



Jon Hutchings
Director

Exhibit A:
Northshore Rd Intersection Realignment Traffic Study
07/12/2021

Current Configuration:



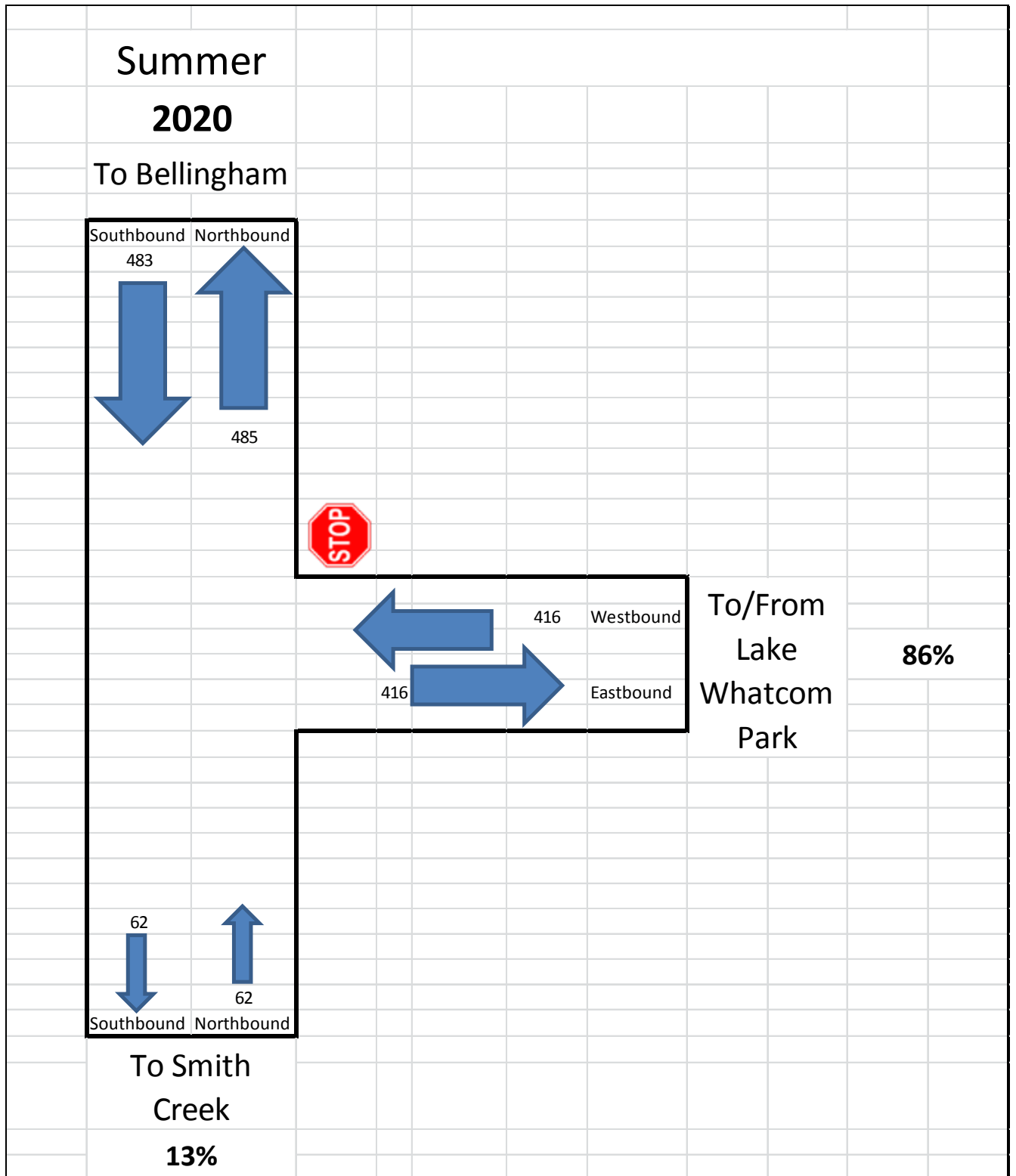
Westbound Northshore Rd (RD# 47052) has stop control; north and south bound Northshore Rd (RD # 47051) have the right-of-way.

