City of Steamboat Springs Attn: Ben Beall, City Engineer 136 10th Street Steamboat Springs, CO 80477

March 16, 2020

Re: Village Drive Townhomes – Trip Generation Letter Steamboat Springs, Colorado

Project Description:

Village Drive Townhomes is a seven-unit development to be located on the property at the southeast corner of Village Drive and Walton Creek Road in Steamboat Springs. The site is shown in the vicinity map in *Figure 1*. The property on which the Village Drive Townhomes will be constructed is currently vacant.



Figure 1: Vicinity Map

Village Drive Townhomes will consist of one five-plex and one duplex. The site plan for this development is shown in *Figure 2*.

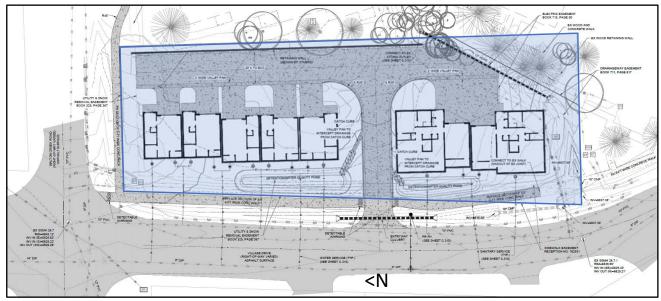


Figure 2: Village Drive Townhomes Site Plan

Trip Generation:

The *Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition¹,* was used to estimate the volume of traffic that will be going to and from the Village Drive Townhomes on a daily basis and during the morning and afternoon peak traffic volume hours. ITE Land Use Category 210: Single Family Detached Housing was used for the duplex and ITE Land Use Category 220: Multifamily Housing (Low-Rise) was used for the five-plex.

A five percent multimodal reduction was applied to this site. This site has access to both the Steamboat Springs Transit's Green Line at Trappeur's Crossing and Orange Line at Shadow Run. Both are within 800 feet of the project.

Table 1: Estimated Project-Generated Traffic
Village Drive Townhomes
Steamboat Springs, Colorado

	M1447	March 20, 2020	Average Week	day [2]		AM Peak Hour of G	enerat	or [2]	PM Peak Hour of G	enerato	or [2]	Saturday Peak Hou	r of Ge	n. [2]
ITE			Average Rate	Enter	Exit	Average Rate	Enter	Exit	Average Rate	Enter	Exit	Average Rate	Enter	Exit
Code	Land Use Description	Units	Fitted Curve Equation	(vpd)	(vpd)	Fitted Curve Equation	(vph)	(vph)	Fitted Curve Equation	(vph)	(vph)	Fitted Curve Equation	(vph)	(vph)
210	Proposed Single-Family Detached Housing	Dwelling 2 Units	Average Rate = 9.44	50% 10	50% 10	Ln(T) = 0.91Ln(X) +	26% 1	74% 2	Ln(T) = 0.94Ln(X) +	64%	36% 1	Average Rate = 0.93	54% 2	46% 1
220	Multifamily Housing (Low-Rise)	Dwelling 5 Units	Average Rate = 7.32	50% 19	50% 19	Average Rate = 0.56	28%	72% 3	Average Rate = 0.67	59% 2	41% 2	Average Rate = 0.70	54% 2	46% 2
	Multimodal Reduction	-5%	Multimodal	-1	-1		0	0		0	0		0	0
	Total traffic from propo	osed Land Uses		28	28		2	5		4	3		4	3

^[1] Data obtained from *Trip Generation Manual, 10th Edition,* Institute of Transportation Engineers, 2017 [2] The Average Rate or the Fitted Curve Equation is used based on the procedures in *ITE Trip Generation Handbook §4.4*.

As shown in Table 1, on a typical day the development is projected to generate 56 vehicle trips, 28 entering and 28 exiting. During the weekday morning peak hour, the projected vehicular traffic

volumes are anticipated to include 2 inbound vehicles and 5 outbound vehicles. During the weekday evening peak hour, the anticipated volumes is 4 entering vehicles and 3 exiting vehicles. During the Saturday peak hour, the project traffic is anticipated to include 4 inbound vehicles and 3 outbound vehicles.

Existing and Total Traffic:

For analysis purposes it is anticipated that all the site-generated traffic will be to and from the north on Village Drive, as the area to the south of Walton Creek Road is primarily residential. Traffic volumes were counted at the intersection of Walton Creek Road and Village Drive on Thursday, March 14, 2019, and Saturday, March 16, 2019. The percentages of the additional traffic this development will add to Village Drive are shown in Tale 2.

	Dir.	Existing	New	% of Total
Mookday AM	NB	133	5	3.6%
Weekday AM	SB	62	2	3.1%
Mookdov DM	NB	96	3	3.0%
Weekday PM	SB	114	4	3.4%
Caturday	NB	105	3	2.8%
Saturday	SB	101	4	3.8%

Table 3: Site Traffic Contribution to Total Traffic on Village Drive

Walton Creek Road and Village Drive Intersection Improvements:

The Village Drive Townhomes will be contributing traffic to the intersection of Village Drive and Walnut Creek Road. This is a four-legged intersection where Walnut Creek Road is the major street with a through movement and Village Drive is the minor street with stop signs.

The *Manual of Uniform Traffic Control Devices* (*MUTCD*) provides guidance on when it may be appropriate to implement multi-way stop control at an intersection (Section 2B.07). One of the criteria is the minimum traffic volumes at the intersection. Those minimums were met when the traffic volumes were counted on Saturday, March 16, 2019. Meeting the minimum volumes does not impose a requirement to make the conversion.

Additional considerations in the decision on whether to install an all-way stop include the grade of the roads entering the intersection. Walnut Creek Road has a grade of approximately 7.6% downward into the intersection. With the snowy conditions, adding a stop on this steep road would likely result in more intersection-related crashes.

An asphalt roadway typically provides a rolling resistance of 12lbs per 1,000lbs gross vehicle weight of a vehicle³. Comparatively, hard-packed snow and ice provide a

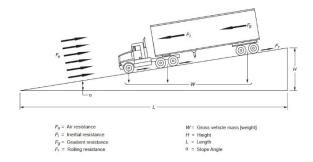


Figure 3: AASHTO Rolling Resistance on Grade Image

rolling resistance of 0.20 and 0.10lbs per 1,000lbs gross vehicle weight⁴, respectively. This results in a much more difficult stop on a 7.6% grade under snow and ice conditions. Therefore, the installation of an all-way stop at the intersection of Walnut Creek Road and Village Drive is not recommended.

