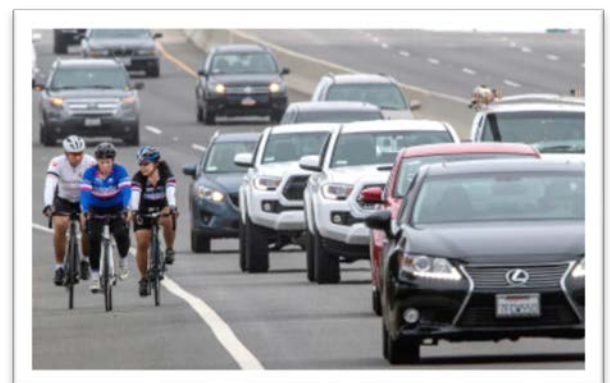


## 20 How will the rechannelization improve bicycle safety?

The rechannelization provides a dedicated space for bicyclists instead of having to share the lane with vehicles. Collision history on this roadway indicates that the existing roadway is not as safe as it could be for bicyclists. Bike lane markings provide the expectation for drivers to encounter bicyclists, improving their awareness and attentiveness to non-motorized users while driving. Reduction of speeding and improved sight lines as previously discussed, also provide a safety benefit to bicyclists.



VS



For more information please see our project website:

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 21 Won't this new configuration cause terrible head on collisions?

**\*New 8/31/17\***

The new configuration is expected to decrease the potential for head on collisions. Currently, the main streams of traffic are only separated by a yellow centerline, with only a foot or two between opposing directions. The new configurations separates the majority of traffic in opposing streams by placing the 10 foot center lane between them. The following table describes and illustrates the geometric benefits to the 3 lane configuration with regard to head on collision types.

**Existing Roadway:** High volumes of opposing traffic very close to each other. A small error (2-3 feet difference) has the potential to cause a high speed head on collision.



**Proposed Roadway:** Two way left turn lane is unoccupied most of the time. More separation between the main streams of traffic. Drivers typically slow as they enter the turn lane, making it easier to adapt to opposing traffic, and less catastrophic in the event of collision.



Since 2010, there have been 34 reported “Opposite Direction” related collisions reported on City streets which resulted in injury. The collision types shown below are all considered “Opposite Direction” and have been included for reference. The type most similar to the head on collisions we’ve heard concerns about is the bolded “opposite direction – head-on” category. There has only been one of these collisions in the City since 2010 and it was not within a center turn lane.

- ✓ From opposite direction – turn related
- ✓ From opposite direction – all others
- ✓ From opposite direction – sideswipe
- ✓ **From opposite direction – head-on**

The following table summarizes where the 34 reported “Opposite Direction” injury collisions occurred throughout the City of Shoreline.

2010-2016 “Opposite Direction” injury collisions by Roadway		
Roadway	# of Collisions	Roadway Characteristics at Collision Site
<b>Aurora Ave N</b>	8	Configuration – 2 lanes in each direction + BAT Lanes + Dedicated turn lanes. Collisions at intersections.
<b>Ballinger Way</b>	2	Configuration – 2 lanes in each direction plus turn lane. Both occurred at the signalized intersection of 19 <sup>th</sup> Ave NE.
<b>15th Ave NE</b>	5	Configuration varies 3-4 lanes. All but one collision occurred within the 4 lane section as opposed to the 3 lane section. In addition, all were related to intersection turning movements.
<b>15th Ave NW</b>	1	Configuration – 1 lane in each direction.
<b>5th Ave NE</b>	2	Configuration – 1 lane in each direction.
<b>8th Ave NW</b>	1	Configuration – 1 lane in each direction.
<b>Linden Ave N</b>	1	Configuration – 1 lane in each direction.
<b>N 175th St</b>	2	Configuration – 4 lanes (2 in each direction).

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

<b>N 185th St</b>	1	Configuration – 3 lane (1 each direction + center turn lane). Collision occurred at Wallingford, resulting from a turning movement.
<b>N 200th St</b>	1	Configuration – 2 lanes (1 each direction)
<b>N 205th St</b>	1	Configuration – 3 lane (1 each direction + center turn lane) Collision occurred within the 300 Block – only true head on collision. Impact location was in westbound general purpose lane, not in turn lane.
<b>N/NE 155th St</b>	2	Configuration varies, 2-3 lanes. The collisions on N 155 <sup>th</sup> Street occurred at the signalized intersection of Meridian Ave N and at 5 <sup>th</sup> Ave NE.
<b>NE 175th St</b>	1	Configuration – 4 lanes (2 in each direction)
<b>NW Richmond Beach Rd</b>	4	Configuration – 4 lanes (2 in each direction). Collisions occurred at 3 <sup>rd</sup> or 8 <sup>th</sup> .
<b>Westminster Way N</b>	2	Configuration – 4 lanes (2 in each direction)
<b>Total</b>	<b>34</b>	

In reviewing all types of these “Opposite Direction” collisions, only 4 out of 34 have occurred on segments of roadway with the 3 lane configuration, and all 4 of these collisions happened at intersection locations with dedicated left turn lanes. **From 2010 to 2016, there have been zero opposite direction collisions resulting in injury that occurred within a two way left turn lane.**

By comparison, in the same time period, there have been more than 100 pedestrian and bicycle injury collisions throughout the City, which clearly indicates the need to focus on the non-motorized safety benefits this project achieves. A full breakdown of injury collisions by type from 2010-2016 is shown in the table to the right. Collisions between two cars moving in opposite directions and colliding head on represent the smallest proportion of reported injury collisions. Non-motorized collisions and turning related collisions represent the highest proportion of injury collisions in Shoreline. This project is expected to greatly reduce risk of injury collisions as the lane reduction and dedicated turn space directly contribute to mitigating the non-motorized and turning related collision types.

Type of Collision	Number of Collisions	Percent of Total
Vehicle - pedestrian	65	20.6%
Entering at angle	57	18.0%
Fixed object	41	13.0%
Vehicle – bicyclist	37	11.7%
Same direction - rear End	31	9.8%
Opposite direction - turn related	26	8.2%
Parking related	21	6.6%
Same direction - sideswipe	8	2.5%
Same direction - turn related	8	2.5%
Vehicle overturned	8	2.5%
Same direction - all others	5	1.6%
Opposite direction - sideswipe	4	1.3%
From opposite direction - all others	3	0.9%
<b>Opposite direction - head-on</b>	<b>1</b>	<b>0.3%</b>

## Miscellaneous

### 22 Why doesn't the City just test the rechannelization east of 8<sup>th</sup> Avenue NW? \*New 8/31/17\*

There are safety concerns (such as vehicle vs bike and vehicle vs pedestrian collisions) occurring west of 8<sup>th</sup> Ave NW that can't be ignored. The proposed channelization would improve sight lines, slow vehicle speeds, provide a buffer for pedestrians and add a designated space for bicyclists. The City has been hearing support from the residents who live on the hill between 15<sup>th</sup> Avenue NW and 8<sup>th</sup> Avenue NW on Richmond Beach Road because they currently have trouble accessing and leaving their homes due to sight distance constraints and high speeds. In addition, traffic volumes are significantly lower west of 8<sup>th</sup>; 3 lanes can adequately handle existing traffic volumes.

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

## 23 Why can't the City just widen the existing sidewalks?

This restriping effort is a low-cost project at approximately \$215,000, and is the most cost effective strategy for addressing the collision history on the corridor. By comparison, widening sidewalks would likely cost more than 4 million dollars and wouldn't address the corridor's history of collisions. Additionally, throughout much of the corridor the back of the existing sidewalks is concurrent with the Right of Way line. This means in order to widen for bigger sidewalks or bike lanes, the City would need to acquire private property which significantly increases the cost of improvements. For more information on what Shoreline is doing to develop and maintain our network of sidewalks, please visit our webpage at:

<http://www.shorelinewa.gov/government/departments/public-works/capital-improvement-plan/sidewalks-priority-routes>

## 24 How has this treatment worked on other streets?

This treatment has been successful both regionally and throughout the Country. Within just a few miles of this corridor are multiple examples of 3 lane roadways including N 155<sup>th</sup> Street and N 205<sup>th</sup> Street (pictured) which carry comparable volumes. One example of a nearby successful rechannelization in Seattle, NE 75<sup>th</sup> Street from 15<sup>th</sup> Ave NE to 35<sup>th</sup> Ave NE, provides a comprehensive before and after study, documenting the safety and mobility benefits. This study is available online at:

<http://www.seattle.gov/transportation/docs/NE75thRechannelizationReportFINAL.pdf>



Additionally, the Federal Highway Administration (FHWA) has deemed this 4 lane to 3 lane conversion as a proven safety countermeasure, aggregating case studies from around the country which show a collision reduction of 19 to 47 percent. FHWA also summarizes that most streets can well accommodate average daily traffic volumes of 15,000 and higher in many cases. The Federal informational guide is available online at: [https://safety.fhwa.dot.gov/road\\_diets/info\\_guide/](https://safety.fhwa.dot.gov/road_diets/info_guide/)

## 25 What about Point Wells?

**\*Updated 8/31/17 to reflect project's current status\***

The Point Wells property is located in unincorporated Snohomish County. Currently its only road access is through the Richmond Beach neighborhood of Shoreline. A development proposal for the property continues in the Snohomish County permitting process. The developer for the Point Wells site, Blue Square Real Estate (BSRE) submitted revisions to the project on April 17, 2017 to Snohomish County. The Snohomish County website states the revised plans "retain the basic overall concept in the original submittal, but add a second access road through the Town of Woodway and make some adjustments internal to the site in response to the County comments". The county provided preliminary review comments on May 10, 2017 and expect a revised application from the development. Work on the Draft Environmental Impact Statement is on hold while the County awaits for a new submission with "a satisfactory new alternative" as determined by Snohomish County Planning and Development Services staff.

In 2014, the City and BSRE undertook a joint effort to conduct a "[Transportation Corridor Study](#)"; a process for public input on the proposed project as required by a [Memorandum of Understanding](#) the City entered into with the developer in 2013. In addition, the City's current [Point Wells Subarea Plan](#) relates changes to traffic volume restrictions on Richmond Beach Drive to a finalized Transportation Corridor Study. The Transportation Corridor Study was never finalized as the

**For more information please see our project website:**

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)

City reached an impasse with BSRE’s technical staff in determining an appropriate mitigation strategy to meet the City’s traffic standards (Level of Service) for their proposed number of vehicle trips added to Shoreline streets.

Regarding the proposed three lane roadway configuration and its relationship to potential future Point Wells traffic, it is prudent the City not postpone necessary projects to improve safety and mobility for a relatively low cost over impacts from an uncertain future development at Point Wells that is unlikely to occur for a decade or more. The City’s bike master plan slates on-street bike facilities for Richmond Beach Road and this is only accomplished through a 3-lane configuration without additional Right of Way.

As stated previously the primary purpose of this change is to address safety issues, but in response to questions from the community regarding how this affects potential traffic from Point Wells, based on traffic analysis fewer lanes through the corridor means less traffic can be added to the system within the City’s level of service requirements. In other words, fewer additional vehicular trips before significant mitigation would be required to meet the City’s level of service. City of Shoreline staff will continue to review any submittals to Snohomish County for consistency with the City’s adopted plans and regulations applicable to this development and previously submitted staff comments on the project.

For more information on the proposed Point Wells Development visit the City and County’s websites at the links below.

Snohomish County Point Wells web page: <https://snohomishcountywa.gov/1511/Point-Wells>

City of Shoreline Point Wells web page: <http://www.shorelinewa.gov/government/departments/planning-community-development/planning-projects/point-wells>

## Next Steps

- **October 12, 2017 – 2<sup>nd</sup> Public Meeting** to show refined 60% design and get additional feedback on minor design revisions
- Winter 2017 – Final design
- Winter 2017/2018 – Award contract
- Summer 2018 – Implement improvements

### Thursday, October 12<sup>th</sup>

## Public Meeting

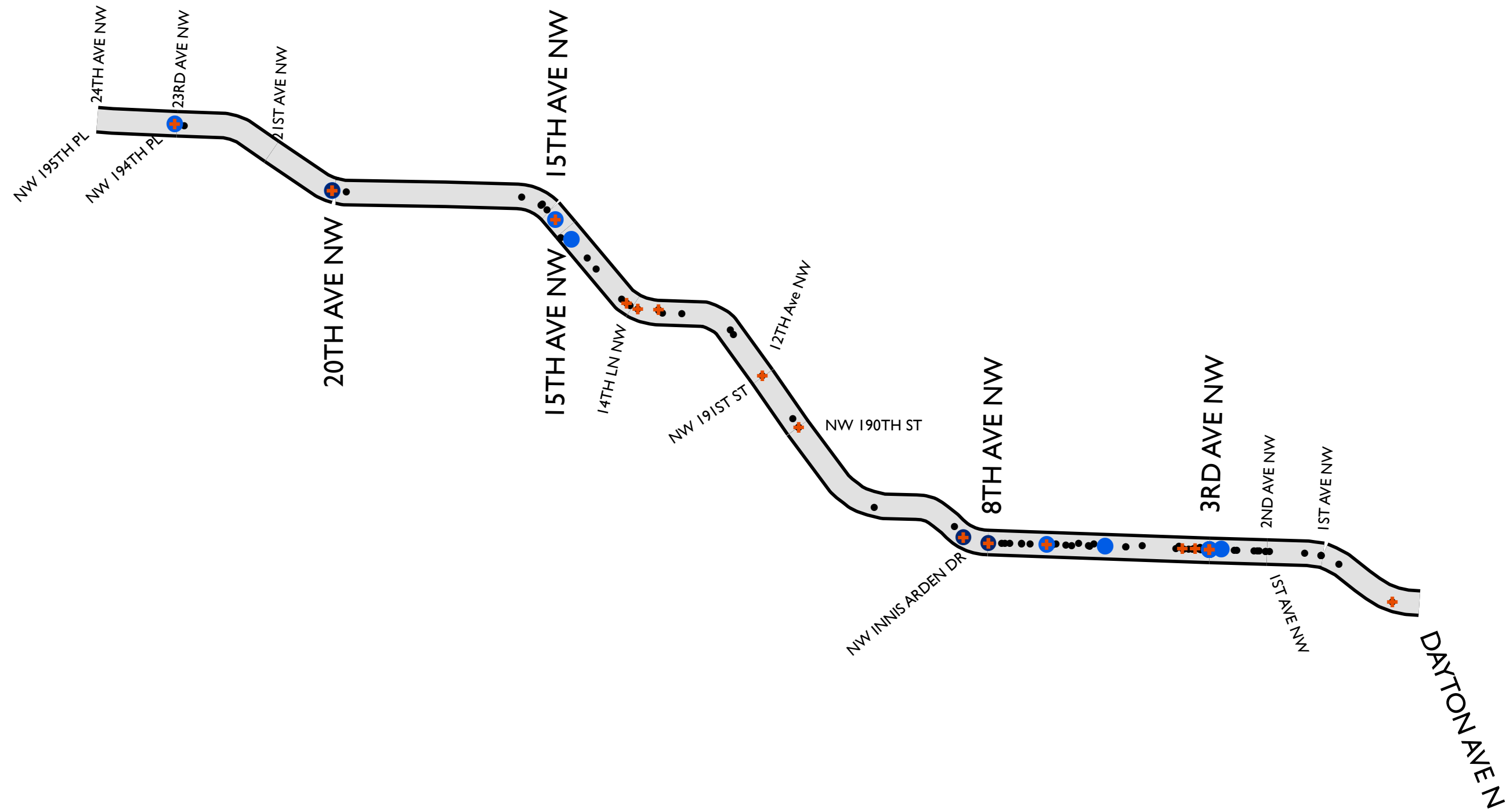
**When:** 6pm – 8pm  
**Where:** Shorewood High School Commons  
17300 Fremont Avenue N  
Shoreline, WA 98133






### PROJECT SCHEDULE



For more information please see our project website:

[shorelinewa.gov/RBRechannelization](http://shorelinewa.gov/RBRechannelization)



-  Fatal, Serious or Evident Injury Collision
-  Bicyclist Collision
-  Pedestrian Collision
-  Collision
-  Richmond Beach Corridor

# Richmond Beach Corridor

## Total Collisions

1/1/2010 - 12/31/2017



Geographic Information System

This map is not an official map.  
No warranty is made concerning the accuracy, currency, or  
completeness of data depicted on this map.









Appendix C  
1/1/2010 - 12/31/2017 Collision Data  
4

###	NW RICHMOND BEACH RD	0	3RD AVE NW	<Null>	<Null>	<Null>	<Null>	E700058	8/9/2017	2017	10:51	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped	Follow Too Closely	<Null>	1182646.31	892257.72
###	3RD AVE NW	0	NW RICHMOND BEACH RD	<Null>	<Null>	<Null>	<Null>	E714835	9/22/2017	2017	19:42	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Improper Turn	<Null>	1182646.31	892257.72
###	NW RICHMOND BEACH RD	200	<Null>	70	F	W	<Null>	E718828	9/28/2017	2017	10:16	No Apparent Injury	0	0	2	0	0	Truck (Flatbed, Van, etc)	Passenger Car	Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - sideswipe	Changing Lanes	Going Straight Ahead	West	South	West	East	Improper Turn	<Null>	1182914.64	892249.37
###	NW RICHMOND BEACH RD	1300	<Null>	0.19	M	SE	<Null>	E721117	9/30/2017	2017	22:09	No Apparent Injury	0	0	1	0	0	Passenger Car	<Null>	Not at Intersection and Not Related	Raining	Wet	Dark-Street Lights On	Utility Pole	Going Straight Ahead	<Null>	East	West	<Null>	<Null>	Exceeding Reas. Safe Speed	<Null>	1179493.08	893683.06
###	NW RICHMOND BEACH RD	500	<Null>	388	F	E	<Null>	E720364	10/5/2017	2017	8:15	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Driveway	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Making Left Turn	North	East	West	North	Inattention	<Null>	1181712.51	892291.74
###	N RICHMOND BEACH RD	18600	<Null>	23	F	E	<Null>	E735800	11/2/2017	2017	12:52	Possible Injury	1	0	2	0	0	Passenger Car	Bus or Motor Stage	Not at Intersection and Not Related	Raining	Wet	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	West	East	West	East	Follow Too Closely	<Null>	1183007.29	892246.01
###	NW RICHMOND BEACH RD	0	NW 190TH ST	<Null>	<Null>	<Null>	<Null>	E731422	11/3/2017	2017	8:29	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Not Related	Snowing	Wet	Daylight	One parked-one moving	Backing	Legally Parked, Unoccupied	East	Vehicle Backing	<Null>	<Null>	Operating Defective Equipment	Inattention	1180190.39	892999.82
###	NW RICHMOND BEACH RD	1400	<Null>	271	F	SE	<Null>	E735295	11/12/2017	2017	12:49	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Raining	Wet	Daylight	From opposite direction - all others	Other*	Going Straight Ahead	East	West	East	West	On Wrong Side Of Road	Exceeding Reas. Safe Speed	1178981.02	893949.65
###	NW RICHMOND BEACH RD	0	3RD AVE NW	<Null>	<Null>	<Null>	<Null>	E735799	11/15/2017	2017	6:50	Suspected Minor Injury	1	0	1	1	0	Pickup,Panel Truck or Vanette under 10,000 lb	<Null>	At Intersection and Related	Raining	Wet	Dark-Street Lights On	Vehicle turning left hits pedestrian	Making Left Turn	<Null>	West	North	<Null>	<Null>	Fail to Yield Row to Pedestrian	Inattention	1182646.31	892257.72
###	NW RICHMOND BEACH RD	500	<Null>	385	F	E	<Null>	E738683	11/22/2017	2017	14:44	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	Driveway Related but Not at Driveway	Raining	Wet	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	West	East	West	East	None	<Null>	1181709.23	892291.34
###	NW RICHMOND BEACH RD	19200	<Null>	25	F	NW	<Null>	E742218	12/2/2017	2017	17:46	Suspected Minor Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Driveway	Raining	Wet	Dark-Street Lights On	Entering at angle	Making Left Turn	Going Straight Ahead	Northeast	East	East	West	Did Not Grant RW to Vehicle	<Null>	1179163.19	893743.58
###	NW RICHMOND BEACH RD	300	<Null>	60	F	W	<Null>	E747094	12/12/2017	2017	15:00	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	Driveway Related but Not at Driveway	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	East	West	East	West	None	<Null>	1182586.8	892259.85

<b>Before</b>							
85th		Average		Exceeding 45			
NWB	SEB	NWB	SEB	NWB	NWB	SEB	SEB
40.2	40.4	35.2	36	3.30%	176	2.60%	144
39.9	40.1	34.9	35.5	3.20%	184	2.20%	128
40.3	40.1	35.3	35.8	3.30%	190	2.40%	138
40.5	40.5	35.5	36	3.70%	209	2.80%	155
41.3	40.6	36.3	36.1	4.50%	250	2.90%	159
41.4	40.5	36.4	36	4.70%	240	2.60%	129
40.4	40.5	35.5	36.1	3.70%	211	2.50%	135
<b>40.6</b>	<b>40.4</b>	<b>35.6</b>	<b>35.9</b>	<b>3.77%</b>	<b>208.6</b>	<b>2.57%</b>	<b>141.1</b>

<b>After</b>							
85th Percentile		Average Speed		Exceeding 45			
NWB	SEB	NWB	SEB	NWB	NWB	SEB	SEB
37.6	36.6	33.1	32.7	1.30%	51	0.20%	5
38	36.7	33.5	33	1.20%	56	0.40%	18
37.9	36.7	33.4	32.8	1.40%	71	0.40%	18
38	36.6	33.5	32.9	1.40%	74	0.30%	17
38.8	37	34	33.3	1.60%	77	0.40%	20
39.1	37.1	34.3	33.4	2.10%	85	0.30%	13
37.9	36.7	33.5	32.9	1.10%	56	0.30%	15
<b>38.2</b>	<b>36.8</b>	<b>33.6</b>	<b>33</b>	<b>1.44%</b>	<b>67.1</b>	<b>0.33%</b>	<b>15.1</b>

	<b>Before</b>	<b>After</b>
<b>85th Percentile</b>	40	37
<b>Average Speed</b>	36	33
<b>% of drivers &gt; 45 mph</b>	3.17%	0.89%

# Appendix E - Before & After Corridor Volumes

Richmond Beach Road - East of 3rd Ave NW - After Rechannelization Project										
	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Tuesday	Tuesday	Average	
	11/13/2018	11/14/2018	11/15/2018	11/16/2018	11/19/2018	1/15/2019 (Gridsmart)	1/22/2019 (Gridsmart)	1/29/2019 (Gridsmart)		
EASTBOUND	12:00 AM	21	20	15	25	24	16	18	22	20.1
	1:00 AM	14	4	13	10	8	10	13	10	10.3
	2:00 AM	10	13	15	12	7	10	7	8	10.3
	3:00 AM	20	25	18	21	22	22	26	24	22.3
	4:00 AM	61	76	62	63	64	63	65	56	63.8
	5:00 AM	212	205	223	203	214	178	205	185	203.1
	6:00 AM	538	549	521	453	467	472	450	464	489.3
	7:00 AM	983	929	950	911	908	829	838	873	902.6
	8:00 AM	800	839	845	789	828	778	788	777	805.5
	9:00 AM	649	632	594	593	641	605	586	610	613.8
	10:00 AM	532	552	575	561	530	507	510	515	535.3
	11:00 AM	477	462	503	534	506	486	475	488	491.4
	12:00 PM	531	506	503	508	546	518	500	496	513.5
	1:00 PM	454	483	461	488	510	507	490	483	484.5
	2:00 PM	505	501	600	542	548	535	507	552	536.3
	3:00 PM	562	559	564	612	587	537	580	593	574.3
	4:00 PM	603	582	605	551	537	555	542	584	569.9
5:00 PM	544	495	506	578	465	514	496	537	516.9	
6:00 PM	438	429	443	404	405	419	375	396	413.6	
7:00 PM	317	298	259	309	292	278	288	294	291.9	
8:00 PM	246	240	237	229	201	199	199	210	220.1	
9:00 PM	165	172	158	234	181	159	150	156	171.9	
10:00 PM	93	87	109	127	86	76	88	97	95.4	
11:00 PM	43	46	53	102	50	41	39	40	51.8	
Totals	8818	8704	8832	8859	8627	8314	8235	8470	8607.4	
	Tuesday	Wednesday	Thursday	Friday	Monday	Tuesday	Tuesday	Tuesday	Average	
	11/28/2018	11/29/2018	11/30/2018	12/1/2018	12/4/2018	1/15/2019 (Gridsmart)	1/22/2019 (Gridsmart)	1/29/2019 (Gridsmart)		
WESTBOUND	12:00 AM	34	40	44	79	15	33	38	39.5	
	1:00 AM	21	14	15	61	14	19	24	22.9	
	2:00 AM	15	14	16	36	12	13	13	16.9	
	3:00 AM	9	9	12	21	9	10	11	13	11.8
	4:00 AM	15	19	13	20	10	21	19	18	16.9
	5:00 AM	34	56	37	33	32	53	56	51	44.0
	6:00 AM	90	112	101	47	37	113	115	111	90.8
	7:00 AM	291	298	282	83	139	315	324	316	256.0
	8:00 AM	420	425	409	189	264	446	445	455	381.6
	9:00 AM	359	389	395	309	302	389	379	380	362.8
	10:00 AM	378	373	331	455	351	381	368	391	378.5
	11:00 AM	441	407	450	477	413	439	435	453	439.4
	12:00 PM	442	480	497	520	491	522	497	531	497.5
	1:00 PM	592	459	491	558	444	568	508	515	516.9
	2:00 PM	500	585	672	567	573	632	669	665	607.9
	3:00 PM	667	735	757	626	734	797	812	800	741.0
	4:00 PM	731	791	768	544	803	873	806	877	774.1
5:00 PM	726	785	775	507	753	884	878	862	771.3	
6:00 PM	645	682	591	480	718	693	709	701	652.4	
7:00 PM	537	490	381	374	437	453	469	465	450.8	
8:00 PM	413	335	322	271	234	364	397	389	340.6	
9:00 PM	280	303	442	323	160	269	255	280	289.0	
10:00 PM	175	194	227	283	65	143	148	167	175.3	
11:00 PM	102	101	142	170	44	95	80	87	102.6	
Totals	7917	8096	8170	7033	7054	8525	8450	8596	7980.1	

**Richmond Beach Road - 3rd Ave NW to 8th Ave NW - Before Rechannalization Project**

	Monday 5/1/2017	Tuesday 5/2/2017	Wednesday 5/3/2017	Thursday 5/4/2017	Friday 5/5/2017	Average	
EASTBOUND	12:00 AM	17	21	18	16	20	18.4
	1:00 AM	12	11	7	9	14	10.6
	2:00 AM	6	8	10	8	7	7.8
	3:00 AM	13	13	12	11	12	12.2
	4:00 AM	48	56	42	52	39	47.4
	5:00 AM	126	152	150	133	124	137.0
	6:00 AM	315	354	339	362	317	337.4
	7:00 AM	624	628	611	597	550	602.0
	8:00 AM	454	496	499	498	480	485.4
	9:00 AM	421	418	413	454	446	430.4
	10:00 AM	355	368	377	424	420	388.8
	11:00 AM	347	367	379	405	389	377.4
	12:00 PM	372	381	343	402	353	370.2
	1:00 PM	317	351	353	400	380	360.2
	2:00 PM	382	403	382	448	426	408.2
	3:00 PM	399	389	431	431	410	412.0
	4:00 PM	384	381	405	478	393	408.2
	5:00 PM	408	391	403	409	396	401.4
	6:00 PM	315	330	451	298	348	348.4
	7:00 PM	227	257	333	231	308	271.2
	8:00 PM	193	203	297	216	257	233.2
	9:00 PM	127	135	191	132	236	164.2
	10:00 PM	118	100	98	84	143	108.6
	11:00 PM	22	37	39	25	83	41.2
Totals	6002	6250	6583	6523	6551	6381.8	
WESTBOUND	12:00 AM	27	33	42	31	42	35.0
	1:00 AM	11	20	11	16	20	15.6
	2:00 AM	10	15	15	12	13	13.0
	3:00 AM	4	11	13	7	12	9.4
	4:00 AM	18	17	15	20	15	17.0
	5:00 AM	38	62	42	64	48	50.8
	6:00 AM	121	107	114	117	112	114.2
	7:00 AM	266	276	255	287	248	266.4
	8:00 AM	364	368	361	386	391	374.0
	9:00 AM	338	345	320	381	384	353.6
	10:00 AM	348	357	367	378	352	360.4
	11:00 AM	379	421	389	476	458	424.6
	12:00 PM	451	463	440	486	475	463.0
	1:00 PM	460	468	475	533	496	486.4
	2:00 PM	552	575	591	594	602	582.8
	3:00 PM	649	669	687	723	714	688.4
	4:00 PM	729	685	729	709	711	712.6
	5:00 PM	745	737	739	669	702	718.4
	6:00 PM	539	622	654	569	556	588.0
	7:00 PM	407	463	505	437	474	457.2
	8:00 PM	346	352	424	331	341	358.8
	9:00 PM	220	250	290	266	280	261.2
	10:00 PM	144	147	177	152	224	168.8
	11:00 PM	57	70	85	85	164	92.2
Totals	7223	7533	7740	7729	7834	7611.8	

Richmond Beach Road - 3rd Ave NW to 8th Ave NW - After Rechannelization Project				
	Monday	Mon-Fri Average (Gridsmart)		
	01/28/2019	3/18/2019-3/22/2019		
			Average	
EASTBOUND	12:00 AM	24	8	16
	1:00 AM	10	6	8
	2:00 AM	8	18	13
	3:00 AM	22	43	33
	4:00 AM	52	160	106
	5:00 AM	170	366	268
	6:00 AM	372	665	519
	7:00 AM	633	584	609
	8:00 AM	544	537	541
	9:00 AM	489	485	487
	10:00 AM	455	471	463
	11:00 AM	453	484	469
	12:00 PM	460	475	468
	1:00 PM	433	528	481
	2:00 PM	482	530	506
	3:00 PM	476	542	509
	4:00 PM	488	529	509
	5:00 PM	489	451	470
	6:00 PM	371	397	384
	7:00 PM	275	250	263
	8:00 PM	205	166	186
	9:00 PM	143	101	122
	10:00 PM	91	49	70
	11:00 PM	47	25	36
Totals	7192	7870	7531	
WESTBOUND	12:00 AM	34	15	25
	1:00 AM	15	15	15
	2:00 AM	13	10	12
	3:00 AM	9	16	13
	4:00 AM	18	48	33
	5:00 AM	47	115	81
	6:00 AM	109	252	181
	7:00 AM	230	386	308
	8:00 AM	349	361	355
	9:00 AM	335	368	352
	10:00 AM	363	440	402
	11:00 AM	423	508	466
	12:00 PM	478	554	516
	1:00 PM	480	588	534
	2:00 PM	550	729	640
	3:00 PM	683	723	703
	4:00 PM	705	757	731
	5:00 PM	715	727	721
	6:00 PM	565	478	522
	7:00 PM	380	343	362
	8:00 PM	324	237	281
	9:00 PM	224	150	187
	10:00 PM	135	79	107
	11:00 PM	76	41	59
Totals	7260	7940	7600	



