

Memorandum

To: **Amanda Kilmartin**
From: **Jessica Hijar**
Date: **December 16, 2020**
Subject: **Schultz Farm TIS Addendum**

This memorandum is written as an addendum to the Transportation Impact Study dated October 30, 2020. As part of the City's completeness comments, an additional requirement to "study two more intersections, N Boones Ferry Road at Tukwila Drive and Tukwila Drive at Hazelnut Drive and add them to those studied to be more consistent with the Trillium Reserve TIA and for holistic review by staff" was added to the scope of work for the Schultz Farm development.

Traffic Counts & Growth

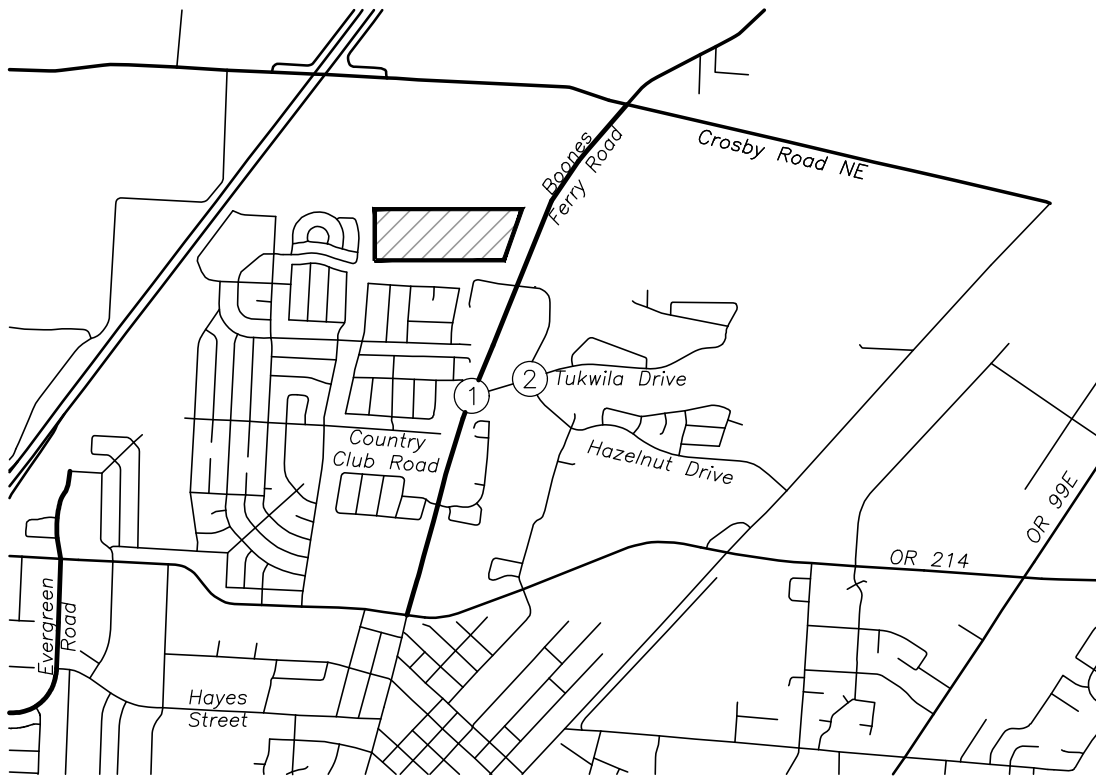
Traffic counts were collected on Tuesday, February 25, 2020 between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM. Traffic counts from each intersection's peak hour was used for analysis. A compounded growth rate of two percent per year was added to the existing volumes to estimate year 2022 background conditions. Figure 1 on page 2 and Figure 2 on page 3 show the existing, background, and buildout volumes at the added study intersections during the morning and evening peak hour, respectively.

Site Trips

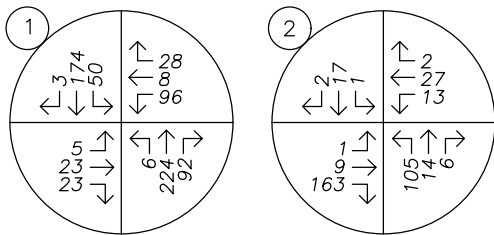
Based on the trip distribution in the original report, the proposed development will only contribute trips to the through movements of the added study intersections. Approximately 5 percent of site trips travel to and from the south on Hazelnut Drive and approximately 80 percent of site trips travel to and from the south along N Boones Ferry Road.



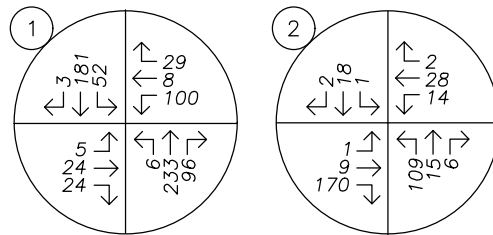
RENEWS: 12-31-21



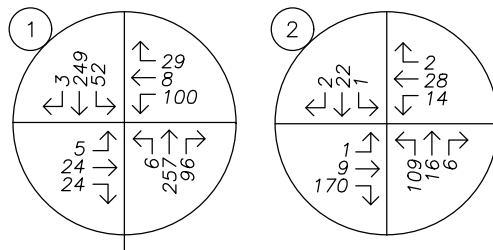
2020 EXISTING



2022 BACKGROUND



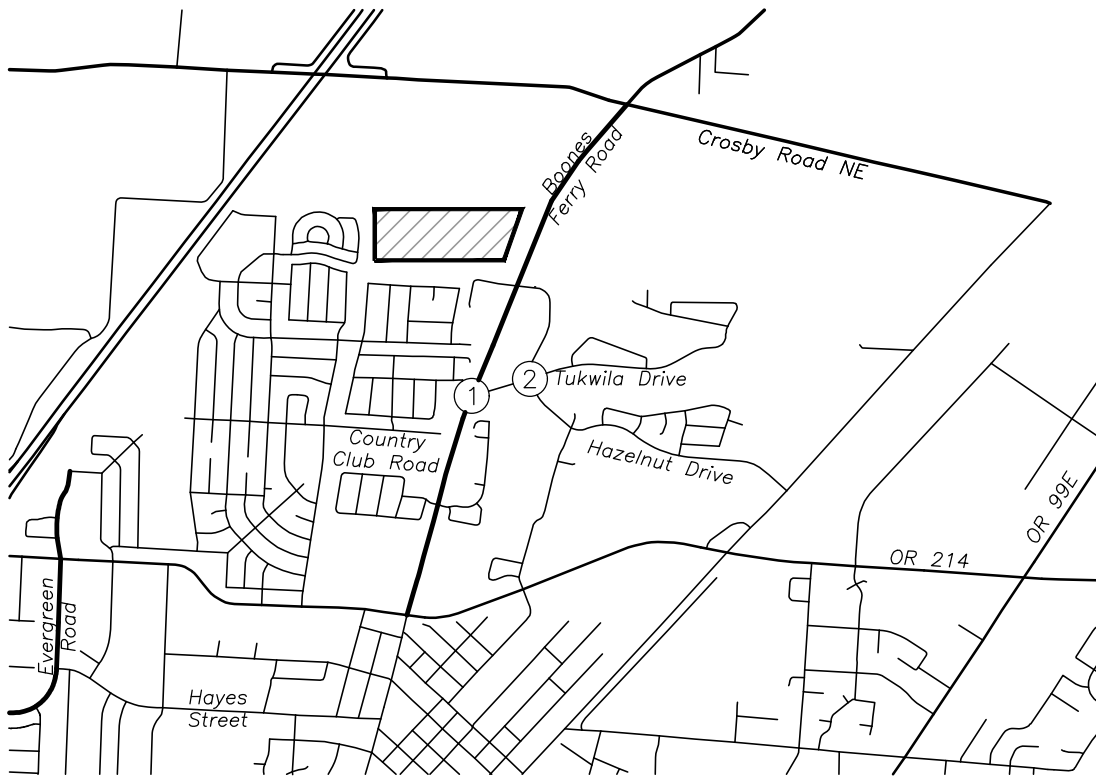
2022 BUILDOUT



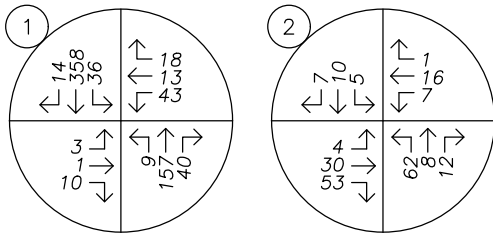
no scale

TRAFFIC VOLUMES

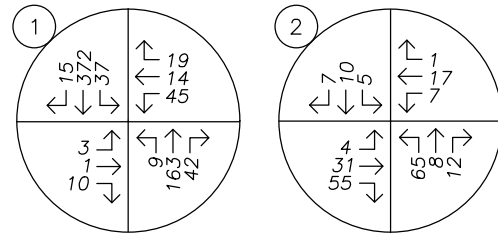
2020 Existing, 2022 Background, & 2022 Buildout Conditions
AM Peak Hours