If the City decides to make other improvement to the intersection of Village Drive and Walnut Creek Road, Village Drive Townhomes will be required to make an improvement contribution. The City of Steamboat Springs Engineering Standards §6.4.9 states:

Intersection Improvements – Calculate the percent site traffic of the total intersection traffic. The maximum percentage between the AM peak hour and PM peak hour shall be used to determine the site contribution.

Based on the traffic counts from Thursday, March 14, 2019, and Saturday, March 16, 2019, the contribution percentage from the Village Drive Townhomes will be 1.3% of the intersection improvement costs.

	Existing	New	Total	%
Weekday AM	518	7	525	1.3%
Weekday PM	632	7	639	1.1%
Saturday	625	7	632	1.1%

Conclusions:

The proposed Village Drive Townhomes is a seven-unit residential development to be located on the property at the southeast corner of Village Drive and Walton Creek Road in Steamboat Springs. The projected traffic volume to be generate by the development is 54 vehicle trips per day with peak hour volumes of 7 vehicles per hour. The volumes will be accommodated within the City's existing street system. The intersection improvements contribution requirement will be 1.3% of the intersection improvement costs for modifications to the intersection of Village Drive and Walnut Creek Road.

Please call if you would like any additional information or have any questions regarding this matter.

Sincerely,

McDowell Engineering, LLC

Twif M. Dowll Jehroeder

Kari J. McDowell Schroeder, PE, PTOE

Traffic Engineer

References

³A Policy on Geometric Design of Highways and Streets, Chapter 3. American Association of State Highway and Transportation Officials, 2011.

Enclosures

SST Bus Route Map & Schedule

Traffic Data from Village Drive and Walton Creek Road Intersection

¹Trip Generation Manual, 10th Edition. Institute of Transportation Engineers, 2017.

² Manual of Uniform Traffic Control Devices. Federal Highways Administration, 2009.

⁴Theory of Ground Vehicles, 2nd Edition. J.Y. Wong, 1993.

Live Map & Times www.steamboatsprings.net/sst

SST App www.RouteShout.com Emergency Dial 9.1.1.

No transfer is needed between the Green Line and the Red Line.

Green Line (including first and last buses) To the Condominiums

Stop					Times Past	Last Green
	Stop Name	1	st Buse	s	the Hour	Line
101	Gondola Transit Center		6:10 am	6:50 am	:10 :30 :50	8:10 pm
102	Ski Times Square		6:12 am	6:52 am	:12 :32 :52	8:12 pm
103	Highmark	5:54 am	6:14 am	6:54 am	:14 :34 :54	8:14 pm
104	Trappeur's Crossing	5:54 am	6:14 am	6:54 am	:14 :34 :54	8:14 pm
105	Alpine Ridge/Meadowlark	5:55 am	6:15 am	6:55 am	:15 :35 :55	8:15 pm
106	Sunray Meadows/Sunburst	5:55 am	6:15 am	6:55 am	:15 :35 :55	8:15 pm
107	Bear Drive	5:56 am	6:16 am	6:56 am	:16 :36 :56	8:16 pm
108	Timothy Drive	5:57 am	6:17 am	6:57 am	:17 :37 :57	8:17 pm
109	Whistler Park	5:57 am	6:17 am	6:57 am	:17 :37 :57	8:17 pm
110	Creekside/Woodbridge	5:58 am	6:18 am	6:58 am	:18 :38 :58	8:18 pm
111	Mustang Run	5:58 am	6:18 am	6:58 am	:18 :38 :58	8:18 pm
112	Whistler Village	6:00 am	6:20 am	7:00 am	:20 :40 :00	8:20 pm
113	Chinook Townhomes	6:00 am	6:20 am	7:00 am	:20 :40 :00	8:20 pm
114	Walton Village	6:01 am	6:21 am	7:01 am	:21 :41 :01	8:21 pm
115	Walton Creek/Deer Creek	6:02 am	6:22 am	7:02 am	:22 :42 :02	8:22 pm
116	Shadow Run	6:05 am	6:25 am	7:05 am	:25 :45 :05	8:25 pm
117	Herbage	6:06 am	6:26 am	7:06 am	:26 :46 :06	8:26 pm
118	Sunrise/Yampa View	6:06 am	6:26 am	7:06 am	:26 :46 :06	8:26 pm
119	La Casa	6:07 am	6:27 am	7:07 am	:27 :47 :07	8:27 pm
	Dulany/Snowflower	6:07 am	6:27 am		:27 :47 :07	8:27 pm

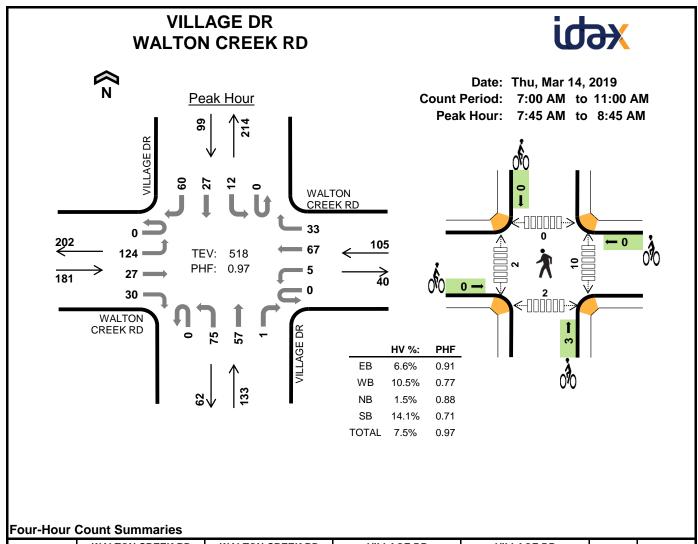
202 Configuration of the Standard Standard Consider Prival Standard Standard Consider Control of the Standard Control of th