Richmond Beach Road - 8th Ave NW to 15th Ave NW - Before Rechannelization Project												
	Monday	Tuesday	Wednesday	Thursday	Friday	Tuesday	Wednesday	Thursday	Friday	Monday	Average	
	10/31/2016	11/1/2016	11/2/2016	11/3/2016	11/4/2016	5/2/2017	5/3/2017	5/4/2017	5/5/2017	5/8/2017		
EASTBOUND	12:00 AM	17	16	13	15	14	18	14	19	15	14	15.5
	1:00 AM	7	5	6	8	1	7	10	7	11	8	7.0
	2:00 AM	3	3	8	7	6	5	6	5	4	7	5.4
	3:00 AM	11	13	12	9	9	12	11	10	8	8	10.3
	4:00 AM	28	36	38	29	25	41	31	45	31	33	33.7
	5:00 AM	93	105	101	111	96	129	130	117	112	119	111.3
	6:00 AM	214	241	270	255	255	306	271	286	259	261	261.8
	7:00 AM	350	439	400	443	412	541	531	504	453	454	452.7
	8:00 AM	378	419	422	395	434	446	447	445	401	438	422.5
	9:00 AM	310	324	296	325	326	354	306	371	346	328	328.6
	10:00 AM	234	240	260	311	287	320	327	343	335	315	297.2
	11:00 AM	276	256	280	322	313	312	308	337	345	324	307.3
	12:00 PM	278	268	302	322	318	332	290	366	304	307	308.7
	1:00 PM	284	293	237	315	279	285	326	353	309	278	295.9
	2:00 PM	346	307	245	309	341	371	324	425	355	350	337.3
	3:00 PM	267	328	282	345	331	335	397	393	324	334	333.6
	4:00 PM	288	285	265	349	330	342	359	430	331	362	334.1
5:00 PM	278	292	277	342	351	358	391	369	362	386	340.6	
6:00 PM	224	259	239	333	302	313	393	265	330	328	298.6	
7:00 PM	224	180	157	214	217	222	331	209	268	248	227.0	
8:00 PM	227	123	115	148	159	190	304	216	242	204	192.8	
9:00 PM	178	111	92	134	124	105	148	115	202	154	136.3	
10:00 PM	89	65	84	76	100	90	80	68	133	80	86.5	
11:00 PM	34	32	34	40	60	30	26	17	67	28	36.8	
Totals	4638	4640	4435	5157	5090	5464	5761	5715	5547	5368	5181.5	
WESTBOUND	12:00 AM	28	34	24	20	40	25	32	27	29	18	27.7
	1:00 AM	5	9	8	14	16	14	11	9	10	13	10.9
	2:00 AM	7	10	6	8	9	12	11	6	13	8	9.0
	3:00 AM	6	7	6	9	7	13	9	5	6	6	7.4
	4:00 AM	5	6	6	6	12	13	13	13	10	13	9.7
	5:00 AM	19	26	22	14	21	34	22	41	28	23	25.0
	6:00 AM	57	46	46	44	50	74	74	68	69	71	59.9
	7:00 AM	83	102	96	120	89	163	150	171	148	172	129.4
	8:00 AM	155	179	176	202	198	234	226	233	232	237	207.2
	9:00 AM	164	159	192	218	193	214	235	246	250	247	211.8
	10:00 AM	217	201	218	243	235	256	242	307	224	246	238.9
	11:00 AM	259	233	217	275	249	298	288	383	304	306	281.2
	12:00 PM	282	291	286	317	274	334	355	380	351	339	320.9
	1:00 PM	272	294	261	326	324	336	359	409	375	346	330.2
	2:00 PM	343	303	286	311	314	408	389	445	401	368	356.8
	3:00 PM	422	431	383	434	410	463	498	527	517	507	459.2
	4:00 PM	440	399	387	418	418	474	542	470	500	571	461.9
5:00 PM	540	478	462	468	443	542	582	510	559	584	516.8	
6:00 PM	474	406	441	437	373	468	542	491	477	512	462.1	
7:00 PM	254	321	272	351	276	373	435	345	384	408	341.9	
8:00 PM	206	207	208	210	218	272	343	257	277	303	250.1	
9:00 PM	197	199	177	197	176	221	227	197	225	179	199.5	
10:00 PM	86	82	104	92	145	100	127	106	172	112	112.6	
11:00 PM	36	44	47	52	90	46	62	70	120	41	60.8	
Totals	4557	4467	4331	4786	4580	5387	5774	5716	5681	5630	5090.9	

Richmond Beach Road - 8th Ave NW to 15th Ave NW - After Rechannelization Project								
	Wednesday	Thursday	Friday	Monday	Wednesday	Friday	Average	
	11/28/2018	11/29/2018	11/30/2018	12/3/2018	3/27/2019	3/29/2019		
NORTHWESTBOUND	12:00 AM	21	28	29	14	37	25	26
	1:00 AM	18	5	8	9	20	15	13
	2:00 AM	8	8	10	2	5	12	8
	3:00 AM	7	7	11	5	41	12	14
	4:00 AM	12	10	8	16	58	7	19
	5:00 AM	23	35	29	27	204	22	57
	6:00 AM	51	66	65	65	486	69	134
	7:00 AM	125	136	121	117	860	126	248
	8:00 AM	196	228	207	227	765	208	305
	9:00 AM	185	196	209	230	560	249	272
	10:00 AM	230	248	205	255	464	266	278
	11:00 AM	251	266	292	294	437	304	307
	12:00 PM	302	327	331	361	523	350	366
	1:00 PM	384	337	326	343	557	339	381
	2:00 PM	335	336	409	376	574	384	402
	3:00 PM	418	478	498	466	487	474	470
	4:00 PM	421	498	477	485	466	518	478
	5:00 PM	453	483	503	541	547	561	515
	6:00 PM	441	488	403	425	424	488	445
	7:00 PM	381	333	263	293	280	380	322
	8:00 PM	272	217	196	220	289	244	240
9:00 PM	173	178	297	183	214	204	208	
10:00 PM	97	128	134	74	108	132	112	
11:00 PM	44	48	78	47	68	104	65	
Totals	4848	5084	5109	5075	8474	5493	5681	
SOUTHEASTBOUND	12:00 AM	11	21	12	7	37	19	18
	1:00 AM	4	8	8	2	17	18	10
	2:00 AM	7	1	3	5	14	8	6
	3:00 AM	14	17	22	12	10	21	16
	4:00 AM	39	33	35	37	9	44	33
	5:00 AM	104	115	122	122	24	119	101
	6:00 AM	302	285	248	265	69	250	237
	7:00 AM	526	512	440	495	103	450	421
	8:00 AM	401	444	438	451	237	446	403
	9:00 AM	312	328	338	333	240	356	318
	10:00 AM	291	333	324	300	215	337	300
	11:00 AM	284	281	289	345	287	329	303
	12:00 PM	290	278	262	321	315	370	306
	1:00 PM	303	282	296	291	410	332	319
	2:00 PM	327	341	348	378	385	341	353
	3:00 PM	288	315	311	364	474	373	354
	4:00 PM	320	342	320	349	452	359	357
	5:00 PM	289	261	271	275	506	356	326
	6:00 PM	236	247	294	239	460	360	306
	7:00 PM	153	169	186	183	0	311	167
	8:00 PM	144	139	116	112	1	252	127
9:00 PM	122	119	169	81	1	157	108	
10:00 PM	59	65	109	60	1	105	67	
11:00 PM	36	32	57	22	0	59	34	
Totals	4862	4968	5018	5049	4267	5772	4989	

Richmond Beach Road - West of 15th Ave NW - Before Rechannelization Project							
	Monday	Tuesday	Wednesday	Thursday	Friday		
	5/1/2017	5/2/2017	5/3/2017	5/4/2017	5/5/2017	Average	
EASTBOUND	12:00 AM	14	11	7	13	7	10.4
	1:00 AM	3	5	5	2	10	5
	2:00 AM	2	3	1	2	0	1.6
	3:00 AM	6	10	8	7	6	7.4
	4:00 AM	22	27	20	30	22	24.2
	5:00 AM	69	85	79	68	72	74.6
	6:00 AM	182	223	195	228	196	204.8
	7:00 AM	412	418	402	398	347	395.4
	8:00 AM	336	354	358	345	313	341.2
	9:00 AM	253	266	247	289	267	264.4
	10:00 AM	234	240	262	277	255	253.6
	11:00 AM	246	245	250	281	260	256.4
	12:00 PM	243	252	239	313	236	256.6
	1:00 PM	195	228	240	293	255	242.2
	2:00 PM	252	236	243	314	272	263.4
	3:00 PM	256	270	321	318	248	282.6
	4:00 PM	252	271	296	348	271	287.6
	5:00 PM	323	282	373	287	316	316.2
	6:00 PM	222	252	352	221	261	261.6
	7:00 PM	170	184	279	190	212	207
	8:00 PM	125	156	264	170	201	183.2
	9:00 PM	89	78	114	82	138	100.2
	10:00 PM	55	42	51	56	102	61.2
	11:00 PM	13	13	17	15	43	20.2
Totals	3974	4151	4623	4547	4310	4321	
WESTBOUND	12:00 AM	17	12	22	13	17	16.2
	1:00 AM	2	8	9	4	6	5.8
	2:00 AM	4	9	8	4	8	6.6
	3:00 AM	3	4	6	4	4	4.2
	4:00 AM	8	8	6	11	8	8.2
	5:00 AM	15	22	13	29	14	18.6
	6:00 AM	47	38	47	38	34	40.8
	7:00 AM	88	95	100	105	95	96.6
	8:00 AM	171	182	194	170	161	175.6
	9:00 AM	167	176	190	205	212	190
	10:00 AM	157	187	169	255	184	190.4
	11:00 AM	196	241	232	305	226	240
	12:00 PM	249	264	280	318	284	279
	1:00 PM	258	270	270	323	276	279.4
	2:00 PM	287	295	314	358	293	309.4
	3:00 PM	374	362	407	421	409	394.6
	4:00 PM	401	369	456	356	419	400.2
	5:00 PM	426	422	454	378	424	420.8
	6:00 PM	364	360	432	378	373	381.4
	7:00 PM	283	290	379	289	301	308.4
	8:00 PM	199	211	276	217	202	221
	9:00 PM	126	169	176	141	155	153.4
	10:00 PM	65	67	99	72	123	85.2
	11:00 PM	36	26	40	56	94	50.4
Totals	3943	4087	4579	4450	4322	4276.2	

Richmond Beach Road - West of 15th Ave NW - After Rechannelization Project							
	Thursday	Friday	Monday	Tuesday	Wednesday	Average	
	12/13/2018	12/14/2018	12/17/2018	12/18/2018	12/19/2018		
EASTBOUND	12:00 AM	36	45	41	39	54	43
	1:00 AM	22	23	23	21	25	22.8
	2:00 AM	14	20	15	17	11	15.4
	3:00 AM	13	21	23	16	21	18.8
	4:00 AM	39	33	33	36	36	35.4
	5:00 AM	54	50	64	62	63	58.6
	6:00 AM	96	103	76	90	96	92.2
	7:00 AM	170	166	158	165	128	157.4
	8:00 AM	160	191	186	183	200	184
	9:00 AM	180	185	158	178	167	173.6
	10:00 AM	207	239	211	218	182	211.4
	11:00 AM	276	286	289	233	282	273.2
	12:00 PM	277	347	281	334	319	311.6
	1:00 PM	327	330	294	315	315	316.2
	2:00 PM	370	385	342	349	351	359.4
	3:00 PM	356	395	391	366	366	374.8
	4:00 PM	419	338	360	415	440	394.4
	5:00 PM	390	401	380	394	397	392.4
	6:00 PM	266	321	280	325	326	303.6
	7:00 PM	206	290	250	251	272	253.8
	8:00 PM	180	245	178	236	224	212.6
	9:00 PM	144	203	131	161	160	159.8
	10:00 PM	91	147	99	111	80	105.6
	11:00 PM	82	106	61	73	72	78.8
Totals	4375	4870	4324	4588	4587	4548.8	
WESTBOUND	12:00 AM	19	33	20	22	23	23.4
	1:00 AM	17	17	15	11	12	14.4
	2:00 AM	6	15	15	6	6	9.6
	3:00 AM	8	11	14	15	9	11.4
	4:00 AM	13	24	19	24	22	20.4
	5:00 AM	47	42	37	39	40	41
	6:00 AM	110	96	93	70	78	89.4
	7:00 AM	199	210	170	201	140	184
	8:00 AM	191	209	221	235	215	214.2
	9:00 AM	195	183	203	183	210	194.8
	10:00 AM	206	196	243	205	230	216
	11:00 AM	216	253	201	241	222	226.6
	12:00 PM	250	256	263	257	289	263
	1:00 PM	228	281	236	221	247	242.6
	2:00 PM	282	309	282	259	299	286.2
	3:00 PM	238	260	246	287	249	256
	4:00 PM	251	260	261	270	279	264.2
	5:00 PM	233	251	240	265	260	249.8
	6:00 PM	230	282	214	232	260	243.6
	7:00 PM	160	200	152	189	164	173
	8:00 PM	109	119	116	136	114	118.8
	9:00 PM	81	119	70	92	78	88
	10:00 PM	63	89	57	58	49	63.2
	11:00 PM	30	61	30	26	30	35.4
Totals	3382	3776	3418	3544	3525	3529	

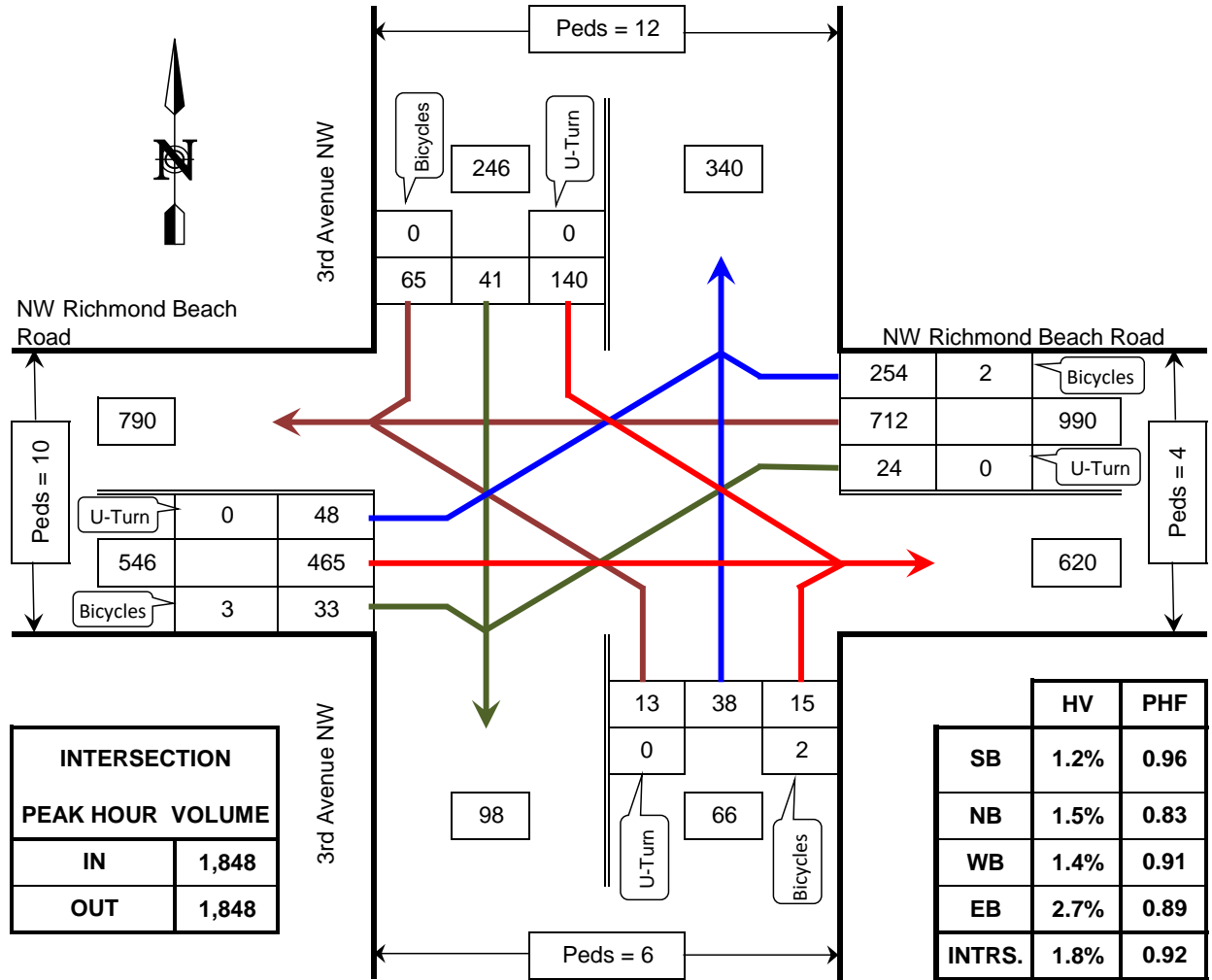
## Appendix F – Level of Service Descriptions

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.

<b>Level of Service</b>	<b>Roadway Segments V/C Ratio</b>	<b>Signalized Intersections Average Delay (sec/veh)</b>	<b>General Description</b>
<b>A</b>	≤ 0.60	≤ 10	Free Flow
<b>B</b>	> 0.60 - 0.70	> 10 - 20	Stable Flow (slight delay)
<b>C</b>	> 0.70 - 0.80	> 20 - 35	Stable Flow (acceptable delay)
<b>D</b>	> 0.80 - 0.90	> 35 - 55	Approaching Unstable Flow (speeds somewhat reduced, more vehicles stop and may wait through more than one signal cycle before proceeding)
<b>E</b>	> 0.90 - 1.0	> 55 - 80	Unstable Flow (speeds reduced and highly variable, queues occur, many vehicles have to wait through more than one signal cycle before proceeding)
<b>F</b>	> 1.0	> 80	Forced Flow (jammed conditions, long queues occur that do not clear, most vehicles wait through more than one signal cycle before proceeding)

### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM



PHF = Peak Hour Factor  
HV = Heavy Vehicle

### NW Richmond Beach Road @ 3rd Avenue NW Shoreline, WA

COUNTED BY: VT/SN

DATE OF COUNT: Wed. 5/3/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Sat. 6/17/17

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ 3rd Avenue NW  
Shoreline, WA

DATE OF COUNT: Wed. 5/3/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT/SN  
 WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 3rd Avenue NW							FROM SOUTH ON 3rd Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	7	2	1	0	24	7	13	0	1	0	0	2	8	7	1	0	4	0	5	159	48	1	1	4	0	10	111	3	
04:30 PM	1	0	1	0	29	9	17	1	0	1	0	1	9	6	0	2	3	0	7	143	55	0	0	3	0	12	116	5	
04:45 PM	5	0	3	0	49	6	22	1	0	0	0	3	4	6	4	2	4	0	5	203	61	0	1	4	0	7	104	4	
05:00 PM	1	0	1	0	30	9	19	1	1	0	0	0	12	3	1	0	3	0	7	204	62	5	0	3	0	16	128	10	
05:15 PM	4	0	1	0	40	7	17	1	1	1	0	4	11	5	1	0	5	0	6	170	58	0	1	7	0	14	119	5	
05:30 PM	1	0	0	0	33	17	12	2	0	0	0	5	10	3	1	1	3	0	5	159	54	1	1	3	0	8	100	9	
05:45 PM	6	0	1	0	37	8	17	2	0	0	0	4	5	4	1	1	3	0	6	179	80	4	1	2	0	10	118	9	
06:00 PM	1	0	1	0	24	6	20	0	0	0	0	5	9	4	0	0	4	0	6	177	75	4	0	4	0	11	120	5	
PEAK HOUR TOTALS	12	0	3	0	140	41	65	6	2	1	0	13	38	15	4	2	14	0	24	712	254	10	3	15	0	48	465	33	
ALL MOVEMENTS	246							66							990							546							1848
% HV	1.2%							1.5%							1.4%							2.7%							1.8%
PEAK HOUR FACTOR	0.96							0.83							0.91							0.89							0.92

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM

REDUCED BY: CN

DATE OF REDUCTION: 6/17/2017

ROLLING HOUR COUNT

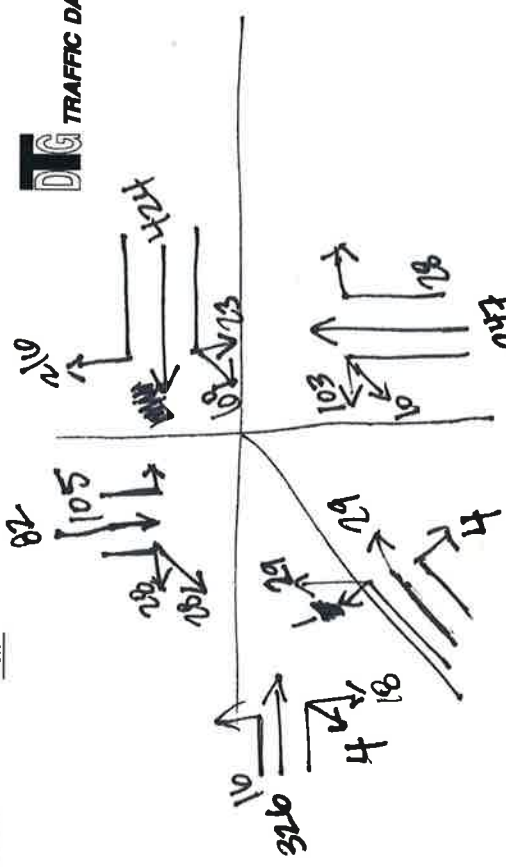
TIME INTERVAL	FROM NORTH ON 3rd Avenue NW							FROM SOUTH ON 3rd Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							INTERVAL TOTALS
	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	Bicycle	HV	U-Turn	Left	Thru	Right	Peds	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	
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	
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	
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	
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	
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	
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	
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	
4:00 PM - 5:00 PM	14	2	6	0	132	31	71	3	2	1	0	6	33	22	6	4	14	0	24	709	226	6	2	14	0	45	459	22	
4:15 PM - 5:15 PM	11	0	6	0	148	31	75	4	2	2	0	8	36	20	6	4	15	0	25	720	236	5	2	17	0	49	467	24	
4:30 PM - 5:30 PM	11	0	5	0	152	39	70	5	2	1	0	12	37	17	7	3	15	0	23	736	235	6	3	17	0	45	451	28	
4:45 PM - 5:45 PM	12	0	3	0	140	41	65	6	2	1	0	13	38	15	4	2	14	0	24	712	254	10	3	15	0	48	465	33	
5:00 PM - 6:00 PM	12	0	3	0	134	38	66	5	1	1	0	18	35	16	3	2	15	0	23	685	267	9	3	16	0	43	457	28	
4:00 PM - 6:00 PM Total:	26	2	9	0	266	69	137	8	3	2	0	24	68	38	9	6	29	0	47	1394	493	15	5	30	0	88	916	50	

LOCATION: NW Richmond Beach Road @ 8th Avenue NW  
 Shoreline, WA  
 DATE OF COUNT: Tue. 6/23/2017  
 TIME OF COUNT: 4:00 - 6:00 PM  
 COUNTED BY: VT/CN  
 WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM (1) 6th Avenue NW (From North)					FROM (2) NW Richmond Beach Road (From East)					FROM (3) 8th Avenue NW (From South)					FROM (4) Innis Arden Way NW (From Southwest)					FROM (5) NW Richmond Beach Road (From West)					INTERVAL TOTALS																																																																																																																																																				
	Bicycles		Peds		HV	Bicycles		Peds		HV	Bicycles		Peds		HV	Bicycles		Peds		HV	Bicycles		Peds		HV																																																																																																																																																					
	(1)	(2)	(3)	(4)		(5)	(1)	(2)	(3)		(4)	(5)	(1)	(2)		(3)	(4)	(5)	(1)		(2)	(3)	(4)	(5)			(1)	(2)	(3)	(4)	(5)																																																																																																																																															
04:16 PM	1	0	1	30	23	10	3	0	0	5	45	4	15	84	0	2	1	65	7	2	19	1	0	1	6	11	1	1	0	1	3	6	80	6	2																																																																																																																																											
04:30 PM	2	0	1	29	29	5	4	3	0	1	43	13	7	100	4	0	0	47	7	1	17	1	0	0	7	5	0	0	0	1	0	7	70	9	1																																																																																																																																											
04:45 PM	1	0	0	28	14	8	8	2	0	6	46	9	12	99	2	0	0	46	9	1	19	0	0	0	9	7	0	1	0	0	3	5	63	3	1																																																																																																																																											
05:00 PM	7	1	2	23	11	1	8	6	0	2	60	5	11	120	0	0	0	50	6	4	19	0	0	2	13	11	3	1	0	0	1	4	82	2	2																																																																																																																																											
05:15 PM	4	0	3	22	19	13	6	5	0	2	50	5	16	106	2	0	2	61	7	4	27	0	0	0	4	6	0	0	1	0	3	5	92	5	1																																																																																																																																											
05:30 PM	0	0	4	34	26	9	7	0	0	8	54	4	9	99	0	0	0	74	8	0	21	0	0	0	3	9	0	0	0	0	3	64	5	0																																																																																																																																												
05:45 PM	2	0	1	26	26	5	7	0	0	2	52	9	24	99	0	0	0	62	7	2	36	1	0	0	9	3	1	0	0	1	5	4	88	6	1																																																																																																																																											
06:00 PM PEAK HOUR TOTALS	2	0	1	23	21	12	5	2	3	0	53	1	18	103	1	0	1	58	8	1	22	0	1	1	5	7	1	0	0	2	2	41	6	2																																																																																																																																												
ALL MOVEMENTS	13	1	10	105	82	28	28	11	0	14	216	23	60	424	2	0	2	247	28	10	103	1	0	2	29	29	4	1	1	9	16	326	18	4																																																																																																																																												
% HV																													243																													388																													63																													364																													1781																													
PHF																													4.1%																													1.9%																													0.8%																													3.2%																													2.5%																													2.1%
																													0.80																													0.92																													0.91																													0.86																													0.88																													0.86

TURNING MOVEMENTS REDUCTION SHEET  
 PM PEAK HOUR: FROM 4:46 TO 6:46 PM

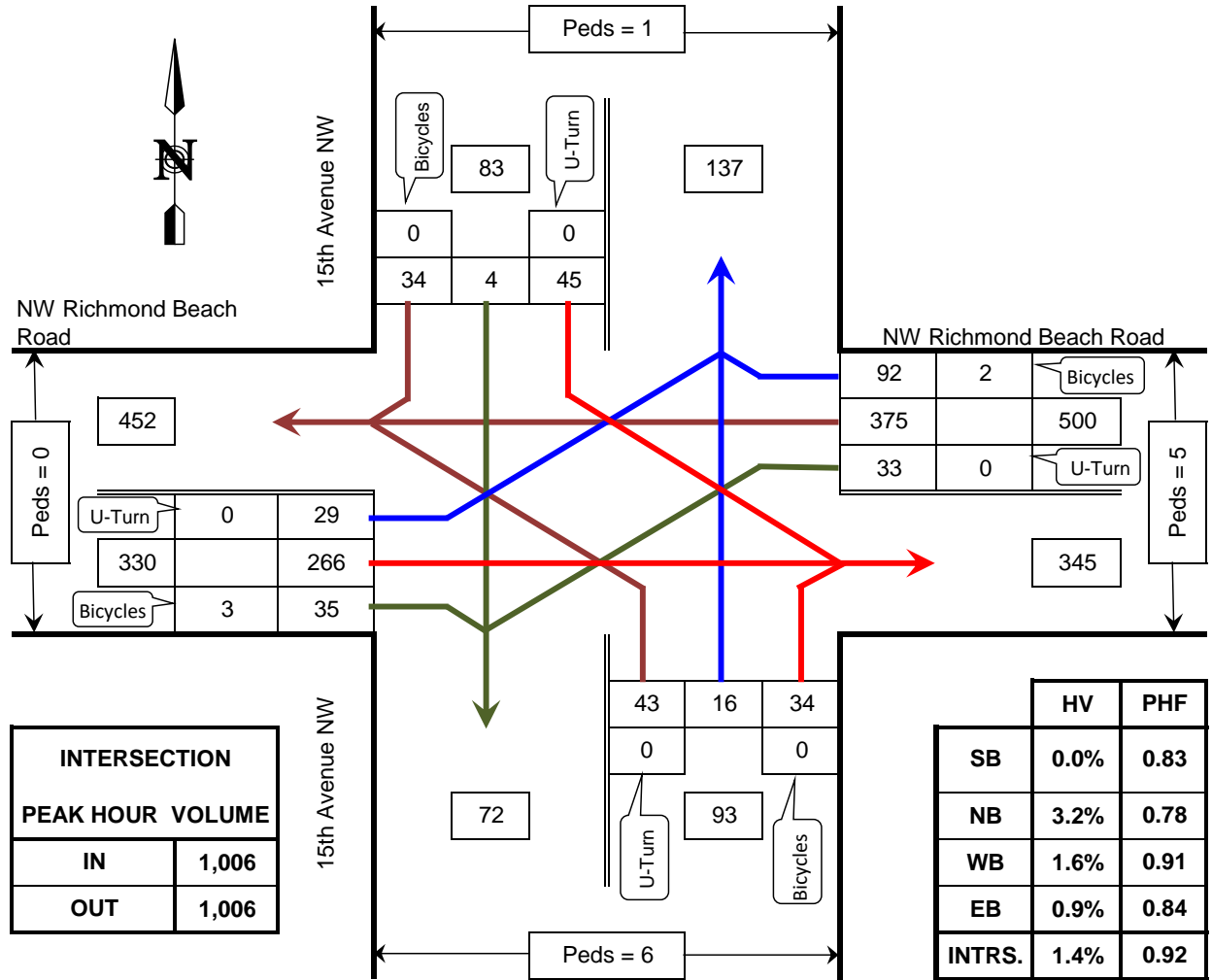
REDUCED BY: CN DATE OF REDUCTION: 6/27/2017





### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM



PHF = Peak Hour Factor  
HV = Heavy Vehicle

### NW Richmond Beach Road @ 15th Avenue NW Shoreline, WA

COUNTED BY: CN

DATE OF COUNT: Thu. 5/4/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Thu. 5/4/17

WEATHER: Rainy



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ 15th Avenue NW  
Shoreline, WA

DATE OF COUNT: Thu. 5/4/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: CN  
 WEATHER: Rainy

TIME INTERVAL ENDING AT	FROM NORTH ON 15th Avenue NW							FROM SOUTH ON 15th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	0	0	0	0	12	0	10	4	0	0	0	6	2	14	4	2	4	0	2	86	18	0	0	4	0	2	102	2	
04:30 PM	1	0	0	0	8	2	13	1	0	1	0	13	3	6	0	0	1	0	8	79	8	0	0	2	0	8	99	4	
04:45 PM	1	0	0	0	17	4	3	0	0	1	0	4	5	5	0	0	0	2	92	21	0	0	3	1	5	63	3		
05:00 PM	1	0	0	0	9	1	11	1	0	1	0	13	3	4	2	1	2	0	9	85	17	0	1	1	0	8	61	8	
05:15 PM	0	0	0	0	10	1	9	2	0	0	0	12	2	9	2	1	2	0	2	96	20	0	2	1	0	5	66	9	
05:30 PM	0	0	0	0	11	0	6	0	0	0	0	5	4	11	0	0	1	0	9	105	24	0	0	0	0	9	78	11	
05:45 PM	0	0	0	0	15	2	8	3	0	2	0	13	7	10	1	0	3	0	13	89	31	0	0	1	0	7	61	7	
06:00 PM	0	0	0	0	8	3	4	2	0	0	0	12	0	8	2	0	2	0	11	82	20	0	0	1	0	3	63	3	
PEAK HOUR TOTALS	1	0	0	0	45	4	34	6	0	3	0	43	16	34	5	2	8	0	33	375	92	0	3	3	0	29	266	35	
ALL MOVEMENTS	83							93							500							330							1006
% HV	0.0%							3.2%							1.6%							0.9%							1.4%
PEAK HOUR FACTOR	0.83							0.78							0.91							0.84							0.92

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 4:45 PM TO 5:45 PM

REDUCED BY: CN

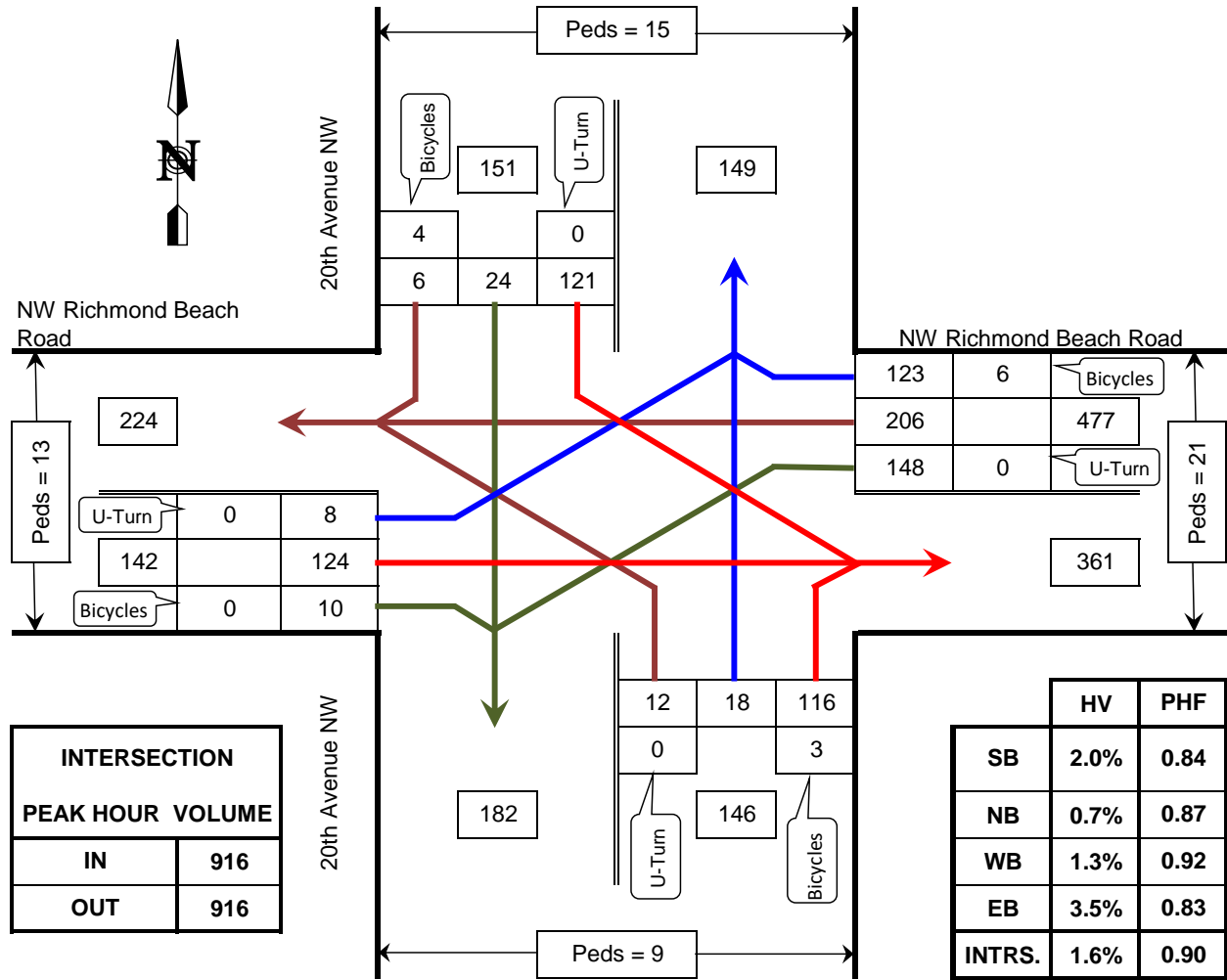
DATE OF REDUCTION: 5/4/2017

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON 15th Avenue NW							FROM SOUTH ON 15th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
4:00 PM - 5:00 PM	3	0	0	0	46	7	37	6	0	3	0	36	13	29	6	3	7	0	21	342	64	0	1	10	1	23	325	17	
4:15 PM - 5:15 PM	3	0	0	0	44	8	36	4	0	3	0	42	13	24	4	2	5	0	21	352	66	0	3	7	1	26	289	24	
4:30 PM - 5:30 PM	2	0	0	0	47	6	29	3	0	2	0	34	14	29	4	2	5	0	22	378	82	0	3	5	1	27	268	31	
4:45 PM - 5:45 PM	1	0	0	0	45	4	34	6	0	3	0	43	16	34	5	2	8	0	33	375	92	0	3	3	0	29	266	35	
5:00 PM - 6:00 PM	0	0	0	0	44	6	27	7	0	2	0	42	13	38	5	1	8	0	35	372	95	0	2	3	0	24	268	30	
4:00 PM - 6:00 PM Total:	3	0	0	0	90	13	64	13	0	5	0	78	26	67	11	4	15	0	56	714	159	0	3	13	1	47	593	47	

### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM



PHF = Peak Hour Factor  
HV = Heavy Vehicle

### NW Richmond Beach Road @ 20th Avenue NW

### Shoreline, WA

COUNTED BY: VT/SN

DATE OF COUNT: Wed. 5/3/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Tue. 5/30/17

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ 20th Avenue NW  
Shoreline, WA

DATE OF COUNT: Wed. 5/3/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT/SN  
 WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 20th Avenue NW							FROM SOUTH ON 20th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	3	0	3	0	30	2	1	2	0	1	0	3	4	27	1	0	1	0	39	34	48	0	0	2	0	2	27	1	
04:30 PM	8	2	0	0	28	3	2	7	1	0	0	2	3	17	2	1	4	0	30	31	38	4	0	1	0	3	29	0	
04:45 PM	6	0	0	0	19	7	1	2	1	0	0	2	2	20	8	0	3	0	42	45	46	3	1	1	0	0	28	3	
05:00 PM	4	3	0	0	21	4	3	0	0	0	0	1	3	26	6	0	4	0	41	38	42	0	4	0	0	2	26	2	
05:15 PM	3	1	1	0	21	3	2	2	3	0	0	5	3	29	1	3	3	0	45	41	44	3	0	3	0	2	34	3	
05:30 PM	5	0	0	0	30	7	1	0	0	1	0	1	3	23	8	2	0	0	35	31	36	3	0	0	0	3	29	2	
05:45 PM	4	1	1	0	35	9	1	2	0	0	0	3	7	32	9	1	3	0	35	38	42	6	0	1	0	0	23	3	
06:00 PM	3	2	1	0	35	5	2	5	0	0	0	3	5	32	3	0	0	0	33	96	1	1	0	1	0	3	38	2	
PEAK HOUR TOTALS	15	4	3	0	121	24	6	9	3	1	0	12	18	116	21	6	6	0	148	206	123	13	0	5	0	8	124	10	
ALL MOVEMENTS	151							146							477							142							916
% HV	2.0%		0.84							0.7%		0.87							1.3%		3.5%							1.6%	
PEAK HOUR FACTOR	0.84							0.87							0.92							0.83							0.90

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM

REDUCED BY: CN

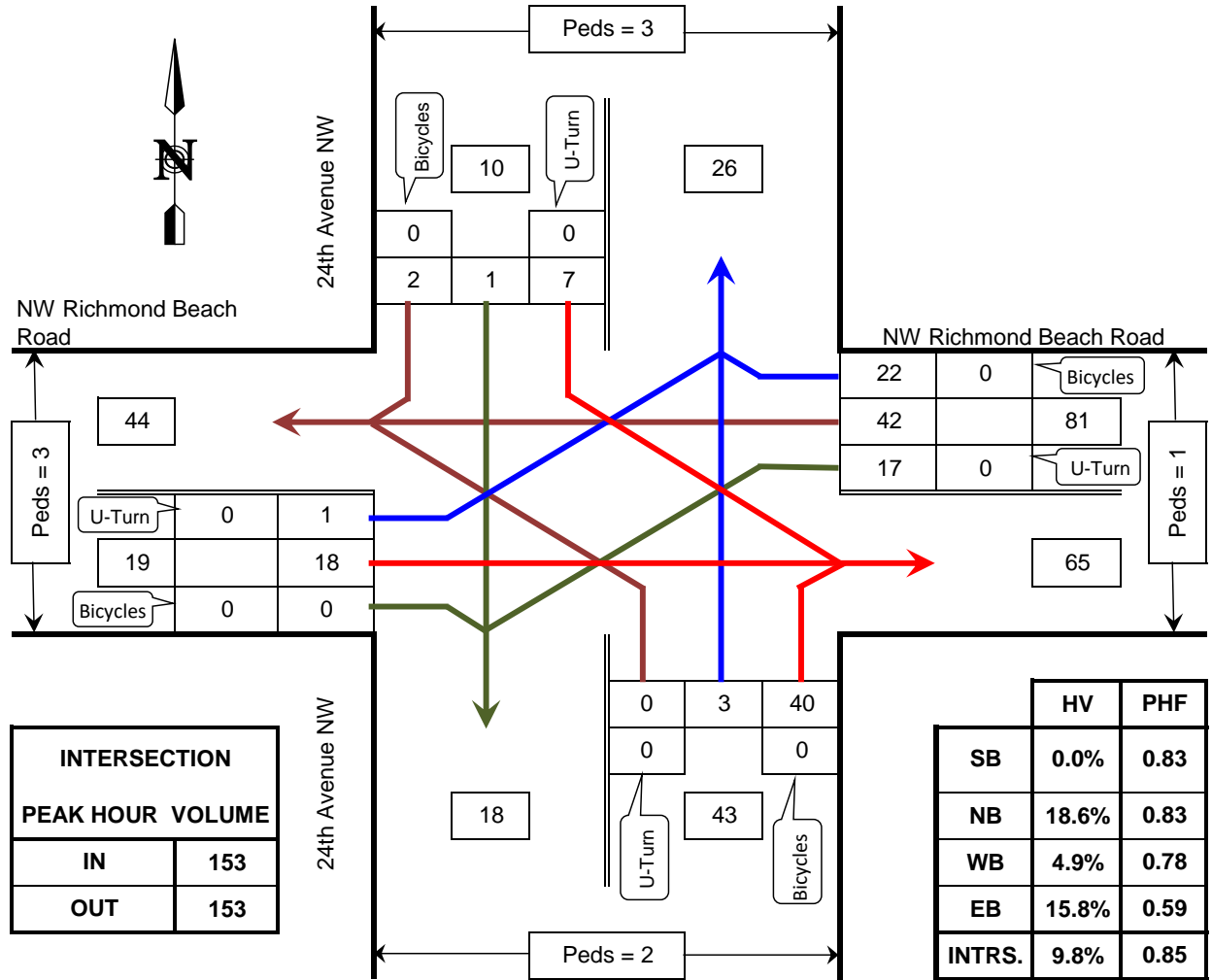
DATE OF REDUCTION: 5/30/2017

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON 20th Avenue NW							FROM SOUTH ON 20th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
4:00 PM - 5:00 PM	21	5	3	0	98	16	7	11	2	1	0	8	12	90	17	1	12	0	152	148	174	7	5	4	0	7	110	6	
4:15 PM - 5:15 PM	21	6	1	0	89	17	8	11	5	0	0	10	11	92	17	4	14	0	158	155	170	10	5	5	0	7	117	8	
4:30 PM - 5:30 PM	18	4	1	0	91	21	7	4	4	1	0	9	11	98	23	5	10	0	163	155	168	9	5	4	0	7	117	10	
4:45 PM - 5:45 PM	16	5	2	0	107	23	7	4	3	1	0	10	16	110	24	6	10	0	156	148	164	12	4	4	0	7	112	10	
5:00 PM - 6:00 PM	15	4	3	0	121	24	6	9	3	1	0	12	18	116	21	6	6	0	148	206	123	13	0	5	0	8	124	10	
4:00 PM - 6:00 PM Total:	36	9	6	0	219	40	13	20	5	2	0	20	30	206	38	7	18	0	300	354	297	20	5	9	0	15	234	16	

### TURNING MOVEMENTS DIAGRAM

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM



PHF = Peak Hour Factor  
HV = Heavy Vehicle

### NW Richmond Beach Road @ 24th Avenue NW Shoreline, WA

COUNTED BY: VT/CN

DATE OF COUNT: Wed. 5/24/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Thu. 5/4/17

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ 24th Avenue NW  
Shoreline, WA

DATE OF COUNT: Wed. 5/24/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT/CN  
 WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON 24th Avenue NW							FROM SOUTH ON 24th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	0	0	0	0	5	0	0	0	0	2	0	0	1	6	0	0	1	0	4	10	3	0	0	1	0	1	9	0	
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	1	0	7	10	1	0	0	0	0	0	3	0		
04:45 PM	0	0	0	0	1	0	1	0	0	3	0	0	1	12	0	0	3	8	10	8	0	0	0	0	0	4	0		
05:00 PM	0	0	0	0	1	1	0	0	0	0	0	1	7	0	0	0	0	3	10	2	0	0	3	0	0	8	0		
05:15 PM	3	0	0	0	3	0	0	2	0	2	0	0	1	9	1	0	1	0	4	13	6	3	0	0	0	3	0		
05:30 PM	0	0	0	0	2	0	1	0	0	3	0	0	0	12	0	0	0	2	9	6	0	0	0	0	1	3	0		
05:45 PM	0	0	0	0	4	1	0	0	0	1	0	0	1	6	0	0	0	6	9	5	0	0	0	0	1	11	1		
06:00 PM	1	0	0	0	1	1	0	0	0	1	1	0	0	5	0	0	3	0	2	12	8	0	0	0	0	1	0		
PEAK HOUR TOTALS	3	0	0	0	7	1	2	2	0	8	0	0	3	40	1	0	4	0	17	42	22	3	0	3	0	1	18	0	
ALL MOVEMENTS	10							43							81							19							153
% HV	0.0%							18.6%							4.9%							15.8%							9.8%
PEAK HOUR FACTOR	0.83							0.83							0.78							0.59							0.85

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 4:30 PM TO 5:30 PM

REDUCED BY: CN

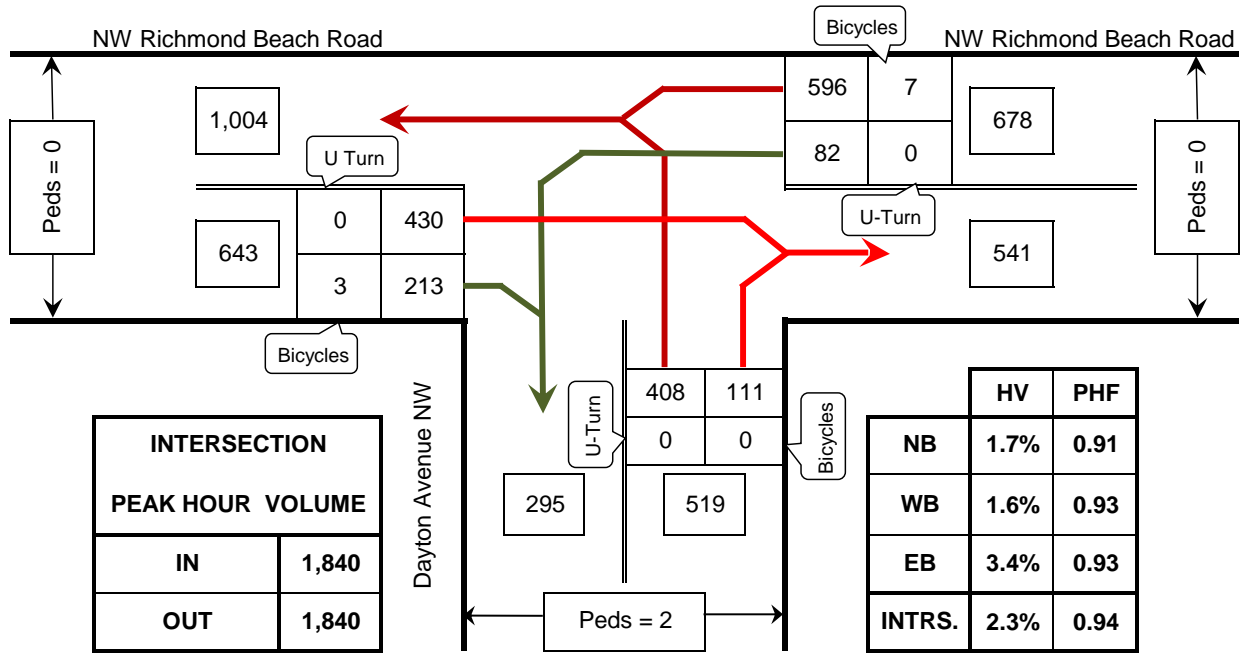
DATE OF REDUCTION: 5/4/2017

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON 24th Avenue NW							FROM SOUTH ON 24th Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
4:00 PM - 5:00 PM	0	0	0	0	7	1	1	0	0	5	0	0	3	30	0	0	5	0	22	40	14	0	0	4	0	1	24	0	
4:15 PM - 5:15 PM	3	0	0	0	5	1	1	2	0	5	0	0	3	33	1	0	5	0	22	43	17	3	0	3	0	0	18	0	
4:30 PM - 5:30 PM	3	0	0	0	7	1	2	2	0	8	0	0	3	40	1	0	4	0	17	42	22	3	0	3	0	1	18	0	
4:45 PM - 5:45 PM	3	0	0	0	10	2	1	2	0	6	0	0	3	34	1	0	1	0	15	41	19	3	0	3	0	2	25	1	
5:00 PM - 6:00 PM	4	0	0	0	10	2	1	2	0	7	1	0	2	32	1	0	4	0	14	43	25	3	0	0	0	2	18	1	
4:00 PM - 6:00 PM Total:	4	0	0	0	17	3	2	2	0	12	1	0	5	62	1	0	9	0	36	83	39	3	0	4	0	3	42	1	

**TURNING MOVEMENTS DIAGRAM**

4:00 PM - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM



HV = Heavy Vehicles  
PHF = Peak Hour Factor

**NW Richmond Beach Road @ Dayton Avenue NW**

**Shoreline, WA**

COUNTED BY: VT/SN

DATE OF COUNT: Wed. 5/3/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Sat. 6/17/17

WEATHER: Overcast



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ Dayton Avenue NW  
Shoreline, WA

DATE OF COUNT: Wed. 5/3/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT/SN  
 WEATHER: Overcast

TIME INTERVAL ENDING AT	FROM NORTH ON							FROM SOUTH ON Dayton Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	0	0	0	0	0	0	0	1	0	3	0	78	0	33	1	0	2	0	18	146	0	0	1	5	0	0	108	41	424
04:30 PM	0	0	0	0	0	0	0	1	0	2	0	83	0	32	0	4	5	0	24	131	0	0	1	6	0	0	96	48	414
04:45 PM	0	0	0	0	0	0	0	0	0	4	0	110	0	33	0	1	2	0	18	154	0	0	1	6	0	0	108	64	487
05:00 PM	0	0	0	0	0	0	0	1	0	1	0	111	0	24	0	0	2	0	16	167	0	0	1	2	0	0	115	47	480
05:15 PM	0	0	0	0	0	0	0	0	0	2	0	104	0	22	0	2	2	0	24	144	0	0	0	8	0	0	111	54	459
05:30 PM	0	0	0	0	0	0	0	3	0	1	0	73	0	23	0	0	1	0	17	133	0	0	1	2	0	0	85	52	383
05:45 PM	0	0	0	0	0	0	0	1	0	2	0	102	0	17	0	1	1	0	32	153	0	0	1	1	0	0	102	62	468
06:00 PM	0	0	0	0	0	0	0	0	0	2	0	114	0	25	1	0	3	0	23	139	0	0	0	4	0	0	102	45	448
PEAK HOUR TOTALS	0	0	0	0	0	0	0	2	0	9	0	408	0	111	0	7	11	0	82	596	0	0	3	22	0	0	430	213	INTERSECTION
ALL MOVEMENTS	0							519							678							643							1840
% HV	#N/A							1.7%							1.6%							3.4%							2.3%
PEAK HOUR FACTOR	#N/A							0.91							0.93							0.93							0.94

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 4:15 PM TO 5:15 PM

REDUCED BY: CN

DATE OF REDUCTION: 6/17/2017

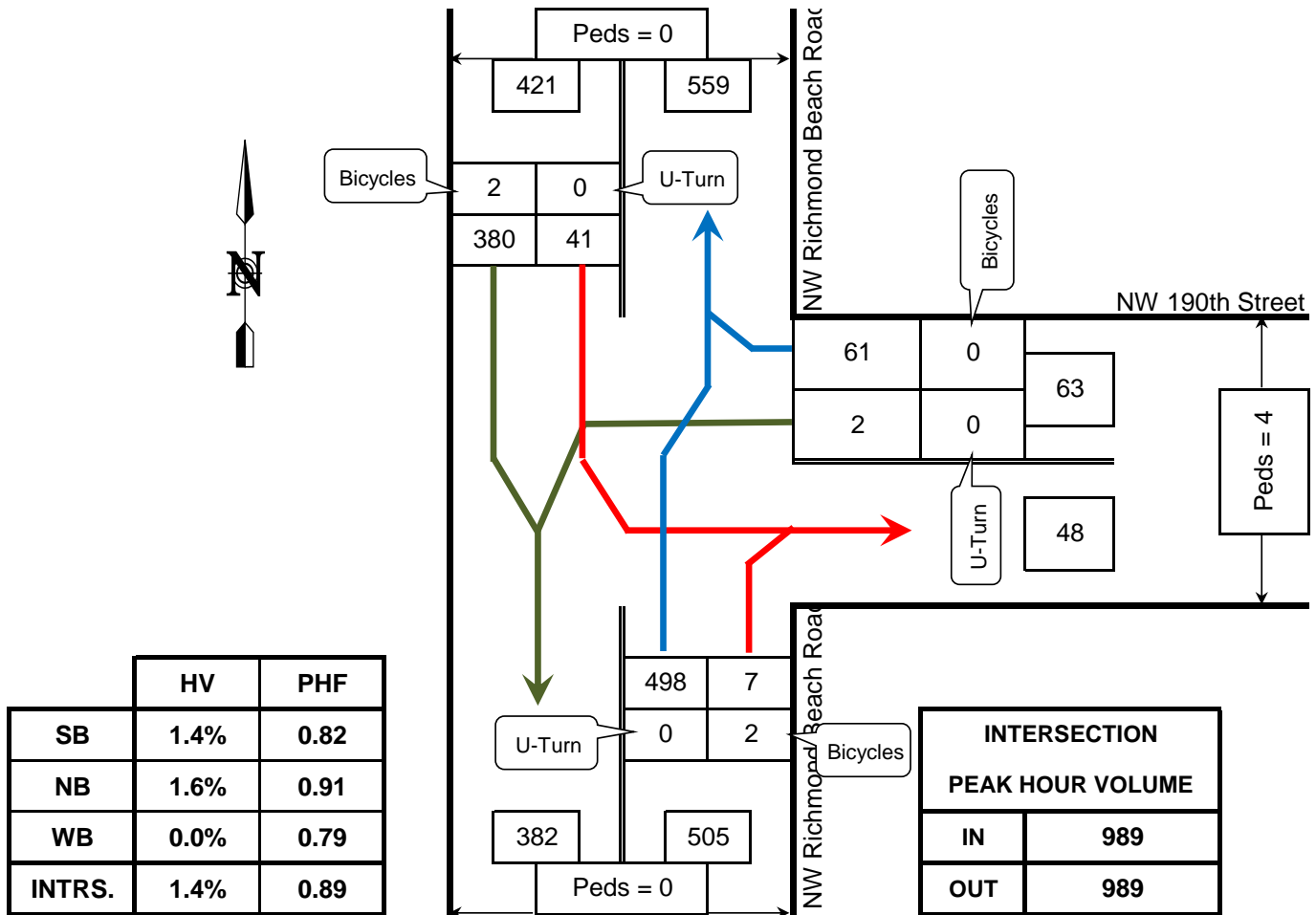
ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON							FROM SOUTH ON Dayton Avenue NW							FROM EAST ON NW Richmond Beach Road							FROM WEST ON NW Richmond Beach Road							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	3	0	10	0	382	0	122	1	5	11	0	76	598	0	0	4	19	0	0	427	200	1805
4:15 PM - 5:15 PM	0	0	0	0	0	0	0	2	0	9	0	408	0	111	0	7	11	0	82	596	0	0	3	22	0	0	430	213	1840
4:30 PM - 5:30 PM	0	0	0	0	0	0	0	4	0	8	0	398	0	102	0	3	7	0	75	598	0	0	3	18	0	0	419	217	1809
4:45 PM - 5:45 PM	0	0	0	0	0	0	0	5	0	6	0	390	0	86	0	3	6	0	89	597	0	0	3	13	0	0	413	215	1790
5:00 PM - 6:00 PM	0	0	0	0	0	0	0	4	0	7	0	393	0	87	1	3	7	0	96	569	0	0	2	15	0	0	400	213	1758
4:00 PM - 6:00 PM Total:	0	0	0	0	0	0	0	7	0	17	0	775	0	209	2	8	18	0	172	1167	0	0	6	34	0	0	827	413	3563



**TURNING MOVEMENTS DIAGRAM**

**4:00 PM - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM**



HV = Heavy Vehicles  
PHF = Peak Hour Factor

**NW Richmond Beach Road @ NW 190th Street**

**Shoreline, WA**

COUNTED BY: VT/SN

DATE OF COUNT: Wed. 5/3/17

REDUCED BY: CN

TIME OF COUNT: 4:00 PM - 6:00 PM

REDUCTION DATE: Thu. 5/25/17

WEATHER: Sunny



INTERSECTION TURNING MOVEMENTS REDUCTION SHEET

LOCATION: NW Richmond Beach Road @ NW 190th Street  
Shoreline, WA

DATE OF COUNT: Wed. 5/3/17  
 TIME OF COUNT: 4:00 PM - 6:00 PM

COUNTED BY: VT/SN  
 WEATHER: Sunny

TIME INTERVAL ENDING AT	FROM NORTH ON NW Richmond Beach Road							FROM SOUTH ON NW Richmond Beach Road							FROM EAST ON NW 190th Street							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	
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	
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	
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	
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	
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	
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	
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	
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	
04:15 PM	0	0	4	0	15	88	0	0	0	0	0	0	96	1	0	0	0	0	0	0	14	0	0	0	0	0	0	214	
04:30 PM	0	0	2	0	7	88	0	0	0	3	0	0	102	0	1	0	1	0	1	0	16	0	0	0	0	0	0	214	
04:45 PM	0	2	2	0	5	73	0	0	2	2	0	0	126	0	4	0	1	0	3	0	16	0	0	0	0	0	0	223	
05:00 PM	0	0	1	0	9	88	0	0	0	4	0	0	135	0	1	0	0	0	0	12	0	0	0	0	0	0	0	244	
05:15 PM	0	1	3	0	12	99	0	0	0	2	0	0	125	0	0	0	0	0	0	20	0	0	0	0	0	0	0	256	
05:30 PM	0	0	0	0	9	68	0	0	1	0	0	0	112	2	1	0	0	0	1	0	14	0	0	0	0	0	0	206	
05:45 PM	0	1	2	0	11	93	0	0	1	3	0	0	127	1	1	0	0	0	1	0	15	0	0	0	0	0	0	248	
06:00 PM	0	0	1	0	9	120	0	0	0	3	0	0	134	4	2	0	0	0	0	12	0	0	0	0	0	0	0	279	
PEAK HOUR TOTALS	0	2	6	0	41	380	0	0	2	8	0	0	498	7	4	0	0	0	2	0	61	0	0	0	0	0	0	INTERSECTION	
ALL MOVEMENTS	421							505							63							0							989
% HV	1.4%							1.6%							0.0%							#N/A							1.4%
PEAK HOUR FACTOR	0.82							0.91							0.79							#N/A							0.89

HV = Heavy Vehicle  
 PHF = Peak Hour Factor

4:00 PM - 6:00 PM PEAK HOUR: 5:00 PM TO 6:00 PM

REDUCED BY: CN

DATE OF REDUCTION: 5/25/2017

ROLLING HOUR COUNT

TIME INTERVAL	FROM NORTH ON NW Richmond Beach Road							FROM SOUTH ON NW Richmond Beach Road							FROM EAST ON NW 190th Street							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	
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	
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	
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	
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	
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	
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	
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	
4:00 PM - 5:00 PM	0	2	9	0	36	337	0	0	2	9	0	0	459	1	6	0	2	0	4	0	58	0	0	0	0	0	0	895	
4:15 PM - 5:15 PM	0	3	8	0	33	348	0	0	2	11	0	0	488	0	6	0	2	0	4	0	64	0	0	0	0	0	0	937	
4:30 PM - 5:30 PM	0	3	6	0	35	328	0	0	3	8	0	0	498	2	6	0	1	0	4	0	62	0	0	0	0	0	0	929	
4:45 PM - 5:45 PM	0	2	6	0	41	348	0	0	2	9	0	0	499	3	3	0	0	0	2	0	61	0	0	0	0	0	0	954	
5:00 PM - 6:00 PM	0	2	6	0	41	380	0	0	2	8	0	0	498	7	4	0	0	0	2	0	61	0	0	0	0	0	0	989	
4:00 PM - 6:00 PM Total:	0	4	15	0	77	717	0	0	4	17	0	0	957	8	10	0	2	0	6	0	119	0	0	0	0	0	0	1884	

## Appendix H – Roadway Capacity and Travel Time Assumptions

### TRAVEL TIME ASSUMPTIONS

- ✚ Project corridor directional capacity from west of Dayton to 20<sup>th</sup> Ave NW: 960 vehicles/hour
- ✚ Project corridor directional capacity west of 20<sup>th</sup> Ave NW: 720 veh/hour

### TRAVEL TIME ASSUMPTIONS

- ✚ Before PM: Conducted early June 2017
- ✚ After PM: Conducted Fall 2018
- ✚ Before AM: Conducted Fall 2017
- ✚ After AM: Conducted Fall 2018
- ✚ AM Peak: 7-9 AM / reporting on peak direction - eastbound
- ✚ PM Peak: 4-6 PM / reporting on peak direction - westbound
- ✚ Travel time represents travel between 23rd Ave NW to just east of Dayton Ave N

**BEFORE****PM Peak Modeled Intersection Delay**

Dayton Ave N (sec)	6.9
3rd Ave NW (sec)	24.3
8th Ave NW (sec)	30.9
15th Ave NW (sec)	11.2
20th Ave NW (sec)	11.8
<b>Total WB Delay (sec)</b>	<b>85.1</b>

**PM Peak Calculated Travel Time**

Travel Time w-o Stops (sec)	191
Intersection Delay (sec)	85
Total Travel Time (sec)	277
<b>Total Travel Time (min:sec)</b>	<b>04:37</b>
Average Travel Speed (ft/s)	35.5
Average Travel Speed (mph)	24.2

**PM Peak Actual Travel Times (for model calibration)**

Conducted in early June 2017 between 4-6 PM

Run #	Travel Time (min:sec)	Travel Time (seconds)	Distance (ft)	Avg Speed (ft/s)	Avg Speed (mph)
Run 1	04:37.0	277	9854.8	35.58	24.26
Run 2	04:45.0	285	9895.8	34.72	23.67
Run 3	04:25.0	265	9499.5	35.85	24.44
Run 4	03:56.0	236	9666.2	40.96	27.93
Run 5	04:01.0	241	9943.8	41.26	28.13
Run 6	04:39.0	279	9764.4	35.00	23.86
Run 7	04:48.0	288	9959	34.58	23.58
Run 8	04:35.0	275	9872.8	35.90	24.48
Run 9	04:11.0	251	9643	38.42	26.19
Run 10	04:38.0	278	10010.2	36.01	24.55
Run 11	04:59.0	299	9978.8	33.37	22.75
<b>Average</b>	<b>04:30.4</b>	<b>270</b>	<b>9826.21</b>	<b>36.51</b>	<b>24.90</b>
Highest	04:59.0	299	10010.20	41.26	28.13
Lowest	03:56.0	236	9499.50	33.37	22.75
Std Deviation	00:19.0	19	155.55	2.47	1.68

**AFTER****PM Peak Modeled Intersection Delay**

Dayton Ave N (sec)	6.9
3rd Ave NW (sec)	23.3
8th Ave NW (sec)	26.5
15th Ave NW (sec)	29.1
20th Ave NW (sec)	14.1
<b>Total WB Delay (sec)</b>	<b>99.9</b>

**PM Peak Calculated Travel Time**

Travel Time w-o Stops (sec)	225
Intersection Delay (sec)	100
Total Travel Time (sec)	325
<b>Total Travel Time (min:sec)</b>	<b>05:25</b>
Average Travel Speed (ft/s)	30.2
Average Travel Speed (mph)	20.6

**PM Peak Actual Travel Times (to verify modeled projections)**

Conducted from mid Oct-mid Nov 2018 between 4-6 PM

Run #	Travel Time (min:sec)	Travel Time (seconds)	Distance (ft)	Avg Speed (ft/s)	Avg Speed (mph)
Run 1	04:53.0	293	9826	33.54	22.87
Run 2	05:15.0	315	9826	31.19	21.27
Run 3	04:58.0	298	9826	32.97	22.48
Run 4	04:44.8	285	9826	34.50	23.52
Run 5	05:09.1	309	9826	31.79	21.67
Run 6	05:20.8	321	9826	30.63	20.88
Run 7	05:34.7	335	9826	29.35	20.01
Run 8	05:22.0	322	9826	30.51	20.80
Run 9	05:24.8	325	9826	30.25	20.62
Run 10	05:39.6	340	9826	28.94	19.73
Run 11	05:19.2	319	9826	30.79	20.99
<b>Average</b>	<b>05:14.6</b>	<b>315</b>	<b>9826.00</b>	<b>31.31</b>	<b>21.35</b>
Highest	05:39.6	340	9826.00	34.50	23.52
Lowest	04:44.8	285	9826.00	28.94	19.73
Std Deviation	00:16.3	16	0.00	1.65	1.13

**BEFORE****AM Peak Modeled Intersection Delay**

Dayton Ave N (sec)	10
3rd Ave NW (sec)	11.3
8th Ave NW (sec)	44.2
15th Ave NW (sec)	10
20th Ave NW (sec)	8.3
<b>Total EB Delay (sec)</b>	<b>83.8</b>

**AM Peak Calculated Travel Time**

Travel Time w-o Stops (sec)	160
Intersection Delay (sec)	84
Total Travel Time (sec)	243
<b>Total Travel Time (min:sec)</b>	<b>04:03</b>
Average Travel Speed (ft/s)	33.7
Average Travel Speed (mph)	22.9

**AM Peak Actual Travel Times (for model calibration)**

Conducted in Fall 2017

Run #	Travel Time (min:sec)	Travel Time (seconds)	Distance (ft)	Avg Speed (ft/s)	Avg Speed (mph)
Run 1	04:25.0	265	7991.9	30.16	20.56
Run 2	03:40.0	220	8144.6	37.02	25.24
Run 3	03:25.0	205	8315.0	40.56	27.65
Run 4	04:06.0	246	8397.5	34.14	23.27
Run 5	03:21.0	201	7969.6	39.65	27.03
Run 6	04:05.0	245	8319.1	33.95	23.15
Run 7	03:29.0	209	8056.4	38.55	26.28
Run 8	04:45.0	285	7931.7	27.83	18.98
Run 9	04:19.0	259	8385.6	32.38	22.07
Run 10	03:38.0	218	8275.5	37.96	25.88
Run 11	03:48.0	228	8401.2	36.85	25.12
Run 12	04:38.0	278	8261.0	29.72	20.26
Run 13	04:03.0	243	7973.6	32.81	22.37
Run 14	04:02.0	242	8332.6	34.43	23.48
Run 15	03:34.0	214	7987.3	37.32	25.45
Run 16	03:25.0	205	8218.9	40.09	27.34
Run 17	03:43.0	223	8300.2	37.22	25.38
<b>Average</b>	<b>03:54.5</b>	<b>234</b>	<b>8191.86</b>	<b>35.33</b>	<b>24.09</b>
Highest	04:45.0	285	8401.20	40.56	27.65
Lowest	03:21.0	201	7931.70	27.83	18.98
Std Deviation	00:25.4	25	165.60	3.70	2.52