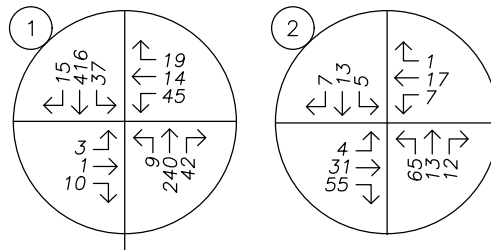
2020 EXISTING



2022 BACKGROUND



2022 BUILDOUT



no scale

TRAFFIC VOLUMES

2020 Existing, 2022 Background, & 2022 Buildout Conditions
PM Peak Hours

Figure 2

Schultz Farm
12/16/2020

Intersection Analysis

All study intersections must comply with adopted operating standards, and intersection performance measures used for operating standards vary by roadway jurisdiction. For study intersections under the City of Woodburn jurisdiction, the City's *Transportation System Plan* specifies a LOS E and a v/c ratio of less than 1.00 regardless of LOS. A v/c ratio of less than 0.90 on the critical movement should be maintained, provided the queues on the critical approach can be appropriately maintained.

The v/c, delay, and LOS results of the capacity analysis for the year 2022 buildout scenario is shown Table 1. Both intersection results are based on the critical movement. Detailed calculations are included in the appendix to this report.

Table 1: Capacity Analysis Summary

Condition	AM Peak Hour			PM Peak Hour		
	LOS	Delay (s)	v / c	LOS	Delay (s)	v / c
1. N Boones Ferry Road at Constitution Avenue/Tukwila Drive						
2022 Buildout	E	49	0.71	C	21	0.27
2. Tukwila Drive at Hazelnut Drive						
2022 Buildout	A	10	0.29	A	8	0.12

It is noted that the peak hour factor during the morning peak hour for N Boones Ferry Road at Tukwila Drive was measured to be 0.76. The development is estimated to add 92 trips to the existing 732 vehicle intersection volume. Since this represents an increase in volume of approximately 12 percent, it is anticipated that the peak hour will flatten, thereby bringing the peak hour factor closer to 1.0. The peak hour factor used for the year 2022 buildout scenario was 0.78. The study intersections are estimated to meet the operational standards under full buildout of the proposed Schultz Farm development and therefore no mitigation was recommended.

Conclusions

This addendum demonstrates that the findings of the original TIA are valid, and no additional mitigation is necessary or proposed. If you have any further questions or comments, please do not hesitate to contact us.



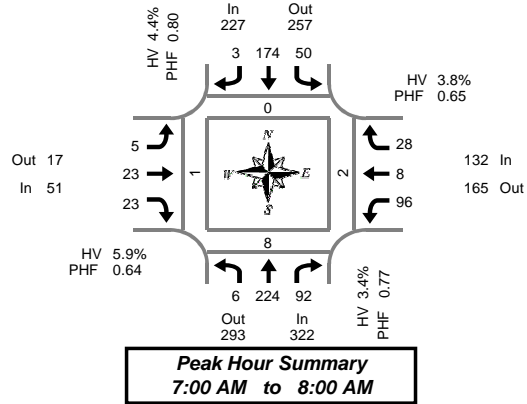
Appendix



Total Vehicle Summary



Clay Carney
(503) 833-2740



Boones Ferry Rd & Tukwilla Dr

Tuesday, February 25, 2020

7:00 AM to 9:00 AM

5-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	0	12	0	0	1	10	0	0	0	2	1	0	5	0	0	0	0	0	0	0	
7:05 AM	2	22	1	0	1	12	0	0	2	0	2	0	3	0	0	0	0	0	0	0	
7:10 AM	0	27	4	0	4	18	0	0	2	2	0	0	6	0	4	0	0	2	0	0	
7:15 AM	0	23	10	0	4	11	1	0	0	2	0	0	6	1	2	0	0	2	0	0	
7:20 AM	0	17	8	0	10	15	0	0	1	2	2	0	6	2	3	0	0	0	0	0	
7:25 AM	0	20	12	0	3	14	1	0	0	3	3	0	3	1	1	0	0	0	0	0	
7:30 AM	1	18	13	0	6	18	0	0	0	1	2	0	13	1	4	0	0	2	1	1	
7:35 AM	0	22	11	0	6	15	0	0	0	1	4	0	10	0	3	0	0	1	0	0	
7:40 AM	2	24	13	0	7	19	0	0	0	5	6	0	13	0	2	0	0	0	0	0	
7:45 AM	0	10	11	0	3	18	0	0	0	2	2	0	13	1	4	0	0	1	0	0	
7:50 AM	0	18	7	0	4	12	1	0	0	1	0	0	15	1	2	0	0	0	1	0	
7:55 AM	1	11	2	0	1	12	0	0	0	2	1	0	3	1	3	0	0	0	0	0	
8:00 AM	2	6	3	0	2	5	1	0	0	0	3	0	2	0	1	0	0	0	0	0	
8:05 AM	0	7	2	0	0	10	0	0	2	1	3	0	4	1	2	0	0	0	0	2	
8:10 AM	0	8	3	0	0	15	0	0	0	0	2	0	4	1	0	0	0	0	0	0	
8:15 AM	0	5	6	0	2	5	0	0	0	0	0	0	4	1	2	0	0	0	0	0	
8:20 AM	0	12	2	0	0	9	1	0	1	0	1	0	2	0	0	0	0	0	0	0	
8:25 AM	1	9	2	0	1	3	0	0	0	0	0	0	1	0	0	0	0	1	0	0	
8:30 AM	0	13	0	0	1	5	0	0	1	0	0	0	1	0	1	0	0	0	0	0	
8:35 AM	0	15	3	0	0	4	0	0	0	0	2	0	1	0	2	0	0	0	0	0	
8:40 AM	0	11	0	0	1	2	0	0	1	0	0	0	1	0	0	0	0	0	0	1	
8:45 AM	0	8	0	0	0	10	1	0	1	0	0	0	1	0	1	0	0	1	0	0	
8:50 AM	0	12	1	0	1	17	0	0	1	0	0	0	1	0	2	0	0	0	0	0	
8:55 AM	0	6	0	0	1	13	0	0	0	0	1	0	3	0	0	0	0	0	0	1	
Total Survey	9	336	114	0	59	272	6	0	12	24	35	0	121	11	39	0	1,038	0	10	2	5

15-Minute Interval Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	61	5	0	6	40	0	0	4	4	3	0	14	0	4	0	143	0	2	0	0
7:15 AM	0	60	30	0	17	40	2	0	1	7	5	0	15	4	6	0	187	0	2	0	0
7:30 AM	3	64	37	0	19	52	0	0	0	7	12	0	36	1	9	0	240	0	3	1	1
7:45 AM	1	39	20	0	8	42	1	0	0	5	3	0	31	3	9	0	162	0	1	1	0
8:00 AM	2	21	8	0	2	30	1	0	2	1	8	0	10	2	3	0	90	0	0	0	2
8:15 AM	1	26	10	0	3	17	1	0	1	0	1	0	7	1	2	0	70	0	1	0	0
8:30 AM	0	39	3	0	2	11	0	0	2	0	2	0	3	0	3	0	65	0	0	0	1
8:45 AM	0	26	1	0	2	40	1	0	2	0	1	0	5	0	3	0	81	0	1	0	1
Total Survey	9	336	114	0	59	272	6	0	12	24	35	0	121	11	39	0	1,038	0	10	2	5