The Green Line, Condo bound bus continues as the Red Line, Downtown & West Steamboat bound bus. No transfer is needed

FOR LATE NIGHT SERVICE - SEE NIGHT LINE





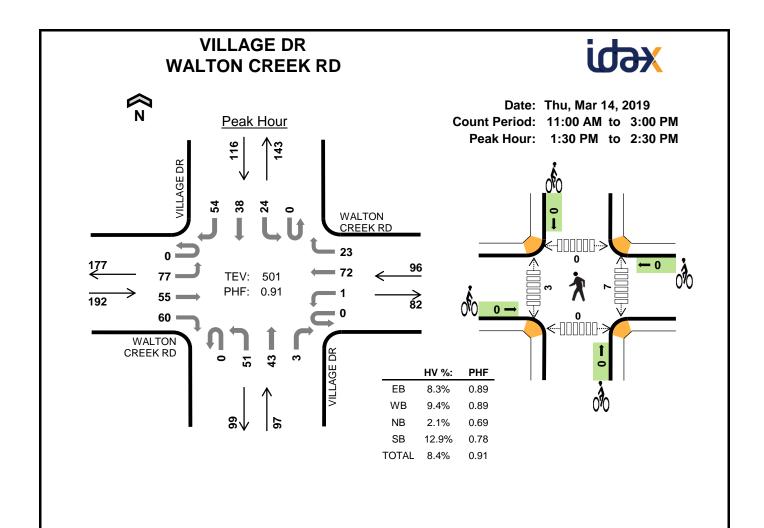


Intonial	WA	LTON (CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		45	Dalling
Interval Start		Eastb	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	IOtal	One Hou
7:45 AM	0	33	4	8	0	1	25	8	0	17	16	0	0	1	8	12	133	0
8:00 AM	0	34	9	7	0	1	16	5	0	24	13	1	0	2	4	13	129	0
8:15 AM	0	29	5	7	0	0	13	12	0	17	15	0	0	3	5	16	122	0
8:30 AM	0	28	9	8	0	3	13	8	0	17	13	0	0	6	10	19	134	518
Peak Hour	0	124	27	30	0	5	67	33	0	75	57	1	0	12	27	60	518	0

Interval		Heavy	Vehicle	Totals				Bicycles	;			Pedestria	ans (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:45 AM	2	2	0	3	7	0	0	1	0	1	2	1	0	2	5
8:00 AM	3	3	0	1	7	0	0	1	0	1	3	0	0	0	3
8:15 AM	3	4	0	3	10	0	0	1	0	1	5	1	0	0	6
8:30 AM	4	2	2	7	15	0	0	0	0	0	0	0	0	0	0
Peak Hour	12	11	2	14	39	0	0	3	0	3	10	2	0	2	14

Interval	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		4E min	Dalling
Interval Start		Easth	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou
7:00 AM	0	15	6	11	0	0	8	1	0	4	8	0	0	3	3	6	65	0
7:15 AM	0	17	7	5	0	0	10	7	0	8	6	0	0	0	4	5	69	0
7:30 AM	0	28	9	2	0	2	16	4	0	12	12	1	0	2	6	8	102	0
7:45 AM	0	33	4	8	0	1	25	8	0	17	16	0	0	1	8	12	133	369
8:00 AM	0	34	9	7	0	1	16	5	0	24	13	1	0	2	4	13	129	433
8:15 AM	0	29	5	7	0	0	13	12	0	17	15	0	0	3	5	16	122	486
8:30 AM	0	28	9	8	0	3	13	8	0	17	13	0	0	6	10	19	134	518
8:45 AM	0	29	6	9	0	0	24	4	0	15	12	1	0	5	4	19	128	513
9:00 AM	0	23	15	7	0	0	15	8	0	16	11	0	0	5	11	20	131	515
9:15 AM	0	21	4	6	0	1	10	6	0	15	3	1	0	6	5	20	98	491
9:30 AM	0	13	8	6	0	0	16	3	0	12	8	0	0	4	4	10	84	441
9:45 AM	0	24	10	8	0	0	16	9	0	16	9	2	0	3	4	24	125	438
10:00 AM	0	23	12	10	0	2	13	7	0	14	10	0	0	2	3	19	115	422
10:15 AM	0	10	11	9	0	0	13	2	0	19	11	0	0	7	11	12	105	429
10:30 AM	0	13	16	10	0	1	13	7	0	12	4	4	0	3	9	9	101	446
10:45 AM	0	13	11	12	0	2	19	5	0	12	11	2	0	6	6	13	112	433
Count Total	0	353	142	125	0	13	240	96	0	230	162	12	0	58	97	225	1,753	0
Peak Hour	0	124	27	30	0	5	67	33	0	75	57	1	0	12	27	60	518	0

Interval		Heavy	Vehicle	Totals				Bicycles				Pedestria	ns (Cross	ina Lea)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	2	1	0	1	4	0	0	0	0	0	1	0	1	0	2
7:15 AM	4	3	0	1	8	0	0	0	0	0	1	0	0	0	1
7:30 AM	3	3	1	4	11	0	0	2	0	2	2	0	0	0	2
7:45 AM	2	2	0	3	7	0	0	1	0	1	2	1	0	2	5
8:00 AM	3	3	0	1	7	0	0	1	0	1	3	0	0	0	3
8:15 AM	3	4	0	3	10	0	0	1	0	1	5	1	0	0	6
8:30 AM	4	2	2	7	15	0	0	0	0	0	0	0	0	0	0
8:45 AM	4	3	1	3	11	0	0	0	0	0	2	1	0	0	3
9:00 AM	4	3	1	3	11	0	0	0	1	1	3	0	0	0	3
9:15 AM	0	2	0	8	10	0	0	1	0	1	0	0	0	0	0
9:30 AM	4	1	0	3	8	0	0	0	0	0	1	0	3	0	4
9:45 AM	2	3	1	2	8	0	0	0	0	0	0	0	0	0	0
10:00 AM	4	2	0	2	8	0	0	0	0	0	1	0	0	1	2
10:15 AM	4	2	0	7	13	0	0	0	1	1	2	0	0	0	2
10:30 AM	3	3	1	4	11	0	0	0	0	0	3	2	0	1	6
10:45 AM	4	2	1	2	9	0	0	0	1	1	2	1	0	0	3
Count Total	50	39	8	54	151	0	0	6	3	9	28	6	4	4	42
Peak Hour	12	11	2	14	39	0	0	3	0	3	10	2	0	2	14