**AFTER****AM Peak Modeled Intersection Delay**

Dayton Ave N (sec)	10
3rd Ave NW (sec)	27
8th Ave NW (sec)	32.8
15th Ave NW (sec)	19.3
20th Ave NW (sec)	9.4
<b>Total EB Delay (sec)</b>	<b>98.5</b>

**AM Peak Calculated Travel Time**

Travel Time w-o Stops (sec)	186
Intersection Delay (sec)	99
Total Travel Time (sec)	285
<b>Total Travel Time (min:sec)</b>	<b>04:45</b>
Average Travel Speed (ft/s)	28.8
Average Travel Speed (mph)	19.6

**AM Peak Actual Travel Times (to verify modeled projections)**

Conducted in Fall 2018

Run #	Travel Time (min:sec)	Travel Time (seconds)	Distance (ft)	Avg Speed (ft/s)	Avg Speed (mph)
Run 1	05:19.0	319	8191.86	25.68	17.51
Run 2	03:55.7	236	8191.86	34.75	23.69
Run 3	04:15.4	255	8191.86	32.08	21.87
Run 4	04:16.7	257	8191.86	31.91	21.76
Run 5	04:11.9	252	8191.86	32.51	22.17
Run 6	03:49.7	230	8191.86	35.67	24.32
Run 7	03:16.7	197	8191.86	41.64	28.39
Run 8	03:37.1	217	8191.86	37.73	25.72
Run 9	04:17.2	257	8191.86	31.85	21.71
Run 10	04:53.2	293	8191.86	27.94	19.05
Run 11	03:50.7	231	8191.86	35.50	24.21
Run 12	04:22.3	262	8191.86	31.22	21.29
Run 13	04:25.5	266	8191.86	30.85	21.03
Run 14	04:45.7	286	8191.86	28.67	19.55
Run 15	03:45.3	225	8191.86	36.36	24.79
<b>Average</b>	<b>04:12.2</b>	<b>252</b>	<b>8191.86</b>	<b>32.96</b>	<b>22.47</b>
Highest	05:19.0	319	8191.86	41.64	28.39
Lowest	03:16.7	197	8191.86	25.68	17.51
Std Deviation	00:30.4	30	0.00	3.95	2.69

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 20th Ave NW between NW 196th St & NW 197th St  
 City/County, State : Shoreline, WA  
 Counter : NT-2811

Site: Loc 01

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	2	3	5	5	6	11	11	22	12	12	3	5	3	9	3.8	6.6	6.0	9.6
1:00 AM	1	6	0	1	3	7	5	5	8	13	0	2	3	3	1.4	3.8	2.9	5.3
2:00 AM	1	4	4	3	3	2	3	7	6	5	2	0	2	3	2.4	2.4	3.0	3.4
3:00 AM	4	4	6	2	6	3	1	2	3	6	4	4	3	1	4.6	2.8	3.9	3.1
4:00 AM	13	3	5	6	10	2	4	4	2	4	11	3	10	4	9.8	3.6	7.9	3.7
5:00 AM	35	2	32	7	31	5	10	4	15	5	36	5	38	3	34.4	4.4	28.1	4.4
6:00 AM	101	14	106	19	86	17	32	11	14	6	90	11	97	20	96.0	16.2	75.1	14.0
7:00 AM	218	48	193	39	175	40	43	20	32	17	204	49	207	45	199.4	44.2	153.1	36.9
8:00 AM	189	110	185	91	168	117	97	41	64	28	178	91	173	106	178.6	103.0	150.6	83.4
9:00 AM	115	80	140	76	111	74	109	70	84	41	123	70	122	77	122.2	75.4	114.9	69.7
10:00 AM	102	60	105	73	108	81	116	82	108	77	84	73	85	60	96.8	69.4	101.1	72.3
11:00 AM	103	79	108	103	112	94	128	106	108	90	110	79	100	81	106.6	87.2	109.9	90.3
12:00 PM	107	136	119	115	101	125	104	110	100	108	100	114	83	106	102.0	119.2	102.0	116.3
1:00 PM	104	107	89	116	111	116	124	119	117	106	86	110	89	92	95.8	108.2	102.9	109.4
2:00 PM	112	130	119	115	102	132	120	108	78	125	117	127	105	116	111.0	124.0	107.6	121.9
3:00 PM	128	163	124	191	111	180	118	133	118	115	106	172	105	192	114.8	179.6	115.7	163.7
4:00 PM	122	195	117	199	130	169	133	153	94	120	120	203	104	165	118.6	186.2	117.1	172.0
5:00 PM	97	179	109	196	99	164	89	110	97	123	90	201	85	183	96.0	184.6	95.1	165.1
6:00 PM	108	156	106	170	95	147	101	132	51	89	91	159	91	171	98.2	160.6	91.9	146.3
7:00 PM	71	140	62	110	71	83	59	84	57	66	64	112	62	122	66.0	113.4	63.7	102.4
8:00 PM	59	95	47	91	37	102	32	73	50	48	45	73	41	71	45.8	86.4	44.4	79.0
9:00 PM	24	63	36	77	32	67	43	66	22	40	30	57	21	47	28.6	62.2	29.7	59.6
10:00 PM	12	30	17	29	30	44	30	50	25	25	23	26	20	22	20.4	30.2	22.4	32.3
11:00 PM	13	15	5	12	20	31	29	39	10	10	7	17	5	14	10.0	17.8	12.7	19.7
Totals	1841	1822	1839	1846	1758	1813	1541	1551	1275	1279	1724	1763	1654	1713	1763.2	1791.4	1661.7	1683.9
Combined	3663		3685		3571		3092		2554		3487		3367		3554.6		3345.6	
Split (%)	50.3	49.7	49.9	50.1	49.2	50.8	49.8	50.2	49.9	50.1	49.4	50.6	49.1	50.9	49.6	50.4	49.7	50.3

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	8:00 AM	7:00 AM	11:00 AM	7:00 AM	8:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	11:00 AM
Volume	218	110	193	103	175	117	128	106	108	90	204	91	207	106	199.4	103.0	153.1	90.3
12:00 PM - 12:00 AM	3:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	2:00 PM	4:00 PM	4:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	128	195	124	199	130	180	133	153	118	125	120	203	105	192	118.6	186.2	117.1	172.0



**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
email: CarlaN@trafficdatagathering.com**

Location : 15th Ave NW between NW 195th St & NW 196th St  
City/County, State : Shoreline, WA  
Counter : NT-0120

Site: Loc 02

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	5	2	5	2	9	1	11	4	17	6	0	1	2	1	4.2	1.4	7.0	2.4
1:00 AM	3	1	2	1	1	1	4	2	8	4	0	2	1	0	1.4	1.0	2.7	1.6
2:00 AM	2	1	2	1	5	2	5	3	3	1	1	1	2	1	2.4	1.2	2.9	1.4
3:00 AM	0	0	0	1	2	3	2	0	2	1	1	1	1	0	0.8	1.0	1.1	0.9
4:00 AM	1	4	1	5	3	3	1	4	2	0	0	3	2	4	1.4	3.8	1.4	3.3
5:00 AM	3	14	6	20	3	15	1	4	2	4	4	12	9	19	5.0	16.0	4.0	12.6
6:00 AM	13	47	13	51	11	46	5	15	3	7	15	45	10	52	12.4	48.2	10.0	37.6
7:00 AM	27	89	43	79	31	88	11	12	9	12	30	72	38	64	33.8	78.4	27.0	59.4
8:00 AM	54	94	58	93	55	92	19	33	18	24	68	90	58	94	58.6	92.6	47.1	74.3
9:00 AM	52	58	40	63	48	60	34	50	29	42	42	65	34	61	43.2	61.4	39.9	57.0
10:00 AM	35	50	42	58	50	45	53	56	28	52	38	33	40	45	41.0	46.2	40.9	48.4
11:00 AM	54	41	53	64	58	51	75	60	55	65	37	54	44	34	49.2	48.8	53.7	52.7
12:00 PM	48	46	55	52	46	50	55	53	47	60	47	58	42	53	47.6	51.8	48.6	53.1
1:00 PM	49	40	36	36	45	49	53	60	65	63	43	54	50	42	44.6	44.2	48.7	49.1
2:00 PM	56	61	69	30	65	52	84	80	67	45	59	50	50	41	59.8	46.8	64.3	51.3
3:00 PM	83	81	83	71	96	72	86	79	51	49	88	79	92	70	88.4	74.6	82.7	71.6
4:00 PM	87	62	79	65	93	60	69	53	58	43	85	57	104	72	89.6	63.2	82.1	58.9
5:00 PM	88	69	94	72	103	68	47	52	55	56	107	68	94	69	97.2	69.2	84.0	64.9
6:00 PM	87	64	93	55	92	43	60	99	49	40	67	52	68	52	81.4	53.2	73.7	57.9
7:00 PM	59	33	51	22	52	44	45	36	25	30	50	39	54	36	53.2	34.8	48.0	34.3
8:00 PM	37	29	42	49	35	33	33	27	35	21	32	16	52	21	39.6	29.6	38.0	28.0
9:00 PM	31	26	30	7	30	36	26	28	17	9	19	14	31	16	28.2	19.8	26.3	19.4
10:00 PM	14	8	11	6	22	19	22	25	7	5	11	5	16	4	14.8	8.4	14.7	10.3
11:00 PM	8	3	9	7	14	13	14	6	6	3	4	3	7	9	8.4	7.0	8.9	6.3
Totals	896	923	917	910	969	946	815	841	658	642	848	874	901	860	906.2	902.6	857.7	856.6
Combined	1819		1827		1915		1656		1300		1722		1761		1808.8		1714.3	
Split (%)	49.3	50.7	50.2	49.8	50.6	49.4	49.2	50.8	50.6	49.4	49.2	50.8	51.2	48.8	50.1	49.9	50.0	50.0

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	8:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	8:00 AM
Volume	54	94	58	93	58	92	75	60	55	65	68	90	58	94	58.6	92.6	53.7	74.3
12:00 PM - 12:00 AM	5:00 PM	3:00 PM	5:00 PM	5:00 PM	5:00 PM	3:00 PM	3:00 PM	6:00 PM	2:00 PM	1:00 PM	5:00 PM	3:00 PM	4:00 PM	4:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM
Volume	88	81	94	72	103	72	86	99	67	63	107	79	104	72	97.2	74.6	84.0	71.6

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 15th Ave NW between NW 191st St & NW Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-0216

Site: Loc 03

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	1	6	2	4	4	5	3	5	7	12	1	4	2	4	2.0	4.6	2.9	5.7
1:00 AM	1	2	1	3	2	1	2	1	4	6	1	2	2	0	1.4	1.6	1.9	2.1
2:00 AM	0	2	8	5	0	2	4	5	3	1	1	1	0	2	1.8	2.4	2.3	2.6
3:00 AM	0	2	0	0	1	1	1	2	1	1	0	1	1	1	0.4	1.0	0.6	1.1
4:00 AM	1	3	1	4	1	1	1	2	1	1	1	4	1	3	1.0	3.0	1.0	2.6
5:00 AM	6	5	9	10	3	7	3	2	1	2	4	8	10	4	6.4	6.8	5.1	5.4
6:00 AM	22	14	36	18	19	18	5	6	1	2	15	6	19	18	22.2	14.8	16.7	11.7
7:00 AM	36	16	35	23	24	25	3	11	6	14	30	24	35	27	32.0	23.0	24.1	20.0
8:00 AM	33	45	36	46	39	43	17	38	6	18	35	47	37	40	36.0	44.2	29.0	39.6
9:00 AM	27	37	31	29	36	29	29	42	20	29	28	35	28	28	30.0	31.6	28.4	32.7
10:00 AM	33	34	25	39	29	43	46	39	21	25	32	33	28	37	29.4	37.2	30.6	35.7
11:00 AM	34	36	42	47	48	35	41	56	21	48	29	32	22	43	35.0	38.6	33.9	42.4
12:00 PM	22	46	28	44	29	47	55	38	27	41	31	44	23	29	26.6	42.0	30.7	41.3
1:00 PM	23	40	30	41	28	36	39	50	29	58	33	58	31	33	29.0	41.6	30.4	45.1
2:00 PM	42	54	34	47	29	50	45	67	48	44	30	41	25	31	32.0	44.6	36.1	47.7
3:00 PM	45	55	39	55	43	61	34	68	35	38	52	49	45	57	44.8	55.4	41.9	54.7
4:00 PM	38	76	40	62	34	61	47	59	37	37	48	76	53	79	42.6	70.8	42.4	64.3
5:00 PM	35	63	41	67	42	52	40	43	45	31	40	48	39	65	39.4	59.0	40.3	52.7
6:00 PM	40	42	31	48	39	44	42	41	33	21	32	60	45	45	37.4	47.8	37.4	43.0
7:00 PM	17	22	20	24	32	29	28	32	19	24	17	19	18	25	20.8	23.8	21.6	25.0
8:00 PM	13	22	30	17	26	21	26	19	18	20	18	20	21	14	21.6	18.8	21.7	19.0
9:00 PM	18	19	15	14	25	25	34	17	10	17	16	10	15	10	17.8	15.6	19.0	16.0
10:00 PM	10	10	9	4	12	15	33	21	6	8	10	8	15	6	11.2	8.6	13.6	10.3
11:00 PM	6	2	3	4	10	11	10	15	4	7	2	0	3	3	4.8	4.0	5.4	6.0
Totals	503	653	546	655	555	662	588	679	403	505	506	630	518	604	525.6	640.8	517.0	626.9
Combined	1156		1201		1217		1267		908		1136		1122		1166.4		1143.9	
Split (%)	43.5	56.5	45.5	54.5	45.6	54.4	46.4	53.6	44.4	55.6	44.5	55.5	46.2	53.8	45.1	54.9	45.2	54.8

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	8:00 AM	11:00 AM	11:00 AM	11:00 AM	8:00 AM	10:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	8:00 AM	8:00 AM	11:00 AM	11:00 AM
Volume	36	45	42	47	48	43	46	56	21	48	35	47	37	43	36.0	44.2	33.9	42.4
12:00 PM - 12:00 AM	3:00 PM	4:00 PM	5:00 PM	5:00 PM	3:00 PM	3:00 PM	12:00 PM	3:00 PM	2:00 PM	1:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	45	76	41	67	43	61	55	68	48	58	52	76	53	79	44.8	70.8	42.4	64.3

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 204th St between 15th Ave NW and 17th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2808

Site: Loc 04

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	5	0	2	0	3	0	4	2	5	1	2	0	1	1	2.6	0.2	3.1	0.6
1:00 AM	2	0	0	0	0	0	2	1	3	0	0	1	0	0	0.4	0.2	1.0	0.3
2:00 AM	0	0	0	0	0	0	3	0	2	2	1	0	0	0	0.2	0.0	0.9	0.3
3:00 AM	0	0	0	1	0	0	2	0	2	2	2	0	0	0	0.4	0.2	0.9	0.4
4:00 AM	2	6	2	3	2	3	1	3	0	0	0	2	4	1.6	3.6	1.3	3.0	
5:00 AM	3	4	2	5	0	6	1	3	2	1	0	4	1	6	1.2	5.0	1.3	4.1
6:00 AM	3	21	2	21	2	26	2	7	1	6	6	29	4	26	3.4	24.6	2.9	19.4
7:00 AM	8	41	15	51	7	33	1	11	3	9	15	38	10	42	11.0	41.0	8.4	32.1
8:00 AM	16	52	23	45	24	47	7	22	7	17	15	44	25	51	20.6	47.8	16.7	39.7
9:00 AM	25	33	27	46	19	34	18	35	5	17	22	31	21	37	22.8	36.2	19.6	33.3
10:00 AM	18	27	23	26	20	25	20	23	17	33	12	17	13	17	17.2	22.4	17.6	24.0
11:00 AM	25	19	24	31	16	35	44	35	28	27	19	17	21	15	21.0	23.4	25.3	25.6
12:00 PM	33	18	34	31	31	24	41	31	31	30	18	21	23	23	27.8	23.4	30.1	25.4
1:00 PM	21	18	25	25	22	24	36	29	26	20	26	27	20	21	22.8	23.0	25.1	23.4
2:00 PM	37	25	28	28	30	23	32	26	39	27	33	23	23	25	30.2	24.8	31.7	25.3
3:00 PM	58	34	38	31	40	26	39	29	35	31	43	28	42	27	44.2	29.2	42.1	29.4
4:00 PM	33	29	43	30	48	31	32	32	34	25	37	21	49	35	42.0	29.2	39.4	29.0
5:00 PM	60	25	55	28	51	33	38	23	43	23	46	21	52	29	52.8	27.2	49.3	26.0
6:00 PM	47	20	44	25	38	18	29	20	26	12	41	19	43	22	42.6	20.8	38.3	19.4
7:00 PM	42	17	30	16	24	17	32	18	23	16	34	17	30	18	32.0	17.0	30.7	17.0
8:00 PM	21	10	22	6	25	12	9	10	20	9	24	12	23	8	23.0	9.6	20.6	9.6
9:00 PM	28	8	23	7	22	13	23	8	11	5	13	2	26	4	22.4	6.8	20.9	6.7
10:00 PM	11	1	12	3	17	8	15	8	4	3	13	1	7	2	12.0	3.0	11.3	3.7
11:00 PM	1	5	5	0	6	6	8	2	4	1	3	0	6	2	4.2	2.6	4.7	2.3
Totals	499	413	479	459	447	444	439	378	371	317	425	375	442	415	458.4	421.2	443.1	400.1
Combined	912		938		891		817		688		800		857		879.6		843.3	
Split (%)	54.7	45.3	51.1	48.9	50.2	49.8	53.7	46.3	53.9	46.1	53.1	46.9	51.6	48.4	52.1	47.9	52.5	47.5

**Peak Hours**

12:00 AM - 12:00 PM	9:00 AM	8:00 AM	9:00 AM	7:00 AM	8:00 AM	8:00 AM	11:00 AM	9:00 AM	11:00 AM	10:00 AM	9:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	11:00 AM	8:00 AM
Volume	25	52	27	51	24	47	44	35	28	33	22	44	25	51	22.8	47.8	25.3	39.7
12:00 PM - 12:00 AM	5:00 PM	3:00 PM	5:00 PM	12:00 PM	5:00 PM	5:00 PM	12:00 PM	4:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	4:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM
Volume	60	34	55	31	51	33	41	32	43	31	46	28	52	35	52.8	29.2	49.3	29.4

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 201st St between 12th Ave NW and 15th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-0123

Site: Loc 05

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	1	2	1	1	0	0	1	1	2	1	0	0	0	0	0.4	0.6	0.7	0.7
1:00 AM	2	0	0	0	2	1	0	0	1	1	0	0	1	0	1.0	0.2	0.9	0.3
2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0.0	0.0	0.1	0.0
3:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0.0	0.0	0.1	0.0
4:00 AM	2	0	1	0	1	0	1	0	1	0	1	0	2	0	1.4	0.0	1.3	0.0
5:00 AM	0	1	1	1	1	1	0	0	0	0	2	1	2	0	1.2	0.8	0.9	0.6
6:00 AM	5	2	6	2	4	4	0	0	0	0	10	3	7	6	6.4	3.4	4.6	2.4
7:00 AM	12	8	27	9	11	8	1	2	1	1	12	7	22	8	16.8	8.0	12.3	6.1
8:00 AM	51	30	53	22	51	16	2	4	2	2	56	23	65	39	55.2	26.0	40.0	19.4
9:00 AM	23	31	19	30	17	24	6	6	4	1	15	22	22	35	19.2	28.4	15.1	21.3
10:00 AM	3	4	14	17	13	13	9	10	10	5	6	7	12	9	9.6	10.0	9.6	9.3
11:00 AM	4	6	12	14	10	10	10	5	9	10	7	8	4	12	7.4	10.0	8.0	9.3
12:00 PM	6	7	11	13	2	12	6	10	6	12	8	11	10	13	7.4	11.2	7.0	11.1
1:00 PM	7	8	3	3	7	8	7	9	8	10	9	6	10	8	7.2	6.6	7.3	7.4
2:00 PM	10	8	13	6	10	12	6	7	10	9	11	8	9	4	10.6	7.6	9.9	7.7
3:00 PM	40	47	39	28	37	39	14	10	10	8	37	45	42	35	39.0	38.8	31.3	30.3
4:00 PM	15	15	26	38	15	28	8	8	10	9	17	23	27	36	20.0	28.0	16.9	22.4
5:00 PM	14	23	18	22	19	28	7	11	1	10	15	13	19	18	17.0	20.8	13.3	17.9
6:00 PM	12	9	10	13	13	9	11	8	5	6	8	11	9	10	10.4	10.4	9.7	9.4
7:00 PM	10	6	6	3	9	9	3	5	5	4	5	5	5	5	7.0	5.6	6.1	5.3
8:00 PM	2	5	7	10	2	4	4	4	4	1	4	7	6	2	4.2	5.6	4.1	4.7
9:00 PM	0	5	1	5	5	4	3	10	0	1	2	2	3	5	2.2	4.2	2.0	4.6
10:00 PM	1	2	2	3	1	7	5	4	3	6	1	3	3	1	1.6	3.2	2.3	3.7
11:00 PM	3	1	0	0	2	2	0	0	0	0	0	0	0	1	1.0	0.8	0.7	0.6
Totals	223	220	270	240	232	239	105	114	93	97	226	205	280	247	246.2	230.2	204.1	194.6
Combined	443		510		471		219		190		431		527		476.4		398.7	
Split (%)	50.3	49.7	52.9	47.1	49.3	50.7	47.9	52.1	48.9	51.1	52.4	47.6	53.1	46.9	51.7	48.3	51.2	48.8

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	11:00 AM	10:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM
Volume	51	31	53	30	51	24	10	10	10	10	56	23	65	39	55.2	28.4	40.0	21.3
12:00 PM - 12:00 AM	3:00 PM	3:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	5:00 PM	2:00 PM	12:00 PM	3:00 PM	3:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM
Volume	40	47	39	38	37	39	14	11	10	12	37	45	42	36	39.0	38.8	31.3	30.3

**City of Shoreline**  
 Public Works -Traffic Services  
 17500 Midvale Ave N, Shoreline, WA 98133

Location : NW 188th St  
 Cross St : 15th Ave NW  
 Direction : e/o

Site: NW 188th St e/o 15th Ave NW

Seven Day Volume

Interval Start	Tue 6/23/2015		Wed 6/24/2015		Thu 6/25/2015		Fri 6/26/2015		Sat 6/27/2015		Sun 6/28/2015		Mon 6/29/2015		Mon - Fri Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
	12:00 AM	6	5	7	3	6	0	6	2	11	1	7	2	6	1	6.2
1:00 AM	1	1	5	1	1	5	3	2	3	2	3	1	3	2	2.6	2.2
2:00 AM	2	0	2	1	1	1	3	0	1	0	5	5	0	1	1.6	0.6
3:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0.2	0.2
4:00 AM	1	2	1	5	1	2	0	6	2	3	1	4	0	2	0.6	3.4
5:00 AM	9	8	4	6	5	7	4	6	2	2	1	2	5	4	5.4	6.2
6:00 AM	4	29	8	27	11	32	9	20	1	6	1	3	8	18	8.0	25.2
7:00 AM	40	53	42	53	44	57	21	43	9	13	6	12	36	45	36.6	50.2
8:00 AM	58	78	42	70	54	74	27	40	23	29	16	13	56	74	47.4	67.2
9:00 AM	51	72	59	71	55	63	58	49	31	35	26	33	52	65	55.0	64.0
10:00 AM	59	57	57	60	47	56	58	57	41	51	22	36	57	50	55.6	56.0
11:00 AM	60	42	64	40	61	51	44	49	38	46	28	27	75	45	60.8	45.4
12:00 PM	57	64	66	63	58	59	55	39	38	48	30	23	68	74	60.8	59.8
1:00 PM	59	55	52	70	58	45	52	54	53	41	38	20	70	57	58.2	56.2
2:00 PM	41	38	53	51	60	54	66	45	47	44	51	24	55	65	55.0	50.6
3:00 PM	65	49	56	32	72	54	68	46	40	36	51	34	64	45	65.0	45.2
4:00 PM	77	40	78	53	118	53	77	41	48	36	52	35	79	45	85.8	46.4
5:00 PM	91	49	90	46	162	68	72	46	33	32	45	30	80	41	99.0	50.0
6:00 PM	76	40	74	47	102	45	63	40	38	41	38	30	75	42	78.0	42.8
7:00 PM	55	39	52	31	54	35	43	27	34	17	40	31	34	37	47.6	33.8
8:00 PM	45	28	60	34	54	54	30	29	36	39	24	28	49	30	47.6	35.0
9:00 PM	26	22	35	23	49	137	29	35	20	25	22	20	32	21	34.2	47.6
10:00 PM	15	5	16	11	28	25	31	9	27	13	10	9	19	10	21.8	12.0
11:00 PM	9	5	8	4	13	2	9	11	7	5	11	5	12	7	10.2	5.8
Totals	907	781	931	802	1114	979	828	696	584	565	528	427	936	782	943.2	808.0
Combined	1688		1733		2093		1524		1149		955		1718		1751.2	
Split (%)	53.7	46.3	53.7	46.3	53.2	46.8	54.3	45.7	50.8	49.2	55.3	44.7	54.5	45.5	53.9	46.1

Peak Hours

12:00 AM - 12:00 PM	11:00 AM	8:00 AM	11:00 AM	9:00 AM	11:00 AM	8:00 AM	9:00 AM	10:00 AM	10:00 AM	10:00 AM	10:00 AM	11:00 AM	8:00 AM	11:00 AM	8:00 AM	
Volume	60	78	64	71	61	74	58	57	41	51	28	36	75	74	60.8	67.2
12:00 PM - 12:00 AM	5:00 PM	12:00 PM	5:00 PM	1:00 PM	5:00 PM	9:00 PM	4:00 PM	1:00 PM	1:00 PM	12:00 PM	4:00 PM	4:00 PM	5:00 PM	12:00 PM	5:00 PM	12:00 PM
Volume	91	64	90	70	162	137	77	54	53	48	52	35	80	74	99.0	59.8

**City of Shoreline**  
 Public Works- Traffic Services  
 17500 Midvale Ave N, Shoreline, WA 98133

Location : NW 188th St  
 Cross St : 15th Ave NW  
 Direction : e/o

Site: NW 188th St e/o 15th Ave NW

Seven Day Volume

Interval Start	Tue 7/7/2015		Wed 7/8/2015		Thu 7/9/2015		Fri 7/10/2015		Sat 7/11/2015		Sun 7/12/2015		Mon 7/13/2015		Mon - Fri Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
7:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
8:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
9:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	-	-	0.0	0.0
Totals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0	0.0
Combined	0		0		0		0		0		0		0		0.0	
Split (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**Peak Hours**

12:00 AM - 12:00 PM Volume	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12:00 PM - 12:00 AM Volume	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 188th St between 15th Ave NW and Springdale Ct NW  
 City/County, State : Shoreline, WA  
 Counter : NT-1865

Site: Loc 06

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	0	6	1	5	5	4	2	11	6	6	0	1	2	4	1.6	4.0	2.3	5.3
1:00 AM	0	2	0	1	0	1	0	1	0	5	1	1	1	0	0.4	1.0	0.3	1.6
2:00 AM	1	1	4	2	0	1	2	1	2	1	0	0	1	4	1.2	1.6	1.4	1.4
3:00 AM	2	2	1	2	1	1	1	1	2	1	0	1	1	1	1.0	1.4	1.1	1.3
4:00 AM	3	1	2	0	2	0	3	2	1	1	3	2	2	2	2.4	1.0	2.3	1.1
5:00 AM	4	1	6	7	2	1	2	2	3	2	5	0	12	5	5.8	2.8	4.9	2.6
6:00 AM	36	2	41	23	24	7	10	4	3	1	30	3	36	5	33.4	8.0	25.7	6.4
7:00 AM	60	10	56	10	41	8	8	5	10	8	43	9	50	10	50.0	9.4	38.3	8.6
8:00 AM	42	23	51	29	46	37	20	16	15	11	48	27	55	25	48.4	28.2	39.6	24.0
9:00 AM	32	30	36	26	41	21	33	34	20	20	24	29	38	20	34.2	25.2	32.0	25.7
10:00 AM	34	40	33	47	28	29	43	35	24	25	29	33	24	28	29.6	35.4	30.7	33.9
11:00 AM	30	30	35	43	34	48	31	49	34	48	32	23	28	42	31.8	37.2	32.0	40.4
12:00 PM	27	55	27	45	28	41	34	37	23	39	28	43	26	34	27.2	43.6	27.6	42.0
1:00 PM	28	41	30	38	51	32	42	39	31	50	23	51	27	32	31.8	38.8	33.1	40.4
2:00 PM	40	53	30	44	43	49	47	68	26	40	31	47	23	39	33.4	46.4	34.3	48.6
3:00 PM	36	54	42	62	35	74	43	66	34	42	55	70	31	60	39.8	64.0	39.4	61.1
4:00 PM	35	77	26	74	36	70	39	62	27	44	33	73	39	80	33.8	74.8	33.6	68.6
5:00 PM	30	84	50	63	29	61	26	41	25	28	39	64	29	67	35.4	67.8	32.6	58.3
6:00 PM	34	70	24	50	30	51	34	36	18	15	25	55	20	56	26.6	56.4	26.4	47.6
7:00 PM	16	31	13	28	20	27	16	23	13	21	14	29	15	24	15.6	27.8	15.3	26.1
8:00 PM	12	33	16	24	9	13	12	13	18	14	9	31	7	19	10.6	24.0	11.9	21.0
9:00 PM	25	22	3	18	17	23	18	12	5	16	8	15	10	15	12.6	18.6	12.3	17.3
10:00 PM	6	16	5	4	8	25	19	20	2	9	4	8	9	10	6.4	12.6	7.6	13.1
11:00 PM	2	3	4	10	9	15	8	16	1	3	4	2	3	5	4.4	7.0	4.4	7.7
Totals	535	687	536	655	539	639	493	594	343	450	488	617	489	587	517.4	637.0	489.0	604.1
Combined	1222		1191		1178		1087		793		1105		1076		1154.4		1093.1	
Split (%)	43.8	56.2	45.0	55.0	45.8	54.2	45.4	54.6	43.3	56.7	44.2	55.8	45.4	54.6	44.8	55.2	44.7	55.3

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	10:00 AM	7:00 AM	10:00 AM	8:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	11:00 AM	8:00 AM	10:00 AM	8:00 AM	11:00 AM	7:00 AM	11:00 AM	8:00 AM	11:00 AM
Volume	60	40	56	47	46	48	43	49	34	48	48	33	55	42	50.0	37.2	39.6	40.4
12:00 PM - 12:00 AM	2:00 PM	5:00 PM	5:00 PM	4:00 PM	1:00 PM	3:00 PM	2:00 PM	2:00 PM	3:00 PM	1:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM	4:00 PM
Volume	40	84	50	74	51	74	47	68	34	50	55	73	39	80	39.8	74.8	39.4	68.6

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 190th St between 8th Ave NW and NW Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-2800

Site: Loc 07

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	0	1	1	1	1	1	2	10	5	7	2	1	2	4	1.2	1.6	1.9	3.6
1:00 AM	0	1	0	0	1	2	2	4	4	2	1	1	0	1	0.4	1.0	1.1	1.6
2:00 AM	0	1	0	0	2	1	2	1	0	1	0	1	0	1	0.4	0.8	0.6	0.9
3:00 AM	1	3	1	2	0	1	1	1	1	0	1	2	2	2	1.0	2.0	1.0	1.6
4:00 AM	2	1	1	2	2	1	0	2	0	5	2	1	3	1	2.0	1.2	1.4	1.9
5:00 AM	15	4	12	4	11	4	2	2	5	3	13	3	14	5	13.0	4.0	10.3	3.6
6:00 AM	20	8	29	8	18	7	11	8	5	3	21	7	26	10	22.8	8.0	18.6	7.3
7:00 AM	68	13	64	19	68	18	14	6	9	5	78	20	73	16	70.2	17.2	53.4	13.9
8:00 AM	69	39	87	41	80	42	24	12	25	7	78	43	79	43	78.6	41.6	63.1	32.4
9:00 AM	56	27	40	30	35	32	47	25	39	17	33	43	31	24	39.0	31.2	40.1	28.3
10:00 AM	42	33	46	32	51	40	58	36	38	25	39	35	19	21	39.4	32.2	41.9	31.7
11:00 AM	35	33	44	43	37	43	47	45	43	33	34	42	35	20	37.0	36.2	39.3	37.0
12:00 PM	35	38	40	45	40	53	46	50	40	44	36	42	26	38	35.4	43.2	37.6	44.3
1:00 PM	46	48	34	36	54	45	43	47	36	49	53	46	32	34	43.8	41.8	42.6	43.6
2:00 PM	44	39	52	55	55	48	47	61	39	49	59	44	50	38	52.0	44.8	49.4	47.7
3:00 PM	45	80	49	76	48	85	46	54	35	56	45	82	45	92	46.4	83.0	44.7	75.0
4:00 PM	39	48	37	73	51	63	43	51	42	50	50	73	46	86	44.6	68.6	44.0	63.4
5:00 PM	45	57	51	73	51	74	43	45	37	44	41	60	41	54	45.8	63.6	44.1	58.1
6:00 PM	23	50	52	68	46	64	28	35	25	36	34	54	38	52	38.6	57.6	35.1	51.3
7:00 PM	22	40	23	36	38	39	21	29	20	18	19	35	24	40	25.2	38.0	23.9	33.9
8:00 PM	19	25	22	36	23	39	13	26	13	23	16	26	12	27	18.4	30.6	16.9	28.9
9:00 PM	14	25	11	22	18	35	19	20	14	15	12	19	11	17	13.2	23.6	14.1	21.9
10:00 PM	4	13	10	15	18	20	12	19	8	10	8	13	8	9	9.6	14.0	9.7	14.1
11:00 PM	5	6	2	7	8	12	11	14	1	2	1	3	3	5	3.8	6.6	4.4	7.0
Totals	649	633	708	724	756	769	582	603	484	504	676	696	620	640	681.8	692.4	639.3	652.7
Combined	1282		1432		1525		1185		988		1372		1260		1374.2		1292.0	
Split (%)	50.6	49.4	49.4	50.6	49.6	50.4	49.1	50.9	49.0	51.0	49.3	50.7	49.2	50.8	49.6	50.4	49.5	50.5