Peak Hour Summary 7:00 AM to 8:00 AM

By Approach	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	322	293	615	0	227	257	484	0	51	17	68	0	132	165	297	0	732	0	8	2	1
%HV	3.4%				4.4%				5.9%				3.8%				4.0%				
PHF	0.77				0.80				0.64				0.65				0.76				

By Movement	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	6	224	92	322	50	174	3	227	5	23	23	51	96	8	28	132	732
%HV	16.7%	3.1%	3.3%	3.4%	2.0%	5.2%	0.0%	4.4%	0.0%	4.3%	8.7%	5.9%	2.1%	12.5%	7.1%	3.8%	4.0%
PHF	0.50	0.78	0.62	0.77	0.66	0.84	0.38	0.80	0.31	0.72	0.48	0.64	0.59	0.50	0.78	0.65	0.76

Rolling Hour Summary 7:00 AM to 9:00 AM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	6	224	92	0	50	174	3	0	5	23	23	0	96	8	28	0	732	0	8	2	1
7:15 AM	6	184	95	0	46	164	4	0	3	20	28	0	92	10	27	0	679	0	6	2	3
7:30 AM	7	150	75	0	32	141	3	0	3	13	24	0	84	7	23	0	562	0	5	2	3
7:45 AM	4	125	41	0	15	100	3	0	5	6	14	0	51	6	17	0	387	0	2	1	3
8:00 AM	3	112	22	0	9	98	3	0	7	1	12	0	25	3	11	0	306	0	2	0	4

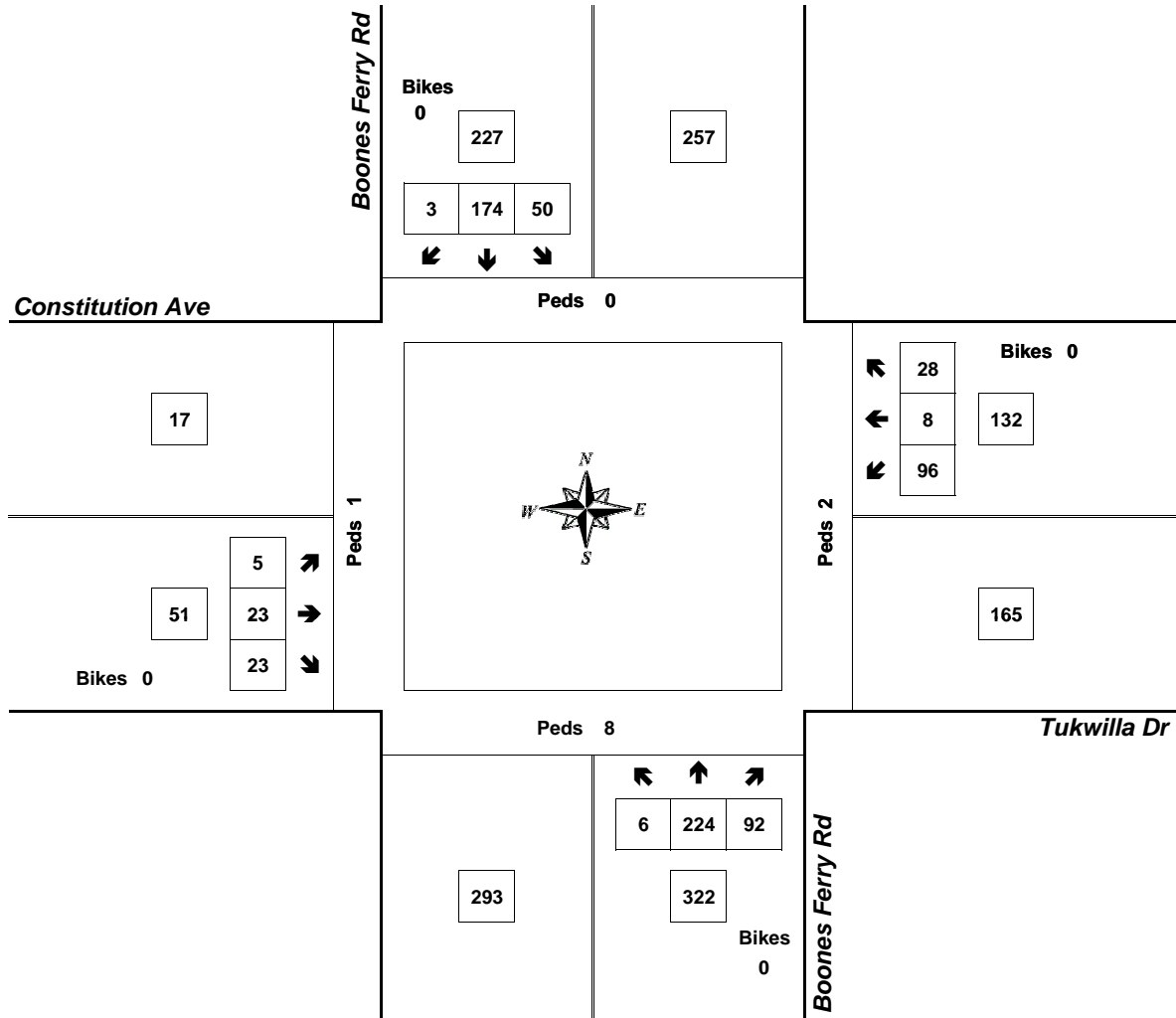
Peak Hour Summary



Clay Carney
(503) 833-2740

Boones Ferry Rd & Tukwilla Dr

7:00 AM to 8:00 AM
Tuesday, February 25, 2020



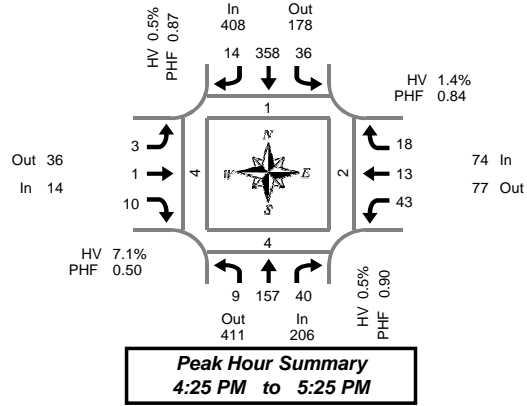
Approach	PHF	HV%	Volume
EB	0.64	5.9%	51
WB	0.65	3.8%	132
NB	0.77	3.4%	322
SB	0.80	4.4%	227
Intersection	0.76	4.0%	732

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Boones Ferry Rd & Tukwilla Dr