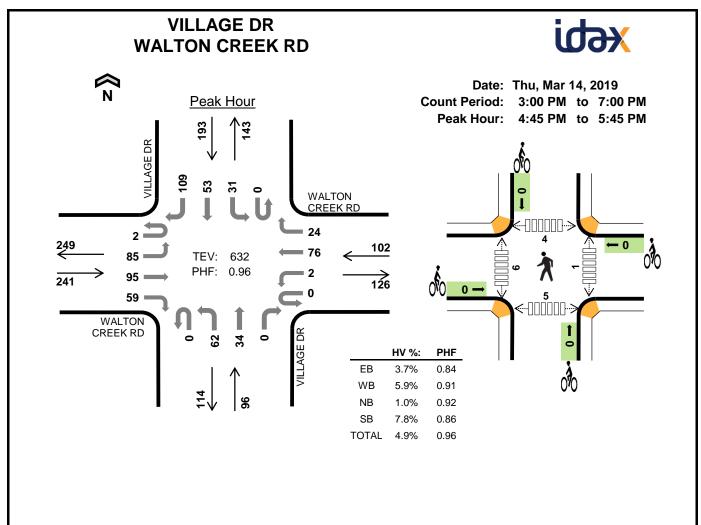
Four-Hour Count Summaries

Interval	WA	LTON (CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		45	Dalling
Interval Start		Easth	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One Hour
1:30 PM	0	21	17	16	0	0	22	5	0	19	15	1	0	5	9	7	137	0
1:45 PM	0	15	11	16	0	0	16	9	0	7	11	1	0	6	12	15	119	0
2:00 PM	0	22	12	13	0	1	15	2	0	14	12	1	0	5	8	12	117	0
2:15 PM	0	19	15	15	0	0	19	7	0	11	5	0	0	8	9	20	128	501
Peak Hour	0	77	55	60	0	1	72	23	0	51	43	3	0	24	38	54	501	0

Interval		Heavy	Vehicle	Totals				Bicycles	;			Pedestria	ans (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
1:30 PM	3	1	0	4	8	0	0	0	0	0	2	1	0	0	3
1:45 PM	3	3	1	5	12	0	0	0	0	0	3	0	0	0	3
2:00 PM	4	1	0	4	9	0	0	0	0	0	2	2	0	0	4
2:15 PM	6	4	1	2	13	0	0	0	0	0	0	0	0	0	0
Peak Hour	16	9	2	15	42	0	0	0	0	0	7	3	0	0	10

Interval	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		15 min	Dalling
Start		Easth	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nour
11:00 AM	0	18	22	11	0	2	10	6	0	6	11	0	0	4	8	17	115	0
11:15 AM	0	19	14	15	0	0	14	3	0	14	8	1	0	6	9	15	118	0
11:30 AM	0	14	19	7	0	1	14	8	0	18	7	1	0	5	7	21	122	0
11:45 AM	0	23	17	15	0	0	21	5	0	10	9	1	0	7	9	11	128	483
12:00 PM	0	17	11	6	0	0	18	1	0	15	9	1	0	6	14	14	112	480
12:15 PM	0	20	9	7	0	1	14	8	0	10	9	0	0	5	8	18	109	471
12:30 PM	0	11	16	15	0	0	14	3	0	13	14	1	0	3	9	13	112	461
12:45 PM	0	17	10	19	0	0	17	5	0	13	6	0	0	10	10	17	124	457
1:00 PM	0	15	20	10	0	1	17	3	0	8	6	1	0	8	5	15	109	454
1:15 PM	0	11	13	13	0	1	13	3	0	12	5	0	0	8	8	6	93	438
1:30 PM	0	21	17	16	0	0	22	5	0	19	15	1	0	5	9	7	137	463
1:45 PM	0	15	11	16	0	0	16	9	0	7	11	1	0	6	12	15	119	458
2:00 PM	0	22	12	13	0	1	15	2	0	14	12	1	0	5	8	12	117	466
2:15 PM	0	19	15	15	0	0	19	7	0	11	5	0	0	8	9	20	128	501
2:30 PM	0	22	13	10	0	0	18	4	0	12	7	1	0	7	14	15	123	487
2:45 PM	0	30	14	7	0	0	18	10	0	11	8	1	0	6	4	12	121	489
Count Total	0	294	233	195	0	7	260	82	0	193	142	11	0	99	143	228	1,887	0
Peak Hour	0	77	55	60	0	1	72	23	0	51	43	3	0	24	38	54	501	0

	ī									1					
Interval			Vehicle					Bicycles					ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:00 AM	5	4	2	4	15	0	0	0	0	0	3	0	2	0	5
11:15 AM	2	3	0	3	8	1	0	0	0	1	4	2	0	0	6
11:30 AM	3	1	0	4	8	0	0	0	0	0	2	2	0	0	4
11:45 AM	5	3	2	3	13	0	0	1	0	1	2	0	0	0	2
12:00 PM	4	2	1	1	8	0	0	1	0	1	4	0	0	0	4
12:15 PM	2	2	0	7	11	0	0	0	0	0	1	0	0	1	2
12:30 PM	4	0	0	2	6	0	0	0	0	0	3	1	1	0	5
12:45 PM	3	4	1	7	15	0	0	0	0	0	2	0	0	0	2
1:00 PM	3	2	2	3	10	0	0	0	0	0	2	3	0	0	5
1:15 PM	1	4	0	2	7	0	0	0	1	1	1	5	1	1	8
1:30 PM	3	1	0	4	8	0	0	0	0	0	2	1	0	0	3
1:45 PM	3	3	1	5	12	0	0	0	0	0	3	0	0	0	3
2:00 PM	4	1	0	4	9	0	0	0	0	0	2	2	0	0	4
2:15 PM	6	4	1	2	13	0	0	0	0	0	0	0	0	0	0
2:30 PM	1	2	0	5	8	0	0	0	0	0	3	0	0	0	3
2:45 PM	5	3	0	4	12	0	0	0	0	0	2	1	0	2	5
Count Total	54	39	10	60	163	1	0	2	1	4	36	17	4	4	61
Peak Hour	16	9	2	15	42	0	0	0	0	0	7	3	0	0	10