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	8:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	7:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM
Volume	69	39	87	43	80	43	58	45	43	33	78	43	79	43	78.6	41.6	63.1	37.0	
12:00 PM - 12:00 AM	1:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	2:00 PM	4:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	3:00 PM	2:00 PM	3:00 PM	3:00 PM
Volume	46	80	52	76	55	85	47	61	42	56	59	82	50	92	52.0	83.0	49.4	75.0	



**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : Innis Arden NW between Ridgefield Rd NW & 8th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-1862

Site: Loc 08

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	3	6	7	2	8	8	12	5	14	10	2	2	4	3	4.8	4.2	7.1	5.1
1:00 AM	2	0	5	4	3	3	8	1	9	8	2	0	2	1	2.8	1.6	4.4	2.4
2:00 AM	1	0	0	0	0	0	2	2	1	5	0	1	0	0	0.2	0.2	0.6	1.1
3:00 AM	0	1	1	3	2	0	0	1	5	1	1	1	3	1	1.4	1.2	1.7	1.1
4:00 AM	2	2	3	1	1	2	0	1	1	2	1	0	0	0	1.4	1.0	1.1	1.1
5:00 AM	0	8	2	4	0	5	0	3	1	1	0	7	0	4	0.4	5.6	0.4	4.6
6:00 AM	2	9	9	14	0	7	2	3	1	7	2	10	8	20	4.2	12.0	3.4	10.0
7:00 AM	8	31	25	30	8	17	2	9	3	12	9	22	7	28	11.4	25.6	8.9	21.3
8:00 AM	23	70	14	62	21	60	12	21	9	21	10	35	3	16	14.2	48.6	13.1	40.7
9:00 AM	38	50	42	51	51	41	23	44	19	26	0	0	0	0	26.2	28.4	24.7	30.3
10:00 AM	37	39	42	47	43	64	36	43	25	34	0	0	0	0	24.4	30.0	26.1	32.4
11:00 AM	52	70	48	50	47	52	44	70	36	58	17	11	35	24	39.8	41.4	39.9	47.9
12:00 PM	56	52	45	48	101	61	55	55	54	54	44	61	47	53	58.6	55.0	57.4	54.9
1:00 PM	66	49	62	38	58	53	51	62	71	42	55	55	38	49	55.8	48.8	57.3	49.7
2:00 PM	51	54	48	41	57	86	56	63	61	53	57	34	45	50	51.6	53.0	53.6	54.4
3:00 PM	53	54	70	56	81	93	66	56	46	42	54	55	56	41	62.8	59.8	60.9	56.7
4:00 PM	72	56	74	56	91	62	70	66	59	39	75	74	69	56	76.2	60.8	72.9	58.4
5:00 PM	68	46	57	47	86	49	82	49	68	44	84	51	54	40	69.8	46.6	71.3	46.6
6:00 PM	70	41	68	52	57	38	53	39	51	34	69	51	64	35	65.6	43.4	61.7	41.4
7:00 PM	60	44	67	32	68	45	44	33	23	26	57	42	53	30	61.0	38.6	53.1	36.0
8:00 PM	50	29	55	30	34	28	33	15	35	17	41	25	34	17	42.8	25.8	40.3	23.0
9:00 PM	40	21	36	18	23	16	20	23	17	16	41	11	34	6	34.8	14.4	30.1	15.9
10:00 PM	31	17	21	13	22	12	22	22	15	14	21	7	16	10	22.2	11.8	21.1	13.6
11:00 PM	17	11	8	4	27	10	23	19	12	5	12	2	15	7	15.8	6.8	16.3	8.3
Totals	802	760	809	703	889	812	716	705	636	571	654	557	587	491	748.2	664.6	727.6	657.0
Combined	1562		1512		1701		1421		1207		1211		1078		1412.8		1384.6	
Split (%)	51.3	48.7	53.5	46.5	52.3	47.7	50.4	49.6	52.7	47.3	54.0	46.0	54.5	45.5	53.0	47.0	52.5	47.5

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	8:00 AM	11:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	8:00 AM	11:00 AM	7:00 AM	11:00 AM	8:00 AM	11:00 AM	11:00 AM
Volume	52	70	48	62	51	64	44	70	36	58	17	35	35	28	39.8	48.6	39.9	47.9	
12:00 PM - 12:00 AM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	12:00 PM	3:00 PM	5:00 PM	4:00 PM	1:00 PM	12:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	72	56	74	56	101	93	82	66	71	54	84	74	69	56	76.2	60.8	72.9	58.4	

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
email: CarlaN@trafficdatagathering.com**

Location : 8th Ave NW between NW 190th St and NW Richmond Beach Rd  
City/County, State : Shoreline, WA  
Counter : NT-2803

Site: Loc 09

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	6	5	7	18	6	12	26	23	16	28	3	13	2	8	4.8	11.2	9.4	15.3
1:00 AM	3	4	2	7	0	5	5	15	5	21	3	6	4	3	2.4	5.0	3.1	8.7
2:00 AM	2	6	2	4	3	7	4	8	5	5	4	4	2	5	2.6	5.2	3.1	5.6
3:00 AM	5	2	5	4	2	3	5	6	6	5	5	2	4	1	4.2	2.4	4.6	3.3
4:00 AM	12	2	13	2	13	8	4	2	8	3	13	7	17	8	13.6	5.4	11.4	4.6
5:00 AM	60	20	69	12	46	18	5	6	5	7	55	17	62	17	58.4	16.8	43.1	13.9
6:00 AM	188	33	191	44	171	38	29	29	29	13	185	46	185	39	184.0	40.0	139.7	34.6
7:00 AM	491	114	446	133	391	118	55	47	47	41	458	124	451	124	447.4	122.6	334.1	100.1
8:00 AM	422	196	405	190	366	183	117	76	116	72	384	199	394	205	394.2	194.6	314.9	160.1
9:00 AM	257	158	267	154	255	152	174	111	140	95	246	163	276	181	260.2	161.6	230.7	144.9
10:00 AM	213	150	201	134	186	134	188	185	190	136	179	161	201	125	196.0	140.8	194.0	146.4
11:00 AM	176	178	191	205	207	193	215	193	203	179	187	162	146	167	181.4	181.0	189.3	182.4
12:00 PM	205	229	198	207	174	208	204	203	153	211	179	212	139	192	179.0	209.6	178.9	208.9
1:00 PM	159	192	149	207	166	245	202	201	160	213	164	222	150	189	157.6	211.0	164.3	209.9
2:00 PM	156	252	194	252	202	272	194	198	159	198	210	265	172	257	186.8	259.6	183.9	242.0
3:00 PM	206	416	222	400	252	395	181	254	193	156	216	393	230	387	225.2	398.2	214.3	343.0
4:00 PM	217	409	214	399	238	427	198	206	160	185	234	391	242	420	229.0	409.2	214.7	348.1
5:00 PM	187	434	191	458	182	425	171	211	136	176	187	413	201	447	189.6	435.4	179.3	366.3
6:00 PM	179	318	184	292	171	279	162	155	124	123	186	266	186	330	181.2	297.0	170.3	251.9
7:00 PM	122	181	132	176	122	144	105	82	113	91	98	152	104	166	115.6	163.8	113.7	141.7
8:00 PM	87	138	98	108	94	105	103	82	79	76	85	108	73	103	87.4	112.4	88.4	102.9
9:00 PM	67	77	52	74	69	82	57	87	30	42	43	81	52	70	56.6	76.8	52.9	73.3
10:00 PM	34	50	32	50	54	75	54	65	27	28	33	45	31	42	36.8	52.4	37.9	50.7
11:00 PM	22	22	15	26	35	32	28	46	9	13	10	14	10	35	18.4	25.8	18.4	26.9
Totals	3476	3586	3480	3556	3405	3560	2486	2491	2113	2117	3367	3466	3334	3521	3412.4	3537.8	3094.4	3185.3
Combined	7062		7036		6965		4977		4230		6833		6855		6950.2		6279.7	
Split (%)	49.2	50.8	49.5	50.5	48.9	51.1	49.9	50.1	50.0	50.0	49.3	50.7	48.6	51.4	49.1	50.9	49.3	50.7

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	8:00 AM	7:00 AM	11:00 AM	7:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	11:00 AM
Volume	491	196	446	205	391	193	215	193	203	179	458	199	451	205	447.4	194.6	334.1	182.4	
12:00 PM - 12:00 AM	4:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	4:00 PM	12:00 PM	3:00 PM	3:00 PM	1:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	
Volume	217	434	222	458	252	427	204	254	193	213	234	413	242	447	229.0	435.4	214.7	366.3	

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 8th Avenue NW between NW Richmond Beach Rd & NW 185th St  
 City/County, State : Shoreline, WA  
 Counter : NT-0118

Site: Loc10

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	4	3	8	5	5	2	17	6	12	4	4	0	1	2	4.4	2.4	7.3	3.1
1:00 AM	3	2	2	2	4	1	5	4	13	4	0	1	1	0	2.0	1.2	4.0	2.0
2:00 AM	3	3	4	2	3	1	7	4	3	1	4	2	2	0	3.2	1.6	3.7	1.9
3:00 AM	2	1	3	0	2	1	2	1	3	1	2	0	0	1	1.8	0.6	2.0	0.7
4:00 AM	1	5	3	5	4	4	3	2	3	1	4	1	6	4	3.6	3.8	3.4	3.1
5:00 AM	6	20	3	23	5	20	3	4	1	5	7	23	6	22	5.4	21.6	4.4	16.7
6:00 AM	30	89	39	76	31	78	11	12	3	9	35	78	35	93	34.0	82.8	26.3	62.1
7:00 AM	69	303	72	264	72	232	34	29	31	21	65	287	70	308	69.6	278.8	59.0	206.3
8:00 AM	130	284	105	240	108	196	59	68	56	70	102	238	108	269	110.6	245.4	95.4	195.0
9:00 AM	118	142	123	130	110	133	79	77	68	69	127	134	133	139	122.2	135.6	108.3	117.7
10:00 AM	74	92	83	107	102	92	82	84	104	95	98	82	92	97	89.8	94.0	90.7	92.7
11:00 AM	114	108	104	119	120	102	126	79	103	101	105	114	98	83	108.2	105.2	110.0	100.9
12:00 PM	155	123	144	114	137	108	120	123	156	62	148	115	127	83	142.2	108.6	141.0	104.0
1:00 PM	141	92	131	76	137	88	133	99	131	101	138	94	146	82	138.6	86.4	136.7	90.3
2:00 PM	151	110	151	92	141	101	157	94	119	89	174	111	152	91	153.8	101.0	149.3	98.3
3:00 PM	256	114	233	107	226	118	137	113	103	103	223	135	228	119	233.2	118.6	200.9	115.6
4:00 PM	304	135	257	94	273	139	128	136	110	78	279	134	294	116	281.4	123.6	235.0	118.9
5:00 PM	309	104	300	114	280	107	137	96	111	69	276	117	308	115	294.6	111.4	245.9	103.1
6:00 PM	215	104	188	87	169	102	98	84	75	65	143	119	215	101	186.0	102.6	157.6	94.6
7:00 PM	97	63	111	63	80	81	49	42	50	50	116	62	92	60	99.2	65.8	85.0	60.1
8:00 PM	72	49	58	51	55	44	46	50	52	33	58	51	64	32	61.4	45.4	57.9	44.3
9:00 PM	36	34	42	35	61	46	52	31	18	15	49	20	39	26	45.4	32.2	42.4	29.6
10:00 PM	19	24	11	20	45	25	44	31	14	11	24	21	22	19	24.2	21.8	25.6	21.6
11:00 PM	12	14	10	6	21	26	26	24	6	5	9	11	15	7	13.4	12.8	14.1	13.3
Totals	2321	2018	2185	1832	2191	1847	1555	1293	1345	1062	2190	1950	2254	1869	2228.2	1903.2	2005.9	1695.9
Combined	4339		4017		4038		2848		2407		4140		4123		4131.4		3701.7	
Split (%)	53.5	46.5	54.4	45.6	54.3	45.7	54.6	45.4	55.9	44.1	52.9	47.1	54.7	45.3	53.9	46.1	54.2	45.8

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	7:00 AM	9:00 AM	7:00 AM	11:00 AM	7:00 AM	11:00 AM	10:00 AM	10:00 AM	11:00 AM	9:00 AM	7:00 AM	9:00 AM	7:00 AM	9:00 AM	7:00 AM	11:00 AM	7:00 AM
Volume	130	303	123	264	120	232	126	84	104	101	127	287	133	308	122.2	278.8	110.0	206.3
12:00 PM - 12:00 AM	5:00 PM	4:00 PM	5:00 PM	12:00 PM	5:00 PM	4:00 PM	2:00 PM	4:00 PM	12:00 PM	3:00 PM	4:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM
Volume	309	135	300	114	280	139	157	136	156	103	279	135	308	119	294.6	123.6	245.9	118.9

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
email: CarlaN@trafficdatagathering.com**

Location : NW 185th St between 3rd Ave NW and 8th Ave NW  
City/County, State : Shoreline, WA  
Counter : NT-2817

Site: Loc 11

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	3	0	1	0	3	1	6	1	5	6	4	3	3	1	2.8	1.0	3.6	1.7
1:00 AM	4	0	1	0	0	0	2	3	1	0	2	2	3	0	2.0	0.4	1.9	0.7
2:00 AM	1	3	1	1	1	1	1	1	1	2	0	0	1	3	0.8	1.6	0.9	1.6
3:00 AM	1	1	0	0	0	1	0	1	2	2	0	1	0	0	0.2	0.6	0.4	0.9
4:00 AM	0	3	0	2	0	2	0	2	2	2	0	1	0	1	0.0	1.8	0.3	1.9
5:00 AM	4	9	1	12	0	9	1	3	1	1	1	7	1	9	1.4	9.2	1.3	7.1
6:00 AM	5	18	5	14	6	15	4	4	2	4	6	16	9	18	6.2	16.2	5.3	12.7
7:00 AM	24	42	25	45	11	42	4	12	7	7	24	38	34	48	23.6	43.0	18.4	33.4
8:00 AM	57	34	55	42	55	35	10	19	31	20	47	23	52	41	53.2	35.0	43.9	30.6
9:00 AM	36	61	30	54	31	49	18	24	24	43	38	55	26	46	32.2	53.0	29.0	47.4
10:00 AM	20	20	23	32	30	28	26	25	39	30	21	31	21	27	23.0	27.6	25.7	27.6
11:00 AM	52	28	30	35	32	35	32	22	23	22	43	30	38	28	39.0	31.2	35.7	28.6
12:00 PM	45	36	58	39	42	40	29	37	33	49	40	42	46	38	46.2	39.0	41.9	40.1
1:00 PM	36	42	27	46	33	32	45	29	28	22	31	44	32	32	31.8	39.2	33.1	35.3
2:00 PM	50	41	50	27	45	34	38	34	31	35	37	38	33	31	43.0	34.2	40.6	34.3
3:00 PM	59	33	57	39	52	42	40	29	39	32	53	36	60	39	56.2	37.8	51.4	35.7
4:00 PM	55	32	51	38	64	37	43	39	49	34	55	49	54	34	55.8	38.0	53.0	37.6
5:00 PM	42	29	47	29	56	33	38	31	30	21	49	35	39	29	46.6	31.0	43.0	29.6
6:00 PM	51	41	40	24	32	22	26	27	32	17	48	22	42	29	42.6	27.6	38.7	26.0
7:00 PM	36	18	40	15	46	26	27	15	28	19	47	25	28	17	39.4	20.2	36.0	19.3
8:00 PM	20	14	13	7	16	15	25	15	8	19	22	16	21	24	18.4	15.2	17.9	15.7
9:00 PM	10	14	14	10	18	39	17	12	12	6	12	9	12	4	13.2	15.2	13.6	13.4
10:00 PM	17	10	8	5	17	10	13	4	3	3	8	4	9	4	11.8	6.6	10.7	5.7
11:00 PM	4	5	7	2	9	7	14	7	6	3	3	0	2	3	5.0	3.4	6.4	3.9
Totals	632	534	584	518	599	555	459	396	437	399	591	527	566	506	594.4	528.0	552.6	490.7
Combined	1166		1102		1154		855		836		1118		1072		1122.4		1043.3	
Split (%)	54.2	45.8	53.0	47.0	51.9	48.1	53.7	46.3	52.3	47.7	52.9	47.1	52.8	47.2	53.0	47.0	53.0	47.0

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	11:00 AM	10:00 AM	10:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM	7:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM
Volume	57	61	55	54	55	49	32	25	39	43	47	55	52	48	53.2	53.0	43.9	47.4
12:00 PM - 12:00 AM	3:00 PM	1:00 PM	12:00 PM	1:00 PM	4:00 PM	3:00 PM	1:00 PM	4:00 PM	4:00 PM	12:00 PM	4:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	1:00 PM	4:00 PM	12:00 PM
Volume	59	42	58	46	64	42	45	39	49	49	55	49	60	39	56.2	39.2	53.0	40.1

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 185th St between Dayton Ave NW and 3rd Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2816

Site: Loc 12

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	5	2	2	2	6	2	4	1	5	2	4	3	2	0	3.8	1.8	4.0	1.7
1:00 AM	1	0	2	0	2	1	0	0	4	3	1	1	3	0	1.8	0.4	1.9	0.7
2:00 AM	0	2	1	4	1	1	3	0	1	0	0	1	1	3	0.6	2.2	1.0	1.6
3:00 AM	2	1	1	1	1	2	0	3	4	1	1	1	1	1	1.2	1.2	1.4	1.4
4:00 AM	0	8	1	8	0	5	1	3	2	3	1	5	2	5	0.8	6.2	1.0	5.3
5:00 AM	1	13	3	20	2	15	2	6	3	2	1	13	0	15	1.4	15.2	1.7	12.0
6:00 AM	8	32	8	30	7	28	5	12	2	6	8	30	11	27	8.4	29.4	7.0	23.6
7:00 AM	20	72	19	73	11	56	8	16	8	13	16	68	19	69	17.0	67.6	14.4	52.4
8:00 AM	27	55	24	52	26	63	7	21	16	23	26	55	17	55	24.0	56.0	20.4	46.3
9:00 AM	25	42	17	46	12	42	22	35	26	41	25	40	19	44	19.6	42.8	20.9	41.4
10:00 AM	12	38	20	34	28	35	22	34	29	35	24	34	17	37	20.2	35.6	21.7	35.3
11:00 AM	29	30	32	36	42	35	38	30	26	28	26	32	29	27	31.6	32.0	31.7	31.1
12:00 PM	43	37	35	43	43	36	36	43	38	40	47	36	38	38	41.2	38.0	40.0	39.0
1:00 PM	32	48	37	36	37	42	52	34	33	26	31	38	44	29	36.2	38.6	38.0	36.1
2:00 PM	51	40	39	32	56	30	44	41	44	31	42	34	43	31	46.2	33.4	45.6	34.1
3:00 PM	55	34	61	45	59	51	59	44	33	37	50	43	63	44	57.6	43.4	54.3	42.6
4:00 PM	76	42	71	34	73	38	43	40	33	39	61	45	78	42	71.8	40.2	62.1	40.0
5:00 PM	67	37	67	29	68	26	38	29	28	28	72	37	61	19	67.0	29.6	57.3	29.3
6:00 PM	63	42	58	36	53	33	43	28	24	15	48	25	50	27	54.4	32.6	48.4	29.4
7:00 PM	36	23	33	20	43	26	23	17	21	17	45	20	41	15	39.6	20.8	34.6	19.7
8:00 PM	31	13	30	18	27	15	25	18	20	14	26	11	29	16	28.6	14.6	26.9	15.0
9:00 PM	20	8	27	5	24	15	24	11	13	10	25	6	17	6	22.6	8.0	21.4	8.7
10:00 PM	17	4	9	6	13	7	15	12	7	3	7	3	5	3	10.2	4.6	10.4	5.4
11:00 PM	4	5	4	1	6	4	9	8	3	5	2	1	3	3	3.8	2.8	4.4	3.9
Totals	625	628	601	611	640	608	523	486	423	422	589	582	593	556	609.6	597.0	570.6	556.1
Combined	1253		1212		1248		1009		845		1171		1149		1206.6		1126.7	
Split (%)	49.9	50.1	49.6	50.4	51.3	48.7	51.8	48.2	50.1	49.9	50.3	49.7	51.6	48.4	50.5	49.5	50.6	49.4

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	7:00 AM	11:00 AM	7:00 AM	11:00 AM	8:00 AM	11:00 AM	9:00 AM	10:00 AM	9:00 AM	8:00 AM	7:00 AM	11:00 AM	7:00 AM	11:00 AM	7:00 AM	11:00 AM	7:00 AM
Volume	29	72	32	73	42	63	38	35	29	41	26	68	29	69	31.6	67.6	31.7	52.4
12:00 PM - 12:00 AM	4:00 PM	1:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	2:00 PM	12:00 PM	5:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM
Volume	76	48	71	45	73	51	59	44	44	40	72	45	78	44	71.8	43.4	62.1	42.6

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 195th St between 3rd Ave NW and 8th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2800

Site: Loc 13

Seven Day Volume

Interval Start	Thu 2/1/2018		Fri 2/2/2018		Sat 2/3/2018		Sun 2/4/2018		Mon 2/5/2018		Tue 2/6/2018		Wed 2/7/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	3	1	2	0	0	0	0	0	0	0	0	0	0	1.0	0.2	0.7	0.1	
1:00 AM	0	1	3	0	0	0	0	0	0	0	0	0	0	0.6	0.2	0.4	0.1	
2:00 AM	3	0	1	0	0	0	0	0	0	0	0	0	0	0.8	0.0	0.6	0.0	
3:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.0	0.1	0.0	
4:00 AM	1	1	1	0	0	0	0	0	0	0	0	0	0	0.4	0.2	0.3	0.1	
5:00 AM	9	13	4	11	0	0	0	0	0	0	0	0	0	2.6	4.8	1.9	3.4	
6:00 AM	6	37	9	5	0	0	0	0	0	0	0	0	0	3.0	8.4	2.1	6.0	
7:00 AM	42	136	23	22	0	0	0	0	0	0	0	0	0	13.0	31.6	9.3	22.6	
8:00 AM	79	165	64	55	0	0	0	0	0	0	0	0	0	28.6	44.0	20.4	31.4	
9:00 AM	34	42	4	1	0	0	0	0	0	0	0	0	0	7.6	8.6	5.4	6.1	
10:00 AM	30	40	1	1	0	1	1	0	0	0	0	0	0	6.2	8.2	4.6	6.0	
11:00 AM	50	55	32	22	0	0	0	0	1	0	0	0	0	16.6	15.4	11.9	11.0	
12:00 PM	56	51	0	0	0	0	2	1	1	0	0	0	0	11.4	10.2	8.4	7.4	
1:00 PM	39	42	0	1	0	0	0	0	0	0	0	0	0	7.8	8.6	5.6	6.1	
2:00 PM	48	94	2	3	0	1	0	0	0	0	0	0	0	10.0	19.4	7.1	14.0	
3:00 PM	127	74	1	1	1	0	0	0	0	0	0	0	0	25.6	15.0	18.4	10.7	
4:00 PM	110	99	0	1	1	1	0	0	0	0	0	0	0	22.0	20.0	15.9	14.4	
5:00 PM	107	66	0	0	1	3	0	0	0	0	0	0	0	21.4	13.2	15.4	9.9	
6:00 PM	66	65	0	0	1	0	0	0	0	0	0	0	0	13.2	13.0	9.6	9.3	
7:00 PM	57	37	0	0	17	3	0	0	0	0	0	0	0	11.4	7.4	10.6	5.7	
8:00 PM	47	19	0	0	0	1	0	0	0	0	0	0	0	9.4	3.8	6.7	2.9	
9:00 PM	26	13	0	0	0	0	0	0	0	0	0	0	0	5.2	2.6	3.7	1.9	
10:00 PM	13	3	0	0	0	0	0	0	0	0	0	0	0	2.6	0.6	1.9	0.4	
11:00 PM	8	0	0	1	0	0	0	0	0	0	0	0	0	1.6	0.2	1.1	0.1	
Totals	962	1054	147	124	21	10	3	1	2	0	0	0	0	222.2	235.6	162.1	169.9	
Combined	2016		271		31		4		2		0		0	457.8		332.0		
Split (%)	47.7	52.3	54.2	45.8	67.7	32.3	75.0	25.0	100.0	0.0	-	-	-	48.5	51.5	48.8	51.2	

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	-	10:00 AM	10:00 AM	-	11:00 AM	-	-	-	-	-	8:00 AM	8:00 AM	8:00 AM	8:00 AM
Volume	79	165	64	55	-	1	1	-	1	-	-	-	-	-	28.6	44.0	20.4	31.4
12:00 PM - 12:00 AM	3:00 PM	4:00 PM	2:00 PM	2:00 PM	7:00 PM	5:00 PM	12:00 PM	12:00 PM	12:00 PM	-	-	-	-	-	3:00 PM	4:00 PM	3:00 PM	4:00 PM
Volume	127	99	2	3	17	3	2	1	1	-	-	-	-	-	25.6	20.0	18.4	14.4

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 3rd Ave NW between NW 195th St and NW Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-2808

Site: Loc 14

Seven Day Volume

Interval Start	Thu 2/1/2018		Fri 2/2/2018		Sat 2/3/2018		Sun 2/4/2018		Mon 2/5/2018		Tue 2/6/2018		Wed 2/7/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	7	8	13	3	17	17	15	10	6	3	2	6	6	5	6.8	5.0	9.4	7.4
1:00 AM	4	2	2	3	7	5	12	11	1	4	4	5	3	3	2.8	3.4	4.7	4.7
2:00 AM	4	5	2	2	15	6	7	6	0	0	1	3	0	4	1.4	2.8	4.1	3.7
3:00 AM	3	1	1	0	4	2	3	1	2	2	3	2	1	4	2.0	1.8	2.4	1.7
4:00 AM	2	5	2	6	3	7	2	2	3	6	3	10	7	7	3.4	6.8	3.1	6.1
5:00 AM	26	29	23	28	3	13	3	11	25	29	26	47	18	38	23.6	34.2	17.7	27.9
6:00 AM	55	147	43	119	18	26	17	18	51	154	52	154	55	160	51.2	146.8	41.6	111.1
7:00 AM	168	338	138	242	35	49	30	52	158	265	210	288	168	297	168.4	286.0	129.6	218.7
8:00 AM	192	346	174	364	74	88	75	122	198	329	195	361	193	351	190.4	350.2	157.3	280.1
9:00 AM	128	159	108	137	123	132	140	107	127	162	122	193	120	172	121.0	164.6	124.0	151.7
10:00 AM	120	139	100	143	139	168	185	193	112	120	103	155	101	137	107.2	138.8	122.9	150.7
11:00 AM	120	113	142	146	161	194	126	176	112	148	149	162	129	130	130.4	139.8	134.1	152.7
12:00 PM	158	159	123	170	160	177	177	177	146	153	130	152	137	147	138.8	156.2	147.3	162.1
1:00 PM	151	141	135	170	184	207	155	178	113	133	151	165	142	147	138.4	151.2	147.3	163.0
2:00 PM	210	180	203	155	180	203	139	186	185	163	218	151	198	149	202.8	159.6	190.4	169.6
3:00 PM	229	247	238	272	148	208	181	188	214	266	249	277	233	256	232.6	263.6	213.1	244.9
4:00 PM	317	201	291	183	162	210	99	115	268	179	281	237	258	223	283.0	204.6	239.4	192.6
5:00 PM	327	218	269	197	158	182	81	104	286	190	330	221	277	192	297.8	203.6	246.9	186.3
6:00 PM	264	193	226	160	104	128	65	77	230	142	234	168	228	179	236.4	168.4	193.0	149.6
7:00 PM	124	98	103	131	68	91	81	98	92	111	144	104	119	117	116.4	112.2	104.4	107.1
8:00 PM	88	90	98	92	70	72	95	82	78	90	81	87	104	99	89.8	91.6	87.7	87.4
9:00 PM	73	64	88	52	52	59	46	29	57	55	57	50	68	58	68.6	55.8	63.0	52.4
10:00 PM	35	36	61	39	49	45	19	33	30	26	21	27	37	31	36.8	31.8	36.0	33.9
11:00 PM	15	12	31	22	46	27	19	11	21	9	14	19	25	19	21.2	16.2	24.4	17.0
Totals	2820	2931	2614	2836	1980	2316	1772	1987	2515	2739	2780	3044	2627	2925	2671.2	2895.0	2444.0	2682.6
Combined	5751		5450		4296		3759		5254		5824		5552		5566.2		5126.6	
Split (%)	49.0	51.0	48.0	52.0	46.1	53.9	47.1	52.9	47.9	52.1	47.7	52.3	47.3	52.7	48.0	52.0	47.7	52.3

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM
Volume	192	346	174	364	161	194	185	193	198	329	210	361	193	351	190.4	350.2	157.3	280.1
12:00 PM - 12:00 AM	5:00 PM	3:00 PM	4:00 PM	3:00 PM	1:00 PM	4:00 PM	3:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM
Volume	327	247	291	272	184	210	181	188	286	266	330	277	277	256	297.8	263.6	246.9	244.9

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 3rd Ave NW between NW Richmond Beach Rd and NW 185th St  
 City/County, State : Shoreline, WA  
 Counter : NT-2054

Site: Loc 15

Seven Day Volume

Interval Start	Wed 1/17/2018		Thu 1/18/2018		Fri 1/19/2018		Sat 1/20/2018		Sun 1/21/2018		Mon 1/22/2018		Tue 1/23/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	1	4	1	4	0	1	7	19	7	10	3	2	1	4	1.2	3.0	2.9	6.3
1:00 AM	0	2	0	2	0	1	5	3	1	2	3	5	1	2	0.8	2.4	1.4	2.4
2:00 AM	2	2	0	2	0	1	2	1	3	5	0	1	0	1	0.4	1.4	1.0	1.9
3:00 AM	0	1	0	1	0	0	0	3	0	1	1	1	0	0	0.2	0.6	0.1	1.0
4:00 AM	3	2	4	1	3	1	1	1	2	1	3	0	4	2	3.4	1.2	2.9	1.1
5:00 AM	18	5	13	2	15	2	3	1	2	1	9	3	19	2	14.8	2.8	11.3	2.3
6:00 AM	28	11	31	15	34	14	11	6	5	4	27	10	38	18	31.6	13.6	24.9	11.1
7:00 AM	80	69	85	64	78	44	27	12	24	8	64	45	77	56	76.8	55.6	62.1	42.6
8:00 AM	69	94	79	98	76	96	42	20	47	33	77	96	82	110	76.6	98.8	67.4	78.1
9:00 AM	63	50	61	46	58	41	57	40	55	32	69	40	58	43	61.8	44.0	60.1	41.7
10:00 AM	46	36	47	37	55	50	63	43	62	47	41	32	40	37	45.8	38.4	50.6	40.3
11:00 AM	54	59	43	48	57	46	66	67	49	54	53	52	46	55	50.6	52.0	52.6	54.4
12:00 PM	47	58	58	74	62	65	72	57	75	67	46	50	51	62	52.8	61.8	58.7	61.9
1:00 PM	44	56	61	44	47	45	73	79	57	47	60	57	48	45	52.0	49.4	55.7	53.3
2:00 PM	58	65	47	57	59	72	79	78	64	50	64	62	59	52	57.4	61.6	61.4	62.3
3:00 PM	69	91	70	104	91	108	66	73	59	62	66	95	64	90	72.0	97.6	69.3	89.0
4:00 PM	55	68	80	77	85	74	54	72	49	69	64	79	77	69	72.2	73.4	66.3	72.6
5:00 PM	63	69	63	81	64	79	71	80	44	61	96	76	75	69	72.2	74.8	68.0	73.6
6:00 PM	68	69	46	74	58	62	51	60	34	63	51	79	44	75	53.4	71.8	50.3	68.9
7:00 PM	37	63	24	57	47	64	26	46	29	51	49	60	32	52	37.8	59.2	34.9	56.1
8:00 PM	20	50	16	48	36	44	27	46	22	31	28	36	38	47	27.6	45.0	26.7	43.1
9:00 PM	20	30	21	26	44	33	29	34	17	19	16	23	10	28	22.2	28.0	22.4	27.6
10:00 PM	15	20	10	16	14	27	12	22	5	9	7	13	10	15	11.2	18.2	10.4	17.4
11:00 PM	5	7	6	12	9	17	10	19	5	18	1	4	8	7	5.8	9.4	6.3	12.0
Totals	865	981	866	990	992	987	854	882	717	745	898	921	882	941	900.6	964.0	867.7	921.0
Combined	1846		1856		1979		1736		1462		1819		1823		1864.6		1788.7	
Split (%)	46.9	53.1	46.7	53.3	50.1	49.9	49.2	50.8	49.0	51.0	49.4	50.6	48.4	51.6	48.3	51.7	48.5	51.5