Tuesday, February 25, 2020

4:00 PM to 6:00 PM

5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	1	20	10	0	8	26	0	0	0	2	1	0	4	0	0	0	72	0	0	0	0
4:05 PM	2	14	2	0	1	23	1	0	0	0	1	0	5	0	1	0	50	0	0	0	0
4:10 PM	0	15	6	0	3	13	0	0	0	0	1	0	2	2	1	0	43	0	2	0	0
4:15 PM	1	7	2	0	3	32	0	0	0	0	0	0	3	4	2	0	54	0	0	0	0
4:20 PM	2	13	1	0	4	24	0	0	0	0	1	0	5	0	3	0	53	0	0	0	0
4:25 PM	1	13	2	0	6	29	1	0	0	0	0	0	5	1	0	0	58	0	0	0	0
4:30 PM	0	16	4	0	3	21	0	0	0	0	0	0	4	0	1	0	49	0	1	0	1
4:35 PM	2	16	1	0	4	17	4	0	0	0	2	0	3	1	0	0	50	0	0	0	0
4:40 PM	2	10	4	0	4	30	0	0	0	0	0	0	1	2	1	0	54	0	0	0	0
4:45 PM	1	15	1	0	2	38	0	0	1	0	0	0	4	1	3	0	66	1	0	0	1
4:50 PM	0	12	5	0	2	23	1	0	0	0	1	0	6	3	0	0	53	0	1	1	1
4:55 PM	0	12	7	0	2	35	3	0	0	0	2	0	3	2	0	1	66	0	0	0	1
5:00 PM	1	11	4	0	4	30	2	0	1	0	0	0	4	0	2	0	59	0	0	0	0
5:05 PM	0	8	1	0	1	39	1	0	0	1	2	0	5	0	2	0	60	0	0	1	0
5:10 PM	1	18	5	0	1	37	1	0	1	0	2	0	2	0	4	0	72	0	1	0	0
5:15 PM	1	14	4	0	1	32	1	0	0	0	0	0	3	1	0	0	57	0	1	0	0
5:20 PM	0	12	2	0	6	27	0	0	0	0	1	0	3	2	5	0	58	0	0	0	0
5:25 PM	1	9	0	0	3	19	0	0	0	0	0	0	3	3	1	0	39	0	3	0	0
5:30 PM	2	10	2	0	4	22	0	0	1	0	1	0	1	1	0	0	44	0	2	0	2
5:35 PM	0	12	4	0	4	21	2	0	2	0	1	0	1	1	1	0	49	0	0	0	0
5:40 PM	3	10	2	0	2	15	0	0	0	0	1	0	2	0	2	0	37	0	0	0	0
5:45 PM	3	6	1	0	6	19	1	0	1	1	2	0	2	0	1	0	43	0	0	0	0
5:50 PM	1	10	3	0	1	20	0	0	1	1	0	0	2	2	0	0	41	0	0	0	0
5:55 PM	1	12	1	0	4	19	0	0	0	0	2	0	4	1	1	0	45	0	0	0	0
Total Survey	26	295	74	0	79	611	18	0	8	5	21	0	77	27	31	1	1,272	1	11	2	6

15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	3	49	18	0	12	62	1	0	0	2	3	0	11	2	2	0	165	0	2	0	0
4:15 PM	4	33	5	0	13	85	1	0	0	0	1	0	13	5	5	0	165	0	0	0	0
4:30 PM	4	42	9	0	11	68	4	0	0	0	2	0	8	3	2	0	153	0	1	0	1
4:45 PM	1	39	13	0	6	96	4	0	1	0	3	0	13	6	3	1	185	1	1	1	3
5:00 PM	2	37	10	0	6	106	4	0	2	1	4	0	11	0	8	0	191	0	1	1	0
5:15 PM	2	35	6	0	10	78	1	0	0	0	1	0	9	6	6	0	154	0	4	0	0
5:30 PM	5	32	8	0	10	58	2	0	3	0	3	0	4	2	3	0	130	0	2	0	2
5:45 PM	5	28	5	0	11	58	1	0	2	2	4	0	8	3	2	0	129	0	0	0	0
Total Survey	26	295	74	0	79	611	18	0	8	5	21	0	77	27	31	1	1,272	1	11	2	6

Peak Hour Summary

4:25 PM to 5:25 PM

By Approach	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	206	411	617	0	408	178	586	0	14	36	50	0	74	77	151	1	702	1	4	2	4
%HV	0.5%				0.5%				7.1%				1.4%				0.7%				
PHF	0.90				0.87				0.50				0.84				0.92				

By Movement	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	9	157	40	206	36	358	14	408	3	1	10	14	43	13	18	74	702
%HV	0.0%	0.0%	2.5%	0.5%	2.8%	0.3%	0.0%	0.5%	0.0%	0.0%	10.0%	7.1%	2.3%	0.0%	0.0%	1.4%	0.7%
PHF	0.45	0.87	0.63	0.90	0.69	0.83	0.58	0.87	0.38	0.25	0.63	0.50	0.83	0.54	0.50	0.84	0.92

Rolling Hour Summary

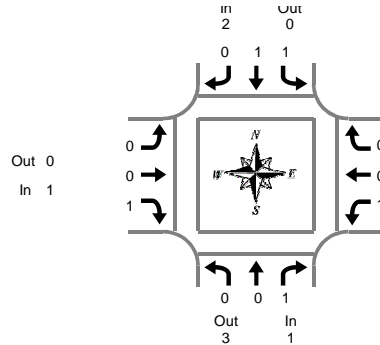
4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
4:00 PM	12	163	45	0	42	311	10	0	1	2	9	0	45	16	12	1	668	1	4	1	4
4:15 PM	11	151	37	0	36	355	13	0	3	1	10	0	45	14	18	1	694	1	3	2	4
4:30 PM	9	153	38	0	33	348	13	0	3	1	10	0	41	15	19	1	683	1	7	2	4
4:45 PM	10	143	37	0	32	338	11	0	6	1	11	0	37	14	20	1	660	1	8	2	5
5:00 PM	14	132	29	0	37	300	8	0	7	3	12	0	32	11	19	0	604	0	7	1	2

Heavy Vehicle Summary



Clay Carney
(503) 833-2740



Boones Ferry Rd & Tukwilla Dr

Tuesday, February 25, 2020

4:00 PM to 6:00 PM

Heavy Vehicle 5-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	1	2	0	0	0	0	0	0	1	1	0	0	0	0	3	
4:05 PM	0	0	0	0	0	2	0	2	0	0	0	0	1	0	0	0	1	3
4:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	0	1	0	0	1	3
4:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:35 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
4:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	1
4:50 PM	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:55 PM	0	0	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	0	0
5:05 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:10 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:20 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:25 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:35 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:40 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:50 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:55 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
Total Survey	0	2	3	5	1	4	0	5	0	0	2	2	2	1	1	4	4	16

Heavy Vehicle 15-Minute Interval Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	1	2	0	2	0	2	0	0	1	1	1	0	0	0	1	6
4:15 PM	0	0	1	1	0	1	0	1	0	0	0	0	1	1	0	0	2	4
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
4:45 PM	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	2
Total Survey	0	2	3	5	1	4	0	5	0	0	2	2	2	1	1	4	4	16

Heavy Vehicle Peak Hour Summary

4:25 PM to 5:25 PM

By Approach	Northbound Boones Ferry Rd			Southbound Boones Ferry Rd			Eastbound Constitution Ave			Westbound Tukwilla Dr			Total
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total	
Volume	1	3	4	2	0	2	1	0	1	1	2	3	5
PHF	0.25			0.50			0.25			0.25			0.63

By Movement	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	0	0	1	1	1	1	0	2	0	0	1	1	1	0	0	1	5
PHF	0.00	0.00	0.25	0.25	0.25	0.25	0.00	0.50	0.00	0.00	0.25	0.25	0.25	0.00	0.00	0.25	0.63

Heavy Vehicle Rolling Hour Summary

4:00 PM to 6:00 PM

Interval Start Time	Northbound Boones Ferry Rd				Southbound Boones Ferry Rd				Eastbound Constitution Ave				Westbound Tukwilla Dr				Interval Total	
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total		
4:00 PM	0	1	3	4	1	3	0	4	0	0	2	2	2	1	0	0	3	13
4:15 PM	0	0	2	2	1	1	0	2	0	0	1	1	1	1	0	0	2	7
4:30 PM	0	0	1	1	1	1	0	2	0	0	1	1	0	0	0	0	0	4
4:45 PM	0	0	1	1	1	1	0	2	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1	1	3