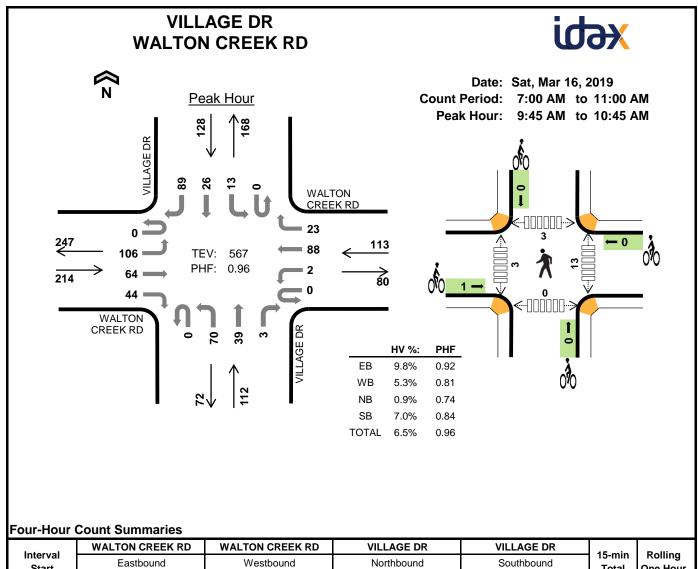
Four-Hour Count Summaries

Interval	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		45 min	Dalling
Interval Start		Easth	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One Hou
4:45 PM	0	22	18	14	0	0	20	8	0	18	8	0	0	10	8	27	153	0
5:00 PM	0	17	25	11	0	0	14	7	0	14	6	0	0	9	14	33	150	0
5:15 PM	1	24	20	17	0	1	21	6	0	16	10	0	0	4	16	28	164	0
5:30 PM	1	22	32	17	0	1	21	3	0	14	10	0	0	8	15	21	165	632
Peak Hour	2	85	95	59	0	2	76	24	0	62	34	0	0	31	53	109	632	0

Interval		Heavy	Vehicle	Totals				Bicycles	;			Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
4:45 PM	3	1	0	5	9	0	0	0	0	0	1	1	2	0	4
5:00 PM	2	2	1	4	9	0	0	0	0	0	0	4	0	3	7
5:15 PM	2	2	0	2	6	0	0	0	0	0	0	1	2	2	5
5:30 PM	2	1	0	4	7	0	0	0	0	0	0	0	0	0	0
Peak Hour	9	6	1	15	31	0	0	0	0	0	1	6	4	5	16

Interval	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR	•	45 min	Dalling
Interval Start		Easth	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou
3:00 PM	0	21	18	12	0	1	12	5	0	13	4	3	0	4	15	18	126	0
3:15 PM	0	17	19	13	0	2	11	5	0	11	7	0	0	9	12	19	125	0
3:30 PM	0	21	19	7	0	0	13	8	0	13	11	0	0	6	10	20	128	0
3:45 PM	0	21	17	12	0	0	18	5	0	18	6	0	0	7	15	27	146	525
4:00 PM	0	20	19	13	0	0	14	5	0	14	10	1	0	11	12	30	149	548
4:15 PM	0	25	24	21	0	0	11	7	0	15	7	0	0	5	15	25	155	578
4:30 PM	0	23	16	17	0	0	18	8	0	9	7	1	0	7	17	27	150	600
4:45 PM	0	22	18	14	0	0	20	8	0	18	8	0	0	10	8	27	153	607
5:00 PM	0	17	25	11	0	0	14	7	0	14	6	0	0	9	14	33	150	608
5:15 PM	1	24	20	17	0	1	21	6	0	16	10	0	0	4	16	28	164	617
5:30 PM	1	22	32	17	0	1	21	3	0	14	10	0	0	8	15	21	165	632
5:45 PM	0	21	21	20	0	1	14	4	0	11	10	3	0	4	11	23	143	622
6:00 PM	0	19	20	15	0	1	18	2	0	18	6	0	0	4	14	29	146	618
6:15 PM	0	16	20	17	0	0	12	6	0	14	6	0	0	5	14	10	120	574
6:30 PM	0	18	23	8	0	0	12	5	0	8	6	0	0	7	6	14	107	516
6:45 PM	0	14	18	13	0	1	11	1	0	10	5	0	0	5	16	16	110	483
Count Total	2	321	329	227	0	8	240	85	0	216	119	8	0	105	210	367	2,237	0
Peak Hour	2	85	95	59	0	2	76	24	0	62	34	0	0	31	53	109	632	0

Interval		Heavy	Vehicle	Totals				Bicycles				Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
3:00 PM	4	3	0	3	10	0	0	0	1	1	1	1	0	0	2
3:15 PM	2	2	0	4	8	0	0	0	2	2	2	5	0	0	7
3:30 PM	1	4	0	3	8	0	0	0	1	1	2	1	0	0	3
3:45 PM	2	4	0	9	15	0	0	0	1	1	3	3	1	0	7
4:00 PM	6	1	1	2	10	0	0	0	0	0	0	0	0	1	1
4:15 PM	2	4	0	4	10	0	0	0	1	1	2	0	0	0	2
4:30 PM	2	3	1	4	10	0	0	0	0	0	2	1	2	0	5
4:45 PM	3	1	0	5	9	0	0	0	0	0	1	1	2	0	4
5:00 PM	2	2	1	4	9	0	0	0	0	0	0	4	0	3	7
5:15 PM	2	2	0	2	6	0	0	0	0	0	0	1	2	2	5
5:30 PM	2	1	0	4	7	0	0	0	0	0	0	0	0	0	0
5:45 PM	7	3	0	4	14	0	0	0	1	1	0	0	0	0	0
6:00 PM	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0
6:15 PM	2	0	0	1	3	0	0	0	0	0	5	0	2	0	7
6:30 PM	6	3	0	2	11	0	0	0	0	0	0	1	0	3	4
6:45 PM	1	1	0	3	5	0	0	0	0	0	4	3	1	0	8
Count Total	47	37	3	54	141	0	0	0	7	7	22	21	10	9	62
Peak Hour	9	6	1	15	31	0	0	0	0	0	1	6	4	5	16