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	8:00 AM
Volume	80	94	85	98	78	96	66	67	62	54	77	96	82	110	76.8	98.8	67.4	78.1
12:00 PM - 12:00 AM	3:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	2:00 PM	5:00 PM	12:00 PM	4:00 PM	5:00 PM	3:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM
Volume	69	91	80	104	91	108	79	80	75	69	96	95	77	90	72.2	97.6	69.3	89.0



Appendix K - Off Corridor Traffic Volumes - After Project

20th Ave NW s-o NW 197th St

Time	3/26/2019		3/27/2019		3/28/2019		3/29/2019		Weekday Average NB	Weekday Average SB
	NB	SB	NB	SB	NB	SB	NB	SB		
12:00 AM	0	2	0	8	1	4	1	2	0.5	4
1:00 AM	0	0	0	6	0	0	0	4	0	2.5
2:00 AM	0	1	0	1	0	1	1	1	0.25	1
3:00 AM	0	4	0	1	0	2	1	4	0.25	2.75
4:00 AM	0	8	0	6	0	5	0	5	0	6
5:00 AM	1	24	0	27	1	25	0	24	0.5	25
6:00 AM	0	86	2	89	6	88	0	62	2	81.25
7:00 AM	7	154	7	166	6	153	4	130	6	150.75
8:00 AM	17	153	11	140	16	149	9	132	13.25	143.5
9:00 AM	21	111	18	124	16	109	13	130	17	118.5
10:00 AM	12	88	12	89	18	96	19	99	15.25	93
11:00 AM	30	86	27	89	27	115	19	92	25.75	95.5
12:00 PM	46	78	25	110	71	101	45	92	46.75	95.25
1:00 PM	49	98	40	102	44	72	60	100	48.25	93
2:00 PM	71	92	39	104	59	91	56	104	56.25	97.75
3:00 PM	79	106	49	94	81	127	87	103	74	107.5
4:00 PM	80	98	54	98	84	109	91	117	77.25	105.5
5:00 PM	80	108	35	117	94	125	72	99	70.25	112.25
6:00 PM	56	102	43	107	57	113	42	104	49.5	106.5
7:00 PM	29	75	29	69	24	60	34	71	29	68.75
8:00 PM	11	42	18	46	27	50	15	60	17.75	49.5
9:00 PM	10	38	12	29	7	32	12	40	10.25	34.75
10:00 PM	1	13	4	18	8	13	7	24	5	17
11:00 PM	2	4	4	10	1	11	5	16	3	10.25
Totals	602	1571	429	1650	648	1651	593	1615	568	1621.75
Combined	2173		2079		2299		2208		2189.75	

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : 20th Ave NW n/o NW 195th St  
City/County, State : Shoreline, WA  
Counter # : NT-2803

Site: Loc 05

Seven Day Volume

Interval Start	Thu 12/13/2018		Fri 12/14/2018		Sat 12/15/2018		Sun 12/16/2018		Mon 12/17/2018		Tue 12/18/2018		Wed 12/19/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	4	4	15	7	16	11	14	16	7	6	4	9	10	4	8.0	6.0	10.0	8.1
1:00 AM	7	3	5	7	16	14	12	11	7	7	7	8	9	9	7.0	6.8	9.0	8.4
2:00 AM	12	10	8	7	7	5	5	6	9	8	13	8	13	8	11.0	8.2	9.6	7.4
3:00 AM	21	24	18	23	11	8	9	5	16	16	18	26	18	21	18.2	22.0	15.9	17.6
4:00 AM	37	51	40	49	10	16	10	8	39	50	36	53	44	53	39.2	51.2	30.9	40.0
5:00 AM	67	82	64	79	18	27	10	25	79	116	65	97	66	105	68.2	95.8	52.7	75.9
6:00 AM	166	159	155	153	41	49	32	35	163	202	168	210	100	140	150.4	172.8	117.9	135.4
7:00 AM	151	151	127	146	55	77	57	41	151	191	148	168	155	165	146.4	164.2	120.6	134.1
8:00 AM	151	135	128	119	87	86	90	75	135	133	123	152	155	156	138.4	139.0	124.1	122.3
9:00 AM	115	132	121	123	116	114	87	113	150	133	155	138	141	136	136.4	132.4	126.4	127.0
10:00 AM	153	141	155	136	133	129	93	89	175	160	153	157	167	160	160.6	150.8	147.0	138.9
11:00 AM	179	150	201	165	150	135	129	125	190	174	183	164	176	166	185.8	163.8	172.6	154.1
12:00 PM	179	143	176	202	148	138	129	122	205	159	202	152	182	145	188.8	160.2	174.4	151.6
1:00 PM	207	193	211	184	155	124	102	111	231	208	217	183	203	191	213.8	191.8	189.4	170.6
2:00 PM	238	180	264	205	172	140	124	110	232	175	258	178	276	175	253.6	182.6	223.4	166.1
3:00 PM	229	185	267	212	175	138	117	97	272	179	261	184	271	187	260.0	189.4	227.4	168.9
4:00 PM	214	155	230	169	152	118	109	82	235	177	246	167	249	191	234.8	171.8	205.0	151.3
5:00 PM	176	121	150	103	110	98	99	90	172	134	146	132	164	159	161.6	129.8	145.3	119.6
6:00 PM	111	89	109	105	85	66	74	94	103	84	112	83	103	96	107.6	91.4	99.6	88.1
7:00 PM	84	62	72	73	72	62	56	51	76	65	72	62	88	73	78.4	67.0	74.3	64.0
8:00 PM	41	40	58	63	45	49	38	33	38	40	47	42	42	40	45.2	45.0	44.1	43.9
9:00 PM	33	28	47	36	40	45	34	29	27	22	25	32	25	28	31.4	29.2	33.0	31.4
10:00 PM	27	27	26	27	33	21	15	11	14	8	16	14	17	19	20.0	19.0	21.1	18.1
11:00 PM	18	9	12	14	14	11	7	9	7	8	10	7	15	12	12.4	10.0	11.9	10.0
Totals	2620	2274	2659	2407	1861	1681	1452	1388	2733	2455	2685	2426	2689	2439	2677.2	2400.2	2385.6	2152.9
Combined	4894		5066		3542		2840		5188		5111		5128		5077.4		4538.4	
Split (%)	53.5	46.5	52.5	47.5	52.5	47.5	51.1	48.9	52.7	47.3	52.5	47.5	52.4	47.6	52.7	47.3	52.6	47.4

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	6:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	6:00 AM	11:00 AM	6:00 AM	11:00 AM	11:00 AM	11:00 AM	6:00 AM	11:00 AM	11:00 AM
Volume	179	159	201	165	150	135	129	125	190	202	183	210	176	166	185.8	172.8	172.6	154.1
12:00 PM - 12:00 AM	2:00 PM	1:00 PM	3:00 PM	3:00 PM	3:00 PM	2:00 PM	12:00 PM	12:00 PM	3:00 PM	1:00 PM	3:00 PM	3:00 PM	2:00 PM	1:00 PM	3:00 PM	1:00 PM	3:00 PM	1:00 PM
Volume	238	193	267	212	175	140	129	122	272	208	261	184	276	191	260.0	191.8	227.4	170.6

15th Ave NW between NW 195th St & NW 196th St

Time	3/25/2019		3/26/2019		3/27/2019		3/28/2019		3/29/2019		Average	
	Monday		Tuesday		Wednesday		Thursday		Friday		Weekday	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	5	5	3	6	8	4	6	3	1	3	4.6	4.2
1:00 AM	2	3	1	1	3	1	4	2	3	1	2.6	1.6
2:00 AM	0	0	1	1	5	0	0	0	2	0	1.6	0.2
3:00 AM	2	1	2	1	1	1	1	1	2	3	1.6	1.4
4:00 AM	2	3	1	2	0	2	2	3	2	2	1.4	2.4
5:00 AM	3	16	3	14	3	14	3	15	1	16	2.6	15
6:00 AM	9	37	16	50	9	39	8	39	6	32	9.6	39.4
7:00 AM	34	71	34	73	31	81	31	80	40	76	34	76.2
8:00 AM	52	85	45	77	51	77	58	79	67	72	54.6	78
9:00 AM	51	81	55	83	59	61	60	64	62	62	57.4	70.2
10:00 AM	40	61	51	44	42	54	49	47	58	57	48	52.6
11:00 AM	38	43	52	38	49	55	48	58	68	82	51	55.2
12:00 PM	61	48	72	58	61	52	61	58	86	55	68.2	54.2
1:00 PM	49	45	55	55	76	49	56	47	71	81	61.4	55.4
2:00 PM	64	57	54	44	71	67	76	46	71	62	67.2	55.2
3:00 PM	84	75	97	84	72	64	89	75	98	80	88	75.6
4:00 PM	74	68	102	91	84	53	97	55	111	75	93.6	68.4
5:00 PM	117	60	109	74	127	75	111	59	98	69	112.4	67.4
6:00 PM	73	61	100	66	79	56	89	73	106	76	89.4	66.4
7:00 PM	58	30	62	56	63	51	75	50	64	48	64.4	47
8:00 PM	40	26	47	31	43	28	45	23	43	41	43.6	29.8
9:00 PM	19	12	30	15	29	28	35	18	42	20	31	18.6
10:00 PM	11	9	20	17	20	10	18	11	17	13	17.2	12
11:00 PM	8	1	7	4	7	5	9	8	19	12	10	6
Totals	896	898	1019	985	993	927	1031	914	1138	1038	1015	952
Combined	1794		2004		1920		1945		2176		1968	

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 15th Ave NW n/o NW 195th St  
 City/County, State : Shoreline, WA  
 Counter : G-0504

Site: Loc 06

Seven Day Volume

Interval Start	Fri 12/14/2018		Sat 12/15/2018		Sun 12/16/2018		Mon 12/17/2018		Tue 12/18/2018		Wed 12/19/2018		Thu 12/20/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	4	1	11	4	9	7	3	1	3	4	7	3	9	7	5.2	3.2	6.6	3.9
1:00 AM	4	0	6	4	5	3	3	5	1	1	5	2	3	2	3.2	2.0	3.9	2.4
2:00 AM	3	0	6	1	5	2	0	0	4	1	2	2	1	1	2.0	0.8	3.0	1.0
3:00 AM	0	1	4	1	3	1	1	3	1	2	2	2	1	1	1.0	1.8	1.7	1.6
4:00 AM	2	1	0	3	2	0	1	3	1	2	3	3	2	2	1.8	2.2	1.6	2.0
5:00 AM	5	21	4	5	2	4	4	18	1	17	2	19	3	20	3.0	19.0	3.0	14.9
6:00 AM	9	42	6	11	1	5	13	41	13	43	9	33	8	42	10.4	40.2	8.4	31.0
7:00 AM	28	59	11	15	7	13	24	81	31	86	29	91	40	77	30.4	78.8	24.3	60.3
8:00 AM	53	67	31	37	18	29	59	110	43	95	50	94	53	106	51.6	94.4	43.9	76.9
9:00 AM	42	69	38	46	45	67	48	73	47	74	52	80	51	71	48.0	73.4	46.1	68.6
10:00 AM	44	54	55	59	52	64	40	51	46	51	50	48	43	57	44.6	52.2	47.1	54.9
11:00 AM	61	39	58	70	51	98	42	51	47	57	69	55	39	44	51.6	49.2	52.4	59.1
12:00 PM	62	42	96	77	80	71	61	62	44	49	62	73	68	61	59.4	57.4	67.6	62.1
1:00 PM	72	67	92	72	69	60	59	61	74	47	80	57	56	54	68.2	57.2	71.7	59.7
2:00 PM	74	55	70	102	49	43	58	68	66	45	79	87	75	71	70.4	65.2	67.3	67.3
3:00 PM	113	82	78	77	52	33	90	80	100	88	81	97	86	107	94.0	90.8	85.7	80.6
4:00 PM	107	65	92	68	56	59	88	62	80	84	82	57	91	95	89.6	72.6	85.1	70.0
5:00 PM	112	98	97	131	72	55	113	67	98	60	107	64	127	61	111.4	70.0	103.7	76.6
6:00 PM	93	101	76	111	55	44	73	55	94	76	88	66	96	92	88.8	78.0	82.1	77.9
7:00 PM	76	57	55	58	37	18	55	35	69	30	69	59	66	62	67.0	48.6	61.0	45.6
8:00 PM	55	50	44	44	33	38	37	20	35	41	42	33	36	97	41.0	48.2	40.3	46.1
9:00 PM	40	18	29	27	23	18	32	24	40	25	37	26	39	24	37.6	23.4	34.3	23.1
10:00 PM	43	24	23	14	23	15	14	11	19	10	21	15	16	13	22.6	14.6	22.7	14.6
11:00 PM	25	11	21	14	9	4	8	4	12	8	14	12	6	7	13.0	8.4	13.6	8.6
Totals	1127	1024	1003	1051	758	751	926	986	969	996	1042	1078	1015	1174	1015.8	1051.6	977.1	1008.6
Combined	2151		2054		1509		1912		1965		2120		2189		2067.4		1985.7	
Split (%)	52.4	47.6	48.8	51.2	50.2	49.8	48.4	51.6	49.3	50.7	49.2	50.8	46.4	53.6	49.1	50.9	49.2	50.8

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	9:00 AM	11:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	8:00 AM
Volume	61	69	58	70	52	98	59	110	47	95	69	94	53	106	51.6	94.4	52.4	76.9
12:00 PM - 12:00 AM	3:00 PM	6:00 PM	5:00 PM	5:00 PM	12:00 PM	12:00 PM	5:00 PM	3:00 PM	3:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM
Volume	113	101	97	131	80	71	113	80	100	88	107	97	127	107	111.4	90.8	103.7	80.6

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : 15th Ave NW s/o NW Richmond Beach Road  
City, State : Shoreline, WA  
Counter # : NT-0116

Site: Loc 07

Seven Day Volume

Interval Start	Thu 12/13/2018		Fri 12/14/2018		Sat 12/15/2018		Sun 12/16/2018		Mon 12/17/2018		Tue 12/18/2018		Wed 12/19/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	1	1	1	3	1	1	1	1	0	0	2	1	2	1	1.2	1.2	1.1	1.1
1:00 AM	4	6	1	8	2	1	3	3	0	0	2	1	1	0	1.6	3.0	1.9	2.7
2:00 AM	4	1	2	1	1	2	0	0	0	0	0	0	1	7	1.4	1.8	1.1	1.6
3:00 AM	13	5	6	4	4	0	1	0	5	0	3	2	6	3	6.6	2.8	5.4	2.0
4:00 AM	22	7	16	8	11	1	3	2	7	7	11	4	9	2	13.0	5.6	11.3	4.4
5:00 AM	29	29	26	27	5	2	1	0	21	9	23	8	27	12	25.2	17.0	18.9	12.4
6:00 AM	40	46	41	39	10	7	1	1	31	33	28	28	31	30	34.2	35.2	26.0	26.3
7:00 AM	47	52	40	50	18	11	2	1	37	37	40	55	50	58	42.8	50.4	33.4	37.7
8:00 AM	36	45	33	30	14	11	6	5	44	31	46	41	44	56	40.6	40.6	31.9	31.3
9:00 AM	27	38	32	36	17	16	9	20	29	37	43	38	34	38	33.0	37.4	27.3	31.9
10:00 AM	37	47	40	51	18	20	12	9	32	54	45	41	34	42	37.6	47.0	31.1	37.7
11:00 AM	60	59	70	61	19	19	11	12	29	42	36	49	40	54	47.0	53.0	37.9	42.3
12:00 PM	44	50	46	67	11	19	21	8	47	42	73	69	41	55	50.2	56.6	40.4	44.3
1:00 PM	31	58	30	58	15	18	11	21	39	47	41	74	36	36	35.4	54.6	29.0	44.6
2:00 PM	43	77	38	74	9	11	7	11	44	66	50	49	27	54	40.4	64.0	31.1	48.9
3:00 PM	42	98	28	66	12	10	6	7	50	79	57	87	47	73	44.8	80.6	34.6	60.0
4:00 PM	28	51	27	41	9	9	6	7	35	81	41	101	42	86	34.6	72.0	26.9	53.7
5:00 PM	15	33	18	22	6	9	8	10	24	56	24	57	21	56	20.4	44.8	16.6	34.7
6:00 PM	11	16	11	16	2	7	4	13	16	21	24	33	24	21	17.2	21.4	13.1	18.1
7:00 PM	16	19	7	5	3	8	5	10	6	8	8	22	7	7	8.8	12.2	7.4	11.3
8:00 PM	7	5	5	12	3	8	10	5	3	6	6	16	4	17	5.0	11.2	5.4	9.9
9:00 PM	2	4	6	3	6	6	4	3	9	6	6	11	10	9	6.6	6.6	6.1	6.0
10:00 PM	5	5	6	2	4	3	2	1	11	7	8	8	2	9	6.4	6.2	5.4	5.0
11:00 PM	3	1	5	2	2	0	1	0	7	6	10	3	4	1	5.8	2.6	4.6	1.9
Totals	567	753	535	686	202	199	135	150	526	675	627	798	544	727	559.8	727.8	448.0	569.7
Combined	1320		1221		401		285		1201		1425		1271		1287.6		1017.7	
Split (%)	43.0	57.0	43.8	56.2	50.4	49.6	47.4	52.6	43.8	56.2	44.0	56.0	42.8	57.2	43.5	56.5	44.0	56.0

**Peak Hours**

12:00 AM - 12:00 PM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	9:00 AM	8:00 AM	10:00 AM	8:00 AM	7:00 AM	7:00 AM	7:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM
Volume	60	59	70	61	19	20	12	20	44	54	46	55	50	58	47.0	53.0	37.9	42.3
12:00 PM - 12:00 AM	12:00 PM	3:00 PM	12:00 PM	2:00 PM	1:00 PM	12:00 PM	12:00 PM	1:00 PM	3:00 PM	4:00 PM	12:00 PM	4:00 PM	3:00 PM	4:00 PM	12:00 PM	3:00 PM	12:00 PM	3:00 PM
Volume	44	98	46	74	15	19	21	21	50	81	73	101	47	86	50.2	80.6	40.4	60.0

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 204th St w/o 15th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2810

Site: Loc 08

Seven Day Volume

Interval Start	Wed 11/28/2018		Thu 11/29/2018		Fri 11/30/2018		Sat 12/1/2018		Sun 12/2/2018		Mon 12/3/2018		Tue 12/4/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	3	0	0	0	2	0	2	0	6	1	2	0	3	1	2.0	0.2	2.6	0.3
1:00 AM	1	0	0	0	3	2	5	0	1	3	1	1	0	0	1.0	0.6	1.6	0.9
2:00 AM	0	0	2	0	0	0	0	0	4	1	0	0	0	0	0.4	0.0	0.9	0.1
3:00 AM	0	1	0	3	2	1	0	0	0	0	0	1	2	1	0.8	1.4	0.6	1.0
4:00 AM	1	1	1	3	0	2	0	0	0	0	2	3	2	3	1.2	2.4	0.9	1.7
5:00 AM	2	13	0	6	3	7	1	1	2	1	2	14	1	12	1.6	10.4	1.6	7.7
6:00 AM	2	28	3	27	1	25	2	8	1	4	4	25	0	25	2.0	26.0	1.9	20.3
7:00 AM	11	31	17	51	14	34	3	19	5	7	14	30	17	37	14.6	36.6	11.6	29.9
8:00 AM	17	60	24	58	26	62	9	18	6	20	23	55	13	60	20.6	59.0	16.9	47.6
9:00 AM	14	38	25	39	25	41	20	42	14	41	18	37	26	37	21.6	38.4	20.3	39.3
10:00 AM	16	32	20	28	23	30	22	35	23	32	11	21	11	18	16.2	25.8	18.0	28.0
11:00 AM	17	24	31	28	27	25	35	36	31	26	21	16	16	26	22.4	23.8	25.4	25.9
12:00 PM	50	27	32	25	32	29	32	34	41	36	20	15	27	33	32.2	25.8	33.4	28.4
1:00 PM	42	31	29	20	31	21	34	23	39	19	29	18	32	33	32.6	24.6	33.7	23.6
2:00 PM	34	40	24	28	32	31	44	29	32	27	25	25	25	28	28.0	30.4	30.9	29.7
3:00 PM	46	21	53	36	48	32	31	33	24	25	43	36	55	35	49.0	32.0	42.9	31.1
4:00 PM	50	30	50	45	46	36	36	47	31	15	44	50	51	28	48.2	37.8	44.0	35.9
5:00 PM	58	26	66	44	60	29	35	21	39	24	62	30	66	31	62.4	32.0	55.1	29.3
6:00 PM	42	21	46	35	42	27	38	29	36	20	46	31	45	42	44.2	31.2	42.1	29.3
7:00 PM	34	25	25	11	30	18	29	18	18	7	38	23	38	22	33.0	19.8	30.3	17.7
8:00 PM	29	13	29	12	17	16	21	13	9	8	19	21	38	15	26.4	15.4	23.1	14.0
9:00 PM	16	9	14	3	13	9	19	15	4	1	17	3	15	5	15.0	5.8	14.0	6.4
10:00 PM	10	1	5	2	11	9	13	13	9	3	1	0	8	5	7.0	3.4	8.1	4.7
11:00 PM	7	1	9	3	10	7	12	4	1	0	5	2	4	3	7.0	3.2	6.9	2.9
Totals	502	473	505	507	498	493	443	438	376	321	447	457	495	500	489.4	486.0	466.6	455.6
Combined	975		1012		991		881		697		904		995		975.4		922.1	
Split (%)	51.5	48.5	49.9	50.1	50.3	49.7	50.3	49.7	53.9	46.1	49.4	50.6	49.7	50.3	50.2	49.8	50.6	49.4

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	11:00 AM	8:00 AM	11:00 AM	8:00 AM	11:00 AM	9:00 AM	11:00 AM	9:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	11:00 AM	8:00 AM	11:00 AM	8:00 AM
Volume	17	60	31	58	27	62	35	42	31	41	23	55	26	60	22.4	59.0	25.4	47.6
12:00 PM - 12:00 AM	5:00 PM	2:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	2:00 PM	4:00 PM	12:00 PM	12:00 PM	5:00 PM	4:00 PM	5:00 PM	6:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM
Volume	58	40	66	45	60	36	44	47	41	36	62	50	66	42	62.4	37.8	55.1	35.9

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 201st St e/o 15th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2817

Site: Loc 09

Seven Day Volume

Interval Start	Wed 11/28/2018		Thu 11/29/2018		Fri 11/30/2018		Sat 12/1/2018		Sun 12/2/2018		Mon 12/3/2018		Tue 12/4/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	0	0	0	0	1	0	0	2	2	2	0	0	0	2	0.2	0.4	0.4	0.9
1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0.2	0.0	0.1	0.0
2:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0.0	0.0	0.1	0.1
3:00 AM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0.2	0.0	0.3	0.0
4:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0.0	0.2	0.1	0.1
5:00 AM	1	4	1	3	2	3	1	1	0	2	1	3	1	3	1.2	3.2	1.0	2.7
6:00 AM	1	3	1	6	1	9	0	0	1	3	2	4	1	2	1.2	4.8	1.0	3.9
7:00 AM	9	14	13	36	8	20	1	4	0	1	6	14	8	7	8.8	18.2	6.4	13.7
8:00 AM	25	58	22	56	24	65	6	9	2	4	27	56	16	15	22.8	50.0	17.4	37.6
9:00 AM	23	29	36	23	23	24	5	9	3	8	24	31	22	9	25.6	23.2	19.4	19.0
10:00 AM	6	13	16	13	8	13	11	20	11	12	7	6	9	4	9.2	9.8	9.7	11.6
11:00 AM	14	11	14	12	15	6	20	17	10	11	6	7	5	14	10.8	10.0	12.0	11.1
12:00 PM	15	14	18	16	10	12	7	13	12	18	8	14	11	15	12.4	14.2	11.6	14.6
1:00 PM	22	31	12	12	8	10	12	11	16	13	17	7	8	4	13.4	12.8	13.6	12.6
2:00 PM	29	24	13	18	15	18	13	13	6	6	7	9	6	9	14.0	15.6	12.7	13.9
3:00 PM	25	14	33	32	44	44	13	15	11	9	40	48	44	31	37.2	33.8	30.0	27.6
4:00 PM	17	20	24	24	35	12	5	19	11	9	15	17	32	14	24.6	17.4	19.9	16.4
5:00 PM	24	15	40	19	23	15	19	15	11	10	30	16	18	17	27.0	16.4	23.6	15.3
6:00 PM	13	10	25	23	18	13	7	5	9	8	12	7	14	4	16.4	11.4	14.0	10.0
7:00 PM	8	7	11	12	6	5	8	2	7	6	7	4	5	3	7.4	6.2	7.4	5.6
8:00 PM	4	4	6	8	4	4	4	1	3	2	6	5	6	2	5.2	4.6	4.7	3.7
9:00 PM	12	6	4	3	3	4	8	9	3	4	1	1	3	1	4.6	3.0	4.9	4.0
10:00 PM	3	5	1	0	3	3	3	4	0	1	1	0	1	0	1.8	1.6	1.7	1.9
11:00 PM	1	1	2	0	1	2	1	2	0	1	1	0	0	0	1.0	0.6	0.9	0.9
Totals	252	283	292	316	253	282	145	171	120	131	218	250	211	156	245.2	257.4	213.0	227.0
Combined	535		608		535		316		251		468		367		502.6		440.0	
Split (%)	47.1	52.9	48.0	52.0	47.3	52.7	45.9	54.1	47.8	52.2	46.6	53.4	57.5	42.5	48.8	51.2	48.4	51.6

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM	10:00 AM	10:00 AM	10:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM
Volume	25	58	36	56	24	65	20	20	11	12	27	56	22	15	25.6	50.0	19.4	37.6
12:00 PM - 12:00 AM	2:00 PM	1:00 PM	5:00 PM	3:00 PM	3:00 PM	3:00 PM	5:00 PM	4:00 PM	1:00 PM	12:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM
Volume	29	31	40	32	44	44	19	19	16	18	40	48	44	31	37.2	33.8	30.0	27.6

NW 188th St between 15th Ave NW and Springdale Ct NW

Time	3/25/2019		3/26/2019		3/27/2019		3/28/2019		3/29/2019		Average Weekday	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	3	5	4	2	2	5	1	2	2	5	2.4	3.8
1:00 AM	1	2	1	4	2	0	2	3	2	1	1.6	2
2:00 AM	1	1	0	1	0	2	0	0	1	0	0.4	0.8
3:00 AM	2	0	0	0	1	1	0	0	0	1	0.6	0.4
4:00 AM	1	0	3	1	3	0	2	0	0	0	1.8	0.2
5:00 AM	1	2	2	0	5	3	2	4	6	3	3.2	2.4
6:00 AM	21	3	27	3	20	6	32	5	20	2	24	3.8
7:00 AM	43	10	53	13	55	12	40	11	54	18	49	12.8
8:00 AM	63	27	53	29	66	25	50	25	50	26	56.4	26.4
9:00 AM	42	29	40	36	29	34	36	26	32	32	35.8	31.4
10:00 AM	28	26	36	25	19	25	31	35	36	38	30	29.8
11:00 AM	23	38	31	43	28	45	40	32	40	41	32.4	39.8
12:00 PM	32	34	37	31	34	32	30	35	39	52	34.4	36.8
1:00 PM	34	42	31	37	31	56	28	43	54	41	35.6	43.8
2:00 PM	30	43	35	54	25	47	22	53	44	52	31.2	49.8
3:00 PM	50	70	44	74	35	68	52	73	35	73	43.2	71.6
4:00 PM	46	78	48	79	40	77	38	83	53	90	45	81.4
5:00 PM	38	97	37	85	35	87	53	100	48	81	42.2	90
6:00 PM	30	54	30	81	34	77	42	88	33	61	33.8	72.2
7:00 PM	17	42	33	53	25	58	33	49	24	48	26.4	50
8:00 PM	12	16	29	31	17	16	21	32	20	30	19.8	25
9:00 PM	8	15	11	25	8	14	16	19	8	15	10.2	17.6
10:00 PM	6	13	7	15	4	6	10	15	11	19	7.6	13.6
11:00 PM	5	4	2	5	6	7	5	3	6	17	4.8	7.2
Totals	537	651	594	727	524	703	586	736	618	746	572	713
Combined	1188		1321		1227		1322		1364		1284	



**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 188th St e/o 15th Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2809

Site: Loc 10

Seven Day Volume

Interval Start	Wed 11/28/2018		Thu 11/29/2018		Fri 11/30/2018		Sat 12/1/2018		Sun 12/2/2018		Mon 12/3/2018		Tue 12/4/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	4	1	1	4	8	2	12	3	8	4	3	0	5	1	4.2	1.6	5.9	2.1
1:00 AM	1	0	1	0	2	0	5	1	4	4	2	0	0	0	1.2	0.0	2.1	0.7
2:00 AM	0	0	3	0	2	1	2	1	3	1	0	0	0	0	1.0	0.2	1.4	0.4
3:00 AM	0	1	0	2	2	3	3	3	3	0	0	1	2	2	0.8	1.8	1.4	1.7
4:00 AM	2	1	1	3	3	6	1	3	2	0	1	1	1	2	1.6	2.6	1.6	2.3
5:00 AM	1	20	2	18	0	20	4	4	2	2	2	23	6	21	2.2	20.4	2.4	15.4
6:00 AM	5	47	8	45	12	44	2	16	0	6	10	37	10	39	9.0	42.4	6.7	33.4
7:00 AM	38	82	46	85	29	61	10	22	10	7	32	73	25	76	34.0	75.4	27.1	58.0
8:00 AM	65	69	66	69	64	77	15	28	12	31	74	78	64	83	66.6	75.2	51.4	62.1
9:00 AM	42	49	42	67	49	60	45	54	32	75	47	61	42	78	44.4	63.0	42.7	63.4
10:00 AM	31	35	41	44	43	44	68	49	50	51	32	42	33	58	36.0	44.6	42.6	46.1
11:00 AM	43	47	45	50	43	49	53	72	61	58	44	42	58	30	46.6	43.6	49.6	49.7
12:00 PM	56	52	63	38	57	44	56	58	74	61	53	36	47	42	55.2	42.4	58.0	47.3
1:00 PM	77	60	48	34	56	43	70	59	67	66	46	56	47	45	54.8	47.6	58.7	51.9
2:00 PM	70	72	57	42	74	47	82	56	50	46	64	51	47	39	62.4	50.2	63.4	50.4
3:00 PM	66	65	112	69	93	65	61	71	57	41	99	87	114	73	96.8	71.8	86.0	67.3
4:00 PM	81	51	112	71	87	76	75	44	55	58	95	64	88	68	92.6	66.0	84.7	61.7
5:00 PM	98	56	101	62	93	65	61	52	69	38	112	56	105	61	101.8	60.0	91.3	55.7
6:00 PM	85	61	89	54	67	60	60	62	36	29	75	61	96	44	82.4	56.0	72.6	53.0
7:00 PM	52	35	58	29	46	43	42	41	36	25	45	29	46	32	49.4	33.6	46.4	33.4
8:00 PM	42	17	42	29	34	19	27	20	22	24	32	29	36	31	37.2	25.0	33.6	24.1
9:00 PM	35	15	22	24	57	21	33	15	16	9	15	5	22	14	30.2	15.8	28.6	14.7
10:00 PM	15	6	11	10	25	15	33	21	9	4	8	4	16	7	15.0	8.4	16.7	9.6
11:00 PM	7	3	5	2	12	10	21	12	6	1	4	3	2	2	6.0	4.0	8.1	4.7
Totals	916	845	976	851	958	875	841	767	684	641	895	839	912	848	931.4	851.6	883.1	809.4
Combined	1761		1827		1833		1608		1325		1734		1760		1783.0		1692.6	
Split (%)	52.0	48.0	53.4	46.6	52.3	47.7	52.3	47.7	51.6	48.4	51.6	48.4	51.8	48.2	52.2	47.8	52.2	47.8

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	7:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	10:00 AM	11:00 AM	11:00 AM	9:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	9:00 AM
Volume	65	82	66	85	64	77	68	72	61	75	74	78	64	83	66.6	75.4	51.4	63.4
12:00 PM - 12:00 AM	5:00 PM	2:00 PM	3:00 PM	4:00 PM	3:00 PM	4:00 PM	2:00 PM	3:00 PM	12:00 PM	1:00 PM	5:00 PM	3:00 PM	3:00 PM	3:00 PM	5:00 PM	3:00 PM	5:00 PM	3:00 PM
Volume	98	72	112	71	93	76	82	71	74	66	112	87	114	73	101.8	71.8	91.3	67.3

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 190th St e/o Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-2810