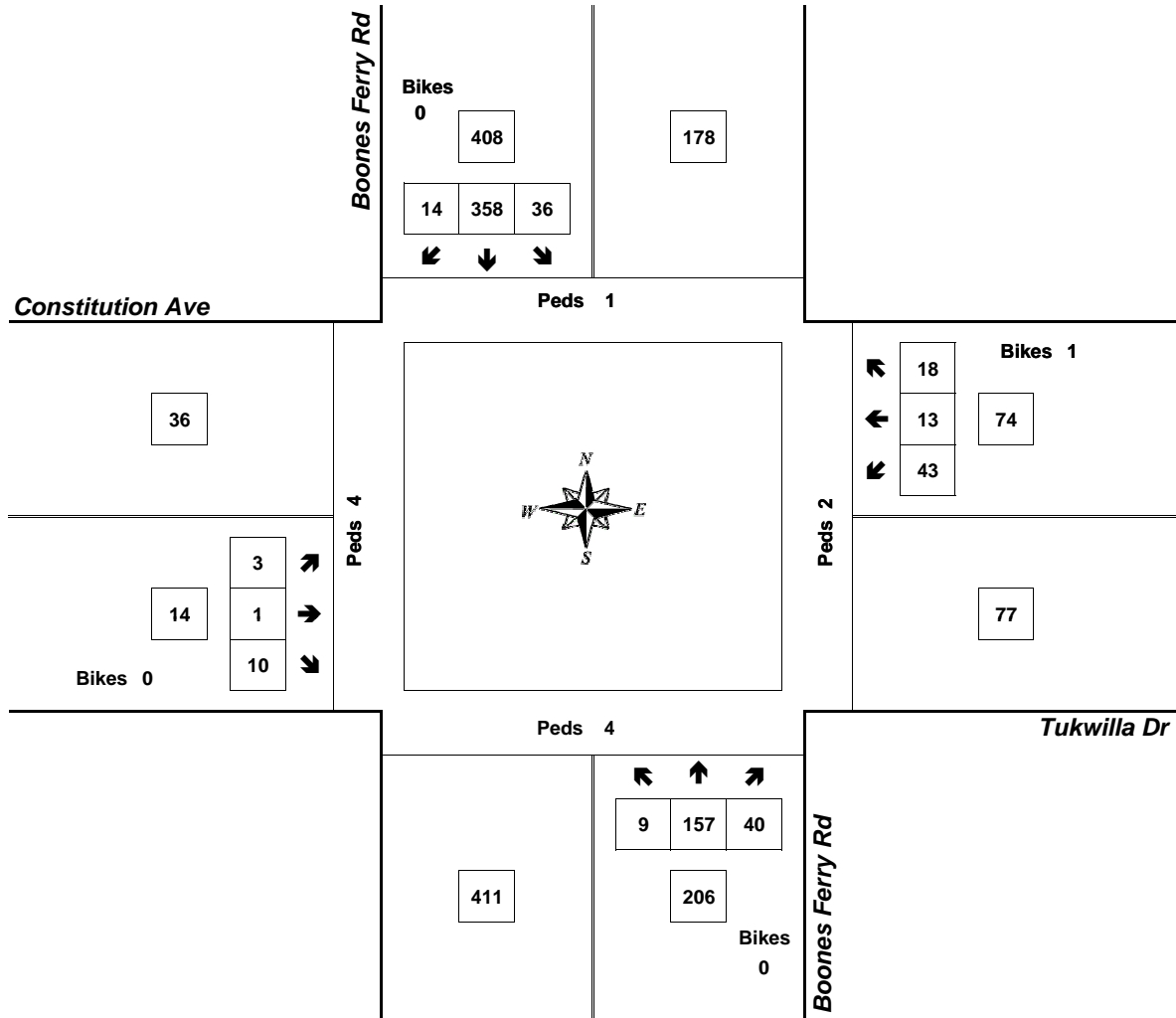
Peak Hour Summary



Clay Carney
(503) 833-2740

Boones Ferry Rd & Tukwilla Dr

4:25 PM to 5:25 PM
Tuesday, February 25, 2020



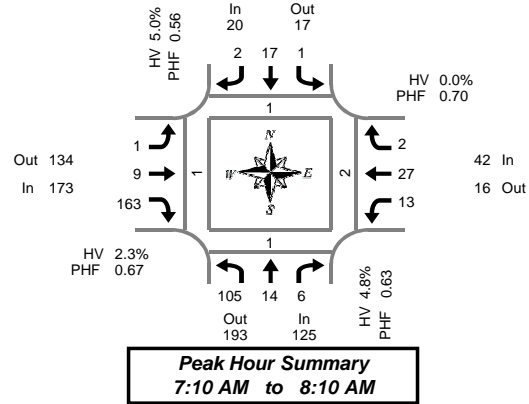
Approach	PHF	HV%	Volume
EB	0.50	7.1%	14
WB	0.84	1.4%	74
NB	0.90	0.5%	206
SB	0.87	0.5%	408
Intersection	0.92	0.7%	702

Count Period: 4:00 PM to 6:00 PM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hazelnut Dr & Tukwila Dr

Tuesday, February 25, 2020

7:00 AM to 9:00 AM

5-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	2	1	0	0	0	0	0	0	0	0	4	0	0	2	0	0	0	0	0	0	0
7:05 AM	3	4	0	0	0	0	1	0	0	0	2	0	0	1	0	0	0	0	0	0	0
7:10 AM	6	1	0	1	0	0	0	0	0	1	10	0	0	4	0	0	0	1	0	0	0
7:15 AM	5	0	0	0	0	2	0	0	0	0	14	0	0	4	1	0	0	1	0	1	0
7:20 AM	8	3	1	0	0	0	1	0	0	1	21	0	1	3	0	0	0	0	0	1	0
7:25 AM	9	0	1	0	0	2	0	0	0	0	17	0	1	2	0	0	0	0	0	0	0
7:30 AM	8	2	1	0	0	2	1	0	0	0	24	0	1	5	1	0	0	0	0	0	0
7:35 AM	12	2	1	0	0	4	0	0	0	1	16	0	3	2	0	0	0	0	0	0	0
7:40 AM	16	1	1	0	0	1	0	0	0	1	23	0	0	0	0	0	0	0	0	0	1
7:45 AM	16	1	0	0	0	2	0	0	0	0	17	0	1	2	0	0	0	0	0	0	0
7:50 AM	14	1	0	0	0	0	0	0	0	1	10	0	1	0	0	0	0	0	0	0	0
7:55 AM	5	1	1	0	0	0	0	0	0	3	5	0	0	1	0	0	0	0	0	0	0
8:00 AM	2	1	0	0	1	1	0	0	1	0	4	0	5	1	0	0	0	0	0	0	0
8:05 AM	4	1	0	0	0	3	0	0	0	1	2	0	0	3	0	0	0	0	0	0	0
8:10 AM	4	0	0	0	0	0	0	0	0	1	2	0	1	1	0	0	0	0	0	0	0
8:15 AM	2	0	0	0	0	0	1	0	2	2	4	0	1	4	0	0	0	0	0	1	0
8:20 AM	1	2	0	0	0	0	0	0	0	0	1	0	2	1	0	0	0	0	0	0	0
8:25 AM	1	0	0	0	0	0	0	0	0	1	1	0	1	0	1	0	0	0	0	2	0
8:30 AM	0	1	2	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	1	0
8:35 AM	0	0	0	0	0	1	0	0	0	1	3	0	1	1	0	0	0	0	0	0	0
8:40 AM	1	1	1	0	0	0	0	0	0	0	3	0	1	0	0	0	0	0	0	2	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
8:50 AM	2	0	1	0	0	0	0	0	0	1	0	0	1	3	0	0	0	0	0	0	0
8:55 AM	0	0	0	0	0	0	0	0	0	1	1	0	1	2	0	0	0	0	0	2	0
Total Survey	121	23	11	1	1	18	4	0	3	16	185	0	22	45	3	0	452	1	4	7	1

15-Minute Interval Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	11	6	0	1	0	0	1	0	0	1	16	0	0	7	0	0	42	0	1	0	0
7:15 AM	22	3	2	0	0	4	1	0	0	1	52	0	2	9	1	0	97	1	0	2	0
7:30 AM	36	5	3	0	0	7	1	0	0	2	63	0	4	7	1	0	129	0	0	0	1
7:45 AM	35	3	1	0	0	2	0	0	0	4	32	0	2	3	0	0	82	0	0	0	0
8:00 AM	10	2	0	0	1	4	0	0	1	2	8	0	6	5	0	0	39	0	0	0	0
8:15 AM	4	2	0	0	0	0	1	0	2	3	6	0	4	5	1	0	28	0	2	1	0
8:30 AM	1	2	3	0	0	1	0	0	0	1	7	0	2	3	0	0	20	0	1	2	0
8:45 AM	2	0	2	0	0	0	0	0	0	2	1	0	2	6	0	0	15	0	0	2	0
Total Survey	121	23	11	1	1	18	4	0	3	16	185	0	22	45	3	0	452	1	4	7	1