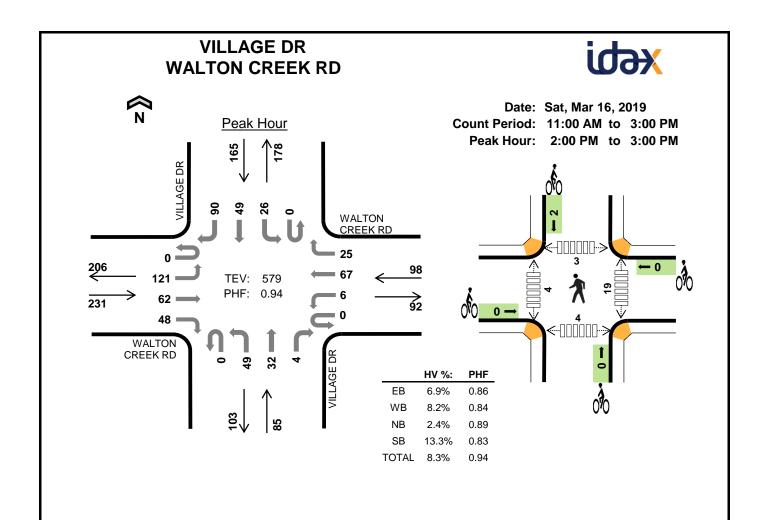


Interval	WA	LTON (CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		15-min	Rolling
Interval Start		Eastb	ound			West	bound			North	bound			South	bound		Total	One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One riou
9:45 AM	0	29	11	8	0	1	28	6	0	29	9	0	0	1	6	19	147	0
10:00 AM	0	26	17	12	0	1	19	10	0	15	10	0	0	6	5	27	148	0
10:15 AM	0	23	17	13	0	0	22	5	0	12	10	0	0	2	7	19	130	0
10:30 AM	0	28	19	11	0	0	19	2	0	14	10	3	0	4	8	24	142	567
Peak Hour	0	106	64	44	0	2	88	23	0	70	39	3	0	13	26	89	567	0

Interval		Heavy	Vehicle	Totals				Bicycles	i			Pedestria	ans (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
9:45 AM	5	0	0	2	7	0	0	0	0	0	2	0	2	0	4
10:00 AM	5	2	0	2	9	0	0	0	0	0	4	0	0	0	4
10:15 AM	6	3	0	2	11	0	0	0	0	0	3	3	0	0	6
10:30 AM	5	1	1	3	10	1	0	0	0	1	4	0	1	0	5
Peak Hour	21	6	1	9	37	1	0	0	0	1	13	3	3	0	19

Interval	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		15 min	Dalling
Start		Eastl	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Otart	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One nou
7:00 AM	0	14	3	3	0	0	9	3	0	3	3	0	0	0	1	7	46	0
7:15 AM	0	11	2	0	0	0	5	1	0	4	7	1	0	1	3	9	44	0
7:30 AM	0	20	5	0	0	1	8	4	0	3	7	0	0	1	3	9	61	0
7:45 AM	0	40	6	4	0	0	16	8	0	15	8	0	0	1	6	17	121	272
8:00 AM	0	32	9	9	0	0	8	7	0	9	6	1	0	2	4	17	104	330
8:15 AM	0	31	13	5	0	0	10	8	0	11	14	1	0	1	3	21	118	404
8:30 AM	0	23	4	7	0	0	13	4	0	10	12	0	0	3	10	18	104	447
8:45 AM	0	32	17	4	0	0	13	10	0	6	13	1	0	5	12	17	130	456
9:00 AM	1	28	7	4	0	1	17	5	0	10	11	2	0	6	5	19	116	468
9:15 AM	0	23	7	6	0	1	17	8	0	11	13	1	0	2	8	22	119	469
9:30 AM	0	18	11	8	0	1	17	6	0	9	9	0	0	4	7	20	110	475
9:45 AM	0	29	11	8	0	1	28	6	0	29	9	0	0	1	6	19	147	492
10:00 AM	0	26	17	12	0	1	19	10	0	15	10	0	0	6	5	27	148	524
10:15 AM	0	23	17	13	0	0	22	5	0	12	10	0	0	2	7	19	130	535
10:30 AM	0	28	19	11	0	0	19	2	0	14	10	3	0	4	8	24	142	567
10:45 AM	0	16	10	13	0	2	19	2	0	18	7	2	0	2	8	12	111	531
Count Total	1	394	158	107	0	8	240	89	0	179	149	12	0	41	96	277	1,751	0
Peak Hour	0	106	64	44	0	2	88	23	0	70	39	3	0	13	26	89	567	0

Interval		Heavy	Vehicle	Totals				Bicycles				Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
7:00 AM	3	0	0	1	4	0	0	0	0	0	0	0	0	0	0
7:15 AM	1	0	0	0	1	0	0	2	0	2	1	0	0	0	1
7:30 AM	2	0	0	1	3	0	0	0	0	0	1	0	1	0	2
7:45 AM	2	2	0	3	7	0	0	0	0	0	5	0	0	3	8
8:00 AM	3	2	0	2	7	0	0	0	0	0	2	1	1	0	4
8:15 AM	1	1	0	3	5	0	0	0	0	0	6	2	0	1	9
8:30 AM	1	1	0	3	5	0	0	1	0	1	6	0	1	0	7
8:45 AM	5	2	0	4	11	0	0	0	0	0	8	0	2	0	10
9:00 AM	4	2	1	7	14	0	0	0	0	0	2	0	2	0	4
9:15 AM	2	1	0	4	7	0	0	0	0	0	2	1	2	0	5
9:30 AM	3	1	0	4	8	0	0	0	0	0	2	0	0	0	2
9:45 AM	5	0	0	2	7	0	0	0	0	0	2	0	2	0	4
10:00 AM	5	2	0	2	9	0	0	0	0	0	4	0	0	0	4
10:15 AM	6	3	0	2	11	0	0	0	0	0	3	3	0	0	6
10:30 AM	5	1	1	3	10	1	0	0	0	1	4	0	1	0	5
10:45 AM	1	1	0	5	7	0	0	0	0	0	1	0	1	0	2
Count Total	49	19	2	46	116	1	0	3	0	4	49	7	13	4	73
Peak Hour	21	6	1	9	37	1	0	0	0	1	13	3	3	0	19