Site: Loc 11

Seven Day Volume

Interval Start	Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon 11/19/2018		Mon - Fri Average		7 Day Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	1	6	1	1	0	1	0	1	6	7	1	10	1	2	0.6	2.2	1.4	4.0
1:00 AM	0	1	1	0	0	3	1	2	2	3	2	3	0	0	0.4	1.2	0.9	1.7
2:00 AM	2	0	0	0	0	2	0	2	1	1	1	2	1	1	0.6	1.0	0.7	1.1
3:00 AM	2	3	1	2	2	2	1	1	1	1	0	1	2	0	1.6	1.6	1.3	1.4
4:00 AM	2	1	2	0	1	0	2	1	2	1	0	1	0	2	1.4	0.8	1.3	0.9
5:00 AM	7	5	4	4	9	8	12	5	1	1	2	3	4	0	7.2	4.4	5.6	3.7
6:00 AM	25	6	27	7	22	7	18	6	9	6	4	2	24	8	23.2	6.8	18.4	6.0
7:00 AM	76	16	71	16	65	20	64	15	24	5	12	6	60	21	67.2	17.6	53.1	14.1
8:00 AM	78	57	64	44	79	38	75	38	26	20	26	8	78	38	74.8	43.0	60.9	34.7
9:00 AM	52	29	47	34	43	33	40	46	44	35	40	19	57	31	47.8	34.6	46.1	32.4
10:00 AM	43	42	47	33	40	34	65	42	50	47	45	31	44	41	47.8	38.4	47.7	38.6
11:00 AM	47	42	39	42	39	33	36	40	54	40	47	40	46	40	41.4	39.4	44.0	39.6
12:00 PM	38	36	51	52	39	51	35	47	54	57	33	63	33	41	39.2	45.4	40.4	49.6
1:00 PM	35	49	38	53	34	37	47	58	37	67	41	47	38	56	38.4	50.6	38.6	52.4
2:00 PM	62	53	58	57	51	60	60	48	38	57	43	69	60	63	58.2	56.2	53.1	58.1
3:00 PM	35	88	36	66	62	63	53	83	34	62	56	56	49	87	47.0	77.4	46.4	72.1
4:00 PM	53	68	49	76	51	91	44	72	56	71	61	57	48	83	49.0	78.0	51.7	74.0
5:00 PM	44	64	45	75	36	78	57	59	51	64	48	65	42	88	44.8	72.8	46.1	70.4
6:00 PM	58	52	36	60	48	71	43	62	35	42	27	45	62	73	49.4	63.6	44.1	57.9
7:00 PM	21	44	27	52	26	38	32	31	20	31	34	24	21	45	25.4	42.0	25.9	37.9
8:00 PM	28	30	22	34	23	26	17	29	20	18	12	32	17	30	21.4	29.8	19.9	28.4
9:00 PM	22	21	7	20	12	29	5	21	11	21	7	10	18	21	12.8	22.4	11.7	20.4
10:00 PM	6	15	11	19	10	16	9	24	9	19	7	8	9	14	9.0	17.6	8.7	16.4
11:00 PM	2	2	5	4	5	1	6	13	5	8	2	4	8	13	5.2	6.6	4.7	6.4
Totals	739	730	689	751	697	742	722	746	590	684	551	606	722	798	713.8	753.4	672.9	722.4
Combined	1469		1440		1439		1468		1274		1157		1520		1467.2		1395.3	
Split (%)	50.3	49.7	47.8	52.2	48.4	51.6	49.2	50.8	46.3	53.7	47.6	52.4	47.5	52.5	48.7	51.3	48.2	51.8

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	11:00 AM	10:00 AM	11:00 AM	11:00 AM	8:00 AM	10:00 AM	8:00 AM	8:00 AM	8:00 AM	11:00 AM
Volume	78	57	71	44	79	38	75	46	54	47	47	40	78	41	74.8	43.0	60.9	39.6	
12:00 PM - 12:00 AM	2:00 PM	3:00 PM	2:00 PM	4:00 PM	3:00 PM	4:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	2:00 PM	6:00 PM	5:00 PM	2:00 PM	4:00 PM	2:00 PM	4:00 PM	
Volume	62	88	58	76	62	91	60	83	56	71	61	69	62	88	58.2	78.0	53.1	74.0	

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : Innis Arden Dr NW ne/o Ridgefield Rd NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2808

Site: Loc 12

Seven Day Volume

Interval Start	Mon 11/12/2018		Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon - Fri Average		7 Day Average	
	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB
12:00 AM	-	-	0	0	0	0	0	1	4	1	12	3	4	6	1.0	0.5	3.3	1.8
1:00 AM	-	-	0	1	0	0	1	0	2	0	5	2	5	4	0.8	0.3	2.2	1.2
2:00 AM	-	-	0	0	0	0	0	2	1	1	0	2	3	2	0.3	0.8	0.7	1.2
3:00 AM	-	-	1	0	0	0	1	0	2	1	2	1	1	1	1.0	0.3	1.2	0.5
4:00 AM	-	-	0	4	0	0	0	6	0	3	1	1	1	3	0.0	3.3	0.3	2.8
5:00 AM	-	-	9	14	0	0	8	15	0	5	1	6	2	2	4.3	8.5	3.3	7.0
6:00 AM	-	-	8	41	0	0	9	31	9	32	5	7	2	3	6.5	26.0	5.5	19.0
7:00 AM	-	-	34	71	0	0	35	69	46	70	13	23	8	10	28.8	52.5	22.7	40.5
8:00 AM	-	-	65	67	0	0	50	70	53	62	23	47	16	34	42.0	49.8	34.5	46.7
9:00 AM	-	-	42	54	0	0	52	53	39	53	39	52	27	49	33.3	40.0	33.2	43.5
10:00 AM	-	-	51	53	0	0	60	52	46	52	52	55	39	50	39.3	39.3	41.3	43.7
11:00 AM	-	-	57	61	0	0	52	58	53	64	51	87	49	49	40.5	45.8	43.7	53.2
12:00 PM	-	-	43	61	0	0	62	66	53	53	66	55	57	50	39.5	45.0	46.8	47.5
1:00 PM	20	13	0	0	18	12	65	54	51	47	67	57	66	70	33.5	28.3	44.5	40.0
2:00 PM	70	70	0	0	60	60	62	73	69	59	73	48	60	57	52.2	52.4	56.3	52.4
3:00 PM	80	52	0	0	76	56	73	50	91	70	57	56	55	46	64.0	45.6	61.7	47.1
4:00 PM	79	67	0	0	60	68	65	64	77	75	79	78	73	52	56.2	54.8	61.9	57.7
5:00 PM	63	41	0	0	75	56	71	50	72	55	67	52	67	36	56.2	40.4	59.3	41.4
6:00 PM	49	35	0	0	71	33	62	42	59	40	44	33	41	32	48.2	30.0	46.6	30.7
7:00 PM	48	20	0	0	52	24	48	25	55	26	32	18	42	33	40.6	19.0	39.6	20.9
8:00 PM	30	16	0	0	34	18	41	17	24	14	28	18	28	19	25.8	13.0	26.4	14.6
9:00 PM	20	21	0	0	22	10	37	18	20	17	20	14	20	10	19.8	13.2	19.9	12.9
10:00 PM	10	1	0	0	14	2	8	4	19	11	20	15	10	4	10.2	3.6	11.6	5.3
11:00 PM	5	4	0	0	6	3	4	5	11	6	20	11	5	3	5.2	3.6	7.3	4.6
Totals	474	340	310	427	488	342	866	825	856	817	777	741	681	625	648.9	615.6	673.6	636.1
Combined	814		737		830		1691		1673		1518		1306		1264.5		1309.7	
Split (%)	58.2	41.8	42.1	57.9	58.8	41.2	51.2	48.8	51.2	48.8	51.2	48.8	52.1	47.9	51.3	48.7	51.4	48.6

**Peak Hours**

12:00 AM - 12:00 PM	-	-	8:00 AM	7:00 AM	-	-	10:00 AM	8:00 AM	8:00 AM	7:00 AM	10:00 AM	11:00 AM	11:00 AM	10:00 AM	8:00 AM	7:00 AM	11:00 AM	11:00 AM
Volume	-	-	65	71	-	-	60	70	53	70	52	87	49	50	42.0	52.5	43.7	53.2
12:00 PM - 12:00 AM	3:00 PM	2:00 PM	12:00 PM	12:00 PM	3:00 PM	4:00 PM	3:00 PM	2:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	1:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	80	70	43	61	76	68	73	73	91	75	79	78	73	70	64.0	54.8	61.9	57.7

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
email: CarlaN@trafficdatagathering.com**

Location : Innis Arden Dr NW ne/o Ridgefield Rd NW  
City/County, State : Shoreline, WA  
Counter : NT-2808

Site: Loc 12

Seven Day Volume

Interval Start	Mon 11/19/2018		Tue 11/20/2018		Wed 11/21/2018		Thu 11/22/2018		Fri 11/23/2018		Sat 11/24/2018		Sun 11/25/2018		Mon - Fri Average		7 Day Average	
	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB	SWB	NEB
12:00 AM	2	2	0	1	3	2	-	-	-	-	-	-	-	-	1.7	1.7	1.7	1.7
1:00 AM	0	0	4	0	1	2	-	-	-	-	-	-	-	-	1.7	0.7	1.7	0.7
2:00 AM	1	2	0	0	0	0	-	-	-	-	-	-	-	-	0.3	0.7	0.3	0.7
3:00 AM	1	1	2	1	2	0	-	-	-	-	-	-	-	-	1.7	0.7	1.7	0.7
4:00 AM	0	3	0	5	1	3	-	-	-	-	-	-	-	-	0.3	3.7	0.3	3.7
5:00 AM	0	4	7	5	0	10	-	-	-	-	-	-	-	-	2.3	6.3	2.3	6.3
6:00 AM	11	13	18	5	13	20	-	-	-	-	-	-	-	-	14.0	12.7	14.0	12.7
7:00 AM	29	38	35	40	35	56	-	-	-	-	-	-	-	-	33.0	44.7	33.0	44.7
8:00 AM	63	56	63	63	66	82	-	-	-	-	-	-	-	-	64.0	67.0	64.0	67.0
9:00 AM	40	70	42	78	15	7	-	-	-	-	-	-	-	-	41.0	74.0	41.0	74.0
10:00 AM	50	56	64	50	-	-	-	-	-	-	-	-	-	-	57.0	53.0	57.0	53.0
11:00 AM	38	56	54	60	-	-	-	-	-	-	-	-	-	-	46.0	58.0	46.0	58.0
12:00 PM	62	66	52	56	-	-	-	-	-	-	-	-	-	-	57.0	61.0	57.0	61.0
1:00 PM	68	49	66	62	-	-	-	-	-	-	-	-	-	-	67.0	55.5	67.0	55.5
2:00 PM	65	60	67	71	-	-	-	-	-	-	-	-	-	-	66.0	65.5	66.0	65.5
3:00 PM	98	62	84	72	-	-	-	-	-	-	-	-	-	-	91.0	67.0	91.0	67.0
4:00 PM	80	70	80	79	-	-	-	-	-	-	-	-	-	-	80.0	74.5	80.0	74.5
5:00 PM	70	52	100	47	-	-	-	-	-	-	-	-	-	-	85.0	49.5	85.0	49.5
6:00 PM	65	41	63	44	-	-	-	-	-	-	-	-	-	-	64.0	42.5	64.0	42.5
7:00 PM	41	19	54	35	-	-	-	-	-	-	-	-	-	-	47.5	27.0	47.5	27.0
8:00 PM	39	9	39	14	-	-	-	-	-	-	-	-	-	-	39.0	11.5	39.0	11.5
9:00 PM	28	11	20	10	-	-	-	-	-	-	-	-	-	-	24.0	10.5	24.0	10.5
10:00 PM	12	5	11	3	-	-	-	-	-	-	-	-	-	-	11.5	4.0	11.5	4.0
11:00 PM	7	7	8	8	-	-	-	-	-	-	-	-	-	-	7.5	7.5	7.5	7.5
Totals	870	752	933	809	136	182	0	0	0	0	0	0	0	0	902.5	799.0	902.5	799.0
Combined	1622		1742		318		0	0	0	0	0	0	0	0	1701.5		1701.5	
Split (%)	53.6	46.4	53.6	46.4	42.8	57.2	-	-	-	-	-	-	-	-	53.0	47.0	53.0	47.0

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	9:00 AM	10:00 AM	9:00 AM	8:00 AM	8:00 AM	-	-	-	-	-	-	-	-	8:00 AM	9:00 AM	8:00 AM	9:00 AM
Volume	63	70	64	78	66	82	-	-	-	-	-	-	-	-	64.0	74.0	64.0	74.0
12:00 PM - 12:00 AM	3:00 PM	4:00 PM	5:00 PM	4:00 PM	-	-	-	-	-	-	-	-	-	-	3:00 PM	4:00 PM	3:00 PM	4:00 PM
Volume	98	70	100	79	-	-	-	-	-	-	-	-	-	-	91.0	74.5	91.0	74.5

# GRIDSMART®

## Turning Movement Counts -

Intersection 8 AVE NW & NW RICH BCH  
 Date 3/18/2019-3/22/2019

	Innis Arden Dr			Northbound			Eastbound				Southbound				Westbound			
	R	T	L	R	T	L	R	T	L	U	R	T	L	U	R	T	L	U
00:00	0	0	0	0	0	0	0	4	0	0	0	1	1	0	1	4	0	0
01:00	0	0	0	0	0	0	0	4	0	0	1	0	1	0	1	4	0	0
02:00	0	0	0	0	0	0	0	14	0	0	2	1	1	0	1	2	0	0
03:00	0	0	0	0	0	0	0	33	1	0	0	0	8	0	1	2	0	0
04:00	1	7	0	0	4	1	1	105	3	0	3	15	31	0	3	14	1	0
05:00	2	15	0	2	12	4	7	207	5	0	10	64	90	0	10	29	7	0
06:00	34	4	21	9	48	13	54	359	25	0	18	194	182	0	58	117	28	0
07:00	25	6	23	14	102	31	58	319	22	0	41	162	163	0	104	172	48	0
08:00	31	5	15	16	89	35	28	278	19	0	32	95	136	0	65	191	45	0
09:00	31	5	20	13	66	29	20	254	23	0	36	58	108	0	70	186	42	0
10:00	33	6	22	14	77	37	23	248	26	0	36	67	97	0	98	228	58	0
11:00	31	6	21	16	77	47	25	254	31	0	49	65	95	0	112	276	60	0
12:00	27	4	25	14	92	48	20	258	33	0	41	63	90	0	116	294	62	0
13:00	27	5	23	19	104	50	22	290	40	0	48	64	107	0	146	303	65	0
14:00	26	4	23	20	168	69	20	283	47	0	57	71	117	0	198	378	71	0
15:00	31	4	18	20	237	81	20	281	36	0	54	75	117	0	204	387	72	2
16:00	19	2	14	21	251	92	25	271	37	0	49	81	120	0	214	407	69	2
17:00	20	4	18	13	135	70	23	266	24	0	49	63	97	0	168	454	70	1
18:00	12	9	8	10	64	38	13	239	20	0	41	44	63	0	79	229	42	1
19:00	1	12	0	2	22	11	3	146	12	0	25	34	37	0	30	90	15	1
20:00	1	8	0	1	14	13	2	94	4	0	13	20	30	0	19	63	8	0
21:00	0	0	0	0	7	5	1	63	5	0	7	12	17	0	13	40	7	0
22:00	0	0	0	1	3	4	1	27	3	0	3	7	7	0	7	18	3	0
23:00	0	0	0	0	0	0	0	15	1	0	2	3	2	0	3	9	1	0
<b>Total</b>	<b>352</b>	<b>106</b>	<b>251</b>	<b>205</b>	<b>1572</b>	<b>678</b>	<b>366</b>	<b>4312</b>	<b>417</b>	<b>0</b>	<b>617</b>	<b>1259</b>	<b>1717</b>	<b>0</b>	<b>1721</b>	<b>3897</b>	<b>774</b>	<b>7</b>

8th Ave NW north of Richmond Beach Road 7554



**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 8th Ave NW n/o Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : G-2873

Site: Loc 13

Seven Day Volume

Interval Start	Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon 11/19/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	6	2	4	8	5	5	6	3	18	18	10	10	7	5	5.6	4.6	8.0	7.3
1:00 AM	5	2	0	3	4	3	3	6	12	10	10	1	3	0	3.0	2.8	5.3	3.6
2:00 AM	3	2	1	1	1	5	1	5	4	3	3	4	0	4	1.2	3.4	1.9	3.4
3:00 AM	2	0	3	5	2	2	3	1	1	1	3	4	2	0	2.4	1.6	2.3	1.9
4:00 AM	14	4	15	4	11	3	13	4	4	2	7	1	13	4	13.2	3.8	11.0	3.1
5:00 AM	55	6	63	8	65	7	53	14	17	1	4	0	54	8	58.0	8.6	44.4	6.3
6:00 AM	169	25	194	24	187	39	178	22	29	4	27	7	153	17	176.2	25.4	133.9	19.7
7:00 AM	365	48	416	65	426	72	379	85	63	10	53	11	377	42	392.6	62.4	297.0	47.6
8:00 AM	344	78	434	69	419	102	316	118	156	39	123	39	327	121	368.0	97.6	302.7	80.9
9:00 AM	261	61	270	60	252	86	278	84	188	53	171	60	266	62	265.4	70.6	240.9	66.6
10:00 AM	193	149	216	65	216	107	226	97	237	84	196	58	233	60	216.8	95.6	216.7	88.6
11:00 AM	189	225	186	109	187	148	190	115	214	188	177	125	185	105	187.4	140.4	189.7	145.0
12:00 PM	214	240	198	128	193	217	207	229	254	197	195	190	228	212	208.0	205.2	212.7	201.9
1:00 PM	182	214	185	159	197	275	176	174	230	122	193	128	194	120	186.8	188.4	193.9	170.3
2:00 PM	198	299	197	209	227	302	227	171	187	112	192	143	212	141	212.2	224.4	205.7	196.7
3:00 PM	203	227	236	282	246	420	239	230	187	89	229	107	225	172	229.8	266.2	223.6	218.1
4:00 PM	234	236	225	323	240	362	236	243	217	118	208	109	234	188	233.8	270.4	227.7	225.6
5:00 PM	206	233	205	321	234	373	246	146	208	96	180	106	205	213	219.2	257.2	212.0	212.6
6:00 PM	175	196	181	207	186	210	164	95	160	85	117	65	171	137	175.4	169.0	164.9	142.1
7:00 PM	113	103	171	146	111	108	104	64	102	45	97	60	105	87	120.8	101.6	114.7	87.6
8:00 PM	92	61	103	78	96	90	86	37	67	47	73	59	96	59	94.6	65.0	87.6	61.6
9:00 PM	55	46	59	71	62	85	61	45	81	36	39	27	61	48	59.6	59.0	59.7	51.1
10:00 PM	30	29	37	35	30	39	48	28	41	32	17	15	32	18	35.4	29.8	33.6	28.0
11:00 PM	13	13	9	12	17	18	38	20	27	26	13	5	16	11	18.6	14.8	19.0	15.0
Totals	3321	2499	3608	2392	3614	3078	3478	2036	2704	1418	2337	1334	3399	1834	3484.0	2367.8	3208.7	2084.4
Combined	5820		6000		6692		5514		4122		3671		5233		5851.8		5293.1	
Split (%)	57.1	42.9	60.1	39.9	54.0	46.0	63.1	36.9	65.6	34.4	63.7	36.3	65.0	35.0	59.5	40.5	60.6	39.4

**Peak Hours**

12:00 AM - 12:00 PM	7:00 AM	11:00 AM	8:00 AM	11:00 AM	7:00 AM	11:00 AM	7:00 AM	8:00 AM	10:00 AM	11:00 AM	10:00 AM	11:00 AM	7:00 AM	8:00 AM	7:00 AM	11:00 AM	8:00 AM	11:00 AM
Volume	365	225	434	109	426	148	379	118	237	188	196	125	377	121	392.6	140.4	302.7	145.0
12:00 PM - 12:00 AM	4:00 PM	2:00 PM	3:00 PM	4:00 PM	3:00 PM	3:00 PM	5:00 PM	4:00 PM	12:00 PM	12:00 PM	3:00 PM	12:00 PM	4:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	234	299	236	323	246	420	246	243	254	197	229	190	234	213	233.8	270.4	227.7	225.6

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: Carlan@trafficdatagathering.com**

Location : 8th Ave NW s/o NW Richmond Beach Rd  
City/County, State : Shoreline, WA  
Counter : NT-0123

Site: Loc 14

Seven Day Volume

Interval Start	Tue 1/8/2019		Wed 1/9/2019		Thu 1/10/2019		Fri 1/11/2019		Sat 1/12/2019		Sun 1/13/2019		Mon 1/14/2019		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	5	2	6	3	2	1	1	8	15	7	16	13	1	4	3.0	3.6	6.6	5.4
1:00 AM	7	0	1	1	3	3	2	2	9	4	5	6	1	3	2.8	1.8	4.0	2.7
2:00 AM	1	0	1	1	3	1	1	2	4	6	6	2	2	1	1.6	1.0	2.6	1.9
3:00 AM	1	1	4	2	4	2	5	0	5	2	5	4	3	3	3.4	1.6	3.9	2.0
4:00 AM	3	4	2	2	2	4	5	2	1	2	2	1	3	1	3.0	2.6	2.6	2.3
5:00 AM	11	32	11	28	8	19	10	25	6	0	1	1	8	33	9.6	27.4	7.9	19.7
6:00 AM	39	106	38	112	37	118	29	85	13	13	12	16	28	108	34.2	105.8	28.0	79.7
7:00 AM	88	306	77	328	68	311	82	249	34	37	18	29	65	281	76.0	295.0	61.7	220.1
8:00 AM	169	325	108	322	113	268	112	242	62	54	46	98	99	236	120.2	278.6	101.3	220.7
9:00 AM	151	189	120	170	144	131	122	132	76	74	93	79	117	123	130.8	149.0	117.6	128.3
10:00 AM	107	116	100	110	120	125	106	96	91	88	119	110	87	85	104.0	106.4	104.3	104.3
11:00 AM	134	120	141	134	119	140	122	114	115	98	115	97	108	113	124.8	124.2	122.0	116.6
12:00 PM	119	117	163	118	152	108	125	114	137	119	176	109	159	99	143.6	111.2	147.3	112.0
1:00 PM	148	96	141	103	129	87	147	98	116	110	142	113	137	108	140.4	98.4	137.1	102.1
2:00 PM	169	108	143	114	144	104	157	115	134	114	132	105	150	99	152.6	108.0	147.0	108.4
3:00 PM	220	112	212	93	232	122	247	122	154	120	122	112	221	136	226.4	117.0	201.1	116.7
4:00 PM	300	126	312	119	272	137	295	136	133	113	146	118	290	117	293.8	127.0	249.7	123.7
5:00 PM	290	116	318	101	296	123	249	134	122	83	104	124	267	137	284.0	122.2	235.1	116.9
6:00 PM	186	108	207	110	159	107	148	90	88	81	61	73	142	122	168.4	107.4	141.6	98.7
7:00 PM	83	70	95	61	103	63	82	76	63	57	52	41	84	52	89.4	64.4	80.3	60.0
8:00 PM	63	62	63	55	68	54	52	54	44	41	47	42	62	38	61.6	52.6	57.0	49.4
9:00 PM	60	38	60	19	62	36	49	36	40	40	20	21	43	33	54.8	32.4	47.7	31.9
10:00 PM	18	19	21	15	35	25	35	25	39	27	11	16	17	14	25.2	19.6	25.1	20.1
11:00 PM	12	14	13	13	10	13	18	24	29	20	6	3	7	7	12.0	14.2	13.6	13.4
Totals	2384	2187	2357	2134	2285	2102	2201	1981	1530	1310	1457	1333	2101	1953	2265.6	2071.4	2045.0	1857.1
Combined	4571		4491		4387		4182		2840		2790		4054		4337.0		3902.1	
Split (%)	52.2	47.8	52.5	47.5	52.1	47.9	52.6	47.4	53.9	46.1	52.2	47.8	51.8	48.2	52.2	47.8	52.4	47.6

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	11:00 AM	7:00 AM	9:00 AM	7:00 AM	9:00 AM	7:00 AM	11:00 AM	11:00 AM	10:00 AM	10:00 AM	9:00 AM	7:00 AM	9:00 AM	7:00 AM	11:00 AM	8:00 AM
Volume	169	325	141	328	144	311	122	249	115	98	119	110	117	281	130.8	295.0	122.0	220.7
12:00 PM - 12:00 AM	4:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	3:00 PM	12:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	300	126	318	119	296	137	295	136	154	120	176	124	290	137	293.8	127.0	249.7	123.7



**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o 3rd Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2805

Site: Loc 15

Seven Day Volume

Interval Start	Mon 11/12/2018		Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	-	-	1	0	0	0	0	0	0	0	5	7	4	4	0.3	0.0	1.7	1.8
1:00 AM	-	-	2	1	0	0	0	0	0	0	2	0	5	1	0.5	0.3	1.5	0.3
2:00 AM	-	-	1	1	0	0	0	0	0	0	0	2	3	1	0.3	0.3	0.7	0.7
3:00 AM	-	-	0	0	0	0	0	0	0	0	2	0	1	0	0.0	0.0	0.5	0.0
4:00 AM	-	-	1	0	0	0	0	0	0	0	0	2	0	1	0.3	0.0	0.2	0.5
5:00 AM	-	-	1	3	0	0	0	0	0	0	1	1	1	1	0.3	0.8	0.5	0.8
6:00 AM	-	-	11	11	0	0	0	0	0	0	0	3	2	7	2.8	2.8	2.2	3.5
7:00 AM	-	-	19	42	0	0	0	0	0	0	9	8	15	6	4.8	10.5	7.2	9.3
8:00 AM	-	-	45	36	0	0	0	0	0	0	14	15	29	13	11.3	9.0	14.7	10.7
9:00 AM	-	-	30	53	0	0	0	0	0	0	26	20	25	22	7.5	13.3	13.5	15.8
10:00 AM	-	-	20	20	0	0	0	0	0	0	31	20	33	37	5.0	5.0	14.0	12.8
11:00 AM	-	-	34	33	0	0	0	0	0	0	25	24	26	21	8.5	8.3	14.2	13.0
12:00 PM	-	-	35	20	0	0	0	0	0	0	42	25	39	61	8.8	5.0	19.3	17.7
1:00 PM	23	21	31	30	0	0	0	0	13	18	38	14	47	32	11.0	12.0	21.5	15.7
2:00 PM	23	21	51	26	0	0	0	0	38	30	31	22	27	14	22.4	15.4	24.3	16.1
3:00 PM	35	18	41	31	0	0	0	0	55	26	43	19	40	22	26.2	15.0	30.6	16.6
4:00 PM	40	28	42	34	0	0	0	0	56	43	39	43	39	26	27.6	21.0	30.9	24.9
5:00 PM	33	20	0	0	0	0	0	0	44	24	27	29	33	22	15.4	8.8	19.6	13.6
6:00 PM	41	14	0	0	0	0	0	0	36	26	36	21	26	23	15.4	8.0	19.9	12.0
7:00 PM	28	21	0	0	0	0	0	0	31	13	20	11	16	13	11.8	6.8	13.6	8.3
8:00 PM	17	22	0	0	0	0	0	0	12	6	19	7	15	17	5.8	5.6	9.0	7.4
9:00 PM	11	13	0	0	0	0	0	0	12	25	8	12	9	9	4.6	7.6	5.7	8.4
10:00 PM	5	4	0	0	0	0	0	0	9	4	11	10	4	1	2.8	1.6	4.1	2.7
11:00 PM	1	2	0	0	0	0	0	0	8	6	5	3	2	2	1.8	1.6	2.3	1.9
Totals	257	184	365	341	0	0	0	0	314	221	434	318	441	356	194.8	158.4	271.4	214.5
Combined	441		706		0		0		535		752		797		353.2		485.9	
Split (%)	58.3	41.7	51.7	48.3	-	-	-	-	58.7	41.3	57.7	42.3	55.3	44.7	55.2	44.8	55.8	44.2

**Peak Hours**

12:00 AM - 12:00 PM	-	-	8:00 AM	9:00 AM	-	-	-	-	-	-	10:00 AM	11:00 AM	10:00 AM	10:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM
Volume	-	-	45	53	-	-	-	-	-	-	31	24	33	37	11.3	13.3	14.7	15.8
12:00 PM - 12:00 AM	6:00 PM	4:00 PM	2:00 PM	4:00 PM	-	-	-	-	4:00 PM	4:00 PM	3:00 PM	4:00 PM	1:00 PM	12:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM
Volume	41	28	51	34	-	-	-	-	56	43	43	43	47	61	27.6	21.0	30.9	24.9

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
email: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o 3rd Ave NW  
City/County, State : Shoreline, WA  
Counter : NT-2805

Site: Loc 15

Seven Day Volume

Interval Start	Mon 11/19/2018		Tue 11/20/2018		Wed 11/21/2018		Thu 11/22/2018		Fri 11/23/2018		Sat 11/24/2018		Sun 11/25/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	1	2	2	0	0	0	-	-	-	-	-	-	-	-	1.0	0.7	1.0	0.7
1:00 AM	1	1	2	1	0	0	-	-	-	-	-	-	-	-	1.0	0.7	1.0	0.7
2:00 AM	1	0	0	1	0	0	-	-	-	-	-	-	-	-	0.3	0.3	0.3	0.3
3:00 AM	0	0	3	0	0	0	-	-	-	-	-	-	-	-	1.0	0.0	1.0	0.0
4:00 AM	1	0	1	1	0	0	-	-	-	-	-	-	-	-	0.7	0.3	0.7	0.3
5:00 AM	3	1	3	0	0	0	-	-	-	-	-	-	-	-	2.0	0.3	2.0	0.3
6:00 AM	10	6	10	8	0	0	-	-	-	-	-	-	-	-	6.7	4.7	6.7	4.7
7:00 AM	22	37	13	39	0	0	-	-	-	-	-	-	-	-	11.7	25.3	11.7	25.3
8:00 AM	42	35	41	33	0	0	-	-	-	-	-	-	-	-	27.7	22.7	27.7	22.7
9:00 AM	31	52	37	40	0	0	-	-	-	-	-	-	-	-	34.0	46.0	34.0	46.0
10:00 AM	27	23	20	30	-	-	-	-	-	-	-	-	-	-	23.5	26.5	23.5	26.5
11:00 AM	41	24	43	23	-	-	-	-	-	-	-	-	-	-	42.0	23.5	42.0	23.5
12:00 PM	47	49	32	35	-	-	-	-	-	-	-	-	-	-	39.5	42.0	39.5	42.0
1:00 PM	25	33	34	42	-	-	-	-	-	-	-	-	-	-	29.5	37.5	29.5	37.5
2:00 PM	39	22	47	33	-	-	-	-	-	-	-	-	-	-	43.0	27.5	43.0	27.5
3:00 PM	43	29	17	10	-	-	-	-	-	-	-	-	-	-	30.0	19.5	30.0	19.5
4:00 PM	44	47	0	0	-	-	-	-	-	-	-	-	-	-	22.0	23.5	22.0	23.5
5:00 PM	95	28	0	0	-	-	-	-	-	-	-	-	-	-	47.5	14.0	47.5	14.0
6:00 PM	30	17	0	0	-	-	-	-	-	-	-	-	-	-	15.0	8.5	15.0	8.5
7:00 PM	27	21	0	0	-	-	-	-	-	-	-	-	-	-	13.5	10.5	13.5	10.5
8:00 PM	19	21	0	0	-	-	-	-	-	-	-	-	-	-	9.5	10.5	9.5	10.5
9:00 PM	11	11	0	0	-	-	-	-	-	-	-	-	-	-	5.5	5.5	5.5	5.5
10:00 PM	5	4	0	0	-	-	-	-	-	-	-	-	-	-	2.5	2.0	2.5	2.0
11:00 PM	3	2	0	0	-	-	-	-	-	-	-	-	-	-	1.5	1.0	1.5	1.0
Totals	568	465	305	296	0	0	0	0	0	0	0	0	0	0	410.5	353.0	410.5	353.0
Combined	1033		601		0	0	0	0	0	0	0	0	0	0	763.5		763.5	
Split (%)	55.0	45.0	50.7	49.3	-	-	-	-	-	-	-	-	-	-	53.8	46.2	53.8	46.2

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	9:00 AM	11:00 AM	9:00 AM	-	-	-	-	-	-	-	-	-	-	11:00 AM	9:00 AM	11:00 AM	9:00 AM
Volume	42	52	43	40	-	-	-	-	-	-	-	-	-	-	42.0	46.0	42.0	46.0
12:00 PM - 12:00 AM	5:00 PM	12:00 PM	2:00 PM	1:00 PM	-	-	-	-	-	-	-	-	-	-	5:00 PM	12:00 PM	5:00 PM	12:00 PM
Volume	95	49	47	42	-	-	-	-	-	-	-	-	-	-	47.5	42.0	47.5	42.0

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o 3rd Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-2808