Peak Hour Summary

7:10 AM to 8:10 AM

By Approach	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	125	193	318	1	20	17	37	0	173	134	307	0	42	16	58	0	360	1	1	2	1
%HV	4.8%				5.0%				2.3%				0.0%				3.1%				
PHF	0.63				0.56				0.67				0.70				0.70				

By Movement	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	105	14	6	125	1	17	2	20	1	9	163	173	13	27	2	42	360
%HV	3.8%	14.3%	0.0%	4.8%	0.0%	0.0%	50.0%	5.0%	0.0%	0.0%	2.5%	2.3%	0.0%	0.0%	0.0%	0.0%	3.1%
PHF	0.57	0.70	0.50	0.63	0.25	0.53	0.25	0.56	0.25	0.56	0.65	0.67	0.54	0.61	0.50	0.70	0.70

Rolling Hour Summary

7:00 AM to 9:00 AM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk			
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West
7:00 AM	104	17	6	1	0	13	3	0	0	8	163	0	8	26	2	0	350	1	1	2	1
7:15 AM	103	13	6	0	1	17	2	0	1	9	155	0	14	24	2	0	347	1	0	2	1
7:30 AM	85	12	4	0	1	13	2	0	3	11	109	0	16	20	2	0	278	0	2	1	1
7:45 AM	50	9	4	0	1	7	1	0	3	10	53	0	14	16	1	0	169	0	3	3	0
8:00 AM	17	6	5	0	1	5	1	0	3	8	22	0	14	19	1	0	102	0	3	5	0

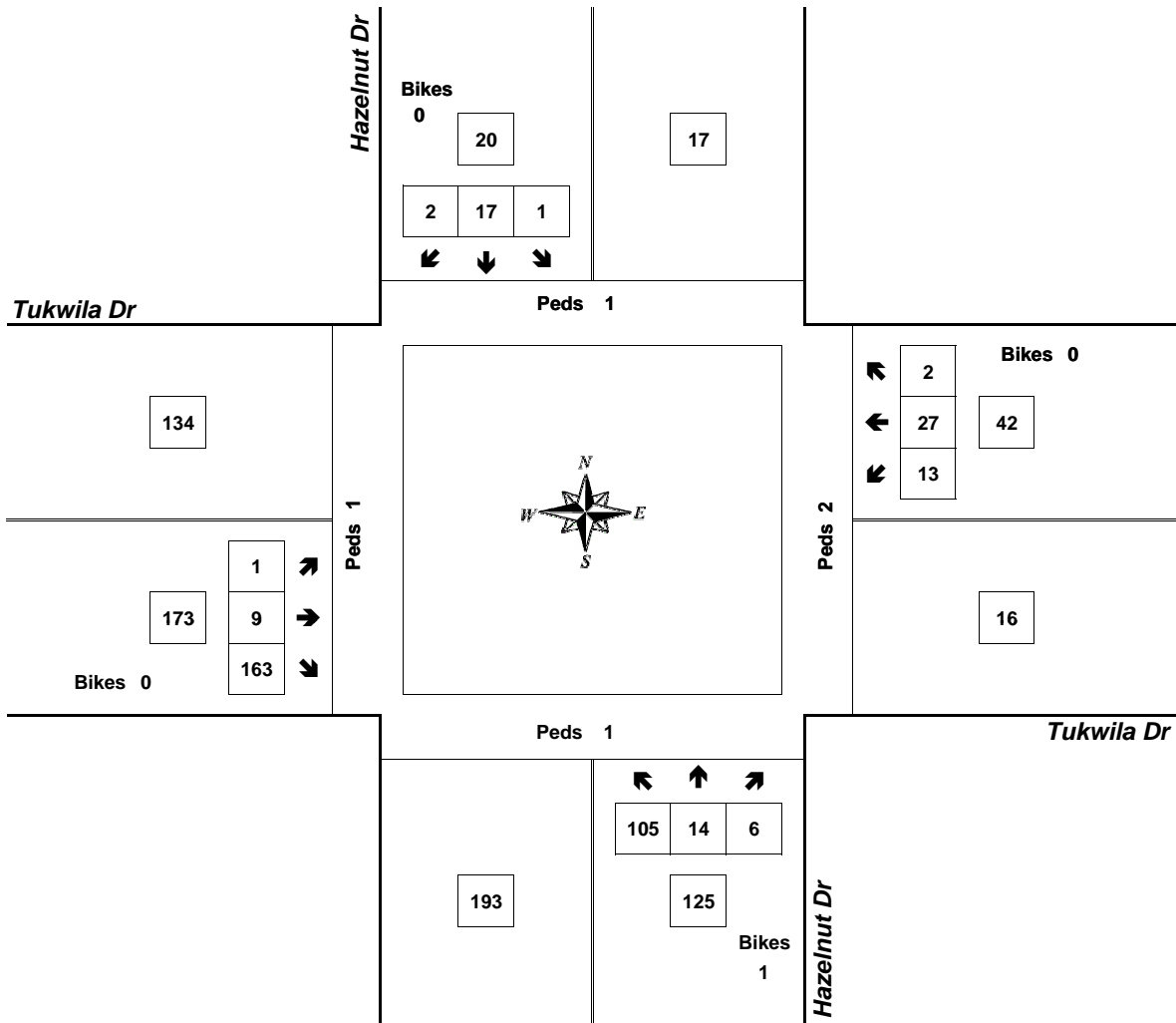
Peak Hour Summary



Clay Carney
(503) 833-2740

Hazelnut Dr & Tukwila Dr

7:10 AM to 8:10 AM
Tuesday, February 25, 2020



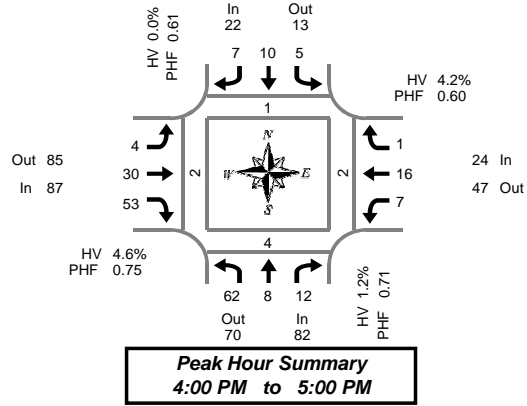
Approach	PHF	HV%	Volume
EB	0.67	2.3%	173
WB	0.70	0.0%	42
NB	0.63	4.8%	125
SB	0.56	5.0%	20
Intersection	0.70	3.1%	360