Final Configuration:

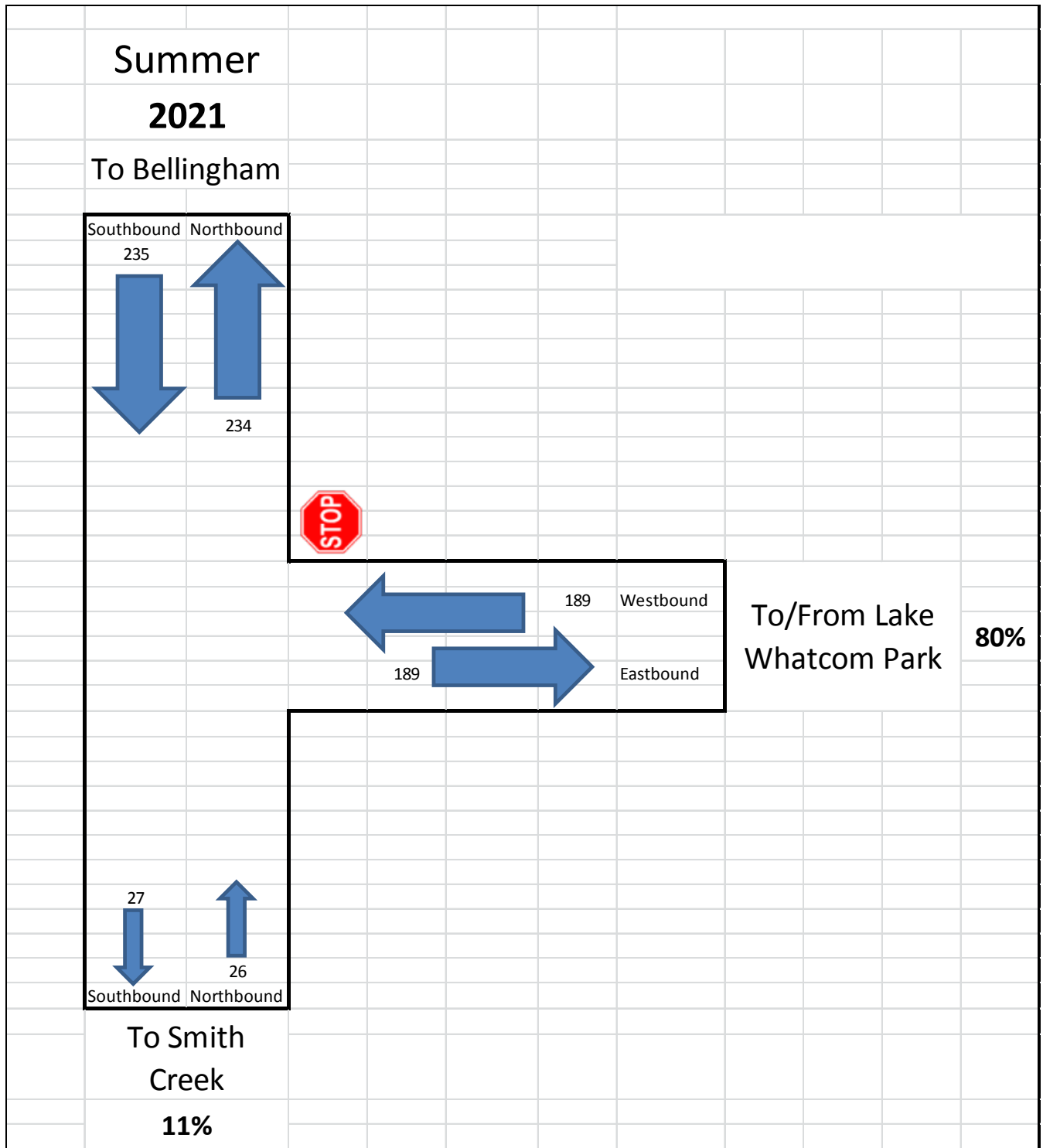


Northbound Northshore Rd (RD# 47051) has stop control; westbound Northshore Rd (RD# 47052) to northbound Northshore Rd (RD# 47051) and southbound Northshore Rd (RD# 47051) to eastbound Northshore Rd (RD# 47052) has the right-of-way.

2020 Traffic Distributions:



2021 Traffic Distribution



Background:

This issue was originally brought to Engineering Services – Traffic by Bruce Parelskin and Fred Miller, both residents of Northshore Rd, south of the intersection, in August of 2019. They then saw unprecedented use of the Lake Whatcom Park in the summer of 2020, due to the closure of almost all other forms of recreation because of the Covid-19 Pandemic, approximately 86% of the traffic at the intersection was headed to/from the Lake Whatcom Park area. In 2021, this percentage fell to approximately 80% and the total number of Average Daily Trips fell by more than half, but given the percentages it would still be worthwhile to revise the stop control at the intersection. Benefits of the final configuration include improved traffic flow, less pollution from

vehicles no longer having to stop and then accelerate westbound, reduced noise from stopping and accelerating vehicles and less drivers mistakenly heading to the dead end portion at the north end of Smith Creek and being force to turn around. This intersection traffic study consisted of 3 traffic counts performed at the same location in 2020 and 2021. It was also determined that the stop sign for westbound traffic on Northshore Rd (47052) was never established via ordinance or resolution and is not in the Whatcom County Code.