Site: Loc 15

Seven Day Volume

Interval Start	Mon 1/7/2019		Tue 1/8/2019		Wed 1/9/2019		Thu 1/10/2019		Fri 1/11/2019		Sat 1/12/2019		Sun 1/13/2019		Mon - Fri Average		7 Day Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	-	-	1	1	1	3	2	2	1	0	0	0	0	0	1.3	1.5	0.8	1.0
1:00 AM	-	-	0	1	1	0	4	1	2	2	0	0	0	0	1.8	1.0	1.2	0.7
2:00 AM	-	-	0	0	0	0	0	2	0	0	0	0	0	0	0.0	0.5	0.0	0.3
3:00 AM	-	-	0	0	1	0	0	0	2	1	0	0	0	0	0.8	0.3	0.5	0.2
4:00 AM	-	-	0	1	2	0	1	1	0	2	0	0	0	0	0.8	1.0	0.5	0.7
5:00 AM	-	-	4	3	3	4	1	2	3	4	0	0	0	0	2.8	3.3	1.8	2.2
6:00 AM	-	-	11	15	8	11	12	7	10	5	0	0	0	0	10.3	9.5	6.8	6.3
7:00 AM	-	-	33	20	34	20	30	21	29	22	0	0	0	0	31.5	20.8	21.0	13.8
8:00 AM	-	-	27	46	34	36	39	48	26	23	0	0	0	0	31.5	38.3	21.0	25.5
9:00 AM	-	-	46	21	48	9	50	21	28	20	0	0	0	0	43.0	17.8	28.7	11.8
10:00 AM	-	-	22	15	25	13	34	21	27	23	0	0	0	0	27.0	18.0	18.0	12.0
11:00 AM	-	-	25	22	29	27	26	27	25	25	0	0	0	0	26.3	25.3	17.5	16.8
12:00 PM	-	-	30	16	29	43	31	40	30	41	0	0	0	0	30.0	35.0	20.0	23.3
1:00 PM	26	31	36	23	40	31	38	33	31	25	0	0	0	0	36.3	28.0	24.2	18.7
2:00 PM	23	53	34	18	25	23	23	36	19	33	0	0	0	0	24.8	32.6	17.7	23.3
3:00 PM	20	60	29	23	22	30	17	33	24	42	0	0	0	0	22.4	37.6	16.0	26.9
4:00 PM	37	32	42	23	29	32	44	40	0	0	0	0	0	0	30.4	25.4	21.7	18.1
5:00 PM	24	38	28	24	31	35	26	35	0	0	0	0	0	0	21.8	26.4	15.6	18.9
6:00 PM	31	18	24	19	20	36	20	28	0	0	0	0	0	0	19.0	20.2	13.6	14.4
7:00 PM	24	20	9	12	17	17	19	21	0	0	0	0	0	0	13.8	14.0	9.9	10.0
8:00 PM	17	19	18	14	18	14	11	19	0	0	0	0	0	0	12.8	13.2	9.1	9.4
9:00 PM	18	15	12	11	13	20	16	14	0	0	0	0	0	0	11.8	12.0	8.4	8.6
10:00 PM	3	3	2	8	5	6	3	9	0	0	0	0	0	0	2.6	5.2	1.9	3.7
11:00 PM	6	7	3	2	2	6	1	5	0	0	0	0	0	0	2.4	4.0	1.7	2.9
Totals	229	296	436	338	437	416	448	466	257	268	0	0	0	0	404.8	390.6	277.6	269.5
Combined	525		774		853		914		525		0		0		795.4		547.0	
Split (%)	43.6	56.4	56.3	43.7	51.2	48.8	49.0	51.0	49.0	51.0	-	-	-	-	50.9	49.1	50.7	49.3

**Peak Hours**

12:00 AM - 12:00 PM	-	-	9:00 AM	8:00 AM	9:00 AM	8:00 AM	9:00 AM	8:00 AM	7:00 AM	11:00 AM	-	-	-	-	9:00 AM	8:00 AM	9:00 AM	8:00 AM
Volume	-	-	46	46	48	36	50	48	29	25	-	-	-	-	43.0	38.3	28.7	25.5
12:00 PM - 12:00 AM	4:00 PM	3:00 PM	4:00 PM	5:00 PM	1:00 PM	12:00 PM	4:00 PM	12:00 PM	1:00 PM	3:00 PM	-	-	-	-	1:00 PM	3:00 PM	1:00 PM	3:00 PM
Volume	37	60	42	24	40	43	44	40	31	42	-	-	-	-	34.2	37.6	24.4	26.9

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o Dayton Ave N  
City/County, State : Shoreline, WA  
Counter : NT-2811

Site: Loc 16

Seven Day Volume

Interval Start	Mon 11/12/2018		Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	-	-	2	0	0	0	0	0	0	0	4	6	7	3	0.5	0.0	2.2	1.5
1:00 AM	-	-	2	1	0	0	0	0	0	0	3	2	4	1	0.5	0.3	1.5	0.7
2:00 AM	-	-	0	1	0	0	0	0	0	0	3	1	5	0	0.0	0.3	1.3	0.3
3:00 AM	-	-	1	1	0	0	0	0	0	0	2	1	1	1	0.3	0.3	0.7	0.5
4:00 AM	-	-	0	3	0	0	1	0	0	0	1	4	2	1	0.3	0.8	0.7	1.3
5:00 AM	-	-	0	15	0	0	0	0	0	0	1	3	0	3	0.0	3.8	0.2	3.5
6:00 AM	-	-	7	41	0	0	0	0	0	0	5	11	5	10	1.8	10.3	2.8	10.3
7:00 AM	-	-	19	74	0	0	0	0	0	0	6	18	11	14	4.8	18.5	6.0	17.7
8:00 AM	-	-	28	52	0	0	0	0	0	0	23	38	10	23	7.0	13.0	10.2	18.8
9:00 AM	-	-	23	42	0	0	0	0	0	0	36	45	23	28	5.8	10.5	13.7	19.2
10:00 AM	-	-	24	34	0	0	0	0	0	0	37	54	35	54	6.0	8.5	16.0	23.7
11:00 AM	-	-	35	33	0	0	0	0	0	0	48	47	34	38	8.8	8.3	19.5	19.7
12:00 PM	-	-	18	25	0	0	0	0	0	0	56	40	48	51	4.5	6.3	20.3	19.3
1:00 PM	35	51	0	0	0	0	0	0	13	14	49	37	39	32	9.6	13.0	19.4	19.1
2:00 PM	35	44	33	29	0	0	0	0	56	41	48	39	41	49	24.8	22.8	30.4	28.9
3:00 PM	35	29	62	48	0	0	0	0	66	49	54	37	51	37	32.6	25.2	38.3	28.6
4:00 PM	50	32	69	31	0	0	0	0	70	37	45	44	32	33	37.8	20.0	38.0	25.3
5:00 PM	53	31	1	1	0	0	0	0	65	48	50	36	48	27	23.8	16.0	31.0	20.4
6:00 PM	50	25	0	0	0	0	0	0	47	31	50	46	31	23	19.4	11.2	25.4	17.9
7:00 PM	41	14	0	0	0	0	0	0	35	13	31	23	20	17	15.2	5.4	18.1	9.6
8:00 PM	30	10	0	0	0	0	0	0	28	13	39	25	12	12	11.6	4.6	15.6	8.6
9:00 PM	8	6	0	0	0	0	0	0	35	16	31	28	18	10	8.6	4.4	13.1	8.6
10:00 PM	11	6	0	0	0	0	0	0	16	9	14	11	9	6	5.4	3.0	7.1	4.6
11:00 PM	3	5	0	0	0	0	0	0	17	5	8	7	4	4	4.0	2.0	4.6	3.0
Totals	351	253	324	431	0	0	1	0	448	276	644	603	490	477	232.8	208.1	336.1	310.9
Combined	604		755		0		1		724		1247		967		440.9		647.1	
Split (%)	58.1	41.9	42.9	57.1	-	-	100.0	0.0	61.9	38.1	51.6	48.4	50.7	49.3	52.8	47.2	51.9	48.1

**Peak Hours**

12:00 AM - 12:00 PM	-	-	11:00 AM	7:00 AM	-	-	4:00 AM	-	-	-	11:00 AM	10:00 AM	10:00 AM	10:00 AM	11:00 AM	7:00 AM	11:00 AM	10:00 AM
Volume	-	-	35	74	-	-	1	-	-	-	48	54	35	54	8.8	18.5	19.5	23.7
12:00 PM - 12:00 AM	5:00 PM	1:00 PM	4:00 PM	3:00 PM	-	-	-	-	4:00 PM	3:00 PM	12:00 PM	6:00 PM	3:00 PM	12:00 PM	4:00 PM	3:00 PM	3:00 PM	2:00 PM
Volume	53	51	69	48	-	-	-	-	70	49	56	46	51	51	37.8	25.2	38.3	28.9

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o Dayton Ave N  
City/County, State : Shoreline, WA  
Counter : NT-2811

Site: Loc 16

Seven Day Volume

Interval Start	Mon 11/19/2018		Tue 11/20/2018		Wed 11/21/2018		Thu 11/22/2018		Fri 11/23/2018		Sat 11/24/2018		Sun 11/25/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	3	5	5	1	4	0	-	-	-	-	-	-	-	4.0	2.0	4.0	2.0	
1:00 AM	2	0	1	2	2	0	-	-	-	-	-	-	-	1.7	0.7	1.7	0.7	
2:00 AM	1	1	1	3	2	0	-	-	-	-	-	-	-	1.3	1.3	1.3	1.3	
3:00 AM	2	1	2	2	1	0	-	-	-	-	-	-	-	1.7	1.0	1.7	1.0	
4:00 AM	0	3	0	3	1	0	-	-	-	-	-	-	-	0.3	2.0	0.3	2.0	
5:00 AM	0	10	1	11	0	0	-	-	-	-	-	-	-	0.3	7.0	0.3	7.0	
6:00 AM	5	39	7	38	6	1	-	-	-	-	-	-	-	6.0	26.0	6.0	26.0	
7:00 AM	19	81	15	69	6	0	-	-	-	-	-	-	-	13.3	50.0	13.3	50.0	
8:00 AM	27	56	22	53	0	0	-	-	-	-	-	-	-	16.3	36.3	16.3	36.3	
9:00 AM	27	50	29	50	-	-	-	-	-	-	-	-	-	28.0	50.0	28.0	50.0	
10:00 AM	28	39	23	45	-	-	-	-	-	-	-	-	-	25.5	42.0	25.5	42.0	
11:00 AM	25	42	37	48	-	-	-	-	-	-	-	-	-	31.0	45.0	31.0	45.0	
12:00 PM	47	40	32	36	-	-	-	-	-	-	-	-	-	39.5	38.0	39.5	38.0	
1:00 PM	27	36	36	35	-	-	-	-	-	-	-	-	-	31.5	35.5	31.5	35.5	
2:00 PM	51	37	47	36	-	-	-	-	-	-	-	-	-	49.0	36.5	49.0	36.5	
3:00 PM	70	45	55	4	-	-	-	-	-	-	-	-	-	62.5	24.5	62.5	24.5	
4:00 PM	70	42	74	0	-	-	-	-	-	-	-	-	-	72.0	21.0	72.0	21.0	
5:00 PM	182	37	52	12	-	-	-	-	-	-	-	-	-	117.0	24.5	117.0	24.5	
6:00 PM	71	31	63	17	-	-	-	-	-	-	-	-	-	67.0	24.0	67.0	24.0	
7:00 PM	42	27	47	7	-	-	-	-	-	-	-	-	-	44.5	17.0	44.5	17.0	
8:00 PM	37	26	42	5	-	-	-	-	-	-	-	-	-	39.5	15.5	39.5	15.5	
9:00 PM	24	8	28	0	-	-	-	-	-	-	-	-	-	26.0	4.0	26.0	4.0	
10:00 PM	9	7	9	1	-	-	-	-	-	-	-	-	-	9.0	4.0	9.0	4.0	
11:00 PM	4	6	8	0	-	-	-	-	-	-	-	-	-	6.0	3.0	6.0	3.0	
Totals	773	669	636	478	22	1	0	0	0	0	0	0	0	693.0	510.8	693.0	510.8	
Combined	1442		1114		23		0		0		0		0	1203.8		1203.8		
Split (%)	53.6	46.4	57.1	42.9	95.7	4.3	-	-	-	-	-	-	-	57.6	42.4	57.6	42.4	

**Peak Hours**

12:00 AM - 12:00 PM	10:00 AM	7:00 AM	11:00 AM	7:00 AM	6:00 AM	6:00 AM	-	-	-	-	-	-	-	11:00 AM	7:00 AM	11:00 AM	7:00 AM
Volume	28	81	37	69	6	1	-	-	-	-	-	-	-	31.0	50.0	31.0	50.0
12:00 PM - 12:00 AM	5:00 PM	3:00 PM	4:00 PM	12:00 PM	-	-	-	-	-	-	-	-	-	5:00 PM	12:00 PM	5:00 PM	12:00 PM
Volume	182	45	74	36	-	-	-	-	-	-	-	-	-	117.0	38.0	117.0	38.0

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o Dayton Ave N  
City/County, State : Shoreline, WA  
Counter : NT-1863

Site: Loc 16

Seven Day Volume

Interval Start	Tue 11/27/2018		Wed 11/28/2018		Thu 11/29/2018		Fri 11/30/2018		Sat 12/1/2018		Sun 12/2/2018		Mon 12/3/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	-	-	0	0	1	4	3	3	0	0	3	6	8	4	3.0	2.8	2.5	2.8
1:00 AM	-	-	0	0	1	2	2	1	0	0	6	2	2	1	1.3	1.0	1.8	1.0
2:00 AM	-	-	0	0	0	0	0	0	0	0	5	1	0	1	0.0	0.3	0.8	0.3
3:00 AM	-	-	0	0	1	2	2	3	0	0	4	2	1	2	1.0	1.8	1.3	1.5
4:00 AM	-	-	0	0	0	2	3	6	0	0	2	1	3	4	1.5	3.0	1.3	2.2
5:00 AM	-	-	0	0	0	15	0	14	0	0	2	2	5	16	1.3	11.3	1.2	7.8
6:00 AM	-	-	0	0	6	30	7	34	0	0	6	12	18	40	7.8	26.0	6.2	19.3
7:00 AM	-	-	0	0	24	78	17	55	0	0	9	14	20	64	15.3	49.3	11.7	35.2
8:00 AM	-	-	0	0	26	65	18	53	0	0	9	18	29	51	18.3	42.3	13.7	31.2
9:00 AM	-	-	0	0	26	46	30	48	0	0	18	39	34	48	22.5	35.5	18.0	30.2
10:00 AM	-	-	0	0	39	37	27	42	0	0	36	46	37	42	25.8	30.3	23.2	27.8
11:00 AM	-	-	0	0	33	38	18	18	0	0	45	39	45	34	24.0	22.5	23.5	21.5
12:00 PM	-	-	21	27	42	36	0	0	0	0	61	45	46	31	27.3	23.5	28.3	23.2
1:00 PM	28	42	53	34	40	40	0	0	0	0	65	48	57	37	35.6	30.6	34.7	28.7
2:00 PM	43	35	58	47	48	44	3	4	0	0	44	46	56	32	41.6	32.4	36.0	29.7
3:00 PM	67	38	64	29	61	43	61	37	0	0	47	36	71	42	64.8	37.8	53.0	32.1
4:00 PM	26	20	65	37	58	44	20	12	13	12	58	28	85	41	50.8	30.8	46.4	27.7
5:00 PM	0	0	61	26	60	24	0	0	39	35	46	36	93	29	42.8	15.8	42.7	21.4
6:00 PM	0	0	59	36	80	34	0	0	44	33	44	32	103	30	48.4	20.0	47.1	23.6
7:00 PM	0	0	48	18	53	27	0	0	29	21	27	20	51	26	30.4	14.2	29.7	16.0
8:00 PM	0	0	28	24	43	19	0	0	22	18	30	17	49	13	24.0	11.2	24.6	13.0
9:00 PM	0	0	26	12	20	9	0	0	18	9	20	4	26	19	14.4	8.0	15.7	7.6
10:00 PM	0	0	12	7	14	13	0	0	20	15	11	5	14	5	8.0	5.0	10.1	6.4
11:00 PM	0	0	9	4	10	6	0	0	10	4	8	2	5	1	4.8	2.2	6.0	2.4
Totals	164	135	504	301	686	658	211	330	195	147	606	501	858	613	514.4	457.3	479.6	412.7
Combined	299		805		1344		541		342		1107		1471		971.6		892.4	
Split (%)	54.8	45.2	62.6	37.4	51.0	49.0	39.0	61.0	57.0	43.0	54.7	45.3	58.3	41.7	52.9	47.1	53.8	46.2

**Peak Hours**

12:00 AM - 12:00 PM	-	-	-	-	10:00 AM	7:00 AM	9:00 AM	7:00 AM	-	-	11:00 AM	10:00 AM	11:00 AM	7:00 AM	10:00 AM	7:00 AM	11:00 AM	7:00 AM
Volume	-	-	-	-	39	78	30	55	-	-	45	46	45	64	25.8	49.3	23.5	35.2
12:00 PM - 12:00 AM	3:00 PM	1:00 PM	4:00 PM	2:00 PM	6:00 PM	2:00 PM	3:00 PM	3:00 PM	6:00 PM	5:00 PM	1:00 PM	1:00 PM	6:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM
Volume	67	42	65	47	80	44	61	37	44	35	65	48	103	42	64.8	37.8	53.0	32.1

**TRAFFIC DATA GATHERING  
LAKE STEVENS, WA (425) 334-3348  
EMAIL: CarlaN@trafficdatagathering.com**

Location : NW 185th St w/o Dayton Ave N  
City/County, State : Shoreline, WA  
Counter : NT-1863

Site: Loc 16

Seven Day Volume

Interval Start	Tue 12/4/2018		Wed 12/5/2018		Thu 12/6/2018		Fri 12/7/2018		Sat 12/8/2018		Sun 12/9/2018		Mon 12/10/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	2	1	0	0	-	-	-	-	-	-	-	-	-	-	1.0	0.5	1.0	0.5
1:00 AM	3	2	0	0	-	-	-	-	-	-	-	-	-	-	1.5	1.0	1.5	1.0
2:00 AM	4	0	0	0	-	-	-	-	-	-	-	-	-	-	2.0	0.0	2.0	0.0
3:00 AM	2	2	0	0	-	-	-	-	-	-	-	-	-	-	1.0	1.0	1.0	1.0
4:00 AM	0	5	0	0	-	-	-	-	-	-	-	-	-	-	0.0	2.5	0.0	2.5
5:00 AM	2	16	0	0	-	-	-	-	-	-	-	-	-	-	1.0	8.0	1.0	8.0
6:00 AM	14	36	0	0	-	-	-	-	-	-	-	-	-	-	7.0	18.0	7.0	18.0
7:00 AM	29	73	8	24	-	-	-	-	-	-	-	-	-	-	18.5	48.5	18.5	48.5
8:00 AM	28	58	36	56	-	-	-	-	-	-	-	-	-	-	32.0	57.0	32.0	57.0
9:00 AM	31	49	38	46	-	-	-	-	-	-	-	-	-	-	34.5	47.5	34.5	47.5
10:00 AM	11	12	-	-	-	-	-	-	-	-	-	-	-	-	11.0	12.0	11.0	12.0
11:00 AM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
12:00 PM	1	0	-	-	-	-	-	-	-	-	-	-	-	-	1.0	0.0	1.0	0.0
1:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
2:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
3:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
4:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
5:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
6:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
7:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
8:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
9:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
10:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
11:00 PM	0	0	-	-	-	-	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
Totals	127	254	82	126	0	0	0	0	0	0	0	0	0	0	110.5	196.0	110.5	196.0
Combined	381		208		0		0		0		0		0		306.5		306.5	
Split (%)	33.3	66.7	39.4	60.6	-	-	-	-	-	-	-	-	-	-	36.1	63.9	36.1	63.9

**Peak Hours**

12:00 AM - 12:00 PM	9:00 AM	7:00 AM	9:00 AM	8:00 AM	-	-	-	-	-	-	-	-	-	-	9:00 AM	8:00 AM	9:00 AM	8:00 AM
Volume	31	73	38	56	-	-	-	-	-	-	-	-	-	-	34.5	57.0	34.5	57.0
12:00 PM - 12:00 AM	12:00 PM	-	-	-	-	-	-	-	-	-	-	-	-	-	12:00 PM	-	12:00 PM	-
Volume	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1.0	-	1.0	-

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : NW 195th St w/o 3rd Ave NW  
 City/County, State : Shoreline, WA  
 Counter : NT-1845

Site: Loc 17

Seven Day Volume

Interval Start	Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon 11/19/2018		Mon - Fri Average		7 Day Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	2	2	4	3	1	1	4	2	11	6	12	6	1	1	2.4	1.8	5.0	3.0
1:00 AM	0	0	1	2	1	0	2	1	6	5	5	4	0	0	0.8	0.6	2.1	1.7
2:00 AM	0	0	0	0	2	1	2	0	4	3	4	2	1	0	1.0	0.2	1.9	0.9
3:00 AM	1	0	1	1	1	0	1	1	1	3	2	0	1	1	1.0	0.6	1.1	0.9
4:00 AM	1	1	3	1	1	0	1	1	1	0	3	1	0	0	1.2	0.6	1.4	0.6
5:00 AM	1	2	1	2	0	1	2	1	1	0	0	0	2	2	1.2	1.6	1.0	1.1
6:00 AM	6	7	3	9	9	9	4	16	1	0	1	0	3	16	5.0	11.4	3.9	8.1
7:00 AM	17	44	12	33	15	33	14	27	3	3	2	3	12	26	14.0	32.6	10.7	24.1
8:00 AM	37	141	32	101	41	116	43	123	11	16	11	12	36	114	37.8	119.0	30.1	89.0
9:00 AM	78	150	100	177	92	180	77	177	23	33	13	34	84	186	86.2	174.0	66.7	133.9
10:00 AM	31	53	36	42	34	47	43	49	45	51	24	45	41	60	37.0	50.2	36.3	49.6
11:00 AM	48	44	27	40	36	38	56	55	48	57	42	41	44	53	42.2	46.0	43.0	46.9
12:00 PM	44	53	45	47	48	46	49	53	46	41	35	50	46	48	46.4	49.4	44.7	48.3
1:00 PM	50	48	51	57	47	58	45	50	60	62	73	41	50	51	48.6	52.8	53.7	52.4
2:00 PM	49	46	55	49	42	48	46	54	56	56	50	42	53	52	49.0	49.8	50.1	49.6
3:00 PM	59	104	65	77	52	77	55	83	42	46	67	43	72	92	60.6	86.6	58.9	74.6
4:00 PM	125	93	121	97	101	86	135	90	52	39	60	51	120	81	120.4	89.4	102.0	76.7
5:00 PM	113	99	108	71	132	97	118	81	61	46	74	58	101	87	114.4	87.0	101.0	77.0
6:00 PM	114	62	103	69	89	68	90	65	55	53	67	53	149	78	109.0	68.4	95.3	64.0
7:00 PM	77	106	86	62	65	46	71	42	43	28	33	27	96	74	79.0	66.0	67.3	55.0
8:00 PM	70	28	65	49	51	37	35	33	28	23	30	24	65	35	57.2	36.4	49.1	32.7
9:00 PM	47	20	38	27	38	23	26	20	18	15	22	13	34	29	36.6	23.8	31.9	21.0
10:00 PM	30	16	13	17	25	11	14	12	14	16	9	4	16	17	19.6	14.6	17.3	13.3
11:00 PM	9	6	7	10	10	6	15	12	13	8	7	5	7	7	9.6	8.2	9.7	7.7
Totals	1009	1125	977	1043	933	1029	948	1048	643	610	646	559	1034	1110	980.2	1071.0	884.3	932.0
Combined	2134		2020		1962		1996		1253		1205		2144		2051.2		1816.3	
Split (%)	47.3	52.7	48.4	51.6	47.6	52.4	47.5	52.5	51.3	48.7	53.6	46.4	48.2	51.8	47.8	52.2	48.7	51.3

**Peak Hours**

12:00 AM - 12:00 PM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	11:00 AM	11:00 AM	11:00 AM	10:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM
Volume	78	150	100	177	92	180	77	177	48	57	42	45	84	186	86.2	174.0	66.7	133.9	
12:00 PM - 12:00 AM	4:00 PM	7:00 PM	4:00 PM	4:00 PM	5:00 PM	5:00 PM	4:00 PM	4:00 PM	5:00 PM	1:00 PM	5:00 PM	5:00 PM	6:00 PM	3:00 PM	4:00 PM	4:00 PM	4:00 PM	4:00 PM	5:00 PM
Volume	125	106	121	97	132	97	135	90	61	62	74	58	149	92	120.4	89.4	102.0	77.0	



**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 3rd Ave NW n/o Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-1846

Site: Loc 18

Seven Day Volume

Interval Start	Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon 11/19/2018		Mon - Fri Average		7 Day Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	12	14	13	19	15	19	13	18	24	31	26	39	14	8	13.4	15.6	16.7	21.1
1:00 AM	4	3	5	7	8	6	7	11	16	16	13	28	4	6	5.6	6.6	8.1	11.0
2:00 AM	7	3	2	2	5	3	3	3	9	11	6	8	4	3	4.2	2.8	5.1	4.7
3:00 AM	2	3	3	1	3	5	4	1	5	11	5	7	2	2	2.8	2.4	3.4	4.3
4:00 AM	2	3	4	2	3	1	4	1	9	5	3	3	0	1	2.6	1.6	3.6	2.3
5:00 AM	7	4	6	4	7	4	5	7	5	5	3	6	8	5	6.6	4.8	5.9	5.0
6:00 AM	29	26	30	12	29	23	35	21	9	10	8	6	29	20	30.4	20.4	24.1	16.9
7:00 AM	128	49	128	53	129	48	99	54	19	17	15	20	109	26	118.6	46.0	89.6	38.1
8:00 AM	340	158	291	143	321	157	306	149	55	42	44	16	277	147	307.0	150.8	233.4	116.0
9:00 AM	361	198	390	220	367	214	345	204	101	97	129	44	363	200	365.2	207.2	293.7	168.1
10:00 AM	179	125	208	111	181	128	171	103	159	108	119	89	177	130	183.2	119.4	170.6	113.4
11:00 AM	127	103	145	98	152	111	130	93	198	126	138	132	140	115	138.8	104.0	147.1	111.1
12:00 PM	155	104	141	113	171	129	130	120	184	145	153	137	150	142	149.4	121.6	154.9	127.1
1:00 PM	176	112	156	134	155	131	160	125	154	145	182	185	177	133	164.8	127.0	165.7	137.9
2:00 PM	123	132	148	127	154	132	163	166	169	162	164	148	169	155	151.4	142.4	155.7	146.0
3:00 PM	153	201	186	199	164	176	182	174	179	148	177	164	183	178	173.6	185.6	174.9	177.1
4:00 PM	284	210	245	207	265	235	296	237	186	145	160	158	267	215	271.4	220.8	243.3	201.0
5:00 PM	253	324	233	256	261	292	245	287	181	161	175	154	229	262	244.2	284.2	225.3	248.0
6:00 PM	266	291	188	284	213	273	218	228	147	135	172	138	200	248	217.0	264.8	200.6	228.1
7:00 PM	236	317	157	213	160	199	156	210	147	140	110	86	147	181	171.2	224.0	159.0	192.3
8:00 PM	146	152	119	117	96	99	119	117	98	86	71	64	122	115	120.4	120.0	110.1	107.1
9:00 PM	144	82	97	86	82	82	78	65	60	61	66	72	101	75	100.4	78.0	89.7	74.7
10:00 PM	53	74	47	62	49	94	59	88	50	57	29	40	56	55	52.8	74.6	49.0	67.1
11:00 PM	32	26	32	29	38	38	39	50	46	57	25	21	26	27	33.4	34.0	34.0	35.4
Totals	3219	2714	2974	2499	3028	2599	2967	2532	2210	1921	1993	1765	2954	2449	3028.4	2558.6	2763.6	2354.1
Combined	5933		5473		5627		5499		4131		3758		5403		5587.0		5117.7	
Split (%)	54.3	45.7	54.3	45.7	53.8	46.2	54.0	46.0	53.5	46.5	53.0	47.0	54.7	45.3	54.2	45.8	54.0	46.0

**Peak Hours**

12:00 AM - 12:00 PM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	11:00 AM	11:00 AM	11:00 AM	11:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM
Volume	361	198	390	220	367	214	345	204	198	126	138	132	363	200	365.2	207.2	293.7	168.1	
12:00 PM - 12:00 AM	4:00 PM	5:00 PM	4:00 PM	6:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	2:00 PM	1:00 PM	1:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM	5:00 PM	4:00 PM
Volume	284	324	245	284	265	292	296	287	186	162	182	185	267	262	271.4	284.2	243.3	248.0	

**TRAFFIC DATA GATHERING**  
**LAKE STEVENS, WA (425) 334-3348**  
**email: CarlaN@trafficdatagathering.com**

Location : 3rd Ave NW s/o Richmond Beach Rd  
 City/County, State : Shoreline, WA  
 Counter : NT-2815

Site: Loc 19

Seven Day Volume

Interval Start	Tue 11/13/2018		Wed 11/14/2018		Thu 11/15/2018		Fri 11/16/2018		Sat 11/17/2018		Sun 11/18/2018		Mon 11/19/2018		Mon - Fri Average		7 Day Average	
	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB
12:00 AM	1	3	1	3	0	7	1	4	5	14	8	9	1	3	0.8	4.0	2.4	6.1
1:00 AM	1	1	1	2	0	0	0	3	3	4	2	7	1	0	0.6	1.2	1.1	2.4
2:00 AM	0	2	2	1	2	1	0	2	5	3	3	5	1	1	1.0	1.4	1.9	2.1
3:00 AM	3	0	0	0	1	0	0	1	1	0	2	1	1	0	1.0	0.2	1.1	0.3
4:00 AM	2	0	7	1	3	0	5	0	2	1	1	1	5	1	4.4	0.4	3.6	0.6
5:00 AM	20	1	12	4	17	4	16	2	2	1	3	3	13	4	15.6	3.0	11.9	2.7
6:00 AM	34	13	39	12	32	14	38	12	8	4	10	3	28	14	34.2	13.0	27.0	10.3
7:00 AM	69	64	69	53	70	60	75	52	21	5	17	13	69	45	70.4	54.8	55.7	41.7
8:00 AM	78	91	65	90	71	97	84	92	46	16	37	38	81	89	75.8	91.8	66.0	73.3
9:00 AM	71	54	68	58	66	56	71	49	54	48	70	37	70	60	69.2	55.4	67.1	51.7
10:00 AM	45	42	45	41	49	48	58	39	49	50	86	47	45	48	48.4	43.6	53.9	45.0
11:00 AM	56	48	46	42	57	57	49	63	54	51	58	51	56	56	52.8	53.2	53.7	52.6
12:00 PM	52	62	54	65	55	68	63	67	64	61	75	81	60	59	56.8	64.2	60.4	66.1
1:00 PM	56	53	57	47	57	50	68	66	63	63	72	58	60	59	59.6	55.0	61.9	56.6
2:00 PM	61	57	54	68	64	65	64	58	57	70	61	63	56	57	59.8	61.0	59.6	62.6
3:00 PM	59	94	68	102	87	105	65	99	60	76	55	67	48	88	65.4	97.6	63.1	90.1
4:00 PM	91	88	73	78	73	86	80	102	57	80	65	78	99	95	83.2	89.8	76.9	86.7
5:00 PM	71	105	63	74	77	91	78	82	66	72	45	77	91	76	76.0	85.6	70.1	82.4
6:00 PM	69	86	47	69	67	84	57	73	48	73	54	64	64	70	60.8	76.4	58.0	74.1
7:00 PM	31	54	41	64	47	58	52	65	32	44	30	30	37	53	41.6	58.8	38.6	52.6
8:00 PM	35	47	29	38	25	46	26	41	36	38	17	33	37	57	30.4	45.8	29.3	42.9
9:00 PM	23	21	20	28	26	30	35	30	42	32	16	16	16	28	24.0	27.4	25.4	26.4
10:00 PM	7	15	4	20	11	15	15	24	21	30	6	10	3	13	8.0	17.4	9.6	18.1
11:00 PM	3	5	1	8	3	13	14	24	12	9	2	4	4	9	5.0	11.8	5.6	10.3
Totals	938	1006	866	968	960	1055	1014	1050	808	845	795	796	946	985	944.8	1012.8	903.9	957.9
Combined	1944		1834		2015		2064		1653		1591		1931		1957.6		1861.7	
Split (%)	48.3	51.7	47.2	52.8	47.6	52.4	49.1	50.9	48.9	51.1	50.0	50.0	49.0	51.0	48.3	51.7	48.5	51.5

**Peak Hours**

12:00 AM - 12:00 PM	8:00 AM	8:00 AM	7:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	11:00 AM	10:00 AM	11:00 AM	8:00 AM	8:00 AM	8:00 AM	8:00 AM	9:00 AM	8:00 AM
Volume	78	91	69	90	71	97	84	92	54	51	86	51	81	89	75.8	91.8	67.1	73.3	
12:00 PM - 12:00 AM	4:00 PM	5:00 PM	4:00 PM	3:00 PM	3:00 PM	3:00 PM	4:00 PM	4:00 PM	5:00 PM	4:00 PM	12:00 PM	12:00 PM	4:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	3:00 PM	
Volume	91	105	73	102	87	105	80	102	66	80	75	81	99	95	83.2	97.6	76.9	90.1	