Count Period: 7:00 AM to 9:00 AM

Total Vehicle Summary



Clay Carney
(503) 833-2740



Hazelnut Dr & Tukwila Dr

Tuesday, February 25, 2020
4:00 PM to 6:00 PM

5-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk							
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West				
4:00 PM	5	0	1	0	0	1	0	0	0	5	13	0	0	0	0	0	0	0	0	0	25	0	0	0	0
4:05 PM	5	1	1	0	0	1	0	0	0	2	0	0	2	3	0	0	2	3	0	0	15	0	1	0	0
4:10 PM	3	1	2	0	1	2	1	0	1	4	4	0	0	1	0	0	0	1	0	0	20	0	1	0	0
4:15 PM	10	1	0	0	0	2	1	0	0	2	4	0	2	2	0	0	2	2	0	0	24	1	0	0	1
4:20 PM	2	0	1	0	0	0	2	0	0	1	2	0	0	2	0	0	2	0	0	10	0	1	0	0	
4:25 PM	4	1	0	0	2	1	0	1	0	3	8	1	0	3	0	0	3	0	0	22	0	0	0	0	
4:30 PM	3	1	1	0	1	0	1	0	1	1	5	0	0	0	0	0	0	0	0	14	0	0	0	0	
4:35 PM	4	0	1	0	0	1	0	0	1	3	4	0	1	1	0	0	1	0	0	16	0	0	0	0	
4:40 PM	5	1	2	0	0	0	1	0	0	5	1	0	1	1	0	0	1	0	0	17	0	0	1	0	
4:45 PM	5	0	1	0	0	0	1	0	0	0	3	1	0	2	0	0	2	0	0	12	0	1	1	0	
4:50 PM	12	2	1	0	0	1	0	0	0	0	6	0	0	1	0	0	1	0	0	23	0	0	0	0	
4:55 PM	4	0	1	1	1	1	0	0	1	4	3	0	1	0	1	0	1	0	1	17	0	0	0	1	
5:00 PM	4	0	0	0	0	0	4	0	0	4	5	0	0	2	0	0	2	0	0	19	0	1	1	1	
5:05 PM	6	0	1	0	1	1	0	0	1	2	1	0	0	0	0	0	0	0	0	13	0	0	1	0	
5:10 PM	6	0	1	0	1	0	0	0	1	2	3	0	0	0	0	0	0	0	0	14	1	1	2	0	
5:15 PM	5	1	0	0	1	1	0	0	0	2	3	0	0	0	1	0	1	0	0	14	0	0	0	0	
5:20 PM	11	2	2	0	0	0	0	0	0	2	5	0	0	0	0	0	0	0	0	22	0	0	0	0	
5:25 PM	3	0	0	0	2	2	0	0	0	2	0	0	1	1	0	0	1	0	0	11	0	0	0	0	
5:30 PM	1	1	2	0	0	2	0	0	0	3	4	0	0	2	0	0	2	0	0	15	0	0	0	0	
5:35 PM	4	0	3	0	0	1	0	0	0	3	5	0	0	2	0	0	2	0	0	18	3	0	0	0	
5:40 PM	1	1	1	0	0	1	0	0	1	1	4	0	2	1	0	0	2	0	0	13	3	0	0	0	
5:45 PM	2	0	1	0	0	1	0	0	0	2	4	0	1	2	0	0	2	0	0	13	0	1	1	0	
5:50 PM	4	1	1	0	0	0	0	0	0	2	6	0	0	0	0	0	0	0	0	14	0	0	0	0	
5:55 PM	2	2	0	0	0	0	0	0	1	0	3	0	0	2	0	0	2	0	0	10	0	0	0	0	
Total Survey	111	16	24	1	10	19	11	1	8	55	96	2	11	28	2	0	391			8	7	7	3		

15-Minute Interval Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk						
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West			
4:00 PM	13	2	4	0	1	4	1	0	1	11	17	0	2	4	0	0	60	0	2	0	0	0	0	0
4:15 PM	16	2	1	0	2	3	3	1	0	6	14	1	2	7	0	0	56	1	1	0	0	1	0	0
4:30 PM	12	2	4	0	1	1	2	0	2	9	10	0	2	2	0	0	47	0	0	1	0	0	0	0
4:45 PM	21	2	3	1	1	2	1	0	1	4	12	1	1	3	1	0	52	0	1	1	1	1	0	0
5:00 PM	16	0	2	0	2	1	4	0	2	8	9	0	0	2	0	0	46	1	2	4	1	1	0	0
5:15 PM	19	3	2	0	3	3	0	0	0	6	8	0	1	1	1	0	47	0	0	0	0	0	0	0
5:30 PM	6	2	6	0	0	4	0	0	1	7	13	0	2	5	0	0	46	6	0	0	0	0	0	0
5:45 PM	8	3	2	0	0	1	0	0	1	4	13	0	1	4	0	0	37	0	1	1	0	0	0	0
Total Survey	111	16	24	1	10	19	11	1	8	55	96	2	11	28	2	0	391	8	7	7	3			

Peak Hour Summary 4:00 PM to 5:00 PM

By Approach	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Total	Pedestrians Crosswalk			
	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes	In	Out	Total	Bikes		North	South	East	West
Volume	82	70	152	1	22	13	35	1	87	85	172	2	24	47	71	0	215	1	4	2	2
%HV	1.2%				0.0%				4.6%				4.2%				2.8%				
PHF	0.71				0.61				0.75				0.60				0.90				

By Movement	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Total
	L	T	R	Total	L	T	R	Total	L	T	R	Total	L	T	R	Total	
Volume	62	8	12	82	5	10	7	22	4	30	53	87	7	16	1	24	215
%HV	1.6%	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	5.7%	4.6%	0.0%	6.3%	0.0%	4.2%	2.8%
PHF	0.70	0.67	0.75	0.71	0.42	0.50	0.44	0.61	0.50	0.68	0.78	0.75	0.44	0.57	0.25	0.60	0.90

Rolling Hour Summary 4:00 PM to 6:00 PM

Interval Start Time	Northbound Hazelnut Dr				Southbound Hazelnut Dr				Eastbound Tukwila Dr				Westbound Tukwila Dr				Interval Total	Pedestrians Crosswalk					
	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes	L	T	R	Bikes		North	South	East	West		
4:00 PM	62	8	12	1	5	10	7	1	4	30	53	2	7	16	1	0	215	1	4	2	2		
4:15 PM	65	6	10	1	6	7	10	1	5	27	45	2	5	14	1	0	201	2	4	6	3		
4:30 PM	68	7	11	1	7	7	7	0	5	27	39	1	4	8	2	0	192	1	3	6	2		
4:45 PM	62	7	13	1	6	10	5	0	4	25	42	1	4	11	2	0	191	7	3	5	2		
5:00 PM	49	8	12	0	5	9	4	0	4	25	43	0	4	12	1	0	176	7	3	5	1		