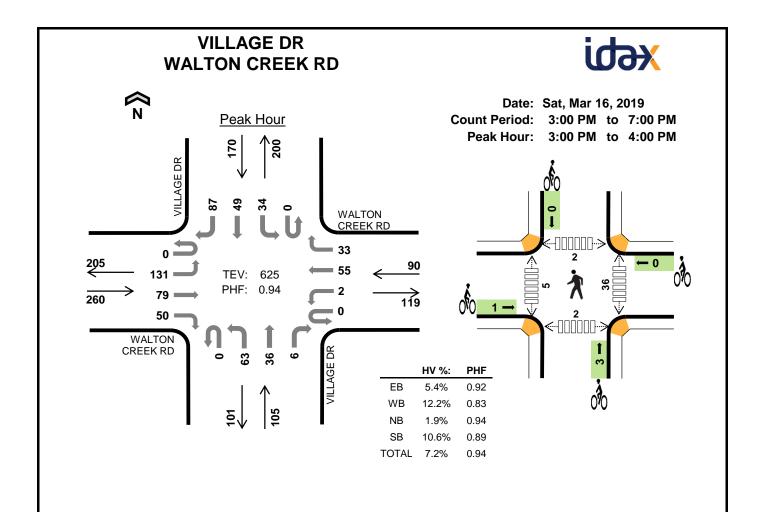
Four-Hour Count Summaries

Interval	WA	LTON (CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		4F min	Dalling
Interval Start		Easth	ound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	iotai	One Hou
2:00 PM	0	33	7	5	0	2	13	7	0	14	7	1	0	13	8	29	139	0
2:15 PM	0	27	17	16	0	2	18	6	0	10	14	0	0	6	16	22	154	0
2:30 PM	0	29	16	14	0	0	15	6	0	12	6	2	0	3	13	19	135	0
2:45 PM	0	32	22	13	0	2	21	6	0	13	5	1	0	4	12	20	151	579
Peak Hour	0	121	62	48	0	6	67	25	0	49	32	4	0	26	49	90	579	0

Interval		Heavy	Vehicle	Totals				Bicycles	;			Pedestria	ans (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
2:00 PM	3	3	1	8	15	0	0	0	0	0	6	0	0	2	8
2:15 PM	2	3	0	6	11	0	0	0	2	2	5	1	0	0	6
2:30 PM	5	1	1	4	11	0	0	0	0	0	2	2	3	0	7
2:45 PM	6	1	0	4	11	0	0	0	0	0	6	1	0	2	9
Peak Hour	16	8	2	22	48	0	0	0	2	2	19	4	3	4	30

l	WA	LTON	CREEK	RD	WA	LTON	CREEK	RD		VILLA	GE DR			VILLA	GE DR		45!	D - III
Interval Start		Eastl	oound			West	bound			North	bound			South	bound		15-min Total	Rolling One Hour
Start	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	IOtal	One Hour
11:00 AM	0	25	14	13	0	0	11	4	0	11	10	1	0	1	6	21	117	0
11:15 AM	0	17	17	3	0	1	9	9	0	13	15	1	0	4	10	19	118	0
11:30 AM	0	14	18	16	0	1	15	5	0	14	11	0	0	5	3	12	114	0
11:45 AM	0	24	10	11	0	1	21	7	0	15	9	1	0	3	10	12	124	473
12:00 PM	0	21	23	17	0	2	11	6	0	11	7	0	0	4	9	15	126	482
12:15 PM	0	23	14	14	0	0	14	5	0	10	10	1	0	9	11	11	122	486
12:30 PM	0	17	13	12	0	1	14	4	0	13	12	1	1	4	6	17	115	487
12:45 PM	0	16	18	6	0	1	18	5	0	15	9	0	0	4	10	15	117	480
1:00 PM	0	17	13	10	0	1	14	8	0	7	8	2	0	4	8	12	104	458
1:15 PM	0	17	21	11	0	0	15	6	0	13	5	2	0	7	10	17	124	460
1:30 PM	0	24	13	14	0	1	13	3	0	12	6	1	0	5	15	13	120	465
1:45 PM	0	25	19	8	0	1	16	9	0	15	7	1	0	1	15	15	132	480
2:00 PM	0	33	7	5	0	2	13	7	0	14	7	1	0	13	8	29	139	515
2:15 PM	0	27	17	16	0	2	18	6	0	10	14	0	0	6	16	22	154	545
2:30 PM	0	29	16	14	0	0	15	6	0	12	6	2	0	3	13	19	135	560
2:45 PM	0	32	22	13	0	2	21	6	0	13	5	1	0	4	12	20	151	579
Count Total	0	361	255	183	0	16	238	96	0	198	141	15	1	77	162	269	2,012	0
Peak Hour	0	121	62	48	0	6	67	25	0	49	32	4	0	26	49	90	579	0

Interval		Heavy	Vehicle	Totals				Bicycles				Pedestria	ns (Cross	ing Leg)	
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total
11:00 AM	4	2	1	3	10	0	0	0	0	0	11	0	4	2	17
11:15 AM	2	1	0	4	7	0	0	0	0	0	2	1	0	0	3
11:30 AM	3	1	0	3	7	0	0	0	0	0	3	0	1	0	4
11:45 AM	1	1	0	2	4	0	0	0	0	0	1	0	1	0	2
12:00 PM	5	1	0	2	8	0	0	0	0	0	4	2	0	0	6
12:15 PM	5	3	0	4	12	0	0	0	0	0	2	0	0	0	2
12:30 PM	1	1	0	3	5	0	1	0	0	1	5	1	1	0	7
12:45 PM	2	1	0	2	5	0	0	1	0	1	7	0	1	0	8
1:00 PM	2	1	0	2	5	0	0	1	0	1	4	3	1	0	8
1:15 PM	3	3	0	4	10	1	0	0	0	1	0	0	0	0	0
1:30 PM	3	1	0	3	7	0	0	2	0	2	4	0	0	0	4
1:45 PM	3	2	0	2	7	0	0	0	0	0	3	0	1	0	4
2:00 PM	3	3	1	8	15	0	0	0	0	0	6	0	0	2	8
2:15 PM	2	3	0	6	11	0	0	0	2	2	5	1	0	0	6
2:30 PM	5	1	1	4	11	0	0	0	0	0	2	2	3	0	7
2:45 PM	6	1	0	4	11	0	0	0	0	0	6	1	0	2	9
Count Total	50	26	3	56	135	1	1	4	2	8	65	11	13	6	95
Peak Hour	16	8	2	22	48	0	0	0	2	2	19	4	3	4	30