Collisions:

No collisions have taken place at this intersection since at least 2001.

Classification:

Both Northshore Rd (47051) and Northshore Rd (47052) are classified as Rural Local Access at this location. Northshore Rd (47051) has 10 foot BST lanes and 2 foot gravel shoulders from the Urban Area Boundary at MP 4.03 to the end of the road at MP 5.66. Northshore Rd (47052) has 11 foot BST lanes and 6 foot BST shoulders for its entire length.

Speeds and Volumes:

Traffic counts were taken in the summer of 2020 and 2021 on Northshore Rd (47051) north and south of the intersection with Northshore Rd (47052) and on Northshore Rd (47052) east of the intersection with Northshore Rd (47051). These counts consist of volume, speed and truck percentage.

Counts:

2020 Northshore Rd (47051) N of Northshore Rd (47052) ADT 968 NB 485 SB 483

2021 Northshore Rd (47051) N of Northshore Rd (47052) ADT 469 NB 234 SB 235

2020 Northshore Rd (47051) S of Northshore Rd (47052) ADT 124 NB 62 SB 62

2021 Northshore Rd (47051) S of Northshore Rd (47052) ADT 53 NB 26 SB 27

2020 Northshore Rd (47052) E of Northshore Rd (47051) ADT 832 EB 416 WB 416

2021 Northshore Rd (47052) E of Northshore Rd (47051) ADT 378 EB 189 WB 189

85th percentile Speed:

2020 Northshore Rd (47051) N of Northshore Rd (47052) Combined 40.4 MPH NB 39.5 MPH SB 41.2 MPH

2021 Northshore Rd (47051) N of Northshore Rd (47052) Combined 42.3 MPH NB 41.4 MPH SB 42.3 MPH

2020 Northshore Rd (47051) S of Northshore Rd (47052) Combined 32.0 MPH NB 29.8 MPH SB 33.4 MPH

2021 Northshore Rd (47051) S of Northshore Rd (47052) Combined 33.3 MPH NB 31.6 MPH SB 33.9 MPH

2020 Northshore Rd (47052) E of Northshore Rd (47051) Combined 37.4 MPH EB 36.4 MPH WB 38.1 MPH

2021 Northshore Rd (47052) E of Northshore Rd (47051) Combined 37.3 MPH EB 35.8 MPH WB 38.0 MPH

Truck Percentage:

2020 Northshore Rd (47051) N of Northshore Rd (47052) Combined 5.6% NB 3.9% SB 7.5%

2021 Northshore Rd (47051) N of Northshore Rd (47052) Combined 5.9% NB 6.2% SB 5.6%

2020 Northshore Rd (47051) S of Northshore Rd (47052) Combined 6.6% NB 6.2% SB 6.9%

2021 Northshore Rd (47051) S of Northshore Rd (47052) Combined 7.4% NB 7.2% SB 7.6%

2020 Northshore Rd (47052) E of Northshore Rd (47051) Combined 4.7% EB 5.8% WB 3.6%

2021 Northshore Rd (47052) E of Northshore Rd (47051) Combined 4.0% EB 4.3% WB 3.7%

Recommendation:

1. Add Stop control to Northbound Northshore Rd (47051), south of Northshore Rd (47052)
2. Remove Stop control from Westbound Northshore Rd (47052)
3. Add Centerline Stripe and Edgeline Extensions through the intersection to emphasize the Southbound to Eastbound and Westbound to Northbound Traffic Right-of-Way.
4. Add W1-10bL Left Curve Warning Sign with side road for southbound traffic, north of the intersection. Perform Ball Bank evaluation to determine if an advisory speed will be required.



a. W1-10bL

5. Add W1-10cR Right Curve Warning Sign with side road for westbound traffic, east of the intersection. Perform Ball Bank evaluation to determine if an advisory speed will be required.



a. W1-10cR

6. This change in configuration would require a public hearing and an ordinance to add a stop sign for northbound Northshore Rd.
 - a. A new stop line at the location of the new northbound Stop sign and a short section of centerline marking with slight curve could be added for emphasis
7. W23-2 New Traffic Pattern Ahead signs with flags would be needed for 6 months following completion of the above changes.



a.

8. Other traffic signs as required by the Manual on Uniform Traffic Control Devices may be necessary, including Large Arrow or Chevron Signs.