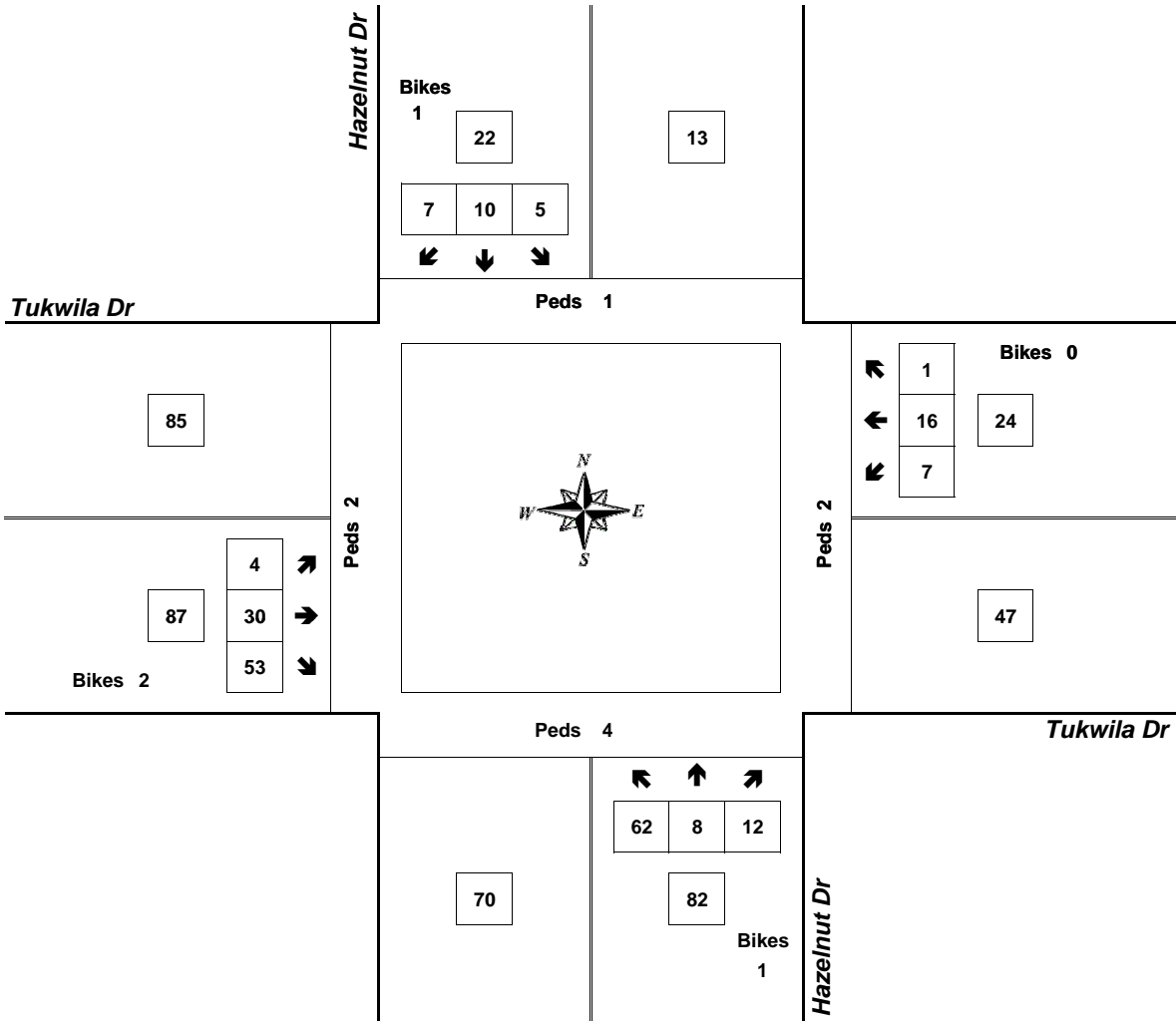
Peak Hour Summary



Clay Carney
(503) 833-2740

Hazelnut Dr & Tukwila Dr

4:00 PM to 5:00 PM
Tuesday, February 25, 2020



Approach	PHF	HV%	Volume
EB	0.75	4.6%	87
WB	0.60	4.2%	24
NB	0.71	1.2%	82
SB	0.61	0.0%	22
Intersection	0.90	2.8%	215

Count Period: 4:00 PM to 6:00 PM

HCM 6th TWSC

1: N Boones Ferry Road & Constitution Avenue/Tukwila Drive

12/16/2020

Intersection												
Int Delay, s/veh	9.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	5	24	24	100	8	29	6	257	96	52	249	3
Future Vol, veh/h	5	24	24	100	8	29	6	257	96	52	249	3
Conflicting Peds, #/hr	0	0	8	8	0	0	1	0	2	2	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	175	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	6	6	6	4	4	4	3	3	3	4	4	4
Mvmt Flow	6	31	31	128	10	37	8	329	123	67	319	4

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	886	926	330	903	867	393	324	0	0	454	0	0
Stage 1	456	456	-	409	409	-	-	-	-	-	-	-
Stage 2	430	470	-	494	458	-	-	-	-	-	-	-
Critical Hdwy	7.16	6.56	6.26	7.14	6.54	6.24	4.13	-	-	4.14	-	-
Critical Hdwy Stg 1	6.16	5.56	-	6.14	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.16	5.56	-	6.14	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.554	4.054	3.354	3.536	4.036	3.336	2.227	-	-	2.236	-	-
Pot Cap-1 Maneuver	261	265	702	256	289	652	1230	-	-	1096	-	-
Stage 1	577	561	-	615	593	-	-	-	-	-	-	-
Stage 2	596	553	-	553	564	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	227	246	696	208	269	651	1229	-	-	1094	-	-
Mov Cap-2 Maneuver	227	246	-	208	269	-	-	-	-	-	-	-
Stage 1	573	526	-	610	588	-	-	-	-	-	-	-
Stage 2	549	548	-	464	529	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18		48.9		0.1		1.5	
HCM LOS	C		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1229	-	-	344	247	1094	-
HCM Lane V/C Ratio	0.006	-	-	0.198	0.711	0.061	-
HCM Control Delay (s)	7.9	-	-	18	48.9	8.5	-
HCM Lane LOS	A	-	-	C	E	A	-
HCM 95th %tile Q(veh)	0	-	-	0.7	4.8	0.2	-

HCM 6th AWSC
2: Hazelnut Drive & Tukwila Drive

12/16/2020

Intersection	
Intersection Delay, s/veh	8.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	9	170	14	28	2	109	16	6	1	22	2
Future Vol, veh/h	1	9	170	14	28	2	109	16	6	1	22	2
Peak Hour Factor	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70
Heavy Vehicles, %	2	2	2	0	0	0	5	5	5	5	5	5
Mvmt Flow	1	13	243	20	40	3	156	23	9	1	31	3
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.6	8.2	9.5	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	83%	1%	32%	4%
Vol Thru, %	12%	5%	64%	88%
Vol Right, %	5%	94%	5%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	131	180	44	25
LT Vol	109	1	14	1
Through Vol	16	9	28	22
RT Vol	6	170	2	2
Lane Flow Rate	187	257	63	36
Geometry Grp	1	1	1	1
Degree of Util (X)	0.252	0.286	0.083	0.048
Departure Headway (Hd)	4.845	4.005	4.763	4.865
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	741	897	752	734
Service Time	2.881	2.026	2.795	2.908
HCM Lane V/C Ratio	0.252	0.287	0.084	0.049
HCM Control Delay	9.5	8.6	8.2	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	1	1.2	0.3	0.2

HCM 6th TWSC

1: N Boones Ferry Road & Constitution Avenue/Tukwila Drive

12/16/2020

Intersection												
Int Delay, s/veh	2.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	3	1	10	45	14	19	9	240	42	37	416	15
Future Vol, veh/h	3	1	10	45	14	19	9	240	42	37	416	15
Conflicting Peds, #/hr	1	0	4	4	0	1	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	175	-	-	175	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	7	7	7	1	1	1	1	1	1	1	1	1
Mvmt Flow	3	1	11	49	15	21	10	261	46	40	452	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	867	873	468	856	858	287	472	0	0	309	0	0
Stage 1	544	544	-	306	306	-	-	-	-	-	-	-
Stage 2	323	329	-	550	552	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.57	6.27	7.11	6.51	6.21	4.11	-	-	4.11	-	-
Critical Hdwy Stg 1	6.17	5.57	-	6.11	5.51	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.57	-	6.11	5.51	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4.063	3.363	3.509	4.009	3.309	2.209	-	-	2.209	-	-
Pot Cap-1 Maneuver	268	283	585	279	295	754	1095	-	-	1257	-	-
Stage 1	514	511	-	706	663	-	-	-	-	-	-	-
Stage 2	679	638	-	521	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	241	270	581	263	281	752	1091	-	-	1255	-	-
Mov Cap-2 Maneuver	241	270	-	263	281	-	-	-	-	-	-	-
Stage 1	507	493	-	698	656	-	-	-	-	-	-	-
Stage 2	639	631	-	492	497	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.9		20.5		0.3		0.6	
HCM LOS	B		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	420	317	1255	-
HCM Lane V/C Ratio	0.009	-	-	0.036	0.267	0.032	-
HCM Control Delay (s)	8.3	-	-	13.9	20.5	8	-
HCM Lane LOS	A	-	-	B	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.1	0.1	-

HCM 6th AWSC
 2: Hazelnut Drive & Tukwila Drive

12/16/2020

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	31	55	7	17	1	65	13	12	5	13	7
Future Vol, veh/h	4	31	55	7	17	1	65	13	12	5	13	7
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	5	5	5	4	4	4	1	1	1	0	0	0
Mvmt Flow	4	34	61	8	19	1	72	14	13	6	14	8
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.5	7.8	7.3
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	72%	4%	28%	20%
Vol Thru, %	14%	34%	68%	52%
Vol Right, %	13%	61%	4%	28%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	90	90	25	25
LT Vol	65	4	7	5
Through Vol	13	31	17	13
RT Vol	12	55	1	7
Lane Flow Rate	100	100	28	28
Geometry Grp	1	1	1	1
Degree of Util (X)	0.117	0.108	0.033	0.031
Departure Headway (Hd)	4.226	3.871	4.301	4.072
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	842	914	821	868
Service Time	2.283	1.944	2.385	2.15
HCM Lane V/C Ratio	0.119	0.109	0.034	0.032
HCM Control Delay	7.8	7.4	7.5	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.4	0.1	0.1