Four-Hour Count Summaries

Interval Start	WALTON CREEK RD				WALTON CREEK RD					VILLA	GE DR			VILLA	GE DR	45 min	Rolling One Hour	
	Eastbound				Westbound					North	bound			South	bound	15-min Total		
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Iotai	One Hour
3:00 PM	0	32	16	18	0	0	13	4	0	17	9	0	0	8	9	17	143	0
3:15 PM	0	34	18	11	0	0	15	8	0	13	11	2	0	8	13	25	158	0
3:30 PM	0	30	20	10	0	1	13	13	0	18	8	2	0	10	13	19	157	0
3:45 PM	0	35	25	11	0	1	14	8	0	15	8	2	0	8	14	26	167	625
Peak Hour	0	131	79	50	0	2	55	33	0	63	36	6	0	34	49	87	625	0

Interval		Heavy	Vehicle	Totals				Bicycles	;		Pedestrians (Crossing Leg)					
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total	
3:00 PM	4	3	0	4	11	0	0	0	0	0	12	2	0	0	14	
3:15 PM	2	3	0	5	10	1	0	1	0	2	8	2	1	0	11	
3:30 PM	2	3	1	6	12	0	0	2	0	2	10	0	0	2	12	
3:45 PM	6	2	1	3	12	0	0	0	0	0	6	1	1	0	8	
Peak Hour	14	11	2	18	45	1	0	3	0	4	36	5	2	2	45	

Interval Start	WALTON CREEK RD				WALTON CREEK RD					VILLA	GE DR			VILLA	GE DR			
	Eastbound				Westbound					North	bound			South	bound		15-min	Rolling
	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	UT	LT	TH	RT	Total	One Hour
3:00 PM	0	32	16	18	0	0	13	4	0	17	9	0	0	8	9	17	143	0
3:15 PM	0	34	18	11	0	0	15	8	0	13	11	2	0	8	13	25	158	0
3:30 PM	0	30	20	10	0	1	13	13	0	18	8	2	0	10	13	19	157	0
3:45 PM	0	35	25	11	0	1	14	8	0	15	8	2	0	8	14	26	167	625
4:00 PM	0	29	16	12	0	2	14	10	0	9	11	0	0	6	10	22	141	623
4:15 PM	0	25	33	12	0	1	14	5	0	10	13	1	0	7	16	13	150	615
4:30 PM	0	25	20	7	0	2	20	9	0	14	6	0	0	8	14	32	157	615
4:45 PM	0	25	30	17	0	0	18	7	0	14	7	0	0	7	2	25	152	600
5:00 PM	0	29	17	15	0	0	22	3	0	15	5	1	0	8	11	23	149	608
5:15 PM	0	27	22	12	0	0	14	4	0	16	4	0	0	4	13	33	149	607
5:30 PM	0	26	20	14	0	1	15	5	0	11	11	1	0	7	15	31	157	607
5:45 PM	0	22	22	5	0	0	25	7	0	14	5	3	0	3	12	29	147	602
6:00 PM	0	26	22	18	0	1	14	6	0	10	8	1	0	9	9	19	143	596
6:15 PM	0	26	17	13	0	2	17	4	0	12	6	2	0	3	16	23	141	588
6:30 PM	0	21	19	18	0	1	18	3	0	13	7	1	0	6	13	23	143	574
6:45 PM	0	16	25	12	0	0	9	5	0	7	7	0	0	9	8	21	119	546
Count Total	0	428	342	205	0	12	255	101	0	208	126	16	0	111	188	381	2,373	0
Peak Hour	0	131	79	50	0	2	55	33	0	63	36	6	0	34	49	87	625	0

Interval		Heavy	Vehicle	Totals				Bicycles	;		Pedestrians (Crossing Leg)						
Start	EB	WB	NB	SB	Total	EB	WB	NB	SB	Total	East	West	North	South	Total		
3:00 PM	4	3	0	4	11	0	0	0	0	0	12	2	0	0	14		
3:15 PM	2	3	0	5	10	1	0	1	0	2	8	2	1	0	11		
3:30 PM	2	3	1	6	12	0	0	2	0	2	10	0	0	2	12		
3:45 PM	6	2	1	3	12	0	0	0	0	0	6	1	1	0	8		
4:00 PM	2	3	0	2	7	0	0	0	0	0	9	7	2	4	22		
4:15 PM	3	1	0	6	10	0	0	0	1	1	2	3	1	0	6		
4:30 PM	6	3	1	6	16	0	0	0	2	2	9	2	2	0	13		
4:45 PM	3	5	0	4	12	0	0	0	0	0	7	3	0	0	10		
5:00 PM	3	2	0	5	10	0	0	0	1	1	7	4	11	4	26		
5:15 PM	3	2	0	3	8	0	0	0	0	0	17	6	0	0	23		
5:30 PM	4	1	0	2	7	0	0	0	0	0	18	1	2	0	21		
5:45 PM	4	5	0	5	14	0	0	1	0	1	3	0	0	0	3		
6:00 PM	5	1	0	3	9	0	0	0	1	1	10	5	0	0	15		
6:15 PM	4	1	0	5	10	0	0	0	0	0	5	2	0	1	8		
6:30 PM	2	1	0	4	7	0	1	0	0	1	2	9	3	0	14		
6:45 PM	5	1	0	3	9	0	0	0	1	1	4	1	1	0	6		
Count Total	58	37	3	66	164	1	1	4	6	12	129	48	24	11	212		
Peak Hour	14	11	2	18	45	1	0	3	0	4	36	5	2	2	45		